Managing common land in unequal societies

The case of the Lombard Alps in the eighteenth century

Research on the rural commons in Italy

The great theme that Carlo Cattaneo referred to as 'another form of ownership, another system of legislation and social order, which has come down to us unnoticed through the centuries' is definitely back in the limelight. For one thing because the serious crisis we are experiencing has led us to question a pattern of development in which there are more shipwrecks than navigators,² and therefore one of its essential foundations – which is private property. Regarding this it is sufficient to point out how widely challenged the idea of a linear and dichotomizing process is, which, after the European revolutions of the eighteenth century, was to become the transition from the joint property rights and corporate or domestic work of the Ancien Régime to fully private ownership and wage labour, both considered as cornerstones of modern capitalism.³ For another thing, our interest in the commons derives from the enduring importance of 'another form of ownership'. In Italy in 1947 collective properties occupied approximately three million hectares, mainly woodland and pastures concentrated principally in mountain areas (to which must be added collective rights on fishing in places such as the lagoons of Marano and Grado in Friuli and Orbetello in Tuscany). And even today, according to the last agricultural census, the surface of collectively used agricultural land comprises more than a million hectares and is worth almost nine per cent of the total exploited agricultural surface.4

These areas and collective rights remain a significant reality and as such have attracted the attention of scholars from different disciplines, where in the course of time we have passed from Garrett Hardin's *The tragedy of the commons* to the radically different approach of Elinor Ostrom, who received the Nobel Prize in 2009 for her studies on collective resources;⁵ of jurists, whose studies have continuously covered the period from the Middle Ages to the present day; of legal historians – and suffice it to recall here the fundamental contributions of Paolo Grossi.⁶ Compared to economists, anthropologists, ecologists and jurists, Italian historians have stayed out of the line of fire for a long time dedicating their attention either to the frequently mythicized moment of the birth of collective rights, or to the time when they were abolished – seen as positive, on the one hand, by those who considered the affirmation of fully private ownership a pre-requisite for development, and negative by those who believed, on the other hand, that it made life worse for the majority of the rural population.⁷

Whatever happened between these two moments, and therefore the consolidation, transformation and, above all, the management of collective resources, has generally been left in the

background. Only recently, and thanks to the enthusiasm generated by international debate, especially the publication of the momentous *The management of common land in North West Europe* (2002), we have seen works on this subject, such as the important edition by Guido Alfani and Riccardo Rao, which reproduces the papers of a congress organised, not by chance, at Nonantola, a place where agrarian participation is of paramount importance, even today.⁸

Before dealing with the subject matter of this paper, I should be more precise on one or two things, starting from the fact that the focus is not on 'public' but rather on 'communal' tenure, that is to say used together with a number of others whom it is difficult or costly to exclude, and in particular on the so-called traditional communal resources, which are possessed and/or enjoyed by a specific community according to customary law (common arable, pastures, woods, fishing areas). In the case of such areas which could easily be overexploited and from which it is difficult to exclude users, the main problem is their management, which must prevent the 'free riding' of individuals on the community's resources, especially in times of demographic pressure. On the community is resources, especially in times of demographic pressure.

Communal tenure often comes in the form of collective property, distinguishable by the sharing of rights and duties concerning a specific resource among a number of users. Usually this resource is not allowed to be sold or appropriated and its use is not designated for financial gain. The property in question may be 'closed', and so to be used only by the descendants of the original inhabitants, or 'open', in which case it could be used by and be available to all inhabitants of a certain area. ¹¹ It should also be pointed out that a community can also manage and make use of resources which are not collectively owned. ¹²

Of particular interest to economic history is exactly how these resources were managed, a vast and hitherto barely explored area of research, which raises fundamental questions such as why some societies use forms of collective ownership to exploit their resources and others do not. The scope of this paper, however, is more restricted and my aim is not to reconstruct an endless taxonomy of the myriad forms of collective rights and property in existence, ¹³ but rather to consider the economic assets of the communal tenure of the Alps, especially in Lombardy, and the dynamics it engendered.

The case study of Lombardy

Common land in the Alpine economy

The exploitation of their superb collective resources (woods, meadows and pasture) is common to the most important mountain ranges in Europe. While the lower levels were predominantly cultivated with high labour intensity, in an attempt to produce goods essential to subsistence, it was the woods and pastures which became more important at higher altitudes.

An example of this is the development of the economy of upland pasture (*alpeggi*) in the Alps, where, even today, cattle and sheep are often taken to graze at altitudes above 2,000 metres during the summer months. Since this method used up space but saved work, with a favourable relation between costs and gains, it soon created an economy characterised by a great disparity between short-term intensity, clearly visible in the exploitation of the *alpeggi*, and the intensive work carried out at the lower levels where people lived.¹⁴

There are also many similarities among mountain localities regarding another resource system – the woodlands. Obviously in an 'age of wood' – as it was before industrialisation – the availability of large quantities of wood which could be capitalised on represented a significant source of income for mountain communities. What might have changed were the characteristics of demand. The greatest demand for wood generally came from the cities of the plains, and Lombardy was no exception since Milan alone consumed over 250,000 tons per year. In Lombardy, though, in addition to the huge urban demand for wood, there was another source of demand generated by the massive development of iron metallurgy in the Alpine areas. At the beginning of the nineteenth century, the blast furnaces in the valleys of Bergamo and Brescia reached an annual productive capacity of 10,000 tons of cast iron per year, equivalent to the consumption of at least double that amount of charcoal, which took about 100,000 tons of wood to produce – almost half of Milan's consumption. In the consumption of the produce – almost half of Milan's consumption.

The collective estates of the Alpine areas were therefore very important from an economic point of view. These landed properties were not closed but open economies, able to export raw materials, finished products and manpower to the plains and the big cities, thus obtaining the resources they needed to buy cereals which they lacked chronically. Undoubtedly weather conditions were tougher than on the plain, especially relating to the predominant economic activity, which was agriculture, but that did not necessarily mean that the farm workers were worse off. If anything the contrary is true, because although the mountain farmers cultivated land harder than lowland farmers, they were usually the owners of that land and moreover could count on the contributions from the land belonging to their community and their right to use it – things which, along with the peasant smallholdings, were quickly disappearing on the fertile plains and hilly regions.

A good example of this is the region of Brescia (the Bresciano) where, already at the beginning of the seventeenth century, more than half of the communities (97 out of 163) on the relatively flat part of the province had no land owned collectively or by peasant farmers. This was the case in the more productive parts of the plain, while the 16 communities holding more collectively than individually owned land were situated in the less favourable areas, from an agricultural point of view. An example of this situation was the arid flats of Montichiari, where still over 2,000 hectares of uncultivated common land existed in the mid-eighteenth century. It was very different in the mountainous part of the province where, still in the first decades of the nineteenth century, most of the fields, meadows and woods belonged to the community and covered extremely large areas, since, as shown on the provisional estimate of 1838, arable land and permanent fields accounted for less than 15 per cent of the registered land. Is

Unequal societies: inclusion and exclusion

To place communal land and its customary rights of usage back into its own economic dimension it is necessary to establish the way it was administered, the uses to which it was put and the results sought by its users. Regarding this, the literature has generally pointed out that, particularly in the mountain areas, there were two essential objectives: one which could be defined as 'ecological' guardianship, particularly evident in the case of the woodland, ¹⁹ the

other of a decidedly more economic nature, inasmuch as being able to make use of this land was essential to supplement the family income.²⁰ Nevertheless we must avoid simplifications such as the assumption that in the matter of communal property we are dealing with egalitarian communities. This is a veritable topos, particularly for the Alps, to which the myth of a mountainous, republican Switzerland, asserted in the Enlightenment, has greatly contributed.²¹ In reality the situation was very different because most of the mountain communities lacked both institutional and economic symmetry. Once more the Bresciano furnishes an example. There, the communities were torn apart by an age-old conflict between 'original' and 'non-original' inhabitants, particularly in the mountains, where the concept of 'local' was much more restricted.²² Indeed in 1764, the vast majority of the families in the valleys around Brescia were the original settlers, 10,026 as opposed to 3,544 non-originals, but this was not the case on the plains, where there were only 15,386, as against 21,691.²³ The main reason for the numerous conflicts caused by this division was the exclusion of the non-originals from the benefits deriving from the communal assets. Not surprisingly, here as elsewhere, we see a huge increase in the steps taken to reaffirm the rights of the 'insiders' (vicini) and exclude the 'outsiders' (forestieri) from access to woods, fields and pastures. This exacerbating conflict was accompanied by the fact - of which the original inhabitants were fully aware - that what was at stake was not simply the possibility of using the assets in question. Indeed, these resources also had important economic implications, because they could be rented out and the proceeds could be used to reduce community expenditure or be distributed among the inhabitants.²⁴

Inequalities in wealth and income

To this notable difference between original and non-original inhabitants, itself enough to demolish the myth of an egalitarian mountain society, an even more important one was added: the huge disparity in wealth and income among the members of the community, which seems to have increased after the demographic gaps left by the plague in the sixteenth century. An example of this is the case of Malegno, in the Camonica valley, where in 1660 the 119 families on the census drew an estimated income of 11,168 lire from their cultivated land, but the first five accounted for 27 per cent of this, while the 83 poorest families earned less than 15 per cent.25 The details which appear on the estimate that followed in 1735 to 1737 allow us to make further calculations, which are in no way affected by the fact that the findings did not attribute a value to dwellings, industrial sites, chestnut groves and those parts of the fields, whose value is not given in estimated lire but in weights of hay. The first thing we see is the considerable disproportion in wealth among the 89 original inhabitants on the census, since the richest of them, Pietro Antonio Pedercini, had assets to the value of 15,500 lire, that is to say 15 per cent of the total of everybody appearing on the census, while 48 individuals - more than half - had assets of less than 400 lire, making a total of 6,317 lire.²⁶ If we then consider the four members of the Pedercini family, the total exceeds 30,000 lire – almost a third of the total estimate. The enormous disparity becomes very clear when we divide the population into tenths from the richest to the poorest, since the richest 30 per cent account for 86 per cent and the poorest 30 per cent for hardly more than 1 per cent, while the 40 per cent in the middle reach less than 13 per cent (see Table 1).

Table 1: Estimated original inhabitants of Malegno divided into tenths

Tenth	Estimated lire	Percentage
First	59,497	59.9
Second	16,066	16.3
Third	9,081	9.9
Fourth/Fifth/Seventh	12,629	12.7
Eight	836	0.8
Ninth	382	0.4
Tenth	0	0.0
Total	99,211	100.0

Source: Bonettini family archive, Esine, Estimo novo principiato anno 1735 in settembre, preseguito anno 1736, terminato anno 1737 nel commune di Mallegno.

Even more apparent is the difference between original and non-original inhabitants, since the total estimated wealth of the 62 'resident foreigners' (i. e. people from other areas) amounted to just one fifth of that of the originals – a per capita figure of 318 lire compared with 1,114 lire. This disparity is conspicuous not only at the top of the table, where we can see that the richest resident foreigner, Giovanni Gaioni, had an estimated wealth of 2,904 lire – less than a fifth of Pietro Antonio Pedercini's patrimony – but also particularly so at the lowest level of the economic hierarchy. So, among the originals only eleven per cent (10 out of 89) were indigent poor, while between the resident foreigners the percentage rises to 42 per cent (26 out of 62). Moreover even among the non-originals, there was a notable disproportion in income and wealth, since the first two tenths held 81.5 per cent of the total wealth (the figure was 76 per cent in the case of the originals).

In fact the disparity between the originals and non-originals was even greater because the former, besides benefitting from the fact that assets such as livestock were not estimated, carried considerable weight in the administration and use of the substantial resources of local corporations. Indeed the local bodies of Malegno, excluding the town council, had declared properties to the value of 24,394 lire, the most important of which, the Pio Luogo Hospital for foundlings, had a patrimony amounting to 14,395 lire – comparable to that of Pietro Antonio Pedercini.

Economic inequality within the community was not restricted to Malegno, however, as is clearly demonstrated by the estimates relating to the assets of 'outsiders who are not residents' (*forestieri non abitanti*), which included almost all the most important families in the surrounding communities, owners of profitable pieces of land such as vineyards and so-called *campi opulati* (high-yielding fields). This concerned no fewer than 100 people (over half of whom, 54, lived in the neighbouring communities of Breno and Cividate Camuno), who had declared assets of 36,261 lire – 362 lire per head – higher than the resident *forestieri*. It is surely not by chance that the wealthiest of them, Vitale Romelli from Cividate Camuno, had assets worth almost 5,000 lire, making him the eighth biggest landowner in the community (see Table 2).

Table 2: The most important landowners in Malegno

Name	Status	Estimation (lire)
Pedercini, Pietro A.	Original inhabitant	15,500
Pio Luogo Hospital for foundlings	Local body	14,395
Bonettini, Pietro	Original inhabitant	8,885
Furloni, Francesco	Original inhabitant	6,718
Regazzi, Eredi	Original inhabitant	6,049
Pedercini, Michele	Original inhabitant	5,442
Pedercini, Giacomo	Original inhabitant	5,253
Romelli, Vitale	Non-resident	4,970
Pedercini-Marietti, Pietro	Original inhabitant	4,373
Pio luogo della Misericordia	Local body	4,077
Pisani, Giovanni Battista	Original inhabitant	4,085
Bornina, Eredi	Original inhabitant	3,216
Andreotti Chaplaincy	Local body	2,973

Source: Bonettini family archive, Esine, Estimo novo principiato anno 1735 in settembre, preseguito anno 1736, terminato anno 1737 nel commune di Mallegno.

It is significant that these first thirteen subjects owned half of the entire estimated wealth of Malegno – amounting to 179,588 lire – while representing just five per cent of the 262 listed persons. Clearly, if the communities, where communal assets and civic rights of usage were predominant, were asymmetrical and extremely polarised, this would condition their effective use, with the risk that they were communal only in theory and not in fact.

The managing of common land

To illustrate how such an uneven social and institutional configuration might have affected the administration of common lands, I will concentrate on the vast areas of forest and pasture at high altitudes, which were by far the greatest of the communal assets. The first thing to point out about pasture is that, although it was held in common, not everybody benefited from it equally but only the villagers who owned cattle, and in particular those who had a significant number of animals. This was obviously the case in the communities in which cattle breeding was the principal commercial activity. In Ponte di Legno, high up in the Camonica valley, in the early 1760s there were 347 families and no fewer than 6,071 sheep – an average of 18 sheep per family. But in 1786, when Omobono Zuelli, one of the most prominent shepherds, took his flock and those of five other owners to the summer pastures of Fraele, he found himself in charge of over 1,200 sheep.²⁷

In Lombardy, the raising of cattle and sheep based on Alpine transhumance, which began in the seventeenth century and became increasingly important in the following century, put many communities at a disadvantage. On the one hand the prime movers in this extremely profitable activity were forestieri; on the other hand the choice of the villages to rent out their pastures for an easy and lucrative source of income often meant that local people could not use them. A good example is the State of Milan. Originally, each member of the community had received a share of the mountain according to the number of his animals or according to the way in which the land was divided up. But as a result of the spread of bovine transhumance organised and carried out by the bergamini (breeders involved in transhumance) there was a radical change to a situation in which the mountains were rented out by the commune. The contract was agreed among the owners of the cattle in transhumance.²⁸ So the practice of renting out pastures to private individuals or consortiums of cattle breeders in the summer months obviously impinged on collective rights, although with variations from one place to another. However, the fact that these rights were not used as intended, and I believe that this has not been pointed out before, led in the end to a more equitable outcome, if compared with when the pastures were used solely by members of the community. In this case, in effect, the revenue from the rents was enjoyed by all the original inhabitants, including those who did not own any cattle and would therefore not have benefitted from the use of the pastures.

Moving on to look at how the woods belonging to a community were exploited, we immediately see some notable differences with respect to what has been said about pasture. In the first place their use favoured all those in the community who had authorised access to collective resources, therefore even the poorest, guaranteeing firewood and food (think of the use of chestnuts in the Apennine area), grazing rights for small animals and manure for fertilizing. Secondly the conservation and care of woodland was and still is fundamental in the prevention of hydro-geological problems, ²⁹ so excessive exploitation had much graver consequences than in the case of the pastures.

From the middle of the eighteenth century onward, the deforestation in the mountains of Lombardy (but not only there) intensified, due to the huge increase in demand for wood, both in the mountains and on the plain, which followed the rise in population and improved roads, which meant a reduction in transport costs. It is difficult to apportion the blame for the losses suffered by the mountain woodlands because since their extent almost everywhere exceeded local needs, the wood was also used to meet the needs of other markets, either near or far.

So although the mountain dwellers are held by many to be responsible for deforestation, we must not overlook the fact that it was the pressure of the demand for wood from the outside world and particularly from the neighbouring cities, which damaged the woods. However, more than attributing responsibility I am interested in evaluating the effect of the spread of deforestation on mountain communities. It must first be pointed out how seriously the ecological protection afforded by woodland was compromised, especially when the woods were sold to meet the increase in local financial needs. The people who bought them usually had a short-term policy and felled the trees indiscriminately in order to get a quick return from the capital invested in the purchase. As a result, portions of cultivated land or pastures, sometimes quite large areas, were lost because of landslides or subsidence.³⁰

Considering the fundamental function of the woodland, which was to supplement the income and guarantee the survival of the mountain families, it must be pointed out that such sales did irreparable damage because payment was made only once (*una tantum*) and in the middle and long term the money was not sufficient to compensate for the loss of the 'fruits' they garnered from the forest, particularly for the poorest people. Even when the woods were

not sold but rented out there were similar problems, because the tenant over-exploited the resource, leaving little opportunity for the exercise of customary rights.

Tree-felling and/or the loss of control over the woods had serious consequences for the communities, therefore, because they upset the logic which governed the use and management of communal assets, as can be seen clearly in the case of the forest resources. In effect, the objective was not to get the best possible yield from the resources available, but rather to work in the best interests of the community and guarantee its survival. So the inhabitants deliberately chose not to exploit the communal resources to the fullest extent, thus allowing them to dispose of them as they wished.

Common land in mountain economies: land market and prices

However, from a historical-economic perspective, when evaluating the role played by communal resources they cannot be considered separately, without taking into account the way in which they interacted with the peasant small-holdings which were so prevalent in the mountain areas. This fact has led us to place the accent on the complementary nature of the relationship between privately-owned and communal land, considered essential for the economic balance of the community, and also to recognise the economic rationality of using different types of soil in different ways. It was Robert McC. Netting who maintained that the system of property rights in mountain communities is usually 'directly related to the manner in which resources are exploited, the competition for their use, and the nature of the products produced'. Therefore, the extensive use of communal land (woods and/or pasture) correlated with the peasants' intensive exploitation of small plots of land for the production of foodstuffs. ³¹

Such close interaction, however, prompts us to extend the analysis beyond the mere manner of management and use of the different types of land, and to assess how much the presence of woods and pastures might have impinged upon access to the greatest asset of all: cultivable soil. And it is opportune that we do so because the market value of land in the mountain areas was often higher than on the plain, a paradox that led contemporaries to observe that such high prices were totally 'out of proportion to the income which can be generated using the usual systems of cultivation'. Paolo Tedeschi has shown, for example, that the average prices considered for arable land were 1,610 lire per hectare in the west-central plain of the Bresciano, 1,230 in the eastern plain and 2,180 in the mountain areas. The fact that land in the mountains was generally held to yield less than that on the plains accounts for people's surprise at such high prices.

But this was not always the case. If we look at the cultivation of maize, for example, it becomes apparent that where the fields were not irrigated, the best parts of the Brescian plain produced 16.4 hectolitre per hectare, whereas in Gardone and Preseglie in the Val Trompia it could be as much as 18.8 hectolitre per hectare. This was due to the fact that on the non-irrigated plain the soil was less fertile, while in the mountains the areas under cultivation were always the best available and furthermore the lack of irrigation was made up by the greater average rainfall.³⁴

Confronted with such evidence it becomes important to understand how the presence of communal land affected the establishment of land prices. In other words to ascertain whether it is correct to say that where collectively-owned plots of land 'are important, the use of them

raises the price of agricultural land, which profits from this.'35 The case of the Bresciano studied by Paolo Tedeschi does not show such a correlation because the mountain area with the largest extent of communal land, Vestone, offered considerably lower prices for arable land than the neighbouring district of Preseglie. Nor can we attribute this difference to the more limited availability of cultivable land in Preseglie, since each inhabitant had 475 m² of land at his disposal, compared to Vestone, where the figure was 435 m². 36 A situation like this could even lead us to formulate the opposite hypothesis that the greater availability of communal land was not accompanied by higher prices for arable land. Rather it put a ceiling on market values, because in the final analysis the additional resources to be derived from collective property made the need to have your own land less urgent.

If this was the case, the cession and transfer of communal land, especially woodland, would have penalized the poorest peasants twice, because it would mean not only the withdrawal of their customary rights of use, but also higher land prices. The result was yet more inequality in a society that was already extremely polarised and unbalanced. Moreover, the serious problems arising from the loss of access to communal land are attested to by the fact that the authorities often exercised great caution when faced with the hypothesis of putting the *comunalia* (communal property) of the mountains for sale, and also by the growing tendency of the mountain people to 'arbitrarily encroach upon the pastures and wastelands of the community, claiming the right to cultivate them; even raising hedges or a wall around them.'

Conclusion

This paper has analysed the administration of some of the remarkable collective resources of Alpine societies, such as pastureland and woods, focussing on the Lombard Alps and Pre-Alps in the eighteenth century. What has been shown, although here restricted to one area, can be applied also to many other parts of the Alpine arc. The decision to concentrate on the management of communal resources was prompted by the fact that it is the best angle from which to view the dynamics and power hierarchies within the Alpine communities. Contrary to popular belief, these communities were anything but egalitarian in terms of both the rights and the wealth of their members. Consequently, the way in which they chose to administer their resources could, as we have seen, lead to results which did not benefit everyone in equal measure, and which reinforced the existing imbalance of status and wealth. Markedly asymmetric communities raise different questions and bring to light complex and delicate problems which do not apply solely to the theme we have chosen to examine here. How, for example, did such communities react to the assault on these resources that began in the French era? Facing an attack from the outside which threatened much of the equilibrium that made the communities stable for centuries, was there cohesion among the inhabitants, or did the wealthiest manage to benefit, yet again, from the process of selling and privatisation of common land that was taking place? So, although it cannot be done here, it would be relevant to investigate, with reference to communal resources, the dynamics that came along with the birth of the nation state in the nineteenth century. Indeed, it was the impact of liberalism in Europe that nullified the advantage of mountainous peripheries, which for centuries had guaranteed them the institutional flexibility within which the commons played such a fundamental role.38

References

- 1 Carlo Cattaneo, Su la bonificazione del piano di Magadino, in: Alberto Bertolino (ed.), Carlo Cattaneo, Scritti economici, vol. 3, Firenze 1956, 187.
- 2 Development is a voyage with more shipwrecks than navigators is the title of the second part of Eduardo Galeano's masterpiece Open veins of Latin America: five centuries of the pillage of a continent, which was published in 1971 by Siglo XXI Editores, Mexico, and was soon translated into many languages (the Italian version Le vene aperte dell'America Latina is by Sperling/Kupfer in 1977).
- 3 This is a dualistic and evolutionist view that does not stand up to the test of historical contextualization. Prasannan Parthasarathi has some very interesting considerations about it in: Why Europe grew rich and Asia did not: global economic divergence 1600–1850, Cambridge 2011, here 7–14.
- 4 More precisely, according to the grand survey carried out by the *Istituto Nazionale di Economia Agraria*, it was 3,085,028 ha in 1947 (INEA, La distribuzione della proprietà fondaria in Italia, Roma 1947), while in 2010 it was 1,125,842 ha, equal to 8.75 per cent of the exploited agricultural surface (ISTAT, 6° Censimento generale dell'agricoltura. Risultati definitivi, Roma 2012).
- 5 Garrett Hardin, The tragedy of the commons, in: Science 142 (1968), 1243–1248; Elinor Ostrom, Governing the commons: the evolution of institutions for collective action, New York 1990 (Italian translation: Governare i beni collettivi, Venezia 2006).
- 6 Paolo Grossi, Un altro modo di possedere. L'emersione di forme alternative di proprietà alla coscienza giuridica postunitaria, Milano 1977.
- 7 See the considerations of Guido Alfani/Riccardo Rao, Introduzione, in: Id. (eds.), La gestione delle risorse collettive. Italia settentrionale, secoli XII–XVIII, Milano 2011, 7–14, here 9 f.
- Martina De Moor/Leigh Shaw-Taylor/Paul Warde (eds.), The management of common land in North West Europe, c. 1500–1850, Turnhout 2002; Alfani/Rao (eds.), Risorse collettive, see note 7. Tine De Moor gives an effective synthesis of the debate on the commons in: What do we have in common? A comparative framework for old and new literature on the commons, in: International Review of Social History 57 (2012), 269–290.
- 9 Elinor Ostrom's definition in: Governing the commons, see note 5, 30.
- 10 According to Hardin, Tragedy, see note 5, this was what the community could not do in times of population increase, which led to over-exploitation of the resources and to the 'tragedy of the commons'.
- 11 Obviously the differentiation can go deeper. In Trentino, with reference to community life and the use of collective resources, we find, for example, the *forestiero* (outsider) with no rights, the *forestiero* with the right of residence, the *forestiero* with rights of usage and the *vicino* (resident) who enjoys all these rights; see Marco Casari/Maurizio Lisciandra, L'evoluzione della trasmissione ereditaria delle risorse collettive in Trentino tra i secoli XIII e XIX, in: Alfani/Rao (eds.), Risorse collettive, see note 7, 17–31, here 21 f.
- 12 See Luigi Lorenzetti/Raul Merzario, Il fuoco acceso. Famiglie e migrazioni alpine nell'Italia dell'età moderna, Roma 2005, 63–79, for the different forms of property and collective ownership and the different ways of exploiting such resources in the Alpine area.
- 13 The variety of property rights and usufruct rights was well known at the time. In an important meeting on 28 June 1771, concerning the community resources, Antonio Pellegrini, member of the Supreme Council of Economics of the State of Milan, noted that 'in this diversity of usage and customs one reaches the conclusion that each community acts (in the management of its resources) proportionately to its circumstances and the requirements of its inhabitants'. Archives of the State of Milan (ASMi), Censo, p. a., c. 297.
- 14 See Jon Mathieu, Storia delle Alpi 1500–1900, Bellinzona 2000, 53–65.
- 15 Between 1805 and 1810 from a minimum of 250,000 to a maximum of 310,000 tons of wood per year arrived in Milan; see Giuseppe Ferrario, Statistica medica di Milano dal secolo XV fino ai nostri giorni, vol. 2, Milano 1840, 257.
- 16 Regarding this, compare Luca Mocarelli, Le 'industrie' bresciane nel Settecento, Milano 1995, 165–167, 177–179, with Giancarlo Marchesi, Quei laboriosi valligiani. Economia e società nella montagna bresciana tra il tardo Settecento e gli anni postunitari, Brescia 2003, 132–137.
- Data about the beginning of the seventeenth century provided by the *catastico* (land register) compiled by the Captain of Brescia, Giovanni da Lezze (1609–1610), and commented on by Carlo Poni, Accumulation primitive et agronomie capitaliste: le cas de Brescia, in: Czelaw Luczak/Jerzy Topolski (eds.), Studia historiae oeconomicae, vol. 10, Poznan 1975, 17–28, here 17–21. The information about Montichiari is from a letter of 10 December 1764 from the Captain of Brescia, Francesco Grimani, in: Archives of the State of Venice (ASVe),

Revisori e aggiunti alle entrate pubbliche in zecca, c. 884. The situation was not different from the State of Milan, seeing that the communal assets in the areas of the irrigated plain, the dry plain and the hills were only 2.45 per cent of the surface area shown in the land survey of Charles VI, and consisted mainly of heathland, uncultivated land and marshland; see Sergio Zaninelli, Agricoltura e regime fondiario: la distribuzione della terra per gruppi sociali nello Stato di Milano (aree di collina, di altopiano e di pianura) nel terzo decennio del Settecento, in: Sergio Zaninelli (ed.), La proprietà fondiaria in Lombardia dal catasto teresiano all'età napoleonica, vol. 1, Milano 1986, 207–256, here 222.

- On this subject see Paolo Tedeschi, Aspetti dell'economia delle valli bresciane nell'età della Restaurazione, in: Andrea Leonardi (ed.), Aree forti e deboli nello sviluppo della montagna alpina, Trento 2001, 191–217, here 192 and 213. The situation was exactly the same in the State of Milan where 54 per cent of the registered land in the low and slightly higher mountain areas belonged to the community, as did 71 per cent of the medium-high and high land; see Marco Bianchi, La distribuzione della proprietà fondiaria nello Stato di Milano nella prima metà del XVIII secolo: l'area di montagna, in: Zaninelli (ed.), Proprietà fondiaria, see note 17, 257–312, here 305–307.
- 19 Concern for the protection of woodlands has led to an impressive corpus of norms, as shown by the work of Renato Sansa, Il mercato e la legge: la legislazione forestale italiana nei secoli XVIII e XIX, in: Piero Bevilacqua/ Gabriella Corona (eds.), Ambiente e risorse nel Mezzogiorno contemporaneo, Corigliano Calabro 2000, 3–26. On the relationship between forms of use and collective management of resources and their safeguards, see Tine De Moor, Avoiding tragedies: a Flemish common and its commoners under the pressure of social and economic change during the eighteenth century, in: Economic History Review 62 (2009), 1–22.
- 20 This function was often explicitly recognised by the regional government. For example in the State of Milan in 1783 Francesco Fogliazzi, a high-ranking official, wrote, 'the population of the mountains in this State cannot survive without a sufficient amount of communal land and pastures'; see his report of 2 May 1783, in: ASMi, Agricoltura, p. a., c. 20.
- 21 See Luca Mocarelli, Dalla montagna immaginata alla montagna vissuta. La percezione degli abitanti del piano tra rappresentazioni idealtipiche e realtà (secoli XVI–XX), in: Jon Mathieu/Simona Boscani (eds.), Die Alpen! Zur europäischen Wahrnehmungsgeschichte seit der Renaissance Les Alpes! Pour une histoire de la perception européenne depuis la Renaissance, Berne 2005, 115–128, here 120–122.
- 22 For a general picture see Lorenzetti/Merzario, Il fuoco acceso, see note 12, 63–68. It should however be pointed out that often there was not a clear dichotomy between original and non-original inhabitants, but rather a division into three categories: the *antichi originari* old originals (who had been there 'forever', and could claim rights over all the resources of the *vicinie* (neighbourhood)), the *nuovi originari* new originals (present for at least 50 years and having rights only over assets acquired after the family had settled), and the *forestie-ri* outsiders (present for less than 50 years and with no rights over the assets of the *vicinie* unless they paid indemnity to the originals). Information taken from Gino Luzzatto, Vicinie e comuni, in: Rivista italiana di sociologia 13 (1909), 371–389.
- 23 Data given in Francesco Grimani, Descrizione generale della popolazione della città e provincia di Brescia compresi le valli e Salodiano, Brescia 1764. Grimani attributed great importance to the disagreements between the originals and non-originals since he believed they were an obstacle to the economic progress of the province. He made this clear in the papers regarding original inhabitants and newcomers in the province of Brescia, sent to the Venetian magistrates in 1764, in: ASVe, Revisori e aggiunti alle entrate pubbliche in zecca, c. 884.
- 24 It was certainly not by chance that they preferred to portion out the money among the original inhabitants, for whom it was a source of income. Grimanis accurate accounts show clearly how in 1764 more than three quarters of the 807,645 lire which constituted the non-fiscal income of the Brescian plain were distributed amongst the *originari* and only 23 per cent were included in the communal accounts; see Michael Knapton, Cenni sulle strutture fiscali del Bresciano nella prima metà del Settecento, in: Maurizio Pegrari (ed.), La società bresciana e l'opera di Giacomo Ceruti, Brescia 1988, 53–104, here 100. Moreover, the *originari* were the only ones to receive help in times of crisis. During the famine of 1799, for example, the commune of Livemmo in the Sabbia Valley helped by assigning 20 lire to each inhabitant, but this only applied to the 235 *antichi originari*; see Marchesi, Quei laboriosi valligiani, see note 16, 169.
- 25 'Nota e descrittione di tutti li capi di famiglia della terre di Malegno, del loro havere et essercitio, compiled in 1660 by the regent of the community Pietro Bonettini, in: Archives of the State of Brescia, Archivio territoriale ex-veneto, c. 491.
- 'Estimo novo principiato anno 1735 in settembre, preseguito anno 1736, terminato anno 1737 nel commune di Mallegno', in: Bonettini Family Private Archive, Esine.

- 27 Data on Ponte di Legno taken from Grimani, Descrizione generale, see note 23; for Zuelli see Mauro Berruti, I diari pastorali di Omobono Zuelli. Un pastore-imprenditore di fine Settecento, in: Mauro Berruti/Giancarlo Maculotti (eds.), Pastori di Valcamonica. Studi, documenti e testimonianze su un antico lavoro della montagna, Brescia 2001, 99–114, here 107–112.
- See the sixteenth-century document cited in a report from the end of the eighteenth century concerning the disputes between Cremeno and Vedeseta over the boundaries of their respective pastures (ASMi, Agricoltura, p. m., c. 45). It was often a question of actual encroachment, as in the case of the *bergamini* (breeders involved in transhumance) from Paglio, who unlawfully used the community pastures belonging to Morterone and Brumano, with the result that 'with this exceptional number of animals, all the pasture which should last the cattle belonging to the members of the communities for the three months of summer, is consumed in a few days'; see the 'Relazione al R.I. Consiglio di stato del Vice intendente dell'Intendenza provincial di Milano sull'annosa vicenda delle usurpazioni dei Consorti di Paglio della Communità di Morterone' of 12 December 1785, ASMi, Censo, p. a., c. 660.
- 29 The presence of woodland reduced soil erosion by 85 per cent as shown by Sergio Anselmi, Disboscamento e politica del grano fra Quattrocento e Settecento in area marchigiana, in: Annalisa Guarducci (ed.), Agricoltura e trasformazione dell'ambiente. Secoli XIII–XVIII. Atti della XI settimana di studi dell'Istituto internazionale di storia economia 'F. Datini', Firenze 1984, 419–453, here 424.
- 30 Agnese Visconti has dealt with Lombardy in: Agnese Visconti, Questioni di organizzazione del territorio in Lombardia: il caso dei boschi di montagna tra intervento dello stato e gestione privata, in: Andrea Lazzarini (ed.), Disboscamento montano e politiche territoriali. Alpi e Appennini dal Seicento al Duemila, Milano 2002, 135–153
- 31 Robert McC. Netting, Balancing on an Alp. Ecological change and continuity in a Swiss mountain community, Cambridge 1981, dedicated to the village of Torbel in Valois, has had great influence on studies related to the Alpine area. The quotation is taken from Robert McC. Netting, What Alpine peasants have in common: observations on communal tenure in a Swiss village, in: Human Ecology 4 (1975), 135–146, here 137.
- 32 This was seen in: Rapporto della Camera di commercio ed industria della provincia di Brescia all'eccelso I.R. Ministro del Commercio, dell'industria e delle Pubbliche costruzioni sullo stato dell'industria e del commercio della propria provincia negli anni 1854, 1855, and 1856, Brescia 1857, 62.
- 33 Paolo Tedeschi, I frutti negati. Assetti fondiari, modelli organizzativi, produzioni e mercati agricoli nel Bresciano durante l'età della Restaurazione, Brescia 2006, 433 f.
- 34 Ibid., 460-462.
- 35 At least this is what Nadine Vivier believes: Biens communaux et marché foncier en France aux XVII^e et XVIII^e siècles, in: Simonetta Cavaciocchi (ed.), Il mercato della terra. Secoli XIII–XVIII. Atti della XXXV settimana di studi dell'Istituto internazionale di storia economia 'F. Datini', Firenze 2004, 463–472, here 467.
- Prices in Preseglie fluctuated between a minimum of 1,075 lire and a maximum of 3,265 lire, while in Vestone they were between 615 lire and 1,535 lire; see Tedeschi, Aspetti dell'economia, see note 18, 214.
- 37 In the State of Milan, for example, it was deemed legitimate and opportune to sell the few remaining communal assets on the plain, but considered 'that the Alps and their attendant communal pastures, which are moreover necessary for feeding cattle, should not be taken away from the community's inhabitants, and that the sale should be restricted to the portion of woodland which did not serve their needs'; see the letter sent by Kaunitz to Wilczek on 10 July 1783, in: ASMi, Uffici e tribunali regi, p. a., c. 569. The quotation (my translation in the text) is from a warning to the communities of Valsassina and Porlezza from the Magistrato Camerale on 15 April 1785, in: ASMi, Agricoltura, p. a., c. 20.
- 38 This transformation has been very clearly shown by Sidney Pollard, Marginal Europe. The Contribution of Marginal Lands since the Middle Ages, New York 1997.