Chapter 16 Umbria

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16.1 Introduction

Along with Tuscany and Marche, Umbria has long epitomized the historical features of the Italian *bel paesaggio*. Its landscape is characterized by a variety of crops, remarkable field shapes, particular ways of marking property limits, enclosures and terraces, houses scattered throughout the countryside, and an ordered alternation of pastures, woods, fields, and mixed orchards. Today, many of the fundamental historical characters of the Umbrian *bel paesaggio* have been altered. The abandonment of mountain areas and consequent demographic decline is responsible for the most evident imbalances. The forest is expanding, or, more often, a straggly shrubbery, which gradually takes over pastures and the old olive groves. Forty-six percent of the region is covered by woods and 43.4 % by agricultural land, of which only 22.6 % is pastureland.

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But the really dramatic changes have occurred in the plains of the Valle Umbra, the Valnerina, and the middle Tiber valley. Here industrial agriculture, town expansion, the flourishing of small and middle-sized manufacturing businesses, and the growth of the road network and infrastructure have swept away the historical agrarian landscape of Umbria. Peasant polyculture has disappeared from the scene, as have treed fields, vineyards with vines trained on maples, and various types of earth-retaining structures, such as walls, hedges, terraces, etc. The historical slope contour shrub cultivation has given way to mechanized agriculture, accelerating soil erosion; a centuries-old phenomenon that has been a concern in the region ever since ancient Roman times. The landscape has undergone a simplification determined by a trend to specialization favoring the expansion of wine and olive-growing, especially in the Valnerina and the foothills. However, significant traditional agricultures still live on. An exemplary testimony is an area with stepped olive groves extending between Spoleto and Assisi, included in the present catalogue, and the hills of Montefalco, dominated by mixed cultivation with a prevalence of grapevine, especially of the Sagrantino variety. In the plains and valleys, the simplification of the landscape emphasizes bare arables with a prevalence of monocultures, including irrigated crops such as maize or tobacco. Our choice of the Orvieto Rock and the Poggi di Baschi is meant to illustrate the mixed cultivation of grapevine and olive trees. We find that these areas are an exemplary survival of the Italian bel paesaggio.

We chose Monteleone di Spoleto because it still preserves an ancient genetic heirloom, that of spelt. Its cultivation in small fields at the foot of the town, which is crowned by wooded mountains, gives the whole area a singular charm. The Piani di Castelluccio di Norcia are unique in the Umbrian hill country. Situated on the Tyrrhenian versant of the Sibillini Mountains, the Castelluccio basin extends over about 2,000 ha. Its open-field system originates from thousands of years of communal land use. The most distinctive crop in the area is the local lentil, distinguished with a PGI (Protected Geographical Indication) designation. As to the Altipiani Plesitini, they epitomize the history of the agro-pastoral civilizations of the Apennines. Here the typical crops are, again, the lentil—a less prized variety than that of Castelluccio, but nevertheless fetching high market prices—and the red potato. The area's pastoral economy, which still retains traces of traditional practices, has developed good processing and selling infrastructures.

16.2 The Plestini Plateaus (43° 01′ 35″ N; 12° 53′ 24″ E)

This polyculture landscape extends over about 1,700 ha in the Colfiorito area, at altitudes between 750 and 800 m a.s.l., in the municipalities of Foligno in the province of Perugia and Serravalle di Chienti in the province of Macerata. The land is mainly privately owned. The area lies within the Colfiorito Regional Park and is included in two SCI (Piani di Annifo-Arvello, Piani di Ricciano). It is also subjected

to landscape restrictions as per laws 1497/39 and 431/85. The town of Colfiorito can be reached from Foligno by driving along the SS 77 towards the border with Marche. Hemmed in by the calcareous ridges of the Umbria-Marche Apennines, whose highest peak is Mount Pennino (1,571 m), the Colfiorito plateaus are a system of seven karstic hollows (Colle Croce, Annifo, Arvello, Colfiorito, Palude, Cesi and Popola, Ricciano) with a geological substratum of alluvial origin. These hollows are the bottoms of ancient lakes whose drying up was partly naturally, but mostly the result of Giulio Cesare Varano's excavation of the *Botte dei Varano* in 1843.

The area owes its significance to its fascinating landscape, characterized by the persistence of agricultural and forage polycultures with remote historical origins on plateaus lying in a prevalently mountainous district; a landscape that faithfully reflects the history of the pastoral-agricultural cultures of the Apennines. Human presence on the plateaus is a logical consequence of the area's geographical position. Colfiorito lay at the intersection of the most important routes across the central Apennines. Forts called *castellieri*, usually circular in plan and consisting of earthworks and wooden palisades, stood in lofty positions whose natural defenses were exploited and reinforced by man. The most important was the castelliere of Monte Orve (sixth century B.C.). The Plestini plateaus were already inhabited and farmed by the ancient Romans. Indeed, their name comes from the Roman town of Plestia, first attested in 178 B.C. The agrarian landscape is characterized by traditional cultivation of grain and forage, and especially lentil and red potato. The latter is not autochthonous, being an import from the Netherlands (Solanum tuberosum cultivar desirée), but has acclimated ideally to the pedoclimatic conditions of the plateaus. Another important crop is the lentil, a less prized variety than that of Castelluccio di Norcia, but nevertheless fetching good market prices. Both the lentils and the red potatoes of Colfiorito are included in the list of Traditional Agroalimentary products of the Ministry of Agricultural, Food and Forest Politics. The plateaus of Annifo, Arvello and Ricciano are more similar to one another. Along their edges are hedges and continuous rows of trees, or isolated trees. Due to the absence of fences, walls or hedges between plots, reflecting the original collective use of the land, these plateaus have a very special open-field landscape. Humid meadows in the innermost zones of the plateaus give the landscape a certain chromatic and formal homogeneity, while field geometry and crop patterns tend to become more fragmented as one moves outward towards the edges. The landscape of the Colle Croce plateau is especially unusual, being almost entirely covered today by a regular grid of ploughed fields crossed by a perfectly straight road without trees. Here the field grid has a typical radial grid with ample cultivated wedges. Reforested areas are easily recognizable by their regular plans, which stand out sharply along the cultivated slopes.

The landscape still retains a certain degree of integrity, although there have recently been some changes in crops. The low market value of traditional crops has led to their reduction and the best soils have been set aside for particular crops produced for local or specialist markets. The local lentils, in particular, have



Fig. 16.1 The landscape of the Plestini plateaus

special organoleptic characteristics that make them much in demand of local as well as external markets, at prices higher than lentils from other areas. The principal sector of the local agricultural economy, however, is still animal husbandry. Good milk production and commercialization facilities have allowed the survival of many family-owned cattle farms, as well as the creation of larger and more efficient farms. The herbaceous surface is exploited in two ways, for mown grass fields and for pastures. This system does not alter the vegetable cover, as it has been part of the local ecosystem for centuries and contributes to regulating its balance. There are still many rural homes in the area. These are of two types: those lying east of the Topino river, of the "slope" type, usually grouped, with the barn either outside the village or adjacent to the house, or even incorporated in the house; and those west of the Topino, which are of various types, scattered, and with separate barns.

The vulnerability of this historical landscape prevalently resides in the risk that traditional agricultural activities will be abandoned. Both agriculture and animal husbandry are declining, due to their economic marginality in world markets. Excessive grazing, on the other hand, has a negative impact on the vegetation. By staying on the best pastures and avoiding the others, grazing animals are encouraging the spread of plants with low nutritional value. The shift to specialized crops has partially made up for land abandonment, but low production yields still threaten to cause a large-scale

abandonment of this countryside. As regards the red potato and the lentil, the lack of adequate control allows inferior produce to be introduced from other areas, with strongly negative repercussions both on the economy and on food quality. Factory buildings, especially those of the dairy industry the area is famous for, and temporary post-earthquake settlements are the main new features of the present landscape (Fig. 16.1).

16.3 Spelt Fields at Monteleone di Spoleto (42° 39′ 02″ N; 12° 56′ 51″ E)

The spelt fields of Monteleone di Spoleto lie in the homonymous municipality in the province of Perugia. They extend over approximately 500 ha at altitudes ranging between 700 and 1,000 m a.s.l. The land is mostly privately owned and placed under partial landscape restrictions as per Law 431/85. The town of Monteleone di Spoleto lies on a 978 m tall hill along the SS 471 from Cascia to Leonessa, at the end of the Corno valley, northeast of Mount Terminillo. The geological substratum is partially constituted of recently formed detritus and conoids, and partially by red and white marly limestone, well stratified, with red and gray flint and intercalated strata and banks of subcrystalline white limestone. The area has a gentle morphology with low hills, but is surrounded by much higher rises.

The local landscape owes its significance to the historical persistence of the cultivation of spelt, which dates all the way back to the Roman period. The crop is grown in fields delimited by hedges, a distinctive landscape feature reflecting specific local forms of land management. The area is mainly mountainous (82 % of the total 61 sq km), with limited hilly zones (12 %) and very small agricultural areas (2 %). The small fields are the result of a relationship between human beings and the local environment that goes back thousands of years.

The area is part of the vast Valnerina district, which extends from Terni to the Sibillini mountains, and is crossed by the Nera river. Monteleone has always been a very important natural intersection of major routes from the north (Ponte, Norcia), the west (Spoleto), the south (Leonessa) and the east (Salaria, Valle del Tronto). An Etruscan *biga* was fortuitously discovered in the area. This ancient bronze and walnut carriage dating from the sixth century B.C., a jewel of the local archaeological heritage, is presently in the Metropolitan Museum of New York. It bears witness to the importance of Monteleone ever since protohistoric times, when it was known as *Brufa*. Spelt cultivation was spread by the Romans all over the Italian peninsula, since the crop is resistant to diseases and thrives even on arid soils. It is commonly assumed that its cultivation has gone on uninterrupted in the Monteleone area ever since antiquity. The importance of the crop in the area is also reflected in local religious ceremonies. On December 5, on the eve of the festival of the patron saint of Monteleone (Saint Nicholas of Bari), the parson assembles the population to share out among them a soup of blessed spelt. This ritual does not celebrate

Fig. 16.2 Monteleone di Spoleto

extraordinary wealth and abundance, or imply the sacrifice of something valuable to be shared out; rather, it is a symbol of the equality of members of the community. In the past, spelt was sown at the end of a stubble-field cycle, or even several, or else in regular alternation with pasture rests. Today, instead, the crop only has a marginal role in the fallow cycle. Sometimes it is sown after medicinal herbs. Chemical weeding is never employed in the fields: here spelt is grown according to the principles of biological agriculture. Depending on altitude, spelt is harvested between the second half of July and the first half of August. A decree of the Ministero delle Politiche Agricole, Alimentari e Forestali, issued on 21 May 2007 (G.U. n.124, 30 May 2007), has started a procedure for the granting of PDO (Protected Designation of Origin) recognition for Monteleone Spelt. In spite of the limited expanse of farmland, fruit trees such as almonds and walnuts are also grown in the area, as well as herbaceous crops and pulses (beans, chickpeas, broad beans, and chickling vetch; the latter are recognized by the Ministero delle Politiche Agricole, Alimentari e Forestali as Traditional Agroalimentary Products). There is also a significant production of black truffles, also listed among Traditional Agroalimentary Products. Because of its mountainous and hilly morphology, the area has always been especially suitable for animal husbandry, an activity in which part of the population is engaged.

The integrity of the spelt field landscape is still very good. Indeed, a slight decline some time ago was followed by a new increase. While a decade ago the surface involved was ca. 25–30 ha, today its extension is around 140 ha. All this in spite of the precipitous drop of the population employed in agriculture (the resident population has halved over the last 50 years). Grain is also still grown over ca. 250 ha. The fields are still separated just by hedges and trees, no fences. They lie in the valley below the town, while woods cover the slopes of the surrounding mountains. This makes the landscape homogeneous and especially pleasing to the sight. There has been a remarkable increase in forage species. Unfortunately, instead, mixed vineyards only survive in very few places, especially at higher altitudes, up to 1,000 m a.s.l. Animal husbandry is also recovering. There has been a significant increase in sheep and cattle, especially cows, whose milk is sold to the local dairy factories.

The main vulnerability of the Monteleone landscape is the high average age of farmers. Because of this, there is a real risk that the fields will eventually be abandoned. This actually already happened in the past when sharecropper agreements, which played such an important role in the construction of the *bel paesaggio* of the Umbrian countryside, came to an end and many young people were hence driven to look for jobs outside agriculture. In spite of the presence of eight biological farms and six being converted to biological methods, there is a strong risk that intensive agriculture will take over, radically changing the landscape. Abandonment, whose results are often clearly perceivable, has been partially compensated by the intensification of the growing of specialized crops (Fig. 16.2).

16.4 The Hills of Montefalco (42° 53′ 31″ N; 12° 39′ 12″ E)

The historical agricultural landscape of the hills of Montefalco extends over ca. 570 ha around the town of Montefalco in the province of Perugia. The land is mostly privately owned, with altitudes between 200 and 500 m a.s.l. The area is partially under landscape restrictions as per Laws 1497/39 and 431/85. It can be reached by taking the SS 75 from Perugia to Foligno, and from here the SP 443 to Bevagna, and then driving on into the municipality of Montefalco. The hills are mainly composed of sediments of Villafranchian origin dating from the Lower Pleistocene, sandy and clayish-sandy, sometimes with arenaceous conglomerates; these have largely been removed, and the slopes are hence very gentle.

The landscape owes its significance to the historical persistence of an elaborate agroforestal mosaic and high property fragmentation, which have characterized the area, although not always in the same forms, for several centuries. At the edges of woods, olive groves form regular but discontinuous plots near inhabited centers. On cultivated hill slopes one notices reforested patches of cherry trees. To the north, on the hills declining towards the Valle Umbra, in the Montefalco area, vineyards become more frequent, although they remain small. Here, too, the main cultivar is

Fig. 16.3 The olive orchards of the Montefalco landscape

the olive. The trees are still grown in scattered patterns. Rows of mulberry trees as well as other species on which vines are trained put a distinctive stamp on the landscape, remindful of the typical sharecropping landscapes with trees of Tuscany, Umbria and Marche. The growing of grapevine trained on trees dates back to the Roman period, a vestige of which in this area is the western stretch of the course of the Flaminia consular road. It is along this road that the first foothill settlements sprang up. Another stretch of the course of the Flaminia runs west of the Martani mountain range, marking the border between the territory of Spoleto and that of Todi, and connecting the two at the same time. The present-day Via del Monte follows the course of the ancient road. The spread of arboreal cultures, especially vineyards, has increased the importance of the local landscape, and is now also drawing tourists. In the local vineyards one of the most prized vintages in Italy is grown, the Sagrantino, which provides the background to the enograstronomic route of the Strada del Sagrantino. The area produces several wines, including the DOC (Controlled Origin Denomination) "Colli Martani" and the DOCG (Controlled and Guaranteed Origin Denomination) "Montefalco Sagrantino", both dry and sweet, as well as the PDO (Protected Designation of Origin) "Umbria" extra virgin oil.

The landscape of the hills of Montefalco is still quite intact, with its diverse mosaic of crops. Near hill settlements such as Montefalco itself, surrounded by historical olive groves, new specialized vineyard surfaces have been taking over increasingly extensive spaces on hill slopes, jeopardizing the quality of the landscape. Nevertheless, wine-growing in its more traditional forms, and especially olive-growing, still retain their importance. In the western hills, and not just within the selected area, there are a number of residences in panoramic positions on hill summits, including many in the municipalities of Castel Ritaldi and Montefalco (Palazzo Parenti, Casa San Quirico, Villa Angelici, Casina Belvedere, Villa Antonelli). These buildings constitute an important historical and cultural heritage.

The main threat to the local landscape, which is characterized by a great variety of its crops, is a trend towards simplification. This is occurring especially as a result of intensification, especially in vineyards, while the olive groves still retain their traditional tree layouts. From the 1950s onward, industrial and intensive cultivations have been gradually replacing the traditional treed landscape, forming a dense mosaic delineated by hedges and rows of trees. In this changed countryside, the signs of historical roads and Roman centuriation are no longer easily recognizable. The growth of wine production has led to the replacement of historical cultivation systems with highly mechanized ones; a problem the area shares with many other Italian wine-growing districts (Figs. 16.3, 16.4).

Land use 2008	Surface (ha)	Surface (%)
Urban area and courtyard	142.85	11.95
Shrubland	8.45	0.71
Mixed broad-leaved forest	81.26	6.80
Arboricolture	14.65	1.22
Unproductive	0.56	0.05
Fallow	36.49	3.05
Vegetable garden	6.52	0.55
Arable land	228.69	19.12
Arable land with tree	1.15	0.10
Arable land with olive tree	79.50	6.65
Arable land with vine	2.07	0.17
Arable land with vine and tree	1.38	0.12
Arable land with vine and olive tree	2.74	0.23
Olive grove	443.07	37.05
Vineyard	140.65	11.76
Wedded vine (vineyard with tree used as support)	0.10	0.01
Vine with tree	1.42	0.12
Vine with olive tree	4.27	0.36
Evaluating indices of landscape		
Number of land uses	18	
Number of patches	1427	
Total surface area (ha)	1195.81	
Average surface area of patches (ha)	0.84	
Average surface area of arable land patches (ha)	0.85	
Hill's diversity number	6.35	
Class of landscape integrity (I–VI)	Ш	

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Fig. 16.4 The landscape of Montefalco owes its significance to the historical persistence of a complex mosaic and a high property fragmentation. The olive orchards are the first category of land use (37 %), followed by arable land (19 %) and vineyards (12 %). The landscape mosaic is highly fragmented with a large number of patches having a small average size (0.85 ha). Overall, the historical landscape is quite intact, thanks to the persistence of mixed crops

16.5 Plateaus of Castelluccio di Norcia (42° 49′ 21″ N; 13° 12′ 54″ E)

This mainly privately owned pasture and field landscape extends over ca. 2,000 ha in the municipalities of Foligno and Nocera Umbra, in the province of Perugia, on the Tyrrhenian versant of the Sibillini Mountains at an altitude of 1,350 m a.s.l. It is partially included within protected zones: in the Monti Sibillini National Park, and in the SCI (Site of Community Importance) and SPA (Special Protection Area) Molti Sibillini. The area forms the watershed of the Umbrian-Marchigian Apennines, between the communes of Foligno and Serravalle di Chienti. It can be reached from Foligno by the Val di Chienti State Road (SS 77), over the Colfiorito pass and driving for another 9 km from Serravalle.

The Castelluccio basin, with its ca. 2,000 ha, is the most significant manifestation of karstification in the Monti Sibillini, and is second in Italy only to the Fucino basin. This area, originally a lake, is a *polje*, a depression resulting from tectonic sinking. It includes two swallow holes in the Piano Grande—the first of which, under Monte Castello, drains the waters of the Fosso dei Mèrgani—and a third in the Piano dei Pantani. The local small rounded hills called *humi* are also the result of modeling by water. On one of them is the settlement of Castelluccio (1,452 m).

The area owes its significance to its captivating scenery, made up of calcareous mountains with centuries-old fields and vast pastures. The fields are marked out from one end to the other of the plateaus. They are divided into quarti, cinquine and decine, a system dating back to land parceling carried out in 1346, which involved the whole area, except the Bandita and the fida, pasture zones which remained available for common use. Since its use was originally collective, the agrarian landscape appears as a charming system of open fields. There are no fences, hedges, walls, or any other landmark separating the plots. Another aspect that gives the landscape a distinctive quality is its lack of trees, except for some small patches along the mountainsides. Both the decline of commons from the sixteenth century onward and the commune of Castelluccio's sale of large land parcels after the Unity of Italy to pay back debts triggered a rush to privatization and appropriation. This, however, did not modify the open field system. The most distinctive crop in the area is the local lentil, which obtained PGI (Protected Geographical Indication) designation in 1999. The flowering (fiorita) of lentils in the whole Piano Grande, but especially in the area around Mèrgani, is a phenomenon of great beauty. The view of the plateau graced with bright and changing colors for a few weeks leaves a lasting impression on whoever had the fortune to enjoy it. The period of the *fiorita* varies slightly with climate fluctuations. In any case, it occurs between the last days of May and the end of June. The area shows different degrees of anthropization that are easily distinguishable. On the summit are meadows and pastures belonging to large landowners, or under common rights of use dating back to the Middle Ages, known as *comunanze agrarie*. In spite of the crisis of sheep and cattle farming, which has led to gradual depopulation of the area, many Castelluccio shepherds continue to practice transhumance. They no longer walk to their destinations, however, but use trailer trucks. Patches of beech woods still survive on the surrounding slopes. The

Fig. 16.5 Its denuded appearance is a valuable scenic feature of this landscape dating back to the fourteenth century

Land use 2008	Surface (ha)	Surface (%)
Urban area and courtyard	7.59	0.42
Beech forest	1.23	0.07
Fallow	0.84	0.05
Pasture	1062.95	58.81
Afforestation of Austrian pine	1.43	0.08
Arable land	733.44	40.58
Total	1807.48	100.00
Evaluating indices of landscape		
Number of land uses	6	
Number of patches	938	
Total surface area (ha)	1807.48	
Average surface area of patches (ha)	1.93	
Average surface area of arable landpatches (ha)	0.87	
Average surface area of pasture patches (ha)	12.08	
Hill's diversity number	2.04	
Class of landscape integrity (I–VI)	VI	

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Fig. 16.6 The Plateaus of Castelluccio di Norcia shows large areas of pasture (58.8 %) and arable land (40 %) once characterized by a collective use, but today largely private, although still retaining most of their historical landscape features. Due to its collective use origin, the agrarian landscape appears as a charming system of open fields, with no fences, hedges, tree rows stone walls, or any other landmark separating the plots. The agrarian mosaic is composed by a large number of small sized patches (0.87 ha), resulting from the historical land parceling, today almost all devoted to the production of lentils. Pastures show an average size of patches of about 12 ha. The historical landscape has a high level of integrity, characterized by the absence of woodlands, but the advance of the forest onto the denudated slopes threatens to drastically change its features. The possibility to preserve this landscape will also depend on the policy carried out of by the Sibillini Park, in which the area is included

beech groves of Val Cànatra are especially renowned. Still, woods are a secondary feature of the area.

The local landscape appears quite intact, retaining all of its denudated allure. An attempt to reforest the mountain slopes has been carried out. Here, as all over the Apennines, black pine was used. These trees usually do not blend well into the landscape, being non-autochthonous and planted in rigid geometric patterns. The agricultural production of the Castelluccio di Norcia plateaus was once much more diversified. Today lentil, a significant source of income thanks to its PGI designation, has largely replaced most traditional crops. Two toll roads, still bearing the local name, survive in the area: The *Dogana*, that crosses Pian Piccolo, and *Doganella*, which from the Prata (under the present Poggio di Croce) goes across the Pian Perduto to Palazzo Borghese, marking the border between Umbria and Marche.

The area derives its vulnerability from several causes. The restrictions imposed by the Monti Sibillini Park to safeguard the area's magnificent landscape inevitably leads to friction with the few farmers left, who complain of huge difficulties in continuing cultivation. Notably, the scarcity of roads and the Park-imposed prohibition to cross the fields with mechanical vehicles makes it impossible for many farmers to maintain a full regime of cultivation in the holdings at the edges of the plateaus, at the foot of the surrounding mountains. Furthermore, the advance of the forest onto the denudated slopes threatens to drastically change the landscape. The growth of tourism in the area has led to the imposing of restrictions of access to parts of the plateaus to limit flower picking and humus collecting (Figs. 16.5, 16.6).

16.6 The Poggi di Baschi (42° 40′ 33″ N; 12° 13′ 08″ E)

The polycultural landscape of the Poggi di Baschi lies in the municipalities of Baschi and Montecchio, in the province of Terni. It extends over ca. 1,500 ha in the area between the two communes and the sub-municipality of Civitella del Lago, at altitudes between 150 and 450 m a.s.l., on privately owned land. The area is included in the Parco Regionale del Fiume Tevere, the Valle del Tevere SPA (Special Protection Area), and the Valle Pasquarella SCI (Sites of Community Importance). It is also placed under landscape restrictions as per Laws 1497/39 and 431/85. The settlement of Baschi lies at 165 m a.s.l. on an arenaceous spur lapped by the Tiber, a few kilometers from Orvieto, along the SS 205 and A1 (Orvieto exit). The Poggi can be reached from Baschi by local roads leading to Montecchio and Civitella del Lago. They are prevalently formed of grayish or light bluish clays and sandy clays of Pliocenic origin, with a very small content of material of volcanic origin and weakly cohesive yellow sands alternating with flat pebbles. The Poggi hills are gentle, while the surrounding areas are either level or much craggier.

The Poggi are a significant fragment of the Umbrian *bel paesaggio*, formed over the century through the action of man. The landscape is dominated by hill agriculture, with an alternation of herbaceous fields, arables and maquis. The area is remarkable for the antiquity of its wine and olive-growing, as well as that of its small vegetable gardens, and for its old rural buildings, now largely converted into holiday

homes or holiday farmhouses. Sharecropper pacts have also put a clear stamp on the landscape. In fact, the *poggi* epitomize an agriculture characterized by property fragmentation and a long tradition of high-value crops. Animal husbandry is limited to self-consumption or the local market. Equally evident is the overall homogeneity of the *poggi* compared to the surrounding areas. There is a strong visual contrast between the level areas, mostly lying immediately above the Tiber, precipitous limestone cliffs of gullies such as that of Forello-once inaccessible, today crossed by the Todi-Baschi road-and the long and impervious river valleys crisscrossed by mule tracks. The *poggi* lie in a district known for its long history. It was first under the Etruscans, then the Romans (as attested by the Fragmentum Tudertinum, found in 1719 in the Molinaccio area) and the Goths. The archaeological remains of the port of Pagliano provide direct evidence of Roman influence. The present name of the town is believed to derive from the Latin *vasculum* (a diminutive of *vas*, basin). The town and its inhabitants were originally called "Vasculi", whence "Vaschi" and finally "Baschi". Human work always played an important role in determining the harmonious landscape of the poggi. Here the areas most suitable for plowing and mechanized agriculture, with their extensive fields of grain, sunflowers and forage grass, alternate with vineyards and olive groves, as well as mixed fruit orchards and vegetable gardens. The scarcity of woods is partially due to centuries of conversion to olive groves, a cultivation that blends in well with the area's natural landscape. The poggi produce an oil distinguished by the "Umbria" PDO (Protected Designation of Origin) denomination, remarkable for its quality rather than its quantity. Vines trained on trees have given way to specialized vineyards producing red wines mainly from Cabernet Sauvignon, Merlot, Pinot Nero and Sangiovese grapes. These wines obtained DOC (Controlled Origin Denomination) recognition in 1998 under the designation "Lago di Corbara". Around the poggi, the most widespread woods are of holm oak, especially in the gully area. Chestnut woods are found on lower slopes. The commune of Baschi, along with those of Avigliano Umbro and Montecchio, has recently promoted the founding of an association of chestnut producers, the "Associazione Produttori della Castagna della Comunità Montana Croce di Serra".

The integrity of the Poggi landscape remains high, partially thanks to some initiatives that have helped to preserve the continuity of agricultural activities. Due to the area's very high property fragmentation—the average farm size barely reaches 3.5 ha—and the area's function as a labor reserve for the industrial area of Terni-Narni, a lot of agricultural work here is performed on a part-time basis. Due to their smallness, however, the holdings do not need continuous maintenance, and this flexibility has allowed local farmers to keep up the cultivation of their high-yield crops even without a full-time commitment. Hence the widespread recourse to the so-called *mezze forze* (young people, women, the elderly), an essential resource for local rural families. Part-time olive farming, however, is the result of different socio-economic dynamics: in the first place, an ability to exploit secondary work forces thanks to the enduring of the traditional rural family business model; secondly, loyalty to family tradition.

As long as the part-time farming system survives, and as long as the older farmers' their attachment to the land overweighs other factors, the vulnerability of traditional

Fig. 16.6 The polycultural landscape of Poggi di Baschi

landscape of the Poggi di Baschi will probably remain low. When these conditions cease to obtain, however, the "abandonment landscape" will encroach—as it has already begun to do—on marginal, no longer cultivated land, and the traditional landscape will hence be lost. Finally, the conversion of old rural buildings to second homes or holiday farmhouses also poses a risk to the landscape, when this is done, as is often the case, without taking care to employ traditional architectural designs and materials. Traditional building types are thus destroyed to give way to new ones that clash with the harmony of the landscape (Fig. 16.6).

16.7 The Rock of Orvieto (42° 42′ 35″ N; 12° 06′ 34″ E)

The Rock of Orvieto is located in southern Umbria, in the Province of Terni, at the meeting point of the territories of three different regions: Umbria, Lazio and Toscana. The area under consideration here extends over ca. 500 ha at altitudes between 120 and 325 m a.s.l. The land is mostly privately owned, but under landscape restrictions as per Law 1497/39. Orvieto can be reached by leaving the A1 at the homonymous exit. The base of the Rock is constituted by Pliocenic clays. Between them and the above-lying tuff rock is the "Albornoz series", a thin (10–15 mm) multilayer, not visible everywhere. The Rock itself is composed of two main *facies*: tuff, which gives the local landscape a very distinctive character, and pozzolana.

The Orvieto Rock owes its significance to the historical persistence of a highquality agriculture which, combined with the place's distinctive morphology, results in a unique and aesthetically remarkable landscape. The local farming landscape

is dominated by vineyards yielding quality wine. Indeed, DOC (Controlled Origin Denomination) "Orvieto" wine is one of the best known Italian wines in the world. Alone, it accounts for three quarters of the whole DOC wine production of Umbria. DOC "Orvieto" includes "Orvieto Classico", from the area of the Rock itself, and "Orvieto", from the surrounding areas. There are also sizable olive groves producing the PDO (Protected Designation of Origin) "Umbria" oil. The area is especially significant for the harmonious way in which its agrarian landscape evolved, and also for how it managed to preserve its homogeneity in spite of its proximity to such an important urban center. In the past, sharecropping was the most suitable farming contract for the type of agriculture practiced in the area. Its widespread adoption helped to give the slopes of the Rock their homogeneous, if fragmented, appearance. These slopes, with the surrounding valleys and hills, have always been the main resource of Orvieto's almost exclusively agricultural economy. The town itself at the top of the Rock, in spite of its strong connections with agricultural life, cannot itself be regarded as part of the agrarian landscape. Its original raison d'être was primarily defensive. After the Romans devastated the splendid Etruscan town of Velzna (which they called Volsinii), it went through a period of decline. It stood far away from the main trading routes, and its lofty position had lost its usefulness in what were now times of peace and security. Orvieto reached the peak of its splendor in the Middle Ages, when palazzi and sacred buildings were erected, including the famous Cathedral in 1263. The cessation of sharecropping pacts resulted in a gradual increase of holding sizes, especially of those in the class between 5 and 25 ha. The harmonious blending of the town and farm areas is ensured by small wooded areas descending from the tuffaceous spur down toward the valley, also including plant species that are not originally from the area. There are no walls between estates, just bushes, hedges and trees. Small and middle-sized cultivated plots go up the slopes all the way to the town limits. Human work has played an evident role in maintaining the integrity of the landscape. There are some noticeable differences in land use, especially on the south side of the Rock. This area, called Cannicella, was and is favored by its southern exposure and easy accessibility. It is used exclusively for agriculture: prevalently vegetable gardens and orchards, interspersed with small vineyards and olive groves.

The landscape still retains its integrity thanks to the persistence of traditional farming. A quality wine production, while it ensures partial protection against abandonment, may also lead to an excessive intensification of farming, compromising a landscape's integrity. This, however, does not seem to have occurred on the Orvieto Rock. Here viticulture, in spite of its high yields, has kept the town from expanding onto farmland. Not requiring a constant work input, olive-growing has remained stable. Part-time workers are employed to gather the olives. Traditional fruit and vegetables are grown in some plots, especially the smaller ones.

As regards vulnerability, the main threat to the traditional landscape of the Orvieto Rock is erosion. This occurs more frequently along slopes that are no longer farmed. The sustaining of the cultivation of local crops is thus a fundamental prerequisite for soil preservation. Furthermore, the high average age of farmers, along with the lack of a policy for the support of part-time work in the olive groves, threatens to favor the spread of intensive agriculture, and hence cause drastic changes in the landscape.

Fig. 16.7 Geomorphological and settlement features contribute to the uniqueness of the landscape of the Rupe di Orvieto

Finally, the area's strong tourist vocation is encouraging the abandonment of rural homes with their land, many of which have been converted into second homes and holiday farmhouses (Fig. 16.7).

16.8 Stepped Olive Groves (42° 55′ 57″ N; 12° 45′ 16″ E)

The area between Spello and Spoleto epitomizes the stepped olive grove landscape found along the hilly range between Assisi and Spoleto. It extends over ca. 1,450 ha in the municipalities of Spello, Foligno, Trevi, Campello sul Clitunno and Spoleto, in the province of Perugia. The olive groves lie at altitudes between 200 and 600 m a.s.l. They are privately owned, but partly under landscape restrictions as per laws 1497/39 and 431/85. They can be reached by the SS 3, which runs from north to south along the base of the Assisi-Spoleto hill range. From the SS 3 many roads branch off towards the olive-covered hills. The Assisi-Spoleto range is part of the foothills of the Umbria-Marche Apennines. It extends from Mount Serano to Mount Subasio

(the "mountain of Assisi"). Its soils are formed of Rhenish-type ground-down supra-Cretaceous limestone, or azonal brown earth deriving from the alteration of marly limestone. These soils have a good structure and are quite fertile. There are also some very steep southward-looking carbonaceous versants with emerging rock.

The area owes its significance to the historical persistence of a crop typical for Umbria, which has strongly characterized the whole regional landscape for many centuries, partially thanks to human remodeling of the versants. The Assisi-Spoleto range is one of the areas in Umbria that has the strongest vocation for olive-growing. The landscape is dominated by a continuous strip of olive groves which has been constantly expanding upward from the valley bottom at the expense of the forest. The growing of olive trees on steep terrain is made possible by irregular terraces. On especially steep slopes, the usual contour terraces are replaced by *terrazzamenti* and *lunette*, made by building dry-stone walls from stones gathered on the spot and filling in the resulting space with earth. These terraces help to limit surface erosion. Since the layout of most of the olive groves is irregular, the landscape of the Spoleto-Assisi range remains diverse in spite of the dominance of a single crop. Regularly spaced groves, instead, usually stand on *lunette* with trees that are centuries old. Both layouts thus have especially significant landscape-historical characteristics. The earliest olive groves bear witness to an intense relationship between human beings and the countryside going all the way back to the Roman imperial period. Examples include the monumental olive grove of Sant'Emiliano a Bovara di Trevi and an olive grove at Paradiso di Pianciano (near Spoleto) As Desplanques commented, this range features "olive trees on terraces (...) testimonies of an ancient landscape". Another significant historical testimony are locally preserved vestiges of the course of the ancient Flaminia consular road. There is also an "olive-grove" trail that combines landscape and cultural-historical interest, as it was followed by Saint Francis to go from Assisi to Monteluco in 1218. Besides the olive groves and characteristic terracing, a variety of castles and villas dot the area. The first buildings erected outside Assisi were pigeon towers, which were used for an important production of pigeon (palombino) manure. These are still noticeable today because they rise above the roofs of rural buildings. Examples include a tower under the convent of San Martino, north of Trevi, a pigeon tower-house near the artificial lake of Pisciano, and the pigeon tower of the Natalucci family. Alongside the pigeon towers, other structures were built to process produce; notably, a number of mills. The millstones stood on the ground floor and were driven by animal power. A mill owned by the Chiacchierini family in Trevi, near the Collecchio springs, is still in use today. Other buildings commonly known as *chiuse*, used for the cultivation of the olive groves, were built along hill slopes. Among the still extant villas are Villa Vecchia, the socalled Le Loggie house, Villa Fabbri, the Monastery of S. Pietro, Villa Campello and Villa Spinelli. Today, the olive groves produce PDO (Protected Designation of Origin) "Umbria" extra-virgin oil with the geographic designation "Colli Assisi-Spoleto".

The stepped olive groves are in good condition today, both those with irregular layouts and the centuries-old trees growing on *lunette*, and continue to produce quality oil. Many of the old rural buildings in the area are still in good condition today, although originally there were a lot more.

Fig. 16.8 The olive orchards between Spoleto and Assisi show a great variety of tree-spacing patterns and tree husbandry methods

The olive groves' vulnerability is due to the threat of radical transformation as a result of conversion to industrial agriculture—which has already occurred in places and to the abandonment of marginal areas. Because of their low profitability, older olive groves are being abandoned in favor of regularly laid out ones, which are easier to mechanize, but this diminishes landscape value and aggravates hydrogeological problems. Many villas and houses within the *chiuse* have been abandoned since the end of World War II. Only in recent years has one witnessed a slow recovery of these buildings for residential and tourist purposes; their renovation, however, should conform to historical building designs (Fig. 16.8).

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