A modern net of paths for every type of hiking: new possibilities in order to discover and to promote a protected area

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Abstract: The recreational and protected areas are increasingly undertaking a social function toward becoming a real destination for holidays and travel equal to famous tourist locations. In Italy this type of "green ecotourism" is spreading as an alternative type of tourism enabling it to repopulate the countryside and to exploit the history and culture of rural territories. To demonstrate how hiking in general can be a way to discover and to promote a protected rural area from the perspective of a tourist point of view, one of the most beautiful Italian areas has been examined, the Casentino Valley in Tuscany.

Introduction

The main aim of the research is the demonstration of how a functional and modern excursion-net can constitute the basis for the creation of a plan of tourist development of an area. Due to the incentive of various types of excursions (horse, trekking and mountain-bike) and to the efficient connection of the several tourist and accommodation places on the territory, it is able to elevate and stimulate the rural and mountain economy.

When planning excursion-paths able to satisfy every type of hiking, it is important to take into account the concept of "Ippovia" (horse-path), because these paths, for their characteristic of slope, difficulties and dimension, may be used also by foot and mountain bike.

This concept can appear simple and banal but much too often we see many plans of modern excursion-nets that are located on old paths, that are realized only for hiking on foot, and not suitable for bicycles and horses.

The utilization as excursion paths of these tracks along ancient ways of communication, like pavements and old tracks completely in disuse, allow the recovery of a historical and cultural patrimony of high value.

It's also important to recover the agricultural annexes that are in a state of utter neglect, like barns, refuge huts, shelters, ancient places for horses etc, to make them suitable for hiking, in particular for hiking by horse.

In order to demonstrate how hiking in general and especially horse trekking can be a method of promoting a rural mountain territory, from the tourist point of view, one of the most beautiful Italian areas, the Casentino Valley in Tuscany has been examined.

In the Casentino area a remarkable enviromental patrimony has been conserved, constituted not only from important natural property but also from the testimonies of its own history, traditions and rural culture typical of the mountain areas. There is also a National Park, the Casentino National Park.

Materials and Methods

For the planning of the excursion-net the G.I.S. software (Arcview), the cartography of the IGMI (Italian Military Geographic Institute) at 1:25.000 scale (Regione Toscana Giunta Regionale 1996) and aerial photos of the zone have been used. The program AutoCAD 2002 has been used for the planning of the constructions in wood for the shelter of the horses and the signalling of the paths like showcases, markings of the paths etc.

The plan is made with various phases of elaboration and afterwards summarized.

The first phase consists in the localization on a 1:25.000 map (digitized and georeferenced – Falcidieno & Spagnuolo 1991) of the places both of major and of less interest from the touristic point of view, like small churches, stone villages, castles, etc., that are located in the area studied. These places have been then digitized in one cartography of reference (Burrough 1986) introduced in the GIS. (Figure1).

In the second phase, the different model of receptive structures, that can give hospitality to the horses and to the hikers, are digitized on the reference map (Figure 2) as in phase one. These structures are agritourism, hotels, camping, shelter, riding-schools, bed and breakfast etc.
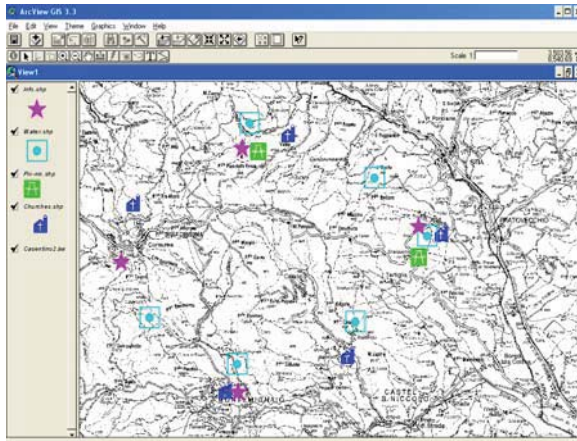
Figure 1. Buffering to identify the places of interest from the tourist point of view.
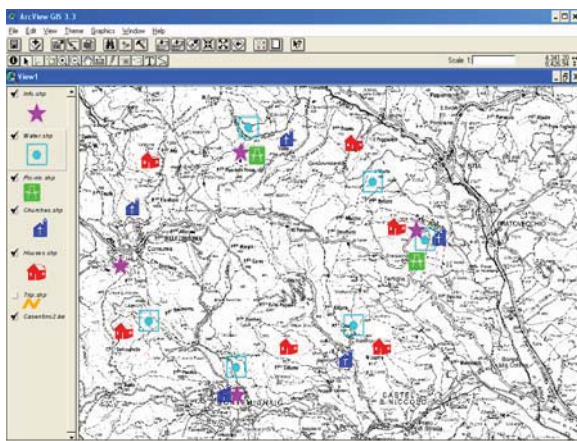

Figure 2. Buffering to identify the receptive structures for the hikers and horses.

The third phase consists to individualize on the reference map the better path to connect the tourist places and accommodation structures found in the previous phases. It's also possible to make this operation with photo interpretation of the digital ortophotos with the methods of the survey and the cartographic restitution (Figure 3).
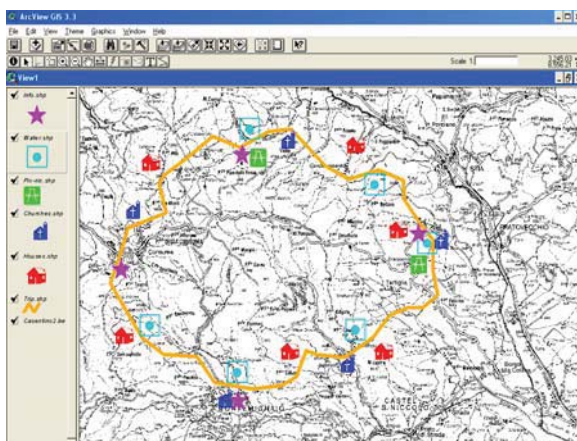

Figure 3. Buffering to identify the better connection paths.

During the path planning it's always important to take into account that the path must be easily covered by horses, which have their own needs in terms of the characteristics of the paths. The path for horses can also easily be used by foot or by mountain-bike.

Attempts should be made in trying to discover and re-use the ancient ways of communication (often present for example in the Casentino valley) like the transhumant-ways, the ancient paths used by charcoal burners, the ways of pilgrimage etc.

The greater part of the excursion-paths has been localized on tracks that guarantee a good compromise between the horses and hikers safety and limitation on damages to the ground and to the growth, trying to avoid the phenomena of soil erosion.

Therefore during the localization of the most suitable path it should be taken into consideration:
– limitation on soil erosion and on the growth
– the path must be easy and safe for the horses and the hikers
– the path must be also beautiful and functional for the hikers

The forest roads, or however roads in battered or white earth, often guarantee the possibility to have satisfied the above mentioned points, because they have a natural surface (Jaarsma 1997), consolidated and generally with modest slopes (factors that positively influences the health of the horse and limits soil erosion). Moreover these type of paths, very often in a natural context, are so appreciated from the hikers who always feel themselves close to nature and far away from the sealed road with motorized vehicles (Figure 4).

With regard to the length, it's necessary to keep in mind that a day horseriding, is not longer than 6–7 hours in the saddle and moving at a speed, that in average is at 6–7 km/h for flat lands and at 4–5 km/h on slope, the paths will not be longer than 30–35 km.

Moreover during the path localization for horses it's also important to think about their well-being, therefore it's necessary to avoid the paths that are too pebbly, hard or soft and that are not suitable to horse-feet. It's necessary also to individualize along the

Figure 4. Typical forest road.

paths places with water for the horses, like founts, sources, pits etc, and eventually predispose drinking troughs in masonry, undoubtedly useful also to the hikers on foot and in bicycle.

The fourth phase consists of the verification on the field, of the places and the existence of the paths located before on the map and, at the same time, individualizing and recording through GPS. the places and the paths, of particular interest, that have not been located before and put them in the GIS.

The last phase is the GIS elaboration of all data that can be found on commercial maps and on the field, and the planning of a final and functional excursion-net that would be able to satisfy both the requirements of the hiker maintainin a good balance between nature and tourism.

When the location of the excursion-net phase is over, it's necessary to preview shelters for the horses and hikers along the paths that are situated far from the villages, taking into consideration that they will need to rest for the night (for example along the mountain ridges).

For this purpose, it is possible to restore disused rural buildings present on the paths, as shelters, refuges, barns, etc., and it's necessary to plan new types of shelter that may integrate in the rural and mountain landscape.

Particular attention should be focused on the restoration of rural annexes that are often located along the paths representing the culture and the history of local populations. One of the most important, for the architectonical structure, is the "seccatoi" (drying-buildings for chestnuts). This rural building, completely in stone and wood, was utilized for drying the chestnuts in the forest and today they can be employed as optimal places for the temporary shelter of the hikers and the riders (Figure 5).

For some of these, a small structure in wood with a shed have been planned to be put adjoining the side of the same one, with the function of shelter being used for 3–4 horses. The first floor to be used for storing food and hay, and the one below for the hikers.

Another type of structure is represented by old shelters completely in stone and wood that were used by people working in the forest and that can be found in mountain areas along the way. These buildings,

even if of small dimensions, give valid shelter from the unexpected climatic changes whilst at the same time display the culture of mountain people.

Some new structures, totally in wood or in stone and wood, have been planned to host horses and hikers during the night. They are devised to remain isolated from the villages as a real shelter.

These buildings are structures in round wood consisting of a place to receive the horses (with 6–8 places), one for the saddles, food and hay and another one furnished with tables, benches and beds for the hikers (Figures 6 and 7).
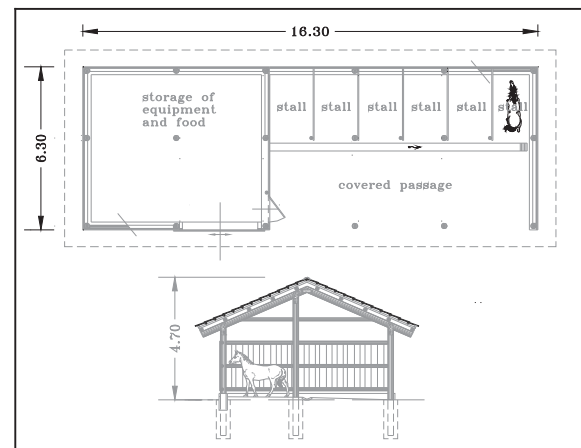

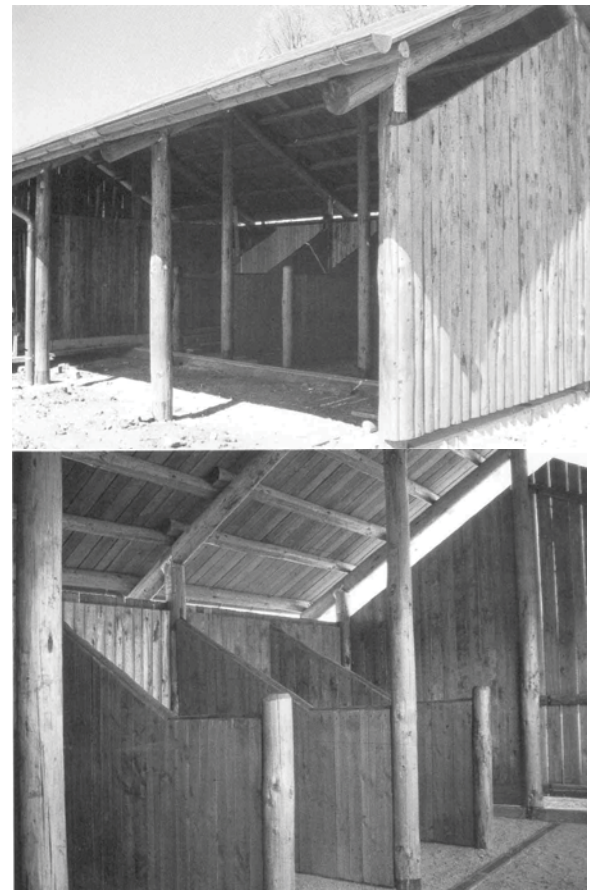Figure 6. The planimetry of a wood shelter for horses.

Figure 7. Wood shelter for horses.

Figure 5. Rural annexe for chestsunts drying.

These support structures, constructed with traditional materials, must be planned according to the roles of correct insertion in the landscape and reduction of the environmental impact.

Results and Discussion

Through the above methodology it is possible to plan a modern excursion-net able to satisfy the various requirements of the different types of hiker, maintaining a good integration with the surroundings and at the same time guarantee the tourist accommodation and also re-launching of the territory.

The final results of the described methodology can be seen in planning of the new and modern excursion-net in the Casentino Valley, under the name "Casentinese Escursion-Net" (C.E.N.).

In order to guarantee a good net of paths that comprises all the interesting tourist places present in the Casentino valley, satisfying the requirements of the hikers for feeding and lodging, an excursion-net has been planned with two concentric rings (one along the mountain ridges and the other one across a mountain-side). Several connections between these two rings, forming other small rings (Figure 8).
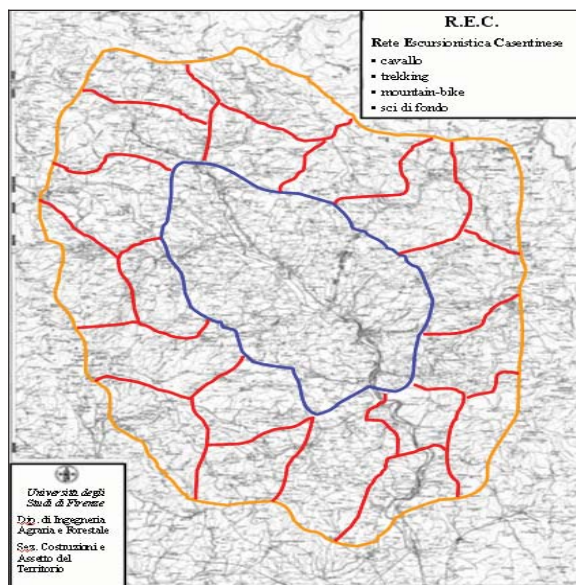

Figure 8. Parts of the two concentric rings and the connections.

These small-rings can be covered by horse, foot and mountain-bike and they have the peculiarity of being interlinked allowing to the hikers the possibility of choosing among itineraries, passing from a small-ring to another one.

These small-rings can be covered in only one day returning to the main lodging structure, they will be a useful incentive to the hiker to stay in the lodging structure for more days having the possibility to choose among other excursions the next morning, making a typical excursion called "daisy-path", where it's possible to return to the place where you have started.

The most part of the paths of the C.E.N. have been located along the natural roads , trying to exclude the asphalted roads, because they can be dangerous for the hikers and horses. The ring across the mountain-side has been planned also for bicycles ("Bikecross", is a ring purposely planned and prepared for the bicycles all-terrain or hybrid, along flat and little rough lands).

The described solution is the most appropriate for the territory of the Casentino and it will guarantee the satisfaction of the tastes and the requirements of the hikers, giving the possibility of choosing among many itineraries.

In conclusion, more than 500 km of modern and rational paths for horses have individualized, suitable also for hikers on foot and in mountain-bike, often located along ancient ways of communication and comprising beyond 90% of the tourist and accommodation places of the Casentino Valley.

The remarkable presence of some accommodation structures, in particular farm holidays, induced the planning of only three shelters for horses, located along the big ridge-ring, with annexed structures in order to accommodate the riders and the hikers. However, attention has been focused on the planning of boxes, stables, paddocks, etc., in order to conform those accommodation structures that are situated in the excursion-net.

Conclusions

Horse tourism in Italy, and in countries where there is a strong horse culture, increasingly growing as an alternative tourism that can guarantee long distances always remaining in contact with nature.

The paths for horses, for their characteristic to be functional to other modalities of excursion, represent the ideal solution when it's necessary to plan an excursion-net that values and increases the economic development of mountain and rural areas.

Today, in some rural areas this tourism could be a valid alternative to the traditional economy, rising up from the crisis that took place with the depopulation of the countryside towards the big cities.

The involvement of accommodation structures and all those economic activities like restaurants etc., especially those situated in the small mountain villages, guarantee the development of these small mountain economies.

The creation of a rational excursion-net gives the opportunity to have and offer a large variety of excursions, keeping the tourist in the territory for a longer time. It's possible to have the tourist presences in each season, especially in spring and in autumn, that represent the best periods for excursions by horse.

This kind of excursion-net can solve one of the main problems of tourism in Casentino related to the short time of tourist visits and the maximum tourist flux only in the summer period. The plan of the Tourism Excursion Development is therefore necessary for a better and greater tourist presence of the Valley.

The project also included the restoration of several annexed buildings located in the Valley, for the shelter of the hikers and the reopening of ancient ways of communication, contributing therefore to the valorisation of the ancient local cultures that would undergo the risk of otherwise completely disappearing.

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