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22 October 2021

E.U. Program Culture 2000 : " SMART HISTORY "

'From Smart History towards common European Heritage by a preservation model of CINQUE TERRE NATIONAL PARK – Italy '

JOINT INTERNATIONAL
PROJECT HANDBOOK

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Introduction – Cinque Terre National Park

The Smart History project aims to develop a replicable model for conserving national parks that suffer from tourism overload which degrades monuments, landscape, production and environment. The evolution of the economy towards tourism has altered land use and ways of conceptualising landscape and the Cinque Terre Park was selected as a representative case-study for building this model which will enable finding solutions to preserve a combination of cultural and agricultural heritage.

The park was listed as a UNESCO monument of high cultural value and as such it is a great attraction for tourists. It is important to provide tourists with adequate and suitable information and to facilitate their stay in Cinque Terre. At the same time it is important to preserve the original heritage. The project work took place at the Cinque Terre National Park and the international 10 day workshop was the most intense moment over the 7 month project (from November 2004 to May 2005).

Objectives

The objectives of the project are:

1) to identify the main problems related to open-air parks and their heritage as a result of a tourist overflow and change of economy,

2) to find relevant solutions and to develop the model which will be replicable by European parks of a similar type,

3) to bring together young people from different European countries in order to create a network based on long-term co-operation oriented to finding necessary solutions for common European heritage,

4) to exchange know-how across Europe in different disciplines which are not traditionally directly linked to heritage preservation .

The project involves participants from 6 European countries - Belgium, Italy, Poland, Slovakia, Ukraine and Serbia as well as consultants from Canada and the Czech Republic. Each country team consisted of the local university which set up a working group of people from the field of architecture, economy, agriculture and technology. Each specialisation was represented by a professor, PhD. students and a student in order to ensure both a qualified approach of experienced professors and new visions and the spirit of young students. One of the aims was to establish long-term co-operation between these universities and persons, especially students, to ensure a long-lasting after effect. This partnership scheme was set up with a great care and its efficiency derives from the fact that in each country there is a 3 person group with the same specialisation. This allows a greater project impact on future development and research in the area of preservation of different types European legacy.

Participants

1. *Parco Nazionale Cinque Terre, Project Co-ordinator*
2. *Hogeschool Antwerpen Dep. Design Sciences, Antwerp.*
3. *Università di Firenze Dip. Di "Progettazione dell'Architettura", Agraria e Media Integration*
4. *AGH University of Science and Technology, Cracow*
5. *Fakulta Architektury Slovak University of Technology, Bratislava*
6. *Academy of Construction and Architecture, Odessa*
7. *Ecourban Workshop Belgrade, NGO*
8. *Fondazione del Bianco, Firenze*

Table of deliverables

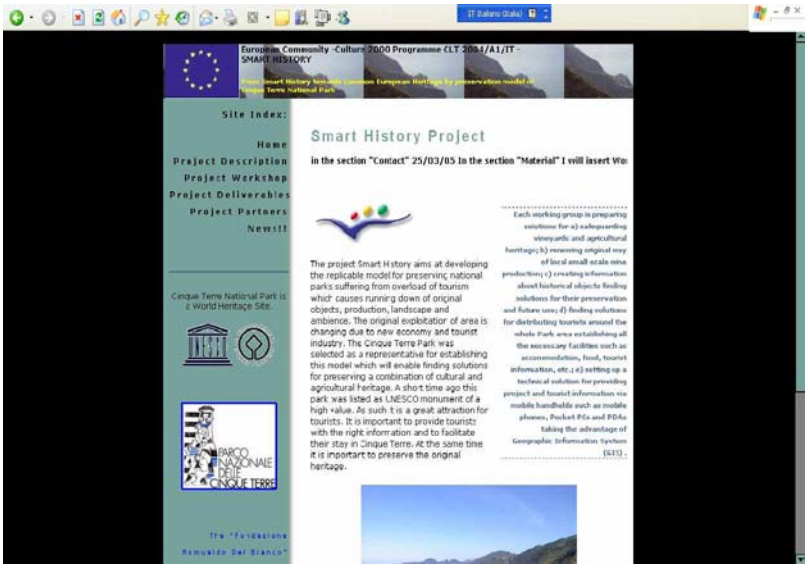
Deliverables	
D1	***Project Website***
D2	***Report on target group requirements and the state-of-art***
D3	***Reports with proposed solutions for specific areas of Parco Cinque Terre preservation***
D4	***Technical guidelines for content creation***
D5	***Smart History Database***
D6	***International Workshop***
D7	***Navigation System for Pocket PCs***
D8	***Virtual Exhibition***
D9	***Final Project Exhibition***
D10	***Handbook***

D1

Project Website:

www.smarthistory.it

The Cinque Terre National Park has generated a very useful website where it is possible to find all kind of information concerning the project and its goals. "Project Description" and "Project Workshop" are the main sections of the website, where web surfers can see or download material produced by researchers.



D2

Report on target group requirements and the state-of-art

The Cinque Terre National Park is a peculiar type of park, firstly because its landscape is heavily 'humanised' and is a UNESCO world heritage side. It therefore does not only offer

the kind of tourist supply (mainly flora and fauna) that more traditional natural parks offer. Secondly, it is flanked by a protected sea area which further diversifies the supply side of tourism. From the supply side perspective, the Cinque Terre National Park has much to offer:
1. more than 20 hiking paths or trails that range from easy strolls to difficult hikes
2. some not very large beaches
3. protected sea area with diving enabled and rich sea-flora and fauna
4. a network of monuments numbering more than 25 throughout the territory as well as museums and open-air art such as murals etc.
5. 5 extremely attractive villages

Reports are on the website www.smarthistory.it

D3

Reports with proposed solutions for specific areas of Parco Cinque Terre preservation

Reports are on the website www.smarthistory.it

D4 Technical guidelines for content creation

This document supplies guidelines, which will allow all partners of Smart History to make the typology of data during the development of this work.
The specified characteristics have been identified by means of the analysis of the adopted communication medium, the Pocket PC + GPS.
In particular, data uniformity has been provided for the following categories:

1. *VIDEO*
2. *PICTURES AND DRAWINGS*
3. *AUDIO*
4. *TEXT*

Reports are on the website www.smarthistory.it

D6

International Workshop

Material on the website www.smarthistory.it

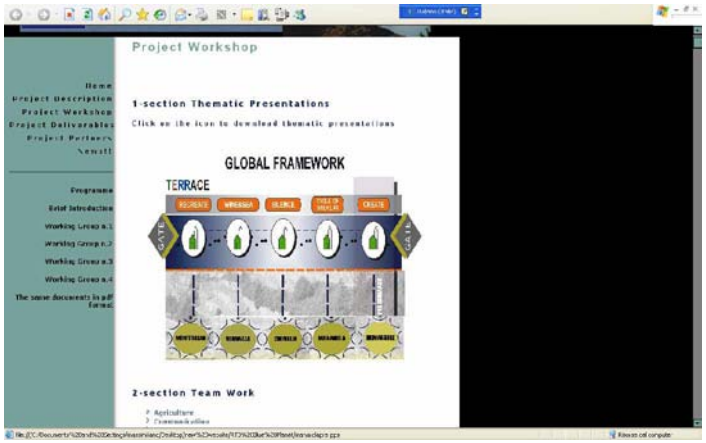
WORKING GROUPS' REPORTING METHODOLOGY edited by Mr. Michel Bonette- Workshop Coordinator

Group no. 1: ENVIRONMENTAL DESIGN
Main question: ***How can the authenticity and the integrity of the built heritage and the cultural landscape of the Cinque Terre be preserved in a changing environment?***

Group no. 2: AGRICULTURE AND FORESTRY
Main question: ***How can the local declining industry of the wine and olive making be revitalized to sustain the preservation of the cultural values of the Cinque Terre N.P. as the World Heritage and sustaining their growth?***

Group no. 3: TOURISM AND ECONOMY
Main question: ***How can tourism benefit the inhabitants of 5 Terre while preserving the cultural heritage and sustaining their economic growth?***

Group no. 4: COMMUNICATION AND EDUCATION
Main question: ***How can communication technology contribute to the education and enjoyment of the Cinque Terre visitors?***



D5	***Smart History Database***
D7	***Navigation System for Pocket PCs***
D8	***Virtual Exhibition***
D10	***Handbook***

All material produced by researchers are now available on the project website. Park staff has organised not only a Final Exhibition in the Cinque Terre but also a Virtual Exhibition for foreign visitors on the website.

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1. PREFACE

The conservation of important cultural landscapes is a difficult issue in many European countries. Those landscapes are the result of a continuous interaction since many centuries between nature and man ! They show us a unique scene consisting of many layers with different tangible as well as intangible values. The symbiosis of nature, physical geography, agriculture and the people living and working in this places form the specific character of those landscapes. Today, many of them are seriously threatened as needs and tools of modern development are drastically different from those in the past. The self-equilibrating forces and structures, most effective in the past, are not capable any more to find a appropriate balance between conflicting interests and modern techniques. But not only the intrinsic conditions of those landscapes create many problems, also from the 'outside' many new questions have to be tackled as e.g. the protection of the natural environment (becoming a problem on worldwide scale); or the management of exploding cultural tourism as a result of growing interest, increase of leisure time and economic power for always more people. Within modern tourism, cultural landscapes are a most justifiable but also most threatened object.

The "Cinque Terre National Park – Italy" has been selected as one of those most important cultural landscapes where a representative number of characteristics and modern problems can be found. This Park has been accepted by the UNESCO on his 'World Heritage' list, and since many years, the present Director, ***Mr. Franco BONANINI,*** together with his 'equipe' is preserving the rich heritage of this five villages with surroundings and tries to combine conservation with sustainable development.

The very first initiative to this project was generated by the *Arch.* ***Paolo DEL BIANCO*** and by his motivation and experience, together with his team and consultants, Mr. ***M. BONETTE*** and Mrs. ***R. KRIZOVA,*** this 'Cinque Terre' Project got a grant from the European Union. Thanks to the financial help of the E.U. "*Culture 2000"* program, and the continuous support of the ***Romualdo DEL BIANCO Foundation - Florence*** a international group of scholars could study this "Cinque Terre National Park" as a case to develop ideas for analysis, interventions and management in such Parks. We thank the *E.U. Culture 2000 – program* as well as the *Romualdo DEL BIANCO Foundation* and the "*Cinque Terre National Park Administration"* for their substantial help in the realisation of this "Smart History"-Project.

Prof.ir.arch. André DE NAEYER, Editing coordinator of the Handbook
Association University Antwerp – Belgium
Chair of Master Program 'Conservation of architectural and urban heritage'

2. CONTENT AND PURPOSE OF THIS 'PROJECT HANDBOOK'

The 'Smart History'-project studies the conditions and possibilities of five small Italian villages (Riomaggiore, Manarola, Corniglia, Vernazza, Monterosso) forming the "CINQUE TERRE NATIONAL PARK – ITALY" . This villages do have very rich history as well as a extraordinary natural and cultural heritage. For this reason, it has been put on the UNESCO World Heritage List as one of the unique examples of a "Cultural Landscape". As it is not the idea to 'freeze' this heritage, it must be conserved and at the same time, a decent income and acceptable living conditions must be guaranteed to the local people, as well as the growing flux of tourists must be managed.

The study of this task was the leading challenge for the study-teams involved in the 'Smart History'-Project !

This HANDBOOK collects the analysis, the different methods followed by the various teams to collect information, the criteria and alternatives in the decision making processes, and the final proposals of the various teams for the specific villages and the overall Park. This PROJECT HANDBOOK is meant as a possible BEST PRACTICE OPERATIONAL GUIDELINE in which others can find indications, experiences and suggestions for application in their own case.

The scientific approach of the 'Smart History' study has been organised on two levels :

a. a **thematic study**, related to the four most relevant aspects of the Cinque Terre :
   a.1. architectural (a.o. sanctuaries) and environmental heritage
   a.2. agricultural (including vineyards and wine production) and forestry heritage
   a.3. tourist management and economy
   a.4. communication and education using digital and/or electronic tools

b. a **holistic approach** of existing or to develop networks and their possible impact on each individual village. Each national partner has studied the overall situation of the Cinque Terre Park, and accordingly made some proposals for one of the five villages.

As not all national groups had the disposition of specialists for each of the themes, the accents may change in each of the following reports.

3. INITIAL DESCRIPTION OF THE PROJECT AND LIST OF ACTIVITIES

3.1. INITIAL DESCRIPTION OF THE PROJECT

See “Description of the project” in the bid - proposal E.U. Culture 2000 Program

Cfr. Romana KRIZOVA & Claire O’NEILL

3.2. LIST OF ACTIVITIES (See also Deliverables)

- Meetings and visits to prepare the bid for proposal
- Kick-off meeting
- International Workshop
- Final Exhibition
- Presentation of Education and Communication Applications

4. PROJECT ANALYSIS AND ANALYSIS BIJ THE FLORENCE (It.) TEAM

4.1. Thematic approaches and network of trails
4.2. Communication and Education

Contributions :

Interdisciplinary circles of the research	coordinator	***Emma Mandelli***
territory, landscape, architecture	responsible	***Emma Mandelli***
technology and computer science	responsible	***Vito Cappellini***
agriculture and forestry	responsible	***Paolo Gajo***
marketing tourism	consultant	***Massimo Rosati***

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Methodology and references for the research

Emma Mandelli

The territory of the Cinque Terre park is present in the Unesco world's heritage list; it represents an area of the Ligurian coast, morphologically similar to neighbouring ones, but with a particular anthropic planning and transformation evolution: a circumscribed habitat, contained among mountain and sea, has been created and, up to recent times, it has exclusively enjoyed by the autochthonous population.

In the Smart History project, that foresees a multi-disciplinal study finalized to the protection of this territory, the group of researchers of the University in Florence, within the "cultural" debate with the other partners, has finalized the study to the debugging of its own methodology; through the knowledge and the guided reading of parameters, it brought to the planning of a managerial "laboratory model" and finally to the formulation of some reference strategies and to early feasible proposals for the Park.

Knowledge

The reference parameters that emerged from the analyses are not only physical and quantitative (morphology, geology, use of the ground, history, economy etc.) but they result tied up to values of different nature. In fact, the field of action of knowledge on territory for its protection regards also the ambit of references and institutional ties as well as places quality , choices and residents fruition.

In order to reach the preset purpose as researching objective, the creation of an analysing, elaboration and data acquisition methodology has been necessary; this allowed the complexity re-composition in a manageable and comparable system. (see Table 2)

During the early investigation on the Cinque Terre territory, the historical and iconographical data, as well as the tools of management in action have been analyzed (see Files)

In the following investigation, the readings and the interpretations of the followings aspects have been elaborate :

- peculiar aspects of the territorial system:

landscape as generating and structuring element

Villages and sanctuaries, evolution, typologies, identity (values and lacks)

Terraces and forest areas agricultural system

- the social aspects in action:

existing tourism, relations with the residents

existing communication media among park, operators and tourists

local productive situation, markets, work structures

Analysis parameters

Within the analysis on "landscape", the interpretation parameters of the territorial systems, the constitutive elements and the qualitative aspects have been searched (see Table 3)

The schematic interpretation of the existence of horixontal strips landscape has become a fundamental indicator for the "synthesis" of the system that divides and recognizes in three principal landscapes (terraces, villages and sea) the whole park territory.

Corridors

Another essential reference element was identified in the network of corridors, reported in the Table 3, which underlines the actual connections.

The ancient vertical corridors are still present; they run from the mountains to the villages and vice versa. They have a double functional aspect: steep and fast (terraces and stairways), and slower (pedestrian paths and mule tracks). Only two roads are horizontal route: the ancient via dei Santuari, which is linked to terraces connection corridors, and the discontinuous road along the coast.
The connection increases have essentially been horizontal communication between the villages and the penetration from the outside: the recent carriage piedmont road that allows the arrival of cars in some places and with a limited parking possibility, and the previous railroad that encloses the whole Ligurian coast.
The local corridors were examined by means of photographic documentation and cartography elaborations during the first workshop: the supporting network of the whole agricultural economy was revealed, as well as the sea corridors, for the exchanges with the other countries. The small monorails in service for terraces allow a good management and control of these structures.
Considering the actual "productive" advent of tourism, corridors become more and more a mean to distribute flows, to determine characteristic excursion or sporting uses and to facilitate the fruition of landscape and panorama from strategic places.

The gates of Cinque Terre
Above all, it is clear that corridors of penetration are checked by the two "gates" (east and west), which almost determine the two entries to the park. This is an ancient control factor that can be still used for the mass tourism.
Currently, because of routes difficulties and confinement's limitations, the possible network of connections with the hinterland villages (Vara and Magra area, interesting historical villages) is not well used.

Methodology of research
Even though in very synthetic way, the general frame that has been reported in the Tables allows a general vision of the used methodology and the obtained results. The integrated knowledge always represents the essential starting point, not only to obtain data of an analysis, but to manage them in a hypothesis of interpretation, which is finalized to the purpose of the research.
In our broadly recognized notable case, the definition of "landscape" that has been expressed in the 2000 European Convention (Florence) to attribute the not only visual or physics affiliation of territories to the population that lives them and that socially determines the true confinements of it. This, together with other definitions (see Table 1), has allowed to build the reference and guide tools both in the analysis and in the proposals.
The used working methodology, fruit of the interdisciplinary competences of the group and of some experiences on areas of natural and anthropic interest, has followed a precise path, as documented in Table 2
In brief:
The methodological path of the data computer elaboration takes origin from the acquisition of knowledge (cognitive investigation).
The data are organized according to a Territorial Informative System.
The GIS (Geographical Information System), meant as integral part of a SIT, combines CAD functions to (geo-referred) digital cartography data treatment with attributed data by means of

Database managing tools; it is so qualified both as supporting tool for decisions (DSS: Decision Support System) and help in the organization and setting of the informative heritage.
Shared values among residents, local communities and visitors have been attributed to the collected qualitative and quantitative data, (workshops and structured interviews).

Stated that the Cinque Terre Park possesses and has activated many bureaucratic planning and protection tools that are linked to the actual situation, further parameters and elements have been identified by means of the analysis; these deepen in the park area characteristics can integrate ties and qualification of the territory.
The "landscape" of the Cinque Terre is constituted by two presences: the steep ground with the realization of the terraces and the sea. Those have always been two working and living places for the residents of the five coast villages.
The agricultural production in the terraces and the fishing in the sea for the production of anchovies were generated by these two universes, earth and sea. From both the landscapes the substance of a very beautiful cultural landscape springs, also built in the time with stubborn and sacrifice.
The five small villages are also essential in the architecture and in the economy of the spaces and nowadays are not suitable to a diffused demand of tourist receipt.

Data elaborations
The Table 3 illustrate the passage from the landscape analysis and its components to the organization and elaboration of the complex data.
Every type of landscape contains natural structuring components, such as morphology, geologic support, hydrographical system, and anthropic structuring components, such as use of the ground, (agricultural system of the terraces and forestry system), the settlements system and the corridors system.
The rural space can be conceived as a multi-functional space (productive resources, and not) where the optimal use of the resources can happen through a correct interrelation among different ecosystems.

The qualitative aspects of landscape have been identified as it follows:
- Panoramic places or places from which a general vision of the studied area can be enjoyed.
- Corridors with visual fruition, they are runs union of places of historical-landscape merit.
- Elements of visual attraction: these are generally emergencies with an architectural, historical, landscape value. These are attractive elements in the interested area;
- Elements of visual deduction, which are incompatible, extraneous elements with the context;
- Elements of identity of the local communities are attracting elements that the communities identify as proper and as such they must be valorised and integrated not only according to a tourist vocation, but as "poles" of the dynamic transformations in action.

If a model of natural resources network supports the model of urbanised nucleuses network, this allows us to consider the territory not for homogeneous areas but for unity of landscape.
The individualization of the different characterized unities "from specific and separate systems of visual, ecological, functional, historical and cultural relationships, that confer them a precise physiognomy and a recognizable identity" (GAMBINO 2001) is the first step of project and it allows not only to identify the different vocations, but also the different strategies and purposes to be effected in the different realities.

Strategies
Starting reference points:

- Protection of the inherent values in the landscape of the Cinque Terre and their maintenance (see Table 1)
- Protection of the villages and its residents

Reference strategies:
1) Formation of a database for the territory management at any level
2) "*Laboratory model"* for an aware and shared growth of population and visitors.
3) Sustainability of the tourist flow and its management
4) Planning *"to net on the territory*" of the tourist flow

The laboratory model
Therefore, a territorial laboratory as an operational structure becomes an important subject not only to stimulate communication and dialogue between local residents and interested visitors, but also to effect a continuous monitoring on the landscape transformations in the various aspects: mountain, sea and villages life.
The so structured laboratory gains an ample meaning that conducts to the construction of the city-territory concept, which is organized in poles with diversified characteristics; these are connected by a communication and relation network created by virtual means. An organization that favours the maintenance of the environmental resources in the central role that they have in the strategies of the whole territory socioeconomic re-qualification.
The perception of belonging to a *city-territory*, in a dimension of identity reference, rich of complementary resources on which it is possible to develop politics of exploitation of the environment and sustainable economies (tourism), is a largely shared among the population in areas with connotations of particular merit as the Cinque Terre. Only in the vision of a relations network system that uses and valorises the complementarities of the resources and the relationships between the inhabited villages and the infrastructures, he sharing of the cultural, social and working proposals can be realised; these are not meant as an imposed but as a shared planning.

Feasible proposals
Actions on the territory:
1) Planning adjustments and restorations (landscape, cultivations, earth/sea, infrastructures etc.)
2) Events, structures and cultural planning of the "laboratory model"
3) Realization of network for territorial planning and telematic communication for a suitable cultural tourism
4) Innovative tools for management, monitoring, transmission of the data (tourism) and for the information and the navigation of the visitors.

In Table 4, the programs are analyzed for the idea of the park as a laboratory model that, due to the mentioned strategic indications, can be described in a reference frame:

Percorsi:	**Terrazzamenti:**	**Centri abitati:**	Mare
- Corridors: Terraces: Villages: Sea - Network on the territory - via dei Santuari - Terraces and stairways - Sea corridors	- Observatory on landscape - Landscape museum - Laboratory for agricultural production - Specialising and training schools on terraces technology - Nursery “barbatelle” for vine shoots	- Events plannng - Cinque Terre museum - Reception poles - Poles of Goods fruition	- Observatory on sea - Laboratory on sea flora and fauna - Productive and fish workmanship laboratory

The planning proposals have been formulated under these guidelines; they have been divided for matters as it follows:

Corridors

- Recovery and restoration of the historic horizontal corridor "Via dei Santuari"
- Recovery and restoration of the vertical historical corridors (terraces and stairways): resting places and intersections
- Increase monorails for brief lines in the connections among sites of particular built and landscape interest
- Installation along the corridors of the "Totem" for the information on the territory (tourist use)
- New Cinque Terre Card
- "green" resting places, strategic areas along the corridors
- Recovery of corridors from the coast toward the inside countries and connection with the network of the Regional Parks and neighbouring protected areas.

Forest topsoil

- increase broadleaves and fire protection

Terraces:

- Protection and restoration of the rural landscape, terraces and vegetation
- Functional recovery of the rural buildings on the territory for a new function

Villages and sanctuaries

- Protection of the typologies and regulation in the use of materials and technologies (natural and artificial materials, traditional technologies)

Feasibility

In the concept of *laboratory- model* it is inherent a programmed and experimented cultural activity on more matters which is temporally disseminated during the whole arc of the year. It is turned to residents, to researchers and to a careful qualified tourism, which participates to the specialist aspects of the initiatives.

Proposals and programs of realization
- functional recovery of the rural buildings on the territory for
- Park observatory: landscape and tourism
- Events and cultural structures: meetings, courses, workshops
- Events on production: meetings, feasts, markets
- Excursions for a qualified tourism on the territory
- Museum: virtual and diffused on the territory: tradition, history, places, landscape, agriculture, sea
- Laboratories: gastronomic products, wine, olive oil, fish, craftsmanship, local constructive technologies
- Poles: places of attraction and functional exchange

Possible events planning
- Constitution of a permanent laboratory on landscape;
- Specialization courses;
- Meetings;
- Conferences;
- Cultural events;
- Museum of the Country Culture;
- Museum of the Sea

The Tourism
The development and the evolution of the tourism have become two parameters to be managed, always present in the countries as Italy where tourism is one of the most developed cultural and economic factors. The concept of sustainable tourism in the delicate balance among territory, residents and tourists, requires a particular and specialist attention, from the data of analysis to the verifications in the area of the Cinque Terre up to the proposals of planning and control (see Table 5).
The vocation of the Cinque Terre Park is reported not only to its strict area, but it widens through a network of corridors and connections to the system of the protected areas and the present Regional Parks along the coast and in the hinterland.
La Spezia and Levanto are the gates of this widened system.
The reference elements for a correct balance between residents and tourists are based on:
1. Checked urban structures adjustment;
2. Shared and planned cohabitation of residents and tourism;
3. Necessity of a filter and an institutional control of the programmed percentages of labour forces and structures for the tourism.

The structural strategies for the sustainable development of the assumed cultural tourism have been identified in three possible sectors:
1. Permanent observatory on tourism;

2. Protocols of agreement on tourism with the neighbouring provinces and with the regional national parks for a widened planning
3. centralized online information (with many users) through a communication network for the tourist planning

Innovation and communication

In order to find the possibilities of communication with innovative means, some proposals, which are already been considered by the managers of some national parks, were considered.
These computerised systems were examined by experts in technologies and multimedia for the diffused planning; they are only fully realizable if connected to the general data base that contains the qualified information for the possible questions. (See Table 6). The examination of the actual technologies and the future possibilities has brought to concretely elaborate some tools for a possible strongly qualifying use and a suitable double communication (toward the outside and toward the park for the controlled management of the flows and of the visitors' choices).

To achieve operational goals in the tourist planning, the assumed suggested proposals are:

1. Info point: points of information on the territory connected online;
2. New Cinque Terre card: interactive card among the info points, totems
3. Totem: points of strategic information on the territory, which are interactive with the card and the palmtop
4. Palmtop: GPS instrumentation supplied to interested tourists and in endowment to the operators of the Park, hardware system constantly implemented by the network of information coming from the Park and meant to address the tourist to places, corridors of historical-cultural merit, to have information in comparison to the services offered in the area of interest, receptive structures, system of connections and transports.

Sectorial studies follow this synthetic exposure: they involve landscape, architectures, agriculture, tourism and finally the possible realization of the computer proposals for the communication.

Landscape and Territory

Carolina Capitanio

"There cannot exist durable and authentic maintenance without innovation, and it is the maintenance the true place of the innovation for the contemporary society: Topreserv e is to innovate" G. DEMATTEIS, 2001

The landscape of Cinque Terre, recognized by the UNESCO as World Cultural Heritage, is unique due to its peculiarities, and it belongs to that great variety of landscapes, representative of the different regions and cultures of the world. In these landscapes the combined work of human beings and nature, expresses a long and intimate relationship of people with their environment. "To discover and maintain the great differences in the integration between human beings and their environment, to protect the living traditional cultures or to preserve the tracks of those that disappear, these sites, defined as *cultural landscapes*, have been included in the list of the world heritage. The cultural landscapes: mountain cultures and terraces, gardens, sacred places testify the creative genius of human beings, their social evolution, the power of their imagination and their spirituality. They represent a part of their identity" (UNESCO, 1972)

The strict relationship that exists between culture and identity of a society that lives and transforms a portion of earth brings back the term of landscape to territory.

Populations territoriality is not only expressed with living and modifying the natural landscape that contains them for their own uses, but through the identification of a place as an element of collective identity. These places are therefore factors of cohesion and identification of the community.

Identity can be therefore intended as the complete cultural links between population and territory. "In these terms every region possesses its own identity, that can represents a" structured social-cultural expression constituted by immaterial and material elements of culture" (A.M. Pioletti, 2002).

Therefore, knowing a landscape does not only means to analyse the single components, natural and cultural goods, but also to identify its identities through its qualifying elements .

The organization and elaboration of complex data allows to subsequently individualize those ambits of general solidarity, which are characterised by specific relationships and different vocations, for which aimed strategies of development should be proposed.

The different types of landscape that characterise the steep territory of the Cinque Terre for horizontal strips (sea, coast, terraces, piedmont, mountain) determine their particular aspect and therefore their identity.

In order to propose a model of integrated management for the Park of the Cinque Terre, the cognitive investigation starts from the data collection regarding structuring factors such as

morphology, hydrography and geologic support (natural elements), with the further addition of ground use, the settlements system and the corridors system (anthropic elements).
Those factors are tightly correlated: the geologic support determines the different type of erosion of the slopes and therefore partially the hydrography and the morphological aspect. The composition of the ground, the different exposure of the slopes, the position above the level of the sea strongly condition the different type of vegetation and consequently the use of the ground and the position of the settlements and the relative network of corridors.
The qualitative aspects of the landscape have been identified as it follows:

- *Panoramic places or places with a general view of the area.* Such places have a tourist-recreational vocation and, if included in a recovery project, they can be equipped as resting places within the network of corridors.
- *Corridors of visual fruition are corridors that link places of historical-landscape merit.* These corridors too have a tourist/recreational vocation; more, their functionality is strictly linked to terraces cultivation and maintenance.
- *Elements of visual attraction: they are generally emergencies with an architectural, historical, landscape value.* These are the attractive elements of attraction in the interested area;
- *Elements of visual deduction are incompatible, extraneous elements;*
- *Elements of identity of the local communities are attractive elements that the residents identify as proper and then they must be valorized and integrated, not only according to a tourist vocation, but as poles of the transforming dynamics in action.*

Considering the general territorial system of the Cinque Terre, settlements and corridors are distributed according to an horizontal scheme, combined to a system of vertical secondary corridors that connect the present coast villages with the system of the settlements and the system terraces in the hinterland.
The five villages, Riomaggiore, Manarola, Coniglia, Vernazza, Monterosso, have a medieval origin; their position is next to the sea, as it constituted the principal and direct corridor of communication with the neighboring urbanized areas until the last century.
At the beginning of the XXth century, the railway was built along the coast, creating the most direct and fast connection to reach the Park.
Parallelly to the railway, the *Via dell'Amore* is a pedestrian corridor that connects Riomaggiore to Monterosso along the coast.
The *Via dei Santuari* is on the hillside, in the terraces strip: a pedestrian corridor that connects the five present sanctuaries in correspondence of the five regions of the area; such corridor is partly interrupted. In correspondence of the ridge, that coincides with the east border of the Park, the so called Path n.1, a pedestrian corridor, runs from Porto Venere to Levanto. Between the *Via dei Santuari* and the Path n.1 there is the carriage road from La Spezia to Levanto.
Riomaggiore, Manarola, Corniglia, Vernazza, Monterosso identify different solidarity ambits due to their morphological peculiarities.
If a model of natural resources network supports the model of urbanised nucleuses network, so that " the natural spaces are mutually connected by relations of complementarity or sinergy, not on the base of their physical contiguity, but of their distinctive characters, of their specificities, in such way that the quality of the network is superior to the sum of the quality and wealth of every component" (TONDELLI S., 2000), then this holistic vision of landscape allows us to consider the territory not for homogeneous areas but for unity of landscape.

The identification of the different unities, characterised by “specific and separate systems of visual, ecological, functional, historical and cultural relationships, that confer them a precise physiognomy and a recognizable identity" (GAMBINO 2001), is the first step of a project and it allows not only to identify the different vocations, but also the different strategies and directions to be effected in the different realities.
Standing the objective of the protection and maintenance of the landscape identity, the finality is to propose a series of guided interventions that are transformed into punctual proposals and events that have to be realised within an integrated management model.
Development and maintenance must not be seen as contrasting concepts, but should be reported to the concept of sustainable development
Sustainable development is nowadays a clear concept, as balance and compatibility among economic objectives, protection of resources and quality of environment.
If, on one side, conservative strategies are identified and strongly referred to territory, in relationship to development perspectives that are concretely present in the territorial areas, from the other side the tendency is to seek co-evolutionary paths of economic and ecological systems according to innovative forms of interaction between environment and society.
The attempt to intervene on towns and on territory to improve the human and ecological systems suggests the substitution of the protection by *islands*, with a *net* protection type, to be applied in a wide area.
The planning by *ecological nets* allows to integrate the system of the protected areas with residual fragments of naturalness and with different typologies of green present in urban areas and in the immediate hinterland in a system of a wider area,.
So, the Park of the Cinque Terre has been seen and analyzed not as a discarded element, but as a territorial system, linked to a wider system of protected areas and villages through a dense network of both carriage and pedestrian corridors.
This is the way it must be identified if the plan that protects National Parks has not to be interpreted as a complex normative system that binds, freezing such zones in a sort of excerpted museum from the transforming dynamics in action and from the demands of development of the local communities.
The (mainly pedestrian) corridors are qualified as the skeleton along which an aware and sustainable tourism can spread in the territory.
The proposals sprung within the Park of the Cinque Terre integrated management model were formulated under these presuppositions, identifying territory protection, territory quality, its suitable use, and the sustainable tourism as final goals.

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Villages and emerging architectures

Studies, protection, management

Laura Ferrario

Natural structure and corridors

The examined territorial area is included between Punta Mesco, Portovenere promontory and the ridge that faces the coastline: this is characteristically steep and is inaccessible and drops sheer to the sea. The proximity of coastline and mountains results in a rocky and steep mountain side. As a matter of fact, in a depth of 3 or 4 Km from the coast, the altitude reaches a level of 700-800 meters (Monte della Madonna 527 m, Monte Verrugoli 745 m, Monte Capri 785 m, Monte Gaginara 771 m, Monte Malpertuso 812 m, and Monte Saviore 619 m).

On the hydrographical point of view, all of the water courses of this territory have high slope and limited basins. As it concerns connections, it is still difficult to reach this area: besides railways (1874) and ferries, just few narrow and tortuous roads connect Cinque Terre to the *Aurelia* State Road or Motorway A12.

Three principal longitudinal corridors cross Cinque Terre:

A ridge pathway, which represent the dorsal tap of all of the courses;

A hillside course, which links the whole territory and proceeds to Ligurian hinterland;

A real mule track, which links the villages on the sea.

The most important corridor is the hillside one, (the so-called carriageable *Via dei Santuari*), whose track is prehistoric and is considered the matrix of the migration, which, in the Middle Age, determined the birth and the development of coast villages.

The ridge corridor (pathway) links Portovenere to Levanto, crossing the mountains that delimitate the area of Cinque Terre. This corridor (a CAI pathway) runs constantly from East to West, and it constitutes the fundamental structure of partial cross-corridors, which link the coast villages to their respective hinterland villages. The pedestrian coast course was set in the Middle Age, during the development of coast villages. Even though, it is characterised by two XXth century tracts: the first part of La Spezia – Sestri coast road, which passes through Riomaggiore and the suggestive *Strada* dell'Amore, which links Riomaggiore and Manarola, substituting the more impervious ancient pathway.

Anthropic aspect

The traditional isolation of these coast villages was caused by the particular morphology of their territory.

They were not properly founded on the sea, but at the rear of the sea, on ground tracks, as they intended to maintain themselves on agriculture, with the fishery and commerce as a complement.
A peculiarity of Cinque Terre is the presence of terraces for the cultivation of grapes, olive trees and lemon trees. Since XIIth century, the population of this area has built this characteristic strip landscape as a typical local agricultural organisation.
Villages in Cinque Terre have Middle Age structure, which were often inserted into existing elements of the ancient Ligurian urban settlement, such as the organization of *Pievi*. Their urban configuration is modestly influenced by the following architectures, from Renaissance to XIXth century, which did not alter the characterising typological values such as compact building (tower houses) with double access and narrow, steep and stone paved secondary corridors.
As it regards morphology, four of these villages (Monterosso, Vernazza, Manarola and Riomaggiore) have a valley course town plan configuration, while Corniglia appears to be a ridge head village.
The widest transformations have been brought since XIX century with the tourism development, and they did not always follow a correct policy on protection. The construction of a railway and the filling in of rivers to create new access roads and easier corridors provoked real fractures within the original structures, and sometimes violently modified their unity.

I centri

Riomaggiore: (56 m slm) è il centro più orientale delle Cinque Terre ed è disposto lungo la stretta valle del Rio Maior.
Fu probabilmente fondato nel VIII secolo da un gruppo di profughi greci. L'abitato presenta una struttura urbana condizionata dall'andamento del rio ed organizzata secondo una serie di percorsi pedonali paralleli all'asse principale impostati secondo l'isometria del terreno. Gli edifici sono addossati alla montagna e presentano lo schema a case gradonate con duplice accesso tipico della zona (un accesso al piano terra dalla strada e l'altro ai piani superiori dal retro). La ferrovia divide il centro in due parti ben distinte: il nucleo antico con caratteri medioevali posto alla foce del torrente e quello moderno a monte oltre la linea ferroviaria.
Riomaggiore (56 m asl) is the eastern village of Cinque Terre, along the narrow valley of Rio Maior.
It was probably founded in the VIIIth century by Greek refugees. Its urban structure is conditioned by the river course, and it is organized with pedestrians' corridors parallel to the principal axis, following the territory isometry. Buildings lean on the mountainside, with a typical double admittance terrace scheme (admittance at floor level on the front, at other levels on the rear). Railway divides the village in two different parts: the ancient centre at the mouth of the river, with medieval characteristics, and the modern village, above the railway.

***Manarola*:** (70 m asl) is a hamlet of Riomaggiore that slopes down to the sea from a great black rock above the sea. The small Marina is enclosed between two rocky spurs.
It was founded in the early decades of XIIth century by inhabitants of a primitive piedmont settlement (near Volastra). The village is organized along the narrow valley of the (today covered) stream Groppo, climbing up to S. Lorenzo's Church. The ancient bridges between the

two banks of the stream are still on the main axis. The building typology is similar to the other villages: terraced houses with double access; the secondary courses, perpendicular to the main axis, are narrow, steer and paved with local cobblestones.

Corniglia: (193 m asl) *Corniglia* is a small hamlet of Vernazza. It is located on the higher part of a tableland on a terraced basin, where vineyards are grown. It has no access to sea.
The ancient roman origin is testified by archaeological finds; but, as other coast villages, its devolution starts in the XIIIth century. Its ribbon-shaped structure is organised along a road that follows the isohypse.
The original buildings have tree floors and, due to the ground slopeness, have two accesses.

***Vernazza*:** (3 m asl) is a coast village, which rose in the narrow stream Vernazzola valley; a small wharf was built on the mouth of the (actually covered) stream. Vernazza became an important commercial small harbour, turning later into a Marina; it is located on the slopes of a steep rock on the sea, which protects the village southwards.
It rose about in year 1000 by the inhabitants from another settlement (actually Reggio), who moved to the coast because they were attracted by the prosperous valley and the easy access to sea. The village is linearly organized along the plant course covering the stream, from which many alleys climb up the cliff hills. The building organization is characterised by tower houses with admittances that utilize the ground inclination, and special buildings with porticos and lodges.

***Monterosso*:** (6 m asl) is the western town in Cinque Terre, on a basin, which faces an inlet on the east of Punta Mesco and is limited by terraced sloping hills. Olive trees, vineyards and lemon trees are cultivated on these terraces.
Monterosso was founded probably in the early decades of XIst century by people, who descended the slopes of Mount Soviore; actually, the Sanctuary consecrated to the Virgin Mary stands on this mountain.
The village is constituted of two different settlements in front of the sandy coast: Fegina and Monterosso. The last is constituted of the ancient settlement, and has quite kept its Middle Age characteristics: a linear structure along the nowadays covered stream Buranco, which constitutes the principal road axis. Fegina is a modern tourism – residential settlement (after 1874) risen around the Railway Station.

I santuari

Each village of the Cinque Terre has its Sanctuary; their inhabitants have great devotion for these buildings, so that for their Feasts, believers reach the Sanctuary with a Procession that departs from the village. This relation is clear also in the landscape: from sea, it is easy to identify the shapes of Sanctuaries, which protect the coast villages from the above.

All of the Sanctuaries can be reached by carriage roads, but Nostra Signora di Montenero, that is connected to Riomaggiore by means of a monorail or pathways.

Nostra Signora di Montenero (Riomaggiore)

This sanctuary has a panoramic position on a piedmont promontory, dominating the whole eastern coast. Historical documents testify that its original structure was built in the XIVth century, but, during the XIXth century, the church was completely restored and recovered. The Crowning ceremony was in 1893.

Nostra Signora di Volastra *(Manarola)*

This sanctuary was probably built in the XIIIth century. It has a single nave without apse, built

in regular ashlars, and a Romanic façade with ogival portal and twin lancet window.

The cult of the Virgin Mary was officiallized with the Crowning of 1861.

Nostra Signora delle Grazie a S. Bernardino (Corniglia)

Nostra Signora delle Grazie in S. Bernardino, above Corniglia (390 m asl), was built in the XIXth century on a XVIth century chapel. The cult was officiallized with the Crowning in 1874.

Nostra signora di Reggio (Vernazza)

This sanctuary (300 m a.s.l.) protects Vernazza. In 1248, it was mentioned as *St. Mary Church*, and in 1303, as *Reggio Chapel*. The building was later adapted: the transept was added and the front was transformed. The *Cult of the Virgin Lady* goes back to XVIth century, and was officialised in 1853.

S. Maria di Soviore *(Monterosso)*

St. Mary of Soviore dominates Monterosso: it is one of the most ancient Sanctuaries in Liguria, as its first documentation results in 1225. In the XIVth century the presbytery was modified, and then other transformations occurred. This building had great fame during the black plague period (1348), as it was a hospital and a refuge for pilgrims.
The cult of Virgin Mary was officialized with the Coronation in 1749.

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Sustainable agriculture and forestry

Technical and economical aspects

Paolo Gajo

The Cinque Terre National Park is included between the Ligurian Sea and a mountain range that derives from the Ligurian Apennine. The parallel-to-coast ranges in the Park are characterised by sudden altimetry variations, and present particularly steep mountainsides besides abrupt coasts.
The whole territory is the result of a complex genesis and geological structure, which determinate a particular morphological complexity. The geological characteristics diversify rocky formations and
favour rock falls, in particular, where easily eroding schysto-argillaceus and marly formations are present, Ophiolite rocky formations give origin to very steep slopes. .
So, the knowledge of a side instability class is really fundamental to guarantee prevention, protection and preservation.
This is the case of terraces, the huge hydraulic – agricultural system developed in the centuries. These earth movings, generally 2-2 ½ meters deep, are contained by dry walls, with embedded stones. There's a strict correlation between the original slope and the terrace width, as the more elevated the former, the more restricted the latter. This may be amplified if contemporaneously the wall is lifted up.
The draining system at the foot of dry walls, which avoids water stagnation, is very important. These terraces are transversal to maximum slope lines, and they support the ground, allowing cultivations. Their plane has a slight slope in both senses to allow water run-off. Beside terraces, at an appropriate distance, small stone canals run right down the slope; they have small stone dikes to reduce water run-off velocity. These canals are armoured with stones, and they need constant maintenance; dry walls and their draining systems need the same careful

and continued maintenance to keep walls integrity and to reduce water run-off and ground erosion.
Terraces are prevalently cultivated with vines, which represent the principal cultivation of the territory with the traditional *pergola*.
As it regards *DOC* discipline, vineyards are white grapes: BOSCO (40%), ALBAROLA and VERMENTINO (40%), LOCAL VARIETIES (20%). Production has a maximum ratio of 70 quintals/ha, and the resulting dry white wine is simply called CINQUE TERRE. The same dried grape produces an esteemed sweet wine, SCIACCHETRA'. The offer of qualitatively esteemed wines is surely an input for tourism.
In order to have high quality vineyards, the Park should set up a nursery for vine shoots production, especially for new set ups.
The overall vineyards area sums up to 340 ha (see Corine Land Cover Project), and it is in constant reduction; olive trees cultivation is carried out on 260 ha.
Particularly, vineyards properties on terraces are extremely fractionated and fragmented: this determinates a great time loss while moving and working within the properties.
The land re-composition should be carried out to attenuate the pathological aspects of this land structure, even tough this operation is not so easy. The application of L. 4 august 1978 n.440 is very effective: it regulates the "norms for the usage of uncultivated, abandoned or insufficiently cultivated land. The Park has already assigned some abandoned terraces in the territory of Riomaggiore to Associations and Co-operatives, by means of rent contracts supplied by the above mentioned Law; the aim is restoring vineyards, preserving the soil and the hydro-geological balance and evaluating the productive possibilities of the abandoned areas.
The introduction of a widespread monorail mechanical climbing system is particularly important, to make movements and grapes' transport easier.
Viticulture is the principal richness, both for the local market and as exchange good. In connection with exchanges, the sea has always represented an important and privileged line of communication with the external world, through coastal trade. Vines, olive trees and mulberries (used to feet silkworms) supplied for a very long time the principal exchanging products.
After the last war, the development of industry and services sector has radically modified the structure of the population; in the last decades, a great transfer of young labour forces from the primary sector to public administration, with gradual migration towards the chief town, originate an intensive form of commuting.
Actually, only 2 % of the active population works on agriculture, and protection of cultivated lands is up to elderly people. So the whole agricultural occupation (principally viticulture, but also olive culture) was generally abandoned in the last fifty years, with the consequent ruin of the marvellous terraces system. The lack of terraces, dry walls, run-off systems and local road conditions maintenance leads to a very severe hydro geological disruption.
The most abandoned terraces are in a particular uncomfortable location, at elevate altitudes, so the lack of maintenance causes their sliding downwards. The inferior terraces are affected by rock falls, so that they tend to fall too. The slopes reach a disrupt state, with detrital, instable material sliding surfaces. Rainwater causes an intensive erosion of the affected terraces, so the possibility of vegetation rootedness is strongly hurdled.
The terraced landscape suffers a deep transformation and is deformed, compromising the preservation of those geological balances, which were once guaranteed by the constant presence of man and his occupations.

The higher territories extend on a wide strip; this strip is characterized with the presence of forest sectors, as resinous trees (*Pinus pinaster* in particular in more than 750 ha.) and broad-leaves (almost 525 ha.; chestnut groves occupy more than 255 ha.). This is the ambit of Mediterranean scrub, with the presence of holm oaks, bay, *phillirea*, heather, white heather and minor species. Unfortunately, the presence of *Pinus pinaster* creates a particularly fire favourable habitat. This pine tree, species *eliophila*, tends to rapidly occupy all of the spaces run by fire.

The wood is diffused on close to coast territories too, where terraces are actually abandoned; certainly, it has very important aesthetic and recreational functions. But when, due to its natural dissemination, *Pinus pinaster* insert on those terraces where viticulture was abandoned, disruption occurs. In fact, taking possession of dry walls with its characteristics very superficial root system, it inserts among the stones of the walls, creating falls and instability conditions.

One of the main Park Plan objectives is the preservation of ecological balance of terraced landscape (including those small buildings, formerly recoveries for animals and equipments), as far as protection of the ecosystem and biodiversity. This landscape was once maintained by the presence of man and his occupation, which kept efficiently the productive system.

Ecosystem protection and rational use of natural resources are the base of sustainable development, where man is protagonist. So, favouring man's presence in any way is absolutely necessary, with consciousness of choices and life conditions in conformity to the actual social and economical instances.

Terraces represent a marvellous example of architecture; they are linked to traditional agricultural operations, and must be recovered and preserved. The improvement of this invaluable heritage is strictly connected to different land and environmental re-qualification, with the necessity of priorities and selection of preserved areas.

The whole territory recovery is linked to the relationship among agriculture, tourism and environment. This brings to the particular attention paid by villages, inhabitants and visitors to the wide agricultural and forest strip above the villages. Every form of mobility m has to be facilitated too.

Every single terrace's different functions (protection, production, and environment) underline the need of facing resources management considering the multiplicity of purposes, toward a sustainable development. In particular, we refer to G.I.S. (Geographical Information System) as a support to territorial planning, as well as multi-objective and multi-criteria planning methods (MCDM), which can be successfully applied.

Particularly, the general criterion that inspires the territorial planning is linked to sustainable development as well as to multifunctional character of the environmental system.

Within the National Park of Cinque Terre, the rural area is characterised by an extreme multi-functionality, and the following functions can be identified:

a) production: renewable resources in relation with vineyards, olive trees, officinal plants, and forest topsoil;
b) protection: with particular reference to hydro-geological protection. This is essential for an environment which has been created by man during the centuries in condition of high instability, due to the widespread presence of the easily erosive ophiolite;
c) ecology: due to the presence of faunal and flower resources, biocenosis and biodiversity, as well as to carbon fixation through chlorophyllose synthesis related to biomass entity; this grants a clear improvement in the environmental quality;
d) recreation: a correct and sustainable integration system between environmental resources and anthropic action;

e) landscape: the particular and suggestive beauties, which were created by man, can be exclusively maintained with the permanence of agricultural activities;
f) settlements: the small and medium concerns transform agricultural, ichthyic , craftmade, commercial, accommodation and service products;
g) social: restoration and preservation of local traditions, meeting place for different cultures.

In order to offer the possibility of choice for alternative actions to the "public decider", to use disposable resources in the land at the best, the identification and utilisation of specific indicators is necessary, as in every multi-criteria analysis.

Multicriterial analysis as a tool for implementing sustainable development

Chiara Franciosi

The aim of this contribution is to identify land characteristics for addressing decision makers policies in order to assess a more sustainable tourism or other kind of development, utilising multi-criteria decision analysis (MCDA) and GIS. These analytical tools let us making land allocation decisions that combine sophisticated decision theory with advanced spatial analysis.
Our approach is base on territorial approach (of which an important application is Sen theory based approach) and multi level approach.
The territorial approach concerns on valuing local development problems analysing them with an appropriate scale in order to integrate socio economic and ecological information in a spatial context, identifying the weakness and force elements of local economy and going go deeper with specific aspects relating to environmental impacts of policy maker strategies. Sen theory based approach is a analytic tool based on complex analysis of economic social and environmental local aspects useful to point out a differential degree of individual and territorial welfare. It identifies welfare constitutive elements, which represent indicators adequate to describe welfare from a qualitative and quantitative point of view. The main usually valuated elements are: structure and dynamics of population, demographical density, infrastructure availability, health services, education, culture, entertainment, recreational associations.
The MCDA involves a combination of many different data types standardised into suitability indices and used to create an index based on addition or combination using linear weighting. It describes any structured approach used to determine overall preferences among alternative options, where the options accomplish several objectives. In MCDA, desirable objectives are specified and corresponding attributes or indicators are identified. The actual measurement of indicators need not be in monetary terms, but are often based on the quantitative analysis (through scoring, ranking and weighting) of a wide range of qualitative impact categories and criteria. Different environmental and social indicators may be developed side by side with economic costs and benefits. Explicit recognition is given to the fact that a variety of both monetary and non monetary objectives may influence policy decisions. MCDA provides techniques for comparing and ranking different outcomes, even though a variety of indictors are used (DTLR. 2001. Multi Criteria Analysis: A Manual. http://www.dtlr.gov.uk/about/multicriteria).
It is useful to better understand local characteristics combining Geographical Information Systems GIS with MCDA GIS is a tool able to assemble land specific information and indices able to sum up socio economic aspects with environmental ones, providing such a suitability maps.

The MCDA and GIS combined use is usually implemented to choose an appropriate location for an activity. It this contribution we propose to utilise these tools to implement a land use suitability assessment and planning a more sustainable land use management.

The case of study

In recent times, the changed economic and social balance has had a direct effect on the territory and has given rise to the progressive abandonment of traditional cultivation which represented a safeguard for landscape and rural community

Social and economic conditions are not the same in the entire territory. They are site specific elements. The main shared economic social and environmental local aspect is the agriculture.

The rural landscape is characterised by steep hillsides that drop down to the sea and are marked by a geometry of terraces held up by dry-stone walls and covered with vines. This landscape is considered by UNESCO as one of the "evolved cultural landscapes" belonging to world heritage.

An impressive and unique landscape; it was produced by collective creativity able to draw opportunities for a peculiar agriculture from the difficulties of the natural environment. It has the value of art coupled with capacity and knowledge and is the fruit of a collective project put in place by the inhabitants who united the reasons for living, environmental safeguarding, producing and generating communities over a period of a thousand years (Besio M. Le Cinque Terre: a presentation, 2001).

We analysed a Cinque terre territory by Sen theory based approach for defining the local social and economic conditions. From this analysis we could argue that Monterosso e Riomaggiore municipalities have a higher quality of life than the Vernazza one. In any case the welfare index is low especially relating on economic opportunities and degree of environmental impacts. The main positive elements involved in local quality of life are the extension of agricultural land and the closeness of main social services. In our case of study reading Sen analysis results we can argue as agricultural sector represents a main component of local quality of life from community and individual point of view. It has an important rule relating to economy and environmental equilibrium of community .It can provide outputs (goods and services) that can implement tourism sector and it can provide social security and cultural heritage able to improve local society development. And in this area the agricultural sector represents the conditio sine qua non it is possible that the local community could survive.

We can't discuss about sustainable local development without considering rural and agricultural development and the main elements involved by these. Basing on the principles of sustainable development we can argue that there is no any possibilities of increasing trends without considering the local welfare and way of life. And the agricultural sector existence is the main element contributing to the quality of life and to the possibility of development. As this sector is influenced by the local environment, we have to analyse the local environmental conditions for implementing a suitability planning of territory. The focus idea is relating to circular ecological and energy and economic equilibrium. In a general definition, the environment is a combination of phenomena, and of the existing relations among these phenomena that set out the conditions in which individuals and communities interact with the surrounding world, taking account of both the dynamics of nature and human settlement processes. It is a complex, dynamic and holistic system (Mapping of coastal rural areas Marchese F, Segalerba P, 2001).

So we have to consider three elements: economy, environment and society, identifying some adequate key indicators.

The database was developed in two GIS; one using vector format (MapInfo 6.5) and the other one using raster format (IDRISI 3.2). The vector format was mainly used for data management and querying whereas the raster format was used for most spatial analysis. In the raster GIS, the study area was represented by 80 000 elementary land units. These units are represented by pixels, each covering 5600m^2 (i.e. 75m X 75 m).
The MCDA aim is to maintain and improve the rural areas cause they are the key local elements. So we could improve a model able to identify the different functions that sector can provide to society and their peculiarities in order to manage them as constraints and potentialities of local development. The case of conflicting or competing objectives, however, requires some mechanism for choosing between objectives when a location is found highly suitable for more than one. The Multi- Objective Land Allocation (MOLA) module in IDRISI employs a decision heuristic for this purpose. It is designed to allocate locations based upon total area thresholds as in the last part of the previous exercise. However, the module simultaneously resolves areas where multiple objectives conflict. It does so in a way to provide a best overall solution for all objectives.
The elements that could be valuated are
Forestry (according to their own ecological value) (it could represent an environmental index)
Terraces associated with vineyards (it could represent an environmental index and cultural (society) index)
Rural structures and villages and their own buffer areas (it could represent a social and economic (tourism) index)
Historical Viability (it could represent an economic index about the efficiently costs)
Urbanised areas changes (it could represent an economic index and an environmental index)
Corine land cover changes (it could represent a social index and an environmental index)
Curve number (it could represent an environmental index)
In this analysis the latest two elements could be seen as constraints.
Collaborative decision problems can be analysed and supported efficiently with user-friendly computer systems combining GIS, multicriteria analysis techniques, and environmental modelling (Geertman and Toppen 1990, Fedra and Jamieson 1996, Fedra et al. 1996, IDRISI MOLA). Jankowski et al. (1997) have developed a Decision Support System (DSS) called Spatial Group Choice. This tool has three parts: spatial visualization, multicriteria decision making, and voting. The last module can be used, for example, for the selection of criteria and weighting methods as well as to choose between alternative ranking methods (Florent J., 2001, Using GIS and outranking multicriteria analysis for land-use suitability assessment, int. j. geographical information science, 2001, vol. 15, no. 2, 153± 174).
Factors are rescaled to a particular common range according to some function. In order to use fuzzy factors with the multi-criteria evaluation, these factors will be standardized to a byte-level range of 0 - 255. Now the factors will be considered in terms of fuzzy decision rules where suitable and unsuitable areas are continuous measures. The resulting continuous factors to be produced below will be developed using fuzzy set membership functions.

It is possible define in the entire territory three areas like as:
Areas with high natural potential and where eco tourism could became an economic perspective
Areas with high rural potential where rural tourism doesn't still exist cause their wilderness
Areas in ecological and environmental crisis where it is necessary to maintain and defend agricultural sector and find other economic perspective than the tourism one.

As seen in the former part, in these areas we can define the different social functions carried out by the sector.
For these areas it could be interesting implement a social cost and benefit analysis in order to define the net social rent comparing the actual (tourist) uses with an agricultural one that represents the zero hypothesis.
MCDA let us able to identify the local alternative development for areas that can not be actual used and contemporary identify areas where the ecological and social elements represent a constraint of the development. It is possible to valuate the different agricultural functions in a social and economic way in order to optimise the land and resources allocation.

Sustainable Development and sound tourism AT "Cinque Terre"

Massimo Rosati
Tourism Marketing Consultant

The territorial area called "Cinque Terre" extends from Liguria Coast of Levant between the Heads of the Mesco and of Montenero including from South-East to North-West the communes of Riomaggiore, Manarola, Corniglia, Vernazza and Monterosso al Mare. Considering the elements of the visible landscape the territory is characterized by high coasts and steep terraced declivities, sloping down to the sea, where it is possible to admire not only the main varieties of self-sown vegetation typical of this area in the Northern Mediterranean Sea, but also cultivations of vines and olive trees. For many centuries the small villages and their surroundings could be reached only on foot or by boat, while the railway, still existing, became fully operative starting from 1874; the roads, instead, are particularly winding and difficult, making therefore the railway access by far preferable. The territory presents also numerous historical and architectonic testimonies dating back to the Middle age; in particular of absolute importance are the churches and the sanctuaries mostly built on a crest.
From a social point of view the territory historically is characterized by a community used to sporadic contacts with the surrounding communities, in some periods even the contacts between the five villages were limited, in fact the villagers lived between the terraces and the sea, always counting on their own resources.
In consideration of the peculiar cultural, socio-economic and geo-morphologic characteristics the territory of Five Lands can sure be considered a territory that introduces homogeneity and in such sense it is possible to analyze it like a "unicum" separated with other surrounding territories. This consideration becomes very important when we want to analyze the territory evaluating the Tourism Potential or identifying the essential elements of the Tourism Fruition Model. Today the scientific literature agrees to face the themes of Tourism according to a systemic approach[1] since it is the only one able to integrate aspects specific to single tourism business with more common ones. In this connection each tourism destination can be interpreted in economic key like a Tourism System as an entity composed by relations between Human elements (the tourist and the hosting community), Geographic elements (the area or the areas which generate the tourist flows, the areas of transit and the area of destination) and finally Industrial elements[2] (typically including accommodation,

[1] Casarin F. "Il Marketing dei Prodotti Turistici, specificità e varietà", Giappichelli, Torino, 1996, pag. 25-38.
[2] The concept of Industriality in Tourism follows the criterium of prevalence.

transportation, attractions, planning and organization of travels and stays, tourism retail distribution, organization and management of conventions and conferences and finally the public support services). A Systemic Approach concurs therefore to identify true and real Homogenous Tourism Ambits or Local Tourism Systems[3] which identify the basic unit for an economic analysis of the territory from a Tourism aspect. As every System also the Tourism System is located in an environment from which it draws stimuli and influences but towards which addresses as many feedbacks. The environmental components are evidently numerous, i.e. socio-cultural, political, technological, physical, demographic, economic and finally legislative. All in varied way are able to condition the performance of the Tourism System.
Explained the concept of Tourism System and Tourism Potential (i.e. the gap between an incomplete and a complete tourist fruition of territory) we can take consideration of the different ways of tourist fruition. With this regard it is immediately evident like the characters of a tourism system and in particular of its own environmental resources - divided into natural, artificial, cultural and social – can induce to identify a particular tourism vocation that is a Tourism Potential whose explicitness will take place according to different ways of tourism fruition.
Aiming to produce a clear suggestion about the best tourism fruition for the "Cinque Terre" we have produced a series of desk & field researches concerning the classic territorial components that is the Hard elements of the territory of "Cinque Terre" (attractions, accessing elements, services and facilities), Soft elements (public image and informations) and finally the characters of current tourist flow to the territory.
About attractions has emerged the relevancy of some elements like Natural Beauties (the Marine Reserve of Five Lands, the Natural Hilly System, the "Love Pathway"), Sport/Trekking attractions (trekking pathways on crests), Tradition and Rural attractions (Terraces and wine production of sciacchetrà); Historic-Cultural attractions (Middle age villages and sanctuaries), finally, even if secondary is also traceable the most classic Bathing attraction.
About the Accessing elements, the particularly undersized infrastructures along the basic directions of the tourism flows, it appears to be both Horizontally (mostly along the railway La Spezia-Genova) and - even though less important – Vertically (in particular through the steep carriage roads and the pedestrian pathways). This element is of main importance in the appraisal of the characters of the Tourism Fruition of the area in object.
Coherently to this aspect the accommodation system of the entire area turns out also particularly contained with the exception of the commune of Monterosso. From the analysis of ISTAT Data[4] it appears obvious that there are only 38 hotels and 138 Extra-hotels in the entire territory taken into consideration and of these respectively only 58% and 64% are concentrated in Monterosso. Once again this element gives clear indications about the exploitation of the Tourism Potential of the Area. Considering the Soft Elements (Image of the Destination) we do not have rigorous analyses that concur to supply precise indications regarding the perception of the tourists of the territory of Cinque Terre and it would be sure interesting to activate deepenings on this aspect in a successive seat. What we can gather from

[3] This macroeconomic territorial unit are provided for by Law 135/2001 that defines them as "Turist Homogeneus or Integrated areas, made of territories belonging to different regions, characterized by an integrated offer of environmental and cultural goods and tourist attractions together with local products from agriculture and handicraft or by a widespread presence of indipendent or associated tourist firms" then take up also by "Piano Territoriale di Coordinamento della Provincia di La Spezia" approved with Decision CP 32 del 22 Marzo 2002.
[4] ISTAT – "Dati statistici sulla Ricettività nei Comuni delle Cinque Terre" Roma, 2002

the meetings with the people in charge at the Agency Park Cinque Terre and from the outcomes of some produced statistics from the same agency, is that the Cinque Terre due to a self -positioning mostly is perceived like an escursionistic destination and of tourism in contact with the Nature.
Considering finally the data of the tourist flows it appears clear that the biggest part of the arrivals is Domestic (58% on the total) and the conspicuous in-season with peaks in the months of August, July and June. At this point from a strategic point of view (S.W.O.T. Analysis)[5] of Territorial Marketing[6] we can reassume some important aspects for an appraisal of the developmental directions.

Facing the Strenghtness of the tourism System of "Cinque Terre" we remember:
- Exclusive and differential provision of natural, cultural and social resources.
- Reduced accessibility to the destination.
- Integration with the tourist resources of the surrounding territories.

Considering the Weaknesses:
- Excessive concentration of the flows on the Horizontal axis.
- Strong seasonal tourism flows.
- Prevalent domestic tourism flow.
- General frailty of the “Cinque Terre” Tourism System.

About the Opportunities we remember:
- Market trends moving towards a more conscious and participated tourism.
- Development of tourist behaviors more open to the interaction with the Hosting community.

About the Threats we can consider:
- Competitive pushes from destinations with similar market positioning.

At this point it is clear that aiming to a tourist development coherent with the territory of “Cinque Terre” we cannot disregard from a modern approach of Tourist Sustainability. We define Sustainable Tourism[7] "Whichever development, planning or tourist activity that respects and preserves in the long period the natural, cultural and social resources and contributes in a fair and positive way to the economic development and to the full realization of the persons who live, work or stay for a period in the protected areas. The implementation of this kind of tourism therefore needs a coordinated and concentrated consideration and a strengthening of all the positive interactions between the tourism activity and the other product sectors of the territory. For the tourist enterprises, the strategic approach consists in adapting its own offer to the expectations and needs of the visitors and to put in action measures for the valorisation of the local patrimony, while on the opposite to take consideration of the atmosphere and the sustainable development in the management of the enterprises ".
Operatively speaking sustainability in the Tourism development of “Cinque Terre” will take place both strengthening or adapting some characters of the Global Tourist Product both redefining the communication and positioning levers of “Cinque Terre” Brand.
Under the first aspect it will become important:
- Development of Quality Standards (even Environmental) and auditing of processes.

[5] Kotler, Bowen, Makens “Marketing Turistico” Mc Graw-Hill, New York, 2001, pag . 229 e ss.
[6] Caroli M. “Il Marketing Territoriale” F. Angeli, Milano, 1999,. pag. 155 e ss.
[7] WTO “Turismo Sostenibile: Concetti e Definizione” Madrid, 2004.

- Facilitating an exclusive and clear positioning of the Tourism Product "Cinque Terre" integrating the territorial resources with the organization of coherent initiatives with this positioning (Es. Professional Courses and Masters on Environmental subjects, a Research Laboratory on the terraces, a Tourism Observatory).
- Networking of the whole territorial resources also strengthening the Brand "Cinque Terre" (Road of the Sanctuaries, Typical products).
- Integration with tourist resources of the surrounding territories aiming to the proposition of alternative tourist routes and de-seasonalize the flows (trekking pathways).
- Active participation of the Hosting Community to the "Cinque Terre" repositioning process (Events connected to folklore and popular traditions).

From the Promotion and Communication point of view, it seems necessary:
- implementing a co-ordinate guidance of inbound flows realizing a cetralized reservation system (CRS).
- Distributing the "Cinque Terre" tourism product on electronic distribution systems (IDS/GDS) in order to facilitate market repositioning inside the generating areas of tourist flows.
- Development of an "on site" information distribution system (GIS) able to realize a real integration with the resources available of territory.

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Communication and education

Francesco Filippini

The creation of models that contribute to tourists "education" is possible through communication technologies. The park may achieve the following objectives by means of these models:

1. Define park priorities, needs and future directions of park development
2. Create possibilities of free communication flow of required information
3. Educate park staff and local citizens
4. Build communication infrastructure

This contributes to identify the profile if a "responsible tourism".

A correct strategy on developement should:

- Attract and educate responsible tourists (agriculture, architecture, cultural heritage, history, nature, etc.)
- Spread tourists throughout the whole area of the park
- Offer interesting activities for different groups of tourists
- Revitalize the agriculture
- Improve the quality of life for local inhabitants
- Create opportunities for people in order to motivate them to stay in the area

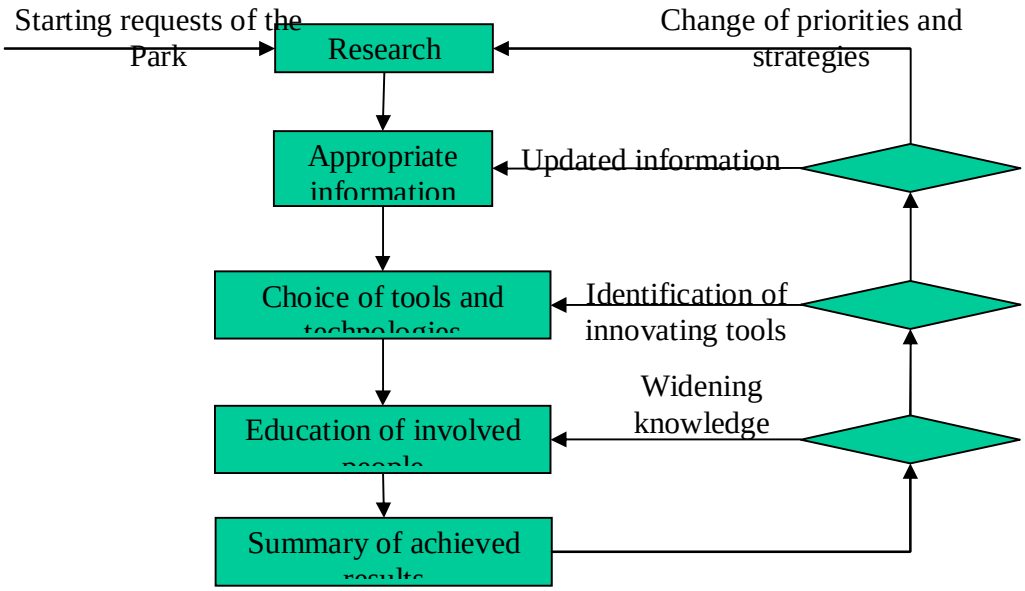
State of arts

The Cinque Terre National Park supplies information material to Park visitors in the following forms :

1. Paper supports (newsletters, brochures, posters, scientific and other publications)
2. CD/ DVD

3. CableTV
4. Radio
5. Website
6. Cinque Terre Card: Service Card (in future also as Information Card)
7. Participation at Trade shows and conventions
8. Merchandising & branding
9. Training courses, exchange programs and partnerships with universities
10. Park run facilities and information providers (information centers, internet points, museums)
11. PocketPC and GPS (in research)

The guide model is:



The following principles help the cretion of a communication model:

1. Creation of an appropriate image of the Park (Cinque Terre as cultural landscape).
2. Development of scientific research in areas of interest in order to collect information and spread it publicly.
3. Monitoring and control of touristic flow through a proper system of information spreading.

Possible solutions and strategies in the communication/education model:

1. Collaboration with Universities and with Scientific Researching Centres
2. Involvement of local population in collecting the historical information on
3. Organization of workshop on the evaluation of different problems
4. Proper identification of the tourist “profile”

Technological solution

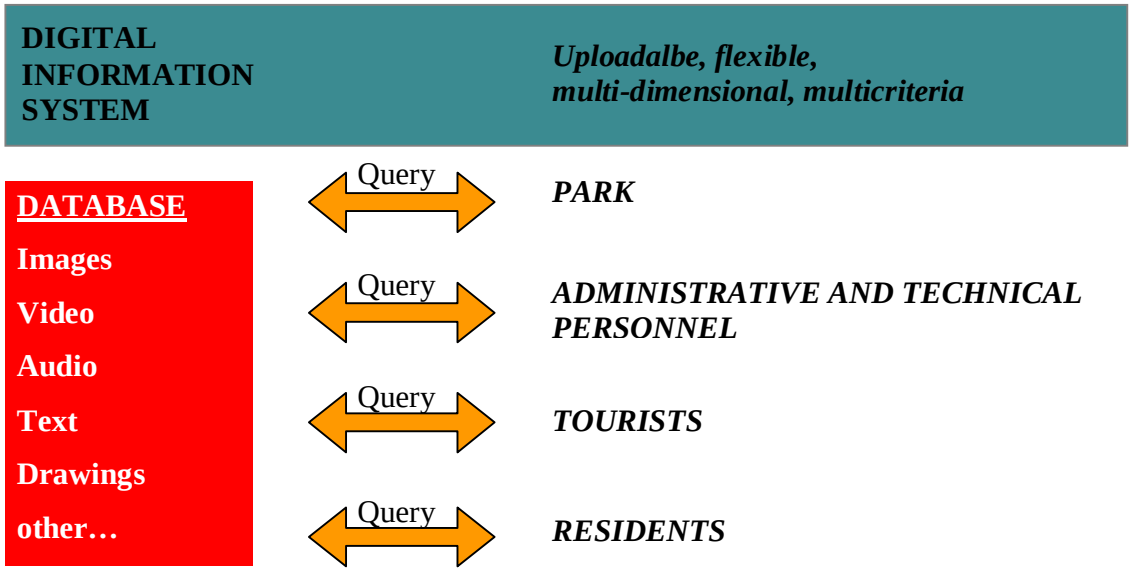
1. Evaluation of existing technological tools
2. Uploading and re-structuring the existing web site, by means of dynamic multilanguage contents and data structuring by means of a data base
3. Use of navigation systems through palmtop and GPS in order to create personalised corridors and to collect realtime onsite information
4. Use of a totem network to consult and to transfer information . “Totem” can also be used as a monitoring system of the park and risk control. Their placing should be strategically studied (railway stations, villages, at the “gates” of the park, ecc.).
5. Use of Cinque Terre Card as electronic service card

Strategy of data structuring:

Data shoul be organised within a data base in the following forms:

- Images
- Video
- Audio
- Text

Data QUANTITY and QUALITYi



The digital information system should be uploadable, flexible, multidimensional and multicriteria: Through proper queries, information in the database are available for the Park, administrative and technical personnel, tourists, residents.

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5. PROJECT ANALYSIS AND PROPOSITIONS BY THE CRACOW (Poland) TEAM

(For more information and related studies : see National Report of the Polish Partner)

Polish Team : **Prof.dr. J.W.Dobrowolski**, chair

Prof.dr. J. Jachimski	ass. prof.dr. T. Lozowicka-Stupnicka
Ass. prof. dr. W. Drzewiecki	ass. prof.dr. J. Kozlak
Ass. prof. dr. Hejmanowska	ass. prof.dr. M. Valenta
Ass. prof.dr. S. Mikrut	ass. prof.dr.hab. E. Panek
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5.1. Prof. JanV. DOBROWOLSKI

The report of multidisciplinary team of experts is related to education for sustainable development in National Parks (focused on innovative contribution to solving problems of the 5 Terre National Parks by common action with local stakeholders and authority as well as the application of useful experience of over 35 years of interdisciplinary case studies and problem-oriented training/education of university students and local society and common action focused on sustainable development of similar national parks in Poland).

The report includes modern documentation and interpretation useful for sound-tourism promotion, focused on photogrammetric study and documentation of the cultural landscape and old architecture in 5Terre N.P. and similar areas in particular, mathematical models and interpretation of remote sensing data of 5Terre N.P., useful for the protection of cultural landscape and management of terraces in particular.

It is recommended to develop modern databases helping local authorities and the National Park in the promotion of sound tourism by communication and information about natural and cultural heritage by the Internet and in the area of the 5Terre N.P., especially in the points of interest, as well as useful for education of local society and tourists focused on common action (partnership) promoting sustainable development based on sound-tourism and for management of the National Park, innovative methods of monitoring of the air quality in relation to traffic output and long distance pollutants. Such monitoring can be useful in terms of the recommendation of the area for foot tourism, physical activity and production of pollutants-free food (e.g. grapes ,wine, etc.).

We promote innovative methods of laser biotechnology supporting local society with acceleration of growth of irradiated plants for the reintroduction of vineyards in some of the deteriorated terraces, as well as for the management of protective green belts alongside main road crossing the Park (for protection agriculture and forest areas as well as old architecture against the air pollutants from vehicles) and for economical and adopted to local landscape network of hydro-botanical plants for cleaning waste water, as well as future central biological plant for treatment sewage from overcrowded by tourists coastal area (for protection of top quality marine ecosystems and human health).

The review of useful methods of biological monitoring is given. It refers to the control of the quality of national parks and data for comparative study in 5Terre N.P. with models of system approach to the promotion of sustainable development in regions of national parks and similar protected areas), as well as proposals for the future interdisciplinary and international cooperation based on model study in 5Terre N.P. (On the posters the solution of problems related to the Smart History Project on the area of Cinque Terre N.P. is recommended (including specifications and conclusions)

5.2.

Deputy Minister of Environment
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Tourism and environmental protection: do we use the same language?

Tourism is a range of activities which, applying the market analysis, marketing and management, estimates the possible profits and losses related to the tourist development. This development depends on the attractiveness of the place, investment in infrastructure and promotion. All of this together makes a tourist product.

Nature conservation, however has two main goals – preservation of the richness of nature and landscape of the protected area and controlling the access to this area.

Misunderstandings between nature conservation and tourism originate from various fields:

1. **The field of development investment and area management (division of space)** – nature conservation 'pushes out' the development outside the protected area, tourism tries to invest as close to an attractive area as possible. Consequently, tourist areas become more and more crowded and closer to the protected area. On the other hand this development, due to the efficient environmental protection is localized outside of the protected area.
2. **The field of tourist product and access (forms of using space)** – both solutions draw to the same –interest of tourists in a valuable protected object. However this access makes a form of the consent for a controlled and limited entrance of tourists to the protected area – on one hand - and on the other hand - 'sale of the tourist product' on the largest possible scale and unlimited flow of visitors.
3. **The field of information on nature and landscape and tourist information (differences in the range and goal of the information)** – the question of information given to tourists clearly depends on a person preparing it and the purpose of its presentation information. Information prepared by tourist industry focuses on the needs of tourists, in less degree on meeting their sophisticated needs of gaining knowledge. From the point of view of nature conservation, tourism is treated as a form of intellectual and emotional enrichment, and less attention is paid at material needs of visitors.
4. **The field of the reference to local communities (reservation vs. exploitation) –** local communities are often not prepared to undertake a co-operation with the people managing nature conservation and/or tourism. From the point of view of the ones managing nature conservation the most common problem is the lack of confidence.

Regarding the ones managing tourism the main problem are attempts to use local resources without supporting local economy.

5.3. SOUND TOURISM AND SUSTAINABLE DEVELOPMENT OF REGIONS OF NATIONAL PARKS on example of the 5 TERRE National Park

Prof. J.W. Dobrowolski

Basic question :

How can sound tourism benefit the inhabitants of the National Park region while preserving Culture Landscape and promoting Sustainable Development ?

Principles and guideline:

Sustainability is a key to proper management of the human environment (including successful protection of the culture and nature heritage) as well as improvement the condition of the natural environment (the air, water, human food chain, etc.) for benefit of all.

Important condition of the sustainable development of protected areas (national parks in particular) overcrowded by tourists is both improvement of ecological culture and introduction of more effective technology for solving environmental problems. Promotion of know how without proper education of local society and visitors is not enough ,as partnership of experts in environmental engineering and users of technical infrastructure is necessary for e.g. proper waste management, minimalization of negative effects of motorized tourism, or protection of aquatic ecosystems. The key problem is education and culture. Education for common action of all partners is especially effective in model area like 5 Terre N.P., based on cooperation among local stakeholders, managers of the Park and administrative bodies as well as experts in natural and social sciences, innovative technology and tourists. The basic principle is a feed-back system between expectation and integrated action of all partners groups motivated by interest in protection culture landscape, as good example of balance between ecological culture and permanent use of the natural resources. In relation to man-made landscape like terraces in the Cinque Terre National Park a specific problem is proper application of indigenous knowledge in ecotechnology of vineyards management (including system of irrigation).Modern techniques e.g. remote sensing could offer valuable tools for regional-scale monitoring of quality of terraces and humidity of soil.

Proper management of vineyards and terraces is impossible without successful motivation of young people to be involved in this hard work. Love of local tradition and deep interest in close contact with nature is for proper educated people such motivation. At the some time it is necessary to promote culture diversity with protection of biodiversity including anthropogenic landscape in mountains regions like 5 Terre. At the some time it is necessary to fight poverty by development sound-tourism, based on education making young people sensitive on culture and nature heritage, as well as environmental health. Modern soft and hardware for large-scale communication is a real chance to disseminate this knowledge and good practice.

Education for sustainable development and promotion of information about old architecture and ecological values of 5 Terre N.P. on international scale is necessary for selection of

visitors open for cooperation with local society focused on conservation cultural landscape for benefit if the present and the future generations.
Permanent education in this field (including distance education by Internet) for all age and professional groups is necessary. Especially important is practically-oriented education from very beginning. Good example is ecologically-oriented education of small children at primary school in Riomaggiore, having real interest in protection beauty and natural values of their small fatherland.
The proper answer to important in practice question ; how can we enhance the interaction between local society and visitors? seems to be promotion by Internet (e.g. website of Smart History Project and educational network) information about possibilities of coming group of school children with teachers and students with scholars for education how to solve Interesting to different age groups problems of eco-tourism in national park, based on partnership of local inhabitants and tourists. Such kind of education and promotion of sensitivity on nature and culture would be the best starting point for common action on sustainable development of protected regions in the future. Cooperation of experts in education, culture and human ecology is basic one, but should be supplemented by personal contact of young people of the some age group as inhabitants of 5 Terre and visitors from different regions (especially facing with similar problems).
Education of the whole society should be supplemented by professional training of managers of similar national parks from different countries, staff promoting sound-tourism, as well as university students and graduates of environmental engineering and protection, agriculture, forestry, landscape architecture, etc. Such education and training activity (including postgraduate courses) would be a way of extension of qualificated tourism outside the present tourist season. This kind of activity could also stimulate development of agro-tourism with proper technical infrastructure for cleaning sewages and waste management following ecologically-friendly biotechnology . The environmental impact assessment should be recommended as reference system for proper management of tourism in areas of national parks, including distribution and “density” of tourists. Specific problem for 5 Terre N.P. is Protection of terraces and motivation of tourists concentrated in the coastal area for going on food excursion up to the mountains. Modern system of distance communication and guideline network from the harbors, parking-places, railway stations to the top of the mountains (including selected points of special interest for tourists) would be very helpful for solving this important problem. Technical infrastructure (described by experts in informatics and communication) would be more useful, if decision-makers and experts introduce a proper strategy promoting sound tourism and sustainable development of model area of the Park.
One of question is ; what kind of tourists they want to attract? A complementary question is like; What type of services and products the local stakeholders want to offer to the visitors and how should be promoted? Quite basic task is integration expectations of local society and selected tourists for revitalization of economy of 5 Terre by proper flows of cultural tourism, as well as for encourage young people to live in this region. Development of modern infrastructure for mass tourism (including system of environmental protection and communication) will be a crucial contribution to give a new job opportunities for graduates of different schools and subjects of studies in this area. Supplementary activity would connected with promotion of culture attractive both for local inhabitants and visitors. One of proposals is regional, national and international festival or competition for ensembles of folk music and dances from different mountains and coastal regions e.g. in the castle in Riomaggiore and other proper for such activity old buildings. Another one may be concerts of well-known chores of

religion and classical chamber music in churches and sanctuaries, as well as presentation of poems and song expressing beauty of nature, culture and different regions (including poems written in the region of 5 Terre –see the Poets Bay),etc.
Psychological and sociological studies about expectation of different groups of potential visitors of the 5 Terre N.P.would be very useful for promotion interesting to them proposals by Internet and other tools of long-distance communication.One of new possibilities of motivation of new grops of tourists to come to the mountain area of the Park may be religion pelegrination very popular in some European countries (especially new members of EU) like Poland and Slovakia.Other one very common in the mountains national parks e.g.in Carpathian Euroregion is guided food tourisms, as well as different kind of physical activity in clean areas with close contact to the nature.There are some examples of good practice of integration of different kind of organised tourism in similar regions in Europe by promotion guided excursion focused on education about nature and culture and good for health physical activity. The most famous organisr and tutor of such excurssion for young people was John Paule II as priest taking care about university students, bishop and cardinal in Krakow (Cracow) in Poland. As the pope he strongly supported NGO ecologically-oriented movement on global scale. Therefore we would like to propose to call a new, model pathway promoting sound-tourism among sanctuaries in the Cinque Terre National Park after Govanni Paolo II, as the greatest moral authority all over the world and good example of human-oriented life to follow by young generation .
Methodological experiences of over 35 years interdisciplinary case study and problem-solving training in regions of some national parks in Poland facing with similar problems would be useful for development modern education of university students and graduates on sound tourism and promotion of sustainable development in different national parks in Europe. Good practice as output of the Polish National Schools in this field could also be helpful in solving similar problems of integrated common action of university professors, younger scholars, doctoral students and students from natural, technical, social, economical and others subjects of studies together with local stakeholders, environmentally-oriented NGOs and decision-makers at different levels (beginning from the park manager up to the ministers).
We tested introduced by J.W. Dobrowolski, a new model of education integrating local society, teachers, experts and decission-makers.In our long-term activity there were integrated voluntary out-of university education for the most creative students with formal training, including diploma and doctoral studies, as well as postgraduate courses. There were organised also International Summer Schools on the Human environment and Sustainable Development of the border parks, including the oldest in Europe International Park in the Pieniny Mts. (a part of Carpathian Mts.).Dobrowolski et all. Organised 10 International Conferences in Poland on European Integration for Sustainable Development from 1989 to 2002. At 2004 was held in AGH University of Science and Technology in Krakow, Poland the National Conference on Environmental Engineering and Protection focused on Promotion Sustainable Development. This meeting of experts from different disciplines was devoted to memory of foremer rector of this University prof.dr.dr.h.c.W. Goetel who as the first in Europe over 50 years ago introduced concept of integration natural, technical and social disciplines within so called sociology and sozotechnics for sustainable management of the natural resources as well as national parks. Goetels concept has been adopted by GA of IUCN in Edinborough in 1956 and a symbol of the mile stone in protection of proper use and protection for the future of the natural resources was change of the name of this international organization (leading in environmentally-oriented education) into International Union for Conservation of Nature and

Natural Resources. Three generation after Goetel initiative took creative part in development of interdisciplinary research and training focused on solving real problems in different regions, including areas of the top quality nature and culture heritage like in Poland the Pieniny Mts. N.P. and the Ojcow N.P. As result of cooperation of experts , students and local inhabitants have been elaborated practically useful concepts and was constricted e.g. in the Ojcow N.P.region a new road outside the National Park for more effective protection cultural landscape, ecosystems and human health. Goetel started over 40 years ago with open for all Seminars focused on common action for sustainable management of the natural resources and protection of the human environment for benefit of future generations.

5.4. DATA BASE FOR EDUCATION ECO-TOURISM AND MANAGEMENT OF THE NATIONAL PARK

Marek VALENTA, director of the Postgraduate Course on Data Bases
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In the project Smart History it is crucial to define clearly the tasks connected with the promotion of sustainable development and sound tourism. For the implementation of such a complex goal of the system there are very different technologies and techniques in the realization of individual tasks. This leads to the need for the co-operation of different do interdisciplinary research and implementation teams. The division of tasks and their coordination requires methodical action and considerable experience. Usually the first realization of such a complex task only allows achieving the phase of the construction of prototype systems, which, apart from its practical usefulness, make valuable material for the studies on the realization of subsequent projects of similar character.
Performing the tasks of the carried out project has lead us to several conclusions referring to the implementation of information systems fulfilling the role of widely understood databases. These conclusions are general and refer to the remarks on the application of the acquired experience in future applications of a similar character. In particular the following can be stated:
„h On one hand the carried out so far work over the implementation of databases systems presents the need for certain methodical approach in the fulfillment of such tasks. Such an approach should better use the potential abilities of information systems and integrate efforts to obtain maximal multifaceted „benefits".
„h On the other hand one can say about the possibility of determining certain areas of applications in further projects. These applications would be important from the point of view of the use of technologies and techniques of the implementation of databases systems working in these areas.
The experience gained allow the definition of basic needs of national parks in the issue of the types of problems that should be solved - and consequently - also types of necessary programming applications. This especially refers to the systems of Databases, because they are usually integrated systems, in the sense that the data once collected in these systems can be used by very different users with different needs in terms of information – thus – fulfil many different objectives.

To achieve this goal it is necessary to approach methodically to the construction of these systems, following a good practice of the realization of large projects in information science, also called the principles of the software engineering.
Already experienced realization teams, in the future should at first realize the stage allowing the creation of a concept of common databases for many useable applications. This especially refers to the possibility of defining the range in so-called attributive databases, which in future can be used both in making systems of purely information character e.g. making website pages, as well as they can make the base for the realization of GIS applications, using the possibility of the localization of described objects on the map.
GIS systems are very valuable because they give the possibilities of a graphical presentation of the situation of the objects in the area. Such a way of presentation is very appealing to the end-users. It is obvious that these reasons for the application of this technique of the realization of information systems cannot be used as the only arguments. Different techniques of GIS allow the performance of tasks that are unavailable with the use of other ways of the realization of these systems. One of such important features is the integrating role of these techniques for the information collected in the databases and having a very differentiated character of the types of data (from simple numerical data, through the text data, ending with graphical or multimedia data).
For the performance of the subsequent tasks, similar to the ones fulfilled in this project, it seems necessary to divide the range of the usefulness of databases technologies into three groups of applications:

1. **Systems of wide information character aimed at the promotion of qualified tourism focussed on broadly understood eco-tourism**. Based on GIS technologies (also as the integrator of the other data) one should make attributive databases referring to many „layers" of information on such specific issues as: objects of landscape architecture (including scenery points), objects interesting from geo-tourist point of view, characteristic elements of nature (flora, fauna), single and collective (localities) monuments of architecture (civil and sacral) characteristic for the given area, tourist routs made and classified (according to their important characteristics) as well as typical objects related to the tourist infrastructure of a given area (hotels, including good practice in adaptation of old buildings, restaurants, centres of tourists information, transport).
To perform these tasks, apart from a database itself, it will be crucial to organize a proper interface for the users, adjusted to their character and technical opportunities. There is no doubt that it is crucial to implement these systems both based on multi-level architecture of customer/server type with WWW pages server and the users having only a simple internet connection. The speed of search for the required data (even if so-called quarries are very complicated), in case of attributive data should not make greater difficulties (if the equipment is chosen correctly). A special attention should be, however paid to the techniques of presenting multimedia data and solving the problems with the time of the access to the elements connected with the presentation of maps (in particular large areas, considering large number of the presented details and the need of preserving good quality).

2. **Systems of educational character**. They should be aimed at different age and interest groups of future users of these systems.

These systems can be designed (with the attention paid on the character of needs) for children and youth as well as other age groups. Each age group will require not only the access to different information, but also the form of its presentation should be different (e.g. games and knowledge contests, survey papers of different topics or even games for adults, such as cross-words). A group of possible tourists, interested in this region should be treated in a different way. They should be provided (also depending on their age) the information of different form and scope, depending on their interests and tourist qualifications. Here additional realization techniques of software making can be useful e.g. *knowledge bases*, *expert systems* (e.g. selection of routs and objects for visitors, depending on the user's features) or modern *semantic web* techniques allowing „intelligent" support for the users in their navigation in the websites. To realize these tasks the basic data should be stored in the databases characterized in point 1, possibly only extended by the data allowing the organization of the tasks for this area.

3. Systems designed for the supplementation of management and the studies on the area of our interest.

The character of these systems, although, in vast majority, they are based on databases, is completely different than the systems described in the other two points. Every time their character will be determined by the goal of their realization, described in details. This goal will be particularly important not only in the selection of the infrastructure of equipment, allowing the presentation of the already collected data, but first of all, it will influence the project and technical means accompanying the infrastructure for data collection. The acquiring particularly specialist data from a geographically large area, will require a very complicated infrastructure and equipment (starting from basic measurement equipment, and ending with the measurements made with aircraft or satellites).A prototype solution using system POTOK has been applied as advanced assistance for hydrological studies of forest areas, based on a treedimension map (including geomorphology of mountain terrain including slopes), composition of fitocenosis and age structure of trees, soil quality and wooded coefficient). The database allowed creation queries accomplished by visualisation the results (in 3D). Proper database management and mining is useful for system approach to study ecosystems in mountains regions (Valenta, Czarnecka, 2000).Similar study may be important for protection of terraces in Cinque Terre National Park for solving complex problems connected with balance of agriculture and forestry in this region, as necessary condition for protection of cultural landscape.

A separate issue consists of the techniques of the transformation of the collected data into the form necessary for the realization of the goal of the system. Generally speaking, it is difficult to judge anything without precise definition of these goals and scope of the activities of these systems. However having a long-term plans of the realization of studies, some techniques useful e.g. in the analysis of large datasets referring to different areas of topics can be mentioned. Here the technologies of analyses based on *warehouses* and *OLAP systems* (On Line Analytical Processing) can be particularly useful. At the tasks requiring the understanding of the nature of phenomena represented by the collected data, it can be extremely useful to apply different techniques of *data mining*. Generally, however it should be stated that the tasks of this group of topics should be solved almost „individually", regarding the

specifics and goal of their realization.

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5.5. MULTI-CRITERIA EVALUATION OF MAN'S ENVIRONMENT A SUSTAINABLE DEVELOPMENT ASPECT

by Teresa Lozowicka-Stupnicka

Conspectus

A. The need for systems thinking for nature protection and environmental management in regions of national parks

B. Valuation of the natural environment (taking into consideration the national parks, other protected areas, health and recreation resorts, etc.)

Criteria – fractional, detailed:
natural, biologic in particular,
climatic, aerodynamic, geomorphologic, hydrologic,
geographic, landscape (including culture landscape)
social, tourist, sporting, etc.
Valuation of the urban area, its infrastructure, habitation and work environment.
Valuation of the culture heritage.

C. Valuation of the environment influence on the man:

Improvement of physical condition and health , recreation, (including sociological and psychological aspects)

D. Valuation of the man influence on the environment:

industrial, agricultural and other activity,
urban and country habitation,
recreation, tourism, sports,
other activities.

E. Methodology of aggregation of multi-criteria evaluations e. g. for Environmental Impact Assessment of anthropogenic influences on the national parks (with particular attention to negative effects of mass tourism, motorization, etc.)

F. Requirements and conditions of sustainable development (including specific conditions for national parks and other protected areas)

Opening statements

The problem presented above have very wide backgrounds and needs to join experiences and knowledge of different fields of sciences. The endeavour to solve the problem through reduction its diversity to isolated elements gives no effect because of large diversity of elements and very complex and strong interactions between them.

To create conditions for sustainable development the problem should be considered in its totality, its complexity and its own dynamics. It is necessary to study the different aspects of the reality and the effects of interactions of various factors. That leads to systemic approach: the models, although generalized, are very useful in process of optimization of decision making and action support (including common action of experts, local stakeholders and managers) promoting system development in regions of the national parks.

5.6. WebGIS as a solution supporting Sound Tourism

Beata Hejmanowska, Wojciech Drzewiecki , Dep. of Photogrammetry and Remote Sensing Informatics, AGH University of Science and Technology

Computer applications for development of regional tourism can provide information about a region (audio/video presentation, accommodation possibilities etc.), help in planning a stay and support movement around a region. Some of them, like educational systems, are applied during teaching activities in the Department of Computer Science AGH – UST Kraków, Poland [Koźlak J. et. all 2005].

Geographical Information System is readily applied in computer systems supporting regional tourism. GIS is the abbreviation for Geographic Information System. GIS are special-purpose digital databases in which a common spatial coordinate system is the primary means of reference. GIS contain subsystems for: 1) data input; 2) data storage, retrieval, and representation; 3) data management, transformation, and analysis; and 4) data reporting and product generation. It is useful to view GIS as a process rather than a thing. A GIS supports data collection, analysis, and decision making and is far more than a software or hardware product. [http://www.colorado.edu/geography/gcraft/gloss/glossary.html]

Data in GIS are gathered as layers describing different issue: hydrology, forest, DTM, temperature, real estate, routes, railway etc. Raster or vector models of the real word are used. Connection between spatial data (maps) and descriptive attributes is characteristic for GIS. The main adventage of the GIS environment is a possibility to perform analysis concerning both spatial location and attributes.

Input data to GIS can originate form maps (digitalization), airborne and satellite imagery (orthomap generation), in situ measurements of the coordinates (GPS) and environmental parameters (chemical, biological, physical) measurements. Cartography, photogrammetry and remote sensing are the branches supplying spatial data to GIS database.

The most consciously use of GIS methodology is applying it to decision support.
Generally decision process can be considered as normative or descriptive process. We, as representative of engineering science, are usually concentrated on normative decision process where one aims to optimal decision. A risk factor is always present in the decision process. The risk level can be considered and modelled in GIS as well.

Applying of the GIS as decision support system relies on modeling using more or less sophisticated analysis based on elementary analysis like for example SQL query of attribute or elementary spatial analysis (eg. buffering or intersection).

Usually at the beginning of GIS analysis the problem is defined. Then GIS database is reviewed to state whether it is complete for the issue. Then analysis is composed from elementary GIS analysis available in GIS system. Finally result of analysis is graphically presented and different variants are prepared as well.

Tasks in Cinque Terre Park

In Cinque Terre Park some example of GIS database focused on tourist information was elaborated. The following materials were collected:

- topographic maps,
- ASTER satellite data: imagery and DTM,
- descriptive information about paths and Points of Interests (supplied by Parco).

Fields works:

During or field work we have also made video and pictures for later panoramic modelling at interesting areas (eg. sanctuaries or viewpoints).

GIS technology used

Intergraph package GeoMedia was applied for GIS generation and Web GIS publishing. The software is designed for specialists who work with GIS projects. The interface created with usability in mind has the look and feel of a standard Windows application. The GeoMedia software provides tools for capture, edit and maintenance spatial data. GeoMedia's data server technology provides integration of the graphical and descriptive data. It is also possible direct access to all major GIS/CAD data formats and to standard relational databases.

GeoMedia WebMap is a Web-based map visualization and analysis tool that provides real-time links to GIS data warehouses. Simple interface navigate the user through large quantities of information. One can query a database and required information is display on a map or click on the map feature and see selected database information about that chosen map feature in a attribute table. Each feature in the map is linked to its attribute information, enabling the user to see a report about that feature.

Data preparation

The scanned topographic map of the Cinque Terre Region and ASTER False Colour Composit Image were georegisterred in UTM 32 coordinate system. The existing paths and Points of Interest were digitized on the topographic map. Then additional descriptive information and pictures or movies were input to the GIS database and finally all data were published in the Internet.

System requirements

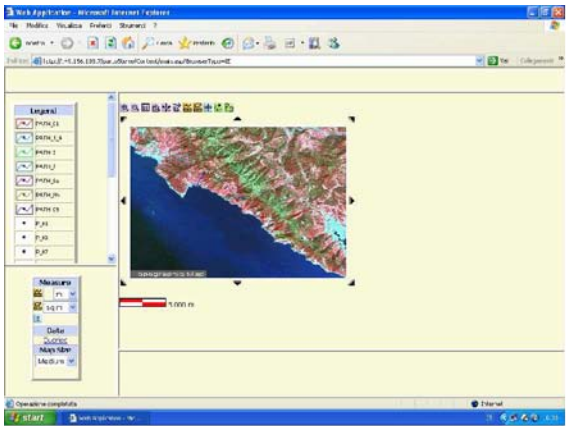
The Cinque Terre WebMap can be viewed from the following address:
http://149.156.193.7/parco5terre

The following components and plug-ins are needed for proper visualisation: ActiveX, Java, QuickTime and AcrobatReader.

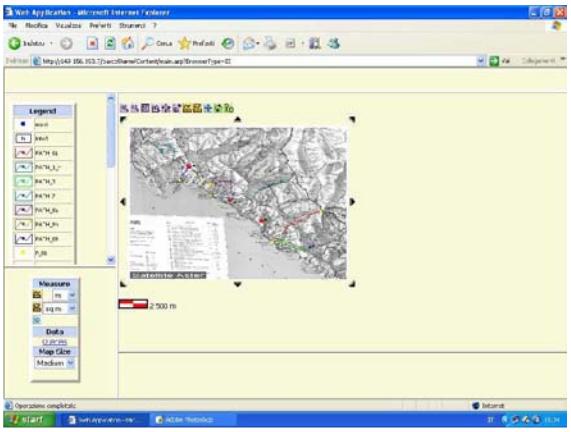
Conclusion statements

The present Cinque Terre WebMap can be seen as a simple web-based visualisation of the GIS database. It is possible to display choosen paths and Points of Interest having the topographical map or satellite image in the background, to make simple measurements (length, area) and to query by the location on the map to have some additional information (including pictures or movies) displayed. Based on the GIS database it is possible to develop more sophisticated web application - for example giving to the user possibility of the attribute and spatial queries with results shown on the map.
The solution applied for the Cinque Terre Park WebGIS can be implemented in other national parks (or protected areas in general). As input data topographical maps, airborne or satellite images as well as GPS measurements could be used. Any kind of the interesting objects can be put on the map together with attribute data and additional links (eg. pdf files, web pages, images, movies, sounds, etc). Tourist facilities like accommodation places or restaurants can be included as well. WebGIS solution allows the tourists for remote learning about the area of interest in geographical context. The query possibilities (if introduced) are helpful for planning the stay and excursions. GIS database may be accessible for tourists in the Information Points as well. Geomedia Viewer solution could be applied enabling sharing of larger databases with more detailed information and more sophisticated analyses.

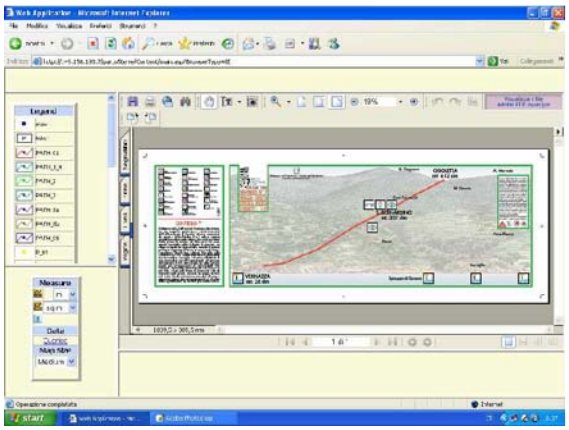
Example screenshots

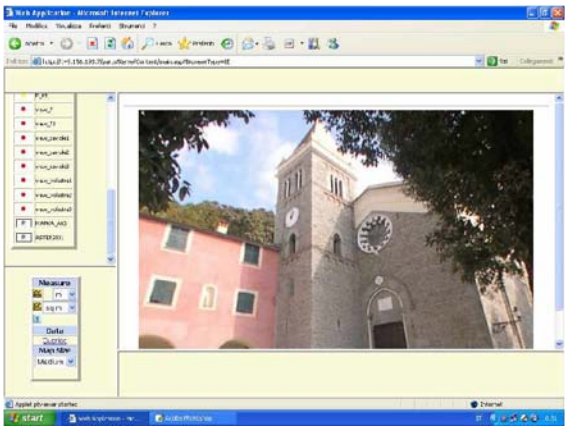


ASTER FCC satellite image



Paths and points of Interest with topographical map background





Pdf file with detailed information about choosen path

Panoramic image showing choosen sanctuary (Saviole).

Related links

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Polish national parks - http://www.mos.gov.pl/kzpn/ind_gb.htm

6. PROJECT ANALYSIS AND PROPOSITIONS BY THE ANTWERP TEAM - Special focus on the village of MANAROLA & RIOMAGGIORE

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Preface

As students of the Henry Vandevelde Institute in Antwerp, Belgium, we were able to take part in The Smart History Workshop, taking place from February 24 to March 4 in the Cinque Terre area in Italy. We took advantage of this chance to the fullest and used this opportunity to learn about a remarkable area, as well as experiencing the workings of an international workshop. This report is the result of our stay in the area and the many discussions we had during and after our stay. It proposes a few possible solutions for certain problems in the Cinque Terre, but it is in no way exhaustive. We hope the Parco Nazionale delle Cinque Terre will be able to use some of our propositions as a source of inspiration and also we would like to thank all the partners of this project for offering us the possibility of taking part. It has been a very interesting and educational experience for all of us.

Introduction

In this report we will focus on the problems and the solutions concerning the conservation, the disclosure and the development of the Cinque Terre area. In the first place we will devote some attention to the importance of the Cinque Terre on a global scale and its inclusion on the UNESCO list of world heritage. Subsequently, we will briefly explain the main problems with which the Cinque Terre area is confronted. We have categorized these problems according to three types: the first concerning agriculture, the second concerning demography and economy and the third concerning tourism.

In the methodology we have used to analyze these problems and propose solutions for them, we have found a theoretical base in the ICOMOS Charter for Cultural Tourism, combined with practical

experiences during our stay in the area. The most important aspect of our solution for the Cinque Terre area consists of the composition of a global framework for the area, linking all important sites through a network of paths and explaining their symbolic meanings and values in relationship to one another.

We will elaborate on this global framework by focusing and two cases in the area: Manarola and Riomaggiore. For these two cases we will provide an in-depth analysis and a proposition for the solutions of the problems in the area, in relationship to the other villages and areas of importance.

The Cinque Terre as world heritage

The Cinque Terre is an area of global importance. The area, consisting of five coastal villages and their surroundings, is protected by the UNESCO as world heritage. This means that the site of the Cinque Terre is considered to be of outstanding universal value and will be protected and safeguarded for future generations to enjoy. The website of UNESCO provides us with some information as to why the Cinque Terre is considered to be worthy of protection:

"The Ligurian coast between Cinque Terre and Portovenere is a cultural landscape of great scenic and cultural value. The layout and disposition of the small towns and the shaping of the surrounding landscape, overcoming the disadvantages of a steep, uneven terrain, encapsulate the continuous history of human settlement in this region over the past millennium. (...) The Committee decided to inscribe this site on the basis of criteria (ii), (iv) and (v), considering that the eastern Ligurian Riviera between Cinque Terre and Portovenere is a cultural site of outstanding value, representing the harmonious interaction between people and nature to produce a landscape of exceptional scenic quality that illustrates a traditional way of life that has existed for a thousand years and continues to play an important socio-economic role in the life of the community." [8]

The criteria (ii, iv and v) to which this quote refers are also to be found on the UNESCO-website. Each area to be considered as potential world heritage must meet at least one of these ten criteria for the selection of world heritage. As mentioned, the Cinque Terre area meets three of these criteria: *"(ii) to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design; (iv) to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history; (v) to be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;"* [9]

Problems in the Cinque Terre concerning conservation, disclosure and development.

However, the Cinque Terre is also a region that has been confronted with many problems concerning conservation and disclosure of the cultural heritage of the Cinque Terre.

A first problem is of a demographical nature: the average age of the population of the Cinque Terre is higher than regular, because the younger generation has moved away from the area. This problem is

[8] http://whc.unesco.org/pg.cfm?cid=31&id_site=826; viewed on the 29th of march 2005.
[9] http://whc.unesco.org/pg.cfm?cid=146 ; viewed on the 29th of March 2005.

closely interlinked with an economical problem. People move away from the area because of a lack of possibilities.

As a result of this a second problem emerges, which is mainly an agricultural problem: the characteristic terraces and dry stone walls are being overgrown by a more natural vegetation, due to a lack of maintenance caused by the outflow of young people in the area.

A third problem is linked with tourism. The future of the area lies mainly in tourism, but as it is now there are problems with tourism flows and congestion, as well as with the absence of a project for the disclosure of the cultural and natural heritage towards the tourist and the host community.

Having said this, we would like to add, that it is not advisable to solve the congestion by relocating tourism flows. This may be a part of the solution, but in the first place it is important to offer an understanding of the area, which will create respect and awareness for the area.

It goes without saying that these problems are not isolated from each other, but influence each other in different directions. This implies that when searching for solutions, we must look at the area and its problems as a whole in stead of focusing on the separate problems, or better separate aspects of the problem. A good solution will provide a way to conserve and even restore the terraces and dry stone walls, will rejuvenate the population and will regulate tourism flows and provide a more profound knowledge and disclosure of the cultural and natural heritage of the area. A good solution will offer possibilities for the development of the area, creating new meanings and values, based on the existing meanings and values. It will encourage the awareness for the history of the area and suggest a project that, taking in account these existing meanings and values will revitalize the area. In short, a good solution will provide a future for the Cinque Terre, while conserving the area as much as possible.

Methodology

As a theoretical basis for a possible solution to the problems of the Cinque Terre area, we would like to refer to the **ICOMOS International Cultural Tourism Charter**, which provides a guideline for the disclosure of areas of cultural as well as natural importance. This Charter puts an emphasis on (cultural) tourism as an engine for the development of an area of cultural and natural importance, providing the possibility for future growth and advancement, while preserving and conserving as much of the heritage as possible by providing instruments for the interpretation and presentation of the heritage. In practice, this means that, as a possible solution for the problems of the Cinque Terre we propose the establishment of an organization that is responsible for the interpretation and the presentation of the cultural and natural heritage of the area, towards the visitors, but also towards the host community, including them in this project.

Next to this theoretical base for our solution, we have researched different sources to find more information about the area. Our main information source consisted of the lectures given by different stakeholders and experts during our stay in the Cinque Terre. These lectures offered us a deeper understanding of the problems with which the area is confronted and of the steps which had already been taken by the Parco Nazionale delle Cinque Terre. Also during the workshop working groups were formed, each group studying a different aspect of the region as a whole, while suggesting possible solutions for problems in four main areas: communication, tourism and economy, agriculture and architecture. The results of these working groups were taken into account by us.

Next to this we researched the existing literature on the area. Especially the books by Casavecchia A. and Salvatori E., Il Parco dell'Uomo: 1. Storia di un Paesaggio and 2. La Storia e la Pietra, edited by

the Parco Nazionale delle Cinque Terre in 2002 and 2003 proved valuable sources of information for the history of the landscape and the culture in the Cinque Terre.

As a last source of information, we would like to mention the field research we undertook during our visit to the Cinque Terre. We thoroughly explored the villages and their surroundings and took the time to talk with some of the stakeholders about the history and the daily life of the region. For instance, in Manarola we interviewed the priest, Don Carlo and Anselmo Crovara, an inhabitant of the village who has dedicated his life to collecting objects and taking photographs and has thus acquired an exhaustive knowledge of life in the Cinque Terre in all its aspects.

Combining the theoretical base of the ICOMOS Charter for Cultural Tourism and our research and exploration of the area, we have come to a proposition for the Cinque Terre. We would like to present to the reader a global framework for the interpretation of the area as a whole, presenting possible interpretations and significances of different areas of the Cinque Terre. Subsequently we would like focus on one of the coastal villages and its surroundings, namely Manarola. For this village we will present a thorough interpretation and possible manners for the presentation of the cultural heritage, based on the International Cultural Tourism Charter and examples of comparable cases in our own region.

The foundation of a solution: the global framework

To begin with we would like to elaborate on what we have called the **'global framework'** for the area of the Cinque Terre. This framework is a useful means to analyze the structure of the area and the symbolic meanings that are attributed to different localities in the region. The term global framework refers to a coherent strategy for the disclosure of the cultural and natural heritage of the area, linking villages and settlements through a network of (existing) paths, thus creating a sustainable form of tourism. The framework is already in place: the paths already exist, though some of them may need to be cleaned up or restored. The issue is to point out the relationship between the different places, linked by the paths and their significances for life in the Cinque Terre. All the different entities are present in the Cinque Terre, but they need to be presented as a whole, in relationship to one another, thereby mapping the cultural heritage of the area and linking significances and locations.

To compose this framework we have used the information we gathered during our stay in the Cinque Terre, but we realize it is in no way exhaustive. In short, the framework is based on the existing walking paths; using them as exponents of significance. In other words, our suggestion is to create a network of significance, based on the existing paths. Along this network we will attempt to interpret the significances and present them to the visitors in new and surprising manners, in this way creating a project to ensure a future for the Cinque Terre by explaining the past.

Since all five of the villages in the Cinque Terre are different, pointing out the specific aspects of the villages may stress their unique character and awaken extra interest for each specific village. In this way, the attention of visitors will be spread across the area. Nowadays, a lot of tourists tend to stay in one of the villages, without having a further look.

Especially the village of Monterosso now welcomes the major tourism flows, because of the presence of a sandy beach. Nevertheless these villages have more to offer than a beach, one of the goals of tourism management should therefore be to inform tourists about the richness of the area. According to the Icomos International cultural tourism charter, *Tourism can capture the economic characteristics of the heritage and harness these for conservation by generating funding, educating the community and influencing policy. It is an essential part of many national and regional economies and can be an important factor in development, when managed successfully.*

In order to manage tourism in a sustainable way, some sort of framework is necessary. The intentions are to spread tourism flows over the area as well as over the time of the year, with respect for the heritage present. This framework can be used as an instrument for the interpretation and presentation of the natural and cultural heritage. An organization (such as the Parco Nazionale delle Cinque Terre) should work out on-going programs of evaluation in order to make sure the goals and objectives of this framework are being fulfilled. Furthermore, the host community should be informed about and actively entangled in the accomplishment. In this way the inhabitants themselves will benefit from tourism and be motivated to care for and maintain their heritage and cultural practices.

Proposition for the global framework :

Each of the villages having a different character, we established themes around which each village could work.

For **Monterosso**, having a beach and therefore the biggest number of tourists, the theme of **Recreation** is proposed. It already is the village where most of the hotels in the area are situated and also a big parking lot is already present. Different ways of recreation should be encouraged in this area. It should be pointed out that this is the place to divert oneself. In doing this, the other four villages will get less tourists who only seek amusement.

Vernazza, being the only one of the villages having a natural port, could stress the importance of the presence of the **Sea**. Thanks to the presence of the sea, the Genovese once were able to dominate this village, and one can find traces of that dominion in the architecture of Vernazza. Information on the fishing and trading activities of the Cinque Terre could be concentrated in this village. Also, because of the marvelous view from this village on the surrounding terraces, this is the ideal place to tell tourists something more about those terraces and the cultivation of grapes and the production of **wine**.

The village in the middle, **Corniglia**, is again, quite different than the other villages. It's the only village which has no direct access to the sea. It's located on top of a rock forming a cape in the sea. Because of its elevated position, it has always been less easy accessible than the other villages. Until a couple of years ago, the only access existed in climbing about 380 stairs to get to the village. Thanks to this, it has always remained an isolated, **quiet** place, with only little inhabitants. Therefore, we propose to keep this aspect of the village, and even stress it. An aspect that could be worked on in this village may be oral traditions, such as legends, mythology, traditions of marriage, funerals...

The description of two cases in the Cinque Terre area: Manarola and Riomaggiore.

Manarola: depiction of the village and its surroundings.

The area of **Manarola** contains three settlements: Manarola itself, Groppo and Volastra. Our first undertaking was to find the meaning and the significance of these settlements for the inhabitants of the area, as well as their relation to one another and to their surroundings.

Manarola is a medieval settlement, which is the largest of the three settlements. It was supposedly founded by inhabitants of Volastra, which is said to be older. Like the other villages in the Cinque Terre, Manarola was founded along the course of a river, which is now covered by the main road.[10] There is, however, a difference between Manarola and the other villages concerning this river, called the Groppo: being the only river that doesn't dry up during more arid periods during the year, the Groppo is visible and even accessible at different places in the village. Like the other villages, Manarola has a church, dedicated to San Lorenzo, and an oratory, dedicated to the Annunciation. The fortification of this village has all but disappeared: a small part, visible at de Piazza del' Castello is all that remains.

The inhabitants of Manarola are mainly farmers, who rely on the surrounding land for their sustenance. During the day they work on the terraces, cultivating mainly grapes and olives. Every evening they return to the village and on Sunday they go the parish church. Manarola is where the local people live their everyday life, which is structured by the agricultural cycle.

There are a few elements in Manarola, which can be very useful for the interpretation and the presentation of the cultural heritage. The quintessential element; which sets Manarola aside from the other villages, is the **collection of Anselmo Crovara.** This man has been collecting objects since about 1960. He now has a large collection (or a small museum) in his private residence, which he gladly shows to interested visitors. The University of Firenze has made an inventory of this collection, describing the objects one by one and stating their age and purpose. Anselmo is also an amateur photographer and has been taking pictures of the region since the 60's. This has resulted in a large collection of black-and-white photographs of the Cinque Terre, depicting daily life, but also important events.

Disclosure of the Manarola area around the theme of the "Ciclo della Vita"

Our proposition for Manarola consists of a museum in the coastal village, at which location the visitor is enlightened about the everyday life in the Cinque Terre in the past as well as in the present. This is combined with an itinerary through the surrounding countryside and settlements. Dotted along this route there are information points that notify the visitors of certain aspects of life in the Cinque Terre, which are visible to him at that point. The visitor can also link what he sees during the hike, with what he has learned in the museum/interpretation centre in Manarola.

This information during the walk will mainly deal with aspects of the agricultural life. In Volastra there will be room to explain the religious life, the special events, the celebrations, but we also feel this would be an ideal place for organizing small-scale festivities for both visitors and local population. Volastra will also provide the link to the Via dei Santuari. This whole way of disclosure towards the public will explain the **'ciclo della vita'** in the Cinque Terre. It will touch the aspects of reoccurring elements, which are obvious in agriculture (harvesting, sowing, cultivating…), but also in the spiritual life (the mass every week, the yearly festival, the procession every 25 years…).

This cyclical character of life can be found on a day-to-day basis, as well as annually. At the same time there is a linear evolution, from origin to ending, from Volastra to Manarola. This linear aspect can also be found in agriculture: the evolution of a product from plant to item for consumption. Through these patterns, we believe we can explain the Cinque Terre to the visitor, offering him a more profound understanding of the uniqueness of the region and heightening his awareness towards the necessity to preserve it. This program will also provide jobs and activities for the local population, as well as attracting a new kind of tourist: one who is more oriented towards culture and less towards

[10] Except for the village of Corniglia, which was founded on a hill and not along the course of a river. Corniglia was also founded by the inhabitants of Volastra in order to have a safe haven closer to the sea.

relaxation. The installation of comparable circuits throughout the Cinque Terre will prompt visitors to stay longer and experience the area more thoroughly, thus providing the possibility for more people to earn their living from tourism. This will bring about a new mission for the Cinque Terre, ultimately allowing it to live on and be enjoyed by future visitors as well as inhabitants.

An interpretation centre as a key element for the disclosure of the Manarola area, and also the Cinque Terre area as a whole

Based on the information we collected on Manarola, we find it advisable to create in this village a museum in the form of an **interpretation centre**, which will inform the visitor and the host community about the everyday life in the Cinque Terre, in the past as well as in the present. This museum will provide facilities to further research the past and present cultural heritage of the Cinque Terre, and it will also offer information to the visitors and local population of the area, heightening the awareness of the uniqueness and the outstanding qualities of this region.

We visited some museums of folklore in our own region and selected a few interesting idea's for the functioning of the Cinque Terre museum. Our main muse is 'Het Huis van Alijn' in Ghent[11], a museum focusing mainly on the life of ordinary people in the 19th and 20th centuries, which we have used as inspiration for the interpretation centre.

The museum we are proposing for the Cinque Terre area, should focus on the **intangible** as well as the **tangible** heritage of the area, because both these aspects play an important part in the (hi)story of the Cinque Terre.

By tangible heritage we are referring to buildings and objects which are the materialization of the idea's and the way of living of this region. These objects and items should be presented in such a way to the public that they can derive the meaning of the objects for the culture by placing it in its correct context. In essence, we mean to say that the objects belonging to the collection of Anselmo should be presented in groups, according to abstract themes, such as death, birth, love, religion, spare time… In this way the objects can be used to express the idea that lies at the base of the production of the object. This makes it possible to work with a fixed collection around important themes, but also creates the possibility to regroup the objects for temporary exhibitions.

We also think it is important to involve the host community in the functioning of this museum and we have several suggestions that would help heighten their involvement. For instance, it is possible to organize collection days, when there is an exhibition at hand, asking people to bring any objects they have concerning a certain theme, to lend or give them to the museum for the sake of the exhibition. The same can be done with old photographs or even home movies. People can also bring objects for which they have forgotten the purpose, which can be exhibited in the museum, giving the visitors the possibility of giving their opinion about the function of the object.

The intangible heritage is the second important aspect the museum should focus on. The term 'intangible heritage' refers to the stories, tales and legends of the area, as well as cultural practices, habits and dialects that are specific for the region. We think there should be a centre for the study of the intangible heritage, connected to the museum, which researches and collects these aspects. The findings of this research should be accessible to the public.

[11] We would like to refer interested readers to the website www.huisvanalijn.be .

There are several examples of such projects in Belgium: for Bruges there is a database of stories from the region, to be found on the internet. The stories are told by local inhabitants and can be downloaded for free. In the 'Huis van Alijn' in Gent, there is a room dedicated to dialects. The visitor can sit down and listen to stories being told in different dialects through earphones. During our visit to the Cinque Terre we learned that even in this relatively small area every village has its own dialect. A project like the one in the 'Huis van Alijn' will facilitate the study of these dialects and ensure the preservation of the dialects for generations to come. Photographs and paintings made by inhabitants could also be used to demonstrate the social history. In this way the tools presented can be placed in a social framework. They cannot just be objects that stand alone; they have to be seen in a certain perspective. Using photos and paintings by the inhabitants themselves can create a bond between them and the museum. This sort of interaction will give locals the feeling their history is worth telling.

Of course these are more examples and proposals, to illustrate the type of museum we have in mind for the Cinque Terre. In short, we are suggesting a 'museum' that isn't a museum in the traditional sense. We prefer to use the term 'interpretation centre', referring to an interactive meeting point, to be used by both visitors and members of the host community. As pointed out in the global framework, this interpretation centre in Manarolo should be interconnected with other interpretation centres throughout the area, in order to form an interpretation network.

Experiencing the landscape through a network of paths

The next part of our proposition for the disclosure of the area of Manarola consists of a walking path, passing by the three settlements of the region, but also visiting the surrounding countryside, while learning about different aspects of the region. As inspiration for this network, we visited the 'Erfgoedcel' in Bruges, where an example is to be found of the linking of different aspects of heritage through a network.[12] The museum in Manarola is a part of this **itinerary** and can be visited at the start or at the end of it, or separately. As we mentioned above, the theme of this visit to Manarola is the everyday life in the Cinque Terre area. There will be two possibilities for visitors to come into contact with this circuit. More practiced walkers can experience the route as a hike, going in either direction. Less experienced hikers can take a bus from Manarola to Volastra, with a stop in Groppo, and walk down the footpath from Volastra to Manarola. This is not a difficult or a long walk. The only problem is that the path between Groppo and Volastra is not complete, but we believe this is a problem that can easily be solved.[13] There are several points of interest along this circuit that we would like to elaborate on.

The first point of interest is the village of Groppo, featuring a water mill. Groppo is the smallest of the three settlements and has no church, chapel or fortification. This village is in essence an agricultural settlement; its main feature being that it has been nearly untouched by modern evolution. There is an olive mill near the village on the road from Manarola, along the river Groppo. This mill can be visited and consists of a modern installation, provided by the Parco, which is still being used today. An old installation, powered by a large water-wheel, which is no longer in use, illustrates the old production process for olive oil. As a settlement, Groppo does not have many remarkable features. However, it can be used, together with the surrounding countryside and the watermill to explain the specific agricultural techniques of the Cinque Terre, focusing on the production of olive oil, from tree to

[12] We would like to refer interested readers to the website http://www.erfgoednet.be/brugge/ and also to the text we added in the appendix.

[13] Here we'd like to add that it is necessary that most of the pathways in the area of Cinque Terre need to be restored in connection to a plan for the maintenance of the paths. We think this needs to be done as authentic as possible, meaning there's no need to make them in concrete, which has been done to the Via dell'Amore, but in the same way, with the same kind of rocks that have been used for this purpose for centuries.

oil, in the past and in the present. On top of that, Groppo is the only place in the Cinque Terre where vegetables are cultivated, because the river Groppo doesn't dry up during the summer, contrary to the other rivers. In short, we believe that Groppo is the ideal place to explain to visitors about the isolated character of the Cinque Terre for almost one thousand years, the dependence of the region on agriculture for their survival and the (special) techniques that were developed to adjust to the ruggedness of the landscape.

From Groppo, the road leads further towards Volastra. For hikers there is a pathway, but it does not lead completely to Volastra. However, there is only a small part missing and it would be easy to complete this pathway. Along the pathway there is a source in a cave, accompanied by an old (medieval?) stone with an image of an animal, which has been described to us as a lion with a double tail. The visitor has now followed the river from its ending to its beginning, and along the way he has witnessed several examples of the importance of the water. At the source, there seems to be an ancient place of worship. Along the way the river provides essential water for agriculture and is used in the processing of the agricultural products.

In Manarola, near the mouth of the river, it has determined the structure of the village, its main axis following the course of the river. We feel it is important to point out the significance of the river along the way up, in a series of resting points that double as information points. Maybe it could be interesting not just to put up information panels along this path, but also a scale model of the region. In this way people can actually see the importance of the river running along these sites. Further, information on sitting benches is an innovative way to make people curious. Panels can look boring to tourists and they will easily walk on without reading. However, when information is written in unexpected places, people will be more curious. Another suggestion is to employ regional artists to create works of art, depicting the importance of the river to the area.

According to local traditions Volastra is supposed to have a roman origin, but there is no proof for this claim. The structure of this village reminds mainly of a medieval fortified settlement, with the houses standing in four rows in a semi-circular shape around what used to be a central garden. Volastra is the oldest of the three settlements. It is said that the people of Volastra founded Manarola and Groppo. The sanctuary in Volastra is situated above the settlement, not in the centre of it. It is the eldest of the five sanctuaries and started life as a parish church, dedicated to San Lorenzo. The church of Volastra was mentioned for the first time in 1276, but could be older. At the end of the 16th century, as a consequence of the renewal of the religious energy during the contra reformation, in which the cult of the Virgin Mary played an important part, all the sanctuaries of the Cinque Terre were dedicated to the Madonna, each one representing a different aspect. The sanctuary in Volastra is dedicated to Nostra Signora della Salute.

The sanctuaries thus became the setting for special yearly celebrations, as opposed to the churches near the sea, where the weekly mass was celebrated. Every 25 years a procession takes place from the village to the sanctuary. The everyday life in this area takes place in Manarola and the surrounding countryside. In contrast Volastra is the location for special celebrations and yearly markets. It functions, as do the other sanctuaries, as a meeting point, giving people from different villages a chance to get together. Each sanctuary has its own celebration on a different day of the year. These festivals attract people from all over the Cinque Terre, thus offering an important social function. We believe that activities in Volastra as well as in the other sanctuaries should focus on this aspect of celebration and socializing. One of our proposals for the area of the sanctuaries is the organization of small-scale musical happenings with different kinds of music, and small-scaled theatre and dance happenings with free, but restricted access. We would like to stress, however, that it is of utmost importance that tourism in this area is limited, so it will not disturb the social and religious life of the inhabitants. The different information points and interpretation centres should be very clear about the contemplative

character of the sanctuaries and their surroundings. Tourism is possible, but in a very subdued and serene manner.

The Manarola area as a part of the Via dei Santuari

This would make Volastra a part of the circuit in the area of Manarola on one hand, and a part of the **Via dei Santuari** on the other hand. Volastra plays an important role in the cycle of life in the Cinque Terre, through the yearly festivals and the procession that takes place every

25 years. As a part of the Via dei Santuari, however, it also plays an important role in the history of the whole region. In most cases the mountain settlements, such as Volastra, are the earliest settlement. The inhabitants of these first settlements came down from the mountains to found the coastal villages. In essence, the mountain settlements are the origin of the coastal villages. A major change in the relation between the mountain and the coastal villages occurred near the ending of the 16th century, with the creation of the sanctuaries as we know them now. During this period the mountain churches, most of them older, were dedicated to Mary and turned into sanctuaries in an attempt to revive religious awareness during the contra reformation.

This gave a whole new meaning to the mountain settlements, and thoroughly changed their relation to the coastal villages. In fact, the landscape up in the mountains, the whole Via dei Santuari, was sanctified and turned into a place of worship. From now on the everyday life of the local population took place in the coastal villages, while the area around the Via dei Santuari was reserved for special occasions and celebration. The cult of the Virgin Mary was more important, and more holy than the cult of the more everyday saints in the coastal villages, such as San Lorenzo in Manarola. Therefore it took place higher up in the mountains, closer to God. The local population turned to Mary for their special needs and special wishes end each sanctuary attended to a different need. However, the sanctuaries have in common the fact that the people went there to pray against shipwreck or give thanks for a safe return of their ship. This is obvious in the decoration of the interior of the sanctuaries – there are paintings and prints of shipwrecks everywhere – and undoubtedly takes an important place in the society of the Cinque Terre.

We believe all these aspects should be considered when reinstating the Via dei Santuari as a hiking path. It is advisable to provide a resting point along the way, where an explanation of the meaning of this mountain path for the region is offered to the visitor. Each sanctuary should be placed in this context of sanctification of the landscape, but its unique aspects must also be conveyed to the visitor.

From Volastra, a walking path goes down into Manarola. This is a very old way of communication, possibly medieval. In the beginning it is not very steep and goes almost straight ahead, between olive groves and beautiful vistas. About halfway it gets steeper, and the nearer it gets to Manarola, the more urbanized it becomes, but this is never really a problem. The last part of the path follows the river Groppo and eventually leads into the village. The path crosses the road in some places, but does not follow the road for long distances. There are possibilities along the way for deviations from the path, to supply resting points and outlooks. Also there are some old, disused and even quite ruinous farm buildings along the way which can easily be transformed into information points, supplying information about, for instance, the cultivation of olives in the past and in the present.

Riomaggiore: depiction of the village and its surroundings

Riomaggiore is the principal village in the community of Riomaggiore, consisting of Manarola, Riomaggiore, Volastra and Groppo. Manarola, Groppo and Volastra form a historical community. In

the same way, Riomaggiore is historically connected to its surroundings, consisting of the sanctuary of Montenero and the settlement of Liemen.

Riomaggiore is the most southern village of the Cinque Terre, situated near La Spezia, and because of this position is used as an entrance gate to the Cinque Terre. Visitors coming from the south reach the village of Riomaggiore first. The structure of this village is much the same as the structure of the other villages. It developed around a river, and has a church, dedicated to San Giovanni, an oratory, dedicated to San Rocco and a fortification, which is now being used as a cultural centre for this area. Historically Riomaggiore was home to Telemaco Signorini (1835-1901), a romantic painter. The house in which he lived has been preserved. The cultural mindedness of this village is also visualized in the murals near the train station, depicting the builders of the dry-stone walls. In the village near the castle there is another mural, depicting the sea and in the sanctuary of Montenero the historical wall-paintings have been newly restored.

The sanctuary depending on Riomaggiore is the sanctuary of Santa Maria di Montenero, first mentioned in 1335. The Sanctuary is positioned on a rock overlooking the whole eastern portion of the coast. The sanctuary was restored and rebuilt in the 19th century. Also in this century the ceremony of the Coronation took an important place in the rituals of the region. In the sanctuary there is a depiction of the Holy Virgin, which is said to be medieval or Byzantine, but actually dates from the 17th century. The Sanctuary of Montenero is now a centre with cottages and guest rooms run by the Cinque Terre National Park. The Sanctuary, located in the heart of the Cinque Terre National Park is an ideal starting point for many types of activities and excursions.

The last village historically connected to Riomaggiore is the settlement of Liemen. This is mainly an agricultural settlement, consisting of a few houses. There is not much to be seen here.

Creativity as a key to sustainable development in Riomaggiore.

The area can be divided into the following levels: sea – village – terraces – forest. These different levels each have there own assets and attractions. The coastal line gets the most attention from the tourists. The sea is protected as a 'marine protected area'. The village and the coastal walking path (Via dell' Amore) is trampled down in the high season. The areas up in the mountains (terraces and forest) have been neglected because of lack of economical function. Therefore all these levels should be integrated in a coherent master plan of the whole area with a focus on networking and maintenance.

The desired development for the area of Riomaggiore consists of a new way for disclosure the area for tourists that will be sustainable for the inhabitants of the area. In a later stadium the more demanding forms of tourism can be reduced. Riomaggiore as the secondary gate to the area is an important hub in the network of villages and pathways. A more elaborate network of paths has to be open to the visitors. These should interconnect the village with the sea, the mountains (terraces – forest) and the other villages. In the general framework Riomaggiore is indicated as a 'place of creation'. This means that the village should become the artistic centre of the area. This can be a solution to spread tourists over different seasons and away from the coast. It is required that the local population can be involved through an interactive creative process.

In the future we foresee some new developments for the village of Riomaggiore. No specific interventions are needed to attract more visitors to the diving centre, nor to the Via dell' Amore. Those attractions are already loaded with an overflow of tourism and should be partially relieved of this burden by creating new possibilities. The historical pathways need to be restored and maintained. Problems of discontinuity of the paths should be resolved. New signalization should guide users better. These interventions will create a network of pathways which will interconnect the villages with their sanctuaries and with their agricultural lands. Riomaggiore as the secondary gateway of the Cinque Terre (after Monterosso) should focus on the reception of tourists, providing information concerning the

whole area of the Five Lands. All layers of the area should be made visible to the visitor: sea, villages, terraces and forests. None of these aspects can be neglected.

The churches, as well in the villages as upon the mountains, have to be opened up to the visitors of Riomaggiore, without disturbing the religious activities of the local community. A balance has to be found between the disclosure of the religious buildings and the integrity church community. This accessibility can create a surplus value on condition that extra information is provided. Infrastructure should be offered to make Riomaggiore a 'place of creation': art galleries, a museum concerning Telemaco Signorini, organization of workshops, etc. This will give extra identity to the village of Riomaggiore and attract young people and artists to live and work in the area. The livelihood of Riomagiorre will be strengthened and be rejuvenated.

Conclusion

The Cinque Terre is a wonderful area of outstanding natural beauty and with an elaborate history and culture. The specific character of this National Park, which is protected as UNESCO world heritage, lies in the fact that the landscape is manmade. The terraces and the dry-stone walls make up the unique character of this area.

The landscape as we see it now is the result of the collaboration between man and nature during aver a thousand years of history. Man has shaped the landscape, but the landscape has also had a defining influence on the inhabitants and the culture of the region. Today, however, this landscape is threatened, due to numerous reasons, of which the demographical and the economical are the most important. To ensure the continuing development of the region, while taking into account the cultural and natural heritage, a project must be developed, based on the existing significances and values, leaving room to insert new meanings.

This project must provide disclosure towards visitors as well as the host community, since the future of this area lies not in agriculture, but in tourism. We have attempted to describe an example of such a project, based on our experience of the region, as well as on the ICOMOS Charter for Cultural Tourism, which provides a number of principles and guidelines for the disclosure of important cultural regions in a respectful manner. A key issue in our project is the implementation of a global framework, to explain the significance of the area, based on a network of paths linking important localities of the region. This will provide a coherent understanding of the region as a whole, but will also elaborate on different aspects of the heritage of the Cinque Terre.

To implement this framework infrastructure will be needed and thus jobs will be created, revitalizing the economy of the region and rejuvenating the population. At the same time the emphasis concerning tourism will be moved from "relaxation" to "experience". This will attract a different kind of tourist, who is more culturally minded and will act with respect towards the area and its inhabitants. It will also heighten the awareness of the visitors and the local inhabitants towards the uniqueness of the region on a global scale. As a by-product, it will act as a framework for scientific research into the area in all its aspects, providing the possibility to better understand this special region.

The most important consequence of the global framework is the opportunity it offers towards the administration of the park to see the Cinque Terre as a process, a landscape in evolution, with a developing culture and a growing population, and not as a static product.

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    b) *Thermal Baths Vals, Vals, Graubünden, Switzerland, Peter Zumthor 1996* http://www.galinsky.com/buildings/baths/
    c) *The Thermal Baths, Vals, Switzerland.* http://www.strath.ac.uk/Departments/Architecture/cities/d_webdes/barron_web/vals.html
    d) *Images*

7.PROJECT ANALYSIS AND PROPOSITIONS BY THE BELGRADE (Serbia) TEAM

The Belgrade Team: Chair : Prof. Milan Prodanovic
Research Adviser: Sonja Prodanovic "EcoUrban Workshop- Belgrade", NGO
(Faculty of Technical Sciences, University of Novi Sad, & Institute of Architecture and Urbanism of Serbia, Belgrade)
Team of Students University of Belgrade:
Postgraduate student: Gavrilo Masnikovic, Academy for Film and TV
Students Faculty of Architecture & additional educational workshops:
Mihajlo Rakic & Aleksandar Mitic
Production of posters, mastering and developing digital presentation;
Technical collaboration: Milica Tanaskovic, Jelica Marjanovic, Ivana Krnjic, Andjelija Cvetic, Kasavica Jelena, all ex participants in the Fondazione Romualdo del Bianco Workshops in Florence.

CONTEXT and THE STRATEGY of NATIONAL TEAM FORMATION:

For the Belgrade Team, the participation in the Smart History Project and in particular, the educational polygon that took place at the Cinque Terre National Park was an enchantment (continuation) of the previous five years long, very important and more than successful cooperation and educational experience, involving integration of students, researchers under the guidance of professors across Europe. One emphasize, that at all kick-off stages of the Project, we strongly supported the idea and the possibilities offered by this unique location and it's related UNESCO status, to repeat the similar model of interdisciplinary and intercultural exchange of knowledge and experience by teaching, investigating, observing, learning.. *"in situ"*.
In particular, we value highly the major Project aim being "REPLICABILITY", as the continuity and contribution to our local, as well as to further interregional and international dissemination, not just of the subject matter of this Smart History Project, but equally so, of this model of educational and research cooperation across Europe (in particular valuable to countries on its fringes, waiting the formal integration).
Therefore, the composition of the team of professor, researcher and students of architecture once participating at the workshops" City as an educational Polygon" in Florence, supported by Fondazione Romualdo del Bianco, lead by professor Milan Prodanovic, additionally

incorporating a postgraduate student from Belgrade Academy of Film and TV, indicates this context and intended engagement.
Being in a status of "Observer Partner", supporting the initial idea from the very beginning and having the equal contribution to the overall elaboration of the Project, we opted for the methodology of some sort of "bric-e- collage" approach, being limited in size of the team as well as in the research and elaboration support scope.
The group was formalized around "EcoUrban Workshop" NGO, thus avoiding the unfavorable institutional constraints in the attempt to focus on the communicational aspects of Environmental Design and Sustainability Planning issues. The emphasis being focused on the aspects of knowledge management, mainly *via* educational process, being yet in first stages of transformation at our University level by Bologna process of EU integration. But this process was incorporated already several years ago, with our own local guiding practice, as initiated at Alternative Academic Educational Network Belgrade (AAEN) within the subject course " Sustainable City", initiated and lead by professor Prodanovic. Other aspects of "life long learning", added to the subject context of our National Team project, are related to the consideration of the processes and activities, which nowadays shape the "cultural tourism". Equally, the communicational aspects of the contemporary importance of "place promotion" and the capabilities of IT (Information Technology) culture, lead our project aim to the production of the extensive film material (being at the moment in the process of editing into several short films with various scenarios& the scripts, describing the February Workshop 2005, which equally influenced the overall approach in producing posters as presentation material). The process of symbolization (the use of visualization technology, while observing and experiencing the location, as well as local social and ambiental scenes), shaped by presentation techniques and the "bric-e- collage" structural approach, influences the thought patterns and overall content and the outcome of research, being mainly related to elaboration of six thematic poster collages, overlaid on existing Parco scientific/ technical documentation. Collection of ideas, facts, visions, social and educational experience of the Workshop time *"in situ"*, related to the conservational aspects, suggestions for tourist management, preservation of cultural landscape and other related issues, lead our analysis towards the CONTRIBUTIVE proposal of a construction of series of" Incubational Centre" or group of centers, along the new path, designated as the link between new developmental "Focal points" above the five villages "Via del Sanctuario". The conception is modeled on the analysis of problems and needs of urban revitalization of the five villages; on the needs for new labor and better urban/ living condition for the young people needed to stay on, as a permanent citizens in the Parco and the possibilities offered by didactic/ training potentials of the Parco, combined with possible voluntary student camps (combined for example with language or other sustainable agriculture, architecture, homeopathic medicine etc. courses). This idea is also an adaptation to a local context, of the set of ideas based on Project as proposed in 2002 for a Centre for Integration of Young People at San Gimignano, (see publication with Fondazione Romulado del Bianco), based and combined with the ideas of incubational centers, promoted by European Union.
Within this framework, our proposal was elaborated with an additional educational exercise & contribution, whereby we had in the final production of a National Project, a part of team elaborating the contribution on the basis of an experience "on site" and the other group of students was lectured and presented issues by visual, maps and text materials. They were given a task to produce thematic poster on account of this "abstract" knowledge. We wonted to stage some sort of a comparison of the value of two approaches, one being concrete "in situ" in the

multicultural/ multidisciplinary teams and the other being a “studio” approach with the students of the same educational/professional syllabus. The methodological aim being, to stress the relevance and didactic strength of the contributions of practice, such as one offered by the Workshop held at National Park Chinque Terre related to this Smart History project.
The gains are obvious to our experience, taking into consideration the available time and resources and possible number of students involved. We believe that this gives one a substantial base for the possibility of achieving successfully the one of the project targets, the “REPLICABILITY” potentials.

CONCEPT

The area remained preserved of development by the long period of isolation; the villages were oriented to life by bare survival on subsistence agriculture, engaging exceptionally small fields formed on the steep rocky ground with a small percentage of fertile soil. Traditional local regional economy, was oriented mainly to various activities on the sea, but without a large urban centre, port etc. which would allow larger undertakings. Only relatively recently, in the late 19th century, building the railway and the unification of Italy, meant developmental leap, including five villages into a wider economy and early touristy activities. Symbolically it is materialized by formation of “via del amore”, as how it is called a footpath along the sea from Rionmaggiore railway station to Manarola; a path which did not allow the real access to the sea/beaches, but only the visual enjoyment of marine scenery, aiming towards creating the setting for the romantic mood, by changes of glittering light over the sea, effects of weather variation, shades, depths and dramatic volumes of the overall expression of scenery. But a real value of the location being the terraced land, man made arable soil over centuries of hardship of mans struggle to survive, elaborating the indigenous knowledge and practices as his “survival kit”. That artifact – the terraces, and related social and productive models are at the core of a present civilizational survival kit, being the need to promote the production& consumption, social& cultural values as defined by notions of sustainable development.
Specific design strategy of “conservation through use”, recommended as the basic developmental approach, means devising a set of managerial practices, which would result in the conservation of cultural landscape in the overall shift from National (Parco Nazionale) to supranational (EU) and global (UNESCO, WMF); the shift which incorporates new meanings and interacting effects.
The rise of information technology and communications, which at one time threatened (and is still threatening by influx of tourists and with their overload destroying the very nature of the monument site), could be also understood as arrived just on time, to help one save the meanings of the monument. As the contemporary educational centers, are now packed with computer terminals, technology suites, seminar rooms, and hot-desking e-mail stations, the right kind of information and initiatives of image/ information “gatherings” of a travelers, rising their curiosity, the awareness of uniqness and diversity, but also of the local community identities should be a base/ context for a different process of learning/ education/communication.
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Nowadays, the new meanings emerged, initiated by the communicational shift from Railway to the Internet, the shift which meant a new influx of tourist, mainly in larger numbers far oversized by any means, overloading the capacities and conflicting with the initial romantic mood of the virgin location. Therefore, beside the requirement of strict tourist management in the area itself, the new requirements include a management of touristy offer, careful promotional activities, which would be directed also to the future sustainable development and towards a more articulated touristic offer and a new content of communicated message/ communicational technology/artifacts/ guides.
The aspect of communicational intervention should analyze the requirements of tourist flows in local and global context, define the target groups, their requirements and desires, the set of knowledge forming a demand, the task which requires a considerable research adapted to this informational age, as well as on the knowledge-based production and informational economy.

PROJECT IDEAS AS PRESENTED
BY VISUAL "BRIC-A-COLLAGE" POSTER LANGUAGE

The overall idea of the proposal is contained under six project- problem relevant themes, illustrated by existing Parco documents, didactic and investigatory walks images/ records /situations on the terraces, as well as in the urban centers and conference/ lecture/ studio room in the Castelo.

Poster no.1: CULTURAL EDUCATIONAL TOURISM;
- Conceptual standing
- Attractions and target groups

Poster no 2: ENVIRONMENTAL DESIGN
- Churches, landscape, trails settlements and basic morphology
- Suggestions
- Possible extensions
- Architecture
- Vernacular analysis
- Possible new

Poster no 3: SUSTAINABLE AGRICULTURE AND FORESTRY
- Terraces
- Vineyards
- Agritransport
- Alternative energy

Poster no 4: EDUCATION AND COMMUNICATION
- Educational programs field work
- Wine, gastronomy, voluntary conservation
- Cookery courses, herbs, vegetable

Poster no. 5: SOUND TOURISM AND ECONOMY
- Agritoutism
- Ecotourism
- Culinary tourism
- Wine routs

Poster no 6: INCUBATIONAL CENTRES
- Centre for the integration of young
- Educational programs; eco- agri, cultural, languages, culinary

Trainings architectural, crafts, masonry, agriculture, ecotourism,
Marine ecology/ observatory posts/ Aquarium

SET OF ELABORATION IDEAS AND RELEVANT DESIGN PRINCIPLES INBUILT INTO THE VISUAL CONTEXT

"Conservation through use" principle is related to an attempt of developing the methods, which would consider economic and other activities in such a way, as to have the conservational effect to the environment, - natural and man made. The attempt to answer the project aims of a Smart History project for Chinque Terre National Park should also represent an attempt to develop a replicable model for conserving national parks that suffer from tourist overload elsewhere, in particular to the countries involved in this pioneering didactic project within UNESCO park..
As in the Project, one deals with an environment, as the UNESCO listed monument heritage of a high cultural value, what in turn imposes a much stricter conservational requirements. Within such a framework the concept of SUSTAINABILITY in its dynamism, informs the economic processes to specific tracking, with economic activities related to sustainable practices to incorporate landscape preservation, and that being the terraces, dry built walls, autochthonic vegetation and wildlife, specific biodiversity values while with agriculture of traditional type, with a very careful introduction of new cultures (but not excluding it in order to achieve an economic target, attractive enough to keep young population in place , but being "a priori" sustainable one as well to preserve the required environmental and UNESCO standards).

DEVELOPEMNTAL AND DESIGN PROPOSAL
As it can be observed from the poster one, the intended development based briefs, proposing Educational centers for educational tourism, should in the same time have the effect of shifting tourist activities from the coastline to the higher grounds and to different environment of vineyards and monumental terraces. Still with the sight over the sea and continuing presence of local sacred places (Sancuratio) the locations form a set of places or "Genius Loci", which when interlinked by designated path, form a specific developmental framework based on heritage of sacred places and that of meditation, contemplation etc… now included into the new type of tourism and learning practices.
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SOCIAL INCLUSIVE ENVIRONMENTS
The idea of conflict and complementarily and related to social inclusive tourist environments (cultural institutions, museums, parks, cities) identifies major discourses – governmental, representational, and the economic and relationship between them, in forming the specific developmental as well as conservationist context.

DRIVERS OF ECONOMIC AND SOCIAL CHANGE
Social and demographic trends today underwrite the renewed importance of civic spaces, where a new form of multi-cultural citizenship is evoked through high quality and well designed collective provision. This is coupled with an ethos of mutual respect,

NOMADS & RESIDENTS

Major World Heritage sites are becoming in a continuous flux, with a coming and going of people who do not settle in, but stay temporarily or move through. Newcomers enter this flux, become part of the life of the local life, and make connections with others. The social space contains possibilities through the dynamic relationships between people, which may provoke an active engagement. Strangers become friends, ideas become practice, models are being transformed into action. NOMADS & RESIDENTS originated in world cities, yet also bases its activities on the coming and going of people, who settle in, stay temporarily or move through areas such as world heritage sites...

EDUCATIONAL TOURISM

Ideas about educational tourism are linked to a set of ideas presented in considerations on "Arch tourism", a practice analyzing the role of Architecture as a main target destination for tourism:

(For ex. as presented at the conference 15-16 November 2002 Columbia University New York)(1

"Architectural icons have long served as tourist attractions. So what's new about the buildings by contemporary architects to which visitors are flocking? How is tourism today being shaped by architecture? How are architects and designers accommodating contemporary practices of tourism? How does this new tourism "niche" differ from others like ecotourism, heritage tourism, art tourism? How do architectural monuments and memories engage today's culture of spectacle?

By observing the behavior of contemporary tourists several qualities of destination sites were noted. To attract tourists at present the site should require being

SPECTACULAR, ESCAPIST, EXOTIC, AUTHENTIC"

<u>Such a classification of qualities forms a good basis for developing a design strategy, and the basis for:</u>

LEARNING ENVIRONMENTS

Information is merging with education and leisure, and the world monuments sites are emerging as the places where it all comes together.

"Education, if it is to be a continuous human service run by the community, must be provided with the same lack of peculiarity as the supply of drinking water or free teeth. That service now has a name -- lifelong learning and is becoming a key organizing principle of public policy. It is here to stay".

The reason is simple: people now need to upgrade their skills, or learn new ones, many times in the course of their working lives. Education is no longer a once and for all operation at the outset of life, but a continuous process of adaptation, self-development and re-skilling that will go on until people are well into their eighties, and even beyond. "Grey surfing" is already today's trend. Although such trends only further contribute to the increased individualization of society, it is a form of individualism tempered by historical roots in self-improvement and the ideals of an educated democracy...

ECOTOURISM

The idea of Ecomuseum embodied the philosophy and practice in need to involve local community and make museums more democratic. The ecomuseum has the potential to be a socially inclusive mechanism and is now a worldwide phenomenon. Many of its tenets (the

museum as territory, fragmented sites, “in- situ” conservation and community leadership) are used in a variety of ways and with varying success, as mechanism to conserve cultural and heritage resources and to construct and promote local or regional cultural identities.
Ecomuseums, despite world wide criticism have been created, mainly in rural areas as a means of conserving traditional landscapes and ways of life… It appears that ecomuseum (such as some started in Japan) does not have the ability to be a truly democratic method of heritage conservation, but that ultimately much depends on leadership and the identification of the local community as the key stakeholder.
Some statements which criticize the practice of ecotourism nowadays argue that though most information presented in tourist signage is sound, some is not only severely flawed, but also unethical in that false claims are made, language is ambiguous, interpretations are irrational, and explanations are confused and even internally contradictory.

Peter Davis: Ecomuseum, Journal of Heritage Studies, Vol 10, No 1, March 2004 (2

CULTURAL TOURISM

The fast growth of cultural tourism is dramatically altering the way the heritage is perceived. The change in outlook has affected both the local population and the political and economic authorities.
The reassessment of the notion of tourist potential has turned parts of the heritage that used to be neglected into valuable assets. Cultural tourism had generated a new space and economic dynamics. The scenarios they have created are perceived as a renovated sign of identity by both the local community and the potential visitors.

Ruben Gonzales: Cultural Tourism and Urban Management. Tourism Geographies, Vol 5, No4, Nov 2003(3

PLACE CONSUMPTION

Many cultural studies fail to engage with landscapes, representations and encounters witch are salient to place consumers. Studies of urban tourism can be revitalized with humanistic concepts and methods focusing on the knowledge of place consumers.
Tourist Knowledge; discrepancies of mediated and no mediated knowledge... concepts and methods focusing on the knowledge of – place consumers subsequently enable tourism geographers to capture the lived realities and everyday readings of urban tourism landscape and representations.

Martin Selby: Consuming the city: conceptualizing and researching urban tourist knowledge, Tourism Geographies, Vol. 6, No 2, May 2004 (4

PLACE IDENTITY

Tourism as essentially place based activity, involves the production of destination identity at different scales. At any one time, organizations at national, regional and local levels are actively engaged in preserving and promoting place identity in order to attract tourist and increase market share. The drive, to establish distinct destination identity in the tourism market place, is derived from a range of complex, competing interests at global and local scales. Interconnections of tourism planning and policy making at the regional level. More profound insights into the problems and challenges of regional tourism organizations can be gained by examining the global – local dialectic

Diana Dredge: Destination place identity and regional tourism policy, Tourism Geographies, Vol 5, No 4, Nov 2003(5

PHOTOGRAPHY AND TRAVEL BROCHURE/ DIGITALISATION ERA

The power of visual image to inspire travel to distant places is well exploited by the myth-makers in tourism marketing and is important for understanding tourist behavior. The

relevance of the “circle of representation” concept to understanding one particular group of tourists: backpackers. Virtual images and tourist photography, findings of research investigating the visual images promoted to and perceived by backpacker travelers. Evidence tourists (backpackers) reproduce the iconic images of destinations in their personal photographic. Brochure photographs projected to backpacker tourists and their own photography choices during travel are found to be part of a cultural “circle of representation” or perhaps a “spiral of representation” through which the iconic images are perpetuated.

Livia H.Jenkins: Photography an travel brochures, the circle of representation, Tourist Geographies, Vol. 5, No. 3, Avg. 2003(6

SETTLEMENT PRESERVATION AND VERNACULAR ARCHITECTURE

The term used to denote indigenous, peasant, folk and traditional architecture, traditional buildings self - built and community built buildings.

Environmental conditions, materials, resources, structural systems and technologies have bearing on architectural form. Similarly, many aspects of social structure, belief systems and behavioral patterns strongly influence building types, their functions and meanings.

Majority of these buildings and dwellings are still built by their owners, by communities that pool resources or by local specialized builders and craftsmen.

In the study of language the VERNACULAR is the INDIGENOUS IDIOM: the word derives from Latin VERNACULUS- NATIVE. Extending the linguistic analogy that is frequently applied to the language, grammar and syntax, and even the style or manner of its expression of formal architecture, the vernacular is the local or regional dialect, the common speech of building. As such it comprises of range of building traditions as wide as that of the linguistic traditions. The range of forms of construction, variety of uses, layers of meaning and complexity of CULTURAL MILLIEU of vernacular buildings is multifarious. Vernacular architecture is related to environmental contexts and available resources customarily built utilizing traditional technologies.

Diversity and ingenuity of the world’s vernacular architecture... could contribute to those responsible for the FUTURE ENVIRONMENT to discover in this traditional wisdom and love in buildings, using RENEWABLE RESOURCES and indigenous skills may offer wisely managed economically effective and culturally appropriate solutions.

Paul Oliver: Encyclopedia of Vernacular Architecture of the World
Cambridge University Press, 1997(7

LOSS OF INDIGENOUS KNOWLEDGE

Indigenous knowledge, broadly speaking, is the knowledge used by indigenous people to make living in a particular environment. Utilizing it in sustainable development programs gives it legitimacy and credibility in the eyes of both local people and outside scientists, thereby increasing cultural pride and thus motivation to solve particular problems with local ingenuity and resources. Local capacity-building is a crucial aspect of sustainable development. Indigenous knowledge can provide a powerful basis from which alternative ways of managing resources can be developed.

Encyclopedia of Life Support Systems(EOLSS), UNESCO 2002

PASIVE ECO ARCHITECTURE

Central to the design proposals are the use of cost-effective passive design strategies to allow for natural ventilation and good levels of day-lighting provision within the building. Asides from the obvious environmental benefits, the reduced reliance upon mechanical ventilation and electrical lighting - together with reduced heating loads - not only result in lower running costs and less onerous maintenance requirements, but also present savings in terms of a reduced initial capital outlay for plant and services.

ECOPARK

Presents the initiative to integrate these basic elements:

-an agriculturally-based Ecopark as home to food processing and distribution, equipment manufacturers, energy generators and manufacturers using rural and urban biomass discards;

-an organic agriculture training and research center and a demonstration farm with vegetable, fruit, and medicinal herb cultivation at the site;

-recruitment of organic food processing ideas and research centers from Europe to development of models for organic farming and food processing that help small to mid-size farmers remain financially viable producers;

-development of standards, training programs, and information channels that help the farmers to rapidly and efficiently implement new best management practices;

-coordination of research between organic and green food research centers, and centers in Europe.

-implementation of Best Management Training Programs to directly assist actors in adopting the most advanced practices for ecosystem stabilization and soil building to increase the long term agricultural productivity of the soils and improve water holding capacity;

-coordination with watershed management programs to insure an adequate supply of unpolluted water for crops, to guide selection of crops appropriate to water supplies, and to plan nutrient management;

-nutrient management must avoid runoff from crop land and animal yards to waterways and contamination of ground water. A second important task is eliminating the risk of contamination of farm products from the use of "night soil" (human excrement) and animal manure;

-coordination of sustainable farming and eco-park development with regional ecological restoration planning, including restoration of soil quality, constructed wetlands for water treatment, and creation of micro-habitats along riparian corridors and surrounding vegetation;

-integration of sustainable farming and food processing with town and city programs to utilize energy, water, and material resources, including urban discards, efficiently;

-development of Provincial policies to support the initiative;

-ambitious initiative taking an approach of regional rural and urban economic development integrated with restoration of major natural systems.

Fortunately development of the Ecopark, offers a center for generating the other elements outlined above. Research centers and production groups in organic food processing and distribution and organic farming support, would enjoy special incentives and assistance in entering this market farming regions. (Major markets such as the touristic places, hotels, camping sites restaurants, cooking training centers etc., but also schools and hospitals, the hospitality industry, and airline and cruise ship companies would provide many bulk sales opportunities for such production).

These markets will enable a sustainable balance between production for domestic consumption and production for export, with avoidance of long-distance transport whenever possible.(A recent report on the nutritional status of children suggests that consumption of organic food

through school programs could constitute a significant market and contribute to the health of young people).

SUSTAINABILITY VERSUS TOURISM MONOCULTURE

The objective is to discover how to reconsider the development model of a mass coastal tourism destination, according to sustainable development in line with the transforming of mass tourism, as related to the industrial society and to the emerging of the Fordist production system. It becomes a settled activity, based on large scale consumption standardization and is insensitive to environmental priorities, while here we inherited an economic system based on family firms and middle size companies, with a long tradition in accommodation services and related organizational forms such as Cooperative.

Sustainability strategies applied in integrated planning policies are confronted with environmental priorities and socio-economic instability, as a result of the decline of the traditional development model. In order to transform from a traditional seaside resort to a new tourist destination, new development areas were planned in combination with new strategic infrastructures which diversify the tourist offer.

In collaboration with other Mediterranean destinations, the idea was promoted in order to inform tourists, citizens and tourist operators of environmental concerns. Guidelines for hotels regarding green purchasing and incentives on sustainable establishments were promoted. To stimulate larger actor participation, the Local Agenda 21 decision process should also be activated. The strategic reflection on the development model and the consequent planning actions has also created new conflict areas, e.g. the emergence of anti-tourist attitudes and conflicts between economic stakeholders. The elements which characterize the evolution from mass tourism to a sustainable tourism destination can be analyzed.

PURSUIT OF KNOWLEDGE AND ECOTECHNOLOGY

Pursuit of knowledge and truth supersedes considerations of what nature, life or the world are or should be, for our own vision can only be a narrow one. Ethical evaluation and rules of justice have changed and will change over time and will have to adapt. Law is made for man, not man for law. If it does not fit any more, change it…Some think that it is being arrogant to try to modify nature; arrogance is to claim that we are perfect as we are! With all the caution that must be exercised and despite the risks that will be encountered, carefully pondering each step, mankind must and will continue along its path, for we have no right to switch off the lights of the future… We have to walk the path FROM THE TREE OF KNOWLEDGE TO THE CONTROL OF DESTINY Jean-Marie Lehn, Nobel Prize in Chemistry; EOLSS, UNESCO 2002

Ecotechnology involving appropriate blends of traditional technologies and the ecological prudence of the past with frontier technologies such as biotechnology, information technology, new materials, renewable energy technology and management technology, can help us to promote global sustainable development involving harmony between humankind and nature on the one hand and tolerance and love of diversity and pluralism in human societies on the other. We need shifts in technology and public policy….This is a challenging task !

M.S.Swaminathan, First World Food Prize, EOLSS, UNESCO 2002

VISIONS FOR SUSTAINABLE AGRICULTURE

Agriculture has an important function in the definition and preservation of the cultural landscape and the protection of the natural resources, with special emphasis on the protection of the environment and rural development. Orientation towards an environmentally friendly production and the general orientation towards the eco-social type of agriculture have emerged as the most important orientation. The eco-social concept of the development of agriculture is in compliance with the broader political, economic, social and environmental objectives. Restructuring of agriculture and rural development as one of the main national priorities, where the multifunctional role of agriculture in the society has been set apart in terms of content. This has particular value because the society thereby admits that agriculture performs in addition to the production function also other social significant functions, which, however are not paid via crops and products but require special countervailing payments.

In addition to the society's interest to preserve the population density and cultivation of the rural areas at a balanced level, special concern should be given to the adoption to the requirements of environmental protection and the preservation of the environment and of soil and water against pollution, which represents a quality basis for farming, food production and survival itself.

Education system in the area of agriculture and forestry should be well developed, that the agricultural extension service is well organized and that the organizations and enterprises in the country-side are professionally involved in the development of the countryside. Knowledge will, in addition to professionalization, add to the awareness of the need for a better business integration and associations (Cooperatives) in the countryside with orientation towards higher quality food production, which will be beneficial for both the producers and the consumers.

Itzok Jarc, EU Accession and Agriculture- Making CAP Work for People and the Environment
Friends of Earth Europe, Krakow 2003,

The achievement of sustainable world food security requires tackling a range of complex issues spanning the natural, social and political sciences. Fundamentally, there must be a universal will to ensure that the human right of " basic nutrition for all" is truly respected.

The achievement of sustainable world food security, which has long been a noble goal of the development community, depends on strengthening these systems.

EOLSS, UNESCO 2002

SOME OF THE ACTIVITIES OF INCUBATIONAL CENTRE

Besides the research and other educational activities linked to detailed briefing of possible typology of Centers of integration of young people, the educational tourism engaging in students workshops as part of a University curriculum across Europe and within an organized network, one considers specific set of proposals of activities already practiced in Mediterranean Basin with a "sample possible program" as already presented on this location:

HIKING AND COOKING AT CHINQUE TERRE (8

Program 1: 3 nights, 4 days:

Day 1- Arrival to Hotel, Check-in, aperitif and welcome dinner with chef; **Day 2 -** breakfast from 7.30 am - 9,00 departure by boat (or minibus in case of rough seas) along the Cinque Terre villages to Monterosso. -Trek from Monterosso to Vernazza, 2 hrs. - Lunch in Vernazza. Return to - 8 pm Dinner;

Day 3- Breakfast from 7.30 am - 11.00 am - 2.30pm Cooking lesson "The Fish Class with visit to the Central Fish and Vegetable Market Departure for Market visit 8.00 am - 3.30 pm trek on Island, 2 hrs. - 8 pm Dinner;

Day 4- breakfast from 7.30 am - 9, 00 departures by boat (or minibus in case of rough seas) to Riomaggiore - you will be hiking between Riomaggiore and Vernazza. - Lunch at the discretion of participants- Return by boat or minibus pick up the luggage and departure

Hiking and Cooking Program 2 Cinque Terre 5 nights, 6 days;
Day 1-Arrival to Hotel, check-in, aperitif and welcome dinner with chef ; **Day 2** breakfast from 7.30 am - 9,00 departure by boat (or minibus in case of rough seas) to Riomaggiore
- Trek Between Riomaggiore and Venazza- Return to the hotel - Small cooking class 2 hours, - 8 pm Dinner ;**Day 3** Cooking lesson "The Fish Class with Chef "
Breakfast from 7.30 am , 8.00 am Departure for Market to visit the Central fish and Vegetable Market, - 11.00 am - 2.30pm Fish cooking Class, - 3.30 pm trek on Palmaria Island, 2 hrs. - 8 pm Dinner; **Day 4** breakfast from 7.30 am - 9, 00 departure by boat (or minibus in case of rough seas) along the Cinque Terre villages to Vernazza - Trek from Vernazza to Monterosso, 2 hours, Return to base - 8 pm Dinner; **Day 5** - 8.30 am excursion to Golfo Del Tigullio - we will be hiking to San Fruttuoso or Camogli according to the sea's condition return to Portofino square, – free afternoon in Portofino, Return to the Hotel. - Dinner at Locanda on the island, **Day 6** - breakfast from 7.30 am
- 8.30 am Check out. - 9.00 trek up the mountain to Campiglia or to Riomaggiore return to The Hotel refresh in your room and departure

PROGRAME"TAKE PART IN THE PRESERVATION OF TYPIAL MEDITERRAENAN ARCHITECURE"

Participate actively in ongoing-projects

Contribute to the restoration of sites dating often to medieval times; Learn traditional building techniques from experienced technicians; Live in the heart of typical Mediterranean villages and towns; share in a multinational experience with volunteers from many places; create with your hands stone masonry, stone cutting, tiling, paving, dry stone walling; Chinque Terre has become one of the regions of the World with the most evocative images: hilltop ruins, fields of vineyards and limestone hills, towns and villages offering beauty and harmony, a special rhythm where you take the time to enjoy life, and a warmth both in the feel of the region and its architecture, and in its inhabitants.

The typical architecture of Chinque Terre is, however, disappearing quickly, since the techniques used to build it have become practically extinct. The beauty of the villages, the wonderful harmony of the houses, the warm feel of the simple stone walls, are losing place to modern construction and urban techniques.

CinqueTerre works toward the preservation of this unique architecture, through the restoration and reconstruction of typical structures and sites, and through the maintenance of the building methods themselves, since a volunteer participants rebuild them as they were always built, by using the local materials, and adapting them with manual human-scale techniques, to their future use.

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8. PROJECT ANALYSIS AND PROPOSITIONS BY THE ODESSA (Ukrain) TEAM

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GENERAL CONCEPT OF CINQUE TERRE NATIONAL PARK

Methodological base for our reseasrch were:

Preliminary materials, prepeared by the administration of Park

Local acknowledgement, communication with experts, authorities

Open air analysis on site

Workshop materials

ARCHITECTURE AND URBANISM.

On our opinion, the best way to save the existing cultural heritage is to develop scheme of functional division into zones of different historical and material value. Thus the authorities of National Park 5Terre would be able to point their efforts on to areas of main meaning and to protect the aspects of heritage. This will give an opportunity for a right-away protection of walking paths, old buildings and, of course, the attractions of the coast line.

We totally agree with our economists, about vertical division of Park'o into "zones of a different price", which will give us a chance to avoid tourist overflows in a coast line, and spread tourists up the hills with meanings of accommodation in ecological hotels.

This concept also demands a great amount of attention to the ways of communication between objects of interest and cities. They include walking paths, car roads and parking system, vertical gondolas, to make people move up to the mountains, and a system of short-cuts for older tourists

AGRICULTURE

Each city which located on the territory of national park we can look as a nearly closed ecological system. The increase of an anthropogenic pressure, which will be inevitable to increase with development of tourism to save an ecological equilibrium in such system would be all more complicated even at the expense of entering a huge amount of additional energy.

Therefore preservation of a landscape-antropogeneous system shouldn't be considered only point of view of 2 from of tourism (agricultural and historical). It is necessary developing more kinds of tourism (ecological, scientific and other), that is demands of appropriate organization of territory of national park, forming tourist tracks of ecological, agricultural, historical and other kinds of tourism.

There is suppose to be a program to be held on terraces preservation with meanings of development cultures variety according to possibilities of their root system. We have to consider culture balance, when making such a changes into a ecological system.

TOURISM MANAGEMENT

The attractivity of the National Parks generally is based on the so called constant resources including natural, cultural and other ones that are the object of protection. Cinque Terre Park is an example of a park of unique and excellent combination of resources providing tourists with the wide range of activities.

While doing analysis on tourist potential we concluded that:

- primary tourist resources are very rich and various
    - natural resources (landscape, sea coast, beaches, mountains, climate)
    - cultural resources (foot paths, terraces, unique architecture)
    - social resources (local traditions)
- secondary tourist resources are rather limited
    - accommodation facilities
    - catering facilities
    - no tour operator's sector
    - transport – train, buses
    - no amusement
    - info points are only at the station, but rather limited in their functionality
    - few additional services

As we did the first analysis, we came up with conclusions printed in next pages of strategy suggestions for different fields.

ECONOMICS AND STRATEGY

As long as, a coast area and cities are overcrowded with tourists, we decided to suggest a way of intellectual economic division, to spread incomers by the points of interest, territorial possibilities and economic possibilities of individuals. Such division will give an opportunity to avoid a mess in tourist migration around the Park and to provide new ways of area development growth. This actions will cause agriculture, manufacture development, also a new ways to protect existing economic centers of the cities.

SPECIFIC INTERVENTIONS ON NEW STRUCTURES

ARCHITECTURE AND URBANISM

According to the analysis of existing unique area of National Park, we decided to offer new types of architectural complexes that will give an opportunity to attract tourists, without bringing any harm to natural resources.

First idea was to organize new type of ecological accommodation for tourists in mountains, such as existing villas. These hotels are a good chance to move people up from the coast line closer to the area of sightseeing from the hills. Placed above the level of sanctuaries and churches, they will give a unique opportunity to travel by the vertical ways of communications and walking paths down to the sea but to live above the levels of main protection. These small villas complexes need to be organized into small self-managing hotels without any high storage construction.

Second idea was to create a underwater sightseeing center with educational auditoriums, sea museum and panoramic café. Such center will help to educate and fulfill tourists curiosity without diving clubs. Moreover it will work for outstanding image of National Park.

Third idea is work out a new concept of vertical mechanical communications, such as gondolas and electric monorails. Right now Park is unable to give opportunity to disabled and older people wonder around its unique landscapes.

AGRICULTURE

The main agricultural cultures at this moment are: grapes (*Vitis vinifera* L.); olives (*Olea europaea* L.); lemon (*Citrus limon* (L.) Burm. F.).

The main culture which has created glory of district, is the grapes. The second significant culture is olives and the small squares are occupied under citrus (lemon) and spicy cultures.

The main contaminant for the environment is the grapes, because the development on it of diseases and pests and the farmers must spray it 5-6 times during the vegetation period.

The main recommendation for a modification of a structure of agricultural squares, is an expansion of a range of agricultural crops. Addition to assortment of cultivation crops which has a volatile oil (species of genus Nepeta L., chrysanthemum with volatile oil and other)..

Also restoration such type of a wood as maquis.

TOURISM MANAGEMENT

Other proposition to be present, according to the analysis done :

- widespread network of accommodation to better manage tourist flows
- creating new tourist itineraries along with creating a very accurate touristic map of the whole area
- intellectual tourist zoning
- develop infrastructure using modern tourist and information technologies
- promoting Park image by using all the arsenal of the marketing communications
- promoting ecological and linguistic knowledge
- developing youth educational tourism (camp/university)
- widespreading of ecomarking services and goods.

ECONOMICS AND STRATEGY

Development of restaurant and hotel business in view of the factor of safety of landscape and antropogenious sphere and application of an ecological life-support system.

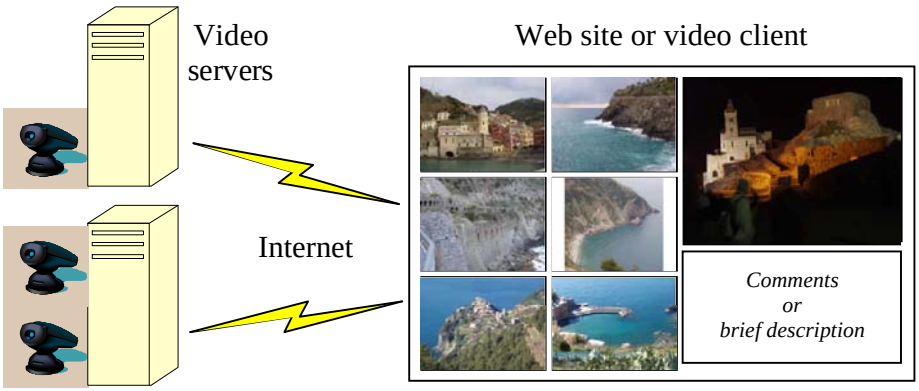
In addition to existing entertainments, new facilities have to be added to a number of existing, to provide better services, such as: spa-interiors, underground aquariums, games for adults like a quest, children's playgrounds and children's restaurants.

On cities: monterosso - a line of comfortable beaches, cafe at coast, a disco on the sea; riomagorre - manarola - popularization of avenue of love (in spirit of the Roman mythology), rejuvenating fountains, pigeon mail for enamoured, poets, musicians; cornilia and vernazza - verandahs under a grapevine and the open theatre.

COMMUNICATION TECHNOLOGIES

For most full information supply of tourists it is offered:

1. To organize the real-time remote videoreview of the most interesting kinds of the Park (through the Internet).



To provide the remote videoreview of the most interesting views and tourist routes (!) in the Park from rooms of hotels with the purpose of a choice of an optimum way.

This task can be solved, using:

the terminals established in rooms or halls of hotels;

by means of PDA with wireless LAN-card, a using LAN of hotel (Park).

To give an opportunity to use PDA with wireless LAN-card and camera as the videoguide (the expanded analogue of the audioguide used in the European museums) with the purpose:

— recommendation or choice of an optimum route in Park. Thus integration with GIS is possible;

— educational tourism. For example, imposing of historical animated or a video sequence on the real area image, received by PDA camera, is possible;

— interactive dialogue with Park administration (the manager etc.) for reception of the inquiry or the advanced order of services (restaurant, hotel, the guide etc.) during of trip on the Park.

INTERVENTIONS ON THE EXISTING STRUCTURES

ARCHITECTURE AND URBANISM

A big amount of activities is suppose to be managed for protection of the existing unique cultural heritage inside the cities and up on the level of sanctuaries and churches. As long as a humid sea air is breaking the walls of living and social buildings, we have to develop a program of meanings of conservation. We need to work out a program with economists of social activisation by the rule : let the museum work for itself. New type of city area zoning by the types of social places of interest will properly spread the tourist flows inside the cities, the same time pricing policy will keep incomers in specific areas by rules accepted with the authorities of National Park.

AGRICULTURE

Attempts to generate wood arrays on existing terraces with the purpose of their preservation have not brought an expected outcome because for want of creation of wood arrays as a dominating kind used a pine (*Pinus pinnea* L)., which forms a surface rooted system and develops large a biomass, that result in such phenomenon as landslips.

In connection with above for want of shaping of wood arrays (and reconstruction of old arrays of a wood) it is recommended to take into account three factors, as probable paths of shaping of a wood array:

1. Disposition. The distance from agricultural fields the wood array places, that is very important for shaping of yield by agricultural crops.

2. Biological variety of species. Creation of wood arrays, which can take the soil with the terraces. Different species must have different root system.

TOURISM MANAGEMENT

The key ingredients of a sustainable tourism product are:

1. Original offerings:
   - Natural attractions (landscape, climate, water, wildlife, :)
   - Cultural attractions (both material and immaterial)
2. Derived offerings (required to make the attractions available for tourism use)
   - Holiday facilities (accommodation, food, shops, entertainment, events, etc.)
   - Mediating facilities (tourist information offices, tour operators, internet services)
3. Market research
   - To identify who the potential customers are and what they want
   - To find out the right market segments
4. A marketing strategy
   - To inform about the product/destination
   - To make people want to come
5. Service delivery
   - Provision of facilities, services and information
   - Maintenance of the above
   - Customer satisfaction
   - Adequate infrastructure and supporting services
6. Pricing policy
   - Setting a competitive price
   - Ensuring sufficient profitability to repay investments

ECONOMICS AND STRATEGY

Expansion of sphere of services - leisure of the tourist. Construction of leisure of the tourist under the scheme "5x5", i.e. the script of rest for all tastes. The sense of such

approach consists in the following: there is an opportunity to operate streams of tourists with the purpose of the account of the factor of safety of the landscape and antropogenious environment. The technology is those: on a place with each tourist (group of tourists) the conversation for revealing personal preferences and interests in rest is spent. After the analysis of the received information "the expert on leisure " offers the special plan of rest in 5-Terre. It will emphasize the special attitude to each tourist. In an ideal well organized scheme "5x5" in work should remind a clockwork where one gear goes after another.

Economic development. Expansion of volumes and a level of existing manufacture: winemaking, fishing, olives.

Schools of crafts: training to skills of the crafts inherent in given district in short term.

COMMUNICATION TECHNOLOGIES

Create a more detailed tourist map with information about difficulty of routes:

on the paper;

on the flash-memory connected to PDA. It can be improved map of GPS or map is integrated with same system.

Design and create datawarehouse of the Park that includes:

detailed information about all sides of the Park life like:

- description;
- history;
- structure;
- economics;
- routes;

library of the Park still images& library of the Park movies.

Tourists can access to all this points for receipt of specific text, images, and video information.

Translate all of the information (newsletters, brochures, posters, tourist guides, scientific and other publications) to English and to other languages.

The unique atmosphere of National Park of 5 Terre became not only an object of scientific research, it has united creative teams of 6 countries, also providing international integration of professionals in different fields.

9. PROJECT ANALYSIS AND PROPOSITIONS BY THE BRATISLAVA (Slovakia) TEAM

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A. THE PRELIMINARIES OF THE PROPOSED (NATIONAL) PROJECT

Preserving of cultural and natural heritage is multilayer and multidisciplinary phenomenon of a wide social range:

- It is based on the knowledge of local creations of the past,
- It approves their contribution into the treasure of knowledge and experiences of all human race,
- It protects them as a sign of inspiring power for the future development.

As every object of the world's cultural heritage, irrespective of the territory in which it has arose, is an inspiration and inward potential for the development of any other parts of the world, so the experiences of the protection process and his active using are analogical inspiration for active preserving of the heritage in another countries as well.

This final report deals with the proposal to preserve the unique heritage of the National Park CT to provide and be actively used as:

- Source of effective improvement of living conditions of the inhabitants
- A fount of wisdom, enlightenment and a place of joy for the visitors from all over the world.

Experiences in the programming and their implementations of revitalizing activities in geographically similar conditions in Slovakia have been taken into account:
Well – preserved technical works and the region transformed by man around Banska Stiavnica have been protected as a World Cultural Heritage since 1993.
Both localities Cinque Terre and Banska Stiavnica are on the UNESCO List as the records of the objective and ecologically balanced transformation of the region.

A complex geomorphology of the area in the location of the Middle Europe also caused similar technical interventions {terraces and dry walls, paths network} in the area with completely different production {winegrowing in Cinque Terre or precious metals mining in Banska Stiavnica).

The conditional economic function ended in both localities and built technical works became desolated. Without a regular maintenance they are losing their functionality, the ecological balance is splitting and the danger of ecological and functional catastrophe in the area is increasing.
Both localities have been trying to solve their problems. They both have experiences may help the others.

B. METHODOLOGY

THE AIM OF THE PROJECT

Propose a model of active protection and use of cultural and natural heritage of the Cinque Terre National Park

- On behalf of upgrading the quality of life of the inhabitants
- Through the development of sustainable tourism
- By precise information system
- Through the example of systematic organization of the path network

TECHNIQUES AND TOOLS

Implementation of the project was organized through the proposal workshop
- International workshop in Cinque Terre (February –March 2005)
- National workshop to form the national proposal (April 2005)

The workshops started with informative or rather brainstorming seminar linked to specific objective. A part of all workshops was an excursion into the field including the visit of the significant factors.

Tools used in information gathering:
- Opening information framework prepared by the team of the Universita degli Studi di Firenze,
- informative material {booklets, bulletins} provided by Parco Nazionale delle Cinque Terre,
- monograph publications on Cinque Terre,
- Tourist publications {guidebooks} about Cinque Terre and Liguri
- Web – pages of public institutions and private companies linked to Cinque Terre
- Consultations with responsible people on the level of local authorities
- Discussions with the residents, local producers and service providers
- Discussions and consultations with the employers of Parco Nazionale delle Cinque Terre,
- A personal visit and a study of the current situation in the field.

WORKING PROCEDURES

Starting-point of all the taken steps was work with information: collecting, sorting and evaluation of available or rather relevant information – its amount, availability and integrity. Sorting information observed 4 basic interest areas of the project Smart History:
- Architecture and environmental design,
- Agriculture and forestry,
- Tourism and economy,
- Communication and education.

S.W.O.T. analysis was used for the evaluation of the individual situations.
Space conditioned simulations were used to verify the functioning of the proposal solutions.

C. SHORT EXPLANATION OF THE CONTENT OF EACH POSTER

Poster 1

It gives characteristic of the major problem which was the subject of the solution through the Smart History Project that is: How to preserve the specific technical adjustments of the area built by a man in the past in active condition also for the next generations when previous economic and social conditions have vanished.

The problem illustrates the examples from different countries. At the same time it generally characterized the natural and cultural specifics of the area chosen for the pilot solution, i. e. the area of the Cinque Terre National Park.

Poster 2

The poster details the individual specific parts of the Cinque Terre National Park area from a point of view in

1. Outweigh function
2. Present and perspective attendance.

Individual points and areas in the area identify as mono-function zones operating in the area individually, especially in:

- Isolation is reflected in insufficient cooperation of the individual settlements that are in the National Park Cinque Terre area. Each one represents individual and typical characteristics and a different cultural and development potential
- There is only one populated and visited zone near the railway in the lowest – coastal location
- Perspective to spread the attendance is:
    - Middle location – typical for relatively well preserved terrace relief with limited agricultural production fasten on original production
    - Peak location – there is presently an expanding forest which is not regulated and used neither for production nor for tourists. The relief of the land was successfully terraced in the past but the forest has now wildly overgrowing undesirable mono-cultural species.

Poster 3

This poster characterizes the paths network as a life-giving communication and transport system to preserve the terrace landscape that does not work in some parts nowadays. The horizontal terraces are the bearing system of the transformed land that gives a characteristic seal to the whole area. Terraces are interconnected by the isolated vertical paths and staircase 'links' and provide at delimited corridors (called Sentieri) restricted lineal movement of the visitors in the vertical direction.
Their destinations are the areas of the sanctuaries in the middle height location.

It is recommended in order to increase the attendance of the middle and peak zones to join the existing horizontal and vertical system and to dress the new diagonal 'links' which would provide the movement of the visitors in the area in individually composed circles.

To make the vertical transport in the area easier it is recommended to enrich the existing transport 'park' by a faster means of transport with bigger capacity, for example, tourist attractive cableway (funicular or teleferic) and also put to tourist use the existing network of economic monorails.

Poster 4

The effective information system is recommended tool for the perspective development of the pilot area.

'Curiosity' and scientific interest of the visitors might help to satisfy the detail identification of all the concerns, attractions and singularities found in the National Park Cinque Terre area and their exact localization in the information materials about the area in all data media (maps,

printed information materials, information monitors, personal counseling) and also in the field itself.

Poster 5

Because the terrain of the National Park Cinque Terre is very difficult, it is important to provide simple and understandable orientation for safe and purposive movement of visitors.. That is why it is important to direct the way from the main Information Center of the National Park Cinque Terre (for example, National Park Cinque Terre Information Centers with multimedia equipments in each locality) to hierarchical lower information points of departures (starting points) of the individual paths or interest routes.

For the orientation and information marking of the paths it is recommended to apply the marking system used in Slovak republic codified in the state norm ČSN 01 8025 Marking of Tourist Paths.

D. SPECIFICITIES OF THE CINQUE TERRE NATIONAL PARK:

There are the general characteristics of the pilot territory:

- Attractive coastal location with dramatically interesting morphology of a natural relief of mountain kind,

- The area with a clear anthropomorphous character where the subject of the highest protection (World Cultural Heritage) are the effects of a human activity (change interventions) into the original natural landscape – terracing of steep stony slopes,

- Built terrace constructions prove man's top ecological behaviour in geomorphology complex and productively unsuitable ambience: ecologically balanced and productively suitable system of terrain adjustments (terraces and connected paths) was built by using easy accessible local material and by a simple (even primitive) technology of dry walls. It demonstrates positively low value of ecological trace,

- This man-made ecological built system provided lasting stability of natural and productive conditions for select kinds of agricultural production (wine, olive oil) – on the condition of regular even though technically simple maintenance,

- Utilitarian pragmatism of the inhabitants as a significant approach to life: a priority of a human activity was limited by agricultural production and maintenance of built terrace system – as a conditional source of livelihood; another parts of life (formation of a residential and social environment, social activities – crafts, celebrations, ceremonies...) were modestly subordinated to the main activity,

- Local traditional agricultural production related to its regular maintenance of terrace system is not sustainable at present economic conditions. Consequently the origin built system of ecological balance of the whole area become not sustainable as well,

- Concept of preserving unique cultural (ecological) values of the Cinque Terre National Park area accepted consequently after it had been listed on the UNESCO List of World Cultural and Natural Heritage, define his ***new mission as an educative function over the national level through the specialized tourism.***

PROPOSAL STRATEGY

Principles and guidelines we have followed they are formulated in the international Charters and Recommendation documents focusing the cultural heritage active conservation and sustainable economic and social development of region, mainly:

- In the International Cultural Tourism Charter adopted by ICOMOS
  1. Support of public awareness of heritage
  2. Management of dynamic relationship
  3. Conservation and tourism planning for heritage places should ensure that the visitor experience will be worthwhile, satisfying and enjoyable
  4. Ensure a worthwhile visitor experience
  5. Host communities and local inhabitants should be involved in planning for conservation and tourism
  6. Tourism and conservation activities should benefit the host community
  7. Tourism promotion programmes should protect and enhance natural and cultural heritage characteristics
- In the UNESCO-MAB Programme to promote biodiversity conservation and sustainable development, based on the local community efforts and sound science. This document applies to places that seek to reconcile economic development, social development and environmental protection, through partnerships between people.

Respecting the accepted conception of preserving cultural heritage (as a cultural land) of the Cinque Terre National Park and his new mission in present society we suggest ***to base an economic and social increase on work with information***, mainly:

Ü **By complex information system** to monitor, manage, regulate and in the case of need to correct or even limit the actions and activities running in the area Cinque Terre National Park as a whole and as well as the individual localities.
In harmony with the guideline to design an information system for Cinque Terre National Park elaborated during the workshop in Cinque Terre in March 2005 (see the diagram in the report of F. Filippini, p. 31) we specify the individual steps, as in following:

RESEARCH, DISCOVER STRATEGY

- Consider the priority of the claims of the sectors which are linked to the basic (mission) function, i.e. particularly:
  - Scientific research orientated towards ecological aspects present in Cinque Terre National Park
  - Ecologically oriented education of all levels including continuing education
  - Sustainable specific profiled tourism (education, gain knowledge)

    - Complementary medicine and health support

- Systematically provide collecting, sorting, distributing, reciprocity and permanent updating the information from many resources, e.g. investigation of the tourist profile - involving the local community in the process of collecting information especially about their cultural heritage, or of addressing and evaluating problems reviewed from third party.

For find the appropriate information it needs to identify essential information and extract them from gathered resources. This can be achieved by many approaches, e.g. using data mining techniques can be advantage. The meaningful information that is found can be categorized in many ways, and also exchanged with partners (park, universities, specialists, international organisations, etc). It is why is needful:

- Make a hierarchical information system accessible to
    - The needs of scientific research, study and education
    - The needs of administration and decision making
    - The needs of park management equipment
    - The inhabitants
    - The visitors

SPECIFY THE TOOLS AND TECHNOLOGIES TO IMPLEMENT THE STRATEGY

If recognition of supporting information related to specific intention of Park is finished in current iteration, it is time to start the process of tools specification, technologies and relevant activities chosen to implement the strategy. It is important, in this case:

- To evaluate and coordinate the existing tools
- To accomplish this phase with a support from third party companies, e.g. specialized in design of information systems, specific technical solutions or technologies.

EDUCATE INVOLVED PEOPLE

There are many reasons for importance of educating involved people. it is essential to inform local people influenced by this process about the decisions being taken, especially inhabitants and personnel of Park. It is not alone-stand activity. For the correct attitude, it is useful:

- Carry out the administration, organization and decision making on the basis of information and through the appropriate information technologies educate the involved people and personnel
- To combine education and getting feedback from involved people
- To accept their opinions and suggestions into the process of park development
- To help inhabitants, employers of Park, visitors and local authorities, too, to build their attitude to harmony with the strategy of Cinque Terre National Park for development
- To improve quality of services including the extensive education of personnel of Park
- To provide visitors with sources of educational material in specific form in order to establish the responsible attitude to Park and his cultural heritage

MAKE A SUMMARY OF RESULTS ACHIEVED

After making decisions and actions related to information system design it is desirable

- To process feedback and evaluate all decisions and actions
- To continue with permanent evaluating of whole process
- To compare with the expected results.

This process can be adapted according to results of the evaluation.
After first process iteration, information system development may start continuously with coordination following iterations.

Ü O**rientate the production development towards the support of the new profile mission of the area**, mainly in:

Agriculture alongside the preserving and stabilizing of the qualitative bio-production of the primary agricultural products:

- Support new production of traditional local and regional products with unique recipes (formulas)
- Initiate and support new agricultural products that are able to estimate local agricultural potential (medical herbs, nursery seedlings of the local plants and evergreen woody species, beekeeping and bee products...)
- Support the propagation and widen the consumer local agricultural products:
    - By 'obligatory' offer in all sale places in the park area as a consumer packing as well as a gift wrapping
    - By their propagation and spreading through:
        - Culinary 'celebrations'
        - Special press and literature
        - Short-time and specialized courses for domestic service providers and visitors as well
- Build up, widen and regularly maintain the natural 'agro-trails' (wine route, olive route, lemon path etc)
- Support the development of agro-tourism especially in settlements (colonies) and farms out of the centre villages of Cingue Terre (accommodation offers and also 'training' opportunities for the courses participants).

Forestry **incorporating it into the developing program of the area**

The forests were one indigenous part of this territory, of long standing history. The men had changed it for use of agricultural production. In the moment of abandoning the agricultural production followed by regular current maintenance reinforces a natural self-acting afforestation process and the artificially erected constructions moulder. The present-day stage demonstrates the power of Mother Nature and the sickliness of the human products. It is why is seasonable to incorporate the controlled forestry into the development program of the National Park territory. It can be realised:

- Through the General Regulation Program unambiguously single out the areas of agrarian rough areas in favour of the forest in the way that in these delimited areas will start a controlled return to the natural forest. This return to natural forests on delimited areas might be realized in various ways:
    - By self-acting succession
    - By manmade forestation

- By the combination of both

§ Reconstructed forests build in a varied woody composition:
  - Set up the sceneries which are adequate in species and optically interesting and for these purposes use old and rare trees
  - Prefer original deep-roof evergreen woody species
  - Establish forest with vertical shroud binding of trees or double and three storey aggregate forests
  - Make forests attractive to the animals by the adjustments on the woody compositions.

§ To have a spacious approach to the forest with all the ecological functions (oxygen production and the ability to clear the air, retentive and water-regulation ability, preserving biodiversity and others), and for that reason expand also additional activities in the original and reconstructed forests, for example:
  - Protected wild game stocking (for example to build up the game-preserve, except a boar game also put a roof game, widen specific fledgling representation)
  - Beekeeping
  - Create the small water reservoir to catch and regulate torrential rains, as the refreshing points for animals and tourists
  - Forest activities lead by academic forester, provide by skilled forestry staff

§ In addition to providing and collecting entry information about Cinque Terre National Park forests
  - Collect all the original higher flora and make a herbal for scientific purposes as well as public education,
  - Offer the autochthon species seed of the Cinque Terre for the International Organization Ondex seminum – it would present 5TNP in the world of botanic gardens and arboretums.

  For all this activities and also in realization of forest reconstruction cooperate with university places by offering training opportunities for students and educational and research field for research workers. For these purposes organize international cooperation of the relevant institutions.

Support the formation and development of the crafts orientated towards the production of gift items which use local materials and local technology traditions.

Initiate and support the production of specialized informative and educational materials, programmes, teaching and educational aids for**:**

- Different age groups
- Different professionalisms
- On the various mediums (print books, booklets, maps, CD, video, internet, etc.)

Development of the architecture and the area environment.

The most impressive human work at the Cinque Terre National Park area is the nature architectured by the terraces: it is not only the top technical and ecological system but at the same time it is the fascinating and unforgettable architectural work of art.
The characteristic features of the produced (terraces) area are reflected also in the composition and shaping of the residential structures.

In accordance with the aim of 5TNP management to dislocate a part of the visitors from the coastal zone to the middle and the top zone of the park – it is recommended:

- In the beginning of the new functions (resulting from the new educative mission) to preserve the principle of preferential use of the old and existing buildings, their adaptation and qualitative modernization, for example:
  - Localize a camp for long-term educational and training events (courses, trainings, research stays etc, including the accommodation) into the desolate and nowadays uninhabited settlements under the top ridge,
  - Repair unused shelters on the desolated terraces and convert them into the information, refreshing, sanitary or rather emergency points of the new organized networks of marked footpaths
  - Set the new architectural structures for science, research, popularization and also cultural activity (for example planetarium, research and documentary station of the flora and fauna of the 5TNP include the herbal, arboretum etc., a cableway or rather a teleferic, amphitheatre and other) close either to top long-distance marked footpath or near the actuated path Via dei Santuari to establish a range of fixed operating destination independent from tourists but on the other side attractive for them.
- Bring the organization and facilities of the paths to the priority of the investment activities, considering the high programmed attendance of the paths (circa a half of the present attendance of the 5TNP) it is necessary to provide in advance:
  - Make gradual access to the paths (in phases) in dependence on their readiness to receive the increased amount of tourists,
  - Repair the paths and relative field stairs, stabilize them and widen their walkway's profile to allow safe move of the tourists in both directions (many of the paths do not correspond with these conditions nowadays),
  - Separate the routes suitable for cycling, horse riding from hiking tracks or greenways,
  - Widen and specify the orientation marking system of the paths, especially in:
    - Enrich the services of the first contact places in navigation and information system which would inspire tourists and would help them to orientate to move to the initial points of the particular paths,
    - For the orientation and information marking of the paths it is recommended to apply the marking system used in Slovak republic (as

well in Czech republic, too) codified in State Technical Norm ČSN – STN 01 8025.
    - Mark the presence of interesting, unique and remarkable facts which are in the specific paths (for example, botanic or geological strangeness etc.) at the specific place and add them into the tourist footpath maps or rather into the map documents of the area which are available to public in any media – tourists will be able to choose their own paths and direction according to their interest approach,
    - Give the particular information about the specific concerns through the separate guidebook published on various data mediums (bulletin, touch-sensitive display, CD, Internet, PDA etc),
- Build up refreshment stands and rest areas on the paths (for example, spots providing a nice view, the refreshment areas close to watercourses and springs) or eventually by the other interesting places of the area, provide adequate sanitary facilities and first aid assistance, to join new diagonal paths on the existing paths network which is based on the bond of vertical accesses to horizontal terraces. These new paths will provide new options to link the particular localities as well as spatial disperse of tourists.

Development of tourism

Qualitatively changed tourism accounts the very important development tool in the Cinque Terre National Park. However, tourism cannot be perceived as a purely harmful activity, but as a sector can attract the visitors to live and stay in the region.

Although there are many good practices in the park existing, we consider current marketing approach of the Cinque Terre Park the major weakness.

Target groups

The major actual target groups, there are the tourists staying at the seacoast (who prospectively can make excursions to selected zones of the park), the minority there are the tourists staying outside the coast on the historic Via dei Santuari.

Consequently there have been identified four important target groups of tourists.

- Young people,
- Families with children,
- Scholars involved in cultural and educational activities
- Senior people involved in cultural and educational activities.

It is important to limit the quantity of tourists out of this target groups, and to drive their attention towards more sustainable way of spending their time in the area of national park.

Marketing mix

Proposed target groups should match appropriate activities (products):

- Bicycle paths, horse riding, hiking, greenways and other physical activities should be offered for young people, as well for families with children,
- Cultural events (wine testing, courses of poetry, paintings, music composing, singing, auctions of paintings, alternative medicine) – for the senior and interested groups of young people,
- Information games for groups of young people, students and families with children,

- Excursions, summer schools and workshops focused on culture, agriculture, forestry, ecology, natural and cultural experience could be organized for students.
- Excursions, workshops, seminars and conferences for scholars (researchers),

In terms of speaking about tourism products, they include excursions of individual tourists, as well as organized packages for visitors of Via dei Santuari.

Here is proposed the matrix of product-market combinations, which are strategically important from the marketing point of view. No. 1 priority indicates the highest priority; it means to pay the highest attention to develop this product as well as to promote it. No. 2 and no. 3 means these combinations are still important for us, but they are lower priority comparing to no. 1.
Matrix: product-market combinations

Markets / Products	Young people	Senior people	Families with children	Scholars	Students
One day stay			3		
Weekend stay	3		3		
Short-term stay	3	2	2	3	3
Long-term stay	1	1	1	1	1

Source: Own elaboration.

Product development packages of services
That link particular attractions in the area of Cinque Terre, not just single attractions should be offered. It is necessary to pay attention to other components of marketing mix:

- Price - the price of the package would be lower, that a sum of the prices of single services in order to stimulate longer stays as well as the consumption of packages.
- Distribution - products for selected target groups should be distributed through specialized travel agencies focused in particular segment of visitors.
- Promotion.- in terms of promotion three basic tools should be utilized :
  - ***Brochures*** - it is necessary to publish and offer brochures in English, German, French and Spanish. There should be one basic general brochure and supplementary brochures for particular products. These brochures would be very much oriented towards interpretation of cultural and natural heritage of the national park. All of them should have the same design, using the park's logo.
  - ***Web site*** - web site of the park has to be more customers oriented. It should not only inform the existing and potential visitors, but should enable also to book services (not only information medium, but as well to sell the product).
  - ***Public relations*** - public relations should include both internal and external public. Activities with external public should include briefings, press releases; events aimed at general public, media, partners (universities, research centres, tourism and other experts).

Tourism infrastructure
To satisfy needs of the all mentioned target groups it is necessary to develop support facilities as well as to increase accommodation capacity.. Most of them should be located at the Via dei Santuari – see aforementioned Development of Architecture, Forestry.

- ***The Museums*** should be located in each of the five villages. It can be one Museum only, with 5 affiliated local branches. This museum-net has to spread offer of attractions and to balance attractiveness of all the localities of Cinque Terre for the visitors, as well to local inhabitants in order to enhance their feeling of local identity and uniqueness among the locals. The concept of museum would be an experience centre, offering interactive exhibition concerning culture, agriculture, landscape, and demonstrating way of living of local inhabitants of Cinque Terre.

- ***Educational centre***. Concerning two target groups – scholars (researchers) and students, education centres should be established in Volastra or in other removed settlements (such as Lemon) in the upper zones of the Cinque Terre National Park.. Education centres could be rented to universities and other stationary research institutions both for long or short period. It is possible to offer discounts for those institutions, whose students work for the park as volunteers (preservation of terraces, waste reutilisation etc.).

- ***Educational pathways***. To raise attractiveness of existing network of pathways in the park it need to be reconstructed and designed as the remarkable educational system of the adventure pathways focused on various specific themes and attractions, e.g.:
    - Historic Via dei Santuari – presenting architectural heritage and religion traditions in the area,
    - Wine growing treating and testing,
    - Olive growing treating and testing,
    - Lemon growing treating and testing,
    - Fauna and flora,
    - Climate, geology and hydrology,
    - Nature preservation in the park – main obstacles and problems,
    - Ways of transportation in the park (history of railways).

- ***Visitor centre***. There is a need of one head visitor centre. Its location is determined by tourism flows to the park. Anyone undertaking or activity cannot be spotted during short visitation of Cinque Terre National Park (the park at night, during other periods of the year etc.) it can be presented in that multimedia informative spot.
- ***Rent-a-bike facilities***. To make experience at the Via dei Santuari and other long distance paths more attractive for young people and families' network of rent-a-bike facilities should be built. The bike-pathways have to be separated from other routs.

E. CONCLUSIONS
taken into account the possible use in other similar projects from the methodological and didactic point of view.

The Smart History Project has been realized in the area support meaningful human work in the

natural environment.

This kind of environment is also called the cultured land. Contrary to the natural land where dominant processes are automatically lead by the Mother Earth, in the environment of the cultural land the initiative of the development was gained by a human long time ago. The human began to transform the given natural environment to improve his life conditions as well as his livehood.

In this process of formation he ingeniously respected laws of nature and the final work has become an integral part of nature. At the same time it has not been only the regulating element for his creator but also the brand new system of the natural environment.

There are many similar processes in the world. There are also many cases when traditional ways were put aside. It is generally found out with a lapse of time the left traditional system had also more important social functions and it is also in the interest of today's society to preserve them. At that time it is necessary to find new ways suitable for the changed conditions, new methods and tools that will provide technical protection of the unique local situation but with the different motives and through the different tools than the old ones.

The Smart History Project might be the inspiration especially in the cases where the subject of the protection and the new social using are the human works:

- Developed in the past for the specific conditions of the area or the production
- They prove that they worked perfectly in the stream of history
- They are desolated nowadays because of the economic reasons but still containing active potential of the historic legacy for the current and future generations.

The interest to stop systematically degrading trend of such landmarks raise an attention to get knowledge and use the others experiences.
The Smart History Project might be also the inspiration and the lesson for other localities and other researchers.

Case study of National Park Cinque Terre can be utilized in other European protected areas to use as an example of efficient visitors management. It is inspiring from the methodological point of view to use (repeatedly):

- ***Organization scheme of the project, especially in:***
    - Multidisciplinary collaboration of different professions and sciences
    - International cooperation
        - Through the international interaction
        - Through the national views
        - Brainstorming in the environment of academic workplaces

- ***Approach to the solution*** through the proposal workshops with a public presentation and discussion with local residents

- ***Methodical scheme and the project procedures*** (objectives, aims of the project / techniques, procedures and tools / division of tasks or competences, authorities / working procedures /...

- ***Inspiring or rather analogically used principle*** of the complex information system as a tool which effectively link all the proposed and also realized activities in the monitored area.

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ANNEXES

A. Appendices related to the propositions by the ANTWERP (B.) Team.

A1. Eight statements, in: KNOPS G et al., Open Monumenten: 8 voorbeelden: bouwkundig erfgoed en toerisme in cultureel perspectief. Brussel, Koning Boudewijnstichting, 1996, p.165-167.

A.2. Monument watch in Flanders. www.monumentenwacht.be

A.3. ICOMOS Charter for Cultural Tourism.
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A.5. The Zumthor Thermal Baths in Vals, Switzerland.

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Appendix 1: *Eight statements*, in: KNOPS G et al., Open Monumenten: 8 voorbeelden: bouwkundig erfgoed en toerisme in cultureel perspectief. Brussel, Koning Boudewijnstichting, 1996, p.165-167.

Eight statements

1

Opening up the heritage from a cultural point of view is an essential and priority task where monument conservation is concerned. To implement this social task, those in charge of monument upkeep must initiate a dialogue with partners from the cultural, town and country planning, environmental planning and tourism sectors.

The management of the heritage from a cultural point of view goes further than the careful preservation of the material source. It involves making the heritage active by initiating a 'dialogue' between it and the people.
The increasing interest of tourists in the heritage sometimes gives the impression that opening it up is a matter for the tourism sector. Rather, it is mainly up to the monument conservation sector to define this task. This is done in cooperation with other partners, who contribute to the material and spiritual opening up of the heritage.

2

Opening up the heritage from a cultural point of view must be effected by implementing a contemporary project which enables the value and current significance of the heritage to be expressed. Monument conservation must emphasize the preservation as well as the updating of the heritage. The tourism sector must view the heritage not as a consumer product, but as an opportunity for a profound cultural experience.

Opening up a monument requires that a perspective be developed which both maintains and updates its historical values. It builds on a contemporary reading of the historical value of the heritage and on the opportunities and impulses this heritage can provide today for new cultural and social developments.
The approach to the monument is determined by a contemporary project which revives the monument, giving it fresh - sometimes new - contents and potential. Such projects require unity of vision, purpose, organization and means.

3

A project to open up a monument must be geared to cultural experience and development, and offer experiences and insights which trigger critical reflection about one's own environment and world. This experience must be stimulated by the use of cultural instruments. The development of these instruments is yet another new task for monument conservation and participating partners.

Cultural experience is the result of a dialogue between visitors and monuments. It is a mixture of emotional impressions and intellectual pleasure: a sense of beauty and wonder which can be felt and understood.

The encounter with the monument gives people a chance to discover something about themselves and their environment.
The manner in which the monument's contemporary story is told and passed on depends on the use of a number of cultural or educational instruments, which provide a starting point for experience and reflection.

4

Culture gives a human perspective to the opening up of the heritage. Culture should be the knowledge and conscience of monument upkeep and the heritage tourism sector. The cultural sector is a privileged partner for monument conservation and the tourism sector.

Insight and experience derived from the world of art and culture are desirable, both for developing the opening-up project and using the instruments.

5

The monument cannot be isolated as an object or product. Opening up the heritage requires a context of time and space, a link between the past and the present and ties between the heritage and its social and environmental context.

The temporal and spatial context is a vital aspect of opening up the heritage. Careful handling of a monument means paying due attention to the past while giving the present a significant place, so that the past has a future.
The heritage can only be opened up successfully when a monument is given a social, cultural and environmental basis which makes its significance clear. A link with the local community, the environment, the village, town or landscape is a prerequisite.

6

The link between heritage and tourism is not exclusive. Tourism is just one user of the heritage. 'Shared use' presupposes respect, assumes that the consumer will make adaptations, places limitations and demands that the monument's fragility and potential be taken into account. Cooperation between monument upkeep and tourism must be based on respect for the heritage.

Opening-up a monument from a cultural point of view must be based on the concept of common use. There should be close ties between the heritage on the one hand and art, culture, education, town planning, nature and the environment and tourism on the other. The heritage has many target groups: inhabitants (where applicable), users, the local community, the authorities, the education system and the tourism sector. Although stimulating tourist demand is not a priority when opening up a monument, it should be considered on the basis of the potential and limitations of the monument and its use. Indeed, tourism is a partner which can stimulate initiatives in the areas of conservation and opening up.

7

The organization in charge of the opening-up project should be based on the idea of common use.
Creating a network of partners and supporters is a priority which has as yet received inadequate attention.

A strong foundation can contribute to:
- the creation of goodwill and support,
- assistance with the procurement of funds and subsidies,
- informative support,
- attracting visitors,
- stimulating new initiatives,
- anchoring project in a broader community,
- the maintenance and preservation of the monument.

8

Monument conservation, the cultural sector and the tourism sector must all make a financial contribution to opening up the heritage.

The monument upkeep policy should subsidize not only the restoration, but also the opening-up of the heritage. It is also desirable for opening-up projects to receive subsidies from the cultural authorities - as is the case with, say, museums.
The financial returns derived from tourism must be used to maintain and open up the heritage.

Appendix 2: Monument watch in Flanders.

www.monumentenwacht.be

■ ■ ■ ■ MONUMENT WATCH

A monitoring and maintenance system for the cultural heritage

■ Field of action

Over the past 25 years, Belgium has acquired federal structures wherein the management of the country is shared between:

- The state,
- The 3 regions (Brussels-Capital, the Flemish region and the Walloon region),
- The 3 linguistic communities (the French community, the Flemish community and the German-speaking community).

The country is further divided into 10 provinces (5 within the Flemish region)
And 589 communes.

Due to this rather complex political structure monument watch only exists and therefore operates in the Flanders region. Many efforts to start up a similar initiative in the Brussels-Capital region or in the Walloon region have been unsuccessful up until now.

This division into regions - authorised for territorial linked matters - and communities, authorised for linguistic linked matters, had an fundamental influence on the regulations concerning the care of the cultural heritage. Monuments, sites, and archaeology (immovable heritage) fall under the authority of the Flemish region, as where culture, and therefore the movable heritage, is a matter for the Flemish community. Practically, this means that there is a different legislation for both fields of action, furthermore there are 2 separate administrations and in most cases 2 different ministers.
Monument watch operates in monuments, immovable heritage, but the movable artefacts these monuments house, are also the object of our status reports. Here we cross the theoretical line that exists between regions and communities.

■ Objective

The central concept of monument watch is simple but obvious: prevention is better than cure. The association tries to contribute to the revaluation and the physical maintenance of the cultural heritage. We do so by offering a systematic inspection system focused on maintenance.
We operate on to levels. In the short term we try to stop decay by immediate action, pointing out the weaknesses in a building to its owner and consequently bringing about works of repair and maintenance.
In the medium or the long term we try to realise a gradual change in mentality with regards to necessity of regular maintenance. Buildings decay in a gradual process, with the exception of calamities (fire, earthquakes, war, ...), and very often major damage is the result of minor damage that hasn't been taken care of in due time. Regular maintenance can slow down the process of decay, or even partially prevent it.

■ Structure & finance

Monument watch is no public administration. We are a group of six non-profit organisations, established under public law, at the service of the owner or manager of the building. It consists in one central organisation plus one organisation per province (5 provinces in the Flemish region). All organisations have the same social goal and are structurally interrelated. Furthermore the 5 provincial associations are closely linked to the respective provincial authorities.

Monument watch Flanders, the central organisation, functions as a platform for meeting, setting up common policies and looking after common interests. It is responsible e.g. For the safety policy for the employees, the recruiting and constant training of the monument watchers, the general quality of the service to our members.

Financially, we work with subsidies from both provincial (70%) and Flemish authorities (20%). The rest of the income is generated through subscription and inspection fees.

■ Membership

Monument watch is an independent advisory body. We offer our services to building owners and caretakers. It is rather important to point out that the membership is a voluntary one. (the first step in the gradual change of mentality is to convince the owner to become a member.) The association gives independent advice which the owner can use to obtain maintenance grants from the provinces or Flemish government and to contact a contractor for maintenance works.

Members pay yearly an subscription fee of 40 euro per building taxes included. They will then pay an inspection fee of 47 euro per hour of actual inspection time (by a team of specialists), incl.VAT.
An average inspection of 1,5 days by one team will cost about 423 euro membership and taxes included.

The association targets private owners as well as public authorities, legally protected (listed) monuments and other buildings. The only criteria include the historical value and the physical state of the building: the building needs to be accessible and in a state that it doesn't require mandatory restoration, otherwise any maintenance work would be in vain.

■ Integral approach: immovable and movable heritage

Monument watch prescribes an integral approach, stimulating the conservation of the structural condition of the building as well as of its interior and movable artefacts.

In 1992, monument watch set out in Flanders with one team per province, i.e. A total of 5 teams. Due to the very large demand, by the beginning of 1995 this number has already been increased with 10 teams.
At present time there are 34 architectural monument watchers.

Since 1996 in two provinces 2 teams of interior monument watchers are operational. These inspections are focused on furniture, paintings, mural paintings, stained-glass windows, metal objects, textiles and the general condition of preservation of these objects (climate, humidity,...). In 2003 every province has its own interior monument watcher, bringing up the amount at 7 interior watchers.

Regular condition surveys

We use a standardised process for the on-site inspections and the recording of information. Regular inspections result in condition surveys / status reports with recommendations emphasised on the need of maintenance. Armed with this report, the owner or manager can have the necessary work done in good time, thereby preventing a great deal of subsequent damage. The reports must also highlight any urgent problems or, conversely, plan for work to be done in the medium term.

The conclusions of the inspections result in a standardised report, formalised in a word-document there are 3 types of reports, depending on the inspection-type: one for the architectural inspection, one for the interior inspection, a third checklist has been drawn up for water- and windmills, with an emphasis on the technical parts they contain.

Detailed status reports
Structure of the report:

Recommendations: being the most important par of the report holding the conclusions of the inspection and giving recommendations for maintenance and repair

1. Works to be carried out to insure an optimal accessibility and safety

Urgent/in short term/in long term

2. Works to be carried out in view of the preservation of the monument

Urgent/in short term/in long term

3. Special attention required in view of durable maintenance

The actual report: giving a detailed description of the state of the building based on a standardised checklist
Starting with roofing, connections, penetrations in the roofs, trusses and attics, rainwater disposal, exterior works, **...**
We use 4 criteria to judge the state of the different parts of the building:

Good (g): for a good maintenance of the monument are no immediate works to be carried out
Reasonable (r): the recorded defects are not acute. However, a raised vigilance is needed in order to intervene in good time.
Moderate (m): local defects were established. These need to be repaired in good time
Bad (b): an urgent and thorough repair is needed.
Not (n): these parts could not be inspected because e.g. Of a lack of safety. Consequently, a fast and thorough intervention is needed.

Since 2001 we have extended the report with a more refined and numeral judgement system, implemented both in the word-document as in the access database. The major building parts are now judged in term of percentage. This system enables the reader of the report to know in percent how much a building part is in a good, reasonable, moderate or bad state.

For instance: 90% of the slates of the main roof of the church are in a bad state, the other 10 % is in a good state. An urgent and thorough repair is needed of the whole roof. It will take a full restoration of the roof, a major investment is needed.
10% of the roof is in a bad state, 90% is in a reasonable state. The local defects need to be repaired immediately, for the rest of the roof a raised vigilance is needed.

The costs of the repairs will be moderate.

At the end of the report the reader can find a rooftop plan. This is not an actual survey but a rough estimation to be able to locate the major weaknesses.
In most cases pictures are added to the report of the most important defects.

Maintenance schedule/planned conservation
An additional service monument watch will furnish in the near future, is a tailor made maintenance schedule for every member building. The schedule is based on the standardised checklist of the report and indicates which control and which maintenance work must be carried out linked with frequency and time. This instrument is the key for a long-term maintenance plan and can be used by the owner and the contractor to determine a maintenance contract.

On site advice/help desk

After the actual inspection and the written report, on demand of the owner monument watch can give specific advice concerning works to be done. It is a very crucial part in our task to operate a change in mentality. Especially for church interiors the oral recommendations given on site to those responsible for the regular maintenance, can make a lot of difference. (it is not always an easy task to convince voluntary workers to use different products to clean church floors or to wax the 18th century wooden panelling.)
We have published a manual for the regular maintenance of the interior of historic churches, which has been distributed to all member churches (almost 1300).

Further general advice is given with the publication of maintenance brochures , an informative newsletter and a website.

■ Datamanagement and statistics

For the input of the general owner- and building linked information we have developed a tailor made access database system.
Since the actual report is written in a word document, it can not be used for statistics. Therefore we are now, since 2001, adding the percentages in the access system. This numeral information can be used to draw up statistics. In short term building-types or materials can be compared, e.g. The state of the slate roofs of the churches in Flanders. In long term evolutions can be recognised within a same building.
By comparing the judgement in terms of percentage over several status reports, we consequently know whether the owner has maintained or neglected his building. It is obvious that there is an enormous potential of information yet to be discovered and to be analysed.

For each object a rough estimation of the size of the building is indicated in cubic metre.

■ Perspectives

Monument watch Flanders is preparing the internet link with the administration of monuments and sites (ministry of the Flemish region). This link with the heritage net will

provide us information concerning listed monuments, restoration files, maintenance grants files, inventory data, maps, illustrations, pictures, ….
The ministry will have access to our status reports and our owner-linked information. This 'heritage net' will be extended with links to bch databases of local authorities (departments of bch of provinces) and universities (e.g. The catholic university of Leuven).
Furthermore, we are very interested in setting up a network of experience between monumentwatch-type initiatives in Europe.

■ conclusion

Monument watch is an efficient and effective system for monitoring and maintenance for the cultural heritage. This statement can be proven by the number of members. We inspect at present 3500 objects and most of them stay member for a long period.
The experience of our technicians proofs that our members actually maintain their monument better by using our recommendations. The report is used by architects and contractors.
And finally, we can notice a constant growing interest in the maintenance grants of the provincial and Flemish authorities.

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Appendix 3: ICOMOS Charter for Cultural Tourism, http://www.icomos.org/tourism/charter.html

8TH Draft, for Adoption by ICOMOS at the 12th General Assembly, Mexico, October 1999

INTERNATIONAL CULTURAL TOURISM CHARTER

MANAGING TOURISM AT PLACES OF HERITAGE SIGNIFICANCE

Introduction

The Charter Ethos

At the broadest level, the natural and cultural heritage belongs to all people. We each have a right and responsibility to understand, appreciate and conserve its universal values.

Heritage is a broad concept and includes the natural as well as the cultural environment. It encompasses landscapes, historic places, sites and built environments, as well as biodiversity, collections, past and continuing cultural practices, knowledge and living experiences. It records and expresses the long processes of historic development, forming the essence of diverse national, regional, indigenous and local identities and is an integral part of modern life. It is a dynamic reference point and positive instrument for growth and change. The particular heritage and collective memory of each locality or community is irreplaceable and an important foundation for development, both now and into the future.

At a time of increasing globalisation, the protection, conservation, interpretation and presentation of the heritage and cultural diversity of any particular place or region is an important challenge for people everywhere. However, management of that heritage, within a framework of internationally recognised and appropriately applied standards, is usually the responsibility of the particular community or custodian group.

A primary objective for managing heritage is to communicate its significance and need for its conservation to its host community and to visitors. Reasonable and well managed physical, intellectual and/or emotive access to heritage and cultural development is both a right and a privilege. It brings with it a duty of respect for the heritage values, interests and equity of the present-day host community, indigenous custodians or owners of historic property and for the landscapes and cultures from which that heritage evolved.

The Dynamic Interaction between Tourism and Cultural Heritage

Domestic and international tourism continues to be among the foremost vehicles for cultural exchange, providing a personal experience, not only of that which has survived from the past, but of the contemporary life and society of others. It is increasingly appreciated as a positive force for natural and cultural conservation. Tourism can capture the economic characteristics of the heritage and harness these for conservation by generating funding, educating the community and influencing policy. It is an essential part of many national and regional economies and can be an important factor in development, when managed successfully.

Tourism itself has become an increasingly complex phenomenon, with political, economic, social, cultural, educational, bio-physical, ecological and aesthetic dimensions. The achievement of a beneficial inter-action between the potentially conflicting expectations and aspirations of visitors and host or local communities, presents many challenges and opportunities.

The natural and cultural heritage, diversities and living cultures are major tourism attractions. Excessive or poorly-managed tourism and tourism related development can threaten their physical nature, integrity and significant characteristics. The ecological setting, culture and lifestyles of host communities may also be degraded, along with the visitor's experience of the place.

Tourism should bring benefits to host communities and provide an important means and motivation for them to care for and maintain their heritage and cultural practices. The involvement and co-operation of local and/or indigenous community representatives, conservationists, tourism operators, property owners, policy makers, those preparing national development plans and site managers is necessary to achieve a sustainable tourism industry and enhance the protection of heritage resources for future generations.

ICOMOS, the International Council on Monuments and Sites, as the author of this Charter, other international organisations and the tourism industry, are dedicated to this challenge.

Objectives of the Charter

The Objectives of the International Cultural Tourism Charter are:

- To facilitate and encourage those involved with heritage conservation and management to make the significance of that heritage accessible to the host community and visitors.

- To facilitate and encourage the tourism industry to promote and manage tourism in ways that respect and enhance the heritage and living cultures of host communities.

- To facilitate and encourage a dialogue between conservation interests and the tourism industry about the importance and fragile nature of heritage places, collections and living cultures including the need to achieve a sustainable future for them.

• To encourage those formulating plans and policies to develop detailed, measurable goals and strategies relating to the presentation and interpretation of heritage places and cultural activities, in the context of their preservation and conservation.

In addition,

• The Charter supports wider initiatives by ICOMOS, other international bodies and the tourism industry in maintaining the integrity of heritage management and conservation.

• The Charter encourages the involvement of all those with relevant or at times conflicting interests, responsibilities and obligations to join in achieving its objectives.

• The Charter encourages the formulation of detailed guidelines by interested parties, facilitating the implementation of the Principles to their specific circumstances or the requirements of particular organisations and communities.

Principles of the Cultural Tourism Charter

Principle 1

Since domestic and international tourism is among the foremost vehicles for cultural exchange, conservation should provide responsible and well managed opportunities for members of the host community and visitors to experience and understand that community's heritage and culture at first hand.

1.1

The natural and cultural heritage is a material and spiritual resource, providing a narrative of historical development. It has an important role in modern life and should be made physically, intellectually and/or emotively accessible to the general public. Programmes for the protection and conservation of the physical attributes, intangible aspects, contemporary cultural expressions and broad context, should facilitate an understanding and appreciation of the heritage significance by the host community and the visitor, in an equitable and affordable manner.

1.2

Individual aspects of natural and cultural heritage have differing levels of significance, some with universal values, others of national, regional or local importance. Interpretation programmes should present that significance in a relevant and accessible manner to the host community and the visitor, with appropriate, stimulating and contemporary forms of education,

media, technology and personal explanation of historical, environmental and cultural information.

1.3

Interpretation and presentation programmes should facilitate and encourage the high level of public awareness and support necessary for the long term survival of the natural and cultural heritage.

1.4

Interpretation programmes should present the significance of heritage places, traditions and cultural practices within the past experience and present diversities of the area and the host community, including that of minority cultural or linguistic groups. The visitor should always be informed of the differing cultural values that may be ascribed to a particular heritage resource.

Principle 2

The relationship between Heritage Places and Tourism is dynamic and may involve conflicting values. It should be managed in a sustainable way for present and future generations.

2.1

Places of heritage significance have an intrinsic value for all people as an important basis for cultural diversity and social development. The long term protection and conservation of living cultures, heritage places, collections, their physical and ecological integrity and their environmental context, should be an essential component of social, economic, political, legislative, cultural and tourism development policies.

2.2

The interaction between heritage resources or values and tourism is dynamic and ever changing, generating both opportunities and challenges, as well as potential conflicts. Tourism projects, activities and developments should achieve positive outcomes and minimise adverse impacts on the heritage and lifestyles of the host community, while responding to the needs and aspirations of the visitor.

2.3

Conservation, interpretation and tourism development programmes should be based on a comprehensive understanding of the specific, but often complex or conflicting aspects of heritage significance of the particular place. Continuing research and consultation are important to furthering the evolving understanding and appreciation of that significance.

2.4

The retention of the authenticity of heritage places and collections is important. It is an essential element of their cultural significance, as expressed in the physical material, collected memory and intangible traditions that remain from the past. Programmes should present and interpret the authenticity of places and cultural experiences to enhance the appreciation and understanding of that cultural heritage.

2.5

Tourism development and infrastructure projects should take account of the aesthetic, social and cultural dimensions, natural and cultural landscapes, bio-diversity characteristics and the broader visual context of heritage places. Preference should be given to using local materials and take account of local architectural styles or vernacular traditions.

2.6

Before heritage places are promoted or developed for increased tourism, management plans should assess the natural and cultural values of the resource. They should then establish appropriate limits of acceptable change, particularly in relation to the impact of visitor numbers on the physical characteristics, integrity, ecology and biodiversity of the place, local access and transportation systems and the social, economic and cultural well being of the host community. If the likely level of change is unacceptable the development proposal should be modified.

2.7

There should be on-going programmes of evaluation to assess the progressive impacts of tourism activities and development on the particular place or community.

Principle 3

Conservation and Tourism Planning for Heritage Places should ensure that the Visitor Experience will be worthwhile, satisfying and enjoyable.

3.1

Conservation and tourism programmes should present high quality information to optimise the visitor's understanding of the significant heritage characteristics and of the need for their protection, enabling the visitor to enjoy the place in an appropriate manner.

3.2

Visitors should be able to experience the heritage place at their own pace, if they so choose. Specific circulation routes may be necessary to minimise impacts on the integrity and physical fabric of a place, its natural and cultural characteristics.

3.3

Respect for the sanctity of spiritual places, practices and traditions is an important consideration for site managers, visitors, policy makers, planners and tourism operators. Visitors should be encouraged to behave as welcomed guests, respecting the values and lifestyles of the host community, rejecting possible theft or illicit trade in cultural property and conducting themselves in a responsible manner which would generate a renewed welcome, should they return.

3.4

Planning for tourism activities should provide appropriate facilities for the comfort, safety and well being of the visitor, that enhance the enjoyment of the visit but do not adversely impact on the significant features or ecological characteristics.

Principle 4

Host communities and indigenous peoples should be involved in planning for conservation and tourism.

4.1

The rights and interests of the host community, at regional and local levels, property owners and relevant indigenous peoples who may exercise traditional rights or responsibilities over their own land and its significant sites, should be respected. They should be involved in establishing goals, strategies, policies and protocols for the identification, conservation, management, presentation and interpretation of their heritage resources, cultural practices and contemporary cultural expressions, in the tourism context.

4.2

While the heritage of any specific place or region may have a universal dimension, the needs and wishes of some communities or indigenous peoples to restrict or manage physical, spiritual or intellectual access to certain cultural practices, knowledge, beliefs, activities, artefacts or sites should be respected.

Principle 5

Tourism and conservation activities should benefit the host community.

5.1

Policy makers should promote measures for the equitable distribution of the benefits of tourism to be shared across countries or regions, improving the levels of socio-economic development and contributing where necessary to poverty alleviation.

5.2

Conservation management and tourism activities should provide equitable economic, social and cultural benefits to the men and women of the host or local community, at all levels, through education, training and the creation of full time employment opportunities.

5.3

A significant proportion of the revenue specifically derived from tourism programmes to heritage places should be allotted to the protection, conservation and presentation of those places, including their natural and cultural contexts. Where possible, visitors should be advised of this revenue allocation.

5.4

Tourism programmes should encourage the training and employment of guides and site interpreters from the host community to enhance the skills of local people in the presentation and interpretation of their cultural values.

5.5

Heritage interpretation and education programmes among the people of the host community should encourage the involvement of local site interpreters. The programmes should promote a knowledge and respect for their heritage, encouraging the local people to take a direct interest in its care and conservation.

5.6

Conservation management and tourism programmes should include education and training opportunities for policy makers, planners, researchers, designers, architects, interpreters, conservators and tourism operators. Participants should be encouraged to understand and help resolve the at times conflicting issues, opportunities and problems encountered by their colleagues.

Principle 6

Tourism promotion programmes should protect and enhance Natural and Cultural Heritage characteristics.

6.1

Tourism promotion programmes should create realistic expectations and responsibly inform potential visitors of the specific heritage characteristics of a place or host community, thereby encouraging them to behave appropriately.

6.2

Places and collections of heritage significance should be promoted and managed in ways which protect their authenticity and enhance the visitor experience by minimising fluctuations in arrivals and avoiding excessive numbers of visitors at any one time.

6.3

Tourism promotion programmes should provide a wider distribution of benefits and relieve the pressures on more popular places by encouraging visitors to experience the wider cultural and natural heritage characteristics of the region or locality.

6.4

The promotion, distribution and sale of local crafts and other products should provide a reasonable social and economic return to the host community, while ensuring that their cultural integrity is not degraded.

ICOMOS International Scientific Committee on Cultural Tourism.

Appendix 4: Heritage Covenants
The Cutting Edge of Flemish Heritage Policy

Dubrovnik, September 2004

I would like to begin by thanking Professor Sola, his staff and the organising committee of this conference for inviting us to come here to speak about Flemish heritage policy. It's not every day that a small region like Flanders gets to tell the world about its policy choices – not in the heritage field, anyway.
Flemings are supposed to be a modest people, but when it comes to the heritage policy pursued in Flanders in recent years, we can justifiably set our modesty aside for once. In the past four years or so, a number of crucial shifts have occurred in Flemish heritage: new ideas have arisen and policy instruments have been developed. It is about one of those new instruments – the heritage covenant – that I would like to talk to you for the next thirty minutes.

The covenant story began in 1999 with the election of a new Flemish regional government.

1. I'll spare you a tedious list of **laws and regulations** and will simply describe the general heritage situation in Flanders at the time: (I should add though, that the management in immovable heritage and movable/intangible is separated in Flanders which means: two different ministries and two different ministers)

    - A well-developed policy was in place to protect monuments and landscapes – a policy, I should add, that focused primarily on cataloguing/registration and conservation rather than on social positioning and inclusion;
    - a decree dating from 1985 on private archives set out the rules for accrediting and subsidising four archives devoted to philosophical and social movements; this was the first legislation in that area;
    - Another decree, this one dating from 1996, formalised the previously ad hoc approach to museum subsidies;
    - Finally, a decree relating to popular culture and intangible heritage had just been passed in 1998, covering the accreditation and subsidy of national associations in the popular culture sector and creating a support facility for it.

2. I'm sure you're all only too familiar with the story of **inadequate resources for the heritage sector**; however, the situation in Flanders at the end of the last millennium was particularly dire. Things were not too bad when it came to the protection of listed monuments – the regional government invested heavily in restoration work, obliging the provincial and municipal authorities to do their bit, too. When it came to moveable heritage, however – that is to say the contents of museums and archives – and intangible heritage the funds available were little more than symbolic.
3. It was obvious, moreover, that what legislation had been introduced was **extremely sector-specific** (Museum Decree, Archive Decree, and so forth) and above all **highly exclusive** in character. The mechanisms they embodied seemed to be geared more towards exclusion than possibilities for inclusion. Before you could be considered for accreditation and/or subsidy, you already had to have achieved a considerable degree of professionalisation, establishing a substantive profile, and so on. What's more, the fences separating individual sectors remained extremely high.

4. Meanwhile, a great deal of the moveable heritage in Flanders has yet to find its way into museums and/or archives. Much is still to be found in churches and abbeys, and in schools, public buildings, hospitals and the like. Heritage of this kind has been left to fend for itself. Not just because it isn't located in an institution devoted to preserving it and is not therefore

covered by heritage regulations, but also because the public does not always perceive it as heritage at its current location. We refer to this kind of material as **'stray heritage'**, though the Dutch pun word – **zwerfgoed** is nicer.

5. Last but not least, there was a **psychological factor** at play in the limited amount of interest shown in our cultural legacy: although Flanders is a small region that is unusually rich in heritage, we often fail to acknowledge that fact. We took and take our heritage for granted and treat it casually.

In other words, it was high time for a change. The minister was fully aware that you can't make up such a large backlog of resources, cataloguing, conservation, management and restoration overnight. What's more, he argued, it could never be achieved at all, without the necessary commitment on the part of society. It was thus decided that priority should be given to raising the profile of cultural heritage and giving it back an important and contemporary place in our society. The starting point of this policy was not to be the object so much as the people behind it. It is a policy that requires collaboration, participation and the development of public support – that is to say **a comprehensive and socially integrated approach to heritage.**

At the same time, the three leading Flemish cities of art (Antwerp, Bruges and Ghent) were taking a similar and important lead. Ghent in particular was searching for modes of collaboration and synergy between its various heritage institutions with a view to developing a policy that would also take account of heritage outside those institutions and that would facilitate networking between them. The ultimate goal of this approach was to bring heritage back to the people.

It is not really surprising that this signal should have emerged from the **local level**: Flanders is historically a highly urbanised region, in which the cities are the beating heart of Flemish heritage. The three major cities of art – Antwerp, Bruges and Ghent – for instance, hold the vast majority of Flemish moveable cultural heritage in public ownership and have developed a substantial base of expertise for the management of that heritage. In addition to this, an extremely important part of Flemish heritage is concentrated in regional centres and the smaller Flemish towns.

The decision to focus on a comprehensive and socially integrated approach to heritage and recognition of the immense potential the local level has to offer in this regard, prompted the government to develop the modalities for a new heritage policy. It did so by developing '**heritage covenants**' as an instrument to facilitate specific heritage initiatives at local level. 'Covenants' were already an established concept in Flanders in the fields of mobility and the environment.

What exactly is a heritage covenant? It takes the form of a collaboration agreement – subject to results agreed in advance – between different layers of government. The lower authority commits itself to carrying out a programme with a specific timetable and objectives, for which the higher authority – in this instance the Flemish Community – provides the necessary subsidies based on a heritage policy plan.

Covenants were signed in 2000 with the three main Flemish cities of art, Antwerp, Bruges and Ghent. Similar agreements followed in 2002 with Leuven, Tongeren and Mechelen. It is not possible for administrative reasons to agree a covenant with the bilingual Brussels Capital region, and so a special arrangement was made in 2003 to allow Brussels to develop an integrated heritage policy based on a heritage covenant. Covenants were also agreed in 2004, finally, with the cities of Ypres and Kortrijk. In other words, nine heritage covenants are currently in place. During the initial, experimental period, each of these was based on a series of annual agreements. However, on 7 May this year, heritage covenants and a number of other policy instruments were embedded in a fully-fledged Heritage Decree. This was clearly an extremely important moment for both the covenant system and for heritage policy in Flanders as a whole.

I will now tell you a little more about how these covenants work in practice. In so doing, I will be referring at first to the initial, experimental phase. I will then round off with a few words about the Heritage Decree and its implications for the heritage covenant.

As noted earlier, the covenant is a contract – a set of agreements between the Flemish Community and a local authority. The higher level of government provides the lower level with the finances to put the covenant into practice with the objective of, quote: 'developing a sustainable and comprehensive cultural heritage policy at local level', unquote. Based on this objective, the contents of the covenant are embedded in local heritage policy *and* broader, local cultural policy.

The first step in implementing the covenant is to set up a **Heritage Unit** consisting of at least two Heritage Coordinators. A Heritage Unit does not manage heritage itself, nor does it work on the basis of any fixed content. It is not easy to define the position of the Heritage Unit in a single sentence. Very generally, however, a Heritage Unit adopts a fairly independent position and seeks from a variety of angles to increase the dynamism of the relationship between local heritage and people – those who are professionally involved with heritage *and* the public.

The crucial feature to note is that each Heritage Unit approaches its job in close reference to the local situation. This can manifest itself:

- In the focus on a particular kind of heritage (or sometimes on the opposite: in Ypres, for instance, where tourism and culture have long emphasised the city's history during the First World War, a deliberate choice was made to leave that heritage to one side for a change and to focus instead on Ypres's 'forgotten heritage');
- In special attention for local needs (for ex. the development of a city museum in Ghent had been mooted for years but lacked a guiding force; the Heritage Unit took the project under its wing and was able to inject a new dynamism; STAM (the short for City Museum Ghent, as the museum is called), has thus become a key pillar in the operation of Ghent's Heritage Unit);
- In dissolving local tension between principal and secondary municipalities (work has begun in Tongeren to catalogue its moveable patrimony; every year a specific location is chosen in the centre of the town where the cataloguing work is to be carried out; in each instance, a secondary municipality is selected and emphasis is placed on cataloguing the moveable heritage of its local church.

One of the tasks of each Heritage Unit is, at any rate, to map out its local sector. This means drawing up an inventory not only of the existing heritage but also of the people who manage that heritage, who are 'players' in the field and who develop heritage projects. This task is a permanent concern. Cultural heritage is a dynamic concept and its scope within the heritage landscape is evolving all the time. Therefore, in preparing a survey of this kind, the Heritage Unit builds up an idea of what is out there and also of who is dealing with the heritage in question. Thorough analysis paints a picture of both the prevailing needs and of the different forms of expertise present in local heritage institutions.

These surveys then allow the Heritage Units to achieve their main tasks or better, objectives. It is not really fair to separate the two strands, as they are so closely intertwined (intertwained). For the sake of clarity, however, I will attempt to do so.

One objective, for instance, is sector support. Heritage institutions are often kept very busy with their own heritage practice, which has the effect of diminishing attention for what is going on around them. All the same, it has frequently been shown that consultation and collaboration strengthen not only the institutions' own work but the heritage sector as a whole. Heritage Units are plainly a privileged partner when it comes to setting up and developing this network and facilitating dialogue between the partners, precisely because of the position they have adopted with respect to heritage and heritage institutions.

Once again, examples are provided by Ghent, where special attention has been paid to consultation regarding the city's various archives. This consultation was established in response to the first Heritage Day – more on that in a moment – when it emerged that there were little or no contacts between the different archives in Ghent. The Heritage Unit took the initiative to coordinate the subsequent process. A total of 14 different archives in the Ghent region now participate in this informal consultative structure, which has since taken on a life of its own. Meetings between the participants have resulted in collaboration between two or more partners. At the same time, the group as a whole produced an exhibition and website in 2003 entitled 'Ghent Return'. The exhibition was conceived as a journey

through the archives' collections, linked by the theme of travel and travellers. It was held on the platforms of the main railway station in Ghent, with mini-pavilions that playfully recalled the World Expo held in the city in 1913.

In the Museum Field on the other hand, we have various examples of collaboration on local level. In Ghent, a working group focuses on a specific aspect of museum operations, namely public relations. Public relations staff from the municipal and private museums in the Ghent area regularly meet in order to share expertise and to coordinate their activities.

Similarly intensive collaboration occurs in Antwerp, too. My colleagues Peter de Wilde and Steven Thielemans will tell you more about that tomorrow.

In addition to the important objective of providing sector support, Heritage Units also undertake actions designed to raise the profile of local heritage and to bring it closer to the people. I refer, in other words, to public relations, though from the broad perspective to which the heritage covenant relates: broad in terms of both its focus on all types of heritage and of the methods used.

A noteworthy feature here is that Heritage Units tend not to use existing or proven methods but to develop new and innovative formulas that can subsequently be applied by others. Although a great deal of experimentation occurs with formulas of this kind, the aim is not just to create a flash in the pan: the long-term impact of the project is always the key focus. What's more, the Heritage Unit will constantly form alliances with new and relevant partners in order to achieve this goal. This too can help to further develop the existing network and enables expertise to be exchanged.

Heritage Units can, of course, take the initiative themselves, formulating the content of a new project and developing partnerships. Alternatively, partners can invite the Heritage Unit to join a project. The Unit can then take on a coordinating role (acting as a kind of project leader) or provide support, ranging from investment in the project to providing it with guidance in the form of steering groups. Many Heritage Units have set up committees of experts to help determine – often based on carefully formulated criteria – which projects should be overseen and/or supported by the Heritage Unit. It is important to stress, however, that Heritage Units are not themselves subsidy providers: third-party projects for which they offer financial support will, at the very least, have their content coordinated by the Unit.

It would be good at this point to give you an idea of the wide range of inclusive projects that the covenant cities have achieved to date, by offering a few striking and diverse examples.

- Heritage Units in Flanders have pioneered the digitisation of heritage. Many of them have developed **image banks** in which photographs, postcards, drawings, engravings and so on are brought together via websites with powerful search facilities that make the history and the evolution of the city visible to a wide audience. **Oral history banks** are also springing up: these offer high-quality sound recordings of residents and non-residents telling fascinating stories about the city and its history that are accessible to everyone. Finally, there are **archaeological websites** that focus on that particular aspect of the city's patrimony. One important feature is the fact that virtual collections of this kind are never complete – new material is added all the time.
- Heritage Units often work around specific collections too, whether or not they belong to the familiar heritage institutions. Examples include the 'Transistories' project in Kortrijk and 'A Century of Football' in Mechelen. 'Transistories' celebrated 77 years of radio in Kortrijk. The historical collection at the provincial broadcasting centre formed the backbone of an exhibition that guided visitors along a lively circuit evoking the region's culture, history and everyday life. Exhibition-goers were also able to flip through a treasure-trove of sound fragments.
  And now the Football-exemple from Mechelen: Mechelen has been split into two camps for the past hundred years by its rival football clubs: children are born into one footballing family or the other, bars, shops and even civil servants cheerfully display their allegiance and nobody in the city can sit still in the run-up to a local derby. As chance would have it, both clubs celebrated their centenary this year, prompting the local Heritage Unit and cultural centre to bring them

together for an ambitious public event. An exhibition devoted to a hundred years of football was staged at the centre, based on heritage material collected by supporters, players and clubs, and on oral testimony. Never before had the cultural centre welcomed such a colourful crowd.

- I would also like to mention two examples of projects with a very high level of public participation. The Heritage Unit and Municipal Archive in the city of Leuven organise this year their third 'KYC-Quiz' (KYC comes form Know-Your-City), following the success of the two first events. Using material from the Municipal Archive, residents were challenged on their knowledge of Leuven then and now.
  In Brussels, meanwhile, a project was launched to celebrate the city's workers. Oral testimony and stories were collected, focusing on trades that are declining or have already disappeared.

- The attention Heritage Units pay to architectural heritage is also expressed in projects aimed at the public. They have, for instance, carried out studies of houses and cellars to help bring residents back into the history of the place in which they live. Another striking example is the 'Stella Outback' project organised by Leuven's Heritage Unit. The old brewery buildings of Belgian's famous Stella Artois company – now Interbrew – were scheduled to be demolished and replaced with a new office complex. This prompted a photographic exhibition as a kind of nostalgic look back at an important slice of the region's industrial heritage.
- And I can't finish this list without mentioning the fascinating and highly successful project that the Antwerp Heritage Unit organised on the theme of Rubens. The large-scale Rubens exhibition in the northern French city of Lille – part of the latter's year as European Cultural Capital in 2004 – prompted a variety of organisations in Antwerp to organise projects devoted to the city's most famous son. The Heritage Unit, for instance, staged a collaborative project with Antwerp's principal churches under the title 'Rubens, Anything but Unworldly'. A different aspect of Rubens's personality was explored in each church. The pioneering aspect of the project was the way it got Antwerp's four main churches to collaborate with one another for the first time. The theme at the Church of St Charles Borromeo was Rubens as Project Manager, reflecting the fact that it was there that he once completed his largest and most demanding commission. Artist Ingrid von Wantoch Rekowski's video project 'Rubens Metamorphoses', which featured *tableaux-vivants*, reinvented the Baroque artist by bringing him to the year 2004 in what was once the city's most progressive church building.

All this is not to say, however, that Heritage Units have their eyes fixed firmly on their locality: nationwide contacts, information exchange and the development of broader visions are very much at the top of their respective agendas. Like everybody else, they need a sounding-board for their projects and opportunities to trade expertise. To facilitate those goals, **monthly consultation** sessions are held, moving from one heritage city to another. In addition to discussing financial and administrative matters, guests are often invited to come and describe the operation of national heritage organisations or to help sharpen the Units' focus. Above all, however, the sessions concentrate on the projects themselves: Heritage Units inform one another about their projects and issues that might require attention in the future. Consultation is organised and coordinated by 'Cultural Biography Flanders' – a support facility for Heritage Units and for archives and museums.

Heritage Units also organise **joint projects** through this consultative structure. The first covenant cities collaborated, for instance, on three joint projects – archive needs in Flanders, a project centring on city museums that resulted in the book *In Situ. Cities and City Museums* and one on the theme of repositories (a useful book was recently published with practical tips for effective conservation and management in repositories). A number of project proposals are currently being considered with a view to developing a joint project involving all nine existing Heritage Units. It should be stressed that joint projects are not a goal in themselves: the added value of carrying out projects jointly will be carefully scrutinised.

That leaves us, finally, with Heritage Day. Although Heritage Day is an initiative of the Flemish government rather than the Heritage Units themselves, it is important to mention the event here as a joint project. Somewhat confusingly, the Europe-wide event known as 'Heritage Day' is referred to in Flanders as 'Open Monument Day', which focuses on architectural or immovable heritage. The Flemish

Heritage Day, by contrast, is devoted to moveable and intangible collections. Heritage Day in Flanders is an annual public event designed to raise public awareness of heritage. A different theme is adopted each year: in 2002 it was 'Collecting, Collectors and Collections', followed by 'Travel in 2003 and 'Keeping it in the Family' in 2004. The focus in 2005 will be on 'Heritage in Danger; Danger in Heritage'. Although Heritage Day in Flanders is organised by all the region's heritage institutions and any local authorities with a desire to do so, Heritage Units are the main driving force. They are the ones, for instance, that bring all the local heritage players together to brainstorm the content of the next Heritage Day. Heritage Units are also involved in formulating the main principles of the event at national level. There is plenty of experimentation with new, inclusive formulas, and the 'low-threshold' heritage activities held on the day in question mobilise some 200,000 people. It is a big day for heritage in Flanders.

As I said earlier, I will now round off this presentation by telling you about the policy situation in Flanders as it stands in 2004. The approval of a Flemish Heritage Decree a few months ago was a ground-breaking move. It represents the first legislation in the heritage sector that is not limited to straightforward preservation or to a specific sector. Instead, the new Heritage Decree approaches heritage in its totality, introducing a number of instruments for the sector as a whole, the covenant being one of them. The content of the new law can be summed up as follows:

1. The decree integrates and updates the earlier Museum Decree, which set out rules for the accreditation and subsidy of museums. An important focus of attention in the museum section of the new law is on subsidising collaboration between different museums and between museums and other heritage institutions.
2. The Heritage Decree also sets out the structure for 'Cultural Biography Flanders' – the support facility for museums, archives and Heritage Units.
3. The decree addresses subsidies for all kinds of heritage projects – cultural-historical exhibitions, cultural heritage publications, development projects and international ventures; it is worth pointing out that the new structure can also be used to award subsidies to associations and protectors of scattered heritage
4. Most relevant to us, of course, is the strand devoted to covenants. The provisions of the new decree illustrate the success of the experimental stage, since very few amendments have been made regarding the way the covenants operate.

- The objective of the heritage covenant – to develop a sustainable and comprehensive policy towards cultural heritage at local level – has been reaffirmed.
- A new feature compared to the experimental covenant is the fact that the decree allows covenants to be agreed not only with towns and municipalities but also with associations of neighbouring towns and municipalities. The thinking behind this is that heritage frequently represents a regional narrative: landscape, artists, particular events and so forth have all helped shape a region's face. What's more, the decree will now also enable smaller towns and municipalities to sign covenants.
- The decree addresses the application procedure, making the criteria of the experimental period more objective; in addition to listing the necessary administrative documents to be submitted – which I'll spare you – this section offers some interesting information, as it sets out what substantive criteria an application has to meet in order to be considered:
    - The importance of both the existing heritage and heritage players has to be demonstrated;
    - Secondly, the applicant has to describe its vision of an integrated heritage policy and set out the objectives it wants to achieve through the covenant;
    - The regional spread across Flanders is also important, and
    - A breakdown is required of the resources that the relevant town or region will provide; it is specified at the same time that a town or region itself has to furnish at least 30% of the covenant's operating resources.
- Although the criteria have been made more objective, the decree refers explicitly to the consultation that will have to take place between the Flemish Community and the covenant applicant regarding the crucial individual character of the agreement.
- A maximum of three new covenants can be agreed every year, each running for six years, which corresponds with a municipal authority's term of office in Flanders; if an existing covenant achieves the intended objectives, it can be renewed.

- Covenants are initiated, tracked and evaluated respectively by a policy plan, action plans and evaluation reports.
- Operating subsidies for the covenants are calculated in the following manner:
    - 100,000 euros a year for a municipality or association of municipalities with between 20,000 and 35,000 inhabitants
    - At least 200,000 euros for those with 35,000 to 100,000 inhabitants
    - And at least 300,000 euros for those with over 100,000 inhabitants

Nine applications for the existing covenants and six new ones have been submitted for 2005. It is the ambition of the Flemish Community eventually to bring the whole of Flanders into the covenant system.

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Appendix 5: The Zumthor Thermal Baths in Vals, Switzerland

a) The architecture of the spa complex
Peter Zumthor

The new thermal spa, formally opened in December 1996 and already listed by the Canton Graubünden as a protected building in 1998, is a self-willed construction set into the mountain slope. It replaced the bathing facilities of the hydro hotel - built 1962 - 1970 - which were too cramped and in need of repair. The new separate spa building is built in Valser gneiss. Stone for stone. A massive element set in to the gradient of the slope and dovetailed with the flank of the mountain. The great slabs of the roof are grassed over: sections of flower studded alpine meadow.

The architectonic language of the new spa has nothing to do with the design of the hotel complex built in the sixties.
It is more profound underlining the essential in the context of a new interpretation of the constructional challenge; emphasising the special relationship of the new Therme to the primordial forces of nature and the geology of the mountainscape, reacting to the impressive topography of the valley and the position of the warm spring which rises out of the primeval mountain just behind the new spa.

The lengthy projection process culminating in the finished artefact of the spa was initially a process of playful discovery, of a patient and enjoyable quest far beyond the architectonic ideals. The fascination for the mystic qualities of a world of stone within the mountain, for darkness and light, for light reflections on the water or in the steam saturated air, pleasure in the unique acoustics of bubbling water in a world of stone, a feeling for warm stones and naked skin, the ritual of bathing - these notions guided us. The intention to work with these elements, to implement them consciously and to lend them a special form was there from the outset. Only much later, when the preliminary plans were almost finished did we visit the old baths in Budapest, Istanbul and Bursa and then understood better where these archaic images had come from; archaic images apparently slumbering in a virtually archetypal awareness.

Our spa is no funfair with the latest technical gadgets, water games, jets, sprays and slides, but focuses on the quiet, primary experience of bathing, cleansing, relaxing in the water, the feeling of water all round the body, at various temperatures and in various settings, physical contact with primordial stone.

http://www.therme-vals.ch/en/zumthor.php?activeNav=Zumthor&language=en

b) Thermal Baths Vals
Vals, Graubünden, Switzerland
Peter Zumthor 1996

Vals is a remote alpine village in the canton of Graubünden, which has recently become well known all over Switzerland and to some extent the rest of the world - it went through the Bilbao effect before Bilbao.
During the early 1980s the community of Vals bought a bankrupt hotel consisting of three buildings from the 1960s, and commissioned Peter Zumthor to build a new thermal bath. The building became a success in Switzerland: only two years after its opening it became a protected building; you can find photographs of it in any kind of magazine in that country; the name of the architect is well know to the common citizen of Graubünden; the village of Vals is again on the map.
Zumthor uses images of quarries and water flowing spontaneously from the ground to describe the conception of the building, ideas charged with an archaic atmosphere. Its geometric rigor reflects a huge rock embedded in the hillside.
The building is made from local Valser quartzite and concrete. Water, light and to some extent steam and heat, add to the definition of areas within the ritual of the bath

The primal act of bathing organizes the building. Entrance is through an underground tunnel where the iron richness of the Valser water first shows as it pours from wall-mounted copper pipes and stains the stone that lies beneath its flow. Following the tunnel there is a filtering volume where the bather enters from one side, undresses, and comes out from the other side ready for the bath. Stepping out of the changing rooms the bather will be on a longitudinal balcony space that overlooks the therme; from here he can go into the Turkish baths or flow down to the main floor using a ramp that runs parallel to the balcony.
The main floor is organized by a series of 'stones' (cubic volumes) which house baths at different temperatures, showers, and sweating, drinking or resting spaces. Between these stones is water, and beside them larger empty areas lead towards two large windows which frame the view of the mountains. Wandering into the central bath the swimmer can move into the outdoor bath and finally onto the terrace. Below the baths is a therapy level containing smaller rooms that serve for varied types of massage and physiotherapy.
Seemingly static at first glance, the spatial concept is in fact completely dynamic, and this duality of impression between the still and the kinetic makes the building a place of relaxation through action, an awakening of senses.
The ceiling consists of cantilevered concrete slabs, each piece separated from the others by 'fissures' - light slits that also add to the sense of fluidity of the overall space.

http://www.galinsky.com/buildings/baths/

c) The Thermal Baths, Vals, Switzerland

Architect: Peter Zumthor.

Peter Zumthor is an architect of extreme slowness as a result of incredible exacitude. Unbending and fundamental, he has recourse not so much to the claim of art, as to a far more fundamental responsibility for "correct building". It must be hand-crafted above all and follow the exact idea of the architect. With some justification, Peter Zumthor, who lives in Chur in the Swiss canton of Graubunden, is also known as the "Saint of The Mountains". Peter Zumthor's designs - only a few in his portfolio to date - are always milestones as well as basic and unique statements on the architectural potential of a place and a task.

The Building..

This also applies to the the Thermal Baths at Vals. The town is situated at the remote end of a deep valley in Graubunden, 1200 metres above sea level. An important resource in Vals is its hot spring: the water bubbles out of the mountainside, and has been exploited for therapeutic and tourist purposes since the 19th century. As a result of this a hotel complex was built in 1960, an innocuous attempt at the late modern movement of tourist architecture. The complex has suffered in recent times from a lack of attractiveness, which lead to a decision by the local authority to construct a new thermal bath. The council came down in favour of a proposal by Peter Zumthor, well aware that this could involve the execution of a difficult and potentially expensive project.

The new thermal baths stand alone half sunk into the earth; it is detached from the existing hotel complex, only being connected to it by an underground passage. A monolithic stone structure, which arouses the impression that the rooms and uses are bourne out of some sort of labyrinthine plan. The architect's statement by way of explanation "an architecture which renounces formal integration into the existing buildings in order to bite more deeply, to suggest what seemed more fundamental to us in connection with the task in hand; namely, to place the thermal bath in a particular relationship with the primal strength and geological substance of the mountain scenery and the impressive relief of the topography".
In other words, Zumthor wants to "bite more deeply"; he wants to push forward the "primal strength", and he likes the idea that "the new structure conveys the feeling that it is older than its existing neighbours, that it has always been here in this landscape".

Zumthor thought that the building "in its entirety should seem like a great porous stone". To achieve this, the architecture must step in as a methodically constructive intention. Zumthor redevelops what is known as "Vals Laminated Stonework": thinly cut section of local stone. Borne by the structure of the concrete, large "tables" with widely projecting ceiling elements, put together, finely distanced one from the other, into a geometric pattern, with slits to let the light in from above - these emphasising the independence of the compositional principle. They come across as stone tables. The lamination principle is assigned by the cladding of the stone parts, where every part is drawn and measured.

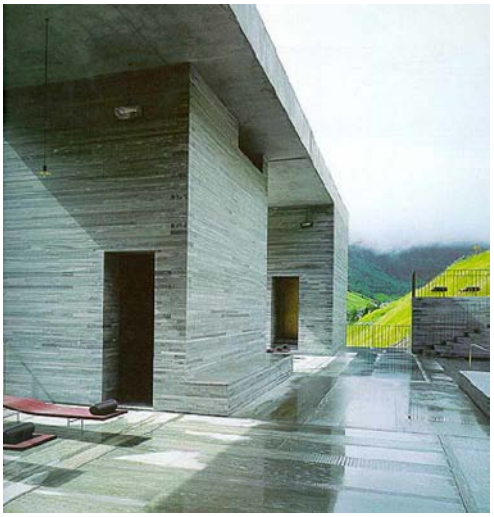
The architect indeed draws and develops the typology and dimensions of the individual cladding stones and also prescribes which stone should be placed where and at what size. Over and above this absolute technical control of the architecture, we have the concept of use and atmosphere. The rooms and volumes of the baths are defined and designated by Zumthor. Thus we have a sweating-stone, a showering-stone, a massage block. a drinking stone, a relaxation room, a fire-bath, a blossom-bath, a cold-bath, a sound stone.....

This is where the problems of the new Thermal Baths in Vals begin. The basic architectural work escapes into a new concept of utilisation. The bath is not a experience-bath in classic tourist sense. It involves a new experience, the body, our sensory aspects. What was thought of in architectural terms as the new fundamentalism of ability-to-experience, as resistance to the so-called "experience-baths", topples over as a fundamental architectural message into a "New Age" context, still utilisable, only differently.

In the concept of the Thermal Baths at Vals, Zumthor wanted to implant a fundamental architectural message. The facts that utilisation and marketing, however, show clearly that this architectural concept too can be devastated by consumerism. The Thermal Baths in Vals recognisably lives by the special, internal strength of the architect. New spatial experiences and physical sensations are the theme; the Thermal Baths wants to impart to us a new lesson in our relationship with the tourist baths, it demands a direct sensory encounter with the elements.

http://www.strath.ac.uk/Departments/Architecture/cities/d_webdes/barron_web/vals.html

d) Images



1: Relaxation space on the bathhouse.

http://www.strath.ac.uk/Departments/Architecture/cities/d_webdes/barron_

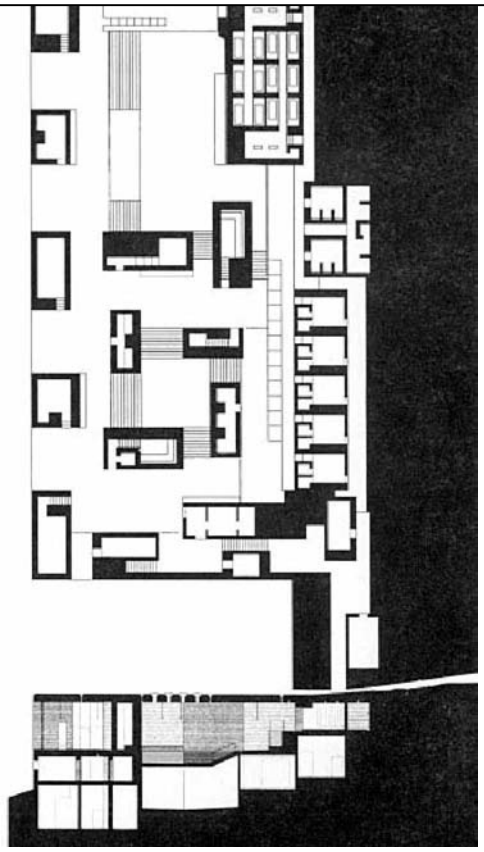
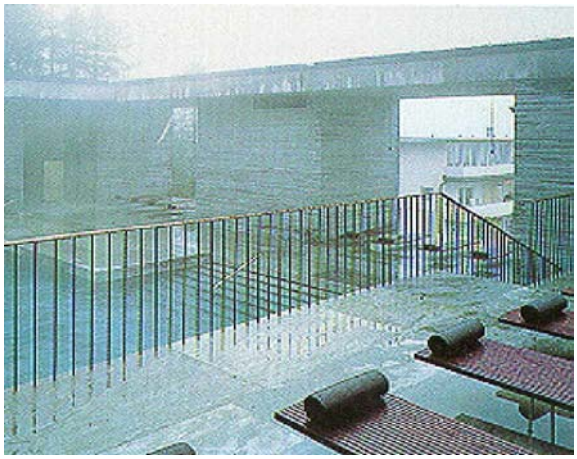


Figure1: Plan and cross-section of the bathhouse

http://www2.arnes.si/~ljdessa1/zumth

2: Façade bathhouse.

http://www.0lll.com/lud/pages/architecture/a



3: The open air bath on the roof

http://www.strath.ac.uk/Departments/Architecture/cities/d_webdes/barron_web/vals.html

4: Interior of the bathhouse

http://www.strath.ac.uk/Departments/Architecture/cities/d_webdes/barron_web/vals.html

A. International Final Exhibition – Copy of POSTERS of each group

1-Cinque Terre National Park

COMUNITA' EUROPEA Programma CULTURA 2000
CLT 2004/A1/IT - 154 - SMART HISTORY
From smart history towards common European Heritage
by preservation model of Cinque Terre National Park

PROJECT STAGES

Il progetto Smart History è volto a sviluppare un modello replicabile per la conservazione dei parchi nazionali che soffrono per un eccessivo afflusso turistico che degrada i monumenti, il paesaggio, la produzione e l'ambiente. Il mutamento dell'economia locale per il turismo ha alterato l'utilizzo e il concetto stesso della terra; il Parco Nazionale delle Cinque Terre è stato scelto come sito rappresentativo per l'elaborazione di un modello che permetterà in futuro di trovare soluzioni adeguate per la salvaguardia di un patrimonio frutto della combinazione di elementi culturali ed agricoli. Da quando il Parco è stato inserito tra i siti dichiarati patrimonio dell'umanità dall'UNESCO, è diventato un'attrattiva turistica internazionale. È importante quindi fornire ai turisti materiale informativo appropriato e facilitare in questo modo la loro permanenza alle Cinque Terre. Allo stesso tempo, È importante preservare questo particolare patrimonio. Il progetto si è svolto soprattutto nel Parco nazionale delle Cinque Terre, dove è stato inoltre organizzato un importante workshop internazionale della durata di 10 giorni che è stato il momento più intenso ed importante dei 7 mesi di lavoro. (da Novembre 2004 a Maggio 2005).

Gli obiettivi del Progetto sono:

1) identificare i principali problemi connessi ai parchi e al loro patrimonio come risultato di un afflusso turistico e di un cambiamento economico,
2) trovare soluzioni adeguate e sviluppare il modello che potrà essere replicabile in altri parchi europei similari,
3) radunare insieme giovani di diversi paesi europei per creare una rete di collaborazioni a lungo termine orientate a trovare le necessarie soluzioni per il comune patrimonio europeo,
4) scambiare le conoscenze acquisite in diversi settori che non sono tradizionalmente legati alla salvaguardia del patrimonio.

Il progetto coinvolge partecipanti provenienti da 6 paesi: Belgio, Italia, Polonia, Slovacchia, Ucraina e Serbia così come consulenti del Canada e della Repubblica Ceca. Ogni paese ha organizzato una squadra di lavoro di esperti afferenti a diversi campi: architettura, economia, agricoltura e tecnologia. Ogni specializzazione è rappresentata da un professore, alcuni assistenti e diversi studenti in modo da assicurare sia un approccio qualificato dei professori sia una nuova prospettiva da parte degli studenti. Uno degli obiettivi principali del progetto è stabilire una cooperazione a lungo termine tra università e persone e specialmente studenti per assicurare un proseguimento dell'iniziativa. Lo schema di partnership è stato elaborato con particolare cura e la sua buona riuscita deriva dal fatto che in ogni paese è presente un gruppo di tre persone con la stessa specializzazione. Tutto questo permette un maggior impatto del progetto su future ricerche nel campo della salvaguardia delle aree protette e dello sviluppo di una particolare legislazione.

The Smart History project aims to develop a replicable model for conserving national parks that suffer from tourism overload which degrades monuments, landscape, production and environment. The evolution of the economy towards tourism has altered land use and ways of conceptualising landscape and the Cinque Terre Park was selected as a representative case-study for building this model which will enable finding solutions to preserve a combination of cultural and agricultural heritage.

The park was listed as a UNESCO monument of high cultural value and as such it is a great attraction for tourists. It is important to provide tourists with adequate and suitable information and to facilitate their stay in Cinque Terre. At the same time it is important to preserve the original heritage. The project work took place at the Cinque Terre National Park and the international 10 day workshop was the most intense moment over the 7 month project (from November 2004 to May 2005).

Participants
1. Parco Nazionale Cinque Terre, Project Co-ordinator
2. Hogeschool Antwerpen Dep. Design Sciences, Antwerp.
3. Università di Firenze Dip. di "Progettazione dell'Architettura", Agraria e Media Integration
4. AGH University of Science and Technology, Cracow
5. Fakulta architektury Slovak University of Technology, Bratislava
6. Academy of Construction and Architecture, Odessa
7. Ecourban Workshop Belgrade, NGO
8. Fondazione del Bianco, Firenze

The objectives of the project are:

1) to identify the main problems related to open-air parks and their heritage as a result of a tourist overflow and change of economy,

2) to find relevant solutions and to develop the model which will be replicable by European parks of a similar type,

3) to bring together young people from different European countries in order to create a network based on long-term co-operation oriented to finding necessary solutions for common European heritage,

4) to exchange know-how across Europe in different disciplines which are not traditionally directly linked to heritage preservation .

The project involves participants from 6 European countries - Belgium, Italy, Poland, Slovakia, Ukraine and Serbia as well as consultants from Canada and the Czech Republic. Each country team consisted of the local university which set up a working group of people from the field of architecture, economy, agriculture and technology. Each specialisation was represented by a professor, PhD. students and a student in order to ensure both a qualified approach of experienced professors and new visions and the spirit of young students. One of the aims was to establish long-term co-operation between these universities and persons, especially students, to ensure a long-lasting after effect. This partnership scheme was set up with a great care and its efficiency derives from the fact that in each country there is a 3 person group with the same specialisation. This allows a greater project impact on future development and research in the area of preservation of different types European legacy.

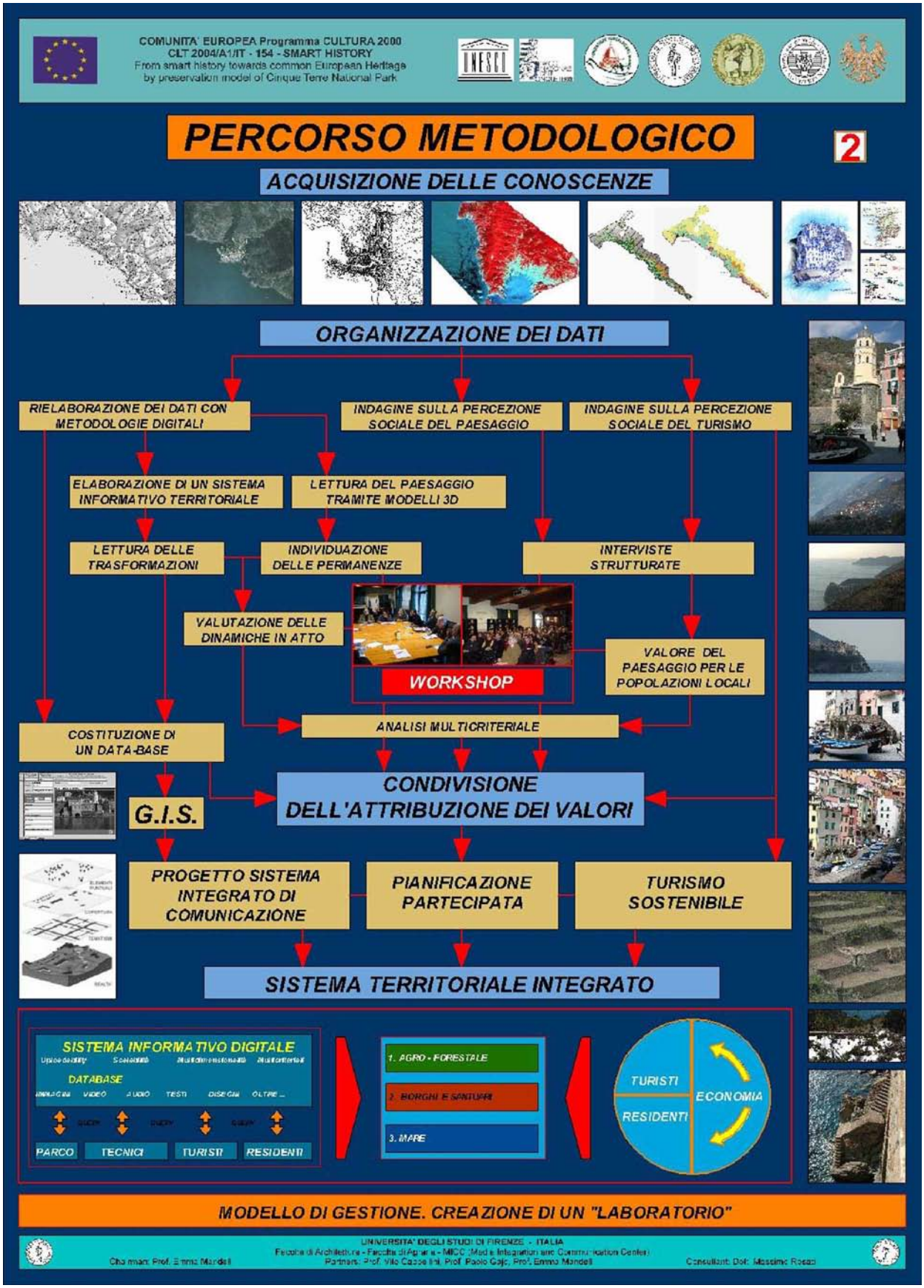
No.	Workpackage title	Leader	Start	End	Deliverables
WP1	Project Co-ordination	Parco Nazionale delle Cinque Terre	Nov	May	Project website Report on target group requirements and the state-of-the-art Organisation of International Workshop Data collection and trasmission Organisation of final project exhibition Virtual Exhibition
WP2	Preparatory phase	University of Florence.	Nov	May	4 reports with proposed solutions for 4 specific areas of Parco Cinque Terre preservation
WP3	Workgroups and Content creation	Faculty of Architecture, Slovak University of Technology University of Florence	Nov	Mar	Participation in International workshop Participation in Final exhibition
WP3	Workgroups and Content creation	AGH University of Science and Technology of Cracow, Poland Academy of Construction, Ukraine Ecourban Belgrade	Nov	Mar	Participation in International workshop Participation in Final exhibition
WP4	GIS system as a solution for outdoor mobile access to information and preservation	University of Florence.	Nov	May	Technical guidelines for content creation
WP5	Assessment and final replicable solution	University of Florence	April	May	Navigation system for Pocket PCs Final project demonstration
WP6	Dissemination	Hogeschool Antwerpen/Deurne, Postgraduate Centre for architectural and urban preservation, Belgium	Jan	May	Project handbook
WP6	Dissemination	All partners	Jan	May	Conferences etc.

PARCO NAZIONALE DELLE CINQUE TERRE
Area Marina Protetta delle Cinque Terre

Realizzato da Dr. Claire M. O'Neill PhD e Dott. Massimiliano Ceresoli
Parco Nazionale Cinque Terre

Cultura 2000

2- FLORENCE (Italy) group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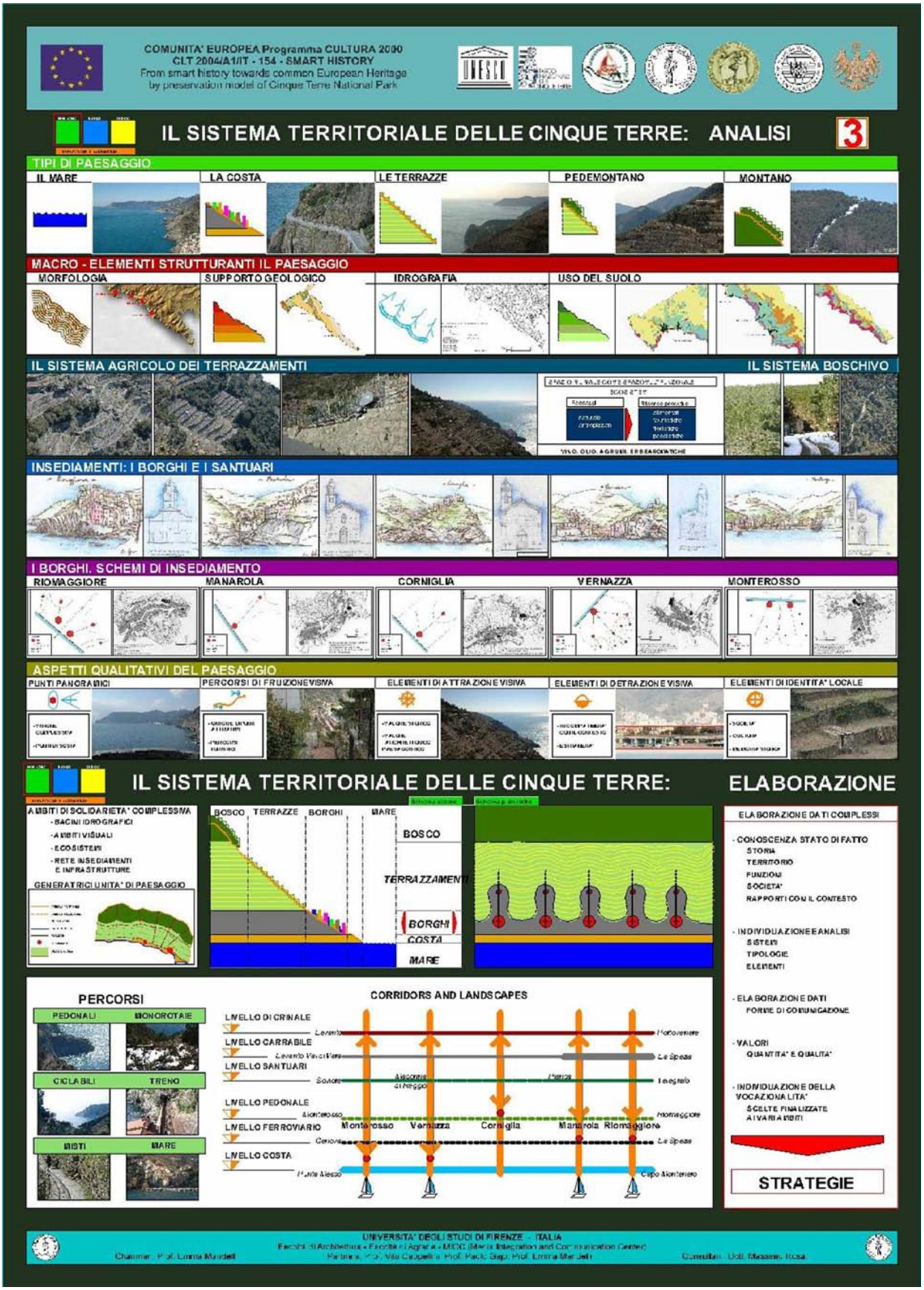
From smart history towards common European Heritage
by preservation model of Cinque Terre National Park
PERCORSO METODOLOGICO
2
ACQUISIZIONE DELLE CONOSCENZE
ORGANIZZAZIONE DEI DATI
RIELABORAZIONE DEI DATI CON METODOLOGIE DIGITALI
INDAGINE SULLA PERCEZIONE SOCIALE DEL PAESAGGIO
INDAGINE SULLA PERCEZIONE SOCIALE DEL TURISMO
ELABORAZIONE DI UN SISTEMA INFORMATIVO TERRITORIALE
LETTURA DEL PAESAGGIO TRAMITE MODELLI 3D
LETTURA DELLE TRASFORMAZIONI
INDIVIDUAZIONE DELLE PERMANENZE
INTERVISTE STRUTTURATE
VALUTAZIONE DELLE DINAMICHE IN ATTO
WORKSHOP
VALORE DEL PAESAGGIO PER LE POPOLAZIONI LOCALI
ANALISI MULTICRITERIALE
COSTITUZIONE DI UN DATA-BASE
G.I.S.
CONDIVISIONE DELL'ATTRIBUZIONE DEI VALORI
PROGETTO SISTEMA INTEGRATO DI COMUNICAZIONE
PIANIFICAZIONE PARTECIPATA
TURISMO SOSTENIBILE
SISTEMA TERRITORIALE INTEGRATO
SISTEMA INFORMATIVO DIGITALE
DATABASE
PARCO
TECNICI
TURISTI
RESIDENTI
1. AGRO - FORESTALE
2. BORGHI E SANTUARI
3. MARE
TURISTI
RESIDENTI
ECONOMIA
MODELLO DI GESTIONE. CREAZIONE DI UN "LABORATORIO"
UNIVERSITA' DEGLI STUDI DI FIRENZE - ITALIA
Facoltà di Architettura - Facoltà di Agraria - MICC (Media Integration and Communication Center)
Chairman: Prof. Emma Mandelli
Partners: Prof. Vito Cappellini, Prof. Paolo Gajo, Prof. Emma Mandelli
Consultant: Dott. Massimo Rosati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by preservation model of Cinque Terre National Park
IL SISTEMA TERRITORIALE DELLE CINQUE TERRE: ANALISI
3
TIPI DI PAESAGGIO
IL MARE
LA COSTA
LE TERRAZZE
PEDEMONTANO
MONTANO
MACRO - ELEMENTI STRUTTURANTI IL PAESAGGIO
MORFOLOGIA
SUPPORTO GEOLOGICO
IDROGRAFIA
USO DEL SUOLO
IL SISTEMA AGRICOLO DEI TERRAZZAMENTI
IL SISTEMA BOSCHIVO
INSEDIAMENTI: I BORGHI E I SANTUARI
I BORGHI. SCHEMI DI INSEDIAMENTO
RIOMAGGIORE
MANAROLA
CORNIGLIA
VERNAZZA
MONTEROSSO
ASPETTI QUALITATIVI DEL PAESAGGIO
PUNTI PANORAMICI
PERCORSI DI FRUIZIONE VISIVA
ELEMENTI DI ATTRAZIONE VISIVA
ELEMENTI DI DETRAZIONE VISIVA
ELEMENTI DI IDENTITA' LOCALE
IL SISTEMA TERRITORIALE DELLE CINQUE TERRE: ELABORAZIONE
AMBITI DI SOLIDARIETA' COMPLESSIVA
- BACINI IDROGRAFICI
- AMBITI VISUALI
- ECOSISTEMI
- RETE INSEDIAMENTI E INFRASTRUTTURE
GENERATRICI UNITA' DI PAESAGGIO
BOSCO
TERRAZZE
BORGHI
MARE
BOSCO
TERRAZZAMENTI
BORGHI
COSTA
MARE
ELABORAZIONE DATI COMPLESSI
- CONOSCENZA STATO DI FATTO
STORIA
TERRITORIO
FUNZIONI
SOCIETA'
RAPPORTI CON IL CONTESTO
- INDIVIDUAZIONE E ANALISI
SISTEMI
TIPOLOGIE
ELEMENTI
- ELABORAZIONE DATI
FORME DI COMUNICAZIONE
- VALORI
QUANTITA' E QUALITA'
- INDIVIDUAZIONE DELLA VOCAZIONALITA'
SCELTE FINALIZZATE
ATTIVARE VISITI
STRATEGIE
PERCORSI
PEDONALI
MONOROTAIE
CICLABILI
TRENO
MISTI
MARE
CORRIDORS AND LANDSCAPES
LIVELLO DI CRINALE
LIVELLO CARRABILE
LIVELLO SANTUARI
LIVELLO PEDONALE
LIVELLO FERROVIARIO
LIVELLO COSTA
Monterosso
Vernazza
Corniglia
Manarola
Riomaggiore
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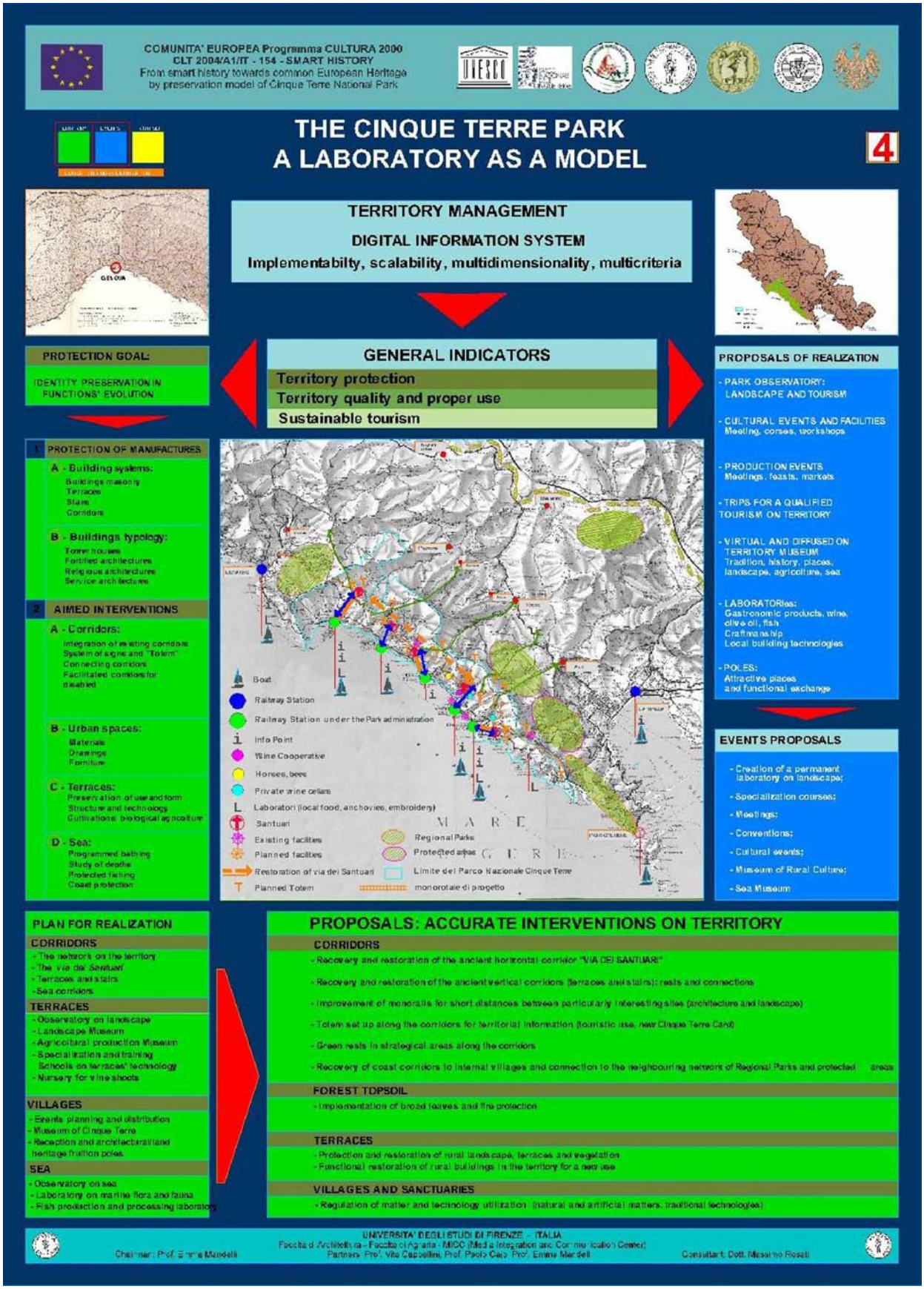
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THE CINQUE TERRE PARK
A LABORATORY AS A MODEL
4
TERRITORY MANAGEMENT
DIGITAL INFORMATION SYSTEM
Implementabilty, scalability, multidimensionality, multicriteria
GENERAL INDICATORS
Territory protection
Territory quality and proper use
Sustainable tourism
PROTECTION GOAL:
IDENTITY PRESERVATION IN FUNCTIONS' EVOLUTION
1 PROTECTION OF MANUFACTURES
A - Building systems:
Buildings masonry
Terraces
Stairs
Corridors
B - Buildings typology:
Tower houses
Fortified architectures
Religious architectures
Service architectures
2 AIMED INTERVENTIONS
A - Corridors:
Integration of existing corridors
System of signs and "Totem"
Connecting corridors
Facilitated corridors for disabled
B - Urban spaces:
Materials
Drawings
Furniture
C - Terraces:
Preservation of use and form
Structure and technology
Cultivations: biological agriculture
D - Sea:
Programmed bathing
Study of depths
Protected fishing
Coast protection
Boat
Railway Station
Railway Station under the Park administration
Info Point
Wine Cooperative
Horses, bees
Private wine cellars
Laboratori (local food, anchovies, embroidery)
Santuari
Existing facilities
Planned facilities
Restoration of via dei Santuari
Planned Totem
Regional Parks
Protected areas
Limite del Parco Nazionale Cinque Terre
monorotaie di progetto
PROPOSALS OF REALIZATION
- PARK OBSERVATORY: LANDSCAPE AND TOURISM
- CULTURAL EVENTS AND FACILITIES Meeting, corses, workshops
- PRODUCTION EVENTS Meetings, feasts, markets
- TRIPS FOR A QUALIFIED TOURISM ON TERRITORY
- VIRTUAL AND DIFFUSED ON TERRITORY MUSEUM Tradition, history, places, landscape, agriculture, sea
- LABORATORIes: Gastronomic products, wine, olive oil, fish Craftmanship Local building technologies
- POLES: Attractive places and functional exchange
EVENTS PROPOSALS
- Creation of a permanent laboratory on landscape;
- Specialization courses;
- Meetings;
- Conventions;
- Cultural events;
- Museum of Rural Culture;
- Sea Museum
PLAN FOR REALIZATION
CORRIDORS
- The network on the territory
- The via dei Santuari
- Terraces and stairs
- Sea corridors
TERRACES
- Observatory on landscape
- Landscape Museum
- Agricoltural production Museum
- Specialization and training Schools on terraces' technology
- Nursery for wine shoots
VILLAGES
- Events planning and distribution
- Museum of Cinque Terre
- Reception and architectural/land heritage fruition poles
SEA
- Observatory on sea
- Laboratory on marine flora and fauna
- Fish production and processing laboratory
PROPOSALS: ACCURATE INTERVENTIONS ON TERRITORY
CORRIDORS
- Recovery and restoration of the ancient horizontal corridor "VIA DEI SANTUARI"
- Recovery and restoration of the ancient vertical corridors (terraces and stairs): rests and connections
- Improvement of monorails for short distances between particularly interesting sites (architecture and landscape)
- Totem set up along the corridors for territorial information (touristic use, new Cinque Terre Card)
- Green rests in strategical areas along the corridors
- Recovery of coast corridors to internal villages and connection to the neighbouring network of Regional Parks and protected areas
FOREST TOPSOIL
- Implementation of broad leaves and fire protection
TERRACES
- Protection and restoration of rural landscape, terraces and vegetation
- Functional restoration of rural buildings in the territory for a new use
VILLAGES AND SANCTUARIES
- Regulation of matter and technology utilization (natural and artificial matters, traditional technologies)
UNIVERSITA' DEGLI STUDI DI FIRENZE - ITALIA
Facoltà di Architettura - Facoltà di Agraria - MICC (Media Integration and Communication Center)
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SUSTAINABLE TOURISM

5

ANALYSIS

ENVIRONMENT

HUMAN ELEMENT
- TOURISTS
- EXCURSIONISTS
- HOSTING COMMUNITY

GEOGRAPHIC ELEMENT
- GENERATING AREA
- TRANSIT AREA
- DESTINATION

INDUSTRIAL ELEMENT
- SUPPORTING SERVICES
- DISTRIBUTION
- TRANSPORT
- ACCOMODATION
- ATTRACTIONS

POTENTIAL TOURISM is strictly dependent on the

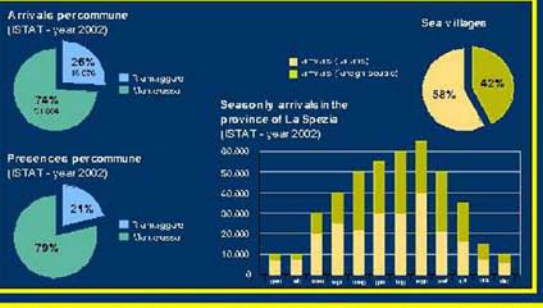
CHARACTERISTICS OF THE TERRITORY

that determine

DIFFERENT TOURISTIC FRUITION

HARD ELEMENTS
- Attracting elements
  - naturalistic/sport
  - rural
  - historic/cultural
  - bathing
- Accessing elements
  - railways
  - step-paths
- Facilities
  accomodation capacity

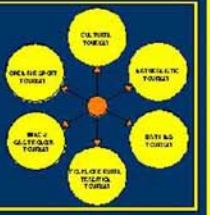
SOFT ELEMENTS
- Imagine of destination
- Imagine of information



DATA DEFINITIONS AND ELABORATIONS

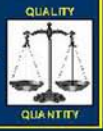
1-TOURISM TYPOLOGIES AND CHARACTERISTICS
- NUMBER
- QUALIFICATION
- DURATION, INTENSITY AND TYPE

2- POTENTIAL TOURIST OFFER OF CINQUE TERRE

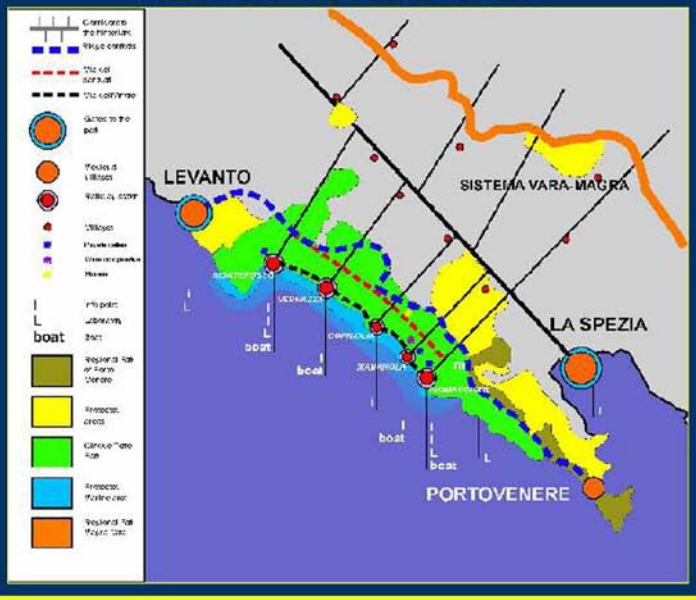


3- GOALS AND TOURIST PLANNING

Sustainable tourism in the area of Cinque Terre:
- evolution → controlled reception
- structures → appropriate and scaled on territory
- offers → computerised web

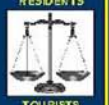


TERRITORY AND TOURIST OFFER



4- BALANCE AND REFERENCES

1. CONTROLLED CORRECTION OF URBAN STRUCTURES
2. SHARED AND PLANNED COHABITATION OF TOURISTS AND RESIDENTS
3. FILTER AND INSTITUTIONAL CONTROL OF LABOUR FORCES AND TOURIST STRUCTURES PERCENTAGES



5- DEVELOPMENT STRATEGIES

1. PERMANENT OBSERVATORY ON TOURISM
2. AGREEMENT PROTOCOLS ON TOURISM
   - WITH NEIGHBOURING PROVINCES
   - WITH REGIONAL NATIONAL PARKS
3. CENTRALISED INFORMATION FOR TOURIST PLANNING

6- COMMUNICATION EFFECTIVENESS

Info point	web linked information point on territory
new 5 terre card	interactive card with info points, bikes
totem	strategical interactive info points with cards and palmtop
palmtop	local GPS receiver

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COMMUNICATION - EDUCATION

6

Communication technologies make the creation of tourist education models possible.

Main Objectives

- Definition of priorities and methods for the park development.
- Creation of communication flows in data exchange.
- Creation of communication infrastuctures.
- Education of park staff and residents

Identification of the profile for "responsible tourism"

State of the art

The Cinque Terre National Park supplies information in the following forms :

Newsletters	Brochures	Posters	CD/DVD
Cable TV	Radio	Web site	"Cinque Terre Card"
Tradeshows, conventions	Merchandising	Training courses	Cultural interchange
Information centre	Internet point	Museum	Pocket PC e GPS

Data structure

DIGITAL INFORMATION SYSTEM → **Uploadability**, **Scale Flexibility**, **Multi-dimensionality**, **Multicriteria**

DATABASE
Images
Video
Audio
Text
Drawing
other...

- Query ↔ *PARK*
- Query ↔ *ADMIN. PERS. AND TECHNICIANS*
- Query ↔ *TOURISTS*
- Query ↔ *RESIDENTS*

Model guide

Starting park requirements → **Research** ← Change in park requirements

Research → **Appropriate information** ← Newly found information

Appropriate information → **Specify tools and technology** ← Newly identified tools

Specify tools and technology → **Educate involved people** ← New possibilities of education

Educate involved people → **Make a summary of achieved results**

The following principals should help in the process of creating a solution:

1. Build an appropriate image of the park (for example: Cinque Terre as a cultural landscape).
2. Scientific research development.
3. Touristic flow monitoring and control

Technical Solution

- Navigation system (Pocket PC, GPS)
- "TOTEM" network on territory to retrieve general information and monitoring
- Rebuild the existing web sites
- Evaluate and coordinate existing tools
- Use of "Cinque Terre Card" as electronic service card

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3-CRACOW (Poland) group

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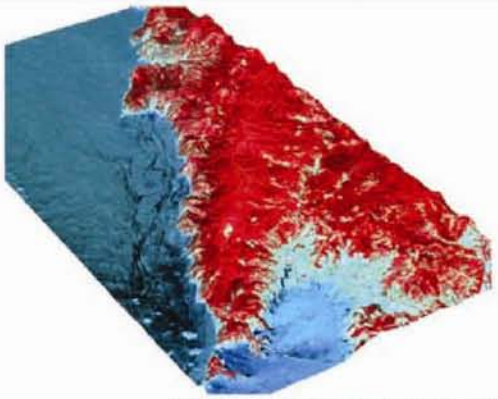
Cinque Terre National Park - ASTER FCC image



Cinque Terre National Park - ASTER FCC image draped over DEM

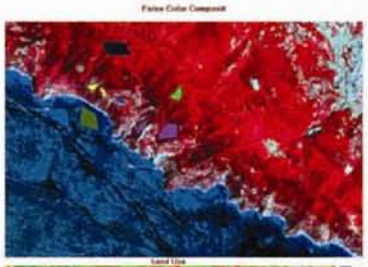
Remote Sensing - a tool for protected areas management and monitoring

Remote Sensing is a broad term covering differrent technologies of data acquisition. They common feature is that the measurement is done remotely - without any direct contact between the sensor and the object (or phenomena) under invastigation.

Remote Sensing Technology can be a valuable tool for the management in protected areas. It can be used among others in management and protection of forests and waters, land-use planning, assessment of damaged areas, soil-water contents assessment, environmental monitoring, etc. The users can choose appriopriate data for their task from the variety of close-range, airborne and satellite images in various spatial, spectral and time resolution.

IKONOS FCC image - Cracow region

Remotely sensed images can be visualised in different ways. So called False Colour Composit (FCC) is used very often for vegetation analysis. It is composed from three images acquired in green, red and near infra-red parts of the electromagnetic spectrum. It can be used for discrimination of vegetation or assessment of vegetation stage and condition. Draping images over Digital Elevation Model improves image interpretability.



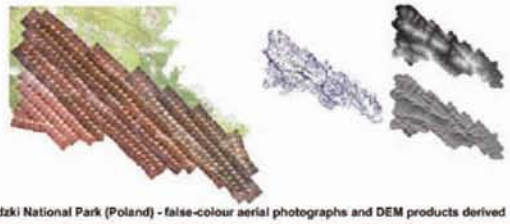
FCC image (merged Landsa and IRS PAN data) - Cracow

Various image trantransformations can help in visual interpretation of remotely sensed images. Landuse/landcover information can be extracted from images as a result of supervised image classification. This kind of the Computer Aided Photointerpretation is based on the knowledge about the test sites spectral characteristics.

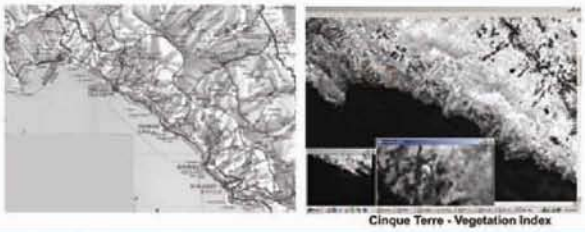
Vegetation Index is another kind of image transformation useful for vegetation assessment. This image shows a biomass level.

Middle resolution satellite images (pixel size 5-30 meters) can be applied in regional planning and mapping in scale of 1:50000. Nowadays a new very high resolution images exists (pixel size below 1 meter). Such images enables mapping in scale of 1:10000. Aerial photographs can be used for large scale mapping.

Remotely sensed images can be used for elevation mapping as well. The example from the Bieszczadzki National Park is presented below.



Bieszczadzki National Park (Poland) - false-colour aerial photographs and DEM products derived



Cinque Terre - Vegetation Index

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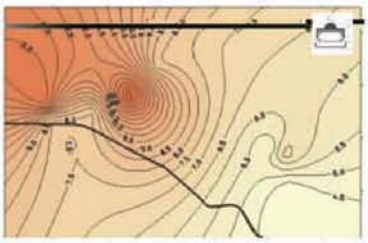
Conclusions:

Solving problems specific to the Cinque Terre National Park

1. The application of the remote sensing for the assessment of the quality of terraces focussed on water supplementation in the relation to maintaining the traditional eco-technology in vineyards and olive gardens.

2. The application of innovative laser biotechnology for:
a. acceleration of the growth of vine and this way faster renovation of vineyards,
b. construction of modern biological wastewater treatment stations (including highly efficient bio-reactors).
c. acceleration of the formation of protective of green belts alongside main roads crossing the Cinque Terre National Park.



3. The application of simple and economical samplers for the control (monitoring) of the air quality:
a. in the area of vineyards for the recommendation of pollutant free products,
b. alongside tourist pathways and centres in the mountains for the recommendations for good for health tourist activities: hiking, cycling, riding on horseback,
c. measurement of the exposure to air pollution of old architecture for securing the conservation work.

4. Education and motivation of tourists to go from coastal regions up to the mountains by:
a. (near the coast) photography exhibition of landscape, culture and nature heritage seen from the mountains,
b. aquarium and restaurant on the top of the hill,
c. introduction of the network of tourist information via mobile handhelds at the pathway,
d. setting up tracking pathway for sound tourism among sanctuaries named after John Paul II,
E. dissemination of information about the mountain part of Cinque Terre by the Internet and other tools of distance education.

Solving similar problems in other protected areas.

1. Making and managing the database system useful for colleting and dissemination of information about good practice in common action (local society, tourists and experts for the promotion of sound tourism and sustainable development (including traditional and innovative technologies

The Pieniny National Park

5 Terre National Park

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Our team would like to focus on the recommendations by the United Nations Assembly and UNESCO for the decade of education for sustainable development (starting from March 1, 2005). We would like to focus on the education of knowledge-based society and common action (of local stake-holders, decision-makers and the international team of experts and university students) promoting sound tourism and sustainable development of the Cinque Terre region. Education of different age groups of local residents and visitors is a key problem for effective protection of the unique cultural landscape as well as for the dissemination of the knowledge on nature and culture heritage in the mountain area of the National Park.

The Cinque Terre National Park is the park where one of the most important protected elements is landscape. Unlike many national parks it is the park where cultural landscape is the one which should be protected. This landscape consists of the terraces where vineyards have been cultivated for many centuries. The concept of sustainable development should be adequate for the protection of terraces by keeping alive the tradition of eco-technology connected with wine and olive oil production.

The key problem for the vineyards is protection against the distortion of water balance and erosion of terraces. Young generation in the area tended to leave the region and go to the cities. This caused the decline of the population and deficiency of labour to cultivate the vineyards. This many vineyards were left to the process of natural succession. The terraces were deteriorated by the progress of macchia and pine forest.

Another problem is over-concentration of tourism in the coastal region and mainly in summer season. Tourism should be distributed more uniformly tourists should be encouraged to go up to the mountains and, if possible the disproportion between summer and other seasons should be reduced. A sound basis of education and information system should be the vital force for mountain tourism.

The conditions for the qualified tourism can be fulfilled only if there is a proper education of potential tourists. This both refers to their knowledge and sensitivity to cultural and natural values.

The development of sound tourism with the respect to cultural programmes would also increase the chances for a young generation to stay in the Cinque Terre region. Natural tendency of young people to acquire all the technical novelties can support the progress of distance education as well as the introduction of wireless network for guiding tourists alongside a special pathway among sanctuaries in the mountains.

We would like to support the tradition of eco-technology of this region by innovative and economical biotechnology. Research-developing studies on the application of laser stimulation of plants would be useful both for the acceleration of the renovation of vineyards as well as for the effective bio-treatment of wastewater from tourist centres (including the application of the new generation of bioreactors).

To motivate tourists to go up to the mountains and to educate them some kind of attractions near the situated on the hills sanctuaries should be introduced. They would be focused on ecosystem approach to the protection of mountainous and marine biodiversity. This can be a small educational botanical garden near the Sanctuary of Santa Madonna di Monte Nero, referring to the tradition of herbal gardens in monasteries. One collection should include the most interesting ornamental plants from the region. Another collection should consist of medical and aromatic herbal plants.

The vast majority of tourists has keen interest in marine ecosystems. To motivate them to go to the mountains - a small oceanarium (similar to the one in our city Cracow) could be established in the Tourist Centre. This can be combined with the restaurant offering local products and alcohols like wine, Sciacchetrà and grappa.

Alongside the Via dell'Amore the exhibition of large size photographs showing the beauty of the sea (seen from the hills), mountains, old churches and works of fine art from churches should be displayed.

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Agriculture and Forestry

There is the need to make a nursery for the plants to preserve the quality of varieties of grapes.
We found out that local production cannot be competitive compared to other activities like tourism. To make it competitive - encouragement and help from other sources is needed. There is a system of subsidizing means for repairing terraces. Many people plant vine only for their own use, though. In the past most plantations were for the owner's use. Nowadays there is wine production organized by C.T. N.P.
The costs of labour can be reduced when voluntary labour is used. It has been estimated that 2.25 persons per year are needed to maintain 1 ha. This can be an attraction for students and some other young people to be able to work in agriculture and have free food and accommodation in this region. Such groups have already been organized and the scale can be increased.
In long term we must attract young people from the region to come back to Cinque Terre and work in agriculture or agro-tourism (more attractive than agriculture alone).
Complementary solution could be attracting labour force from other European (EU and the Mediterranean area) with the possibility of long term residence (not excluding permanent one).

The organization of olive tree products should be extended. Extra money for this purpose is needed. So far there is oil production, but there is a problem with providing large quantities of olives. One owner cannot collect enough olives within one day to provide them to the olive mill that requires approximately three times as much quantity of olives. It would be good to organize oil production in one co-operative, similarly to wine production. This way it would also be possible to organize the fermentation of olives for consumption. However only little part of olives can be used for this purpose, because the variety is not suitable for this purpose.

Tourists can be interested in buying different local products and seeing the way they are produced. At the moment there is nothing like wine museum and path showing a wine line – from vineyards to wine bottles (through all the production stages).
We can make some experimental plant nurseries (mini-botanical garden) in the highest parts of the park to show how plants from the region are used. That refers to different kind of cultivated and wild plants.

There is the plan to produce olives for consumption, but they are not produced at the moment (only oil is produced and sold).
Chestnuts are collected only for private use.
Figs are rare in this area and they are only collected for private use. The climate is not suitable for drying them and they cannot stay fresh for long.
Local herb plants are used to produce local brand of "Via dell'Amore" and "Aqua di Cinque Terre". Elichrisum italicum, lemon, lavender are used (among others) to produce this eau de toilette.

There is a problem with defining which territory should be reclaimed as terraces and which should be allowed for natural succession. Both kinds of land are necessary. There is a problem with growing bushes attracting wild boars that destroy vine. Hunting is forbidden in the National Park (apart from emergency cases), but the solution could be removing bushes from vineyards systematically.
Pinus pinaster causes problems with terraces, because it can destroy the dry walls. On the other hand it is a natural element of landscape (but not inside the terraces). We can use other native species like Quercus ilex, Quercus cerris and other broad leafed trees from this area to prevent erosion and diminish the effect of fires. Wood can also be used as energy source.
Forests are also an attraction (mainly in spring for tourists and in summer for local residents) because of the microclimate there. They are the source of biodiversity. Mammals like already mentioned boars, foxes, badgers, weasels and other Mustela species live there. The fauna of reptiles (e.g. Coluber viridiflavus) and amphibians (Salamandra salamandra) is also very interesting and might be attractive, but rather for specifically nature-oriented tourists. Avifauna is also very rich. There is a need for guides in English, giving scientific names.

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Protection of Cultural Landscape and Sound Tourism in Parks

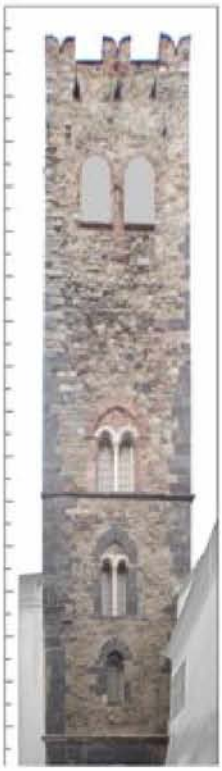

Fig.1. The photomap of the tower in Monterosso
Scale 1:50

Protection of cultural landscapes, specially in the national parks, calls, in the first place, for proper inventory and recording of the landscape topography, geology and natural details as well as all the important man-made objects, such as historic architecture, architectural details, and pieces of art. The best tool for recording, documentation and presentation of national parks, for tourists and specialists, provide photogrammetry and remote sensing techniques, which allow to unveil many object features, geometry and georeferenced position with the use of air born or terrestrial photographs.

In the National Park Cinque Terre there are many historical man-made objects, architectural monuments such as Monterosso church (fig.1, 2, 7) or are shaped, stone made stairs, which lead among the vineyards located on the high and steep slope of hills (fig. 3, 4, 5, 6), or build during ages elevated terraces, or churches and chapels situated in the hard to reach places, etc. All that objects must be recorded for the sake of future revitalization as well as for the promotion of sound tourism and education.

The photogrammetric stereo-photographs, also digital, provide spatial (stereoscopic) models, the metric 3D information. To properly dimension and georefence the recorded objects, we need control points, some data taken additionally directly at the site.
The control data, and stereo-pairs of photographs create so called passive photogrammetric documentation. In the several laboratory processes the passive documentation can be transformed to any special drawings, and artificial tonal black and white or colored pictures (maps, orthophotomaps, crossections, perspective views, or 3D VR movies) easy to use by experts, but also giving easy to read information for education and sound tourism.

The passive documentation consists an easy and not expensive way to collect information about valuable historical objects and sites for the future use. It has a great potential power to support future activities in case of disaster, and also can help to properly design prevention of the natural decaying processes.
It seems, that the passive photogrammetric documentation could be interesting for managers of national parks, such as The Cinque Terre, which is very rich with the many valuable large and small historical monuments of architecture and nature. Using limited financial means, an unique documentation of the site can be produced, for the future use by historians and for design of proper object revitalization and maintenance.

The photographs and stereo-photographs of attractive architectural or natural objects can be, though, also used directly, as a promotion material for tourists. They could be presented on computers in touristic offices with the use of special program and stereoscope (fig. 8). Another way of stereoscopic presentation is anaglyph, the special prepared picture, where the spatial impression can be obtained with the use of special glasses (fig. 2, 3). Such anaglyphs could be printed in tourist folders or on postcards (the pair of cardboard glasses, very cheap, should be added).
The photographs and stereo-photographs of the passive photogrammetric documentation, as well as products of photogrammetric documentation are available in digital form, and can be distributed via Internet, making the tourist more attractive information about the site.

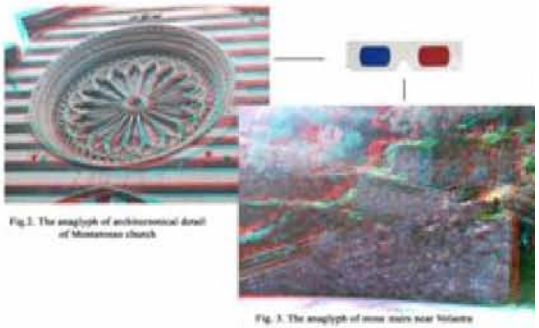

Fig.2. The anaglyph of architectonical detail of Monterosso church

Fig. 3. The anaglyph of stone stairs near Volastra

Fig. 4. The photomap of stairs stone wall. Scale 1:100

Fig. 5. The vector drawing of stone stairs. Scale 1:100

Fig. 7. The stereopair of photographs (portal of Monterosso church)

Fig. 8. Observation of the stereopair with the use of stereoscope

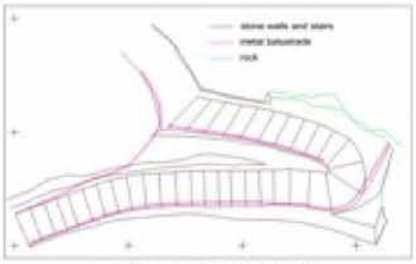

Fig. 6. The vector map of stone stairs. Scale 1:100

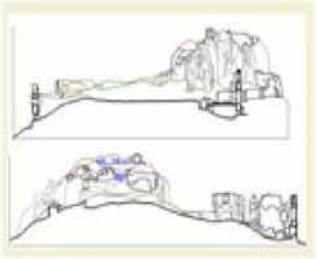

Fig. 9. The examples of vertical crossections of historical monument

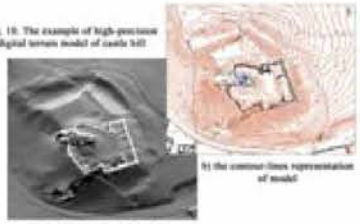

Fig. 10. The example of high-precision digital terrain model of castle hill

a) the shadow-view of model

b) the contour-lines representation of model

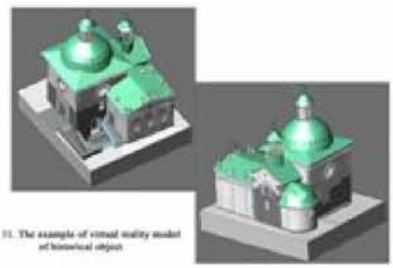

Fig. 11. The example of virtual reality model of historical object

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Economy and Sound Tourism

1. **Tourist selection**
2. **Extention of touristic season and touristic area**
3. **Deeper contact between tourist and stakeholders**
4. **Educational village**
5. **Solving education for all groups of age and professions**

Tourist selection

The Cinque Terre has become very popular over the last 20 years and nowedays there are about 2 million tourists visiting this beautiful place every year. If we compare this number with 5 thousand population of the Cinque Terre we can see that this area is far away from sustainable development. Moreover, most of the tourists movement concentrates at the coast. The most visited place is Via dell'Amore The Lovers' Lane, where people can walk along the coast admiring the beauty of nature. Usually they just walk without a consideration of what is happening around them. They do not have any idea about the problems in the Cinque Terre, they do not know about abandoned vineyards and about their recultivation. Many of them have not even heard of sustainable development. What should be done is rising the awareness of those problems among the tourists. It could be achieved by giving information (on leaflets) about the region in every info-point, restaurants, hotels, etc. In Monarola a new museum is being built It should provide extensive information about the Cinque Terre. However, there should be more such educational points, which could be placed in the whole area of Cinque Terre and which should attract people to come to other parts of park, not only to spend most time at the seaside. One of such educational points could be in Groppo an open air exhibition about olives and olive production (Groppo is the village, where there is the biggest production of olives). On the other hand we should also try to attract only "green tourists" to the Cinque Terre. The Cinque Terre Park should contact with travel agencies in different countries and ask them to present the Cinque Terre as unique place with cultural heritage. What is more, the Cinque Terre Park could use their internet site to promote themselves as a region where sustainable development is implemented.

Extention of tourist season and tourist area

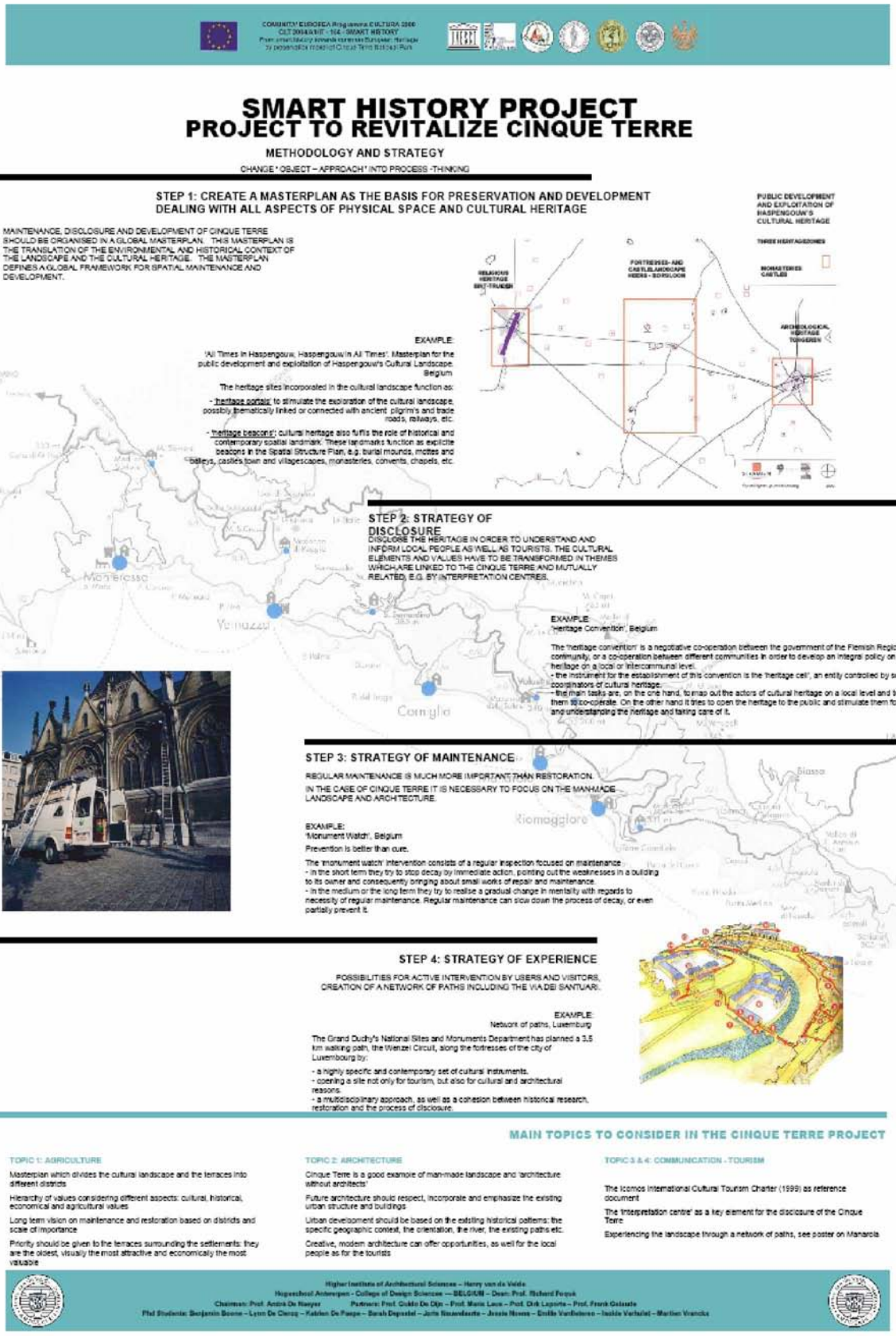
There are two problems concerning tourists:
1. High concentration of tourists in a small area of the Cinque Terre National Park at the coast
2. High concentration of tourists during a short period of time

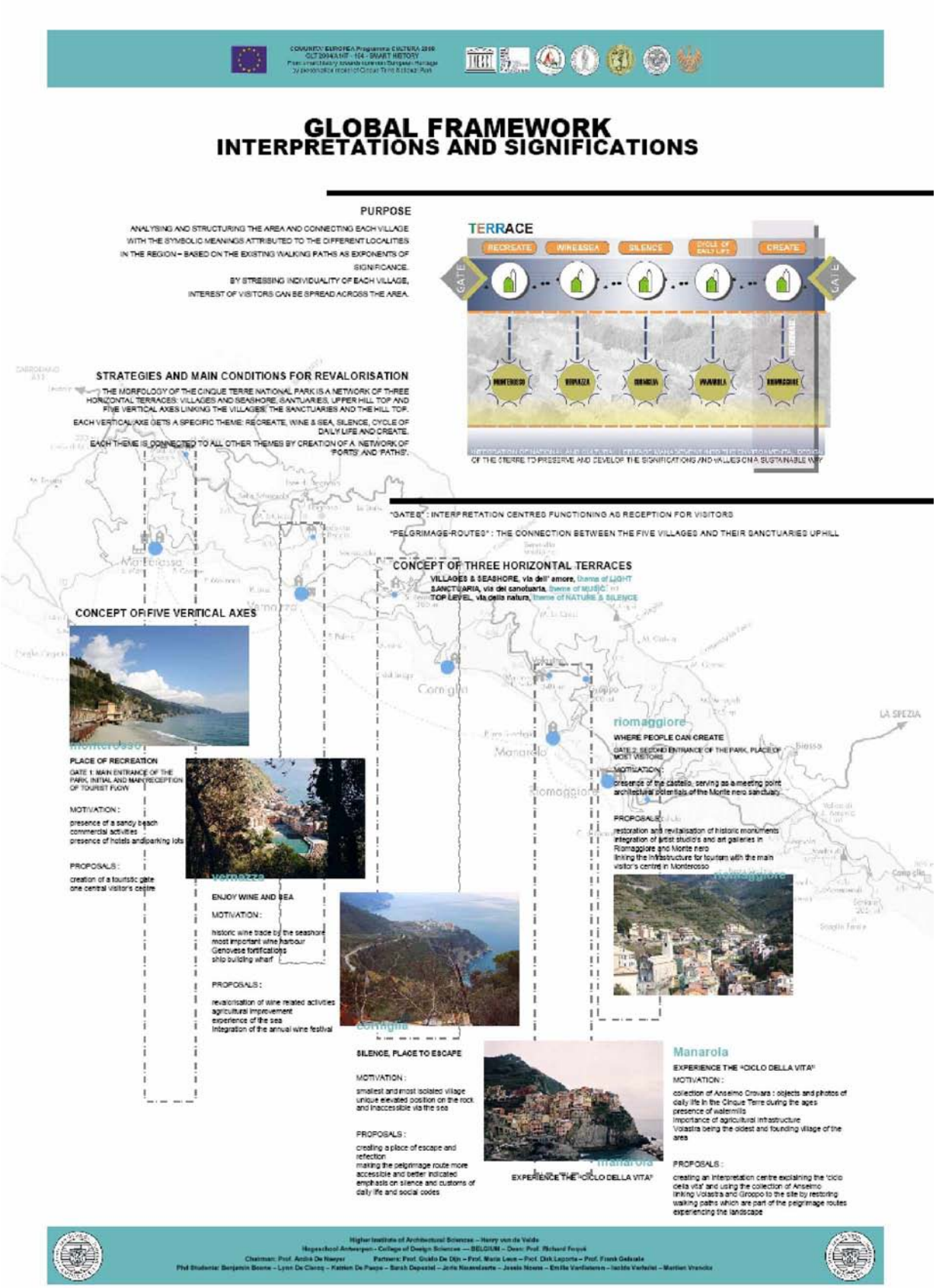
There are some solutions for those problems
1. High concentration of tourists at at the coast:
   - Making or restoring mountain paths to encourage people to go to the mountains.
     a) Some of the existing paths should be better prepared some of the trees should be cut down to have better view along the seaside.
     b) There should be more info-maps with the whole structure of paths in the Cinque Terre National Park.
     c) What is more, there should be some educational paths like the one, that leads through five sanctuaries. The educational paths should have points of interests where people can get to know something about the history of the Cinque Terre and about the recultivation of vineyards and the plan of sustainable development in the Cinque Terre.
   - Big promotion of sports which you can do in the mountains
     a) Cycling
     b) Walking
     c) Horse riding
     d) Paragliding

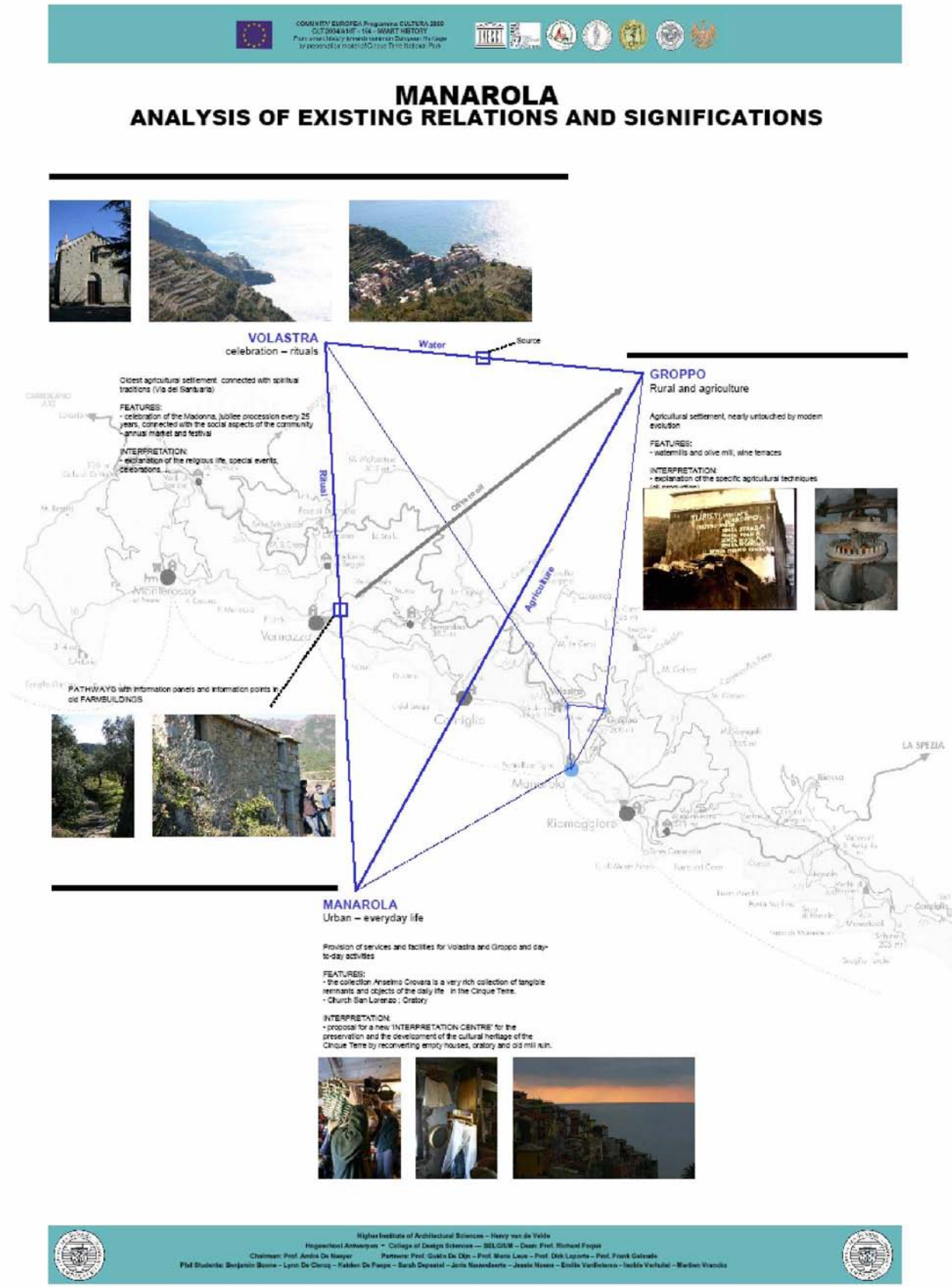
2. High concentration of tourists within a short period of time
   - Extension the high-season from April till October to the whole year
   - Encourage people to visit Cinque Terre also in low-season by showing them (on photos on Cinque Terre website) what a beautiful and calm place it is during that time
   - Building the facilities for elderly people and encourage them to come. Elderly people often prefer to come out of the peak tourist season.
   - Organizing workshops and conferences during the low-season (like the one we attended).

3. Interactive education by Internet in feedback with education for common action of experts, local society and visitors in area of the National Park

4-ANTWERP (Belgium) group




GLOBAL FRAMEWORK
INTERPRETATIONS AND SIGNIFICATIONS
PURPOSE
ANALYSING AND STRUCTURING THE AREA AND CONNECTING EACH VILLAGE WITH THE SYMBOLIC MEANINGS ATTRIBUTED TO THE DIFFERENT LOCALITIES IN THE REGION – BASED ON THE EXISTING WALKING PATHS AS EXPONENTS OF SIGNIFICANCE.
BY STRESSING INDIVIDUALITY OF EACH VILLAGE, INTEREST OF VISITORS CAN BE SPREAD ACROSS THE AREA.
TERRACE
RECREATE
WINE&SEA
SILENCE
CYCLE OF DAILY LIFE
CREATE
GATE
GATE
OF THE STERRE TO PRESERVE AND DEVELOP THE SIGNIFICATIONS AND VALUES ON A SUSTAINABLE WAY
STRATEGIES AND MAIN CONDITIONS FOR REVALORISATION
THE MORFOLOGY OF THE CINQUE TERRE NATIONAL PARK IS A NETWORK OF THREE HORIZONTAL TERRACES: VILLAGES AND SEASHORE, SANTUARIES, UPPER HILL TOP AND FIVE VERTICAL AXES LINKING THE VILLAGES, THE SANCTUARIES AND THE HILL TOP.
EACH VERTICAL AXE GETS A SPECIFIC THEME: RECREATE, WINE & SEA, SILENCE, CYCLE OF DAILY LIFE AND CREATE.
EACH THEME IS CONNECTED TO ALL OTHER THEMES BY CREATION OF A NETWORK OF 'PORTS' AND 'PATHS'.
"GATES" : INTERPRETATION CENTRES FUNCTIONING AS RECEPTION FOR VISITORS
"PELGRIMAGE-ROUTES" : THE CONNECTION BETWEEN THE FIVE VILLAGES AND THEIR SANCTUARIES UPHILL
CONCEPT OF THREE HORIZONTAL TERRACES
VILLAGES & SEASHORE, via dell' amore, theme of LIGHT
SANCTUARIA, via dei canotuaria, theme of MUSIC
TOP LEVEL, via della natura, theme of NATURE & SILENCE
CONCEPT OF FIVE VERTICAL AXES
monterosso
PLACE OF RECREATION
GATE 1: MAIN ENTRANCE OF THE PARK, INITIAL AND MAIN RECEPTION OF TOURIST FLOW
MOTIVATION :
presence of a sandy beach
commercial activities
presence of hotels and parking lots
PROPOSALS :
creation of a touristic gate
one central visitor's centre
vernazza
ENJOY WINE AND SEA
MOTIVATION :
historic wine trade by the seashore
most important wine harbour
Genovese fortifications
ship building wharf
PROPOSALS :
revalorisation of wine related activities
agricultural improvement
experience of the sea
integration of the annual wine festival
corniglia
SILENCE, PLACE TO ESCAPE
MOTIVATION :
smallest and most isolated village
unique elevated position on the rock and inaccessible via the sea
PROPOSALS :
creating a place of escape and reflection
making the pelgrimage route more accessible and better indicated
emphasis on silence and customs of daily life and social codes
riomaggiore
WHERE PEOPLE CAN CREATE
GATE 2: SECOND ENTRANCE OF THE PARK, PLACE OF MOST VISITORS
MOTIVATION :
presence of the castello, serving as a meeting point
architectural potentials of the Monte nero sanctuary
PROPOSALS :
restoration and revitalisation of historic monuments
integration of artist studio's and art galleries in Riomaggiore and Monte nero
linking the infrastructure for tourism with the main visitor's centre in Monterosso
riomaggiore
Manarola
EXPERIENCE THE "CICLO DELLA VITA"
MOTIVATION :
collection of Anselmo Crovara : objects and photos of daily life in the Cinque Terre during the ages
presence of watermills
importance of agricultural infrastructure
Volastra being the oldest and founding village of the area
PROPOSALS :
creating an interpretation centre explaining the 'ciclo della vita' and using the collection of Anselmo
linking Volastra and Groppo to the site by restoring walking paths which are part of the pelgrimage routes experiencing the landscape
LA SPEZIA
Higher Institute of Architectural Sciences – Henry van de Velde
Hogeschool Antwerpen - College of Design Sciences — BELGIUM – Dean: Prof. Richard Foqué
Chairman: Prof. André De Neeyer
Partners: Prof. Guido De Dijn – Prof. Maria Leon – Prof. Dirk Laporte – Prof. Frank Gelaude
Phd Students: Benjamin Boone – Lynn De Clercq – Katrien De Paepe – Sarah Depestel – Jorie Nieuwelaerts – Jessie Noens – Emilie Verfaeren – Isolde Verfaillet – Martien Vrancke


MANAROLA
ANALYSIS OF EXISTING RELATIONS AND SIGNIFICATIONS
VOLASTRA
celebration – rituals
Oldest agricultural settlement connected with spiritual traditions (Via del Santuario)
FEATURES:
- celebration of the Madonna, jubilee procession every 25 years, connected with the social aspects of the community
- annual market and festival
INTERPRETATION:
- explanation of the religious life, special events, celebrations...
Water
Source
Ritual
Olive to oil
Agriculture
GROPPO
Rural and agriculture
Agricultural settlement, nearly untouched by modern evolution
FEATURES:
- watermills and olive mill, wine terraces
INTERPRETATION:
- explanation of the specific agricultural techniques
PATHWAYS with information panels and information points in old FARMBUILDINGS
Monterosso
Vernazza
Corniglia
Manarola
Riomaggiore
LA SPEZIA
MANAROLA
Urban – everyday life
Provision of services and facilities for Volastra and Groppo and day-to-day activities
FEATURES:
- the collection Anselmo Crovara is a very rich collection of tangible remnants and objects of the daily life in the Cinque Terre.
- Church San Lorenzo ; Oratory
INTERPRETATION:
- proposal for a new 'INTERPRETATION CENTRE' for the preservation and the development of the cultural heritage of the Cinque Terre by reconverting empty houses, oratory and old mill ruin.
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Hogeschool Antwerpen – College of Design Sciences — BELGIUM – Dean: Prof. Richard Foque
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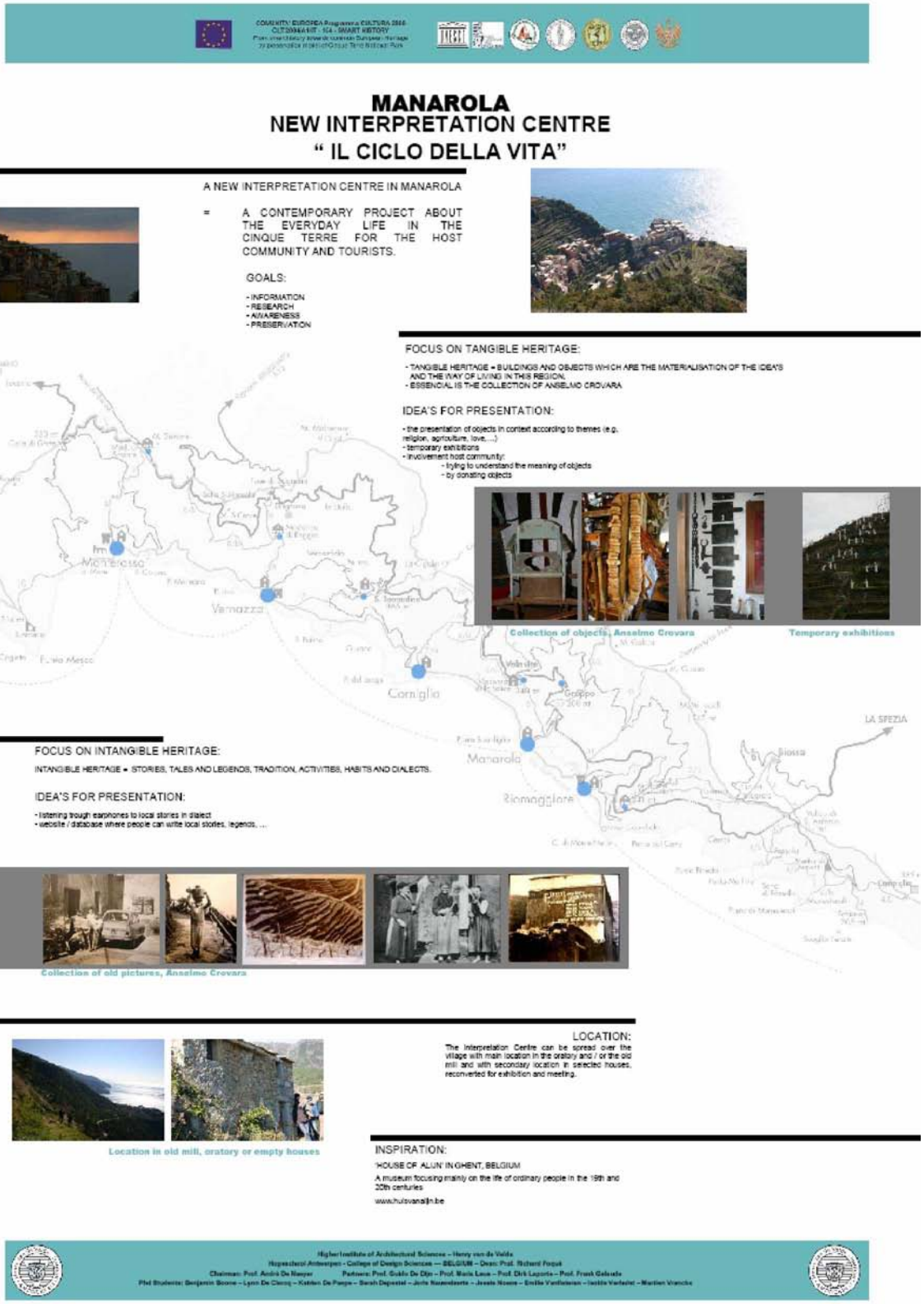
MANAROLA
NEW INTERPRETATION CENTRE
" IL CICLO DELLA VITA"
A NEW INTERPRETATION CENTRE IN MANAROLA
= A CONTEMPORARY PROJECT ABOUT THE EVERYDAY LIFE IN THE CINQUE TERRE FOR THE HOST COMMUNITY AND TOURISTS.
GOALS:
- INFORMATION
- RESEARCH
- AWARENESS
- PRESERVATION
FOCUS ON TANGIBLE HERITAGE:
- TANGIBLE HERITAGE = BUILDINGS AND OBJECTS WHICH ARE THE MATERIALISATION OF THE IDEA'S AND THE WAY OF LIVING IN THIS REGION.
- ESSENCIAL IS THE COLLECTION OF ANSELMO CROVARA
IDEA'S FOR PRESENTATION:
- the presentation of objects in context according to themes (e.g. religion, agriculture, love,...)
- temporary exhibitions
- involvement host community:
- trying to understand the meaning of objects
- by donating objects
Collection of objects, Anselmo Crovara
Temporary exhibitions
Monterosso
Vernazza
Corniglia
Manarola
Riomaggiore
LA SPEZIA
FOCUS ON INTANGIBLE HERITAGE:
INTANGIBLE HERITAGE = STORIES, TALES AND LEGENDS, TRADITION, ACTIVITIES, HABITS AND DIALECTS.
IDEA'S FOR PRESENTATION:
- listening trough earphones to local stories in dialect
- website / database where people can write local stories, legends, ...
Collection of old pictures, Anselmo Crovara
LOCATION:
The Interpretation Centre can be spread over the village with main location in the oratory and / or the old mill and with secondary location in selected houses, reconverted for exhibition and meeting.
Location in old mill, oratory or empty houses
INSPIRATION:
'HOUSE OF ALUN' IN GHENT, BELGIUM
A museum focusing mainly on the life of ordinary people in the 19th and 20th centuries
www.huisvanalijn.be
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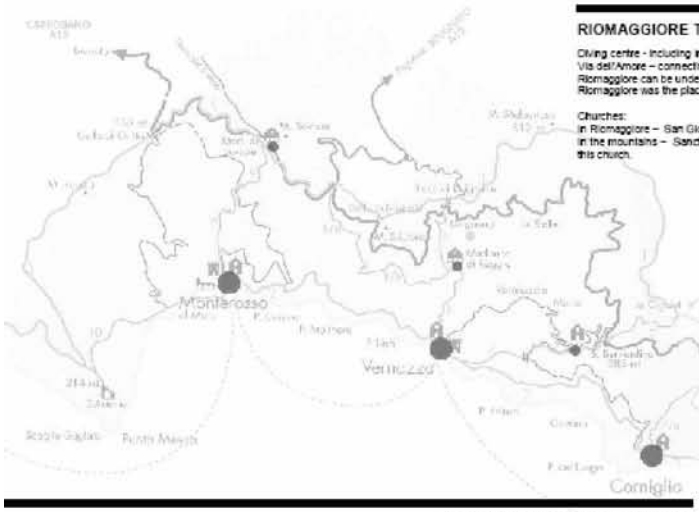
COMMUNITY EUROPEA Programma CULTURA 2000
CLT 2004/0117 - 104 - SMART HISTORY
Piani smart-history towards common European Heritage
by personalized meet-ing Cinque Terre Riomaggiore

RIOMAGGIORE
CREATIVITY AS A KEY TO SUSTAINABLE DEVELOPMENT

The area can be divided into the following levels:

SEA – VILLAGE – WINE TERRACES – FOREST

These different levels each have there own assets and attractivities. The coastal line gets the most attention from the tourists. The sea is protected as a 'marine protected area'. The village and the coastal walking path (Via dell' Amore) is trampled down in the high season. The areas up in the mountains, wine terraces and forest, have been neglected because of lack of economical function. Therefore all these levels should be integrated in a coherent **MASTERPLAN** of the whole area with a focus on networking and maintenance.



RIOMAGGIORE TODAY:

Diving centre - including information about rare species of marine ecosystems;
Via dell'Amore – connecting Riomaggiore and Manarola, as main touristic attraction;
Riomaggiore can be understood as a gate to the Cinque Terre;
Riomaggiore was the place where a painter Telemaco Signorini (1836-1901) lived. His home is preserved;

Churches:
in Riomaggiore – San Giovanni parish church and Oratorio di San Rocco
in the mountains – Sanctuary Santa Maria di Monte Nero, with special attention to the newly restored fresco's in this church.

STRATEGY FOR DEVELOPMENT:

Riomaggiore as the SECONDARY GATE to the area is an important hub in the network of villages and pathways. A more elaborate network of paths has to be open to the visitors. These should interconnect the village with the sea, the mountains (terraces – forest) and the other villages;

in the general framework Riomaggiore is indicated as a PLACE OF CREATION'. This means that the village should become the artistic centre of the area. This can be a solution to spread tourists over different seasons and away from the coast.
It is required that the local population can be involved through an interactive creative process.

RIOMAGGIORE TOMORROW:

No specific interventions are needed to attract more visitors to the diving centre nor to the Via dell' Amore. Those attractions are already loaded with an overflow of tourism and should be partially relieved of this burden by creating new possibilities;

The historical pathways have to be restored and maintained. Problems of discontinuity of the paths should be resolved. New signalization should guide users better.

Riomaggiore as a gate should also focus on the reception of tourists, providing information concerning the whole area of the Cinque Terre (sea – villages – terraces – forest);

THE SANCTUARY OF MONTE NERO WILL BE THE START OF THE NEW 'VIA DEI SANTUARIA'.
Through time visitors should be more dispersed over the whole area of the park. Therefore the attraction of the hinterland should be enhanced and its connection with the village re-established.
We see the development of creativity as an opportunity, but this process should be monitored and evaluated.
Excesses of tourism overflow , lik we have now at the coastline, can be avoided if this is done properly.

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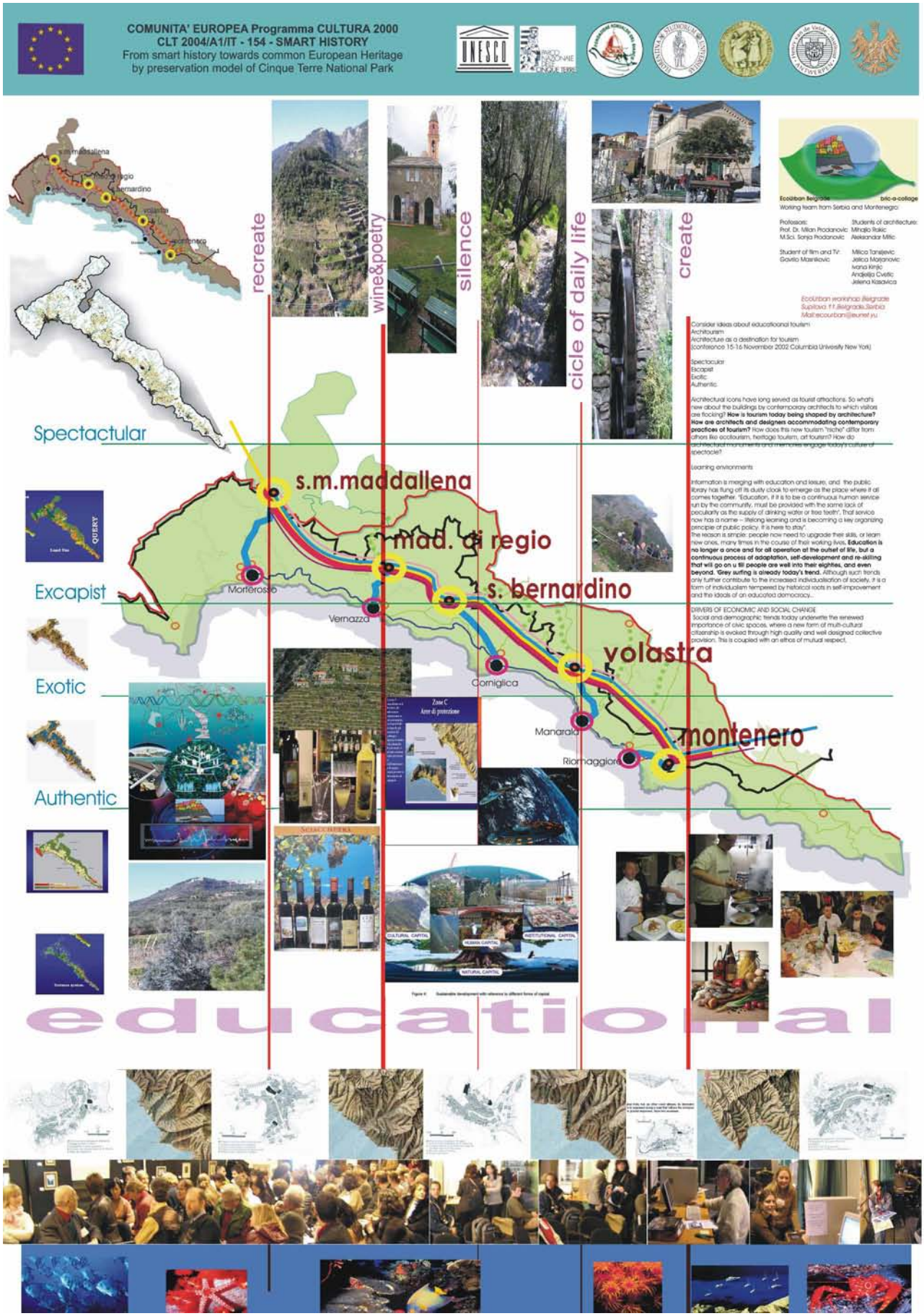
5-BELGRADE (Serbia) group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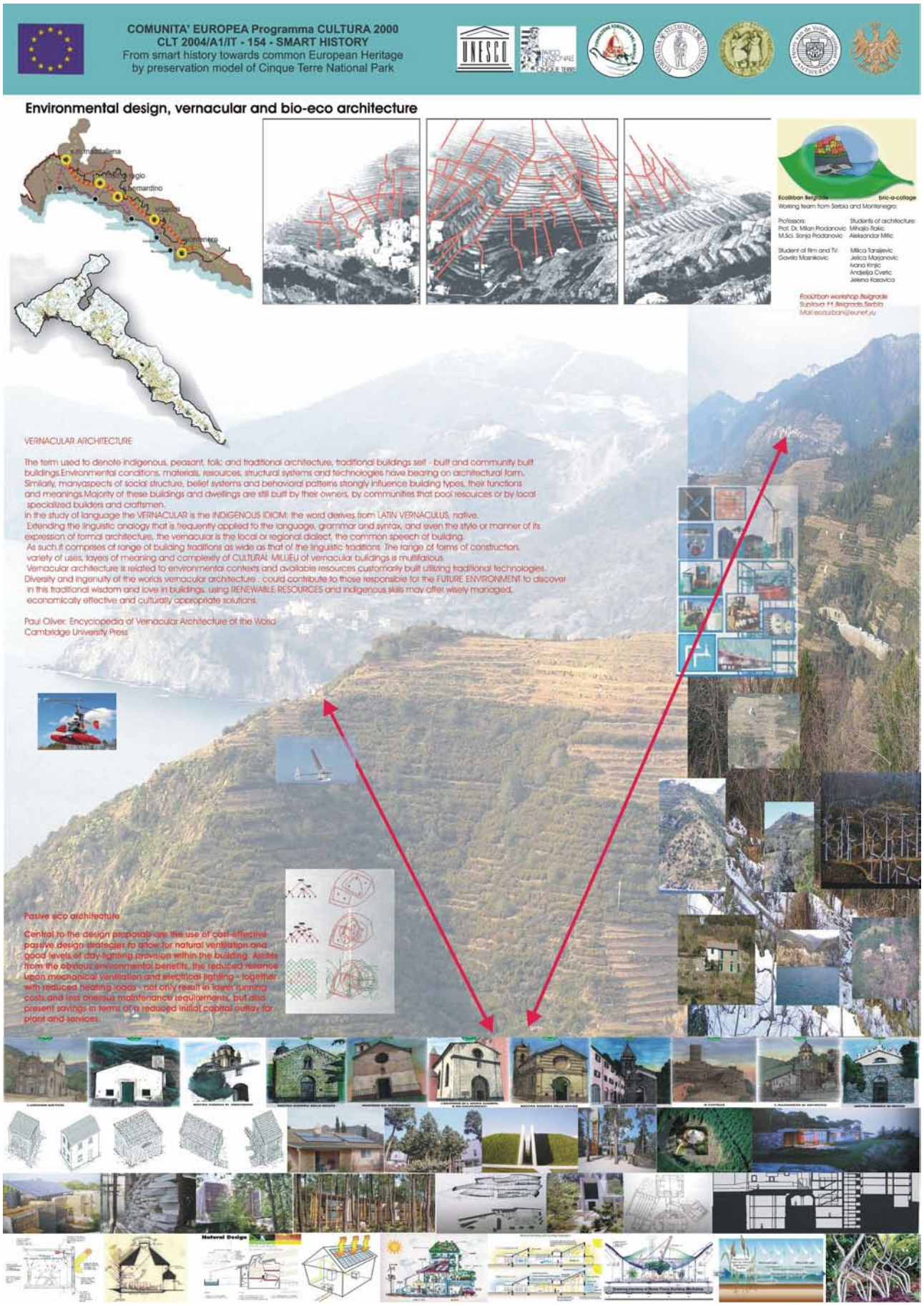
From smart history towards common European Heritage
by preservation model of Cinque Terre National Park
UNESCO
recreate
wine&poetry
silence
cicle of daily life
create
Spectactular
Excapist
Exotic
Authentic
s.m.maddallena
mad. di regio
s. bernardino
volastra
montenero
Monterosso
Vernazza
Corniglica
Manarola
Riomaggiore
QUERY
Zone C
Aree di protezione
SCIACCHERÀ
CULTURAL CAPITAL
HUMAN CAPITAL
INSTITUTIONAL CAPITAL
NATURAL CAPITAL
EcoUrban workshop Belgrade
Supilova 11,Belgrade,Serbia
Mail:ecourban@eunet.yu
Consider ideas about educational tourism
Architourism
Architecture as a destination for tourism
(conference 15-16 November 2002 Columbia University New York)
Spectacular
Escapist
Exotic
Authentic
Learning environments
DRIVERS OF ECONOMIC AND SOCIAL CHANGE
educational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From smart history towards common European Heritage
by preservation model of Cinque Terre National Park
Environmental design, vernacular and bio-eco architecture
Ecoürban Belgrade
bric-a-collage
Working team from Serbia and Montenegro:
Professors:
Prof. Dr. Milan Prodanovic
M.Sci. Sonja Prodanovic
Students of architecture:
Mihajlo Rakic
Aleksandar Mitic
Student of film and TV:
Gavrilo Masnikovic
Milica Tansijevic
Jelica Marjanovic
Ivana Kinjic
Andjelija Cvetic
Jelena Kasavica
Ecoürban workshop Belgrade
Supilova 11.Belgrade.Serbia
Mail:ecourban@eunet.yu
VERNACULAR ARCHITECTURE
The term used to denote indigenous, peasant, folk; and traditional architecture, traditional buildings self - built and community built buildings.Environmental conditions, materials, resources, structural systems and technologies have bearing on architectural form. Similarly, manyaspects of social structure, belief systems and behavioral patterns strongly influence building types, their functions and meanings.Majority of these buildings and dwellings are still built by their owners, by communities that pool resources or by local specialized builders and craftsmen.
In the study of language the VERNACULAR is the INDIGENOUS IDIOM: the word derives from LATIN VERNACULUS, native.
Extending the linguistic analogy that is frequently applied to the language, grammar and syntax, and even the style or manner of its expression of formal architecture, the vernacular is the local or regional dialect, the common speech of building.
As such it comprises of range of building traditions as wide as that of the linguistic traditions. The range of forms of construction, variety of uses, layers of meaning and complexity of CULTURAL MILLIEU of vernacular buildings is multifarious.
Vernacular architecture is related to environmental contexts and available resources customarily built utilizing traditional technologies.
Diversity and ingenuity of the worlds vernacular architecture . could contribute to those responsible for the FUTURE ENVIRONMENT to discover in this traditional wisdom and love in buildings, using RENEWABLE RESOURCES and indigenous skills may offer wisely managed, economically effective and culturally appropriate solutions.
Paul Oliver: Encyclopedia of Vernacular Architecture of the World
Cambridge University Press
Pasive eco architecture
Central to the design proposals are the use of cost-effective passive design strategies to allow for natural ventilation and good levels of day lighting provision within the building. Aside from the obvious environmental benefits, the reduced reliance upon mechanical ventilation and electrical lighting - together with reduced heating loads - not only result in lower running costs and less onerous maintenance requirements, but also present savings in terms of a reduced initial capital outlay for plant and services.
Natural Design

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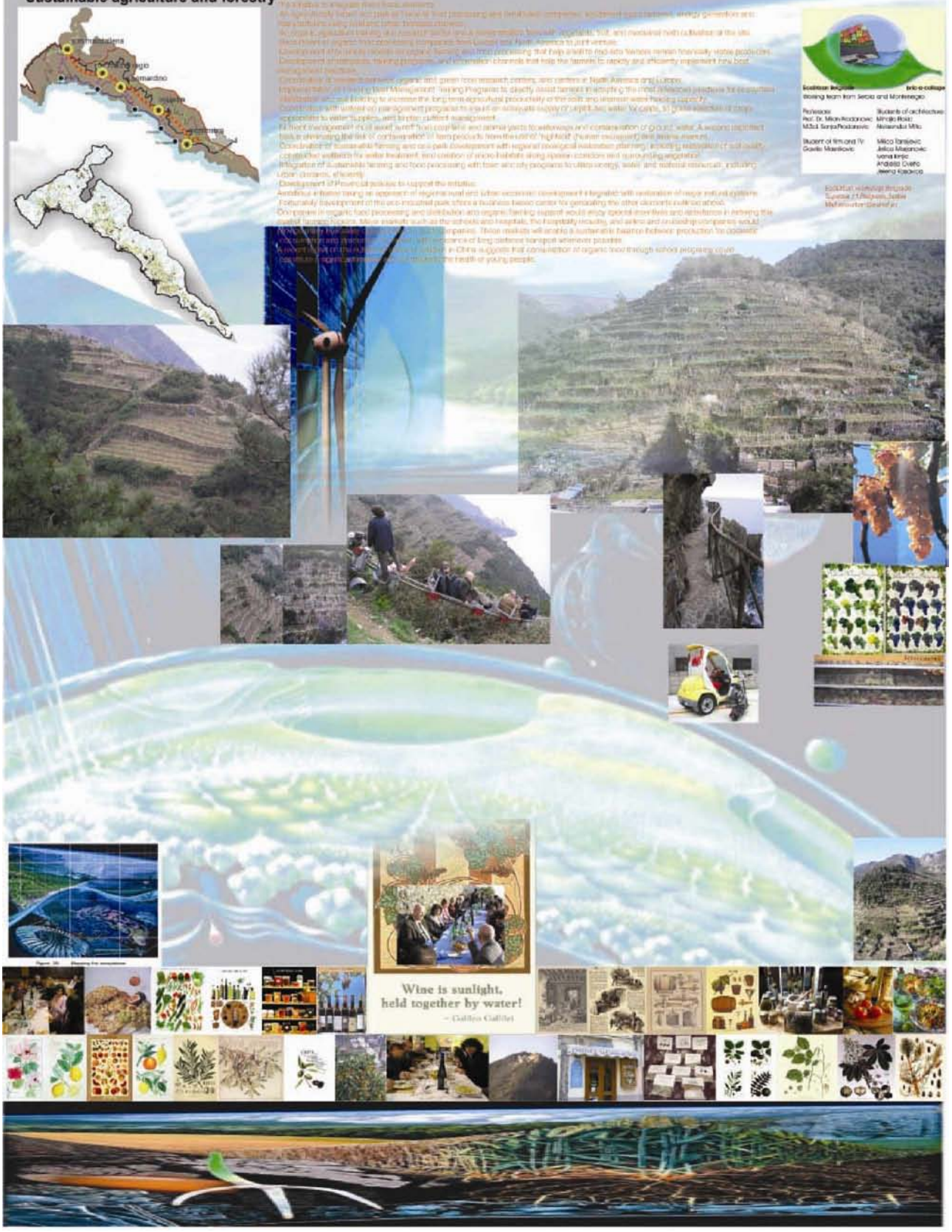
From smart history towards common European Heritage
by preservation model of Cinque Terre National Park



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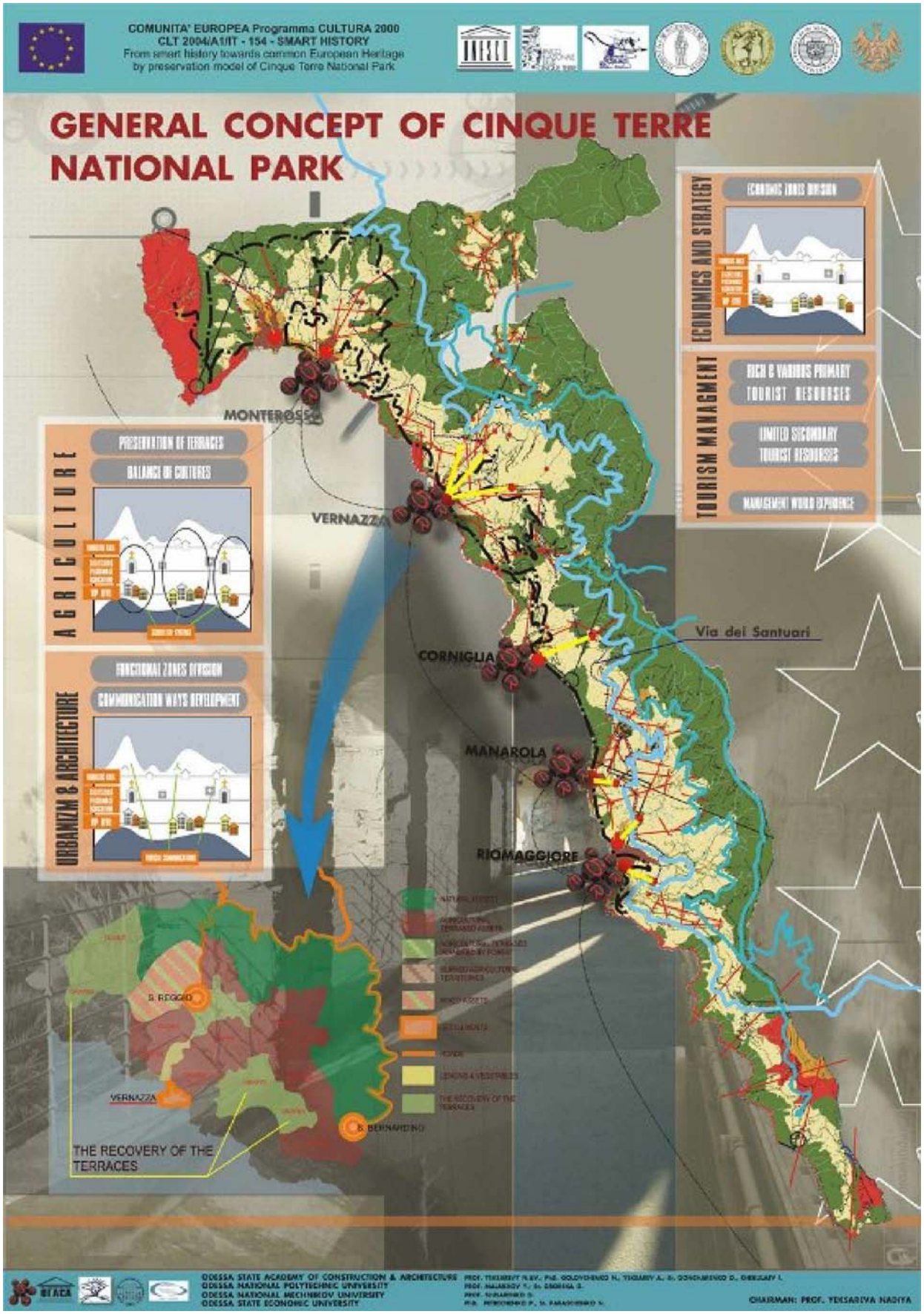
From smart history towards common European Heritage
by preservation model of Cinque Terre National Park
Sound tourism and economy
Public participation,self generated economy,cooperative,sustainable diversified Local Agendas 21
WINE ROUTES

6-ODESSA (Ukraine) group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From smart history towards common European Heritage
by preservation model of Cinque Terre National Park
GENERAL CONCEPT OF CINQUE TERRE NATIONAL PARK
ECONOMICS AND STRATEGY
ECONOMIC ZONES DIVISION
TOURISM MANAGMENT
RICH & VARIOUS PRIMARY TOURIST RESOURCES
LIMITED SECONDARY TOURIST RESOURCES
MANAGMENT WORLD EXPERIENCE
AGRICULTURE
PRESERVATION OF TERRACES
BALANCE OF CULTURES
URBANIZM & ARCHITECTURE
FUNCTIONAL ZONES DIVISION
COMMUNICATION WAYS DEVELOPMENT
MONTEROSSO
VERNAZZA
CORNIGLIA
MANAROLA
RIOMAGGIORE
Via dei Santuari
S. REGGIO
VERNAZZA
S. BERNARDINO
THE RECOVERY OF THE TERRACES
ODESSA STATE ACADEMY OF CONSTRUCTION & ARCHITECTURE
ODESSA NATIONAL POLYTECHNIC UNIVERSITY
ODESSA NATIONAL MECHNIKOV UNIVERSITY
ODESSA STATE ECONOMIC UNIVERSITY
CHAIRMAN: PROF. YEKSARIVA NADIYA

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From smart history towards common European Heritage
by preservation model of Cinque Terre National Park

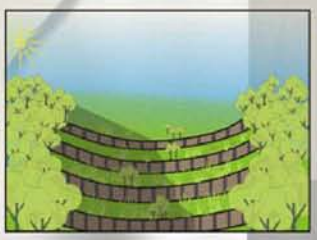
SPECIFIC INTERVENTIONS ON THE EXISTING STRUCTURES

URBANIZM & ARCHITECTURE

- RENOVATION OF EXISTING MATERIALCULTURAL HERITAGE

AGRICULTURE

- SOIL EROSION PROTECTION
- SHADING PREVENTION
- ZONING BY TYPES OF CULTURES



TOURISM MANAGMENT

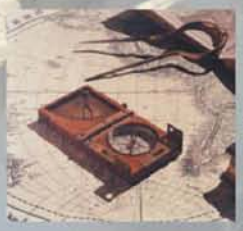
- ORIGINAL OFFERINGS
- DERIVED OFFERINGS
- MARKET RESEARCH
- A MARKETING STRATEGY
- SERVICE DELIVERY
- PRICING POLICY

ECONOMICS AND STRATEGY

- EXISTING MANUFACTURE EXPANSION
- CRAFTS AND SKILLS DEVELOPMENT
- EXPANSION OF SERVICE VARIETY

COMMUNICATION TECHNOLOGIES

- DETAILED TOURIST MAP WITH ALL ROUTS
- DATAWAREHOUSE OF THE PARK
- TRANSLATION OF ALL INFORMATION



ODESSA STATE ACADEMY OF CONSTRUCTION & ARCHITECTURE
ODESSA NATIONAL POLYTECHNIC UNIVERSITY
ODESSA NATIONAL MECHNIKOV UNIVERSITY
ODESSA STATE ECONOMIC UNIVERSITY

PROF. YEKSAREVY N.A.V., PhD. GOLOVCHENKO N., YEKSAREV A.; St. GONCHARENKO O., CHEKUNAEV I.
PROF. MALAKHOV Y., St. OBORSKA O.
PROF. SLUSARENKO O.
PhD. PETRICHENKO P., St. PARASCHENKO N.

CHAIRMAN: PROF. YEKSAREVA NADIYA

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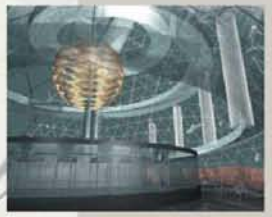
From smart history towards common European Heritage
by preservation model of Cinque Terre National Park

SPECIFIC INTERVENTIONS ON NEW STRUCTURES

URBANIZM & ARCHITECTURE

- UNDERWATER SIGHTSEENG CENTER
- ECOLOGICAL HOTELS
- NEW TYPES OF VERTICAL LINKS: GONDOLAS AND MONORAILS



AGRICULTURE

- NEW FOREST TYPE " MAKI"
- NEW TYPES OF EPHIR AND OIL CULTURES
- REDUCE OF HARMFUL INFLUENCE

TOURISM MANAGMENT

- NETWORK OF ACCOMMODATION
- INTELLECTUAL TOURIST ZONING
- EDUCATIONAL TOURISM
- PARK PROMOTION VIA MARKETING COMMUNICATIONS

ECONOMICS AND STRATEGY

- RECREATIONAL CONCEPT SX5
- QUALITY SERVICE IMPROVEMENT
- ADDITIONAL TYPES OF SERVICE

COMMUNICATION TECHNOLOGIES

- THE REAL-TIME REMOTE VIDEOREVIEW OF THE PARK (THROUGH THE INTERNET).
- THE REMOTE VIDEOREVIEW IN THE PARK FROM ROOMS OF HOTELS
- PDA WITH WIRELESS LAN-CARD AND CAMERA AS THE VIDEOGUIDE

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CHAIRMAN: PROF. YEKSAREVA NADIYA

7-BRATISLAVA (Slovak) group

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From smart history towards common European Heritage
by preservation model of Cinque Terre National Park

INFORMATION ICONOGRAPHY

Archeological locality / ruin / cave / fortress / panoramatic wiew / resting place / botanic spot / spring / zoologic spot / sacral place / natural figure / climbing wall / sports field / turistic harbour / beach / accommodation / vineyard / mill / mine / monorayl /

SECTORS

TERRACES LAYOUT

The effective information system is recommended tool for the perspective d evelopment o f t he pilot area.

'Curiosity' and scientific interest of the visitors might help to satisfy the detail identification of all the concerns, attractions and uniques found in the National Park Cinque Terre area and their exact localization in the information m aterials a bout t he area in all data media (maps, printed information materials, information monitors, personal councelling) and also in the field itself.

It is necessary to choose the accurate and well-advised medium tool for to present and to diffuse the offered information

INFORMATION MEDIUMS

PAPER GUIDE / PDA GPS / INTERNET / TOUR GUIDE / TOUR MARK / INFORMATION POINT / MUSEUM / TV

news / news / news / news / news / news / news / news / news / news / news / news / news / news / news / news / news / news /

database / database / database / database / database / database / database / database / database / database / database / database /

orientation / orientation / orientation / orientation / orientation / orientation / orientation / orientation / orientation / orientation / orientation /

emotional experiences / emotional experiences / emotional experiences / emotional experiences / emotional experiences / emotional experiences /

FOTO

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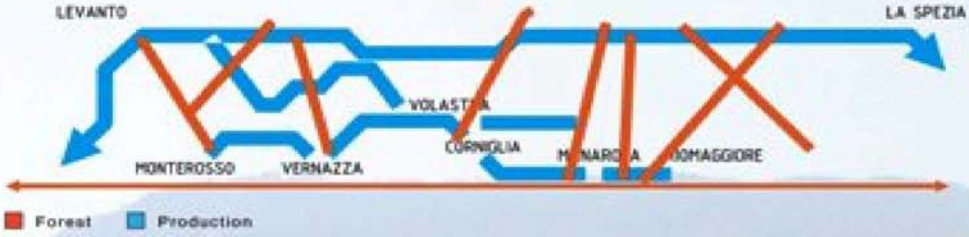
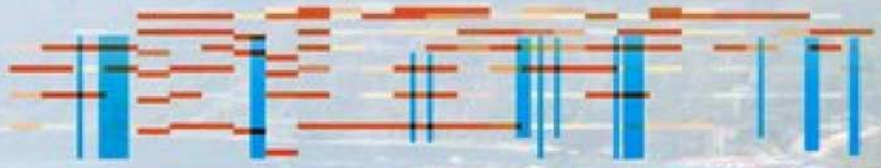
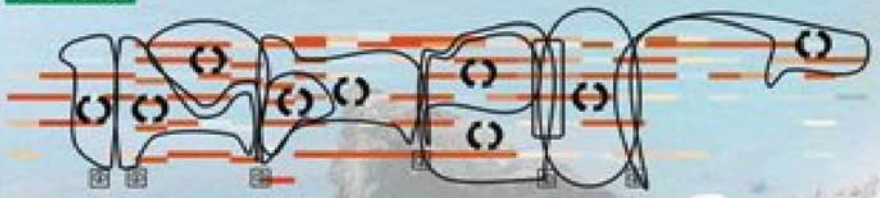
VERTICAL CONECTIONS



LONG DISTANCE PATH



RING ROADS



The most impressive human work at the Cinque Terre National Park area is the nature architectured by the terraces: it is not only the top technical and ecological system but at the same time it is the fascinating and unforgettable architectural work of art.

There is a network of pathways in the park. The paths network function as a life-giving communication and transport system to preserve the terrace landscape which does not work in some parts nowadays. The horizontal terraces are the bearing system of the transformed land which gives a characteristic seal to the whole area. Terraces are interconnected by the isolated vertical paths and staircase 'links' and provide at delimited corridors (called Sentieri) restricted lineal movement of the visitors in the vertical direction.

Their destinations are the areas of the sanctuaries in the middle height location.

It is recommended in order to increase the attendance of the middle and peak zones to join the existing horizontal and vertical system and to dress the new diagonal "links" which would provide the movement of the visitors in the area in individually composed circles.

To make the vertical transport in the area easier it is recommended to enrich the existing transport 'park' by a faster means of transport with bigger capacity, for example, tourist attractive cableway (funicular or telpherway) and also put to tourist use the existing network of economic monorails.

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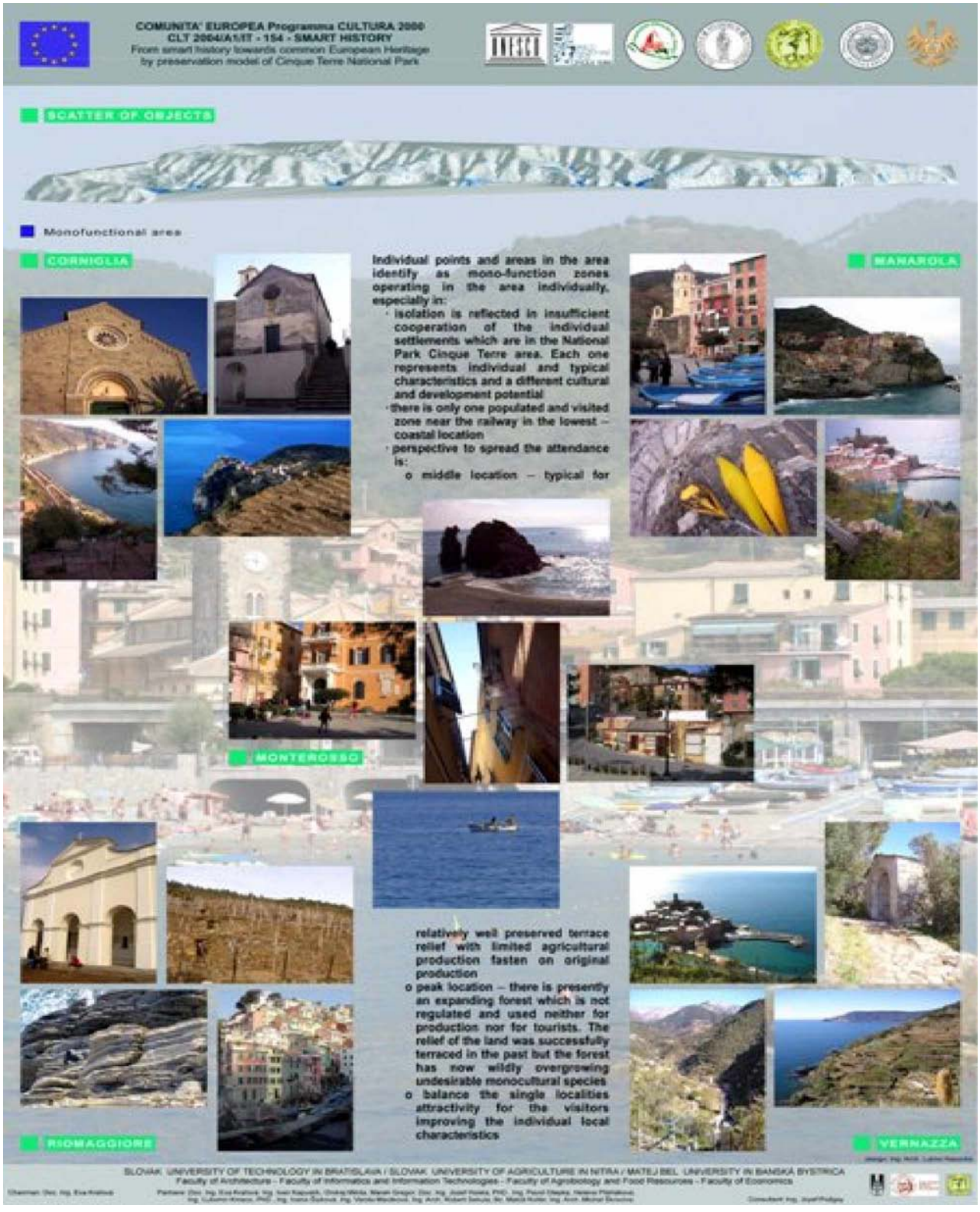
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SCATTER OF OBJECTS
Monofunctional area
CORNIGLIA
MANAROLA
Individual points and areas in the area identify as mono-function zones operating in the area individually, especially in:
· isolation is reflected in insufficient cooperation of the individual settlements which are in the National Park Cinque Terre area. Each one represents individual and typical characteristics and a different cultural and development potential
· there is only one populated and visited zone near the railway in the lowest – coastal location
· perspective to spread the attendance is:
o middle location – typical for
MONTEROSSO
relatively well preserved terrace relief with limited agricultural production fasten on original production
o peak location – there is presently an expanding forest which is not regulated and used neither for production nor for tourists. The relief of the land was successfully terraced in the past but the forest has now wildly overgrowing undesirable monocultural species
o balance the single localities attractivity for the visitors improving the individual local characteristics
RIOMAGGIORE
VERNAZZA
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NATIONAL PARK OF CINQUE TERRE

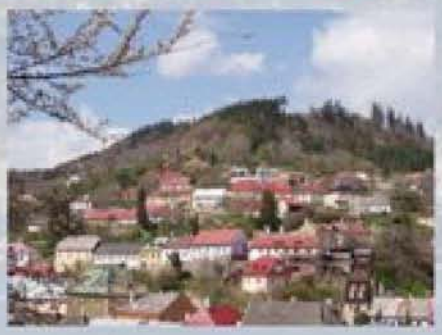
There are many specific technical adjustments of the natural areas built by a man in an coherent relationship with nature in the past, all over the world.
It is the task of present-day society to preserve this heritage in active condition also for the next generations even if previous economic and social conditions have vanished.

As every object of the world's cultural heritage, irrespective of the territory in which it has arose, is an

GLOBAL AREA FRACTIONS

Forest Production Terraces Rocks

BANSKÁ ŠTIAVNICA - SLOVAKIA



inspiration and inward potential for the development of any other parts of the world, so the experiences of the protection process and his active using are analogical inspiration for active preserving of the heritage in another countries as well.

The man-made ecological built system of dry walls terraces provided lasting stability of natural and productive conditions for select kinds of agricultural production (wine, olive oil) – on the condition of regular even though technically simple maintenance,

A complex geomorphology of the area in the location of the Middle Europe also caused similar technical interventions (terraces and dry walls, paths network) in the area with completely different production (winegrowing in Cinque Terre or precious metals mining in Banska Stiavnica).

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