Chapter 14
Tuscany

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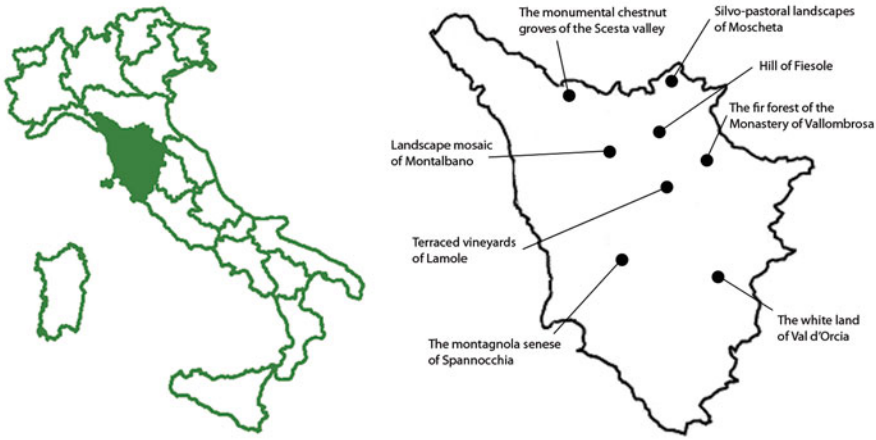

14.1 Introduction

Few regions have been celebrated for the beauty of their landscape as much as Tuscany. Today this region is regarded as a prime example of a cultural identity that owes its significance, in part, to the high standard of living that goes with it. Significant elements of the region's historical identity still live on in the present landscape. These, however, coexist with other aspects that reflect the construction of a public image promoted by a number of different subjects. Historical identity and public perception do not necessarily coincide in their image of a landscape that is certainly one of the most significant expressions of the region's identity, but that cannot be allowed to be influenced by phenomena that have not previously stood the test of

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history. The selected areas, although they hardly do justice to the variety of the region's landscape, are nevertheless representative of long-standing realities, and can thus be regarded as epitomizing at least part of the Tuscan territory, considering that they all lie in the north-central part of the region. The region's territory is mainly hilly (66.5 %) and mountainous (25.1 %), with few plains (8.4 %) and an extensive coast (397 km), and encompasses a variety of environments modeled by agriculture. The first farmers to put their stamp on the landscape were the Etruscans. The technique of training of grapevine on trees (*vite maritata*) was a model not just for Tuscany, but for much of north-central Italy, in contrast with the Greek-influenced shrub or pole vineyards typical of the southern Italian regions. This is one of many expressions of ancient agricultural lore. It answered the need to keep the grapes lifted far above the humid soils typical of much of the region, and led to the expansion of these treed vineyards (*alberata*), which used to dominate the Tuscan, Umbrian and Marche landscape until at least as late as the 1960s. We are thus looking at about 3,000 years of history, and this alone would be reason enough for safeguarding this form of cultivation, regardless of technical or economic considerations, often invoked to justify its disappearance. We have not been able to find a sufficiently extensive treed vineyard area. This type of cultivation only survives in the form of small relics dotting the countryside, maintained by elderly farmers who sense that their importance goes well beyond their economic utility. As in the rest of Italy, the expansion of farmland under Roman rule was followed by centuries of abandonment with a trend to a prevalence of woodland and pastures. This gave rise to landscape features, especially in the Lombard age, that endured well into the nineteenth century (see the text on Moscheta), surviving even the spread of sharecropping, which had less landscape impact in the south of Tuscany than in the north. In the centuries following the year 1000, extensive marshes formed in the plains and along the coast as a consequence of the abandonment of agriculture. Monasteries on mountain peaks dotted the Apennines (see the texts on Vallombrosa and Moscheta). Farming was slowly resumed. It is not until the development of sharecropping and then the beginning of the Renaissance that we finally witness the rise of the Tuscan *bel paesaggio* mentioned by Sereni, immortalized in many pictorial works and praised by foreign travelers. In his account of his voyage in Italy in 1580, Michel de Montaigne wonders at the fully terraced and cultivated mountains of Tuscany, covered with edible chestnut trees, grapevine and olive trees. It was a true garden tended with meticulous care, well represented by Lorenzetti's fourteenth-century fresco *Buon Governo del Territorio* (Wise Management of the Land), which celebrates and prescribes, at the same time, the guidelines to be followed in land management. Various examples of this historical landscape survive at Larciano and Lamole, alongside with areas historically characterized by barer landscapes, which today dominate tourist magazines (see the text on Val d'Orcia). In the Renaissance, investments in estates promoted the villa landscape, a perfect merging of elegance and *utilitas* (see the text on Fiesole). But it is the eighteenth and nineteenth centuries that put the definitive stamp on the rural landscape of Tuscany. A mass migration of people towards the mountains and upper hills determined an extension of agricultural colonization to its historical maximum. The backbone of this development was the sharecropping system. Terraces,

contour terraces and mixed cultivation were also introduced in Maremma, thanks to the reclaiming of marshy areas. The woods were now almost completely integrated into the agricultural system, being mainly used as grazing grounds. Edible chestnut woods dominated the mountains (see the text on Valle dello Scesta), now extending down the slopes all the way to sea level, in competition with the olive groves. Starting in the early twentieth century, the landscape began to lose its complexity as a consequence of the abandonment of the mountain. This was already perceivable in the first postwar period, gained massive proportions after World War II, and was eventually followed by a general abandonment of the countryside. Forests, formerly a third of the regional territory, today take up over half (51 %) of it, encroaching on cropland and abandoned pastures. The former are reduced to 31 %, the latter to a mere 6 %. The expansion of specialized monocultures and of the forest have determined a reduction of the diversity of the landscape mosaic by 45 % compared to the nineteenth century. Since the 1970s, public policies have tended to favor the industrialization of agriculture. Public incentives have seldom been given to promote the development of the traditional landscape as a source of economic revenue, and environmental policies have often confused the conservation of nature with that of the landscape. It is a process whereby two apparently contradictory facets of globalization, industrialization and renaturalization, appear to join forces to undermine the identity of the landscape. Some interesting signs of discontinuity, however, are perceivable. As in the case of the restoration of historical rural buildings—a now consolidated cultural trend that has restored the dignity and economic significance of rural settlements—today there is a new interest in traditional farming, first and foremost among the farmers themselves. The activities of the Spannocchia farm and the wines produced on the restored terraces of Lamole are an important signal of an agriculture that for centuries as striven to capitalize on the past to proceed towards a future that is still laden with uncertainties, but nevertheless closer to the deeper significance of the Tuscanian landscape and a concept of integral quality of the countryside that ultimately provides a better answer to the needs of society.

14.2 The Fir Forest of the Monastery of Vallombrosa (43° 44′ 00″ N; 11° 34′ 00″ E)

The historical core of the forest of Vallombrosa extends around the homonymous monastery over about 400 ha in the municipality of Reggello, in the province of Florence. This state-owned area ranges in altitude between 700 and 1450 m a.s.l. It is included in the “Vallombrosa e Bosco di S. Antonio” SCI and the “Foresta di S. Antonio” ANPIL (Protected Natural Area of Local Interest). It is also a Natural Biogenetic Reserve and under landscape restrictions as per laws 1497/39 and 431/85. Vallombrosa can be reached from Florence by taking SS 67 to Pontassieve, then SS 70 towards the Consuma Pass. After a couple of kilometers there is a turn for the towns of Pelago and Tosi. From here, one follows the indications for Vallombrosa.

Fig. 14.1 The fir forest of the monastery of Vallombrosa is a testimony of the construction of a landscape carried out by Benedictine monks at least as early as the sixteenth century and continued by the Royal Forestry School in the second half of the nineteenth century

Land use 2010	Surface (ha)	Surface (%)
Fir forest	209.61	34.42
Mixed fire forest with conifer	80.34	13.19
Mixed fire forest with broadleaved	51.35	8.43
Urban area and courtyard	18.22	2.99
Arboretum	16.78	2.75
Mixed broad-leaved forest	29.25	4.80
Chestnut coppice	2.39	0.39
Douglas fir forest	24.37	4.00
Beech forest	148.70	24.42
Fallow	5.55	0.91
Vegetable garden	0.96	0.16
Mixed of Austrian and larch pine forest	2.76	0.45
Mixed of Austrian and larch pine forest with conifer	0.44	0.07
Mixed of Austrian and larch pine forest with broadleaved	14.86	2.44
Meadow with tree	3.46	0.57
Total	*609.06*	*100.00*
Evaluating indices of landscape		
Number of land uses	15	
Number of patches	67	
Total surface area (ha)	609.06	
Average surface area of patches (ha)	9.09	
Average surface area of forest patches (ha)	11.39	
Hill's diversity number	6.62	
Class of landscape integrity (I–VI)	IV	

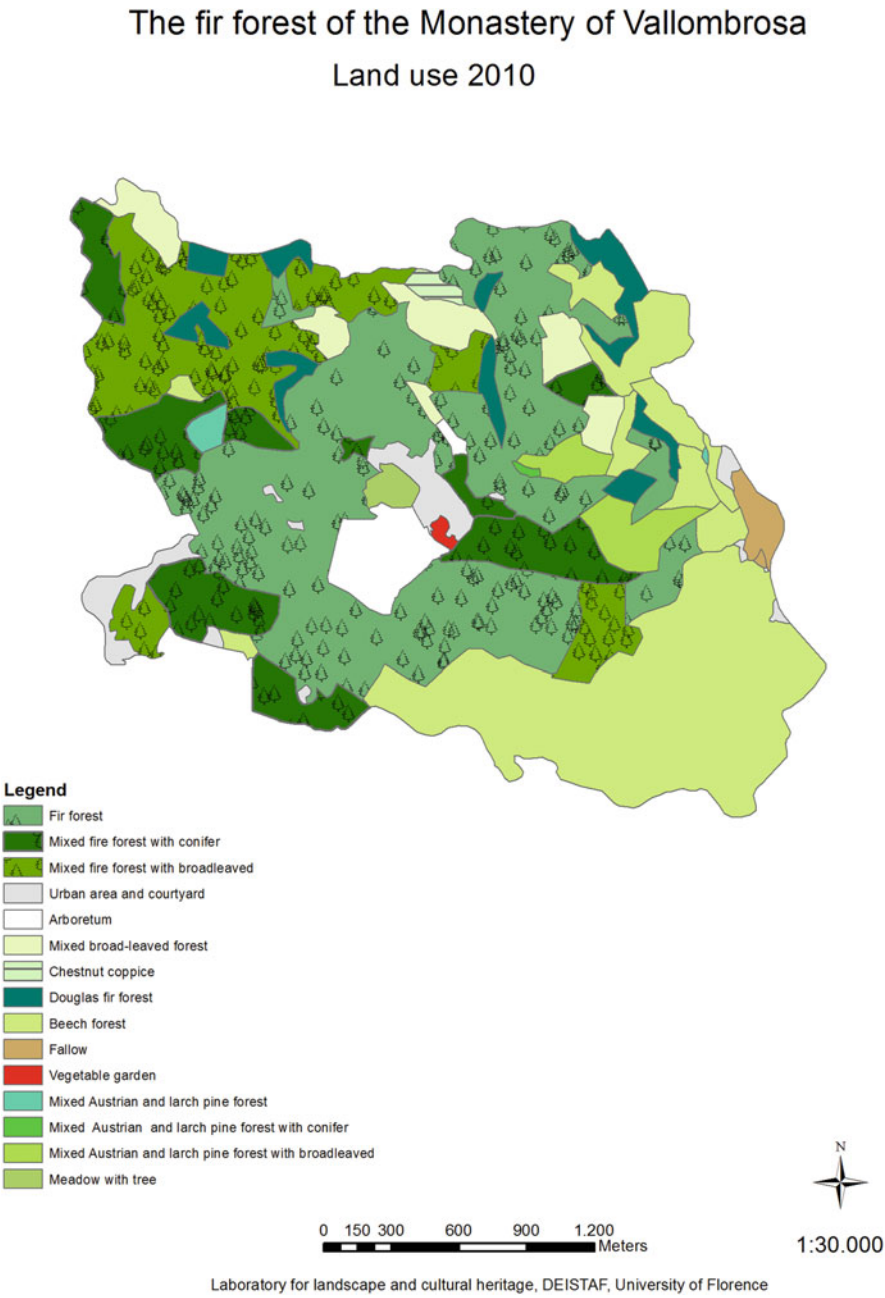

Fig. 14.2 The landscape of the monastery of Vallombrosa, founded in the 11th century, is characterized by the presence of artificial pure stands of Silver Fir, according to the Benedictine monastic silviculture tradition. The landscape is hardly intact, given that fir forest only accounts for 35 % of land uses, whereas 21.6 % of the area is covered with mix formations of conifers, and 24.4 % with beech woods. The pure fir stands are concentrated around the abbey, which is an important element of the history of the area

Vallombrosa lies on the western versant of the Pratomagno mountain range, an offshoot of the Tuscanian and Romagna Apennine extending southeast from Mount Falterona. The area has a rather craggy morphology, with steep slopes and variable exposure. The geology is dominated by an Oligocene formation composed of vast alternating banks of sandstone with different structures and textures.

The area owes its significance both to the historical persistence of a forest management model that supplied fir lumber for centuries and to the role of Vallombrosa in the development of forest science in Italy. The Congregation of the Vallombrosans was founded by San Giovanni Gualberto dei Visdomini, who withdrew to Vallombrosa in 1015 together with some Benedictine monks who had left the monastery of San Miniato. During the two following centuries, the abbey's estate expanded considerably thanks to several donations. This was a consequence of the spread of sharecropping, since chestnut and beech were a lot more useful to farmers than silver fir. The landscape that developed from the sixteenth century onward, instead, was a product of the economic interests of the monks. They started a profitable lumber trade and hence gradually replaced the beech with fir. Their management of the fir groves favored coetaneous and monospecific populations of regular rows of seedlings replacing felled trees, as part of what was known as "monastic silviculture". This management model was typical for the Benedictines and contrasted with the Franciscans' more "natural" approach. Later on, the monks' forest management methods were further developed by the managers of the first Italian forest science school, founded at Vallombrosa itself in 1869. Following the principles of German economic silviculture, they definitively changed the forest's structure, favoring a vast expansion of coetaneous fir woods. As a consequence, since 1869 the fir forest has expanded from 245 ha to over 600 ha, 70 % of which were managed by clearcutting until at least as late as 1970. After the foundation of the school there were heated debates, which have gone on down to our days, about the health of the woods and which was the best management model, renaturalization or monospecific fir forest. This debate provides an interesting perspective on the evolution of scientific thought and environmental culture in Italy, a subject which lack of space does not allow us to go into here. It will suffice to mention that in the late nineteenth century Vallombrosa was a popular summer sojourn location among the Florentine middle class, who criticized the landscape impact of the foresters' management policy. The resulting debate gained such resonance that it even led to direct intervention by the ministry. It is also noteworthy that John Perkins, U.S.A. ambassador to Italy and a major exponent of environmentalist thought, resided and died at Vallombrosa. Presently, Vallombrosa houses a "Silvomuseum" run by the State Forest Corps. The museum manages part of the historical fir woods—about 100 ha—around the monastery and houses a collection of equipment formerly belonging to the forestry school. Today the school is used for field drills by the Forest Science students of the University of Firenze. There is also the "Arboreto" here, a rich collection of forest species formed as a support to the teaching and research activities of the Regio Istituto Superiore Forestale (Royal Institute of Higher Forestry Education), whose building stood in the state-owned forest of Vallombrosa as early as 1869.

The part of the woods that still retains its integrity lies around the abbey. There is a plan to preserve it by appropriate forest management practices. The remaining fir

woods are evolving into mixed broadleaf woods, a phenomenon first observed in the 1980s, following the ceasing of silvicultural practices. Abandoned edible chestnut tree groves are also undergoing a process of "renaturalization" as silver fir and various broadleaf species colonize them. At high altitudes, the beech groves, part of which are coppices and part high stands, are in fair condition. Parcel 90 houses a monumental Douglasia stand planted by Aldo Pavari, the pioneer of forest ecology in Italy, with some plants growing taller than 50 m. This is now 90 years old and entering a phase of senescence. Some of the tallest trees have already been felled.

As regards vulnerability, further abandonment of forest management would determine a spontaneous evolution of the pure-fir forest into a mixed one dominated by broadleaf species. Especially around the abbey, the conservation of the fir woods depends on the maintaining of cultivation practices based on clearcutting and replanting. Another threat to the fir woods is posed by two parasites, *Armillaria mellea* and *Heterobasidion annosum*. However, today the tourist and landscape-historical significance of the area is to the fore and this bodes well for its preservation in the future (Figs. 14.1, 14.2).

14.3 The *Biancane* of the Val d'Orcia (43° 01′ 53″ N; 11° 46′ 02″ E)

The *biancane* landscape described here extends over about 3,000 ha in the central part of the Val d'Orcia, within the municipalities of Pienza, Montepulciano, Chianciano and Sarteano in the province of Siena. The area lies at altitudes between 300 and 700 m a.s.l. It is mainly privately owned, with only a small public part. It is included in the "Lucciolabella" SCI and SPA, the "Crete dell'Orcia e del Formone" SCI and SPA, and the "Val d'Orcia" ANPIL (Protected Natural Area of Local Interest), and under landscape restrictions as per laws 1497/39 and 431/85. Chianciano can be reached from the A1 by exiting at Querce al Pino and taking the SP 146, which goes on to Montepulciano and then Pienza. The geological substratum is prevalently constituted by the typical Pliocene clays of the Radicofani basin, which extend all the way to the Apennine ridge connecting the mountains of Chianti to Mount Cetona. This substratum surfaces along the crest of this ridge in arenaceous and marl clay formations. On the valley bottom are more or less recent alluvial deposits.

The landscape of Val d'Orcia owes its significance to the historical persistence of geological formations of great beauty set in a landscape mosaic dominated by vast bare fields, and pastures extending over gentle hills often topped by rows or single-standing cypresses. The *biancane* are low light-colored dome-shaped rises not exceeding 10 m in height. They occur both in isolation and in small groups and owe their color to sodium sulphate that rainfall causes to seeps into the ground and is then brought back to the surface by evaporation. In the middle of the area is a significant landmark, the Castelluccio Farm, originally a complex of medieval buildings and land belonging to a community of Cistercian monks known as Grancia, subsequently purchased by the Hospital of Santa Maria della Scala di Siena in 1480. It included

a castle, the Foce inn, now housing the farm, and the *castrum* of Chiarantana. The farm included about 20 holdings, including some very large ones. The holdings that did not have land suitable for vineyards and olive orchards were assigned small plots in other holdings for that purpose. The farm, which originally extended over about 3,000 ha, went through three important changes of ownership over the last centuries. In 1786 it was assigned to the Dei di Chiusi family, who sold it to the Mieli bankers from Rome in 1847. In 1924 it was purchased by the Marquis Antonio Origo, who conducted extensive renovation. After the war, the Marquis left part of it to two cooperatives of his former sharecroppers and the rest to his two heirs, Benedetta and Donata. In spite of the now split ownership, the original farm unit is still recognizable today thanks to the retaining of the original clay-basin pasture and bare field farming methods. The present landscape can be regarded as the result of works carried out before the war, which according to the owner himself were undertaken to strengthen the farm's original vocation. Important rural buildings were also erected as part of these works. They were commissioned to the English architect Cecil Pinsent, the same who had overseen the establishment of the celebrated Italian garden of the Foce villa-farm. It is remarkable that a landscape that today has become a symbol of the Siena countryside—one has only to think of the zigzag rows of cypresses at Lucciolabella—was actually created in the twentieth century as the result of a special economic conjuncture, as well as special cultural circumstances. Today this land yield high-quality products such as the PDO "Terre di Siena" oil, the wines "Colli Senesi" DOCG (Controlled and Guaranteed Origin Denomination), the "Orcia" DOC (Controlled Origin Denomination) and "Montepulciano" DOC.

The farm's landscape, as well as that of the Val d'Orcia as a whole, still shows a good degree of integrity of the historical farming landscape. The works carried out in the 1930s allowed an increase of the number of holdings and changes in the crop structure; most notably, the extension of mixed olive groves to the higher-altitude holdings. Uncultivated patches—mainly of erosive terrain on *biancane* and *calanchi*—were strongly reduced, but still retain high landscape importance, and are hence under protection in the restricted area of Lucciolabella. Thus, in spite of some changes in the crop distribution, the landscape is still dominated by its traditional bare fields, and pastures where sheep often graze. The characteristic cypresses enhance the area's verticality.

The main threat to the landscape of Val d'Orcia is building expansion, which has occurred over the last few years around small centers such as Contignano and Monticchiello, but also in scattered holdings. In the Castelluccio area, this threat has been averted so far, thanks to opposition from the Origo heiresses, the particular legal status of the two cooperatives, and the fact that the higher parts of the holdings are being managed by the Comunità Montana of Cetona. In the next few years, however, there is the risk that the legal restrictions that have so far hindered the proliferation of new buildings for the tourist industry will be dropped. This would lead to the loss of the relationship between historical buildings and the landscape that is one of the acknowledged qualities of the area. Furthermore, the last 50 years have witnessed a simplification of forms of soil use, due not just to changes in crops but especially to damage to the olive groves caused by the frosts of 1985 and 1993.

Fig. 14.3 The *biancane* of Valdorcia are a typical landscape of central Tuscany, characterized by extensive cultivations of cereals

Other vulnerabilities include an excessive use of cypresses for ornamental purposes, which is indeed typical of the historical landscape of Tuscany, but on a much smaller scale (Fig. 14.3).

14.4 The Monumental Chestnut Groves of the Scesta Valley (44° 02′ 25″ N; 10° 39′ 12″ E)

These monumental chestnut groves occur in a forest area extending over about 2,300 ha in the municipality of Bagni di Lucca (LU) at altitudes between 240 and 1,000 m a.s.l. Land ownership is part private and part public. The public part is controlled by a "Società dei beni già comunali" (Society of Formerly Municipal Property). The area is included in an SCI (Monte Prato Fiorito-Valle dello Scesta) and is under landscape restrictions as per law 431/85. The nearest settlement is the sub-municipality of San Cassiano di Controne, which can be reached from the Altopascio exit on the A11. From here one follows the road signage to Borgo a Mozzano and Bagni di Lucca until one reaches the crossroads for the Orrido di Botri, which leads to San Cassiano. The Scesta valley lies about 4 km east of San Cassiano.

The area is characterized by deeply cut valleys with very steep sides, and very strong differences in altitude between crests and valley bottoms. The terrain is mainly composed of limestone, dolomitic stone, marl and, in lesser measure, argillite, commonly designated as schist. The rocky formations display a recumbent anticlinal fold subsequently segmented by many recent tension faults. Both deep and superficial karstic phenomena have resulted in very interesting shapes such as the many dolines, swallow holes and furrow fields.

The area owes its significance to its centuries-old edible chestnut groves, with numerous monumental trees, a testimony of the importance in history of the chestnut tree as an economic resource for the populations of the Apennines. The chestnut

groves alternate with coppice woods, mainly of Turkish oaks, recently converted to high stands, set in a spectacular mountain scenery. The chestnut trees often grow to exceptional sizes, with circumferences of over 9 or 10 m. The percentage of very large trees is larger here than in other chestnut areas. Various forms of terracing and buildings connected to chestnut farming add to the landscape's interest. The buildings include stables and chestnut-drying houses, as well as some groups of eighteenth-century buildings. The area is a testimony of the importance of the so-called "chestnut civilization". Italian mountain populations managed to survive thanks to the calories supplied by chestnuts, the possibilities for livestock grazing afforded by chestnut groves, the many uses the wood could be put to, and the use of its foliage as forage. The area is mostly divided between private and public properties. There are also some commons managed by the "Società dei beni già comunali" of San Cassiano di Controne. The footprints of wild ungulates can be found in the area, and wolves have been spotted. Settlements are sparse and the valley is far removed from the usual tourist and automobile routes.

The Scesta valley's chestnut tree landscape still retains a fair degree of integrity, with rural buildings and terraces. These, however, are in an evident state of abandonment. Some private landowners are striving to revive the cultivation of edible chestnut trees and restore a complex of buildings near Silviglioli. A new forest track was created to allow these landowners easier access to the groves and buildings. Other private owners are still maintaining their chestnut groves and their often renovated rural buildings.

As regards vulnerability, although the integrity level of the landscape is still high, some elements do threaten its conservation. The main threat is abandonment, as a result of which the groves are evolving into mixed woods and monumental specimens are dying through neglect and exposure to diseases. Besides chestnut cancer (*Criphonectria parasitica*), whose virulence is presently on the decline, the ink disease (*Phytophthora cambivora*) was diagnosed in several specimens, including some monumental ones, which desiccated while still standing. In general, the area is undergoing conspicuous reforestation processes that are undermining the landscape value of summit meadows, which apparently only periodic fires can help to preserve. Conservation is also jeopardized by contradictory indications regarding the utilization of rural development plan funds. These indications often interpret proper grove maintenance as the cutting of deteriorating monumental trees and their replacement with seedlings, rather than the conservation of monumentality. As to the terraces along the versants, if they are not regularly maintained hydrogeological instability and vegetation succession can ensue. It is thus not merely a matter of preserving the traditional landscape, but also of containing erosion. Some rural buildings are still in good condition, whereas others are deteriorating through neglect. Both the monumental chestnut groves and the historical buildings would require joint action by the superintendencies of architectural and landscape heritage, as well as the council for the environment and agriculture of the Tuscany Region (Fig. 14.4).

Fig. 14.4 The Scesta valley's chestnut tree landscape is at least 400 years old, but abandonment is threatening its conservation. Unfortunately, according to the regional interpretation of the European HABITAT directive, chestnut orchards are not a habitat to protect, but rather mixed woods with chestnut, resulting from the abandonment of chestnut cultivation

14.5 Hill of Fiesole (43° 47′ 42″ N; 11° 17′ 59″ E)

This area extends over about 200 ha in the broader context of the southern versant of the Fiesole hills, at an average altitude of about 125 m a.s.l., in the municipalities of Fiesole and Florence. The land, which is privately owned, lies within the "Monte Ceceri" ANPIL (Protected Natural Area of Local Interest) as well as the "Torrente Mensola" ANPIL, and is partly under landscape restrictions as per laws 1497 of 1939 and 431 of 1985. The area can be reached by the road from Florence to Fiesole by way of San Domenico, or from Settignano taking Via G. D'Annunzio, and from here the local roads of Fontanelle, Camerata, Palmerino, Salviatino, Poggio Gherardo, Vincigliata and Benedetto da Maiano into the countryside. The area has a heterogeneous geological substratum, as it lies along the limit between the lake deposits of sandy clays, sand and gravel lenses of the Upper Villafranchian in the area between Ponte a Mensola and San Domenico, and a lower area of rises composed of the Macigno formation (upper Holigocene and lower Miocene), with quartziferous and feldspathic sandstone alternating with silt shale and argillite.

The area owes its significance to the historical persistence of a traditional farming landscape of exceptional beauty dotted with historical villas, extending between the towns of Florence and Fiesole. The area still retains many of the typical features of the *bel paesaggio* of the Tuscan hills, portrayed in innumerable pictorial

and literary works. It is a valuable example of one of those rural areas classified as *poli urbani* in the national rural development plan; areas, that is, characterized by the simultaneous presence of dense human settlement and agricultural features. The landscape is dominated by mixed cultivations with fields combined with vineyards and especially olive and fruit trees, on regular or contour terraces. There are many farmhouses and villas. The latter feature gardens, religious buildings and tabernacles, dry-stone walls and ornamental trees such as domestic and sea pines, holm oaks and cypresses, isolated, arranged in groves, or lining the typical local white roads. There are still about twenty rural villas, erected between the thirteenth and nineteenth century. They include the monumental villa of Maiano, the fourteenth-century villa of Poggio Gherardo, where Boccaccio allegedly set his *Decameron*, and the Renaissance Villa I Tatti, with its beautiful garden, once a refuge for the scholar and patron of the arts Bernard Berenson, today housing an international research center. There are also about 25 old farmhouses. Farmland took up a very high percentage of the area from the Middle Ages to the mid twentieth century. The holdings, managed by sharecroppers, were small, extending over a few hectares, and almost always entirely cultivated. The aggregation of this highly fragmented property into middle or large-sized farms was hindered by high demand and, hence, the high price of land. At the limits of the area are many abandoned quarries. Their sandstone, known as *pietra serena*, was widely used from antiquity until recently in the building industry, to line canals, and to pave local roads. The sandstone hills of Monte Ceceri and the rises of Vincigliata and Castel di Poggio underwent systematic reforestation with cypress, pine, holm oak and downy oak beginning in 1929. Today they are covered with dense woods.

While the area's architectural heritage is still intact, its traditional farming landscapes show a lower degree of integrity. Nevertheless, this versant of the Florentine hills overall still retains an important part of the Tuscan traditional landscape. It should be included in UNESCO's world heritage list, just like the historical center of Florence. Today, historical crops survive on small plots, with a prevalence of regularly spaced olive groves. Terraces and contour terracing are still widespread. In some areas there are still olive groves laid out in scattered patterns. For many years now, agriculture has become a secondary, almost marginal economic activity; although there are still at least 150 active farming businesses within the municipal boundaries of Florence. Agriculture is increasingly taking on the character of a part-time activity, mainly carried out to maintain the rural landscape and the area's residential value. This is also true of many other rural areas in Tuscany. In other words, we are confronted with a situation where the historic "villa gardening" has been extended to agriculture, which is hence practiced today as a means to preserve a landscape that in much of Tuscany has been dramatically altered by the intensification of agricultural production. True farming businesses today include the Maiano Farm—an agrotourism with about 110 ha of olive groves cultivated with biological methods—and the I Tatti farm, which produces high quality wines such as Chianti Colli Fiorentini DOCG (Controlled and Guaranteed Origin Denomination), Rosso Toscano IGT (Typical Geographical Indication) and extra virgin oil on its 35 ha.

Fig. 14.5 The hill of Fiesole constitute one of the most valuable periurban landscapes in Italy. Here the historical landscape of the *villa*, with its associated agricultural landscapes, is still preserved

The area's vulnerability is high. The main threat is posed by abandonment and crop simplification, which could soon set off processes of deterioration of the historical landscape, partly as a result of the loss of the water-management structures required for soil stability. Many terraces with olive and fruit trees and vegetable gardens are showing clear signs of deterioration. Rural buildings require restoration and renovation, under strict government control. The slopes need maintenance to minimize hydrogeological risk, and the traditional agricultural fabric needs to be restored. Here, as elsewhere, the term "natural area" is ill-suited to a landscape that has been modeled by man down to its smallest details. This should be taken into full account in planning, whose priority should be to protect the historical landscape. These restoration actions could be carried out in the framework of existing programs for protected natural areas and regional rural development plans, as well as programs for the promotion of typical local products, in consideration of this landscape's universal appeal and to allow its collective fruition by Florence and its metropolitan area (Fig. 14.5).

14.6 The Montagnola Senese of Spannocchia (43° 13′ 26″ N; 11° 11′ 37″ E)

The Spannocchia Farm extends over about 445 ha in the municipality of Chiusdino, in the province of Siena. It is a privately owned area partly included in two SCI, that of "Montagnola senese" and that of "Alta Val di Merse", and under landscape

restrictions as per law 431/85. It lies at an altitude of about 400 m a.s.l. It can be reached from Siena by driving for about 25 km on SS 73bis and then taking SP 31. A few kilometers after the center of Rosia one turns left and follows the signs for Spannocchia. The Spannocchia farm extends onto a versant that belongs to the metamorphic group of the Montagnola Senese. This is constituted of 10-million-year-old Miocene breccia known as "Breccia di Grotti", composed of cavernous limestone in a sandy matrix. In the northernmost parts of the area are formations of the Verrucano Group, composed of sedimentary rock (quartzite, anagenite and schist) showing low-degree metamorphism. The climate is Mediterranean, Type 5 in Blasi's classification ("humid hill" climate). As to the area's phytoclimatic classification, it corresponds to the cold sub-zone of *Lauretum*.

The farm is a significant example of the historical persistence of the agricultural landscape of the Montagnola Senese, with fields and vast wooded areas covering about 82 % of its surface. The first written documents mentioning Spannocchia date back to 1225. They concern the donation of a portion of the farm by Zacaria dei Spannocchi to the monks of the nearby convent of Saint Lucy to obtain protection for the soul of his mother, Lady Altigarda. The remains of the monastery are still preserved, as are the medieval fortress known as Castiglione che Dio Sol Sa and the Romanesque Ponte della Pia. The farm remained in the ownership of the Spannocchi family until the early twentieth century, when it was sold to the Florentine Delfino Cinelli, an aristocratic writer. It lived on as an agricultural production center based on the sharecropping system until World War II, when Delfino's son, the Count Ferdinando Cinelli, transformed it into a cultural and educational center, partly by establishing an "Etruscan Foundation" here in 1959. Today, thanks to Randall Stratton and Francesca Cinelli's commitment, the Castello di Spannocchia has become a living museum of the traditional rural life of Tuscany, where farming is conducted with great respect for the historical characteristics of the landscape. In 2002, the Spannocchia Foundation was established. Its objective is to spread the know how and values of Tuscan rural civilization and rural archaeology abroad, especially in the United States, thanks to the active contribution of the heirs of the Cinelli family. The farm nevertheless retains its economic function, its main activity being the biological production of wine, oil, fruit and vegetables.

The Spannocchia area still retains a high degree of landscape integrity. It was one of several areas chosen for the performing of multitemporal analyses as part of a program to set up a system to monitor transformations of the Tuscan landscape. These analyses indicated that the ration of woods to fields and pastures here are still quite close to what they were in the early nineteenth century. The farm, with its fortified farmhouse and a number of rural houses, is still active. The way it has been managed has played a decisive role in preserving its traditional characteristics. The management sought to preserve the features of the area's original landscape while promoting typical local products and rural tourism. It also started several scientific and cultural activities to promote and preserve the landscape, and undertook restoration, not only of buildings, but also of soil uses. The farm has hence become a model for the management of the characteristic landscape heritage of the Montagnola Senese.

Fig. 14.6 Spannocchia is a farm where the management aims to preserve the historical features of the rural landscape

While independent, the Spannocchia farm is situated in an area that is undergoing constant transformation. It is thus vulnerable to land development planning, the oscillations of tourist flows, and the vagaries of the agricultural market. The farm has refrained from industrializing its cultivation systems and depends on its own resources—agrotourism and the sale of typical local farm products—for its survival. This, however, exposes it to the risk of both the market and public administrations not rewarding its efforts adequately. The absence of provisions for specific regional funding in rural development programs limits the possibility of cutting the costs of conserving the traditional landscape. In some cases, existing laws and regulations do not allow a landscape restoration program to be drawn up. As in the case of wood expansion as a consequence of field or pasture abandonment, current legislation forbids the restoring of earlier soil uses, unless it is compensated by costly reforestation elsewhere; a measure that is unjustified in the case of this farm, considering the general increase of woodland everywhere and its already great extension within the farm itself. Even attempts to reintroduce grazing in woods to produce quality meat and sausages are hindered by norms that place strong limitations on this practice for fear that it will undermine natural forest renewal. Such prescriptions ignore the existence of silvicultural techniques that are perfectly adequate to prevent this and the desirability of producing quality food in this manner. In general, this situation increases the separation of agriculture and the

forest, which were once deeply integrated in the typical Tuscan sharecropping farm (Fig. 14.6).

14.7 Landscape Mosaic of Montalbano (43° 50′ 01″ N; 10° 53′ 34″ E)

The agroforestal landscape of Larciano extends around the homonymous town in the province of Pistoia. It extends over about 160 ha, mainly privately owned, with altitudes ranging between 50 and 400 m a.s.l. Larciano can be reached from Florence by taking the FI-PI-LI "superstrada" to Empoli, from here SP 13 towards Vinci, and then turning left onto Via Collinare (SP 123) towards Lamporecchio a few kilometers before reaching Vinci. From here one follows the signs for Larciano-San Rocco. The area lies on the Empoli versant of Montalbano. It is a secondary mountain ridge with a northeast-southwest orientation. It is delimited to the north by the crest of the ridge, to the south by hilly undulations formed of marine and lake deposits gently sloping down towards the plain, whereas the western and eastern boundaries are marked by two streams, the Fosso Agnese and Fosso delle Gargole. The geological substratum is the formation known as the Macigno del Chianti, composed of feldspathic sandstone interbedded with clay.

The area around the small town of Larciano is a typical example of the historical persistence of a landscape type that is often found on the hills of Tuscany, one of many variants of the terraced hills of the region. It is remarkable because here it forms a real microcosm, a clearly distinct system where the three basic components of the physical landscape—the geomorphological foundation, the settlement system, and soil use—show a high degree of integration. The prevalent form of cultivation is the traditional olive grove, which is found on many of the slopes. The groves often extend up all the way to the roads along the crest, and thus constitute a feature of great landscape value and highly representative of the area's agricultural identity. The groves often stand on contour or regular terraces. Fruit trees are frequently interspersed among the olive trees. There are some vineyards in the area, too, although over very small surfaces, where the DOCG (Controlled and Guaranteed Origin Denomination) Chianti wine, subzone Montalbano, is produced. The oil is PDO-recognized as "Toscana, subzone Montalbano". Woods mainly extend in ravines and on versants whose acclivity or exposition makes them unsuited to agriculture. The area is an excellent example of the morphologically distinct land systems typical of the southwest versant of the Montalbano. Here the regular morphology of relief, with alternating hills orthogonal to the main ridge and steep canyons eroded by water courses, has favored the rise of relatively independent landscape units. The resulting historical settlement pattern is hence closely connected to the agricultural fabric. In the territory of Larciano, the historical settlement is the hub of the surrounding area. It lies along the main road along the crest. The crops extend along the slopes, while ravines and steeper slopes are occupied by woodland. The historical center of Larciano Castello is especially remarkable. Like other minor centers of the Empoli versant, such as Vitolini, Montevettolini or Cecina, it originates from an early

Fig. 14.7 The castle of Larciano lies on terraced slopes with olive groves that are a characteristic feature of the Montalbano area

Middle Age "castling" process that dotted the Montalbano countryside with fortified burghs, which turned into rural villages once self defense was no longer a concern.

The Larciano area, in spite of some inevitable changes it shares with many of the rural communes of Tuscany, still boasts a relatively intact landscape structure. Here terracing and irrigation works, such as dry-stone walls, runnels and aqueducts, are still integrated into the road and settlement structure. The superficial water drainage system, in its turn, connects with the natural system of wood vegetation in the ravines. The route system allowing access to local resources—an elaborate network reaching down from the crest through the cultivated areas to the water courses in the ravines—bears witness to the intensity of "agrarian anthropization" processes until the middle of the last century. This system still allows easy circulation within the area.

The highest vulnerability issues in the area depend on the abandonment of farming, and agricultural intensification. In some parts of the area, woodland is expanding over land less suited for agriculture due to lack of exposition or acclivity. Elsewhere one remarks abandoned terraces whose dry-stone walls are in critical conditions or overrun with vegetation. In general, well or decently preserved structures are found near farming, or former farming, centers, or small rural house clusters. These are mainly concentrated in the central part of the area, immediately north of the historical center of Larciano. Conservation gradually worsens as one moves away from the main routes, especially in steeper or hard to access places. The state of terraces and dry-stone walls also depends on the character of ownership and the social characteristics of the subjects who manage them. The same factors influence the condition of olive groves (Fig. 14.7).

14.8 Silvo-pastoral Landscapes of Moscheta (44° 04′ 10″ N; 11° 25′ 45″ E)

The silvopastoral area around the abbey of Moscheta extends over about 500 ha in the municipality of Firenzuola, in the province of Firenze. The area is a mainly publicly owned and in small part privately. Altitudes range between 500 and 900 m a.s.l. The area is included in an SCI (Giogo–Colla di Casaglia) and under landscape restrictions as per law 431/85. It is also fully included in the soon to be instituted "Parco del paesaggio rurale Appenninico" (Park of the Apenninic Rural Landscape). Moscheta can be reached from the A1 by exiting at Barberino del Mugello and driving on to San Piero a Sieve, then taking SP 503 to the Passo del Giogo and Firenzuola. A few kilometers from the Passo del Giogo, having reached Rifredo, one turns right onto a road that ends at the abbey. The area is a valley on the northern versant of the Giogo-Casaglia Apenninic complex. It is surrounded by rises on three sides and open towards the northwest. The geological substratum of the valley bottom is constituted by heterogeneous, prevalently clayish chaotic earth. The versant areas, instead, are part of the Romagna Arenaceous-Marly Formation.

The area lies in what is known as "Romagna Toscana". It is characterized by the historical persistence of a typical central-Apenninic landscape, dominated by beech groves, bare and treed pastures, edible chestnut groves, and important agricultural and religious structures. Moscheta is a significant example of the role of monasteries in the management of the Apenninic landscape in the first centuries of the second millennium. It developed around the abbey founded in 1037 by San Giovanni Gualberto. The decadence of the abbey after the sixteenth century was followed by its suppression following the reforms of the Grand Duke Pietro Leopoldo (1748). It was subsequently purchased by the Martini family and became a sharecropping farm, until 1950, when it was sold to the state and later passed on the Tuscany region in the 1970s. Today it is managed by the Comunità Montana del Mugello. Part of the exquisite abbey building, now restored but deconsecrated, is still preserved, as well as part of the agricultural fabric that was already there at the time of the abbey's foundation, including drying areas for chestnuts and many areas where charcoal was made from the local beech. A number of farms from the sharecropping period survive around the abbey, as well as monumental chestnut groves about 250 years old. The chestnut groves produce the PGI-designated Marrone del Mugello (Mugello Marron). The landscape is remarkable not just for its agriculture and rural structures, but also for its beauty and the widespread appreciation of its value among the local population. The area is presently designated "Parco del Paesaggio Rurale Appenninico". The park, instituted in 2007, extends over about 1,000 ha. It is managed according to its own landscape plan. The administration of the province of Florence proposed to extend the park to include the whole Giogo-Casaglia district. A small landscape museum was set up inside the abbey.

The integrity of the selected landscape appears quite good. Compared to the nineteenth century, a sharp reduction of the number of soil uses is observable. Elements of historical persistence are not found all over the park, only in certain parts of it. The valley-bottom pastures are maintained thanks to the presence of a horse farm, as

Fig. 14.8 Monumental chestnuts orchards and pastures are the most important elements of the thousands-of-years-old landscape of Moscheta. The chestnut orchards are currently restored and maintained

well as whole herds of fallow deer that are grazed there. The monumental chestnut groves are in fair condition and are constantly maintained by the Community. Small holiday farms around the abbey and horse-riding tourism sustain the area's vitality as a recreational center, especially during the summer. Some of the farmhouses of the old sharecropping holding have been renovated and are rented to trekkers by a local cooperative.

As regards vulnerability, abandonment and the ensuing increase of the woods has strongly reduced pastures and almost done away with farming, which today is only carried on by a few private individuals on small areas around rural buildings, with a few dozen grazing animals. The management of the SCI, in spite of the importance of the pastures for the conservation of biodiversity, has still done nothing to halt their disappearance. On the contrary, it tends to encourage the processes that are leading to the deterioration of the historical landscape, and forest legislation hinders pasture restoration. Indeed, the present management is in favor of renaturalization, the reintroduction of animal species such as ungulates, which are proliferating beyond control over the whole region, and wolf. This policy can hardly coexist with an attempt to restore the local manmade landscape. The lack of specific legislation for rural parks providing reliable and unambiguous guidelines leaves the carrying out of rural development programs to the goodwill of individual officials and the availability of funding. Another important issue is that the digging of tunnels for the high-speed Bologna-Florence railway line has sharply reduced the flow of the surrounding springs and torrents (Fig. 14.8).

14.9 Terraced Vineyards of Lamole (43° 33′ 02″ N; 11° 21′ 20″ E)

The area in question, located in the municipality of Greve in Chianti, extends over about 650 ha. Its landscape is presently characterized by the presence of terraced vineyards around the town, and wooded areas in the outermost part of the area. The land is privately owned. The center of the area is the town of Lamole (600 m a.s.l.). It can be reached by exiting the A1 at Figline Valdarno and driving to Greve in Chianti; then taking SR 222 southward towards Panzano in Chianti and, about 1.7 km from Greve, turning left onto the road that leads to Lamole 7 km away. The geological substratum is formed of lorbiditic quartziferous-feldspathic sandstone with calcite, phyllosilicate and silt schist. In the south part of the area is yellowish marl from the Oligocene.

The area owes its significance not only to the historical persistence of shrub vineyards and olive groves on terraces, but also to its landscape's scenic beauty and the careful restoration of terraces by some landowners, who are now producing high quality wine on them. The origin of the name Lamole is uncertain. It apparently derives from the Latin word *lamulae*, meaning "small blades", strips of earth. The area was certainly already known in the Middle Ages. In 1835, Emanuele Repetti wrote in his *Dizionario geografico fisico storico della Toscana* that Lamole "lies on the northern slope of the Poggio delle Stinche" and "the vineyards that yield the good and much praised wine of Lamole are planted among the rocks of this hill". Until 50 years ago, the agriculture of Lamole was characterized by an extreme exploitation of all the available cultivable surface, conquered by the work of hundreds and a technique refined over the centuries in an area with an average acclivity above 30 %, and often exceeding 50 %. Level surfaces for cultivation were provided by terracing. Drainage works limiting surface erosion were especially important. Pits were dug, one meter wide and one deep. Stones were placed on the bottom to form a drain. This was called the *gattaiola*, because allegedly it was tested by making a cat (*gatto*) go through it. Above the drain were arranged stones of sizes decreasing as they approached the surface. Finally, the pits were filled with earth. If there were some stones left at the end, the plot was further divided by building walls closer to one another and terraces only a few meters wide. By releasing through the night the heat accumulated during the day, the walls played an important role in the maturation of the grapes. The exodus from the countryside in the 1950s and 1960s in a few years brought the population of Lamole down from 900 to 70 individuals. In the early 1970s, after a period mainly devoted to putting back together a very fragmented property, the restoration of the vineyards began. Because of the spread of mechanization and the need to reduce labor, on more level ground the *a ritocchino* (perpendicular to the slopes) planting method replaced the *girapoggio* method (along the contour of the hill). The old vineyards on the less accessible terraces are being abandoned year after year. Since about a decade ago, the whole approach to viticulture in the area has been fully reconsidered. Many terraces have been fully restored, as has shrub vine cultivation. Now the wines produced here, besides being of great quality, have a close relationship with the quality of the landscape.

Fig. 14.9 The terraced vineyards of Lamole, besides having remarkable landscape value, are an example of a courageous initiative to restore terraces to make them productive again

The area's integrity is high, mainly thanks to the restoration of the terraces, the persistence of polyculture, the restoration of rural buildings, and the very low rate of urbanization. Rural tourism has had a very positive impact here. In spite of ample oscillations, its growth rate has been higher than any other economic activity in the region, and in the Chianti district it plays an especially important role. Lamole still retains historical features of the Chianti landscape that elsewhere have been transformed by intensification, especially as a result of the expansion of *a ritocchino* vine monocultures, which led to the elimination of many terraces and the mixed crops that once prevailed in the area; replaced by extensive plots with regular shapes that fit ill with the mosaic of small-scale land uses typical of sharecropping. The case of Lamole shows that it is possible to develop modern viticulture by rediscovering the role of traditional techniques and the landscape in the promotion of an area, as an advantage that the competition cannot emulate.

The elements of vulnerability in the area are numerous. The terraces needs constant maintenance and are more costly than other methods of cultivation. Furthermore, it is hard to obtain authorization to restore them by freeing them from the woodland that has invaded them. Thus, for farms to be able to restore and maintain the terraces, a legislation update is needed, as well as carefully programmed rural development plans allowing access to the economic incentives already provided for in the National Rural Development Plan, instead of actions aimed at increasing the yields and quality of products without any regard for the landscape. At the same time, the typical products of the historical landscape need to be promoted as a means to boost the

area's "competitive identity" and assist its acknowledgement by the market. Without such support, local owners will be left to themselves, with the risk that their efforts will not be rewarded. This may lead Tuscan viticulture as a whole to lose ground to high quality and low cost products from other countries that are presently expanding on the world market (Fig. 14.9).

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