

# Chapter 7

## Piedmont

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### 7.1 Introduction

Piedmont holds the Italian record for the oldest ‘Landscape Museum’. In Verbania, on Lake Maggiore, a museum with this official denomination exists since 1914 (recognized the Ministry of Public Education from the beginning). In 1988, the Museum has created its own research Center for Landscape Studies. In the context of the problem of identifying rural landscapes of historical interest in Piedmont, the important tradition of the museum of Verbania bears witness to the difficult of scientifically

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cataloging the landscapes and therefore of laying down the guidelines for their protection. The museum is evidence of a visual conception of the landscape that has characterized for almost a century, and continues to characterize, the culture of the institutions responsible for the study, protection and promotion of the landscape, a culture that has spread from the center to the periphery, from the State to the Regions all the way down to local institutions. A corollary of this well-known conception is that rural landscape, if taken at all into consideration, is interpreted as an extension of the 'landscape of villas and gardens', a view of the territory that reflects a pictorial conception, i.e., landscape as depicted in landscape painting. This conception, however, is an obstacle to the actual identification of rural landscapes in the region and is also unjustified from the perspective of the promotion of the regional heritage, considering that actual 'guides' to the rural landscape of the hills around Turin, for example in relation to viticulture and the accompanying settlements, were already available at the end of the eighteenth century, if not in the previous century, if we interpret from the perspective of the landscape the substantial regional literature on agriculture.

The region is also at the forefront in terms of its network ecological museums, of the more ramified and significant in Italy, thanks to regional act L.R. 31 of 14/3/1995. The various museums have focused their policies in the last decade on local rural society and its landscape. With rare exceptions (consider the file on Valle Uzzone), however, what emerges is a folkloristic vision of traditional rural society, typical of ecological museums characterized by a naturalistic vision of the landscape. While this view is understandable considering the regional cultural heritage, in which the perception of rural society is filtered by the perspective of Piedmont artists and literary writers of the 1840–1940 period, it ends up obscuring the actual experience and practices of local agriculture and its relation with the environmental resources of the rural landscape. Paradoxically, by emphasizing localism, based on an unwarranted assumption of a continuity in the cultural and social characteristics of the country, ecological museums have ended up erasing local reality, in its geographical material form, despite the existence of an ample literature dedicated to the medieval and modern history of rural society, especially in the area of Cuneo and Asti.

Though agriculture takes up 50 % of the regional surface, compared to woods (37 %) and pastures (15.5 %), the agrarian landscape has been profoundly modified and it is difficult to find landscapes of a certain extension, that still maintain their integrity, as opposed to mere fragments of historical landscapes. Recently a number of museums have been opened and farms have become interested in the preservation of the vine landscape. We have been able to exemplify some of these 'fragments' (see the file on Galarei vineyard), but also other types of landscape, as, for example, the farmhouses of the irrigated crop fields of the Alessandria plain (see file on Cascina S. Michele). The files in the Catalog on the summer pastures of Raschera and on the pastures of Roccaverano highlight the documented relation between local practices of pasture management, the above forms of rural landscape and the biodiversity that characterizes the vegetation in these areas. Pastures are still a significant presence in Piedmont, amounting to one third of the utilized agricultural surface (SAU) measured by ISTAT. Historical ecology has made it possible to measure the duration in time of these forms and populations and, indirectly, has provided a possible historical evidence of the sustainability of these landscapes as environmental systems. The

historical aspects of our files on the Vauda plateau and the Baraggia of Vercelli and Biella, are the result of an archeological perspective. The file on the Bosco della Partecipanza of Trino documents the role played by common rights and collective management in ensuring the survival of the woods of Piedmont. But an actual cataloging of this heritage as a premise for the protection of the historical agrarian, forest and pastoral landscapes of Piedmont is yet to be performed.

## 7.2 Pastures of Raschera (44° 14' 01" N; 7° 46' 30" E; 44° 11' 32" N; 7° 40' 53" E)

The area between Marguareis, Mongioie and Mondolè is one of the largest pasture areas in the province of Cuneo. The summer pastures of historical interest we have selected correspond to two different areas having a total extension of about 2,000 ha. The first is found near Punta Marguareis, south of the town of Chiusa di Pesio, while the second is located between the towns of Frabosa Soprana, Frabosa Sottana and Magliano Alpi. The pastures are private property and are located at altitudes varying between 1,000 and 2,000 m a.s.l. They are partly protected under landscape law 1497/39 and 431/85. The pastures of Punta Marguareis are also included in the Natural Park Valle Pesio and Tanaro, which is one of the SCI and SPA of the Natura 2000 network. The areas can be reached from Cuneo by taking provincial road SP 21, arriving at Chiusa di Pesio, and turning right on SP 42, which runs through the valley; the pastures of Punta Marguareis are at the southern extremity of the valley. The pastures of Frabosa can be reached by taking SP 5 at Villanova Mondovì and then SP 37 till Frabosa Sottana, and continuing on SP 327 until the sub-municipality of Prato Nevoso; from there one can reach the pastures by taking via Galassia and following it for about 5 km. The geological substratum of the pasture area is formed mostly by 'Porfiroidi del Melogno', a mix of finely grained porphyroids interbedded with schist. There are also smaller quantities of porphyroids with gneiss schist, white quartzite, quartz schist and ottrelite schist.

The significance of the areas lies in the historical complexity of forage management in an area characterized by various transhumance systems. The areas are characterized by a high level of persistence of a particularly varied flora, resulting from the processes of biodiversification caused by shepherding (the number of the vegetal species identified in the Natural Park of Alta Valle Pesio e Tanaro is 1,492, almost one fourth of the entire Italian flora). The gradual loss of species and habitats caused by the abandoning of the higher pastures, for example on the north-eastern slopes of the Mondolè above Sella Balma in the upper Maudagna valley (municipality of Frabosa), is proof that the biodiversity of these pastures is an historical product of human activity. It is not dissociated from the history of the usage of the summer pastures nor from the type of settlements: *gias*, *vaili* and *vastere* are an architecture associated with the common rights over summer pastures in the plateau of Càrsene, in the gorge of Marguareis, as in the valleys of Riofreddo and of Bellino, around Mongioie, and are related to the other seasonal sites of the system, such as the *gias* in the mid and lower slopes, and the permanent residences at the bottom of the valley. Even

**Fig. 7.1** Pastures around the Rataira (2,270 m a.s.l.) lake where livestock are watered, upper western Ellero, in the municipality of Roccaforte Mondovì



the rural chapels and the other religious sites are part of this rural heritage associated with pasture rights. An example is the church of Sant'Elmo or San Domenico, at the Selle di Carnino in the valley of Maestri at 1,925 m a.s.l., which was the historical meeting place of shepherds from Liguria and from Piedmont, and previously used by shepherds to store cheese. In the area, ancient access rites still survive, both in the area of Monregale, where the 'alps' of the Lords of Morozzo are documented from the twelfth to the end of the sixteenth century, and in the area of Briga, in the medieval relations with the monks of Chiusa Pesio. The shepherds of Briga in 1430 stipulated an agreement with the town of Chiusa Pesio on an access route to the summer pastures of Conca delle Càrsene, through which they have continued to use the pastures of Marguareis. At the end of the fourteenth century, local communities of the Alps renewed their pastures rights with the town of Mondovì, and this allowed them to maintain a close relationship also with the Alps on the north-western slope of Mongioie, along the Ellero valley. At the bottom of the northern slopes of Mongioie, in the upper Corsaglia valley, which belongs administratively to the municipality of Magliano Alpi, the place-name Raschera was passed on to the local cheese *Raschera di Alpeggio*, which obtained in 1982 the old DOC (Controlled Origin Denomination) label, and in 1996 the PDO label, is nowadays commercialized. The local *toma* made of unprocessed milk from Brigasca sheep is also present in the list of the Slow Food association and sponsored by the Liguria Region.

The landscape of the summer pastures of Raschera largely maintains its integrity. The reason lies in the enduring animal farming activities and in the open pastures, though the number of livestock is certainly much lower than in the past. Today, most livestock is cattle, with cows of the Piedmont race, but there are also sheep belonging to the local varieties Frabosana and Brigasca, and goats. Also important is the promotion of the local environment by the Park Alta Valle Pesio e Tanaro, while less convincing are its environmental policies from the perspective of the protection of the traditional rural landscape.

In terms of vulnerabilities, the ecology of these summer pastures depends on their actual usage, which ensures the survival of the pastoral landscape and of its resources.

Recent transformation in the practice of summer pastures and of cheese-making, such as ‘improvements’ to the grass that introduce new species in the ancient pastures, are also a threat to the traditional landscape. In general, both animal farming and cheese-making practices have been significantly streamlined and modernized starting from the end of the nineteenth century. Where the practice of summer pastures persists, some of the traditional *selle* for cheese storage and *gias* for livestock milking and housing at night are still used. Also, the ecological relations with the ancient ‘alps’ continue (Fig. 7.1).

### 7.3 The Plateau of the Vauda (45° 14' 25'' N; 7° 44' 04'' E)

The plateau of Vauda extends for about 3,000 ha in the municipalities of Barbania, Front, Vauda Canavese, San Carlo Canavese, San Francesco al Campo, Lombardore, Rivarossa and Rocca Canavese. The area is both private and public and is located at altitudes varying between 200 and 500 m a.s.l. It is roughly bordered to the north and east by the Malone torrent, and to the west by the stretch of plain that includes Leyni-S.Maurizio Canavese-Cirié-Nole-Grosso-Mathi, up to the first rises of Balangero. The plateau of Vauda belongs to the Vauda Natural Oriented Reserve, of about 3,000 ha, and to the SCI Vauda, besides being protected under landscape law 431/85, and including a vast state property (once belonging to the military). The protected area was instituted in 1993 and is administered by the Ente di Gestione dei Parchi e delle Riserve Naturali del Canavese. To reach Lombardore, one can take provincial road SP 267 from Turin, and continue for about 15 km. The geological substratum of the area consists of fluvial-glacial terraced deposits with red-brown clayish paleosol completely decalcified for a depth of about 5 m with rare stones, and by gravel and sand deposits. There are also streams flowing over post-glacial sandy-gravelly alluvial soil. The outline of the plateau is rough and protrudes towards the south-east with an undulated morphology in the inner area.

Besides its historical persistence, the significance of the landscape of Vauda is due also to its particular morphology which isolates its vast surface from the surrounding terrain, as well as to the vast extension of the *incolto* (untilled land), a consequence of the characteristics of the soil, which is rather impermeable and does not lend itself, for the most part, to intensive agriculture. In the more northern part of the area, there are vast woods, mainly made of oaks, alders, and beeches, which tend to thin out towards the flatter central and southern parts. Here extensive patches of plain moorland, with a great varieties of grass species, poplar groves and birch groves, alternate with vast extensions of forage meadows and cultivated areas, especially cereals (corn and wheat, but also, albeit in increasingly limited quantities, rye) and vineyards, alongside specific productions such as chestnuts, walnuts and hazelnuts. Hazelnuts have obtained the PGI label with the name “*Nocciole del Piemonte*”. This agricultural system is characterized by a high level of persistence, since it appears to date back at least to the Roman period and was consolidated during the Middle Ages, when written documents attest to the intensive and regulated use of the uncultivated

**Fig. 7.2** Typical fallow land of the Vauda plateau



areas and when the place-name Vauda began to be used, from the Germanic *wald* or *walda* (wood). The use of the forests and moorland was the primary concern of the monastery of Fruttuaria, whose interest in the area began in the eleventh century, in terms of both land acquisitions, documented in the case of uncultivated land, such as the *walda de Vulpiano*, cited in a medieval diploma in favor of the cenoby of 1014, and through the establishment of secondary seats, such as the churches S. Solutore and S. Maria Maddalena in Front, and S. Nicolao in Vauda Inferiore. The economic potential of the area led also to an effort to develop agriculture starting from the fourteenth century which culminated, at the start of the modern age, with the foundation of new agricultural settlements ordered by the Doria family in the area that corresponds to the modern settlements of S. Carlo and S. Francesco. In the modern age, although Front was chosen as holiday residence and hunting resort by the Savoia royal family, there was little agricultural or industrial development, which occurred instead in neighboring areas with flat terrain starting from the eighteenth century. The Vauda area remained characterized by small rural settlements and an economy based on family farms.

The Vauda area has retained its integrity not only in terms of the enduring presence of widespread extensions of uncultivated land with limited signs of human presence, but also in terms of the considerable homogeneity in the management of the land, characterized by a well-balanced integration, consolidated throughout the centuries and still quite visible, between meadows, woods, and cultivated areas, in a context of small and medium-size holdings, resulting from the ancient fragmentation of real estate that has characterized the area since the Middle Ages.

The institution, towards the mid-twentieth century, of a military training camp and firing ground, while being a notable intrusion on the traditional arrangement of the land and severely limiting its accessibility, made possible the preservation of its integrity and distinctive characteristics, unlike neighboring flat areas which have suffered from the expansion of the city of Turin and from an intense process of industrialization.

The vulnerability of the area is tied to the gradual sale of state land which could expose the area to real estate speculation. Local administrative bodies along with the administration of the Natural Reserve are taking measures to prevent this possibility (Fig. 7.2).

#### **7.4 The *Baraggia* Land in the Vercelli and Biella Area (45° 33' 55" N; 8° 21' 07" E; 45° 31' 22" N; 8° 09' 46" E; 45° 37' 13" N; 8° 26' 28" E)**

The *baraggia* of Vercelli and Biella extends for about 3,000 ha in the provinces of Vercelli and Biella; the area is not contiguous, rather it consists of six subareas, which correspond to the territory of the Baragge Natural Oriented Reserve, instituted in 1992. *Baraggia* is the local name for an uncultivated and scarcely fertile stretch of land, mostly grassland with few trees and shrubs. The largest of these areas is the Baraggia of Piano Rosa, which constitutes the homonymous SCI of 1,194 ha, and falls into the municipalities of Fontaneto d'Agogna, Romagnano Sesia, Ghemme, Cavallirio, Cavaglio d'Agogna and Sizzano in the province of Vercelli. The Baraggia of Candelo, also a SCI, of 604 ha, in the province of Biella, belongs to the municipalities of Candelo, Cossato, Mottalciata and Benna. The rest of the *baragge* are four areas that make up the SCI Baraggia of Rosavenda, in the municipalities of Massazza, Castelletto Cervo, Lessona, Masserano and Brusnengo in the province of Biella, and of Gattinara, Roasio, Rovasenda, Lenta and Lozzolo, in the province of Vercelli. The altitude of the areas is around 200–300 m a.s.l. Many parts of the area are State property and used for military installations. They exist alongside highly subdivided areas of private land, and are partly protected under landscape laws 1497/39 and 431/85. The Baraggia of Piano Rosa can be reached by toll-road A26 exiting at Romagnano Sesia-Ghemme, taking provincial road SP 299 towards Ghemme and turning left on SP 22, which runs through the selected area. The Baraggia of Candelo can be reached from Biella by taking regional road SR 142 up to state road SS 232 and going south towards Castellengo. From here one takes the SP 307 (Candelo-Castellengo) which enters the Baraggia area. Other *baragge* can be accessed through SS 142, turning south on SP 64 at Roasio.

The terrain of the Baraggie is characterized by ample terraces than in many places end with a sheer drop over the plain below. The terraces are formed by a clayey fluvial-glacial substratum altered into a yellow-ocher clayey soil, with a maximum depth of three meters. There are many streams flowing north to south on river beds of fluvial-glacial origin and gray-brown Wurm soil. The soil is generally infertile and impermeable.

The Baragge area are significant as a historically persistent example of the management of the so-called *incolto* (uncultivated land). Many management systems have been adopted throughout the centuries, from semi-free range herding of goats, sheep, cattle and pigs, to the gathering of leaves, heather, dry wood, chestnuts, walnuts and mushrooms, to the management of coppice woods and the programmed

cutting down of high forest trees. From a vegetation perspective, the Baraggia is a moorland with broad-leaved trees, isolated or in groups, a result of the historical agro-silvo-pastoral management of the area through the practice of the *debbio* (fire), deforestation and plowing. Trees include small thin groups of British oaks, sessile oaks, and beeches, which are joined, in the presence of ponds, brooks, and wet zones, by alders, willows and elders, though in the past chestnuts and walnut trees were more common. Late medieval documents, and the much more abundant documents of the twelfth–sixteenth century period, evidence how the *baraziae* were used for various purposes by important monasteries, such as the Benedictine monks of S. Pietro of Lenta and of S.S. Nazario and Celso near Biandrate, and the Cluniac priorship of S.S. Pietro and Paolo at Castelletto Cervo. It was in the Middle Ages that these religious bodies turned the *baragge* into plain stations for the winter pasturing of the herds that during the summer were herded in the mountain pastures of the Biella and Valsesia region. This originated complex and sometimes tense relations with local communities, which had common rights over more or less extensive areas of the Baraggia. In the sixteenth and seventeenth century, local communities increasingly rented vast portions of the *baragge*, once set aside for collective use, to shepherds from the lower mountain areas around Biella. In the eighteenth century, with the growing taxation suffered by local bodies, there began a policy of sale and subdivision of landed properties, while on part of the government began the first efforts, all of them basically unsuccessful, to reclaim and irrigate the land. Only in the twentieth century, a network of canals, built by the Association Ovest Sesia first, and by the Consortium for the Reclamation of the Baraggia later, stimulated rice growing also in the *baraggia*, which in the 1950s and 1970s were subject to a massive work of reclamation and agricultural transformation. The rice produced in the *baraggia* area obtained in 1992 the PDO label ‘Rice of Baraggia Biellese and Vercellese’.

The integrity of the landscape of the *baraggia* is limited to a few areas, which were difficult to irrigate and exploit for profitable cultivations. Most of them are near military installations and this turned ultimately into an advantage ensuring the protection of ample sectors of the area. The decline of tradition practices carried out by local communities (mowing, gathering of dung and dry wood, harvesting of nuts and acorns, gathering of chestnuts, pasturing) had not had a marked impact on the habitat of the moorland, whose maintenance is still guaranteed by a traditional intensive seasonal pasturing (herds of sheep from the valleys of Biella, Valsesia and Val d’Aosta), at times still based on the illegal practice of fires used to clear out the land (*debbio*). Presently, the *baraggia* has taken on its present ‘archipelago’ configuration, in which the ‘islands’ extend for a few hundred to several thousand square meters, and are incorporated in the regular network of rice paddies and cereal fields. Directive 92/43/CEE of May 21, 1992 (Habitat Directive) has included all types of ‘dry moorland’, in which the moorland and the *baragge* of the upper Padana valley are explicitly included, in the Natural Habitats of top community interest.

The area is highly vulnerable and much of the historical landscape has already been lost. The reclamation and the following interventions have significantly modified the flora of the area and greatly diminished the number of species found in the habitat



**Fig. 7.3** The rice landscape of the Baraggia



of *baraggia*. The greatest decline concerns plants that in the past were associated with traditional forms of management of the *baraggia* (walnuts, chestnuts, oaks) nowadays abandoned or disappeared; especially in the now abandoned areas where woods are advancing there have been massive infiltrations of new species such as locust-trees (*Robinia pseudoacacia* L.). The presence of military installations has favored the preservation of vast stretches of the *baraggia* saving them from plowing, but on the other hand has damaged the areas, due to explosions, fires and the passing of armored vehicles, which have eliminated the superficial humus stratum (Fig. 7.3).

### **7.5 Wood of *Sorti della Partecipanza di Trino* (45° 13' 13" N; 8° 15' 29" E)**

The area of the Bosco delle Sorti della Partecipanza di Trino is located in the municipality of Trino, in the province of Vercelli, 2.5 km north-west of the town; the territories are property of a local community known as Partecipanza and extend for 580 ha, mostly located in the plain at 150 m a.s.l., with the exception of the low ridge of Costa of Montarolo which is at 183 m a.s.l. On this area, the Natural Park Bosco delle Sorti della Partecipanza di Trino, was instituted under regional act L.R. 38/1991, followed by regional act L.R. 64/1996. The administration of the park, which extends over an area slightly larger than the woods, is entrusted to the Partecipanza dei Boschi of Trino, nowadays a private company that manages *pro indiviso* the woods and includes all the people who have inherited the rights to the annual distribution of wood (1,272 members by August 2007). It is also listed in the EU list of Sites of Community Importance (SCI) and Special Protected Areas (SPA), and protected under landscape laws 1497/39 and 431/85. From Trino, it can be reached by taking provincial road SP 7 up to Ramezzana, or directly from the town center by taking the 'Strada del Bosco' road. The geological substratum on which the woods

are found consists of clayey alluvial soil and sandy-clayey lens, with red-orange paleo-soil, typical of the entire Vercelli plain, whereas the Dosso di Montarolo is formed by Pliocene conglomerate deposits with scarcely cohesive gravel.

The significance of the area is the result of many elements mainly deriving from the historical persistence of the collective management tied to the Partecipanza. The woods is a mixed formation of oaks and hophornbeam and, to a lesser extent, of alders, closely connected to the neighboring rice paddies, which, by influencing the level of the water-bearing stratum also inside the woods, favor the temporary stagnation of water. The relation has also favored the development of a heron population inside the protected park area. The first historical news probably concern the last quarter of the thirteenth century, when the Marquis of Monferrato (1275) granted the inhabitants of Trino the right to use the woods as coppice (*nemora comunia remaneant in comune Tridini*). The birth of the Partecipanza resulted from a consistent immigration that opposed the old inhabitants of Trino to the new arrivals towards the end of the fifteenth century. The term *partecipantia* is attested already in 1528 and to the same year is dated the first collection of statutes, including that of the *bosco delle sorti*. Towards the second half of the eighteenth century, the town of Trino ceded the property of the woods, but acquired the right to administrate the Partecipanza through a new body called the “Consiglio di Cumulativa Amministrazione” (Council of Cumulative Administration). There is no doubt that this unusual system of collective management is the reason the woods escaped the agricultural transformations that have characterized the area of the low lands around Vercelli. The institution of the park in 1991, which also includes the Abbeys of Lucedio, of Montarolo and of Madonna delle Vigne, is evidently part of an effort to mediate between the traditional management of the area and its protection, but in a first phase (1977) the project fell through precisely because of the resistance of the Partecipanti. This is also the reason behind the reforestation of the lands which had been transformed into rice paddies in 1868. In the paddies around the woods the “Traditional rice of the Po valley” is produced, recognized as Traditional Food Product by the Ministry of Agricultural Alimentary and Forest Polices.

The woods of the Partecipanza di Trino certainly retain their integrity, at least from the perspective of the extension. Every year, members have the right to cut the wood in a specific sector of the woods, which is further subdivided in a number of sub-areas called *sorti* or *punti*. Members participate in a lottery and are randomly assigned one of the *punti*, from which the name ‘Bosco delle Sorti’ (The Woods of Luck). The cutting down of high forest trees was in the post-WWII period the main source of income for the members of the Partecipanza. Later, high-forest was replaced, especially in the 1970s and 1980s, by coppice. Obviously the woods represent the historical left-over of an ancient and nowadays obsolete if not completely non-existent form of ownership, rather than an example of an original ecosystem, although, in the context of a plain subject to intensive agriculture, the area retains an environmental value.

At the moment there appear to be no elements of vulnerability or concrete danger. A possible problem could be the forestation plans by the Park administration, whose goal is the ‘readjusting’ of the balance of the plain woods, to recreate its supposed

**Fig. 7.4** Traditional structure of a coppice wood in the area of Partecipanze di Trino



original condition (rediscover its plain identity), and as a protection against further real estate speculation. In fact, the woods are evidently the result of an historical human activity and even its possible transformation into a purely natural resource would not alter its importance as evidence of an historical landscape (Fig. 7.4).

## 7.6 The San Michele Farmhouse (44° 49' 00' N; 8° 39' 15' E)

The typical landscape of the farmhouses (*cascine*) of the Alessandria area is found in a flat district of alluvial origin whose borders are marked by the rivers Bormida, Tanaro, Orba and Scrivia. The area of the Cascina San Michele, in the municipality of Bosco Marengo, province of Alessandria, is private property and extends for about 250 ha, at an altitude of 120 m a.s.l. The area belongs in part to the protected areas Torrente Orba Natural Regional Reserve, which is also a SCI and a SPA, and Po and Orba Park Fluvial Park. It was the first Piedmont park to obtain the environmental certification UNI EN ISO 14001 and is protected under landscape law 431/85. Bosco Marengo can be reached from Alessandria by going south on provincial road SP 185 up to Casal Cermelli and then taking the SP 181 for Bosco Marengo for 3.5 km. Before entering the town of Bosco Marengo one takes via Manlio and at the end turns right on Strada San Michele; following this road, after 1.7 km one reaches Cascina on the right. The geological substratum of the area of Cascina San Michele in the part towards the Orba torrent is formed by post-glacial alluvial soil and in the part towards Bosco Marengo by prevalently clayey alluvial soil.

The significance of the area lies in the historical persistence of one of the typical farmhouses of the Alessandria plain, both in terms of the cultivations, mainly cereals and corn, and in the structure of the farm. On March 26, 1566, the land of San Michele was acquired by the convent of S. Croce, established in Bosco Marengo by pope Pius V, and eventually became one of the most important farms of the convent. Its existence is attested at least since the late Middle Ages, its ownership by the Cistercian order being repeatedly stated in local histories, and confirmed

**Fig. 7.5** Aerial photograph of the San Michele farmhouse



by twelfth-century documents mentioning the famous monastery of Civitavola or of Tiglieto, in the upper Orba valley. After 1580, the land of S. Michele already appears organized as a major holding. The position of the residential building corresponds to late Renaissance architectural and agricultural criteria, which recommended that buildings face eastward. Its present layout is a result of additions made at various stages. Alongside the main residential building and the stables, there must have been a number of rural houses presumably built after 1566; the construction of the houses for resident farmhands can instead be dated to the end of the sixteenth century and precisely to the 1586–1588 period, when the holding was directly managed by the Convent of S. Croce. When pope Pius V died, the *cassina* of S. Michele extended for about 2,800 *moggia* (approximately 1,500 ha). This vast land was made up mostly of crop land and meadows, mostly irrigated and highly fertile, and by pastures. The vast estate had water-works used for irrigating the fields and for powering mills. Specifically, the water for S. Michele comes from a dike from which the water goes into a canal and then through brick canals or through ditches it reaches the fields. From here, thanks to an apposite leveling of the land and to draining ditches it returns to the ditch of S. Michele to irrigate the land further down the hill. Among the many artifacts still in excellent condition, there is the ice-house, dating back to the time of the Dominican monks of S. Croce (around 1570). At the start of the seventeenth century, the *cassina* of S. Michele included, besides rural and residential buildings, the ancient mill *del tiglieto*, next to which a olive-oil press and later an hydraulic saw-mill (locally known as *resiga*), abandoned towards the mid-eighteenth century. Due to the Siccardi law, in 1870, ownership of the “Tenuta S. Michele” went from the clergy to a family of Alessandria named Chiozza Frova. Since 1966, it belongs to the family of Giovanni Mignone, which still lives on and manages the property.

The integrity of the *Cascina* depends mainly on the existence of the building and on the continuation of farming, which in the last decades has become increasingly difficult. The family that owns the place, residing there and working the land, ensures the maintenance of the historical buildings, along with the more modern and functional ones, such as stables and drying chambers for cereals. The holding of S. Michele participates in the project ‘Cascine Aperte, per le corti della pianura alessandrina’ (Open Farms, in favor of the ‘corte’ farms of the plain of Alessandria) promoted by the Councilship for Agriculture of the Province of Alessandria to further the knowledge not simply of rural areas and local food products, but also of cultural traditions and life-styles that have survived to the present day.

The area is vulnerable to changes in the cultivation system, which has already compromised the original aspect of the agrarian landscape. These transformations have involved most of the plain area, not limitedly to the plain of Alessandria, and only a few residual elements of the historical agrarian landscape survive. Other potential dangers are possible changes to the buildings of the *Cascina*, which could alter their historical characteristics (Fig. 7.5).

## 7.7 The Wooded Pastures of Roccaverano (44° 35' 21" N; 8° 16' 20" E)

The area corresponds to a selection of the pastures located in the south of the provinces of Asti and of Alessandria. It extends for about 3,000 ha in the municipalities of Olmo Gentile, Roccaverano, San Giorgio Scarampi and Mombaldone, in the province of Asti, and Denice in the province of Alessandria. The area, located at altitudes varying between 400 and 800 m a.s.l., belongs in part to the SCI Langhe of Spigno Monferrato, and is protected under landscape law 431/85. Most of the area is private pasture and only some fragments of the original common lands that still existed towards the end of the nineteenth century still survive, most of them along ridges. The pastures can be reached by taking state road SS 30 Val Bormida and exiting at Montechiaro Piana, from which one reaches Denice after 4 km; to reach Mombaldone one continues on provincial road SP 30 towards the south for another 2.2 km, turns right on via Regione Bricchetto and continues for 1.5 km; alternatively, one can take the SP 25 and exit at Vesime, then the road leading to San Giorgio Scarampi (6 km) first and then that leading to Roccaverano (another 4 km). The geological substratum consists of the Formation of Cortemilia, characterized by gray sandstone in beds of 10–40 cm, alternating with gray-yellow sand in beds of variable thickness. There is also a minimum quantity of marl and gray-blue clayey marl, frequently alternating with sandstone and gray-yellow sand. On the more eroded slopes some *calanchi* gulleys are present. This hilly area is surrounded by the basins of the rivers Belbo, Bormida di Spigno and Erro. Its slopes are steep and those facing south-south-east are terraced.

The significance of the area lies in the historical persistence of a landscape of vast open pastures, created by centuries of agro-silvo-pastoral practices. The pastures are

**Fig. 7.6** Pastures play an important role in the mountain landscape, but they are constantly shrinking



mostly located at the top of the hills, while the steeper slopes, where many terraces are found, are nowadays used almost exclusively as vineyards and meadow-pastures. The areas reserved for the woods were limited to the banks of the torrents and the steeper slopes; the foliage for forage, used for goats and collectively managed, was mostly harvested from individual trees found in the wooded meadows and amidst the hedges. The small settlements, which are the seats of the municipalities of the area, date back to the Middle Ages, though a certain expansion of the settlements towards the mid-fifteenth century is well-documented. The scattered settlements documented already since the sixteenth century continued until the mid-twentieth century, when the industrial centers of the Bormida valley and the construction of state roads and of the railway caused the productive centers of the area to be moved to the valleys. Around the settlements there are many vegetable gardens and small vineyards combined with other cultivations. The local *robiola* cheese was assigned the PDO “Robiola di Roccaverano” on July 1, 1996, and is today also on the list of the Slow Food association. This official recognition has supported local agricultural practices while also altering to some extent its characteristics in order to comply with the criteria of the PDO.

The integrity of the area has been largely maintained, and while the population has there has been steadily decreasing, especially since the 1960s, woods and scrubland have not completely replaced pastures. The pastures that are still used are still characterized by a complex environment, which translates into a high level of biodiversity. This is the case, for example, of the submunicipality of San Gerolamo, in the municipality of Roccaverano, where a specific production of Robiola cheese is still present. The scenic and botanic value of this locality, which we present as an example of the pastures of Roccaverano, is associated with traditional agriculture, although the integrated cultivation and animal farming system (cattle but especially goats) has been sharply declining since the second half of the twentieth century.

The greatest threat to the landscape of the pastures of Roccaverano lies in the abandoning of traditional activities associated with shepherding and to its direct

consequences. Nowadays, the ditches and the steeper slopes have been abandoned and colonized by the woods, turning into an unused biomass which can cause fires and hydrogeological instability. Only in the 'islands' in which goats are still herded to produce milk and cheese, the weeds are still kept under control and the biodiversity is preserved. On the slopes no longer used as pasture, woods began expanding already towards the end of the nineteenth century, replacing fields and vineyards, whose combined presence is attested towards the mid-nineteenth century. The decline of agriculture has also caused a decline in the number of flowers species that characterize this rural landscape. The recognition of the Robiola PDO, while on the one hand acknowledges and protects a typical product, on the other hand does not suffice to protect the agro-silvo-pastoral integrated system that characterized the area up the 1960s, since it is a measure limited to cheese production (Figs. 7.6, 7.7).

Land use 2009	Surface (ha)	Surface (%)
Urban area and courtyard	46.46	4.29
Arboriculture	9.71	0.90
Shrubland	30.70	2.84
Woodland	566.25	52.33
Badland ( <i>calanco</i> )	47.46	4.39
Fruit orchard	10.98	1.01
Unproductive	1.82	0.17
Fallow	13.52	1.25
Vegetable garden	1.84	0.17
Pasture	19.38	1.79
Wooded pasture	37.18	3.44
Shrub pasture	20.76	1.92
Meadow	55.58	5.14
Meadow with tree	1.56	0.14
Pasture and meadow	39.91	3.69
Terraced pasture and meadow	84.71	7.83
Afforestation	7.46	0.69
Arable land	127.06	11.74
Vineyard	7.26	0.67
Total	1082.14	100

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#### Evaluating indices of landscape

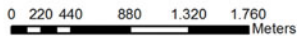
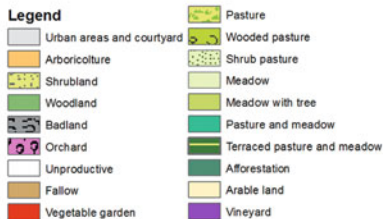
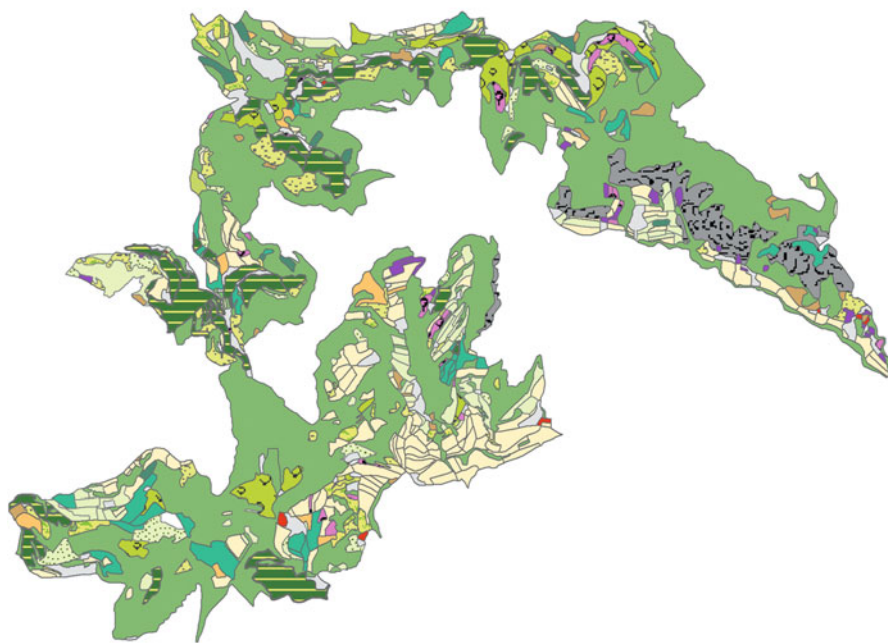
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Number of land uses	18
Number of patches	775
Total surface area (ha)	1082.14
Average surface area of patches (ha)	1.40
Average surface area of forest patches (ha)	3.21
Average surface area of pasture patches (ha)	1.20
Hill's diversity number	1.18
Class of landscape integrity (I–VI)	II

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# The wooded pastures of Roccaverano

Land use 2009



1:45.000

Laboratory for Landscape and Cultural Heritage, DEISTAF, University of Florence

**Fig. 7.7** The area of Roccaverano is historically characterized by pasture and terraced meadows. The pastureland accounts for 260 ha (25 % of the area). This land use can be divided into 33 % of terraced pastures, 21 % of meadows, 15 % of mixed pasture-meadows, 14 % of wooded pastures, 8 % of pasture with shrubs, 7 % of pasture and 0.6 % of wooded meadows. The integrity of the landscape it is reduced because secondary woodland today accounts for more than half of land use (52.3 %)



## 7.8 Historical Polyculture of Valle Uzzone (44° 29' 15'' N; 8° 11' 44'' E)

The traditional polyculture areas of Valle Uzzone, in the municipalities of Castelletto Uzzone, Pezzolo Valle Uzzone, Bergolo, Levice and Gottasecca, includes private areas and a few town woods, of which the Bosco dei Faggi, in the municipality of Castelletto, is the largest (about 35 ha). The area extends for about 2,600 ha, at altitudes varying between 250 and 700 m a.s.l. The area is protected under landscape law 431/85. It can be accessed from the Liguria region by taking provincial road SP 9 (which turns into SP 52 in Piedmont) from Cairo Montenotte, or by taking SP 52 in Piedmont at Cortemilia, and going south across the bottom of the Uzzone valley; a series of secondary access routes at square angles with SP 52 connect the valley to the towns on the ridge. The dominant lithologic formations are marls of the Miocene epoch, present in stratifications of sand, sandstone and clay in most of the territory, with alluvial deposits of clay, sand and silt at the bottom of the valley. It is overall a scarcely cohesive formation, which historically has caused, besides the formation of *calanchi* gullies, repeated landslides which are still frequent. The torrent Uzzone runs through the valley from north to south. There are also many secondary streams (locally known as *riàn*), which run down from the ridges creating a dense system of secondary ridges usually steeper towards the south.

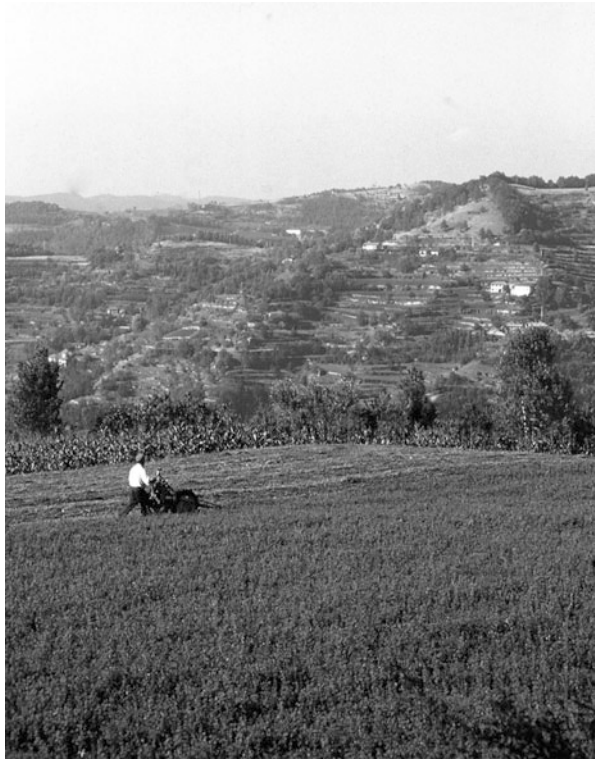
The significance of the area lies in the historical persistence of polyculture, which create a composite and perfectly balanced landscape, in which small agricultural areas alternate with wooded areas and meadows, enriched by historical settlements and terraced slopes. Cultivations include cereals, vegetables, vine and fruit. Other typical products include Robiola cheese, eggs, dried chestnuts and wool. A small number of cattle are also farmed, and used for milk, meat and in the past as work-animals. There are also poultry, sheep and goats, which pasture in the *gerbidi* (moors). These activities support the existence of the local population, notwithstanding the adverse economic and political conditions. The valley was inhabited already in the Paleolithic and Neolithic period by Ligurian populations. Throughout the centuries, it was exposed to various cultural influences, but was also geographically very isolated. Up to the early twentieth century, to travel through the bottom of the valley one had to pass a number of fords. The valley was controlled at various times by the Romans, the Goths, the Longobards, and the Saracens present on the coast. Towards the end of the tenth century it was conquered by the Aleramici family; later it became part of the marquisate of Savona, and became part of the kingdom of Savoia during the eighteenth century. Being remote from central power and at the margins of two regions, local communities (which did not correspond to the modern municipalities) were usually quite autonomous. The language shows many signs of Ligurian influence. The typical agriculture was polycultural and aimed at personal consumption, whose presence is dated since the fifteenth century. For centuries, the communities of the valley shared the same techniques, family modes and moments of collective labor (beating, threshing, grape-harvesting, road maintenance). In this context, the traditional local farmhouse (*cascina*), which combines traits typical of the Piedmont plain farmhouse with others typical of the Ligurian Apennine, played a central role.

Isolated or combined to form small settlements (locally known as *borgà*), connected by a thick network of country roads, the farmhouses were generally located on secondary ridges, on the more solid terrain, near springs or creeks, and cultivatable land, including steep slopes terraced with dry-stone walls. Sandstone, along with chestnut wood, was the main building material for the terraces and for the farmhouses themselves. The typical local farmhouse The basic unit is composed by a room on the bottom floor, and a room on the first floor which can be accessed directly thanks to the steepness of the terrain, still to be found as rural building (*ciabòt*). The minimal farmhouse is composed by two rooms on the bottom floor and two rooms on the first floor, connected by an exterior stair and its wooden gallery linked to the roof, which sometimes has been later also transformed into a stone structure with a double order of arches. Further developments of the farmhouse see an L plan with a stable and an upper hay-loft. Attached to the farmhouse are the well, the oven, the drying chamber for chestnuts and the cellar. Even in the case of larger holdings, it is the number of farmhouses that increases while the size of each farmhouse remains suitable for a single extended family, in line with the sharecropping system. The structure of the historical landscape, based on the farmhouse and the surrounding mosaic of cultivations, is patterned by the succession of settlements, gathered around castles or feudal palaces, and framed by the *calanchi* gullies at the bottom of the valleys, the chestnut groves at the top of the hills, and the lines of terraces that connect the entire system.

The scenery of Valle Uzzone has basically retained its integrity and its historical identity can be easily perceived, except in some areas at the bottom of the valley where new settlements have developed. Polyculture, though less complex than in the past, is still present in many areas, and ensures the preservation of an aesthetic and cultural heritage that would otherwise be lost forever. A good portion of the houses is still inhabited by owners who work the land and the houses in the towns in recent decades have been restored and re-inhabited, at least part of the year, by returning emigrants, while the more isolated and poorer farmhouses have been restored mainly by foreigners, though no agriculture is practiced.

The greatest threats lie in the abandoning of traditional practices, which have already occurred in the more marginal areas. Since the 1950s, emigration towards industrial centers has resulted in the abandoning of agriculture and the consequent expansion of wooded areas, especially in the steeper, albeit often terraced, areas. Most of the pre-existing chestnut, downy oak or beech woods, once used for pasture or to gather leaves to be used as litter for the animals, ceased to be maintained and gradually turned from coppice into high forest. The trees no longer slow down the course of water and this leads to disastrous floods, as in 1994. In general, the lack of maintenance of the slopes and of the water-works increases the danger of landslides and hydrogeological instability. While the farmhouses in which the land can be easily cultivated using mechanical means are still active, there have been notable changes in the structure of the cultivations (from polyculture for personal use to cultivations produced mainly for the market: cereals, hazelnut groves, hay) and in the architecture of the buildings. Interventions on buildings in the last decades have seldom maintained the original shapes and materials. In some cases, new buildings with different materials and structures have been built alongside the partly-abandoned

**Fig. 7.8** Polyculture in the striking terraced landscape of Valle Uzzone in Alta Langa



old building. The use of farmhouses as holiday houses helps preserve the buildings but does not stop the advance of the woods. The codification and promotion of the landscape of the valley is essential to rediscover the complexity of the knowledge and practices that for many centuries ensured a degree of relative comfort to inhabitants in a difficult land, subject to frequent changes in political power but basically left to fend for itself (Fig. 7.8).

## 7.9 The Galarei Vineyard (44° 38' 42'' N; 7° 59' 03'' E)

The holding Tenuta of Fontanafredda, where Galarei Vineyard is located, extends for about 100 ha in the municipalities of Serralunga d'Alba and Diano d'Alba, in the province of Cuneo. The area is private property, polyculture is present. The altitude varies between 200 and 350 m a.s.l. Part of the area is protected under landscape law 431/85, specifically the area within 300 m of the Castiglione torrent. The selected areas can be accessed from the entrance of the holding of Tenuta of Fontanafredda on provincial road SP 125 (Via Alba). From here the various vineyards of the farm can be reached. The vineyards are located on a geological substratum that consists of

a formation called Marne di Sant'Agata Fossili, made of marl and gray silt—clayey marls, sometimes blue, and gray-white in surface, homogeneous and plastic.

The area is quite small, but it is significant not only for the historical value of the holding and of the cultivations, but also because of a vineyard of 0.41 ha called Vigna Galarei, which is of particular historical interest. The name comes from the woods of Gallareto, eliminated in the mid-nineteenth century to make room for the vineyard, while the denomination refers to an old well dug by hand and shaped like a demijohn. It is a tiny fragment in a territory where modern specialized viticulture has profoundly altered the landscape. Its importance lies in its historical value and in its preservation ensured by a winery that has a long-standing tradition especially in the production of Barolo one of the most important and well known Italian red wines. The cultivation of wine-grapes is attested only since the seventeenth-eighteenth century. The most recent studies date the origin of the development of the Barolo wine to the purchases made in 1858 by the Real Casa, the planting of new vineyards in 1863–1864 and the ensuing collaboration with royal winery of Pollenzo. However, it was only after 1878, when the winery became autonomous with the name *Casa vinicola Emanuele di Mirafiore*, that the evolution that led to the commercialization of the Barolo throughout the world began. In the first two decades of the twentieth century, the management by Count Gastone of Mirafiori and by the director Mollo led to a further expansion, not only of production and distribution, and also of the entire structure. Besides Villa Reale and the winery other residential buildings were erected and old ones were enlarged. Fontanafredda had an oven for bread, an elementary school and a church, and was practically a tiny village with a population of more than 200. In 1928, the holding of Fontanafredda was subject to a first major infestation by phylloxera. Even more damaging, however, was the world-crisis of 1929 and the two events led to the failure of the winery which in the meantime had changed its name to 'Mirafiore Vini Italiani'. The Monte dei Paschi di Siena bank acquired the winery and, relying on the technical expertise of the new director and wine-expert Giuseppe Bressano, began the re-plantation of the vineyards and resumed wine production with the new name 'Tenimenti di Barolo e Fontanafredda'. The historian Fantini already in 1894 described Fontanafredda as a model holding and observed that 'Italy may number larger holdings, but certainly none better cultivated and deserving to be visited by those who dedicate themselves to viticulture'. Fantini also describes a type of vineyard used in Fontanafredda which had been imported from France with 'vines set one meter apart in all directions, always in rows' and with a supporting pole for every vine and pruning 'at two or three spurs of 3–4 buds'. In any case, specialized viticulture appears to have been systematically introduced to Fontanafredda only in the last three decades of the eighteenth century: previously vine was cultivated in a quite different fashion, the main system being that of the *vite maritata* ('wedded' vine) of Etruscan origin, in which trees are used to support the vine which is attached at a high level. The most ancient landscape of the hills of Fontanafredda, before the 1864–1865 period when the first modern vineyards were set up, was one of meadows, woods, fields and *vite maritata* vineyards. The photos of the early twentieth century, show instead rows of vines supported by chestnut poles, with two metal wires and reeds, following one of the variants of the Guyot system.

The rows are still rather widespread with fruit trees at the extremities and a certain presence of polyculture. Besides the vineyards, an important element is the Bosco dei Pensieri: a rare, and perhaps unique, example of *Langa domestica*, in contrast with the *Langa selvatica*, located inside a major farm. This wood, which extends for about 9 ha, has been endowed with a didactic itinerary with many panoramic spots and panels with literary and historical comments on the environment and landscape of the Langhe area. The wines produced inside the holding are of outstanding quality and include the Barolo DOCG (Controlled and Guaranteed Origin Denomination), the Dolcetto d'Alba DOC (Controlled Origin Denomination), the Moscato d'Asti DOC and the Nebbiolo DOC. The entire holding of Fontanafredda after having belonged to king Vittorio Emanuele II, then to the Counts Guerrieri di Mirafiori di Fontanafredda and, after 1932, to the Monte dei Paschi of Siena bank, since July 2008 belongs to the Eataly company and to the Foundation Monte dei Paschi.

Concerning integrity, the landscape of the holding of Fontanafredda maintains only small fragments of the historical characteristics of the vineyards of the Langhe area. Nowadays, the holding occupies a total of 100 ha, of which 85 are vineyards. The more recent vineyards have been based on a criterion of 'ecological' compatibility which, in recent years, both in regards to the fertilization and protection of the vineyards and the soil, and in regards to the wine-making process.

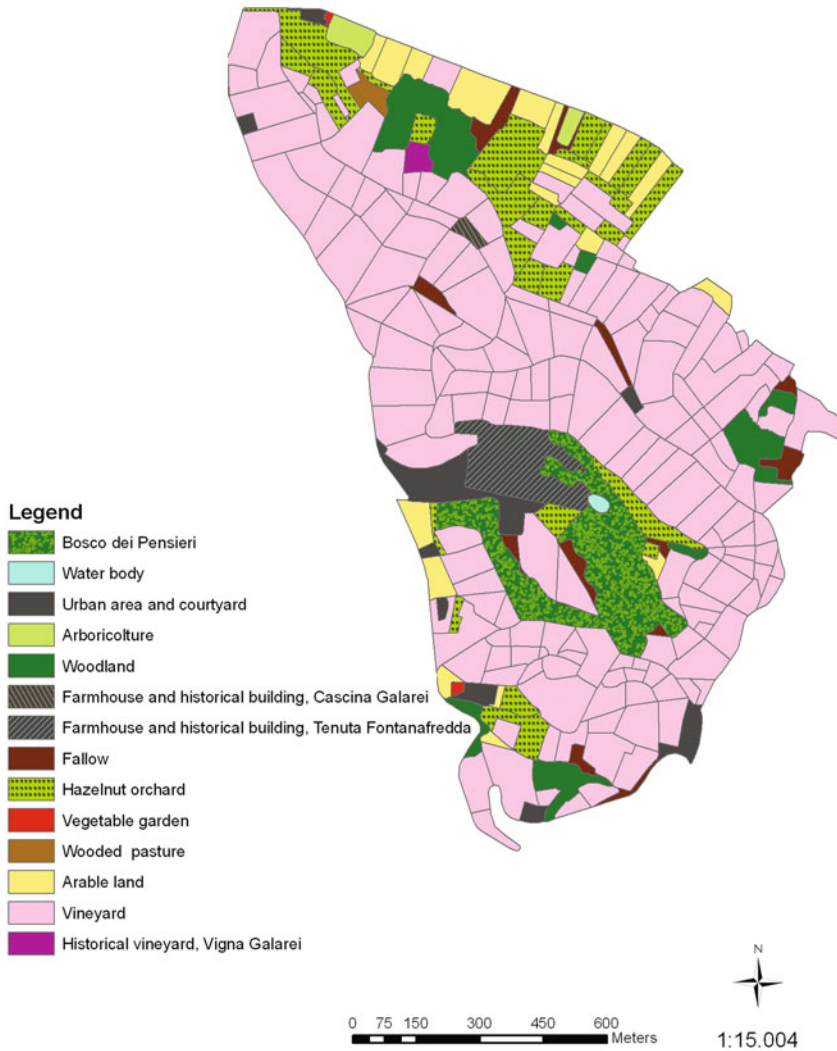
However, the landscape remains highly vulnerable, the greatest threat being the increasing and apparently unstoppable process of specialization, which is quite visible in the surrounding landscape. This process has affected most of the wine districts of Italy and only in some areas owners have maintained or tried to restore the traditional cultivations methods (Fig. 7.9).

Land use 2009	Surface (ha)	Surface (%)
Water body	0.16	0.11
Urban area and courtyard	4.47	3.03
Farmhouse and historical building	4.28	2.90
Arboriculture	1.01	0.69
Woodland	6.85	4.64
<i>Bosco dei Pensieri</i>	9.41	6.38
Fallow	3.18	2.16
Hazelnut orchard	14.06	9.53
Vegetable garden	0.13	0.09
Wooded pasture	0.50	0.34
Arable land	7.81	5.29
Vineyard	95.25	64.57
Historical vineyard	0.41	0.28
Total	147.52	100.00

#### Evaluating indices of landscape

Number of land uses	10
Number of patches	262
Total surface area (ha)	147.52
Average surface area of patches (ha)	0.56
Average surface area of arable land patches (ha)	0.51
Average surface area of forest patches (ha)	1.81
Hill's diversity number	3.88
Class of landscape integrity (I–VI)	I

### The Galarei Vineyard Land use 2009



Laboratory for Landscape and Cultural Heritage, DEISTAF, University of Florence

**Fig. 7.9** The estate of Fontanafredda, where the Gallarey vineyard is located, is considered one of the homelands of Barolo, one of the most famous Italian red wines. It is an example of a highly specialized modern wine farm, where some elements of the previous historical landscape are still preserved. The area shows modern vineyards on 64.8 % of the surface, of which only 0.4 ha are occupied by the historical *Galarei* vineyard. Specialization has affected most of the historical wine areas in Italy. Here, too, vines were trained on trees such as maple, poplar or elm, following the ancient Etruscan tradition, and combined with other crops. In Fontanafredda this transformation started already in the eighteenth century, while in other parts of the country it occurred only after 1970. Nevertheless, there are still vineyards in the Etruscan or Greek style in Italy (see the *vite maritata* near Naples), showing that production according to traditional practices is still possible even today

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