

BEYOND THE ‘WILD SHEPHERD’: HOW GLOBAL CAPITALISM HAS RESHAPED PASTORALISM. SUGGESTIONS FROM A MEDITERRANEAN ISLAND

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Abstract

This article shows how, from the modern era up to the present day, Sardinian pastoralism has been increasingly incorporated into global capitalism, despite essentialising narratives about the primitiveness and backwardness of shepherds that have been propagated from the mid-eighteenth century to the present neoliberal phase. The case-study considered in this article illustrates how capitalism works as a ‘food regime’, producing the ‘conversion of agriculture and food to commodity-type relations, which, in addition to cheapening food, also incorporates agricultures and foods into investment strategies’ (McMichael 2013: 21). First, a reconstruction of the embedding of Sardinian pastoralism into the global capitalist chain from the modern age to the early twentieth century is presented. Then the changes in pastoralism from the post-World War II period to the 2000s and the neoliberal turn of the last twenty years are considered. The aim is to analyse how pastoralists coped with the uncertainties arising from being part of the global market, the volatility of milk prices and the resulting contradictions that have emerged.

KEYWORDS: agropastoralism; global market; multifunctionality; sheep milk price; resilience

I. Reframing Mediterranean pastoralism in terms of global capitalism beyond essentialising narratives

Mediterranean pastoralism, understood as the grazing of small ruminants, has historically been well adapted to the most inaccessible and marginal areas where other agricultural activities do not flourish. Natural grassland was the main way of exploiting such lands. The shepherds involved in such activities were engaged in varying degrees of mobility, ranging from temporary transhumance to nomadism for many reasons (Salzman 2004, Pardo et al. 2023), such as protecting livestock from the weather, improving the efficiency of seasonal grazing to raise sheep productivity (Manzano, Baena and Casas 2010), the search for pasture lands and the need to share space with settled farmers (Mannia 2022).

From the eighteenth and early nineteenth centuries, when ‘anti-pastoral

narratives' spread across the Mediterranean, the ability to adapt to marginal territories, the adoption of a non-sedentary lifestyle, and coexistence with animals became expressions of primitiveness, backwardness and wildness (Duffy 2019).

This anti-pastoral prejudice had its roots in the Enlightenment and was strengthened in the Victorian era through Social Darwinism and positivist anthropology which focused on 'primitive societies', until it was translated into the theories of modernisation in the 1950s (Meek 1976, Chatty 2007). In this Western-centric narrative of linear development (Escobar 1995, Chakrabarty 2000), pastoral activities were characteristic of simple, primitive, pre-modern societies on the lower rungs of the processes of modernisation and civilisation, which culminated in an urbanised, capitalist society. Shepherds were essentialised as 'wild' and 'natural', both in the negative connotation of the 'bad savage' – bestial and violent – and in romantic images of the 'good savage' – untamed and resilient (Chatty 2007).

Anti-pastoral narratives are linked to social and environmental aspects: e.g., the stereotypical link between nomadism and banditry and violence (Duffy 2019) and the blaming of pastoralists for being the cause of progressive deforestation and environmental degradation in the Mediterranean, both due to grazing practices and the use of fire to obtain grassland. As Duffy (2019: 34) summarises:

Over the course of the nineteenth century state officials systematically fought Mediterranean pastoralism through restrictions, relocation, and sedentarisation, but they continued to legitimise such moves through the rhetoric of civilisation and environmental conservation. The marginalisation of mobile pastoralists around the Mediterranean opened up new spaces for settlement, cultivation, and environmental exploitation.

The definition of shepherds as pre-modern, pre-capitalist and marginal has been functional in the concealment of the historical dynamics of pastoralists' embeddedness in global capitalism, which rendered them marginal and therefore in need of modernisation interventions and projects. Shepherds are subordinated into capitalist extraction processes through the state's classification and simplification (Scott 1998), thereby reshaping agrarian relationships:

State-centric land-use classifications – such as 'marginal lands', 'empty lands' and so on – have become the defining concepts in development processes ... [and] key operational mechanisms through which land-use changes are facilitated (Borras and Franco 2012: 12).

From the 1970s onwards, the study of pastoralism has involved overcoming the essentialism of the wild shepherd and abandoning the lens of exceptionalism, both with respect to the peasantry and with respect to the state and capitalist markets (Dyson-Hudson and Dyson-Hudson 1980, Chatty 2007).

The seminal contributions of Evans-Pritchard (1940) and Marx (1967) present pastoral societies as mixed and multi-resource economies, marked by the co-presence of activities such as fishing, agriculture, handicrafts and wage labour, but also by multi-species herding (among others, Salzman 1971, Chatty 1972, Galaty and Johnson 1990). In a resource-poor economy, being exposed to uncertainty and diversification (and not specialisation) was a necessary strategy to allow such societies to adapt flexibly and cope with unforeseen events and risks (Scoones 2020). The sedentary/mobile dichotomy is challenged, emphasising the variable combination of staying and moving stimulated over time by policies or events (Salzman 2004). Pastoralism as a society of equals risks being a romantic stereotype that underestimates power relationships, especially where the state greatly impacts pastoral life, as in the Mediterranean agropastoral system, marked by the coexistence of agriculture and pastoralism and the figure of the peasant-pastoralist (Salzman 2004). Many researchers (Bollig and Göbel 1997; Fratkin 1997, 2001; Collantes 2009; Sa Rego et al. 2022) point out the effects for both the production and exchange of pastoral products of the embeddedness of pastoralism in the capitalist market and state politics. Pastoral strategies with regard to risk management are aimed at containing uncertainties such as price volatility arising from the market (Bollig & Göbel 1997). Pastoralists 'are not "pure" or isolated exotics ... [they] are hard-headed economists keeping a close eye on the market and orienting production to market conditions' (Salzman 2004: 11).

The dynamics of the reshaping of pastoralism by the state and capitalism are evident in Mediterranean shepherding. Since World War II, it has faced a process of marginalisation and has failed in many areas. This has been due to the combined effect of agricultural modernisation policies toward intensification and mechanisation, rural exodus and anti-pastoral narratives. The pastoralism crisis has not occurred where pastoral activities have latched on to commodified industrial processing chains based on cost competition, as in the case of dairy products typical of the sheep pastoralism of the Southern European Mediterranean regions of Greece, Spain and Italy which, in 2021, produced more than 77 per cent of the sheep milk from EU-27 countries (EUROSTAT data) and owned 49 per cent of the EU-27 countries' sheep herd in 2020 (EUROSTAT data). Growing quantities of low-cost sheep's milk flow into standardised and imitable cheeses demanded in international markets by large retailers: Manchego in Spain, Feta in Greece and Pecorino Romano in Italy. Far from being backward or underdeveloped, these shepherds depend on global capitalist dairy chains, in which sheep's milk is a commodity, with high price volatility. To cope with the risk of agricultural squeeze and market uncertainties, they adopt different and ambivalent strategies, both to resist and to compete. Sardinian pastoralism is an exemplary case of these processes.

2. The Sardinian agropastoral model and its changes: methodology and general view of the case study

This article combines historical and sociological analysis. The research, conducted from late 2012 through to 2021, has been carried out through mixed methods. First, the evolution of Sardinian pastoralism has been reconstructed from historical, anthropological and sociological literature from the mid-eighteenth century to the present day. Second, a diachronic socio-economic analysis was carried out on the sheep farming situation, using statistical sources (ISTAT, EUROSTAT, ISMEA, ICE, CREA, CLAL). Finally, qualitative empirical research was undertaken, based on in-depth interviews (more than eighty) with shepherds and other stakeholders, and ethnographic observations in different pastoral settings: sheep farms, cooperatives, village festivals and convivial moments, livestock fairs, trade union meetings, milk price strikes, WhatsApp and Facebook groups. A first set of interviews was collected by the end of 2012; during 2016–2017, the largest corpus of interviews and ethnographic observations took place. Short field research was carried out between 2013 and 2015 and, from 2018 onwards, on an almost annual basis, this was supplemented by telephone conversations and social media monitoring.

On the island of Sardinia, at the heart of the Mediterranean Sea, pastoralism has historically been favoured by territorial, climatic and socio-demographic characteristics (Le Lannou 1941). First, insularity and hilly and mountainous land has tended to hinder travel and communication. This resulted in isolation and in a pattern of rural settlements, based on the self-sufficiency of small villages, a situation that partially persists today. Second, there are climatic constraints consisting of very harsh winters in the inland areas, and drought alternating with intense and unpredictable floods. Third, there is low population (it only exceeded one million in the 1936 census, with a population density of 43 inhabitants per square kilometre) and a vast amount of rocky land is available, hard to cultivate and only suitable for grazing.

These features led to an agropastoral model which remained relatively stable from the modern era through to the mid-twentieth century (Ortu 1981, Meloni 1984, Angioni 1989). In this system, agriculture and pastoralism coexisted, and pastoral life was organised around the livelihood of both the family-farm and each individual village. Agriculture was polycultural and mixed: land was cultivated with arable crops, especially wheat and barley, which were interspersed with olive trees, vines, fruit trees and home gardens. In non-farmable land such as forests, the exploitation of wildlife resources was important, such as through hunting, the collection of timber and wood, the gathering of hazelnuts, chestnuts or acorns, and free grazing. Breeding was multispecies in nature (pigs, cattle, goats, horses, chicken), although sheep herding was predominant. The

agropastoral economy was multi-resource and diversified. At its core there was the family-farm, in which all members performed a variety of activities (multi-activity), some directed towards production for self-consumption or driven by reciprocity networks which allowed for the diversification of family livelihood and the production of value, albeit non-monetary. Most of the land was common and annexed to individual villages. Rights of access to use both private and common lands could be exercised according to a communal use code (Meloni 1984). Pastoralism and agriculture moved between complementarity and competition, with the subordination of pastoral activities to agricultural ones. The closest land to the village was reserved for arable crops, essential in a subsistence economy. Shepherds were forced to move to marginal and distant land. In addition, they could periodically graze land vacated by agriculture within the agrarian cycle such as that left fallow or that available after wheat mowing, according to the peasant land rotation. However, land shortage and the harsh climate forced pastoralists to move through long transhumance during the coldest periods, from the most inland and mountainous areas to the lower-level plains (Mannia 2022).

From the modern era until the late nineteenth century, Sardinian pastoral products were crucial for self-consumption and family subsistence in rural villages – what Braudel (1977) defines as 'everyday life'. At the same time, these products were also traded in local markets and, mostly, via the main Mediterranean maritime routes. The latter were the precursors of the global capitalist market, consisting of long and opaque supply chains that separate production and consumption, and are controlled by large traders and middlemen (Braudel 1977). The importance of these export chains became increasingly relevant from the late nineteenth century onward, when the growing demand for cheap milk for the 'Pecorino Romano' cheese industry led to a commodification of pastoralism, suggesting that nature (e.g., land, pastures, flocks, etc.) and shepherds' labour were being progressively incorporated into the dynamics of capitalist extraction. Driven by the Pecorino Romano industry and the effects of pastoral modernisation policies, pastoralism became specialised in the twentieth century, despite the persistence of several elements of the agropastoral model.

Today, Sardinia is one of the most specialised areas in Europe for dairy sheep farming: this region hosted 46.8 per cent of Italy's sheep population in 2022 (ISTAT data): 3,096,312 sheep, an average of two sheep per person, given a human population of 1,587,413 and a density of 65.5 sheep/km² (ISTAT data). Currently, there are close to 13,000 sheep farms that produce 68.8 per cent of Italian sheep milk (ISTAT data, year: 2021), and more than fourteen per cent of the sheep's milk produced in the EU-27 (EUROSTAT and ISTAT data, year: 2021). Nearly sixty per cent of Sardinian sheep's milk is processed

into Pecorino Romano (our elaboration on the CLAL and ISTAT 2021 data). The Pecorino Romano is the third-most-commonly-exported Italian PDO cheese (after two cow's milk cheeses) and the fifth in terms of added value (ISMEA 2022); 93.6 per cent of Pecorino Romano is produced in Sardinia: in 2021–2022, 30,506 tons of a total of 32,602 tons (CLAL data) were produced on the island. A local network of dairy processing industries has developed, consisting of a few large companies and many small and medium enterprises (SMEs) and shepherds' cooperatives. In this industrial supply chain, a few large industrial companies and big retailers play a monopolistic role, controlling the main sales channels (exports and large retailers), while SMEs and cooperatives struggle to establish autonomous sales channels and often end up being subcontractors for big industrial companies or traders. Shepherds are exposed to milk price volatility that depends on the price trends with regard to Pecorino Romano cheese in the markets. As we shall see in Section 5, some features of the agropastoral model relate to flexible strategies that can be activated both when the imperative is to survive, as during milk price crises, and in the face of capitalist strategies of diversification and profit, in times of market growth (Sa Rego, Cabo and Castro 2022).

3. From the modern era to the early twentieth century: the commodification of the pastoral value chain

During the modern age, pastoral products (milk, cheese, wool, leather and meat) were the basis of everyday life for rural households, but were also traded in short-distance markets, and in long-distance chains through the main maritime routes.

Cheese variety was limited. The main product was an aged sheep's milk cheese with a strong salt coating, so much so that it was called 'white cheese'. Because this cheese was cheap and salty, it was in great demand for seasoning food in these Mediterranean regions where salt was rare and expensive.

In the modern age, during Spanish domination, the medieval routes to Northern Italy were expanded to Provence (via Marseille, Nizza and Aix-en-Provence), to Spanish cities through Majorca (Ferrante 2015) and to the Kingdom of Naples in Southern Italy. According to Braudel (1972: 150–51), 'in the sixteenth century and no doubt even before, the island was the Mediterranean's leading exporter of cheese'.

Transhumance routes allowed for different kinds of collaboration, in contrast to the stereotypical image of the shepherd as being solitary and isolated (Ortu 1981, Angioni 1989). On the one hand, shepherds from the same village and/or family joined together in 'grazing partnerships' to tackle transhumance,

sharing the flock, the work to be done and the earnings. On the other, on the plains, shepherds engaged in exchanges with artisans (to whom they sold hides and wool and from whom they bought tools), peasants (from whom they rented pastures, during times when the land was uncropped) and traders and merchants (either to sell cheese, or as partners or financiers). Many traders were Spanish and dominated the cheese export channels by advancing financial capital to pastoralists and forcing them to sell the cheeses to them at an affordable price to repay loans (Ortu 1981, Day 1987). Already in modern times, the power of finance and international markets shaped shepherding (Ortu 1981). In this context, free extensive grazing was critical to reducing production costs and making a profit, even if the cheese was sold cheaply (Farinella and Simula 2021). In addition, the agropastoral system as a multi-resource economy, based on diversification and production for domestic consumption (everyday life), provided some compensating factors when the price of exported sheep's milk cheese was too low.

This scenario changed from 1720 onwards, with the end of Spanish domination and the annexation of Sardinia to the Kingdom of Piedmont, which subsequently became part of the Kingdom of Italy in 1860. In the emerging Italian state, anti-pastoral narratives began to spread and continued through the twentieth century. According to many Italian intellectuals of the time, (e.g., Gemelli 1776, D'Austria d'Este 1812, Baudi di Vesme 1848), Sardinian pastoralism was archaic and in need of state modernisation policies to increase its efficiency. Extensive and free grazing on common land and transhumance were blamed for hindering land improvements, such as the spread of cultivated pastures, fodder production and the construction of stables. The Sardinian sheep, small and adapted to grazing, was considered unproductive and in need of enhancement through genetic selection.

During the nineteenth century, policies of land privatisation were introduced: in 1820, an edict enclosed common lands; in 1835 private property was instituted; and later civic uses and fulfilments were abolished. In 1851, the land register was created, indispensable for the land census. These reforms, justified by the need to overcome feudal structures, in fact introduced state control over land and its transformation into a marketable commodity, making it possible for foreign investors to exploit Sardinian terrain for mining and coal, as well as wood production, which resulted in pollution and deforestation (Sotgiu 1984). Land privatisation led to clashes and opposition in pastoralist-dwelling areas. According to a romantic image, shepherds' protests against privatisation had an egalitarian and anti-capitalist basis (Fresu 2011). Conversely, free grazing on open fields had a strategic element to compete and lower production costs in an international market where 'white cheese' was a commodity. For this reason, the largest pastoralists were the first opponents of land privatisation

(Salice 2015). By the late nineteenth century, privatisation had raised a ‘new parasitic class of landowner’ (Brigaglia 1983) and forced pastoralists to face a major new farm cost in the form of rent (Ortu 1990).

At the same time, another cost-containment factor for pastoralists was about to be wiped out: artisanal cheese production. From the modern era and up to the late nineteenth century, the shepherds milked their flocks from February to June and processed the milk into cheese directly in temporary sheepfolds, by hand and with a few rudimentary tools. Excluding the cost of salt and the self-exploitation of pastoral work, cheese was produced at zero cost. Confining the cheese-making to farms (Tennant 1885) allowed herders to save money, but it compressed the potential for capitalist accumulation.

At the end of the nineteenth century two international conjunctions were pushing to overcome the productive constraints of artisanal cheese making in favour of mass industry. On the one hand, the new national protectionist policies provoked the breaking of agricultural trade with France, and the arrival of low-cost wheat from Eastern Europe and Russia led to a crisis in local agriculture (Marroccu 1977). As a result, arable land was freed up and pastures increased, generating more milk production that struggled to be processed by hand and artisans. On the other hand, in international markets, particularly in the US, demand was growing for Pecorino Romano, a cheese produced in Central Italy. Pecorino Romano was an aged, highly salted, inexpensive cheese with standardised processing. In the US, it was in demand because of its low cost, both among Italian migrants (who were growing in numbers in those years) and as grated cheese for use in the nascent food industry to flavour food.

In the late nineteenth century, the limited availability of cheap milk in Central Italy and a new local regulation that prevented cheese salting in urban areas encouraged Italian processors to move to Sardinia in search of cheaper milk (Di Felice 2011, Ruju 2011). Here, they set up the first industrial Pecorino Romano cheese factories.

The processing of Pecorino Romano transformed Sardinian sheep farming, pushing past artisanal processing in the sheepfold in favour of industrial mass production (large quantities of cheese at low cost). Shepherds stopped processing cheese and specialised in the production of milk, which they sold to industry. The rising demand for milk from industry led to an exponential growth in the number of sheep: from 836,000 sheep in 1780 to about 900,000 in 1891, doubling by 1908 (1,876,710 sheep) and exceeding 2,000,000 in 1918 (Di Felice 2015: 83). By that same year, more than half the island had been turned into pastureland.

In the early twentieth century, pastoralism spread at the expense of agriculture, but shepherds saw their economic situation worsening. On the one hand, land rent became higher and higher; on the other hand, the shepherds,

no longer processing cheese, were forced to sell milk at a low price to the industry, which exercised monopoly power over the supply chain. In addition, industrial companies often advanced capital to pastoralists to start production, but then forced them to sell the milk they produced at an unfavourable price to repay the loan. Pastoralists were 'squeezed' by both landowners and dairy industrial companies (Di Felice 2011: 952). Tensions and protests for a fairer sheep milk price broke out, coinciding with the emergence of the first shepherds' cooperatives. These cooperatives had been formed to make shepherds autonomous in selling cheese, but they failed to reach the final market, which remained directly controlled by a few large industrial companies (Ruju 2011). Anti-pastoral narratives continue in those years: Niceforo (1897), an exponent of the Lombroso school of positivist criminology, defined the pastoral areas of Sardinia as 'crime zones', affected by social atavism and moral degeneration.

The rise of fascism in Italy and the policy of food self-sufficiency, which pushed for cereal expansion, partly curbed these contradictions. However, they re-emerged during the post-World War II period.

4. Sedentarisation and modernisation: changes in pastoralism from after World War II to the 1990s

In the post-World War II period, in line with Marshall Plan aid, the US and Canada boosted grain and feed production and improved exports to Europe. Sardinian cereal farming, extensive and unmechanised, could not compete with cheap foreign grain and failed. Peasants abandoned the land and emigrated. In the same period, the US demand for Pecorino Romano cheese increased, because it was used as a seasoning product in the nascent junk-food industry. Pastoralism strengthened and expanded once more into the land abandoned by farmers. Because the traditional complementarity between agriculture and pastoralism was lost, the use of fire to generate grassland became widespread (Meloni 1984). Shepherds were accused of degrading the landscape. Nonetheless, the land was still concentrated among a few landowners, and the sheep milk price was imposed by a few traders and industrial companies who exported Pecorino Romano cheese. Protests mounted and the problem of banditry and crime resurfaced. These struggles were related to low milk prices in the capitalist market, but they were misrepresented within various narratives that essentialised pastoralism as archaic, wild and hostile to modernity (Heatherington 2001, Carta 2014, Sorge 2015). This reinforced the stereotype of the 'Barbagan shepherd' with its Latin etymology, in the double meaning of 'barbarian' and coming from Barbagia, the most remote region to which not even the ancient Romans could have gained access (Heatherington 2001).

Several intellectuals emphasised the romantic myth of constant Sardinian resistance as a cultural trait, referring to a Sardinia that, for millennia, had been invaded by colonisers, but had always been resistant (Hobsbawm 1959, Lilliu 2002). Certain aspects of agropastoral society were described as immutable cultural traits, in the form of backwardness, individualism and exclusive familism (Pinna 1971). Pastoral egalitarianism was accused of spawning conflict and informal normative codes based on force and revenge, competing with those of the state (Pigliaru 1959). The transhumant lifestyle was singled out as a reason for isolation, closure, criminality and banditry (Cagnetta 1975, Sorge 2015), which was conveyed by the Italian neorealist cinema of the 1970s (Pitzalis 2012).

The state consolidated these anti-pastoral narratives and pushed for policies of sedentarisation of pastoralists and forced industrialisation of the island, with companies exploiting mining and raw material sources. In 1953, a national parliamentary committee pointed out that wild-grazing shepherding was an obstacle to the rational exploitation of flocks and a move towards productivity gains (Commissione d'inchiesta sulla disoccupazione 1953: 630–735). In 1972, a new parliamentary commission of inquiry – the Medici Commission – was set up to consider the phenomenon of crime in Sardinia. Its final report accused transhumant pastoralism of being the cause of economic underdevelopment and banditry. This negative simplification by the Commission was affirmed, despite annexes to the report (Barberis 1972) which described pastoralism as the only dynamic agricultural sector of Sardinia and shepherds as young entrepreneurs facing important constraints such as lack of available land and the precariousness of contractual relationships for land and milk (Barberis 1972: 465). These annexes suggest that the discontent stemmed not from a premodern attitude, but from how capitalist relationships were shaping pastoralists, making them subalterns.

Between the 1950s and the 1970s, the modernisation of state policies took place, in two directions: (i) the sedentarisation of pastoralism through land acquisition; (ii) the establishment of shepherds' cooperative dairies to foster cooperation and make shepherds independent of industrial companies.

National and regional laws aimed at stimulating the birth of cooperatives provided grant funding to build cooperative dairies and purchase machinery for processing Pecorino Romano cheese. Half the cooperatives currently in existence were born in these two decades (Porcheddu 2004). Shepherds' cooperatives specialise in the production of Pecorino Romano, without either diversification or attention to product marketing, becoming subordinate to large industrialists and traders, to whom they are often forced to sell cheese. This problem persists even to this day (Farinella 2022).

The policies for sedentarisation included, in 1950, the agrarian reform,

which expropriated land from landowners and reassigned it to farmers; legislation with regard to small peasant property that granted subsidised loans for land purchase was introduced in 1954; and, in 1971, came the Marzi-Cipolla law that capped rents and stimulated the sale of land to pastoralists. Land acquisition was crucial for the economic growth of pastoralism in terms of overcoming rent constraints. Many shepherds moved from the mountainous and inner regions to the plains, where they had previously taken their flocks as part of the transhumance process. As some of the interviewees pointed out, in the lowlands, settled pastoralists started up as entrepreneurs by establishing farms through self-sacrifice and investment, relying on the work of the whole family (siblings, spouse and children) and taking advantage of that attitude to risk management and resilience that were typical of the transhumant agropastoralism. Reversing the stereotypical narrative, transhumance was not an obstacle, but a driver of modernisation and upgrading.

Here [South-Sardinia Plain] my father started 70 years ago, he used to do transhumance before. We are originally from Desulo [Inner Sardinia]. He would come here in October and leave in June ... He bought the first little piece of land ... and built himself a tiny house ... Then, slowly ... he also brought his family here. When we children got older, all of us helped on the farm ... even my mom helped. And slowly he bought another piece of land and then another, then again, and again and established a business. We children grew up ... and continued to buy, to increase the farm both in terms of agriculture and livestock ... All the people from Desulo did pretty much the same as we did ... because, in Desulo, there is no resource for those who deal with livestock ... we invested, invested, invested! ... we suffered, but we bought! ... making lots of sacrifices ... We were born in a village where you had to sacrifice a lot just to live ... When you are born and raised in such a place, even when you move, you are left with this spirit of sacrifice.

P.Z., Shepherd, Sulcis-Iglesiente, South Sardinia.

My father bought this farm in '77 ... There were no sheds, no buildings, no houses, there was nothing, it was just bare land here ... He came from an agropastoral family from Fonni [Inner Sardinia] ...]He started out as a servant shepherd and from there with herders from Fonni they were doing transhumance there in the Campidano [South-Sardinian Plain] ... Then he decided to set up on his own, so he had first started with some rented land ... and then he wanted to take a chance with the law on small peasant property and he bought this land in Solarussa ... We started from there ... You know, at the base of every sheep farm there is a person which has

been there for 50 to 70 years ... which here was my father ... that comes from that school of the sacrifice of transhumance ... every expense that you have, they make you weigh it, but they are also inclined to take risks!

M.D., Shepherd, Campidano, South Sardinia.

The modernisation of Sardinian sheep farms continued throughout the 1980s and 1990s, thanks to funding from the new Common Agricultural Policy (CAP) of the European Union. Shepherds directed the funds towards the modernisation of sheep farms and the intensification of sheep milk production. They adopted feeders, animal catching systems to speed up manual milking and, since the mid-1990s, mechanical milking and milk cooling tanks to improve milk quality and sanitation. As many pastoralists say, the mechanical milking was crucial in increasing productivity and flock size: one worker alone can milk at least double the number of animals in the same amount of time. However, feed has become critical on farms because it is used to get the sheep inside the milking machine.

During the same period, European funds were also directed towards land improvement, such as fencing the land, building stables, shelters, installing irrigation systems and buying agricultural equipment, such as tractors, mower-conditioners, mechanical rakes and round hay balers, to cultivate the grassland and produce fodder and forage. A new complementarity between agriculture and pastoralism took shape: in the new model of production promoted by animal scientists, crop farming for livestock feed played a central role. Wild grazing in open fields was partly replaced by rational land management, but extensive grazing remained a key resource. These changes are evident in the agricultural census data shown in Table 1: from 1982 to 1991, the arable land area devoted to fodder increased from 24.8 per cent to 40.5 per cent. In the following decades, it exceeded fifty per cent rising to 62 per cent in 2021. From the 1980s onwards, permanent pastures covered more than half of the utilised agricultural area. Livestock numbers grew and the average farm size increased: in 1982 there were nearly 20,000 sheep farms, with 2,371,709 head and an average of 121 head per farm; by 2000, the number of farms had dropped below 15,000, while the number of sheep had increased to 2,908,450, with an average of 195 head per farm; in 2021 there were just under 13,000 farms, but with over 3,300,000 head of sheep and an average of nearly 260 head per farm.

A further element that improved the shepherds' quality of life was the arrival of vehicles on farms, making it possible to move more easily and return to the village daily. Investing, enlarging and improving are issues that always recur when shepherds tell the story of their lives. Despite the positive impact on pastoralists' lives, these innovations have led increased costs, such as for

Table I.

Main changes in Sardinian pastoralism, 1929–2021

| | 1929 | 1961 | 1971 | 1982 | 1990 | 2000 | 2010 | 2021 |
|---------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total agricultural area (acres) | 2,408,905 | | 2,159,245 | 1,918,730 | 1,920,971 | 1,598,547 | 1,470,698 | 1,647,415 |
| Utilised agricultural area | 2,324,159 | 2,224,228 | 1,761,864 | 1,431,302 | 1,358,018 | 1,019,955 | 1,153,691 | 1,234,685 |
| Arable land | 554,580 | 300,416.6 | 315,623.4 | 375,386 | 458,316 | 411,841 | 393,638 | 479,692 |
| Forage crops | 3,795 | 45,254.38 | 78,382.65 | 106,526.5 | 185,511.3 | 201,657.6 | 228,677.5 | 297,277 |
| Permanent grassland | 1,139,559 | 1,482,629 | 1,328,048 | 929,794 | 789,486 | 524,869 | 692,987 | 698,122 |
| Farms | 90,123 | 127,351 | 117,626 | 117,770 | 115,433 | 107,442 | 60,812 | 47,077 |
| Sheep farms | | 28,354 | 19,703 | 19,555 | 19,766 | 14,405 | 12,669 | 12,880 |
| Sheep flock | 2,054,188 | 2,356,291 | 2,153,226 | 2,371,709 | 3,129,687 | 2,808,450 | 3,028,373 | 3,318,025 |
| Average sheep number for farm | | 83.1 | 109.3 | 121.3 | 158.3 | 195.0 | 239.0 | 257.6 |
| % forage crops on arable land | 0.7 | 15.1 | 24.8 | 28.4 | 40.5 | 49.0 | 58.1 | 62.0 |
| % permanent grassland on UAA | 49.0 | 66.7 | 75.4 | 65.0 | 58.1 | 51.5 | 60.1 | 56.5 |
| % forage crops on UAA | 0.2 | 2.0 | 4.4 | 7.4 | 13.7 | 19.8 | 19.8 | 24.1 |

Source: author's elaboration of data from the ISTAT Agriculture Census.

feed, diesel, electricity and water, fertilisers, chemicals and seeds for farming, expert consultants such as veterinarians, agronomists and accountants. Shepherds, therefore, have become much less self-reliant than in the past, owing to production inputs which they have to purchase largely from the market. However, in those years, this dependency was less visible because there

were growth phases. The demand for Pecorino Romano cheese was relatively stable in the international market, thanks to the EU system of export refunds, which ‘ensured that dairy exports to lower priced markets still delivered a return equivalent to what could be achieved if those dairy products had been sold within the EU’ (Jongeneel et al. 2023: 26). The export refunds kept the price of cheese artificially high, stimulating the shepherds to expand their farms and specialise in producing low-cost milk for the industry. In the late 1990s, Sardinian pastoralism expanded, but became dependent on the market for inputs and outputs. This fragility would emerge strongly during the neoliberal turn of the 2000s.

5. The neoliberal turn and its effects

Since the 2000s, Sardinian pastoralism has had to face a neoliberal turn in global agri-food chains (McMichael 2005). EU policies have moved towards a logic of competition and the free market, and the financial support for agricultural exports has been abolished as an effect of the GATT Uruguay Round Agreements, entered into in 1994 to remove customs barriers. Without the stabilisation of the price of Pecorino Romano cheese through the export refunds system, the volatility in the markets was accentuated (Jongeneel et al. 2023); as a result, the price of milk became increasingly volatile as illustrated in Figure 1. In addition, in 2000–2020, the price of milk remained on average below the minimum threshold value of one euro per litre. This was indicated by shepherds during interviews as being the minimum level for them to be able to survive and for remunerating shepherding work (Farinella 2020). The trend since 2020 depends on other specific factors that will be analysed later.

The neoliberal turn has increased competition and prompted many pastoralists to implement different strategies in an attempt to cope with market uncertainty and contain the risk of an agricultural squeeze. These strategies are short-term oriented in order to adapt to cyclical market trends (Farinella 2020): when the price of milk is high, pastoralists increase milk production, aiming to produce more at lower costs, and to increase profit margins through strategies of concentration, specialisation and intensification, following a productivist paradigm (Marsden et al. 2005). When the price drops, shepherds contain their losses by falling back on strategies of production diversification, de-intensification and multifunctionality, which are the basis of the agropastoral model. Moreover, since 2003, following the CAP reform that pushed towards a rural development rationale (European Commission 2005), through the mechanism of decoupled payments and the promotion of agri-environmental schemes, pastoralists have increasingly incorporated the new policies into

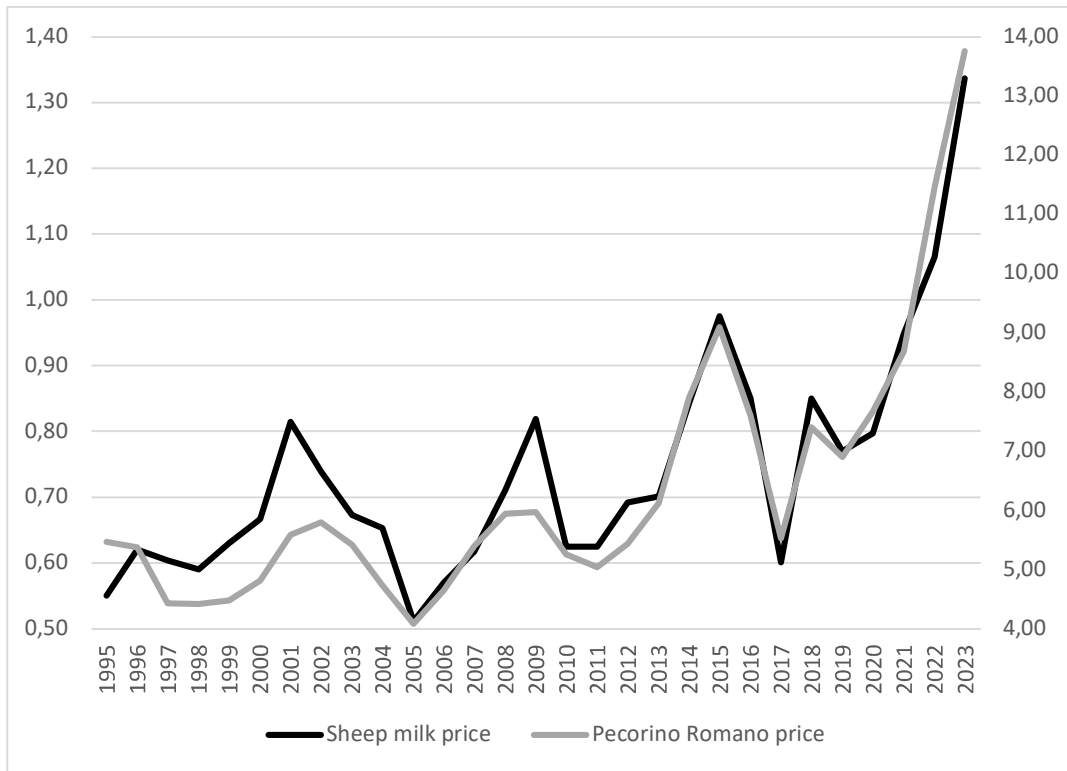


Figure 1.

Trend in Sardinian sheep milk price and Pecorino Romano cheese price (€/litre, left-axis and Pecorino Romano price (€/kg right-axis), years 1995–2023.

Source: author's elaboration from ISMEA data.

farm management to adapt flexibly and resiliently to the market. On Sardinian pastoral farms, which have seen on average a large extension in hectares over the years, the new agro-ecological schemes have been an opportunity to maximise the funding that can be obtained, providing both liquidity to the farm and forms of compensation at times of crises.

In the long run, these strategies generate a range of contradictions and may conflict with each other. For example, as pastoralists complain, farms have become dependent on CAP policies and funding for their survival, and the bureaucratic and management costs of accessing funding and complying with cross-compliance requirements have increased. The perverse effect is an increasingly subsidised but also more fragile pastoralism. Or again, the trend toward concentration and specialisation to generate economies of scale has meant that the average herd size on farms has become increasingly large over the past two decades (Table 1). Although livestock farmers have continued to

expand the land they farm and specialise in farming for livestock (grassland, forage, hay, silage), following a semi-extensive farming model, the number of animals per hectare has increased, with the paradox of extensive pastoralism being intensified. Moreover, the productivity per head has risen, thanks to increasing genetic selection of animals, rationed grazing, selected and expensive feedstuffs, hormones to speed up births, etc. In 2002, the stock of sheep was 3,557,584 and 2,985,673 quintals of milk were produced. By 2020, there were 3,089,396 sheep producing 3,096,312 quintals of milk (ISTAT data). These intensification drives are undermining the resilient nature of agropastoralism.

For the shepherds, ‘improving’ means producing more milk with the same number of sheep. Nevertheless, in the neo-liberal context of high milk price volatility, production costs are rising at a time when the price of milk remains low. The sacrifices and investments to modernise cannot be repaid, as the following excerpt comparing old and modern farming methods illustrates.

[For 250 sheep and 30 goats] every month this year I was feeding them 40 quintals of feed ... then I bought 600 bales of alfalfa, 30 bales of regular hay and 250 bales of straw ... The alfalfa last year was 23 euros a quintal, I must have spent about 5,000 euros just on alfalfa. I paid 3 euros for the straw and spent 700 euros. And the bales were almost 40 euros per bale, that is 1,200 euros worth of bales. For the whole year ... For grazing I had a cultivated grassland and I used to put sheep there. Pay attention: before, they [the old shepherds] used to put them out all day long and they saved money! Now, before we send sheep out to pasture we put a bale of hay out for them. And then around 10 o'clock and you send them to graze. After an hour, hour and a half you put them back in the pen again where there is another hay bale ... The breeding, it's almost semi-wild in practice ... However you are always giving them hay before you put them out to pasture, that is you are always spending! The old shepherds ... because feed was scarce ... would give some grain, some corn. They used to milk them in pens where it was not mandatory to give them feed. Today for milking we must catch them, and to catch them you have to give them feed. So, you must spend. In the morning when you wake up ... you are already spending! ... Before, people lived day by day, they had no laws to comply with like we have [refers to the rules to obtain CAP incentives], ... they would deliver milk with a donkey, they would go on foot and not return from the fold, they would stay there. Instead, we now have a car to do errands and a vehicle to go to the countryside! ... My mother had four brothers and they had 300 sheep. And they all made their homes, they bought land ... I thank God I have the house! But they bought their house in cash, while I am paying a mortgage! ...

Today, if you don't give them feed, ... within a year you have no sheep left! ... Before it wasn't the case! But let's understand they had sheep that produced little ... Among shepherds we say ‘how much do you produce per

sheep?' and we say 'a litre', 'a litre and a half'. Before the shepherds used to say '3 per litre'. That is, three sheep to produce a litre of milk! ...]They had sheep, maybe 300 sheep, that produced 100 litres of milk, and those hundred litres of milk were clean cash! ...

Question: But wouldn't it be better to go back to that system?

... We would need to change the genetics ... Of course, you can do it ... But why, if I have come this far, why do I have to go back? ... Since I started ... I have improved ...: I created the flock, then in the last fifteen years I have improved my flock ...: with the same sheep you produce more milk. That is, when I worked with my uncle, we used to produce 15 thousand litres of milk, now I produce almost 40,000 by myself!

N.S., Shepherd, Barbagia, Central Sardinia.

Larger lowland farms have the most selected flocks and costs are high considering that prime quality rams can cost thousands of euros, there are genetic certification costs, less productive ewes must be removed from the flock and overexploitation shortens the lives of animals.

With the genetic investment, with the same number of ewes I went from 135 thousand litres to 185 thousand litres of milk within 3-4 years. But behind that there is a work upstream of about ten years ... and then at the beginning you also suffer a loss ... because you have to make very high comeback quotas and you have to eliminate a lot, without any scruples!

G.M., Shepherd, Sarcidano, South Sardinia.

There are those like me who jumped ahead in the beginning to push the animals and then realised that it didn't add up: producing milk cheaply ... exploiting animals as machines ... in the end you ended up with an animal that died early, with very high production costs ...

G.B., Shepherd, Campidano, South Sardinia.

Genetic selection has changed the rustic features of the Sardinian breed, which originally was resilient and adapted to the wild pasture found in harsh terrain. Selected sheep are more fragile, prone to disease, and to the contraction and spread of viruses, and require feed and fodder supplements, even if they keep grazing.

Pastoralists pay veterinarians and nutritionists to determine the right ratio of feed, forage and grazing. They adopt controlled feeding systems in which grazing is rationed to a couple of hours a day, transforming livestock farming into a semi-extensive practice.

In addition, to keep costs down, herders buy concentrate feeds such as proteic pellets, corn, soy and soybean hulls (even genetically modified) or other industrial waste products (Farinella and Simula 2021). Although shepherds

claim that their milk is naturally ‘genuine’ because it comes from grazing, they confess that feed is an important part of the sheep’s diet and they do not seem to be interested in feed quality, especially when milk prices are high, and it pays to produce more to make a profit.

Our sheep are always given feed, but they are always in the wild. They are not locked always in the barn ... I keep them free in the territory of Suni! ... Look at this land where we are now ... from this grassland the milk produces a special cheese!

Interviewer: But you said you never bring them here!

I bring them at the beginning when they produce little. If I want to produce, I must get away from here! ... To make that good milk ... we should produce less ... we have to change the feed, meaning all those concentrates, those 22% protein feeds, they have to go, the sheep need eat only peas, corn, peas, fava, beans that makes good milk. If we use concentrates, we don’t produce good milk!

A.P., Shepherd, Marghine, Central Sardinia.

This productivist paradigm for shepherds is not in conflict with adherence to CAP agro-ecological schemes, which are core to farm livelihood. Sheep farms exploit the land at their disposal to maximise the funding opportunity provided by agro-environmental schemes and CAP incentives: based on the hectares they own they access a single payment; they also diversify land use through eco-friendly farming practices (e.g., organic farming, crop rotation, soil defence, greening) according to a purely utilitarian calculation, aimed at assessing the costs and benefits of each agro-environmental practice (Häyrynen et al. 2022):

The first time we went into organic farming, in 1994, we were among the first shepherds to do so in Sardinia! ... Looking for subventions! Sure! Not for anything else! This works! ... We were looking for funding! ...

Interviewer: Why now do you want to leave organic?

Because it is better to copy T. [*another shepherd*] who replaced organic with soil defence measures, that is alternating crops and ploughing once every 5 years. This practice is less expensive than organic ... With organic farming, you must always plough organic and today it is a risk! [*referring to the fact that drought and bad weather can ruin the crop*]. With soil defence, this year’s payment is 243 euros per hectare to plough once every five years!

D.O., Shepherd, Barbagia, Central Sardinia.

A rational cost-benefit calculation with a view to maximising access to CAP incentives is also found in the choices related to flock management: in order to access payments from the animal biodiversity measures and diversify

sources of income, many farms located in inner areas also breed other species, belonging to protected, historical and/or endangered breeds, such as the Sardinian-Modican cow. All the pastoralists participate in animal welfare measures, introduced as early as 2000 in Sardinia, which provides a payment per head if a series of breeding practices are adopted that should ensure improved animal welfare. This is even though shepherds complain during interviews that these practices are senseless and even damaging, such as the obligation to put straw in the barn during the summer period, when the sheep are always grazing, or to take time-wasting courses to prevent mastitis with less competent teachers than them.

Community policies thus contribute strongly to the reshaping of the agrarian landscape. Decisions, such as converting the farm to organic, adopting land rotation in crops, even raising other species, are rationally addressed by the possibility of maximising CAP funding opportunities, both to allow the pastoralist to endure in times of crisis and to have cash to invest in times of growth. This leads to further contradictions. For example, in the case of farms with a large amount of land and much livestock, which are also the most intensive (and therefore less environmentally sustainable), CAP payments based on agroecological schemes are an important entry of the farm budget. At the same time, these politics are also a push for pastoralists to reactivate in a different way the agropastoral model and reinforce agricultural multifunctionality. Especially in order to counter rising costs and reduce dependence on the market for the inputs, the exploitation of land to directly self-produce at least some feed requirements such as fodder, grains and grasses is crucial.

In the 1990s the technicians who came to teach us how to become a 'modern shepherd' would tell you ... that you had to increase quantity, but in Sardinia ... often the farm doesn't have a lot of land and you have to resort to inputs bought from outside the farm ... You were creating farms in a few hectares with thousands of sheep and having to buy almost 90 per cent of the farm's needs, instead ... the right thing would have been to make 90 per cent and purchase 10 per cent!

G.B., Shepherd, Campidano, South Sardinia.

I do forage, I do threshing, I try to amortise production costs, to have some of my own seed as well, rather than to buy it! ... Just to amortise!

D.M., Shepherd, Barbagia, Central Sardinia.

Pastoralists readjust their farming methods in a flexible and resilient manner. At times of rising milk prices, while natural grazing is limited, to prevent the animals from having milk-reducing traumas or becoming sick, monoculture grasslands (such as ryegrass or alfalfa) and the production of agricultural

fodder are prevalent, although at risk of loss of agricultural biodiversity. However, when milk prices have fallen or input costs have increased, free-range grazing has become essential again, the imperative becoming no longer to produce, but to maintain the herd while waiting for better times. Feeds are minimised and the grasslands are less cultivated. Open-air grazing on wild fields, typical feature of the agropastoral model, remains a critical resource for ensuring self-reliance and survival, making it possible to extract value not purely in a monetary sense, but in terms of material worth.

In this context, an important role is also played by exploitation of the family and wage labour. Since the 1990s, to face the problem of a declining population and aging pastoralists, the use of wage labour has involved heavily exploited migrant workers, first Albanians, replaced by Romanians, and more recently also by North-Africans and Indians (Farinella and Nori 2020). However, work exploitation is also a feature of the shepherd and his family. As revealed in the interviews, pastoralists are always working, sometimes under the impression that 'they are doing it for free'. For them, shepherding is a way of life. Borrowing from the agropastoral model, sheep farming remains a family affair, to which everyone must contribute. Multiple families (e.g., two siblings) may work on the same farm. Other non-full-time members, such as retirees, children at school, other family members doing different jobs, contribute for free in their spare time. The pastoralists themselves often hold other jobs as well, and this multi-activity is encouraged as a strategy to diversify the income of the family-farm.

Diversification, multi-farming, multi-activity, informal family work and self-production for self-consumption, allow for resilience during times of crisis, but also create nonmonetary worth that amplifies the ability to invest in times of growth:

I make cheese all year round, for me and also for some customers who buy ... the other milk I pour into the cooperative and that's it ... Here I have a couple of sheep that I have to kill, I send them for meat ... I have already sold about ten, but I also kill them for myself ... For now, the cows I have are limousin ... In June I sell the calves ... We are sheep herders ... but pigs has always been on the farm! ... The leftover milk is drunk by the pigs. The pigs ... we need for our supplies and a few pigs we could even sell.

D.O., Shepherd, Barbagia, Central Sardinia.

I see an agropastoral sector that is greatly in crisis. Those who manage to resist like us, work and wait for better days, and then we have always been in crisis anyway ... It's a matter of culture, we still haven't lost it, a culture of resisting ... On my farm there are several brothers ... We do everything, beekeeping, woodcutting, cork extraction, we all have sheep ... We are

shepherds then we also do other things, the shepherd has never just been a shepherd, this is a recent thing, and that's where the cheating is, at the agrarian school they used to tell me this crap ... they told it to everyone ... they said 'the key to get out of antiquity, to achieve modernity, is super-specialisation' ... they told us ... 'you have to become powerful, produce mass' ... those who did it now are trapped, they pay instalments, they are slaves to a system!

S.L., Shepherd, Gerrei, South Sardinia.

The path of diversification towards agricultural multifunctionality has also been pushed in recent years by the EU's rural development policies (Wilson 2007). Many sheep farms have enjoyed funding for installing mini-cheesemaking equipment and have started cheese production on the farm, as well as for diversifying to other agricultural and service activities (e.g., agritourism and educational farms, energy production by wind). During my research, I visited many multifunctional farms making artisanal cheese, and noted again flexible and adaptive behaviour. For many pastoralists, multifunctionality rather than any alternative is embedded in capitalist processes. It is a strategy for positioning oneself in segmented markets (moving from a commodity model to a specialty model) and having an option to be flexibly activated when the price of milk is too low and able to be abandoned when the price rises, and it is more convenient and less labour intensive to sell milk to the industry. However, there are more and more shepherds consciously adopting multifunctionality as an alternative production model to the capitalist market, in order to reaffirm peasant autonomy (Van der Ploeg 2013), enhancing the resilient and ecological features of the agropastoral model.

This trend seems to be an inevitable path now more than ever. As Figure 1 highlights, 2020 onward witnessed an unprecedented phenomenon: a steady growth in the price of milk, driven by that of Pecorino Romano, which was in high demand on the part of large-scale retailers during the pandemic. This growth enshrined an average milk selling price in 2023 of just under 1.40 euros per litre. Despite better remuneration, pastoralists have seen their conditions worsen, and many are at risk of deactivation due to galloping increases in production costs, particularly electricity, diesel, feed and seed, compounded by rising inflation and drought costs caused by climate change. Sardinia has also seen numerous protests by farmers and shepherds.

Following a general trend in global pastoral systems (Pardo et al. 2023, Scoones 2023, Manzano et al. 2021), to get out of this crisis it seems crucial to shift beyond the productivist pastoral model to the more resilient and sustainable agropastoral model, based on a greater role of pasture over feed and less genetic selection of the herd.

6. Final remarks

In 2019, faced with Sardinian shepherds who emptied milk onto the streets in protest at low milk prices due to economic and financial speculation on the international market for Pecorino Romano cheese, Zurru (2019) argued that the problem was related to the ‘inertia’ of pastoralism, which remained poorly market-oriented. Contrary to this stereotypical narrative of the backward, anti-capitalist shepherd, in this article we have illustrated how the troubles of Sardinian pastoralism arise from a subaltern embeddedness in the global capitalist market. We have tried to deconstruct these essentialising narratives, showing how pastoralism has survived within global commodified supply chains with regard to cheap milk and cheese, exploiting the resilience, diversification and risk management capacities that are typical of the Mediterranean agropastoral system.

We have emphasised how, from the modern era onwards, Sardinian pastoralism has become connected to international capitalist markets through the export of ‘white cheese’. We then focused on the way in which state policies and the market has reshaped pastoralist relationships within capitalism from the late eighteenth century onward. We pointed out how market uncertainties and the problem of milk prices, purely capitalist issues, became increasingly central with the arrival of the industrial processing of Pecorino Romano cheese on the island in the early twentieth century.

Despite the intense modernisation of pastoralism from the 1950s onwards, typical elements of the agropastoral persist model. The ability to take risks, the flexibility and adaptability that comes from the experience of transhumance, as well as from the family-farm, rather than being obstacles, were crucial in the modernisation and settlement processes.

Between the 1980s and 1990s, shepherds increasingly specialised in producing low-cost milk for the Pecorino Romano industry. This led to an enlargement of holdings and an increase in the number of animals, as well as the development of livestock support agriculture. The professionalisation of pastoralism implied new and rising fixed costs as result of the innovations introduced. At the same time, pastoralists became increasingly dependent on the Pecorino Romano cheese industry for their income.

These issues have been exacerbated in the last two decades, when pastoralism has faced a neoliberal turn in the global market. Pastoralists have had to deal with uncertainties arising from movements in the market: the high volatility of sheep milk prices and the risk of an agricultural squeeze. Shepherds’ strategies to cope with these difficulties have been contradictory. On the one hand, some features of the agropastoral model have been used as flexible strategies to resort, resist or capitalise on some resources when it comes to

investment. These include a new complementarity between agriculture and pastoralism, multi-farming, family labour, wild grazing, self-production for self-consumption, diversification and multi-activities. On the other hand, some strategies have gone in the opposite direction: shepherds have accentuated hyper-specialisation in low-cost milk production, either through concentration and expansion of sheep-herds, or by increasing productivity per head of livestock. They have adopted semi-stable livestock management, with grazing rationed by the hour. They have replaced wild grazing with monocultural pastures that decrease biodiversity and have pushed for the genetic selection of animals that has led to overexploitation and rising feed costs.

The agri-environmental schemes of the new CAP have played a contradictory role: they have often been used as either an improper means of obtaining liquidity, or as a form of compensation in times of economic crisis, generating a tendency to maximise funding opportunities that were not always associated with a high level of pastoralist awareness of environmental benefits, as well as a strong dependence of pastoralism on subsidies.

So far, these strategies have coexisted contradictorily, with the prevalence of one or the other depending on milk price trends. In the long run, the commodification and overexploitation of the main factors of production (land, livestock and labour) in contrast to the declining rate of profit (Moore 2010), could erode the capacity of the agropastoral model to reactivate itself in times of crisis, and act as a clearinghouse for risks arising from the market. They also undermine the survival of the agropastoral model by eroding its resilience features, such as the rustic Sardinian sheep.

The recent surge in production and raw material costs resulting from the delicate international post-Covid conjuncture, as well as climate change, make the strategy of cheap milk increasingly unsustainable, and confronts Sardinian pastoralism with the urgent need to resolve all these contradictions, by enhancing more consciously those features of the agropastoral model that ensure a certain autonomy from the capitalist market and a resilient and eco-friendly adaptation to the environment.

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