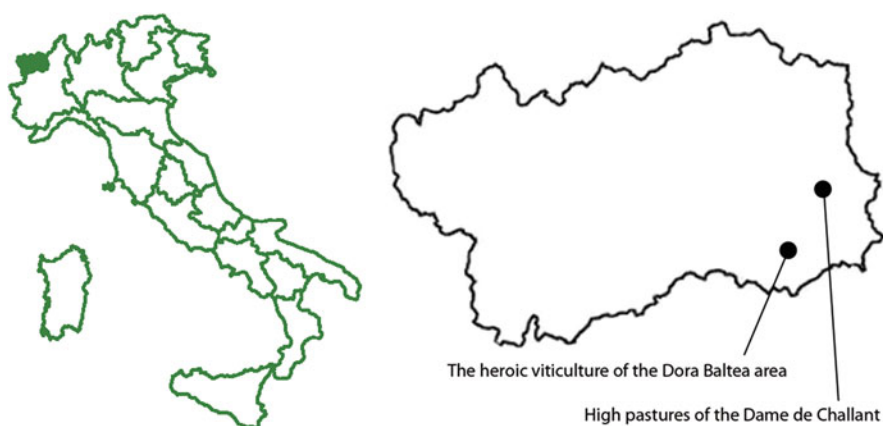


Chapter 6

Valle d'Aosta

Diego Moreno



6.1 Introduction

The altitude of the Valle D'Aosta Region varies between 500–1,000 m a.s.l., in the central valley, to 2,000–2,500 m a.s.l., in the case of the slopes and peaks of the lateral valleys. As a result of this particularly varied morphology, traditional agriculture has had to integrate resources located at different altitudes and adopt a system of seasonal migration. One must note however that the extent of cultivations is only 0.5 % of the SAU (Utilized Agricultural Surface as measured by ISTAT) and declining, with a 20 % fall limited to the 1990–2000 period. Meadows and pastures (21.8 %) and woods (32.5 %) are a much more significant presence in the landscape. Furthermore, the particularly irregular terrain associated with high altitudes determines an extreme fragmentation of cultivatable areas and a variety of microclimates that causes each

D. Moreno (✉)

Dipartimento di Storia Moderna e Contemporanea, Università di Genova, Genova, Italy
e-mail: diego.moreno@unige.it

small area to require an “individual” approach. In some cases, an isolated boulder or a cliff may reflect the sunlight and accumulate heat making it possible to establish a vineyard. In other areas, the steepness of south-facing slopes allows farmers to cultivate cereals up to 2,000 m a.s.l. Thus one cannot speak of “farms” in terms of a unitary area, but rather as business units distributed discontinuously over the land at various altitudes. Generally speaking, at lower altitudes corn, vegetables, fruit (especially apples) and forage are cultivated; in the lower slopes of the central valley, in the *adrèt* areas (the local name for south-facing slopes) vine is the main cultivation; at medium altitude (600–1,000 m a.s.l.), wheat is cultivated in the flatter and more sunlit areas, and chestnuts on the steeper slopes and especially on the ones facing north (*emvers*); at higher altitudes, forage is cultivated in the more irrigated areas and cereals in the drier and south-facing slopes, up to the limit of the trees; at high altitudes, between 2,500–2,800 m a.s.l., are the meadow-pastures. Woods are limited to north-facing slopes with a grade above 100 %, and integrate the economy of farms by providing wood for heating, cheese-production, building, and for vineyard props. The above organization, however, is not always applied, being based not only on the characteristics of the land, but also on those of each farm. More specifically, farm owners which find themselves without the land suitable for a particular type of cultivation, due to succession or other reason, may decide to use a generally unsuited piece of land or alternatively to “construct” an adequate piece of land, by terracing and filling-in a rocky or steep but otherwise suitable area, or by freeing from rocks an area subject to landslides (in the process erecting *meurdzie*—small walls of rocks at the border of properties, which characteristically segment the landscape), or by clearing out the woods. In general the land is subject to many interventions aimed at adapting it to agriculture, such as dry-stone walls for terraced vineyards, stables with their fertilization and irrigation systems, irrigation conducts, draining ditches and other works aimed at protecting the land from torrents, which are prone to sudden and violent floods.

The tendency of each farm to integrate productions at different altitudes meant the adoption of a seasonal migratory system, with the presence of multiple buildings in the various properties, used as residence, stable, magazine of varying dimensions depending on the extension and productivity of the land. For example, to better exploit available forage, in spring family livestock (usually 1–4 heads) were kept at medium altitude in small stables (locally known as *mayen*). These stables were located in small clearings cleared out in the less steep areas in the middle of the woods. This left the fields in the valley free for a first mowing towards the end of May (a second mowing was done in the summer), while the animals were fed instead with the grass of the woods. Towards the end of June, the animals were herded and taken to the higher pastures, making possible the mowing of the forage areas of medium-high mountain, in which hay-time happens, depending on the altitude and year, in the period from the end of June to the end of July. A cow, or more often a goat, was often kept with the family to provide milk and be used as working animal. These migratory movements did not always go from the foot to the summit of the slopes of the same valley, but often went from one valley to a nearby one, following existing tracks rather than the more direct routes.

On account of this irregular morphology and peculiar farm organization, it is difficult to specify the borders of a clearly defined “agrarian landscape.” One could try to describe the land in terms of small-scale distribution of types of landscape (for example, the landscape of viticulture, of cereals, of chestnuts), however, because of the presence of microclimates a cartography based on this approach produced a series of small isolated areas located a few kilometers from one another, most of them less than 10 ha in size. We have therefore chosen to describe a few types of landscape based on the altitude more than on farm organization.

6.2 High-Mountain Pastures at Dame de Challant (45° 44' 19" N; 7° 47' 30" E)

This pasture area extends for about 3,000 ha, in the municipalities of Brusson, Gressoney-Saint-Jean, Challand-Saint-Anselme, Challand-Saint-Victor, Issime and Gaby. The area consists mainly of private properties managed by farmer's unions, and is partly protected under landscape law 431/85. Besides pastures, it includes also rocky areas and mountain peaks, at altitudes varying between 1,500 and 2,800 m a.s.l. Regional route SR 44 goes through the towns of Issime, Gaby and Gressoney-Saint-Jean, while SR 45 (also named state road SS 506) goes through Challand-Saint-Victor, Challand-Saint-Anselme and Brusson. Both roads can be reached from toll-road A5, exiting at Pont-Saint-Martin and taking SS 45 or at Ver-rès and taking SS 44. The pastures can be reached taking municipal roads going from Brusson to the sub-municipality of Estoul, or from Gressoney-Saint-Jean to the sub-municipality of Weissmatten, or through the small roads leading up to the mountains from the town centers. The area is characterized by a schist ridge that come down from the morains of Mount Rosa, separating the two valleys and then expanding in a high-altitude area, undulated and abounding in small lakes at the foot of the massif of the Dame de Challant. The geological substratum consists largely of gneiss mica schist, sometimes with inclusions of sodium-pyroxene.

The significance of the area lies in the persistence of an historical landscape resulting from high-altitude pasturing, an activity that since antiquity had been the main resource of the Valle d'Aosta, and of almost all high-mountain areas, since the altitude and the brief warm season are a major obstacle to any type of cultivation. At particularly high altitudes, usually around 1,800–2,000 m a.s.l., where not even rye would grow, all the land could offer was grass. The few heads of livestock owned by each family in the winter were kept in stables and fed with hay, while in the half-seasons they were transferred to huts at medium altitudes, in order to allow grass to grow in mowable areas and forage to be stocked for the winter. These small pastures called *mayèn* were mostly located in clearings obtained from the deforestation of the flatter areas, a practice that has created a peculiar type of forest, which seen from above presents a number of “holes” of lighter green. During the summer, livestock was rented to shepherds, who often also brought their own animals from the plains. Shepherds gathered the livestock into large herds and took

it to the high pastures. The use of the area for pastures is documented by many inventories, notary wills and sale acts from thirteenth to the twentieth century, by documents concerning controversies and court-cases on the use and ownership of the land, and infeudation acts describing the lands and their borders. The documents attest the existence of transhumance from the nearby areas of Canavese (cattle) and Biellese (sheep) since the thirteenth century, according to a consolidated tradition of commercial exchanges between mountains and plains that continues to the present day. In the areas that lend themselves to pasturing in the course of time a number of buildings in stone (the only material available on site) have been erected. They generally have two floors, the lower one being used as stable and the upper one as lodging for the herdsmen. In the areas vulnerable to avalanches, the buildings have instead only one floor, with the slope side interred in the slope in order to offer the least resistance against the mass of snow. These seasonal abodes are usually set on the more elevated areas of a small valley or a slope, in order to be able to use stable sewage to fertilize the pastures through a series of small conducts. Attached to the stable or separated from it, there are small addition buildings used as magazines or to cheese production, and nearby there is always a drinking trough and a manure pit. Many of the mountain pastures are still used and various types of cheese are produced, including the Toma di Gressoney, which is on the list of the Slow Food association.

The landscape largely retains in integrity. A few country roads have been built, most of them dirt roads, and a few large modern stables more suited to the present needs. Many areas cannot be accessed by road, which has helped them retain intact their original high-mountain landscape, also thanks to the fact that many of the larger pastures are still being used and that buildings have been rebuilt subject landscape plan regulations. Though in many cases the reconstructed buildings are much larger than the traditional ones, the vastness of the landscape minimizes their visual impact, limiting it to the immediately surrounding area, and the adoption of facings in stone or rough cement assimilates the buildings to the color of the many stone quarries of the area. Only the more remote and smaller pastures have been abandoned in the last 30 years. In the pastures there are many ponds and small lakes and the flora is very diversified. In a gorge in the municipality of Issime (Vallone di San Grato), which has been proposed as protected area, there are many typical houses (*stadel*), one of which is made entirely of wood, being the only known example of this architecture in the Valle d'Aosta Region, and possibly the first example of Walser culture in the valley of Gressoney.

The greatest threat against the integrity of high-altitude pastures comes from the expansion of ski-slopes. One might add however that the use of alien forms and materials in the ski-slopes has resulted in a juxtaposition of sign codes rather than creating an actual visual interference. The ski-slopes are located in two sub-areas and they have a limited impact, also given that they are used in the winter, whereas pastures are used in the summer when the landscape regains its traditional aspect (Fig. 6.1).



Fig. 6.1 The conservation of traditional buildings and pastures enhances the value of the historical alpine landscape near Brusson-Fenilliaz

6.3 The “Heroic Viticulture” of the Dora Baltea Area (45° 36' 24" N; 7° 45' 51" E)

The area corresponds to the vineyards on the south-looking slopes on the left and right bank of the Dora Baltea. It extends for about 80 ha, privately owned, located in the municipalities of Pont Sant Martin, Donnas, Bard. The area can be accessed taking the A6 toll-road, exiting at Pont San Martin, taking state road SS 26, which goes through the entire area, and finally taking the rural road that goes through the vineyards between Donnas and Pont Saint Martin. The altitude varies between 350 and 600 m a.s.l. The geological substratum is the alluvial plain of the river Dora in the more level area, whereas the area above the fortress of Bard has a substratum of eclogite micaschists of the Sesia-Lanzo area, with evident traces of glacial morphologies (streaks, sheepback rock, “marmitte dei giganti”, glacial erratic rocks in the valley). Above the villages of Donnas and Pont Saint-Martin the slopes are characterized instead by glacial and detrital deposits, which in the lower areas had created landslide deposits, which were terraced to plant vineyards.

The significance of the area lies in its beauty and in the persistence of the historical features of mountain viticulture. The presence of viticulture is documented by an abundance of inventories and notary acts concerning wills and sales, dating from the thirteenth to the twentieth century, as well as infeudation acts describing plots of land and the type of cultivations. Sixteenth century documents attest the presence of

viticulture and the exportation of wine and grappa towards the area of Vallese. There are no specific visual documents, rather viticulture appears casually and in a non-detailed fashion as a background to images of the fortress of Bard, especially in sketches by nineteenth-century English travelers. Wine grapes were never an isolated cultivation, rather they were part of a polycultural organization, which integrated grapes with cereals, fodder, and other small fruit and vegetable cultivations for personal consumption. In the Valle d'Aosta region, the scarcity of farmland, natural dangers, the steepness of the land, a problematic climate and the consequently forced seasonality of agriculture led to a type of farming that integrated various productions according to the altitude. Each farm was actually made up of different properties located at different altitudes. This made it possible to concentrate on different crops, depending on the season. To avoid freezing in winter, vineyards are located close to cliffs or rocky outcrops, which during the day accumulate the heat of the sun and give it back during the night. In some cases, in the presence of large boulders, the trellises are laid directly on the rocks in order to make the most of their heat.

Notwithstanding the presence of urbanized areas, the traditional landscape has largely maintained its integrity. While vineyards are subdivided into very small holdings, on a visual level they appear as a continuous landscape, which shows the incredible job performed throughout the centuries to farm lands that in themselves were ill-suited to agriculture. Hence, the nickname of "heroic viticulture". The characteristics of the area made it necessary to build stairways and catch water drains along the lines of maximum steepness, contributing to the integrated and systematic look of the entire slope, up to the altitude where vineyards border—nowadays in a more uncertain and partial fashion due to uncultivated patches of land—with the chestnut coppice woods, which once provided the timber for the traditional pergolas (*topie*). From this vineyard is produced the high quality wine "Valle d'Aosta subarea Donnas" DOC (Controlled Origin Denomination). In the area one finds also small huts for farm tools built into the supporting walls and some tiny stone service buildings. But the most typical visual elements are the small conical truncated columns in plastered stone, surmounted by stone disks. On the top of these columns the pergola poles are laid. The whole lends to the slopes the appearance of a construction of sorts, especially in wintertime when the vines are bare. For this reason, the area has a great scenic impact when seen from the valley extending along the river Dora. The significance of the landscape is fully appreciated by the local population, who perceive it as part of their identity, and its scenic value is stressed by the Landscape Territorial Plan of the region and by the municipal plan. In the larger areas, careful attention has been given to the preservation of the original features of the landscape even when improving the land (service road halfway up the hill, with stone wall and partial dissembling of the height of the walls—vertical single track carrel system—preservation of the traditional system of stairways and catch water drains), so that the traditional image of the land can be said to be still correctly preserved.

The vulnerability of the area can be summarized as following. At the beginning of the twentieth century, the damage caused by phylloxera caused a decrease in vineyard surface throughout the valley. Much vineyard land has been abandoned and colonized by woods. Since property was highly fragmented, being part of an



Fig. 6.2 Terraced vineyards near Donnas, Dora Baltea river

agriculture oriented towards family support, the landscape has been subject to interruptions that threaten its integrity altering the balance of an environment which is definitely marked by human presence and can continue to exist only through continuous maintenance. Viticulture has been on the rise in the last 20 years, this however has been accompanied by the abandoning of traditional farming methods in favor of the “rittocchino” mechanized method, in which the rows of vines follow the inclination of the land. The area in question, however, has maintained its traditional features, notwithstanding the fact that above Donnas, after WWII, the new town was built upon vineyard land. In the valley instead, there have recently been two disastrous inundations (1993 and 2000), which left a 20–150 cm thick layer of sand in the entire plain. Agricultural renovation has therefore also taken the form of unification of land plots and a change of cultivations which, combined with the dominant forage monoculture, have determined a marked decline of the typical fragmented layout of the land. The vegetation that has developed in the abandoned plots has no major impact on the scenery, although it would be best if the plots were again cultivated (Fig. 6.2).

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