WOOD BUILDINGS AND PATHS FOR HORSES: NEW AND MODERN OPERATIONS FOR THE REDEVELOPMENT OF RURAL MOUNTAIN AREAS

G. Bambi -V. Panero

Dipartimento di Ingegneria Agraria e Forestale - Università di Firenze
Via S. Bonaventura, 13 50145 Firenze - Italy
gbambi@unifi.it

ABSTRACT

The rural and mountain landscape is increasingly undertaking a social function toward becoming a real destination for holidays and travel equal to famous tourist locations. One of the primary factors of the social economic development of the rural and mountain landscape is that tourism in these areas finds its maximum expression in hiking.

In Italy, this type of *"green ecotourism"* is spreading out as an alternative type of tourism enabling it to repopulate the countryside and to exploit the history and culture of rural territories.

The work has been developed in its first phase on topographic map, taking into consideration the points of major interest for tourists (castles, churches, etc.), every kind of accommodation structure (bed and breakfast, holiday farm, etc.) present in the area and the best way to unite the main structures. In the second phase each point of interest has been individualized and registered by G.P.S and the result of data G.I.S. elaboration has been the hiking tracks.

When identifying and projecting hiking paths to satisfy all types of excursions, it is fundamental to always take into account that a *"horse way"* should have suitable characteristics of slope, surface and width ground, so that they can be also used by foot and mountain bike.

In order to realize a rational net of tracks and paths, some infrastructures must be put in place to support the different needs of hiking. Therefore, the project has foreseen the restoration of disused rural buildings present on the paths like rest places, refuges, animal shelters, barn etc. Furthermore, new stables for horses have been designed specially for places far away from accommodation structures. These wooden or stone buildings have a place for hosting 6 – 8 horses and areas for saddles, feed storage and resting of riders.

The presented results are related with the net of paths (500 km) created for the the Casentino valley, which will constitute the basis of the incoming plan of tourism and hospitality for the entire valley.

KEYWORDS: horses wood buildings, horse tracks, ecotourism, landscape reclassification.

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-receptive development of an area. In fact, due to the incentive of various ways of fruition (horse, trekking and mountain-bike) and to the

efficient connection of the several tourist and receptive places on the territory, it is able to raise 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 too much often we see many plans of modern excursion-nets that are located on old paths, that are realized only for the single hiking on foot and not suitable to bicycle and horse.

Moreover, the utilization as excursion paths of these tracks along ancient ways of communication, like pavements and old tracks completely in disuse, let the recovery of an 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 hut, shelters, ancient placed for horses, etc, to make suitable for the hiking, in particolar for the hiking by horse.

In order to demonstrate how hiking in general and specially horse trekking can be a method of promoting a rural mountain territory from the touristic 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.

MATERIALS AND METHODS

The Casentino valley, for its geographic conformation and the high density of woods and agrarian land, is representative for our research.

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 and aerial photos of the zone have been used. The program AutoCAD 2002 has been used for the planning of the constructions and infrastructures 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, afterwards summarized.

The first phase consists in the localization on a 1:25.000 map (digitized and georeferenced) of the places both of major and less interest from the touristic point of view, like small churches, stone villages, castles, etc., that are located in the study area. These places have been then digitized in one cartography of reference introduced in the G.I.S. (Fig.1).

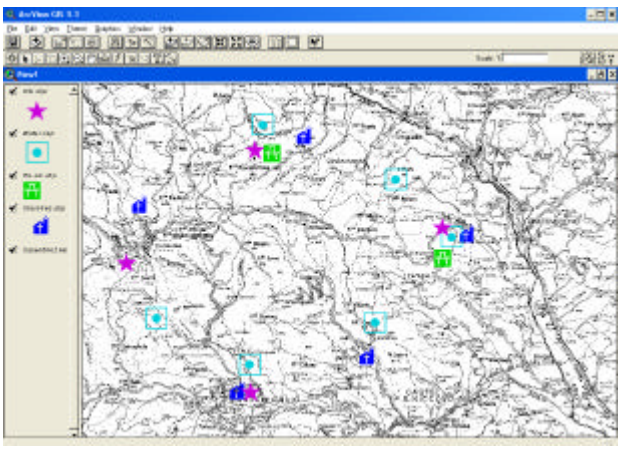

Fig. 1: Buffering to identify the places of interest from the tourist point of view.

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 (Fig. 2) as in phase 1. These structures are:

- agritourism
- riding-school
- hotel
- shelter
- camping
- refuge
- bed and breakfast
- others

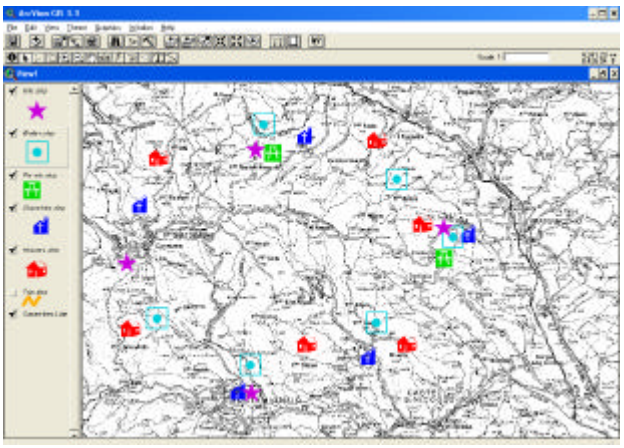

Fig. 2: Buffering to identify the receptive structures for the hikers and horses.

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

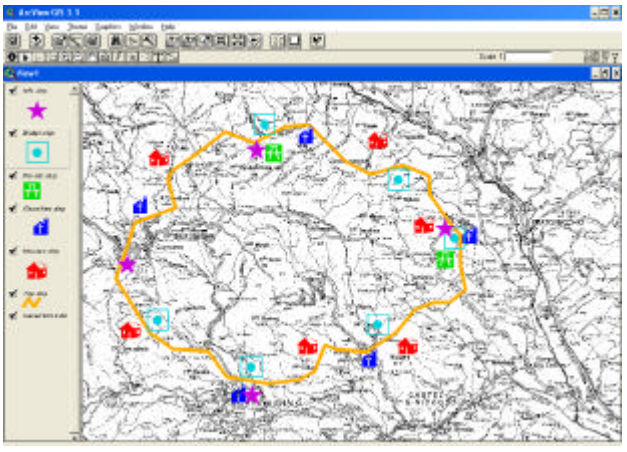

Fig. 3: Buffering to identify the better connection paths.

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 characteristics of the paths. Moreover the path for horses can be easily used also from who goes by foot or in 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 transumant-ways, the ancient ways used of charcoal burners, the ways of pilgrimage, etc.

The greater part of the excursion-paths has been localized on tracks that guarantee a compromise between horse and hikers safety and limitation on damages to the ground and to the growth, trying to avoid 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, consolidated and generally with modest slopes (factor that positively influences the health of the horse and limits soil erosion). Moreover this 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 asphalted road with motorized vehicles (Fig. 4).

Fig. 4: Typical forest road.

With regard to the length, it's necessary to keep in mind that a horse day is not longer than 6-7 hours of saddle and moving at a speed, that in average is of 6-7 km/h for flat lands and of 4-5 km/h in slope, the paths will be not 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 to much pebbly, hard or soft that are not suitable to horse-feet. It's necessary also to individuate along the 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 on the verification on the field of the places and the existence of the paths located before on the map and, at the same time, individuating and recording through G.P.S. the places and the paths, of particular interest, that have not been located before and put them in the G.I.S.

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 and to maintain a good balance between nature and tourism.

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

At 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 main important for the architectonical structure and very common is the "*seccatoi*" (chestnuts drying-buildings). 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 (Fig. 5).

Fig. 5: Rural annexe for chestsunts drying.

For some of these, a small structure in wood with a shed has been planned to be put at a side of the same one, with the function of shelter for 3-4 horses, using the first floor for storing food and hay and the below one 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 can be found copiously in mountain areas along the ways. These buildings, even if of small dimensions, give a valid shelter from the unexpected climatic changes and at the same time they are witnesses of 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 and they are devised in order to remain isolated far away from the villages as a really shelters.

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

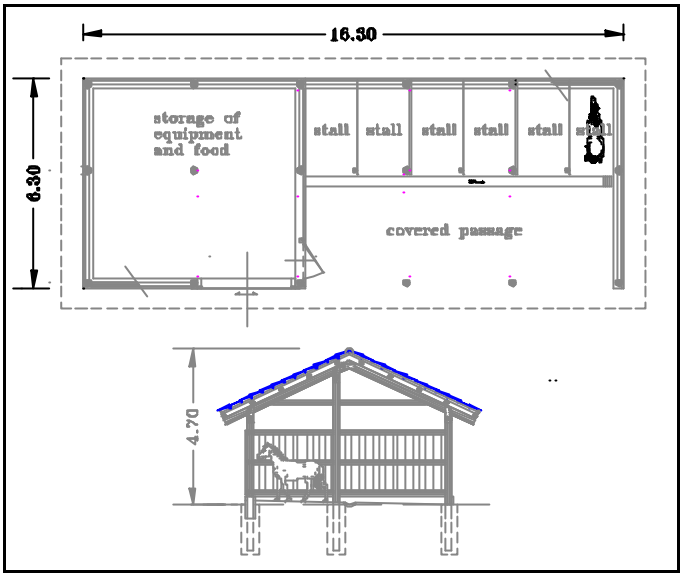

Fig. 6: The planimetry of a wood shelter for horses.

Fig. 7-8: Wood shelter for horses.

These support structures, realized 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, maintain a good integration with the surroundings and at the same time guarantee the tourist receptive 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 tourist interesting places present on the Casentino valley and 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) and several connections between these two rings, forming other small rings (Fig. 9).

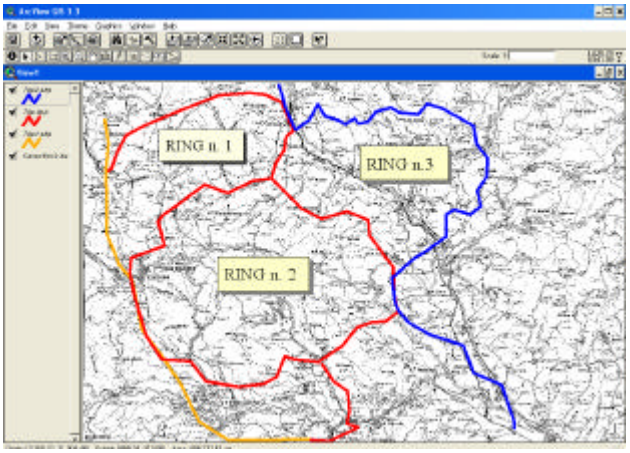

Fig. 9: Parts of the two concentric rings (orange and blue) and the connections (red).

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.

Moreover, since these small-rings can be covered in only one day returning to the main lodging structure, they will be useful to incentive 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 and 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 the 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.

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

The remarkable presence of some receptive structures, in particular of farm holidays, induced the planning of only three shelters for horses, located along the big ridge-ring, with annexed structure 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 receptive structures that are situated in the excursion-net.

CONCLUSIONS

The horse tourism in Italy, and in each country where there is a strong horse culture, is more and more spreading out like 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 the tourism could be a valid alternative to traditional economy, rising up from the crisis that took place with the depopulation of the countryside towards the big cities.

The involvement of receptive 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 of a great offer of excursions, maintaining the tourist on the territory for a longer time and so it's possible to have the tourist presence in each season, especially in spring and in autumn, that represent the best periods for the excursions by horse.

This kind of excursion-net can solve one of the main problem of tourism in Casentino related with the short time of tourist visits and the tourist maximum flux only in the summer period. The plan of the Tourism Excursion Development is therefore necessary for a better and greater tourist fruition 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 valorization of the ancient local cultures that would undergo the risk of completely disappearing.

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