

Communities and sustainability in medieval and early modern Aragon, 1200–1600

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Abstract: This paper examines the case of sheep raising in Aragon from the 13th to the 17th century to explore the political dynamics and social criteria that rural communities used to manage their common land, and their role in larger economic and political frameworks. In the line of recent historiography about the commons, the research connects the strength of rural communities, institutional arrangements governing access to natural resources, and environmental efficiency. The hypothesis is that the “social reproduction” of the community was the aim that defined the collective action of strong and horizontal communities. They preserved their natural resources and defended large swathes of common land from foreigners. However, when these communities acted in a more complex system of transhumance within the framework of poorly articulated kingdoms, they would tend to predate others’ resources and keep others’ commons open to their free access. The outcome was the existence of large, but very different, and contested, kinds of commons.

Keywords: Animal husbandry, Aragon, collective action, common land, confraternities, guilds, natural resources, pasture, rural communities, sheep, transhumance

1. Introduction

This paper aims to join the present debate about common land in Europe. Lately, historiography on the topic seems to be moving away from Hardin’s dated ideas that common goods were doomed to be over-exploited and inefficient (Hardin 1968), after Ostrom’s turning point (Ostrom 1990). The theoretical framework of the debate is set up by sociologists, political scientists, economic and environmental historians. Most of them, working mainly on late modern and contemporary times and using the paradigm of methodological individualism, are concerned with the

way groups of users suppress free-riding attitudes by monitoring behaviour, and implementing institutions and rules for cooperation (de Moor 2002; van Riel and van Zanden 2004). Studies on the quality of public life, civic engagement, and collective action have developed interest in the study of medieval guilds and communes to explain the early formation of “social capital” in north west Europe in the long-run (Putnam 1993). The south of Europe has not been seen as a contributor to the development of civic institutions.

My contribution to the debate is to bring in a case study from Southern Europe where we will find strong local civic communities and confraternities and to connect the nature of these communities with their environments using the analytical framework of theories of identity (Goffman 1959; Taylor 1989) and recognition (Honneth 1996; Izquierdo Martín and Sánchez León 2001 and 2010). I present two case studies from Aragon (northeast Spain) from the 13th to the 17th century with the aim of reflecting on the relationship between the constitutional structure of rural communities and the management of their resources; subsequently, over their interaction with other villages and the formation of different kinds of commonland. The comparison brings together animal husbandry in two different ecosystems, upland and lowland, that traditionally have been studied separately because their rural institutions evolved along distinct lines.¹ We will examine the case of several rural villages on the northern Pyrenean valleys and of an urban brotherhood, a confraternity, the *House of the Sheepbreeders of Zaragoza*, a town on the terraces of the Ebro river. Both regions were able to sustain specialized wool economies through a medium scale transhumance based on communities that managed collectively their pasture, water, territory and much of their infrastructure. These two regions of Aragon became connected through a sophisticated system of transhumance. In those centuries, the rules, customs and powers within the larger framework of the kingdom were not clearly defined. The privileges of pasture that were held by particular valleys, villages, towns, lay and religious lords produced constant conflicts with the local communities for the use of their land. They caused the organization of different types of commons and an increase in the pressure upon the natural resources.

The argument of this article is that, in two different economic, social and ecological niches, the main aim of rural communities was the “social reproduction” of the whole group. As a result, they preserved large swathes of common land, kept foreigners away from them, guaranteed equal political rights to all the members of the village in order to restrain the actions of those better-off, and watched the use of the natural resources. Many of the issues raised in the article have been dealt with in numerous works covering different parts of Europe in the medieval, early modern and modern periods (Vassberg 1984; de Moor et al. 2002, 15–32; Demelas and Vivier 2003), but cases differ from country to country. I want to

¹ The same applies to Castile where the northern regions of Galicia, Asturias, Cantabria and the Basque Country are studied separately from the two Mesetas (Vassberg 1984).

stress a political argument that connects, in an explicative way, the social nature of these communities with three elements: 1) the participation of members in the political decision-making, 2) the sustainability of their environmental decision-making, and 3) the historical origin and nature of different swathes of commons.

The article is based on a wide range of sources. Several municipal and valley charters of the Pyrenees have been published by Gómez Valenzuela. Most medieval sources for the sheepbreeders of Zaragoza have been gathered in a volume of documents by Fernández Otal for his PhD thesis (1993). Equally, the article has benefitted greatly from the volume of charters compiled in the unpublished PhD thesis by Faci Lacasta (1985). In addition, I have worked with the *Archivo de la Casa de Ganaderos de Zaragoza*, mainly on the 16th- and 17th-century series of “Manifestaciones” and “Repartimientos”, and on the “Acts of the Assemblies”, a total of 300 documents, as I will clarify below. There are comprehensive works about transhumance in Aragon, but none is concerned with the relationship between this activity, the socio-political nature of communities and the management of their environment.

2. Commonland and the transhumance system in Aragon

There was no other region in Europe with the degree of conflict among villages for their pastoral space as Spain in medieval and modern times (Wickham 2007, 44). Unlike conflicts for land that mainly involved specific households and families, disputes for pasture and water threatened the entire community and its municipal territory (Wickham 1985, 437–451). In the northern mountains of Iberia, villages and towns had power over their hinterlands. Cultivation was not always suitable in those regions and the pastoral activities promoted and preserved large tracks of common land. Customarily, the inhabitants of those villages had the right to use the *montes*, that is the wasteland of the municipal estate, in order to take their flocks and collect firewood and other goods.

The various forms of property ownership and its relationship with livestock raising have been studied extensively for Castile mainly as a consequence of the existence of The Mesta (Mangas Navas 1981; Vassberg 1984; Marín Barriguete 1987; Anes Álvarez and García Sanz 1994; Monsalvo Antón 2007). The County, later Kingdom, of Aragón, from the 9th to the 11th century had important similarities in terms of villages’ land tenure pattern. The Kingdom was comprised of a collection of communities, mostly inhabited by shepherds, who were well adapted to the harsh ecology of the Pyrenean Mountains. The Aragonese northern upland forms paralleled valleys running north to south following the course of the rivers with mountains (2000–3000 m) covered in snow for eight months of the year. The mountains continue to the south in what is called the *Prepyrenees*, a lower chain of mountains of 1500 m. This is a difficult environment for cultivation that doomed the inhabitants of the highlands to combine the sowing of small harvests at the bottom of the valleys with a pervasive animal husbandry of pigs, horses, mules, cows, sheep and goats.

In 1098, the town of Huesca and, in 1118, the town of Zaragoza were seized from the Muslims, and the vast lowlands of the Ebro terraces were opened to the northern Christians. The settlement of the new region was slow despite the efforts of the King to preserve the Muslim population and to transfer the abandoned property immediately to Christians. The town of Zaragoza is located at the epicentre of the driest region of the river Ebro.² This is flat, stony and infertile land with basic soils of poor organic matter and a strong concentration of salt; large surfaces of gypsum and xerophitic vegetation (Frutos Mejías 1976, 12–36). For the opposite reason than in the highlands, the poverty of the soil and the harsh climate made any complementary uses of the land to animal husbandry impossible, except in particular areas such as the river banks where agricultural production was limited. In the course of the 13th and 14th centuries, confraternities of sheepbreeders (*ligallos*) were founded in most villages. These were religious, economic, political, cultural, social and convivial brotherhoods. These organizations, as those in the north, protected their territory and common land against foreigners.

These two regions are complementary in temperatures and rainfall and located only 200 km apart. By the 13th century, it can be said that there was in Aragon a “double system of horizontal transhumance” that kept the sheep flocks on ideal temperate seasons all the year, benefiting from fresh pasture.³ The highlanders travelled in October from the Pyrenees to the southern plains from Huesca to the Ebro river to spend the winter (“inverse transhumance”); the lowlanders walked in May from the Ebro valley to the northern mountains to spend the summer (“direct transhumance”). The system was based on the royal privileges given by the monarchs to monasteries, lords, towns and villages to graze on the *realengo or baldío*, the royal land, most of the land of the Kingdom. It succeeded in maintaining dynamic economies of scale with a large number of sheep, around 250,000 heads in the Ebro, and the same figure for the Pyrenees and to supply wool for the local and the international market of Catalonia, Southern France and Italy (Sesma Muñoz 1982). In social terms, it consolidated a wealthy group of middle owners (500–2000 sheep) and facilitated a remarkable social and geographical mobility. It also produced large swathes of common land, landscapes of pastures extended to the maximum: to the limits of the irrigated margins of the agriculture in the Ebro river, and to the lower and upper limits of the forests in the Pyrenees.

Transhumant owners equally defended large and open commons across the kingdom against the tendency of local villages to enclose the best pasture for the

² A mean of annual rainfall of 319 mm to current climate, almost a desert regime, blown by drying winds (Frutos Mejías 1976, 9–26; Ollero Ojeda 1996, 32–33).

³ Horizontal transhumance is a term minted by geographers in the forties. As opposed to “vertical transhumance” (the movement of animals from the valley to the upper pasture), it means the movement of herds between to specific regions. It can be “direct transhumance”, when the animal owners live in lowland regions and travel to upland regions or “inverse” when the animal owners live in the upland (Evans 1940; Davies 1941).

use of draught animals of the community. However, unlike what was happening at local level, this kind of common land created endless conflicts. Two systems overlapped and confronted each other in the Kingdom of Aragon: on the one hand, a large collection of villages and towns, almighty upon their territories, which they kept forbidden to foreigners; on the other hand, basically the same entities with different privileges to move their animals around the Kingdom, claiming to access others' pasture. The relationships between local communities were regulated by local customs and institutions. The problem broke out on a large scale where norms, relations, uses and customs were not established and coherent. In the Kingdom of Aragon, commons were everywhere, but they were dissimilar and were the outcome of different processes and different communities.

3. The highland of the Pyrenees

To understand the nature of the rural communities in Aragon, their livestock raising systems and their relationship with the natural resources, we need to look at the villages and hamlets of the northern mountains during the Early Middle Ages. Those villages were scattered in the valleys and settled on what was loosely defined as royal land (*realengo*). They controlled a territory of their own and held meetings where the elders of the households made decisions about common matters.

The cartularies of the first monasteries settled in the region and the early charters of the 9th century suggest the contemporaries identified several kinds of landscapes. In the donation of the Count Galindo Aznar, in 867, to the monastery of San Pedro de Siresa of the *estiva* de Alarate, he used four terms to qualify the landscapes in the high valley of Aguas Tuertas (at the top of the Ansó Valley): the forest, the mountains, the fields of the villages, and the *estivas* on the mountain passes (*puertos*). Despite the loose and brief mention, we know the *estivas* were scattered areas in the mountains used for grazing and stocking the animals during the summer (from the Latin *aestivus*, meaning summer).⁴ In other documents, two other common words appear: the *pardinas* and *aborrales*, assartings that opened at the lower part of the hills and on the southern faces where pens and folds could accommodate the animals during the cold winter. They concentrated on the Pre-pyrenees.⁵ Finally, there was the most crucial space for the rural villages, the

⁴ *Item dono et donando affirmo prefato monasterio totam vallem que est de illa intrata de Aguatorra in iuso, silvas, montes, campos; Subach cum suis campis, Oza similiter cum suis campis; et estivam que vocatur Agnederia, et suos agorrals; et estivam que dicitur Aguar; et unum cubilare in Aguatorra, et alium in Garinza.* (Ubieto Arteta 1960, D.4, 19).

⁵ *Pardinas* could be common land, but more frequently they were subject to private usufruct or property. The documents of the monastery of San Juan de la Peña offer several examples of donations of *estivas* and *pardinas*: Sancho el Mayor at the beginning of the 11th century bestowed the *estiva de Lecherin: illam estivam que dicitur Liserin* (Ubieto Arteta 1962–63, vol. I, D.56, 165–169), Ramiro I gave the *pardina* of Pastoriza (Ibid, D.94, 73–75). A private donor gave away the *pardina* of Buil with its livestock in 1055 (Ibid, D.118, 117–119). The *pardina* was a compound of pastures and

boalar, an enclosure of the best pasture reserved for the use of the draught animals of the community.⁶ In this landscape the crops, located at the bottom of the valley, turned into the forest and the forest into the pastureland at the top of the mountain, all peppered with pens, huts, paths and isolated clearances (*artigas*) either for the use of livestock or for enclosed fields. The *pardinas* and *estivas* were the two characteristic landscapes among which the flocks moved.

This evidence suggests that land tenure was in the hands of these communities who managed their flocks following a system of “vertical transhumance” from the hamlet to the high passes that reign on both sides of the Pyrenees. It is important to notice that the circuit did not develop within the boundaries of the village, but on the valley territory. These villages belonged to a valley (*val*), an ecological and cultural unit, and they held meetings of the villages of the valley (*Juntas de Valles*).⁷ The system leaned on the traditional custom that all the residents of a village could take their animals to the commons of its coterminous villages. They expressed this right as the power to take their animals “from threshing floor to threshing floor, and from sun to sun”, the part of the *montes* that they could reach walking during the day with the obligation to leave by night. Later legal codes called this institution the *alera foral* (*de area foralis*; Fairén y Guillén 1951). It defined large tracks of the wasteland of coterminous municipal estates called *ademprivios*, land collectively used and a major support of villages’ economy. The *alera foral* was based on a principle of strict reciprocity amongst local communities and the defence of their commons.

At the end of the 11th century, and bearing in mind that the larger evidence produced by monasteries can misguide us, a change might have happened in the nature of transhumance. The early Benedictine monasteries such as San Andrés de Fanlo, San Pedro de Siresa, Montearagón and San Juan de la Peña became big collectors of *pardinas* in the Prepyrenees during this century. Monasteries were aiming to stock their animals on the warmer faces of the lower altitudes of southern mountains. This would imply the existence of a kind of early horizontal transhumance of animals from the central Pyrenees to the external chains, precisely at the very moment that sheep became the most frequent animals mentioned in the documents.

We know nothing of the dynamic and management of the natural resources of these communities before the late Middle Ages, but the characteristics might not

conveniently placed folds, as in 1050: *pardina qui est in monte... Et in omnes montes de Quarnas suas erbas et suos cubilares* (Durán Gudiol 1965, D.17). Seldom associated with churches: *pardina de Aquabiela cum ecclesia sua et montibus totum... ab aqua de fonte usque ad erba de monte*. (Lacarra 1982, D.22, 36). The municipal *fuero* of the village of Alquézar explains in 1069 that residents should render the tithe for what they produced on the passes and no other rent: *et in nullo loco ubi laboraveritis de illos portos in iuso non detis nisi decimam ad Deum*. (Lacarra 1982, D.2, 10).

⁶ From the Latin: *defessa, deffensa, vetatum o boalare* (fenced, defended land). The equivalent in Castile was the *dehesa boyal* (Vassberg 1984, 29–31).

⁷ Most important valleys from west to east: Ansó, Echo, Aragüés, Aísa, Borau, Canfranc, Acumuer, Tena, Broto, Bielsa y Benasque.

have changed a great deal from what emerged in the documents of the 15th century. By then, rural communities were highly territorialized and they had a high level of competence on their hinterland. The municipal government regulated: the date of the opening of their municipal land to foreigners (usually 3 or 5 May), the date for ascending to the *puertos* (usually 10 June), they also organized the gradual climbing of the lambs followed by their mothers, the timetable to open and close the *boalar*, the restoration of folds, pens and buildings to milk the sheep and prepare the cheese, the number of animals per house, usually allocated in lots of 400 sheep (*malladas*), the type of animals entering the *puertos*, the shepherds that would lead the flocks, the counting of the animals, the plots that would be farmed out to foreigners, the prices of the pastures, the closing date of the *puertos* and the territory (usually by St Michaels), the exploitation of the forest, the protocol for sick animals and epidemics, and their arrangements with other valleys either in Aragon or France.⁸ The system was designed to avoid the introduction of foreign flocks, and to ensure that all the dwellers, both rich and poor, had access to the common upland, if in different proportions.

In economic terms, the system succeeded in launching economies of scale based on a highly commercialized sheep husbandry with three consequences: it sustained large numbers of sheep, about 200,000 heads, articulated medium circuits of transhumance from the Pyrenees to the plains of Huesca, and as far as the Ebro valley (200 km), and large portions of the pasture was hired to foreigners, bringing an unknown wealth to the mountains.

Ethnographical studies on 19th-century animal husbandry had qualified these practices as “highly efficient ecologically” (Pallaruelo Campo 1988). Households defended the right of the residents to the municipal resources and promoted large tracks of collective commons under strict regulations showing that common land was not an open territory to the predation of all (Netting 1981; Ostrom 1990; Iriarte Goñi and Lana Berasain 2007, 207–208). Territories were completely defined, appropriated, classified, and organized in the collective imaginary and daily routines of the communities. A diversified landscape in which other activities conflated – basically timber and iron industries.

In social terms, the system favoured the existence of multiple households which based their income on the raising of medium flocks of 500 heads which moved in circuits of 200 km, leaving their villages for around eight months. These were communities with an increasing degree of social mobility because they came into contact with larger towns and businesses. These communities resisted the pressure of the sheepbreeders arriving from Zaragoza, according to the first 14th-century records. Every summer, around 70,000–100,000 sheep moved up to the Pyrenean

⁸ Gómez Valenzuela 2000a,b, 2010. The so called “*facierías*”, “*patzerias*” or “*passeries*” are pacts or agreements to keep peace and order, mainly the pastures between French and Aragonese valleys. Typical of the late Middle Ages, they regulated a system of reciprocity which did not have the negative impact on the Aragonese mountains that the transhumants from Zaragoza had (Fairén y Guillén 1956; Brunet 2002).

mountains, a real invasion not always observing the local customs, practices and enclosures. Sometimes, the locals did not provide food or accommodation to the foreigners; others did not recognize their privileges arguing that they could not understand Latin, that they could not keep copies of the accusations made against them, or that the written letter was not recognized in the valley. Every summer, villages ignored the royal privileges, the settlement and agreements of the previous year and they attacked, killed, robbed, smuggled the animals and murdered the shepherds (Canellas 1988, D.28, 35, 58, 63, 69, 90, 92, and 156).

Paradoxically, the main problem was that the lowlanders did not respect the enclosed land either for agriculture or for the exclusive use of the grazing of the local animals. Interestingly enough, the people from Zaragoza wanted to dismantle the fenced land. They were in favour of large common land but without regulations. In the long-run, the sheepbreeders of Zaragoza had to come to terms with it, and they paid their summer grazing individually to the municipalities whose mountains they hired. Despite the conflicts, the arrival of the people from Zaragoza implied an enormous input of wealth to these communities, an element of complexity in their social profile and a qualitative development in the administration and management of the territory of these villages.

The pillar of that social order and kind of sustainable management is expressed in the concept of *vecino* (resident, 'neighbour' literally in Spanish), as it has been proved for other regions of Europe, starting with Castile. Despite the complex universe of overlapping jurisdictions and traditions, the village assembly of the *vecinos* (sometimes called *boni homines* as well), the heads of the households of most rural communities in Aragon, were ultimately responsible for the management of their municipal estates. Every household in a settlement, no matter if it was a multi-generational household, was one *vecino* with equal political rights. It is this political element that I want to stress. Access to the common land, to the wasteland or to the enclosed land did not happen by simply buying land, but becoming a member of the community, a *vecino*. It was not an economic but a political route. The village controlled the pressure upon the natural resources by regulating who belonged to the group (Netting 1981, 60). Families and individuals' economic and social position were identified by their integration within the community (Izquierdo Martín 2007, 66). Hence, the concept of *vecino* and *vecindad* was the central source for legitimacy to exist within the community. It turned out to be a mechanism of economic equilibrium, as the institutional set-up favoured tendencies towards socio-economic levelling, which is different to affirming that their members were equal in economic terms. It was also a mechanism of ecologic equilibrium that empowered communities to keep a balance between population and resources (Netting 1981, 12–16; Rosenberg 1988, 18).

In this context, there is an exceptional document that illustrates the principles that informed the relationship of these communities of shepherds with their natural resources. A dispute with arbiters, settled in 1632, defined the number of

animals that the *vecinos* of Tramascastilla, Sandiniés y Escarrilla, the three main villages of sheep owners of the Tena valley, could take to their *puertos*. It argues that the number of heads brought to the *puertos* should be fixed and not changed in the future: “considering the size of the *puertos* and the grasses, the animals they can sustain, and since the territory is always the same, the sheep cannot outnumber the municipal estate and if some sheep owners increase their animals, others shrink, as we learn from experience”.⁹

These arbiters and communities knew what “livestock carrying capacity” meant: the necessity to estimate the ideal number of animals per hectares of pasture in order to establish a sustainable system of grazing for a period of time. We are presented here with a theory of the ecologic conservation as a factor of the community preservation. The concept of the *vecino* was at the core of the management of the environment since all the residents should have access to the natural resources. As a consequence, the sentence established the same number of animals per family in each of the three villages. The argument that informed the decision of these communities was the experience that if some residents had lots of animals on the commons, others would have but few. The social argument underlines that, with all factors being equal, wealth accumulation is a zero-sum game *when natural resources are taken into account*. The sentence set up a limit of 800 heads per household in order to favour the poor as much as the better-off villagers.¹⁰

For Northern Pyrenean communities, their territory was part of their social identity and they managed the main part of their municipal estate as commons. They could sustain a specialized economy and respect the reproductive capacity of the natural resources thanks to the political participation of the community in the regulation of the resources on equal bases. These created a kind of “environmental criterion” whose objective was the “social reproduction” of the community and preventing the access of the foreigners to them.¹¹ The population was not static over this long period, but it was not an independent variable either. It depended on the social coherence and political strength of the community as such to define its future, which explains the slow fluctuation of demographic figures. For a long while, the criteria of these communities, the concept of *vecino* and the universe of rights associated with it, made strong socio-economic diversification difficult and mitigated the abuse of the natural resources at the expenses of keeping the

⁹ *Por quanto juzgamos ser muy conbeniente dicho numero de Ganado y ordinationes hechas de tal suerte que atendiendo al amplio de los puertos y pascimientos y los ganados que en ellos se pueden sustentar sea ynviolable y para siempre, pues los terminos siempre seran unos, el numero del ganado no puede exceder al termino señalado y los ganaderos si unos crecen en ganado otros menguan, como nos enseña la experiencia*, (Gómez Valenzuela 2000, D.169, 452).

¹⁰ *...que en quanto fuere posible se anime y favorezca el pobre y tambien se favorezca a que haya cassas y hombres poderosos* (Gómez Valenzuela 2000, D.169, 449–450).

¹¹ The Bourdieu’s sociological term that founded the “Reproduction Theory” is applied in this article to the aim of the rural communities to perpetuate the group, the community, the collective body, rather than pursuing other criteria such as maximization of benefits, environmental sustainability or even social equality (Bourdieu 1977, 487–521).

economic profile of the communities low. The breaking down of the identity of communities produced a divergence of economic interest and eventually the collapse of the demography and wealth of the Pyrenean mountains after the 17th century. There is no doubt that sustainability correlates with specific political forms and social aims.

4. The lowland of the Ebro valley

The progress of the Christian conquest to the south brought to the new lands the pattern of settlement, land tenure, economic activities and social organization of the northern communities. In the Aragonese frontier region, sheepbreeders formed associations called *ligallos*. Their main aim was the defence of the associates in all the issues related to their supra-local livestock activities, mainly against attacks, bandits, and rustlers, the return of the stray sheep to their owners and the maintenance of the sheep tracks. However, in order to understand the nature and decisions of these communities, it is important to take into account their social dimension. The *ligallos* helped the widows, the orphans, the sick and old members of the Brotherhood, they funded beds in hospitals and chapels in the local churches, lent money to their associates, allowed instalments for their debts, mediated in conflicts and shared out the cost of the legal defence and damages of members of the association (Faci 1985, vol. II, D.262, 272, 276; Fernández Otal 1993, 60–63). The bonds amongst the brothers were reinforced in social gatherings such as banquets or processions (Greif et al. 1994, 745–776; Greif 2010). In all these occasions, ostentation of the better-off members was regulated to create the illusion of economic homogeneity within the group. They had their own religious identity as patrons, churches and chapels and developed activities for the improvement of the town (Fernández Otal 2004, 65–67). The most powerful and privileged *ligallo* in Aragon was the one of the royal borough of Zaragoza.

The town was given a generous municipal law by King Alfonso I in 1129 in order to facilitate the settlement of the Christian population. In 1138, Count-King Ramón Berenguer IV defined a large municipal territory of 140,000 hectares (Canellas 1988, D.1, 47–49; D.7, 55). The town was located at the crossing of four rivers, Ebro, Jalón, Huerva y Gállego, with an impressive irrigated *huerta* (vegetable gardens). The orchards were surrounded by large areas of sterile wasteland and by four calcareous plateaux with an altitude of 500–800 m, which could only be used for the roaming of sheep and goats. In the first written mention of the shepherds of Zaragoza, in 1218, they were granted the right to exert criminal jurisdiction (Canellas 1988, D.4, 52–53). In 1229, King James I took under his protection the *Confraternity of Saint Simon and Saint Judas*, later known as the *House of the Sheepbreeders of Zaragoza* (*La Casa de Ganaderos de Zaragoza*) (Canellas 1988, D.5, 53–54).

Since then a series of royal charters made Zaragoza the most privileged institution in the Kingdom in terms of access to pastures. In 1233, the king forbade all the communities of the river Ebro to enclose *boalares* that could obstruct

the free roaming of the sheep of Zaragoza (Canellas 1988, D.6, 54–55). That meant condemning these communities to starve or to fight back. It also meant the constitution of large commons without compensations for the coterminous communities. In 1235, the inhabitants of the city received a royal privilege of universal right of pasture (*pastura universal*) and in 1391, the right to exert civil jurisdiction (Canellas 1988, D.6 and D.125, 55, 328–333).

From the 14th to the 16th centuries, Zaragoza had conflicts for pasture, water and the *ademprios* not only with the populations within its jurisdictional term and with all the lordly villages on its boundaries but also with the main summer grazing mountains: the Pyrenees, the Teruel mountains in the south, and the Moncayo mountains in the east. Communities in these three areas resisted, with differing success, the pressure of Zaragoza, despite royal charters tried to curb the spirit of the highlanders.¹²

The documentation of the *House of the Sheepbreeders* is rich in references to conflicts. Fernández Otal has worked on the documents of the last two decades of the 15th century showing that conflicts had a seasonal pattern, with winter being the critical moment of disputes against the local communities of the Ebro river and summer against the villages of the mountains.¹³ Around 1459, the *House of the Sheepbreeders* was given a substantial concession from the Council: half of the municipal territory south of the river Ebro, 60,000 out of the 140,000 hectares of the municipal jurisdiction (40% of the total land) for a low sum. The *Dehesa de la Casa de Ganaderos de Zaragoza* would be an endless problem in the relationship between the two institutions as they never did agree on the nature of the transaction, nor did they on the price to pay. The council pretended they had leased what was a municipally owned property (*bienes de propios*) and should pay. The associates claimed they had leased part of the common land and, as all the residents of Zaragoza could be members of the Confraternity, they had free access to it. This identification of the status of *vecino* (resident) and *cofrade* (associate) brought problems in an urban and diversified economy where the interests of the town were not always in line with those of the shepherds.

At the start of the 16th century, documents throw light on the internal working of the *House*, its relationship with the territory and the management of the *dehesa de Ganaderos*. There are four types of documents: regulations (*ordinaciones*) of the *House*, the Acts of the Assemblies or General Chapters (4 annual regular meetings plus some extraordinary ones; *Actos Comunes*), the annual declarations

¹² In 1300, a royal charter by James II ordered all his officers in the valleys of the Pyrenees and the mountains of Teruel and Albarracín to obey and make obey the rights of Zaragoza to graze their animals in the royal land (Canellas 1988, D.28, 29, 30, 79–82).

¹³ November registered lots of clashes, when the animals were on the move. March to May were difficult months when the *dehesa* for the local sheep was closed and the animals were roaming on the border fringes between Zaragoza and other villages (Fernández Otal 1993, Figure 4, 94). At the end of the 15th century, around 65% of the total accusations to the *Justicia de Ganaderos* by the members of the Brotherhood claimed that either shepherds or animals were victims of attacks (Ibid, 91).

of sheep per owner (*Manifestaciones por el pago de la Dehesa*), and the annual allocation of sheep per field (*Repartimientos*). We learn that this was an association of urban medium sheep-owners (wealthy peasants, artisans, municipal officials, merchants) of 1000–2000 heads which employed local shepherds or shepherds from the Pyrenees.¹⁴ There were some prominent families within the organization from the surrounding villages and from the oligarchy of Zaragoza, but they did not last beyond the third generation, shaping an internal language and discourse in their meetings that stressed that the common welfare and the corporation was based on the interests of small and medium sheepbreeders (Sánchez León 2007, 341). This confraternity was not an instrument of the town oligarchy or nobility. Lords did not enjoy special privileges and, as the rest of sheep owners, entered only if they lived in a house in town and if the General Chapter approved them. The *House* developed a lot of homeostatic mechanisms to safeguard the rights of all the members. There were not a minimum number of animals required to enter the *House*, nor to occupy any of the offices except the highest (*Justicia de Ganaderos*). Elections were secret in the general assemblies and each person had one vote. Grievance and disputes were to be solved within the community, no member could bid for others' pastures, plots for grazing on the *Dehesa* were allocated annually by lottery to prevent corruption and the pasture could not be sold. The political control of the price of the grazing precluded the creation of a market on grasses, the action of the wealthier sheepbreeders, and prevented the small owners from speculating with their lot. It was a main mechanism for the social reproduction of the community.

As in the Pyrenees, the Acts of the Assemblies of the 16th century show that the *House* thoroughly regulated the rhythm of activities and the number of animals in the *Dehesa*. There was an annual cycle starting in September when the sheepbreeders declared the number of pregnant sheep in order to be allocated to pasture in the *Dehesa*. The *House* estimated the total payment due to the Council for the *Dehesa*, organized the counting of the flocks and the allocation of the 42 *acampos* (each field was shared by two or more sheep owners). By 30 November, they opened the *Dehesa*; by 10–15 March they closed it. From that date on until 1 June, sheep flocks could only cross the *dehesa* to start their transhumance, while strays were returned to their owners. Only the animals culled for the market by St. John's day remained on the grounds. During the summer, the officials inspected water holes, marking posts, lambing sheds and paths (Fernández Otal 1993b; Pascua Echegaray 2007). The *Dehesa* of Zaragoza was the response to the need to secure the pasture to a growing herd that stayed from October to April in the Ebro valley. This became a specialized landscape that excluded any alternative use, and imposed a regime of intensive but seasonal grazing upon a fragile environment.

¹⁴ If we look at the mean proportion of small, medium and large owners, during the 16th and 17th centuries, around 85% of the associates were small or medium and had less than 2000 sheep (Pascua Echegaray forthcoming). In Teruel and the Pyrenees, families owned flocks of 500–1000 heads.

It is difficult to find out the criteria for the allocation of the *dehesa* resources, but some of the practices and decisions point to a concern for the proper reproduction of the pasture. As we have already seen, the *House* banned the entrance of foreigners in the organization and obliged the owners to share a field. Sharing and the right of way prevented family appropriation of the plots, created co-responsibility on the exploitation and a form of mutual surveillance. It seems that animals were not regarded as more important than the pastures, because the Brotherhood never changed the date of opening the *dehesa* or the cycle of exploitation of the land. Not even in 1546, when due to the sickness of the animals the sheepbreeders asked for permission to enter it on 1 March. The *House* defined a special apportion of land to keep the ill cattle in quarantine, but did not consent to change the schedule.¹⁵ They were concerned with the efficient exploitation of the grazing grounds, as when in 1534, the *House* obliged the animals to be taken to the *Dehesa* before the first of January so as not to waste the good grass. The general meetings of the *House* always voted in favour of allocating the pasture of flocks by fields, rather than entering the *dehesa* freely, as the best way to control the exploitation of the grass.¹⁶ As a consequence, their policy was always to renew the lease of the *dehesa* to the Council of Zaragoza¹⁷ and to award the fields by lottery.¹⁸ There are also hints that there was some kind of control over the number of members and animals in the organization.¹⁹

The *House* used an accurate system to calculate the ratio heads/land in its *Dehesa*. The *Repartimientos* are documents that, from the 16th century on, specified owners by name and surname, the animals they could bring to the field allocated by lottery on the *Dehesa* and the sum they had paid for them. Unlike in the north or in central Castile, the *Dehesa* was not allotted to the *vecinos* free

¹⁵ *la defessa se solia soltar a quinze de Março cada año y que habia mucho ganado enfermo de piqueta que les parecia si se estaria dicha defessa por soltar por todo el mes de Março o si se soltaria como era costumbre... y que para los ganados enfermos se nombrase y diputasse una partida por el dicho señor justicia donde fuesen a paxentar y beber porque no peguassen el mal a los ganados sanos.* (Faci 1985, II, D.250, 486–488).

¹⁶ On 23 May 1526, the General Assembly decided that the animals of the brothers would graze on the *Dehesa* both Garrapinillos and Alcantarillas, by fields and depending on the size of their flocks (*paciesse por acampadero dando a cada un confrayre el acampo según la porcion del ganado que tiene*, Faci, 1985, D.240, 443–450). In 1549, they unanimously voted to divide in fields (Faci 1985, II, D.269, 571–573).

¹⁷ *si se recibiria la defessa con la capitulacion que la arriendan los jurados que viessen y votassen sobre ello y assi por la mayor parte del dicho capitol fue votado y determinado que se tomasse dicha defessa* (Faci 1985, II, D.270, 574–577).

¹⁸ *partir por suertes* (Faci 1985, II, D.278, 607–608).

¹⁹ Members were growing constantly from the 13th to the 16th century (from 20 to 40 families in the 14th century, 40–80 in the 15th), but they fluctuate within a range afterwards (100–150) (Fernández Otal 1993a, 260). The number of animals fluctuated following a similar pattern: first half of the 16th century, between 70,000 and 100,000; from 1570 to 1606 the figure surpassed the 100,000 heads with two deep drops; in the 17th century, 130,000 heads with a summit of 200,000 by 1635–40 (based on the *Manifestaciones*, Pascua Echegaray forthcoming).

of charge, as common land was customarily (Vassberg 1984, 52–53). They all paid. In 1535, the *House* established that the partition should be done in lots of 1000 sheep. This means that fields were of a similar size, that small owners had to bring together their flocks to meet the number, and that large flocks could not monopolise the pastures. If on the total 60,000 hectares of the *Dehesa*, there were 42 fields, each field was about 1400 hectares. Considering the Mediterranean semiarid ecology of the region, ideally the *Dehesa* should not stock more than 60,000 heads, this is a carrying capacity of 0.7–1 sheep/ha (Vera y Vega 1986, 177–199). However, the mean of animals allocated to the *Dehesa* was kept at 70,000 heads which is a pressure on the pastures of 1.19 sheep/ha. Considering that sheep in those centuries were smaller in size and they ate less, the number is appropriate and indeed better than the *Right of Possession* as defined in Castile (1.33 sheep/ha in the summer plains of southern Spain). The pressure over the *Dehesa* seems unsustainable in two periods of the 17th century: 1610–1640 and 1660–1680, unless we bear in mind the increase in the rainfall and drop in temperature due to the Little Ice Age that affected the northeast of Spain in that century (Saz Sánchez 2003, 39–64 and 111–136). For the rest, it fluctuated just above the ideal numbers. The peak moment of the allocation of animals to the *Dehesa* correlates with the higher number of animals manifested, showing that they prioritized the community to the natural resources.²⁰ However, probably here comes the transhumance as a major compensation for the large number of animals on the grasses of the municipal terms. The four-month absence resulted in a low livestock long-term capacity in total, allowing the grazing grounds to recover to a minimum.

In Zaragoza, as in the Pyrenees, the survival of the entire group of shepherds was at the centre of the equation, dictating that water and pasture were to be managed fairly for them all. We need to look again to the first half of the 17th century, as in the Pyrenees, to a specific and representative conflict around the *Dehesa* that discloses some features of their criteria. In this century, they opened the harsh debate around the sale or leasing of the annual right of the pasture.

The vast fluctuations of sheep numbers in the first half of the 17th century with the growth of 1610 and 1630–40 and the sheer drop of 1641 and 1650 opened then a probably old and long debate about the selling of the grazing lots that each sheepbreeder received in the lottery of the *acampos*. The struggle started with the economic boom of 1626 as it is mentioned in the minutes of the General Chapter of 29 June 1630, when allegedly some of the members manoeuvred to force the statutes to be reviewed in order to allow all kinds of abuses, mainly the selling of the grasses allocated by lot to owners who did not bring animals to

²⁰ The total *cabaña* fluctuated between 70,000 and 150,000 animals in these two centuries. The allocation to the *acampos* of the *Dehesa*, between 40,000 and 80,000 sheep (Pascua Echegaray forthcoming, based on the documents of the *Manifestaciones* from 1516 to 1700).

graze.²¹ In a tempestuous and well-attended General Chapter, the *House* disclosed three types of abuses: those who changed their fields and left the worst plots to return to the *House* and entering a second lottery; those who sold their herbs at higher prices than those permitted; and those who leased their fields to foreigners.²² In the name of the *common good*, they declared that the main objective of the *House* was to preserve the pastures for the community, no matter the status of the owner of the flock. They established that those who did not have animals to graze should return their *acampo* to the *House* for the subsequent allocation by lottery to those who would need it.²³

As one might suspect, there were strong factions within the *House*. Those in favour of the free selling of the grazing plots fought back in a badly attended and manipulated general meeting on 28 December 1631. They managed to pass a decision that the grass could be sold only at the same price they paid to the *House* for it – 8 *dineros*. The next year (28 December 1632) the *House* once again forbade the selling of the grasses. They argued that *we have seen from experience the universal prejudice that results*. The Assembly limited the discussion of this issue to the largest and better attended annual assembly.²⁴ In the 1640s' of the century, the *House* accepted the proposal, but those against still managed to postpone its application to 1660 and included in the minutes that the decision was wrong for the common welfare. They linked four factors arguing that: as the pastures would be sold, they would end up in the hands of foreigners and people who would not look after them; they would put more animals than those due; the flocks of the small owners would shrink and those of the bigger ones would monopolize the best and largest fields.

²¹ Archive of the Casa de Ganaderos, *Actos Comunes* from 1629 to 1645, 27: *para prohibir que ningun ganadero pueda vender las yerbas de los acampos de la dehesa de dicha Cassa que les caen por suerte y ordena que lo que se hizo y ordeno en el Capitulo General de San Pedro de 1626 que se nombrasen personas para que viesen la dicha ordinacion y que aquella se adaptase y reglase de modo que se prohiba con efecto el dar yerba en la dehesa a los que no traen sus ganados a ella ni acostumbran pacerla con ellos para beneficio universal.*

²² Archive of the Casa de Ganaderos, *Actos Comunes* from 1629 to 1645, 27: *Que atendido los abusos que ay la razon de pidir yerba muchos ganaderos que no acostumbran venir a pacerlas con sus ganados diziendo tienen intento de traer a ellas sus ganados y después o permutan aquellos con otras yerbas de la dehesa de menos cantidad o mas ruynes que las suyas y que les ha caydo por suerte y dejan a la Cassa para que se sorteen las dichas yerbas ruynes o venden las tales yerbas a precios mejores de ocho dineros por cabeza que es el permitido... o acogen en sus acampos los ganaderos de otros, ovejas para parizonarlas... Que las hierbas... las dividan en suertes y en su dia las sorteesen entre todos los ganaderos y no se puedan dar ni vender ni disponer de ellas en manera alguna.*

²³ *o hazen otras cosas perjudiciales al intento principal que se lleba y tiene de que los acampos sean todo lo grandes que ser puedan... sea del estado, la condicion, dignidad y calidad que fuese el ganadero...*

²⁴ Archive of the Casa de Ganaderos, *Actos Comunes* from 1629 to 1645, 27, chapter of 28 December 1631 and 28 December 1632.

These people knew that the community was at stake. They knew that the economic and social basis of the community was the equal access to the natural resources and the maintenance of the pastures out of the market, as was the norm during the 15th and 16th centuries. The complaints at the general meeting of 1666 – because of the increase in the numbers of animals since 1660, the leasing of some grazing grounds to some families for life since 1680, and eventually the change in the regulations of the community by 1699 to restrict 33 families to the right to lease exclusively the *acampes*, proved them right. The erosion of community control was a gradual process, linked to a longer time-frame of change of which we have this important milestone. The constitutional change at the end of the 17th century had consequences at different levels. The economic outcome was the increase in the number of cattle, cows and bulls, for the production of meat for the town, the overexploitation of the fertile plots of the *Dehesa* and the rise in the number of stationary animals. At a social and political level, the owners of less than 200 sheep were excluded from offices as a group of privileged sheepbreeders emerged. The environmental consequences were: the suspension of the inspections of the mountains and the boundaries of the commons as the new owners were not interested in the extensive graze, the enclosing of the *acampes* to preserve their new properties, and the rise in the number of animals per field. By the mid-19th century, the suburban landscape of Zaragoza was formed by unused land with patches dedicated either to cereal or to the hunting of small game (Germán Zubero 1979).

5. Epilogue: communities and sustainability in the larger framework

Traditions, customs, power, institutions and collective representations form the fabric in which the social reproduction of a community takes place. They determine the relationship between the community and its territory, the redistribution of wealth, the conflicts and their resolution. We can find rural communities, *universitas* and brotherhoods in Southern Europe with a great degree of corporatism. Collective bodies with clear boundaries, governed by themselves, organizations which formed the institutional infrastructure for collective action, independent units with their right of assembly, with usufruct over land and animals, representatives, systems of conflict resolution and fictive personalities recognized by external powers. In those places where animal husbandry was a major activity, flocks were usually owned individually by families, but natural resources were frequently managed collectively in large, common and open pastureland. Most of the infrastructures, such as water places, lambing sheds, sheep ways, resting places, bridges, cabins and pens were used collectively. All the members of the community knew that their animals would have a share of the *boalar* (enclosed grazing for the draught animals) the *puertos* (passes) and the *dehesa* (enclosed for livestock, sheep and goats). However, the universe of pastoralism is complex. Pastoral activities, unlike agriculture, do not work at a local level. On the contrary, they go beyond

the boundaries of villages and require a larger framework at a regional level – the valley, the territory of the town and its villages, the association of villages. That is the reason why most pastoral communities articulated the wasteland of coterminous settlements and had procedures to regulate their conflicts, as was the case in Aragon with the *alera foral*. The problem, though, sprung up on a larger scale, because there was no institutional framework to regulate it. Unlike in Castile, where the Mesta, as a supra-local organization, could coordinate actions throughout the kingdom, the transhumant breeders in Aragon were associated with the *ligallo* of a specific town (Klein 1920).

The specialized pastoral economy that emerged in the Late Middle Ages in Iberia produced specific organizations and institutions that had several consequences on the dynamic of the rural communities and on the nature of their common land. Two competing systems overlapped: one which made the hinterland of villages impermeable to foreigners, the other that compelled the villages to open it as it pierced their territory. Usually the same communities were the protagonists of both systems (Pascua Echegaray 2008). In order to understand the long-term dynamic of these communities, and changes and continuity in the management of their common land, we must look at the local and larger frameworks of sheep raising.

From the study of medieval and modern livestock husbandry in Aragón, we can conclude with three relevant points. First, despite the fact there were pastoral communities and commons everywhere, those commons were not the outcome of the same process and communities. Some were the product of the power of the peasant community over their common land, such as those of the Pyrenean valleys; some were the product of the power of a group of associates to exclude others from their enclosed land such as the *Dehesa* of Zaragoza; and some were the outcome of external powers lobbying to keep the territories of local communities open for them, such as the case of all the transhumant breeders. The distinction is important in order to evaluate aspects such as the working of the common land, its efficiency, sustainability and dissolution.

Second, most organizations and associations of livestock breeders behaved in a sustainable way in the management of their own municipality, combining social and environmental priorities. The reason for their regulatory system was to ban foreigners and to ensure the social reproduction of a system with a relatively high degree of equality of access to resources among those with rights. However, they behaved as predators of others' territories. The documents from the Pyrenees indicate that the sheep of Zaragoza had a strong impact on their *puertos*. However, only the local regulations limited their action. The *House* did not produce any rules about it. There are no general meetings of the *House* discussing what they should, could and could not do in the Pyrenees. Their concerns were: taking to the north as many animals as they could, the acknowledgement of their privileges by the villages of the mountains and escaping from the attacks of the highlanders. They were determined to preserve the common land but without the constraints

of the local power. However, they had to learn to negotiate with the inhabitants of the valleys and from the 15th century onwards they had to pay for what they used, acknowledging their rights.

Third, the political participation of the members of the communities in the management of their commons is a key mechanism to consider in order to analyze economic performance, environmental sustainability and political resistance (Ostrom 1990). Political participation and behaviour monitoring guaranteed the definition of collective and common objectives of communities, prevented monopolization of power by elites, consolidated the identity of the corporation and tuned the process of appropriating the environment. However, rural communities developed in larger socio-economic and political frameworks which produced changes in the long-run. On the one hand, the exposure of these communities and associations to the privileges of universal pasture held by lords, religious houses or towns stressed the pressure upon the natural resources. On the other, these relationships provided new links, connections, networks, expectations, identifications and political attitude for some of the members of the rural communities. In the two case-studies presented in this paper the catalyst for the dissolution of the community was an internal process, a political process, within the community, set off by external forces that triggered new identifications of some fractions which pursued a change in the mechanisms of representation and participation.

In the Pyrenean case, it seems a paradox, the contact with the lowlanders speeded up the relationship between payments and pastures, hence the process of alienation of the community from its resources. In the long-run, by the 17th century, it triggered rural emigration and the start of the decline of the economy of the mountains and transhumance. The consequence was the preservation of a large common land, a neat definition between the pasture and the cultivated land, the definition and regulation of the use of special *dehesas*, the reduction of agriculture to its minimum, the generalization of a low-benefit extensive livestock husbandry, and the existence of large semi-wild spaces in the mountains. In Zaragoza, the power of the *Casa de Ganaderos* had managed to keep a fragile ecosystem thanks to the strict regulation of practices during the winter, and to long periods of closing during the summer and autumn. The system created one of the largest commons in Europe and favoured an open landscape of wasteland and pastures in an arid place on the verge of ecological degradation. The break up of the *House* meant changes in management, in use rights, and property rights into the direction of imposing heavier pressure on the natural resources.

These two cases make it increasingly more difficult to keep arguing that sheep breeding on common land or with collective practices have a specific impact in environmental or economic terms. Sheep breeding itself does not shape a specific landscape, nor produce economic growth or stagnation. Its impact relies on the socio-political constitution of local communities and their role at a regional and national level.

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