

LANDSCAPE EVALUATION AND PLANNING IN THE VENETO REGION

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1. Introduction

The Veneto Region has for a long time focused its actions on the protection of the landscape.

To get such a goal the Region has started many interventions two of which of maximum importance: the Regional Master Plan (Piano territoriale regionale di coordinamento or P.T.R.C.) and the setting up of Regional Parks (Regione Veneto, 1991). The Veneto Region through the Regional Master Plan has defined:

- the most important strategies of landscape policy;
- the areas where parks or natural reserves will be realized or that must be the object of detailed landscape planning;
- the elements of landscape that will have to be protected by the provincial and municipal plans.

After adopting such measures, the Region has set up, with special laws, some protected areas among which the first, the regional park of the Colli Euganei (Euganean Hills), has mainly the purpose of protecting the rural landscape of a hilly area that is situated in the centre of the Veneto Plain. The Regional Master Plan is certainly an important instrument of landscape protection and improvement but some aspects of the plan rise some perplexities.

Firstly, the Regional Authority has not analysed whether or not there's a demand of landscape and which were the qualitative features of the territory affecting such a demand. Secondly, the analysis of the possible economical effects of the parks and reserves has been completely neglected. The present work gives the results of two researches recently carried out in the Veneto region.

In the first research we have compared the Regional Master Plan goals for landscape protection with people preferences. To reveal people landscape preferences a survey has been carried out in the province of Treviso which encompasses the most important landscape of the Veneto region. The second research concerns an assessment of the effects of Colli Euganei Regional Parks on the land values. The goal of the study was to verify whether the land-

Abstract

Two case studies show how the planning policies for landscape protection sometimes are not well aimed and in which way this can determine very strong redistributive needs. The difficulty in identifying correctly the social preference functions referring to the use of common goods represents one of the main limitations for the interventions performed in the Veneto region in order to protect the landscape.

In the Veneto region the adoption of most of the laws and plans regarding the landscape and the environment were not followed by a study on the possible changes in income of the different socio-economic categories involved. Without such studies, the decision-makers are often led to consider that real redistributive effect is the one felt by the individuals involved by the plan.

Résumé

Le deux cas d'étude montrent que parfois les politiques de planification visant à la protection du paysage ne sont pas bien visées; ils indiquent dans quelle manière cela peut produire des effets de redistribution très forts.

La difficulté d'identifier correctement les fonctions de préférence sociale se référant à l'utilisation des biens publics, représente l'une des contraintes pour les interventions réalisées dans la région Veneto pour la protection du paysage.

Dans la région Veneto, l'adoption de la plupart des lois et des plans sur le paysage et l'environnement n'ont pas été suivies par une étude sur des changements possibles de revenus des différentes catégories socio-économiques concernées. En l'absence de ces études, le décideur est souvent mené à considérer que l'effet de redistribution est celui ressenti par les individus intéressés par le plan.

scape protection instruments can affect the value of the real estate.

2. Individual preferences and public aims of protecting the landscape

2.1 The goals of the P.T.R.C. on the landscape protection in the province of Treviso

To protect the landscape, the Regional Master Plan defined the landscapes that will have to be recognized and protected by the subordinate plans (provincial and municipal).

With reference to the province of Treviso, the plan indicated the following landscapes:

- the landscape of the "cavino" or paduan layouts;
 - the viticultural landscape of the low hills;
 - the water meadows and the permanent grasslands;
 - the landscape of the arable land with vine plantings (pianata di viti).
- Secondly, the Regional Master Plan defined the places where to establish parks and natural reserves. Among these, from the landscape point of view are to be mentioned:
- the Sile river springs park;
 - the park of the "Palù del Quartier del Piave".

Finally, the Regional Master Plan indicates

the area of the Montello hill as an area where to establish a territorial recreational park.

For each of these landscapes, a survey of community preferences was made (Tempesta, 1993). In the survey 27 different pictures of the province of Treviso were submitted to the judgement of 107 people.

The choice of the pictures was made keeping on mind the followings aspects:

- to submit to people judgement the landscape elements that will be protected;
- to represent all the most important landscapes of the province;
- to show some similar landscape but with one or more different features;
- to submit to people judgement only ordinary landscapes.

The pictures were taken in the following landscape ambits (Marchetti, Milani, Santantonio, Tempesta, 1991):

- South-eastern low plain with a prevailing diffusion of large capitalistic farms;
- South-western low plain with small farms;
- High plains where sometimes there can still be found the signs of the roman centuriation;
- Eastern low plains with a strong diffusion of viticulture;
- Asolo hills;
- Montello hill;
- Hills between Valdobbiadene and Vittorio Veneto;
- High hills and prealpine mountains;
- Closed fields of the Piave District.

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The present work was planned by both authors together. G. Franceschetti drafted paragraphs 1 and 4, while T. Tempesta drafted paragraphs 2 and 3.

2.2 The evaluation methods

In this study we considered two different approaches of landscape evaluation:

- the evaluation by means of scores referring to the aesthetic taste;
- the monetary evaluation based on the recreational behaviour, centred on the willingness to travel.

The first approach has been used frequently in the past, and can give very useful indications on the factors affecting the aesthetic taste of each landscape.

To get a monetary estimate of the recreational value of the single landscapes we used the willingness to travel approach. We asked the interviewed to express the maximum travelling cost they were willing to pay in order to visit each of the 27 landscapes, without reducing the number of the visits.

After that, by subtracting the real travelling cost from the hypothetical we calculated the consumer surplus.

The consumer surplus was therefore supposed equal to the willingness to travel, clear of travelling expenses.

2.3 The estimate of the aesthetic-recreational value of the landscapes of the province of Treviso

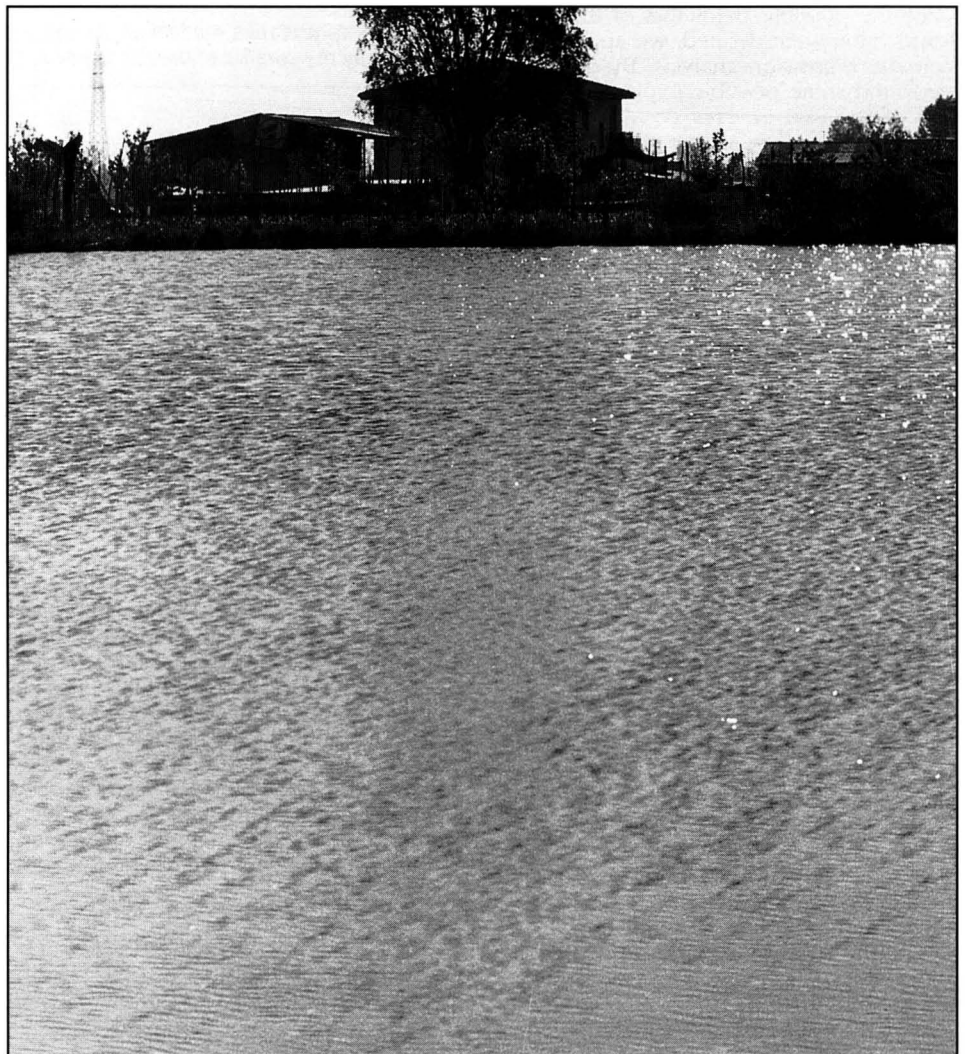
The analysis of the gathered data shows a relationship between the development of recreational activities in rural areas and the landscape features. Although there are some important exceptions, we observed that the most frequented landscapes are also the ones mostly appreciated from the aesthetic point of view.

The aesthetic taste of the hilly landscapes and the landscapes of the plains differ markedly.

As far as the plain is concerned, we must underline the high value of the aesthetic-visual index of the Palù del Quartier del Piave landscape an area with small fields enclosed by thick fences. This shows that even landscapes of the plain can be appreciated when there exists a considerable arboreous vegetation. It is interesting, in this connection, to compare the evaluation of this landscape with the one of the Montello hill area whose actual features are due to the land reclamation done at the beginning of the century. The areas of the plains, with historical landscape, are appreciated as much as the hilly ones if the latter have modern landscapes without too many diversifying elements.

On the other hand, even the presence of watercourses rich in arboreous vegetation or in bush give additional scores to the landscapes in the plains.

As far as the hills and the mountains are concerned the landscape of the Asolo area is the most appreciated. In this landscape because of their particular morphology, many of the traditional elements have been maintained. The low productivity of its soils has in fact avoided the spreading of intensive viticulture, and the agricul-



tural sector is still based on mixed viticultural-zootechnical farming systems.

Contrary to expectations, the landscapes most typically mountainous provoked less interest maybe because the Treviso mountains aren't as attractive as the dolomites lying behind.

Also the estimate of the consumer surplus per trip through the approach of the willingness to travel gives similar results. The monetary recreational value gives results that are very close to the ones given by the aesthetic judgement, although the obtained data are much more articulated. In the plains the surplus per trip varies from 0 to about 4000 lire for the river areas. In many areas of the plains the landscape doesn't have any recreational value especially in the ambits that are very far from major built-up areas or that don't have environmentally interesting elements. On the contrary, all the hilly areas always have values higher than 3000 lire per trip with peaks of 16000 lire for the landscape of Asolo hills and of 23000 lire for the landscape alpine hut. Furthermore the mountainous and the high hilly landscapes usually have a much higher monetary value than those of the subalpine hilly zone.

2.4 Factors affecting the landscape value

The values of the aesthetic-visual index and of the consumer surplus per trip sometimes differ from each other considerably even for landscapes with similar features. So it seemed interesting to define which were the characteristics of the landscape that could cause such a variability using a stepwise regression.

We identified ten factors that can completely describe each of landscape: 1) morphology, 2) visual width, 3) crops, 4) vines, 5) grassland, 6) woods, 7) qualifying elements (like rows of vines, historically interesting rural buildings, etc.), 8) agricultural layout of historical interest, 9) rural buildings, 10) hedges.

Besides these factors three other variables referring to the quality of the picture such as the brightness, the season in which it was taken and the contrast with the picture shown just before to the interviewed were considered. In this way it was possible to verify whether and how much the photographic techniques and the order in which we presented the pictures could have affected its value.

Once the possible predictors of the landscape value were defined, we applied the stepwise regression analysis. By doing so we found some possible explanatory models of the two indexes considered. The models obtained are shown in **table 1**. The first element appearing from the models is that the morphology has a basic role in determining both the aesthetic taste and the recreational and monetary values of the landscapes. Other factors being the same, a landscape with a very wavy morphology presents an aesthetic taste almost 40% higher than a plain landscape (model 1). We must observe that the appreciation of the landscape is also due to some features of the agricultural land use such as grassland and hedges. In fact these two elements considered together assume almost the same importance as the morphology in determining the aesthetic value.

The value of the consumer surplus per trip, besides the morphology, is correlated to the presence of grassland, of rural buildings (model 2) and to the season of the picture (model 3).

Even in this case besides the strictly physical factors, such as the morphology, even typical elements of the anthropic intervention seem to influence the recreational value of the rural territory. The presence of rural buildings in the models, shows that people prefer areas where there are signs of the so-called "built landscape". Therefore, more than the wilderness areas, the humanized zones seem to be preferred following a cultural line of behaviour of the humanistic-renaissance kind very strong in this country preferring the "nice landscape" to natural landscape.

2.5 The P.T.R.C. aims and the individual preferences: a few final conclusions

The analysis developed brought out that the main factors that determine the aesthetic or recreational value of the landscape are elements of great visual importance, such as the morphology, the grassland, the woods, the hedges and the presence of buildings. On the other hand, we found that other environmental or historical-cultural elements were not important. So the presence of typical elements of the historical landscape (e.g., rows of vines, historical agrarian layouts, etc.) didn't fall within any of the statistical models developed.

The analysis showed the presence of great differences between the Regional Master Plan aims and the preferences expressed by the people. First of all some of the historical elements of the landscape that the Veneto Region wants to protect aren't appreciated by the people interviewed, neither from an aesthetic point of view nor from a recreational one. Therefore, two particular elements of the Veneto historical landscape, such as the rows of vines and the cavino layout, weren't particularly prized.

For what concerns the hilly landscapes, the

Table 1 Interpretative models of the value assumed by the aesthetic-visual index (IEV) and by the surplus of the consumer per trip (SURP).

Model 1				
IEV =	1.30	MORPHOLOGY +	1.25	GRASS
	(7.274)		(4.168)	
		+ 0.71	HEDGES	+ 3.40
			(2.468)	(13.462)
r2 =	0.85			
Model 2				
SURP =	4219	MORPHOLOGY +	5518	BUILDINGS +
	(5.357)		(3.870)	3754
				GRASS -
				1650
				(-1.421)
r2 =	0.75			
Model 3				
SURP =	4897	MORPHOLOGY +	5350	BUILDINGS +
	(6.672)		(3.643)	3236
				SEASON -
				2208
				(-1.529)
r2 =	0.74			
All coefficients are significant at 5%				

preferred one isn't mentioned in the Regional Master Plan. The Asolo hills don't even have any landscape elements in them that the Plan is concerned in protecting. Paradoxically strong attention has been set on the hilly landscape of minor interest such as the Montello area where the landscape has deteriorated because of settling dispersions. Therefore from many aspects the aims of the Regional Master Plan seem wrongly directed and only partially in keeping with the community's preferences.

3 The effects of landscape protection on real estate values: the case of the Colli Euganei Regional Park

3.1 Purposes

The institution of a park is in general followed by the introduction of some restrictions in the use of the land resources.

These restrictions may cause a reduction of the benefits resulting from the use of the resources. So the institution of a park may have quite strong impacts on real estate values.

The study of the changes in the land market can give some interesting indications on the effective impact of a park on the real estate and, therefore, on the income of the people working inside the park (especially farmers).

In order to verify such problems, a research on the evolution of the land market has been carried out in an area inside the Colli Euganei park and in others outside of it. This way it was possible to compare the land market before and after the setting up of the park and to formulate some hypotheses on the emerging elements of diversification.

3.2 The investigation methodology

In Italy the informative sources regarding the land market are very poor. In the Ve-

neto Region there does not exist any systematic gathering service of the main factors that characterize the market (prices, characteristics of the real estate on sale, contractors).

With such a deficiency, intending to go deep into the knowledge of the land market in the Colli Euganei, we investigated the contracts of sale of the real estate sent each month from the Registrar's Office to the Town Councils in order to calculate the INVIM tax. This source consents to have detailed information on a lot of aspects of the land market such as, for example, the kinds of real estate on sale, some of their physical characteristics, the categories of the subjects involved, etc.. However, in most cases the data on the price of the real estate resulted unreliable (Fratepietro, 1990).

From a temporal point of view the investigation was spread to three significant periods for what the introduction of restrictions operated by the park may be concerned, and that is:

1982-1985: when there were no restrictive laws whatsoever;

1986-1988: when the Regional Master Plan, which came into force in 1986, defined the temporary borderlines of the park and some provisional land use restriction;

1989-1992: the four years following the institution of the park that took place with a specific regional law (38/1989) with which many restrictions came into force.

To isolate the effect of the park institution on the land market trends, the investigation was carried out both inside and outside the protected area. The analyzed zones inside the park cover an agricultural and forest surface of 3484 ha (equal to 24% of the protected area), while the external area includes 2315 ha. The contracts of sale visualized on the whole were 1275.

3.3 The results of the investigation

The investigation has identified the main elements that diversified the trend of the land market inside and outside the park.

We can resume these elements as follows:

- inside the Colli Euganei, since the date of the designation of the territory to become a park, there is a raise in the land market mobility (**figure 1**). This is particularly evident for the sales of real estate with buildings;

- a second element of strong diversification of the hilly land market with respect to the plain is the importance given to lands equipped with rural buildings. Inside the park 45% on average of the land sales regarded buildings and cultivated areas. On the other hand, in the plains such a percentage was always below 30%;

- during the eighties there was a strong transfer of the real estate from non-residents to residents. This tendency favoured certain professional categories such as farmers. This process was diversified inside and outside the Park. Outside, the transferring of the real estate to the residents diminished during the observed period, while the opposite happened inside the Park. After the designation of the area to become a park the transfer of the real estate from non-residents to residents was emphasized;

- the land market value assumed a fundamentally cyclic trend although some interesting elements of diversification may be observed between what happened inside and outside the Park (**figure 2** and **figure 3**).

Both the deflated values of the arable land and of the vineyards showed a diminishing tendency until 1986, an increasing one until 1990 and again diminishing during the following two years (**figure 2** and **figure 3**). So the arable land and the vineyards inside and outside the park showed the average values of **table 2**.

The farmlands with rural buildings show a different dynamism from the ones illustrated above. The first emerging point is that the value of the farmlands with buildings has always been much higher in the hills than on the plains. The average value of a standard farmland of 1500 m² with a 600 m³ building to be refurbished inside and outside the park resulted as showed in **table 3**.

Not only the value of the buildings is higher inside the park, but it has also increased very much with time. We must notice the great variation found inside the park before and after the designation of the area to become a park and the further increase verified during the 1989-1992 period. Such a fact didn't happen in the plains area. A last consideration must be made regarding the value variations of different kinds of real estate in the different periods examined (**table 4**).

From this, one can deduce that, while the lands without buildings registered stronger decreases in prices inside the park than

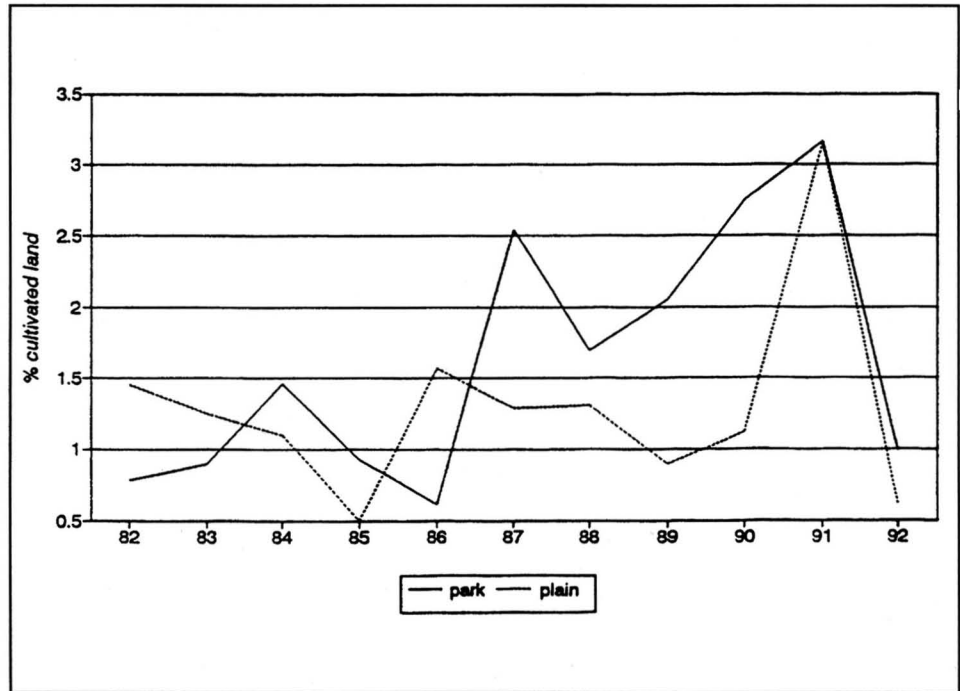


Figure 1 - Per cent incidence on the farm area of the surface sold in the park and in the plains.

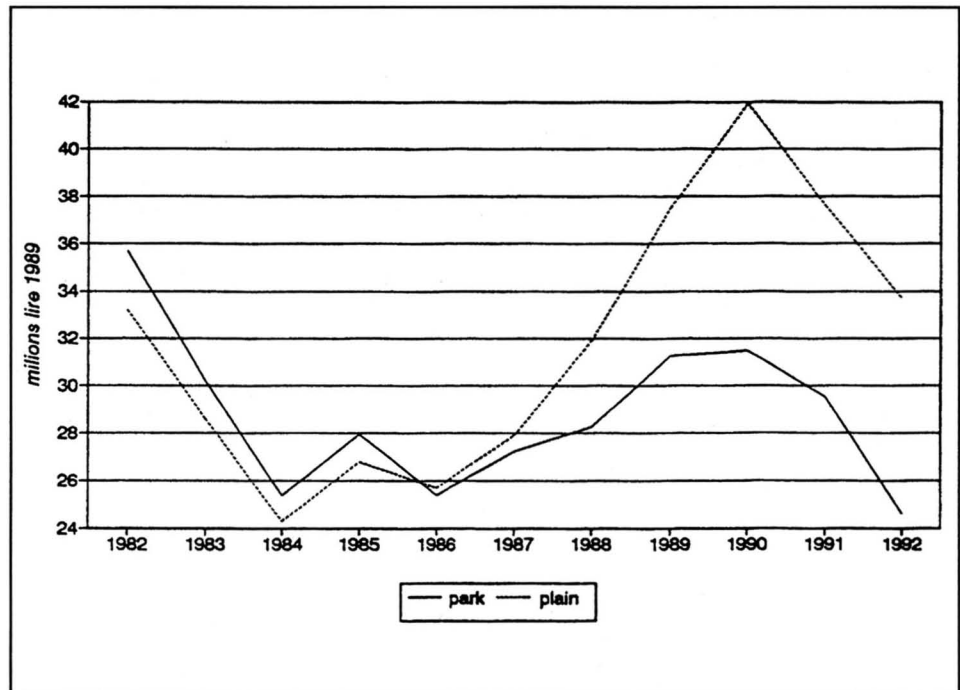


Figure 2 - Average prices of the arable land in the park and in the plains between 1982 and 1992.

year	arable land		vineyard	
	park	plain	park	plain
1982	35.7	44.2	47.9	52.6
1986	25.4	33.5	39.1	39.4
1990	31.5	47.8	53.6	53.6
1992	24.6	35.8	45.0	40.1

(1989 millions of lire)

out side the area, the rural buildings instead were much more appreciated, and this proves a tendentially asymmetrical effect of the institution of the park on the land market values.

3.4 Institution of the Colli Euganei Park and land market: some interpretative suppositions

In order to better understand the trends shown above, first we have to consider that the rural areas are interested in three main categories of land demand (Grillenzoni, 1981):

- for housing purposes;
- for agricultural purposes;
- for financial purposes.

While the financial categories are mainly responsible of the cyclical features of the land market, the demand for housing and for cultivation may have caused the most important differences in the trends inside and outside the park.

For what concerns the sales of lands without buildings, **figure 4** shows how the changes intervened in the market between the first half of the eighties and that period between 1987 and 1991 inside the park were due both to an expansion of the demand and of the supply. The market equilibrium points in fact show a translation towards the right.

During the same period, in the plains (**figure 5**), in accordance with the expansion of demand, a steadiness in supply was noticed. We can suppose that the institution of the park lead certain categories of owners to sell their lands mainly because of the restrictions on the building activity. In fact, mainly the non-residents determined the raise in mobility of the land market during the end of the eighties, people mainly interested only in the building activity. The raise in demand during the examined period shows, on the other hand, that the agricultural operators didn't have pessimistic expectations on the possible effects of the institution of the park on the agricultural incomes. As to what happened in the plains, the farmers bought more and more of the lands on sale.

Considering what happened with the sales of the lands with buildings (**figure 6**), it is possible to notice even in this case a difference between what happened in the park and in the nearby plains. Even thou-

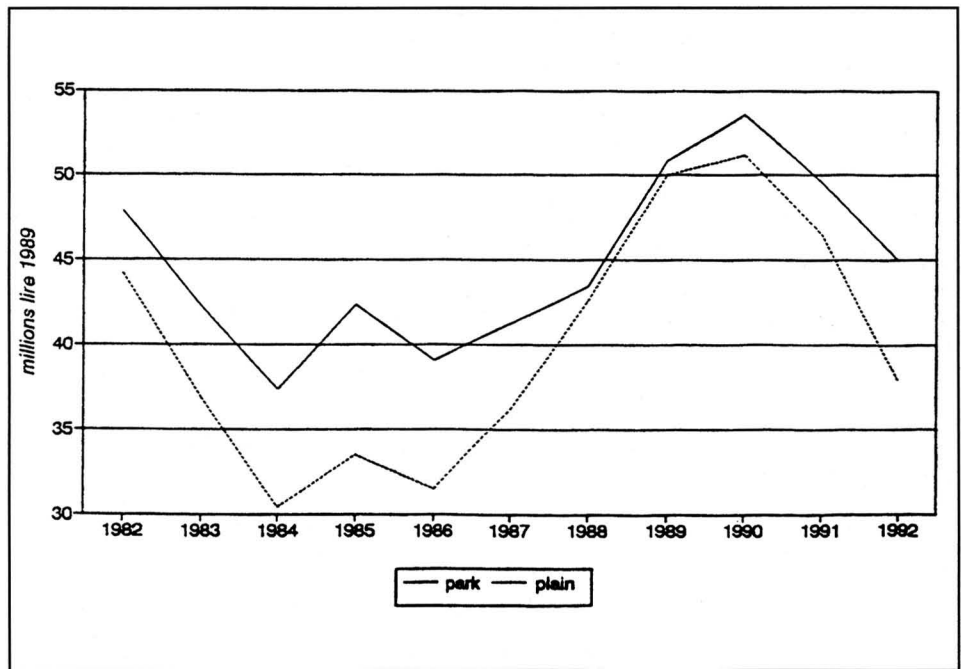


Figure 3 - Average prices of the vineyards in the park and in the plains between 1982 and 1992.

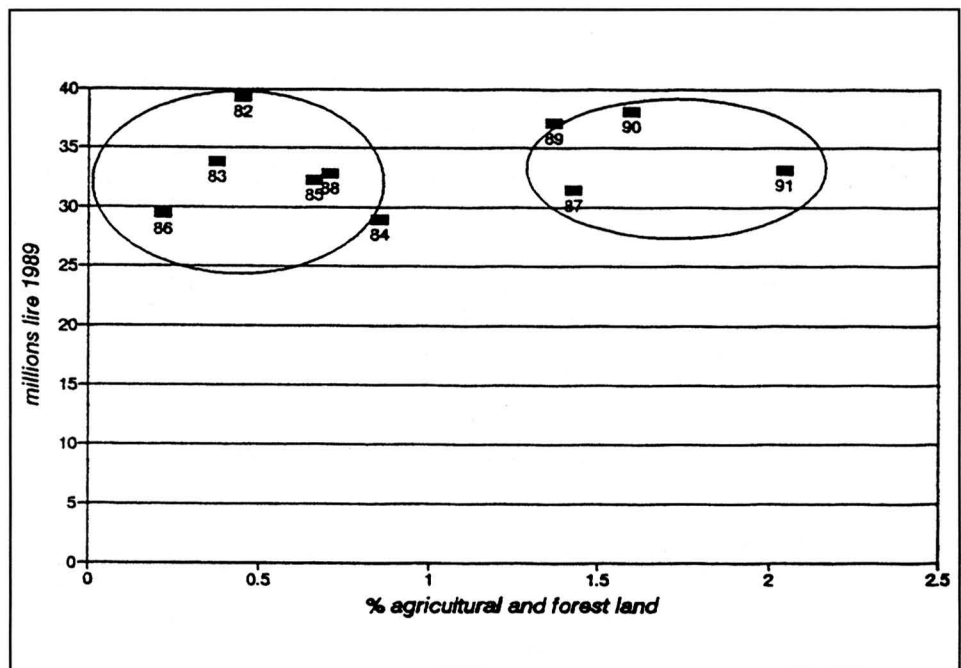


Figure 4 - Average land values of lands free from buildings and land market mobility in the Colli Euganei Park between 1982 and 1992.

	Park (A)	Plain	A-B (B)
1982-85	80	34	46
1986-88	102	39	63
1989-92	115	44	71

(1989 millions of lire)

	arable land value		vineyard value		land value of 1500 m ² with build.	
	park	plain	park	plain	park	plain
% variation 1982-85/1986-88	-10.6	-2.2	-2.2	-3.3	+27.0	+14.7
% variation 1986-88/1989-92	+7.4	+34.2	+19.8	+29.1	+12.4	+12.8

gh in the presence of an expansion of the market in both areas, it is possible to notice how this expansion in the park is due mainly to the increase in demand, the supply remaining motionless. In the Euganean area there has been, therefore, an increase of the lands with rural buildings value related to a loss of building susceptibility of the remaining rural territory. Part of the demand for areas for residential purpose that once bought medium-large pieces of land, because of the building restrictions, is now oriented towards buying lands with rural buildings.

In conclusion, we can underline that the institution of the park was not penalising the residents and mainly the farmers, at least not during the first period. Moreover, there has been a great increase in value of

the rural buildings, and this is favourable to the resident population, even if a good number of the rural buildings in the hills belong to people who live in the plains.

To better investigate the effects of the price variations of the real estate, we estimated its value during the eighties (table 5).

The value of park real estate rose from 710 billion lire in 1982 to 943 billion lire in 1991 at 1989 constant prices (+32%).

The buildings constitute the most important part of the whole real estate, and its incidence on the total rose from 56% during the 1982-1984 period to 63% during the 1989-1992 period. Besides the buildings, during the examined period also the value of the surfaces with vines and with woods rose while there has been a decrease of arable lands and pastures.

3.5 Final remark

Owing to the institution of the park there have not been reductions of rural land values. Although we cannot assert that all the patrimonial estate changes shown are entirely due to the institution of the protected area, it is possible that, in some way, it helped increase the building patrimonial value compensating the losses in value connected to the minor building susceptibility of the agricultural lands. On the other hand, the analysis gave prominence on how the recreational use of the territory and more specialized and professional forms of agriculture, such as viticulture, have increased in the park thanks mainly to the intense touristic concourse.

After all it is possible to affirm that in the Euganean area are in act many transformations in the use of the land that tend to give more importance to its environmental-landscape aspect, favouring a reevaluation of the real estate and, under many aspects, an increase in value of the patrimony of the residents and mainly of the farmers.

4. Conclusion

The two case studies show how the planning policies for landscape protection sometimes is not well aimed and in which way these can determine very strong redistributive effects.

The difficulty in identifying correctly the social preference functions referring to the use of public goods represents one of the main limitations for the interventions realized in the Veneto region in order to protect the landscape. The Veneto region, since the second half of the eighties, has adopted many measures to control the land use variations and to administrate the private use of environmental resources.

Generally, such interventions had the aim of defining plans that only in a second stage, after political mediations, and under the hypothesis that the administrators were able to correctly perceive social preferences, had precise goals and articulations.

Such a hypothesis is not correct because politicians have their own idea of "utility function", aiming to raise their political role and to maintain their own "political life". The maximization of the politician's utility function coincides only partially with the one regarding the community's welfare. In other words, the research for electoral consent doesn't necessarily lead to the maximization of the community's wellbeing.

Even in a democratic society the political class often meets great difficulties in giving the right weight to the different requests that come from the social corps.

The interests of strongly motivated minorities can assume a greater importance in the eyes of the politician than those of the majority of the society. Typical is the case in which few people are strongly dama-

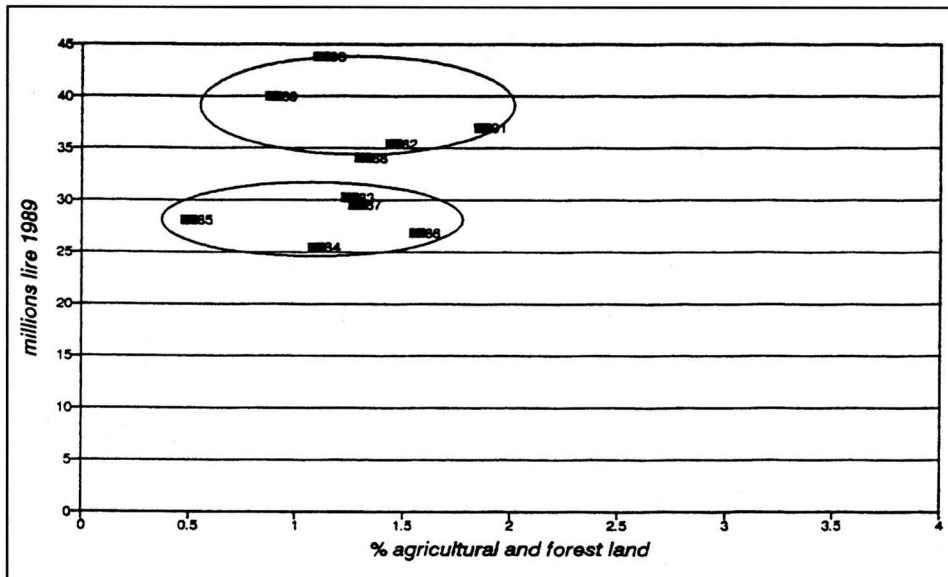


Figure 5 - Average land values of lands free from buildings and land market mobility in the plains between 1982 and 1992.

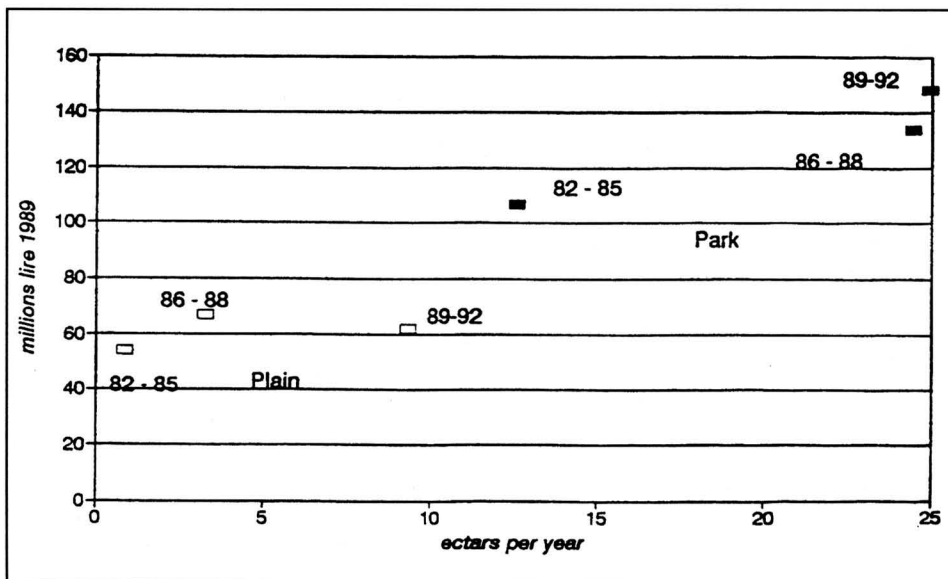


Figure 6 - Lands with buildings sold and average land values in the plains and in the Colli Euganei Park between 1982 and 1992.

Table 5 Real estate value in park of Colli Euganei in 1982, 1986 and 1991 (million lire 1989).

1982	surf. ha	price million	value million	%
arable land	3252	30.4	98871	13.9
vineyard	3498	42.5	148651	20.9
grassland	651	21.4	13932	2.0
woodland	5322	7.4	39384	5.5
uncultivated land	1101	8.7	9576	1.3
total surface	13824		310413	43.7
buildings (number)	5000	80.0	400000	56.3
total value			710413	100.0
1986	surf. ha	price million	value million	%
arable land	3082	27.2	83841	10.7
vineyard	3454	31.9	110191	14.0
grassland	610	20.3	12377	1.6
woodland	5362	8.8	47182	6.0
uncultivated land	1108	8.2	9089	1.2
total surface	13616		262679	33.5
buildings (number)	5120	102.0	522240	66.5
total value			784919	100.0
1991	surf. ha	price million	value million	%
arable land	2870	29.2	83804	8.9
vineyard	3400	49.7	168980	17.9
grassland	558	22.3	12460	1.3
woodland	5411	12.8	69261	7.3
uncultivated land	1118	10.1	11292	1.2
total surface	13357		345797	36.6
buildings (number)	5200	115.0	598000	63.4
total value			943797	100.0

ged by a certain action while the other members of the community are slightly favoured individually, but greatly favoured if seen under the collective's point of view. In this case, the solution that maximizes the community's welfare will seldom be chosen, more easily the politician will give greater importance to the needs of the strongly motivated minority.

Although this choice may be wrong for the welfare of the community, for the politician it may appear to be the best under "his individual welfare" point of view! A slight damage to the most will not lead to any political changes while few strongly damaged people can adopt counter-measures that could be negative for the politician who has made certain decisions. Moreover, there is a second element that tends to diverge the political choices from those that tend to maximize the welfare of the community and that is the non-measurement of the real redistributive ef-

fects of the choices undertaken. In the Veneto region the adoption of most of the laws and plans regarding the landscape and the environment were not followed by any study on the possible changes in the incomes of the different socio-economic categories involved. Without such studies the decision-maker is often lead to consider that the real redistributive effect is the one felt by the individuals involved by the plan. Therefore, the effect is a tendency to overevaluate the interests of the people damaged by the plan and to underestimate the interests of those advantaged by the plan. According to studies conducted by Kahneman and Tversky (Mitchell, Carson, 1989 page 35), people usually are strongly adverse to reducing their goods and resources. Following the theory of these authors (prospect theory) the demand function would result much less sensible when the availability of a benefit is reduced rather than when its availability is raised.

Such a gap is greater for all the utilizable environmental resources whether used for the production of saleable goods or to satisfy primary or cultural needs (e.g. recreative activities). It is nevertheless important to remember that, while the benefits that go to those who use the resources for productive purposes are easily measurable, the estimate of those regarding the recreative and cultural use is much more difficult.

For such reasons, the political actions and choices about the protection of the environmental and cultural goods will tend to favour the status quo, supporting the present use of the resources (generally of a productive kind) to the detriment of the valorization-transformation for cultural and recreative purposes or of the interests of future generations.

Such considerations allow us to state, furthermore, that besides the well-known failure of the market in the resources allocation, it is possible to talk about a "failure of the public operator" in his attempt to remedy the bad operation of the market. Such a failure, like the one regarding the market, may be considered inborn with the mechanisms that are at the basis of the public choices made in modern democratic societies, at least how they have been done until now. Therefore, just as the allocation process created by the market mechanism, also the political decision-making process needs to be corrected especially for what concerns some environmental resource categories.

After all this, it appears essential to think over how the environmental laws and the planning of the use of the resources have been conceived and carried out. Although the conditions for the optimal use of the resources will never be reached, it is clear that it would be possible to get more efficiency by a careful use of the economical analysis. Particularly, also for the environmental goods a great effort should be applied for the qualification and quantification of the possible alternative use demands.

Techniques aiming to analyse the demand for environmental and landscape resources have been tested for more than twenty years. Even if these techniques still show important limits, they can nevertheless offer an important analytic and cognitive support for the decision-maker. ●

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