Journal of Socio-Environmental Law
Dossier "Territorialities and Socio-Environmental Conflicts".
jul./dec. 2025

How to cite this article:

FAVRE, Joaquin Ulises Deon; BALMACEDA, Nadia Alexandra. (De)bovinization, (de)serranization and solidarity in the sierras of cordoba, argentina (2000-2020). **Journal of Socio-Environmental Law - REDIS,** Morrinhos, Brazil, v. 03, n. 02, jul./dec., 2025, p. 146-193.

Submission date: 24/08/2025

Approval date: 01/12/2025

(DE)BOVINIZATION, (DE)SERRANIZATION AND SOLIDARITY IN THE SIERRAS OF CORDOBA, ARGENTINA (2000-2020)

(DE)BOVINIZAÇÃO, (DE)SERRANIZAÇÃO E SOLIDARIEDADE NAS SIERRAS DE CÓRDOBA, ARGENTINA (2000-2020)

(DES)BOVINIZACIÓN, (DES)SERRANIZACIÓN Y SOLIDARIDAD EN LAS SIERRAS DE CÓRDOBA, ARGENTINA (2000-2020)

JOAQUIN ULISES DEON FAVRE[1]
NADIA ALEXANDRA BALMACEDA[2]

ABSTRACT

What is the situation of the dispersed rural population in the highlands in relation to small-scale livestock production and the advance of real estate, tourism, and quarrying in the departments of Totoral, Punilla, Colón, Calamuchita, and Santa María in the Province of Córdoba? In the territories of the Chaco Serrano morphoclimatic zone, in the eastern portion of the Pampean Highlands, existing territorial structures not only shape the landscape in the reproduction of capital, but also generate social conflicts over food, water, and land, such as those that exist in the Sierras Chicas region, where the depopulation of the highlands through intentional fires, deforestation, and destruction of watersheds is displacing the small farming families who have historically lived there. Through interviews, field surveys, analysis of regulatory frameworks, and journalistic sources, we document here the ongoing (de)serranization. The deterritorialization of mountain life and traditional family cattle farming practices is increasingly occurring in the face of urban and real estate development, large-scale quarrying,

[1] Geographer, PhD in Agrarian Social Studies from the Center for Advanced Studies (CEA) of the National University of Córdoba (UNC). PhD in Urban–Regional Studies from Bauhaus University Weimar and the National University of Córdoba (UNC). Career researcher at the National Council for Scientific and Technical Research (CONICET). Adjunct Professor of Rural Territorial Organization in the Department of Geography, Faculty of Philosophy and Humanities, National University of Córdoba (UNC). Member of the Center for Studies on Culture and Society (CIECS/CONICET–UNC). Contact email: joaquin.ulises.deon@unc.edu.ar. ORCID: https://orcid.org/0000-0002-6499-9322.

[2] Bachelor's degree in Nutrition. Master's degree in Public Health. PhD candidate in Agrarian Social Studies. Adjunct Professor of the course Food–Nutritional System and Socioenvironmental Human Development at the School of Nutrition, Faculty of Medical Sciences, National University of Córdoba (UNC). Contact email: nadia.balmaceda@unc.edu.ar. ORCID: https://orcid.org/0000-0002-3323-604X.

recreational/tourist activities, and initiatives that prioritize environmental and tourism services through depopulated areas, thus undermining the habitat and agricultural practices of the mountains. This deterritorialization process is leading to resistance and resilience in the mountains, sustained by food security and urban-rural solidarity against land grabbing, the expansion of mining and real estate development, which have serious consequences for ecosystems, local economies, and water availability in watersheds.
Keywords: (De)bovinization. Hills. Territory.

RESUMO

Qual é a situação da população rural dispersa nas terras altas em relação à pecuária de pequena escala e ao avanço do mercado imobiliário, do turismo e da extração mineral nos departamentos de Totoral, Punilla, Colón, Calamuchita e Santa María, na província de Córdoba? Nos territórios da zona morfoclimática do Chaco Serrano, na porção leste das Terras Altas Pampeanas, as estruturas territoriais existentes não apenas moldam a paisagem na reprodução do capital, mas também geram conflitos sociais por alimentos, água e terra, como os que existem na região das Sierras Chicas, onde o despovoamento das terras altas por meio de queimadas controladas, desmatamento e destruição de bacias hidrográficas está deslocando as pequenas famílias de agricultores que historicamente ali viviam. Por meio de entrevistas, pesquisas de campo, análise de marcos regulatórios e fontes jornalísticas, documentamos aqui a (des)serranização em curso. A desterritorialização da vida nas montanhas e das práticas tradicionais de criação de gado familiar ocorre cada vez mais em resposta ao desenvolvimento urbano e imobiliário, à extração mineral em larga escala, às atividades recreativas/turísticas e às iniciativas que priorizam serviços ambientais e turísticos em áreas despovoadas, comprometendo, assim, o habitat e as práticas agrícolas das montanhas. Esse processo de desterritorialização gera resistência e resiliência nas regiões montanhosas, sustentadas pela segurança alimentar e pela solidariedade urbano-rural contra a grilagem de terras, a expansão da mineração e o desenvolvimento imobiliário, que têm sérias consequências para os ecossistemas, as economias locais e a disponibilidade de água nas bacias hidrográficas.
Palavras-chave: (De)bovinização, Serras. Colinas. Território.

RESUMEN

¿Cuál es el estado de la población rural serrana dispersa en relación a la pequeña producción ganadera serrana y ante el avance inmobiliario, turístico y minero de canteras en los departamentos Totoral, Punilla, Colón, Calamuchita y Santa María en la Provincia de Córdoba? En los territorios del dominio morfoclimático del Chaco Serrano, en la porción oriental de las Serranías Pampeanas, las territorialidades presentes no sólo son modeladoras del paisaje en la reproducción del capital, sino también las generadoras de conflictos sociales por los alimentos, el agua y la tierra, como los que existen en la región de las Sierras Chicas donde el despoblamiento serrano a fuerza de incendios intencionales, desmontes y destrucción de cuencas hídricas está desterritorializando a las pequeñas familias agroganaderas que históricamente allí habitan. Mediante entrevistas, relevamientos a campo, análisis de marcos normativos y fuentes periodísticas documentamos aquí la (des)serranización en curso. Una desterritorialización de la vida serrana y de las prácticas ganaderas bovinas familiares cada vez mayor ante el avance urbano-inmobiliario, la megaminería de canteras, las actividades recreativas/turísticas y aquellas que tienden al cobro de planes de conservación ambiental priorizando los servicios ambientales y turísticos con campos despoblados, en detrimento del hábitat y las

prácticas agroculturales serranas. Un proceso desterritorializador que está conllevando resistencias y re-existencias serranas sostenidas por la alimentación y la solidaridad urbano-rural contra el acaparamiento de la tierra, el avance extractivista minero y del negocio inmobiliario con graves consecuencias en los ecosistemas, en las economías locales y en los daños a la disponibilidad de agua en las cuencas hídricas.
Palabras clave: (Des)bovinización. Sierras. Territorio.

INTRODUCTION

The transfer of thousands of heads of cattle between the 1980s and 2000s to the Sierras of Córdoba - first to the Sierras Cordobesas and later, from the central area (Sierras Chicas, Punilla, Paravachasca, and Calamuchita) to the Southern Sierras of Córdoba, San Luis, Santiago del Estero, and Catamarca during the 2010s - was termed the process of *bovinization* by Hocsman and Preda (2006). This process transformed local productive dynamics: families that once owned only dozens of animals became cattle raisers integrated into market circuits, in parallel with the soybean expansion and agriculturalization of Argentina's Pampas and extrapampas regions. Bovinization caused severe damage to local grasslands and forests (Scaglia et al., 2021). Although many species of native forest ecosystems - such as the Gran Chaco and Espinal and their mountainous ecotones - had developed symbiotic relations with low-scale family cattle ranching (no more than 100 cattle and/or horses on a minimum of 200 hectares), the impacts of bovinization intensified due to sporadic wildfires (Argibay; Reninson, 2018).

Two of the interviewees expressed this clearly, stating:

> los incendios a son cada vez más seguidos y es una pena porque no son para que reverdezca la pastura para los animales o cosas así, son intencionales y lo que buscan es destruir el monte, sacar a todos los que vivimos acá hace años y hacer negocios entre ellos (como explica G. D. en una entrevista. 15-01-2024).

Although wildfires had been a recurring practice for decades, families living in the mountains remained there due to their direct relationship with mountain watersheds and extensive, community-based cattle ranching in forested areas. They also stayed because they worked as drovers, field caretakers, rural teachers, small farmers, bricklayers, slaughterers, fencing workers, and stone masons. This was possible thanks to an extensive network of local slaughterhouses and meat-processing plants (municipal or small-town butcheries) that facilitated short commercialization circuits, which functioned until the 1990s, when these facilities began to close and livestock started to be sold live to other provinces.

However, wildfires and floods following deforestation - or the diversion of upstream waterways to supply tourist complexes and gated communities - have increasingly influenced the depopulation of family livestock establishments. To the unfavorable conditions produced by privatization and closure of local slaughterhouses, the meager prices paid by transporters and buyers of live cattle for large multinational or national meat-processing companies located in medium and large cities (such as Córdoba, Alta Gracia, Jesús María, or Villa María), a territorial problem was added: the impacts of intentional wildfires, which began to undermine cattle breeding, watering, bathing areas, and family habitats. Indeed, the proliferation of intentional fires that kill animals, burn pastures, destroy watersheds and water sources, and threaten rural mountain life has become a weapon for the eviction of families engaged in agricultural production and food processing of animal and plant origin in the Sierras.

These territorial impacts have also transformed watersheds into real "slides," where rainfall washes everything down eroded slopes after fires. What is destroyed by intentional fires is followed by machinery of dispossession - such as bulldozers, motorsport circuits (rally races, quad bikes, enduro), and groups of technicians who advise families to "restore" the forest without inhabiting it, charging fees for soil-management plans and environmental services - thus creating new tools of dispossession of the means and ways of life of mountain families (Deon, 2022; Díaz; Deon, 2025).

As early as the 17th and 18th centuries, Dobrizhofer (1783) had already noted the severe impact of livestock-related fires on colonial and Jesuit estates. More recently, Martin De Moussy (1864) and Alfred Stelzner (1890) also denounced these situations, while simultaneously mapping and meticulously describing soils and forests to facilitate exploitation for timber, firewood, and mining to support railway, construction, and port infrastructure development between the 19th century and the first half of the 20th century (Wedovoy, 1994). In these and many other works - such as those examined in Rosenzvaig's (1997) historicization of the Gran Chaco ecological universe - authors insisted on debating whether to maintain or abandon livestock activities, considering them incompatible with the economic activities expected to expand in the region: mining and urbanization (touristic and residential/commercial).

Although mining activity peaked in the Sierras Chicas until the 1970s (Gaido et al., 2015), both mining and family cattle management consolidated a hybrid territory in which livestock and mining production coexisted for nearly 80 years (Deon, 2021). From the 1980s onward, however, intentional forest fires enabled new large-scale quarry mining and, later, urbanization through gated communities and tourist complexes, which gradually displaced livestock from approximately 180,000 hectares of mountain land and eliminated about 130 agricultural establishments in just ten years. This

process not only displaced cattle but also producer families and community activities (festivities, communal slaughtering, rural schools and parishes closed) and even entire villages such as Ischilín, Copacabana, Villa Colimba, Pampa de Olaen, and San Fernando.

Indeed, concentrated economic power groups take advantage of declining land values after fires or floods, violently occupying or purchasing hundreds or thousands of mountain hectares at very low prices for recreational, urban, touristic, holistic, or eco-village development. In doing so, they pressure mountain inhabitants to transform their livestock-based agrocultural practices (Quirós, 2022), leading to their displacement from rural areas to nearby medium-sized urban centers (Sili, 2016; 2018).

Although these processes of territorialization and deterritorialization have unfolded for decades, the period from 2000 to 2020 has revealed the emergence of collectives organizing to resist by sharing autonomously produced food and forming consumer-producer networks, fairs, and communal kitchens (Balmaceda; Deon, 2021). These foods circulate through networks sustained by work with land, animals, crops, harvesting fruits, herbs, mushrooms, and other artisanal mountain products.

Among these foods, meat from family producers - shared during household slaughtering - brings people together in barbecues, stews, and empanadas prepared during juntadas[3], community gatherings and festivities. These events not only involve cooking food but also sharing oral histories transformed into poems, songs, and narratives, along with recipes, water-management practices, and proposals for collective work in defense of the forest. Such festive and harmonious encounters are essential to portray in order to situate mountain territoriality as constructed through communal gatherings.

Far from romanticized, these gatherings are embedded in intense struggles of resistance in a region where the process is no longer one of bovinization. In the Sierras Chicas - a territory of about 500,000 hectares across the departments of Santa María, Calamuchita, Colón, eastern Punilla, and southern Totoral - the National Service for Agrifood Health and Quality (SENASA), through data from the 2018 National Agricultural Census (CNA 2018), has revealed an accelerated process we term *debovinization*. Quantitatively, while these departments held approximately 340,314 head of cattle in 2009, by 2018 this number had fallen to 266,994 (CNA 2018).

[3] "Juntada" is a regional term commonly used in the mountain regions (*Serras*) to designate a gathering in which food is shared, guitar playing takes place, and conversations occur among friends, family members, and acquaintances. In these *juntadas*, collective decisions are also often made, such as organizing activities that may lead to a larger festivity, a popular assembly, or a social mobilization (Deon, 2022).

These finding challenges earlier studies that highlighted livestock displacement from core Pampas areas to extrapampas regions due to soybean expansion (Hocsman; Preda, 2006). The 2018 Census shows a loss of 73,320 heads of livestock (cattle, goats, horses, sheep) in this extrapampas region. It also reveals, as elsewhere in the country, increasing land concentration: agricultural establishments declined from 2,678 in 2008 to 1,847 in 2018 (Villulla et al., 2019). Of these, only 1,033 reported cattle ownership in the latter census, whereas all establishments had reported cattle previously. This coincides with accelerated rural depopulation. Table 1 summarizes estimated rural dispersed population losses based on the 2010 and 2022 National Population Censuses.

Table 1. Dispersed rural population in departments of the Sierras Chicas belt, 2010 and 2022.

Department	Dispersed rural population 2010	Estimated dispersed rural population 2022
Calamuchita*	2249	356
Colón+	1500	194
Punilla*	3422	687
Santa María*+	981	382
Totoral+	345	169

*Includes dispersed rural population in other mountain ranges such as Achala and Sierras Grandes.
+Includes dispersed rural population in piedmont and plains areas.
Source: Authors' elaboration based on data from the Provincial Directorate of Statistics and Censuses and INDEC (National Population Censuses 2010 and 2022).

The most striking case is Colón Department, where the rural population declined from 1,500 to 194 inhabitants, leaving 121 uninhabited houses in mountain areas, according to municipal and communal surveys conducted for the 2018 Agricultural Census and the 2022 Population Census. Here, land concentration intensified sharply: properties larger than 80 hectares decreased from 127 owners in 2010 to 36 owners in 2022 (IDECOR; Provincial Cadastre). Although data for other departments are unavailable, agricultural establishments declined intercensally by 30 to 56 percent.

These findings raise multiple questions: What explains these population and livestock reductions? How are they related to land and watershed concentration? What territorial impacts does debovinization entail - not only as a livestock process but also as an agrocultural deterritorialization?

While these questions are central, it is equally important to recognize the productive strategies sustaining agricultural establishments and the actions of populations contributing to agrocultural life in mountain landscapes.

Accordingly, we propose a methodology based on genealogical analysis using primary and secondary data, combined with direct participation in assemblies and post-fire solidarity actions, to understand rural development models and metropolitan urban expansion in this portion of the Gran

Chaco Sierras - a mountain territory that is also metropolitan, located within 100 km of the city of Córdoba.

We will employ journalistic inquiry, interviews, and census data to address the question: *What processes of capital territorialization and of re-existence/reterritorialization occur in the Pampas Sierras related to family livestock production?* We focus on the Sierras Chicas in dialogue with previously studied cases from other Córdoba mountain areas. This article expands on doctoral research conducted within the Doctorate in Agrarian Social Studies (CEA-UNC), including the dissertations *Sierras Chicas: Conflicts over Water and Territorial Planning* (directed by Dr. Luis Daniel Hocsman, co-directed by Dr. Omar Arach) and *Emergence of Food-Nutritional Autonomies in Sierras Chicas, Córdoba* (directed by Dr. Daniela Martina, co-directed by Dr. Omar Felipe Giraldo).

1 MORPHOCLIMATIC TERRITORIAL DOMAINS OF AB'SÁBER AND THE GRAN CHACO

The vast Sierras Pampeanas, located west of the Andes Cordillera, east of the Chaco-Pampean Plain and Mesopotamia, south of the Gran Chaco, and north of the Patagonian Plateau, constitute - together with the Andes - the country's main area of water recharge. From this region originate rivers and streams that form part of arheic, endorheic, and exorheic basins, replenishing aquifers in the plains and feeding major river systems such as the Paraná, the Salado (in Buenos Aires), the Dulce River, the Desaguadero, and lagoons such as the Mar de Ansenuza and the Pampas lagoon system.

Despite its arid and semi-arid conditions, this region functions as a true hydrological spring, where streams and rivers that sustain Argentina's main water basins originate. If Brazil's Cerrado region is considered the country's "water box" (*Caixa d'água do Brasil*) (Porto-Gonçalves, 2019, p. 32), the Sierras Pampeanas - together with the Andes - constitute Argentina's water box. From this territory flow rivers toward the Cuyo region, such as the Desaguadero; toward the central-southern region, rivers such as the Chocancharava and the Ctalamochita, which merge into the Carcarañá and continue eastward to the Paraná; while others, such as the Popopis, feed the extensive lagoon system of southeastern Córdoba Province and southern Santa Fe. The Paraná is also nourished by the Salado River (north), the Bermejo, and all waterways originating in the vast Chaco-Pampean Plain. Rivers from the central-northern Sierras feed the large endorheic basin of the Salinas Grandes and Ambargasta, as well as the Mar de Ansenuza system, supplied by rivers such as the Suquía, Xanaes, Carnero, Jesús María, and, further north, the Dulce. Finally, from this region - together with tributaries from the Andes - originate the Pilcomayo River and other rivers draining into the endorheic and Paraná basins

of the Gran Chaco. This extensive hydrological territory has enabled, for thousands of years, the development of diverse human agricultural and livestock practices.

Both Giberti (1961) and Reca and Frogone (1982) characterized the history of Argentine livestock production and emphasized the importance of geographical characteristics in the gradual expansion and industrialization of the beef agro-food complex. Their works highlight that the Pampas Plain and its "productive core" (between the Salado and Paraná rivers), followed by Mesopotamia (between the Paraná and Uruguay rivers), and later the Chaco Plain, were the territories most suitable for the development of cattle ranching. These areas encompass multiple morphoclimatic domains that enabled the territorialization, development, and long-term maintenance of livestock production as a central economic practice between the 17th and 20th centuries.

However, these morphoclimatic domains were not the only ones where livestock production developed. In territories where life is shaped by the convergence of diverse characteristics - soil, water availability, solar exposure, floristic and faunal diversity, and relief (Ab'Sáber, 1977) - other ways of inhabiting and working with livestock emerged. One such space is the mountainous regions. This extensive territory, formed by tectonic folding over 200 million years ago, became - through erosion and watercourses - a headwater area of river basins, a zone of biome convergence (given its central position between plains and valleys), and a supplier of minerals to those plains and valleys through wind and water action. For more than 800 years, livestock production in these areas followed a distinct trajectory from that of the Pampas and, indeed, served as a foundation for the social and territorial organization of Pampas livestock production. Llama and guanaco herding - and, in the Andes, vicuña and alpaca herding - developed within these morphoclimatic domains characterized by altitudinal variation, vegetation diversity, seasonal water availability, temperature fluctuations, and rocky terrains, enabling forms of habitation that would not have been possible without livestock production: first with camelids, later with equines and mules, and more recently with cattle (De Moussy, 1864; Montes, 1950; Serrano, 1945; Pastor et al., 2012).

Mountain morphoclimatic domains thus shaped a unique agrocultural landscape. Alongside natural mountain landscapes, geographic spaces and ways of life exclusive to this territory emerged. Populations built corrals, dwellings, paths, and roads to connect their collective livestock practices, using animals native to the ecoregion (such as llamas and guanacos), which were later rapidly transformed into bovine and equine practices following the swift adaptation of livestock species introduced during colonial times from Europe - species already present in other morphoclimatic domains such as the Pampas or Littoral regions.

Dobrizhoffer (1784), Montes (1950), Valdemarca (2003), Reyna (2023), among many others, describe how, in the Sierras Pampeanas or the Serrano Chaco, cattle ranching since the 18th century transformed landscapes and consolidated new territorialities. In the Sierras Chicas, stone enclosures (*pircados*),

some spiral-shaped - indicating communal camelid corrals - and straight-sided corrals - reflecting coloniality, private property formation, and European management practices - are now part of the heritage of Indigenous and Afro-descendant communities, municipalities, communes, and the provincial state. These structures are increasingly recognized for their cultural value and for their continued use by mountain populations up to the present (Deon et al., 2022). Livestock territoriality has been both a component of cultural landscape construction and, today, a collective tool for territorial defense against new advances of capital seeking to deterritorialize livestock production, appropriate watersheds, and destroy heritage sites.

In Argentina, the Sierras Pampeanas (Ramos, 1999) represent one of the main territories whose morphoclimatic domains are defined not only by geomorphological and altitudinal features - where climates and multiple forms of life from other regions converge - but also by endemic species specific to the region and its ecotones. The presence of grasslands and abundant watercourses made mountain landscapes favorable for cattle, equine, and mule livestock production since the 17th century, a process of bovinization similarly experienced in the Tandilia and Ventania ranges in present-day Buenos Aires Province.

The region's morphoclimatic characteristics enabled the construction of high-altitude shelters, drovers' outposts, corrals, paths for herding thousands of animals, stone fences, milling spaces, irrigation channels, communal canals, slaughterhouses, and settlement networks that energized social and economic exchanges between the Sierras and other Argentine regions for centuries through livestock production.

Family livestock territoriality emerged from subsistence needs and is closely linked to food production through the rational use of fluctuating watershed dynamics, forest resources, introduced fruits cultivated in gardens and orchards, and recipes shared ancestrally and interculturally, as well as processions and dances celebrated within families and among friends in mountain hamlets. When family livestock production became a livelihood enabling the subsistence and reproduction of family productive units, it came to be organized - over the past two centuries - around the crucial roles of *puesteras*, *puesteros*, herders, and livestock caretakers. In the 19th and early 20th centuries, this system primarily benefited large landowners through the sale of thousands of animals - often hardy creole breeds adapted to mountain terrain - later sold live through short commercialization circuits serving the meat industry, largely oriented toward local production and consumption via families working as butchers, processors, slaughterers, and traders. This mixed livestock system persists today, often combining cattle with pigs, goats, chickens (for eggs and meat), and sheep (for wool, hides, and meat).

As observed by Silvetti (2012) in Cruz del Eje, mountain livestock grazing is extensive, relying on forage provided by shrublands and herbaceous vegetation of native forests. Extractivist livestock territoriality and mule-based transport were central to the *de-ecologization* of Indigenous communities in the Gran Chaco from the 17th to the early 20th century, as these communities ceased symbiotic living with the forest and

became subjected to fires, displacement, and incorporation as herders and caretakers on Jesuit estates and later land grants or ranches (Rosenzvaig, 1997).

Thus, bovinization predates the 1990s–2000s timeline proposed by Hocsman and Preda (2006). Its role in dispossession and land concentration can be traced to the advance of capitalism in extrapampas territories with the emergence of colonial estates and territorial disputes with Indigenous communities. Agrarian capitalism diversified its territoriality following the creation of the Argentine State and the Province of Córdoba, intensifying exploitation of mountain workers with the arrival of the railway in the late 19th century and driving population pluriactivity. Labor shifted from mule livestock production - largely replaced by railways, roads, and trucks - to forest extraction in the Gran Chaco and Serrano Chaco (logging molle, tala, algarrobo, and quebracho trees), and to mining expansion (lime kilns and marble quarries), resulting in the proletarianization of family labor formerly dedicated to livestock and now diversified into mining, logging, construction, and other increasingly urban trades.

As Rosa Arguello recounts:

> las mujeres quedamos cuidando los animales cuando los hombres se iban a las canteras o al obraje como hacheros. Y nosotras carneábamos, ordeñábamos, cuidábamos las hijas, los hijos hacíamos las tareas del hogar, el queso, la leche, juntábamos yuyos, manteníamos la quinta, llevábamos carne y quesos al pueblo y lo vendíamos, como hacen hoy algunas pocas familias también. Las niñas y niños trabajaban en las verduleras (carros tirados por caballos) que pasaban comprando productos a nosotras y que los llevaban al mercado en Córdoba o en los centros turísticos para vender allí frutas, verduras, salames, quesos, aromáticas, mermeladas y demás. Los niños y niñas también trabajaban yendo a acomodar cajones y como vendedores. El oficio de los comerciantes móviles aún persiste tal y como lo hacía Don Chuni, Don Nando, Chacho Ochoa, El Trompa, Doña María y tantos otros con sus carros o rastrojeros que buscaban alimentos y traían otros para truequear (intercambiar) o vender". (Entrevista del 17-01-2017, cursiva aclarada por los autores).

As Silvetti (2021) notes, livestock-based domestic products were commodified within a rich social exchange sustained by growing rural–urban pluriactivity. Unlike other extrapampas regions, a livestock–mining–urban landscape gradually emerged in the Sierras from the 19th century onward, giving rise to a bovinizing livestock territoriality that would later resist mining and urban expansion.

This territoriality - built of stone, adobe, and wooden posts - became a permanent landscape feature of morphoclimatic domains shaped by cattle and mule introduction since the 18th century and, more recently, home to thousands of dispersed rural families inhabiting the "mother mountain." The first half of the 20th century was characterized by mountain territorial domains based on livestock production, with intensified cattle ranching and land concentration, yet under peasant control through mountain outposts and hamlets. This system relied on pluriactivity and commercial connectivity sustained by travelers in pickup trucks and horse-

drawn carts, linking dispersed rural families with urban centers and circulating food and household goods across regions.

2 LIVESTOCK HUSBANDRY IN KAMCHIRA

The Sierras Pampeanas region is a territory where bovine, equine, and mule livestock management has existed for at least 450 years. The livestock activity that still persists today developed in territories where pre-Columbian camelid herding shaped forms of encounter and collective labor among Indigenous peoples for roughly 800 years. From these livestock practices, the mountain landscape (*paisaje serrano*) emerged. The accounts of Florian Pauke (1749–1767), Martin Dobrizhoffer (1764), Martin De Moussy (1864), and Furlog (1935) constitute important records of observers who entered the territories of mountain livestock communities and described the presence of native animals that were part of communal capture practices and enclosures for the use of wool, hides, and meat. They also documented the violence and dispossession that, in colonial times, occurred through fires and massacres. These processes have been studied in the Sierras of Belén and Andalgalá by Jimenez-Escobar and Martínez (2019) and Raffino et al. (2015), who, drawing on biology and cultural anthropology, have shown that livestock management for transport purposes in mountainous and Andean areas enabled communication among peoples in Shinkal de Quimvil, Mutquin, Ancasti, and other mountainous territories, including those in present-day Córdoba. Clearly, when discussing wool, one is not speaking of cattle - still less of sheep - but of guanacos and llamas: American camelids that were widely present in Córdoba's Sierras, taking advantage of grasslands and the tender shoots of certain mountain vegetation. Today, these camelids remain only in piedmont areas of the Guasapampa ranges and the Salinas Grandes and Ambargasta in Córdoba Province; however, until 1860 they permanently inhabited the Sierras Chicas, Punilla, and Calamuchita (De Moussy, 1864).

Their presence was affected first by hunting, fires, and *pircados* (stone enclosures), and later by wire fencing. The extinction of these animals across a territory of roughly 300,000 km² occurred alongside the genocide and displacement of many Indigenous peoples - Henia-Camiare, Sanavirones, Rankulches, and mountain Diaguitas - who continue to struggle for their territory (Reyna, 2021). Many Indigenous inhabitants became *puesteros* (ranch outpost workers) on mountain estates or moved into sectors of the period's cities, such as La Toma (Palladino, 2018), Quisquisacate, Saldán, or Villa Allende in the city of Córdoba, where livestock keeping was practically restricted to the margins of the Suquía River or other tributary waterways.

The arrival of enslaved Africans (from Angola and the Congo), brought by ranch owners from Buenos Aires to Córdoba, Santiago del Estero, and Catamarca, altered mountain dynamics by gradually inscribing the Serranías with the practices they were compelled to perform: building stone enclosures to delimit land. The period from the 17th to the 19th centuries placed these enslaved workers at the center, as they were responsible for building and provisioning estates with food, alongside people from Chaco Indigenous communities (Mocovíes, Lules, Vilelas, Quilmes, Mbya, Sanavirones) who were displaced and brought to the Sierras with cattle to care for it and support its reproduction for trade (Celton, 1991; Rosenzvaig, 1997).

Mestizos and *criollos* were in charge of livestock management. The transport of animals in droves or groups of 500 or 1,000 cattle or horses - and, until the late 19th century, mules - was carried out by *arrieros* (drovers) who traveled dozens of kilometers daily between mountain outposts and hamlets. The animals' destination was hide production and shipment to the port of Buenos Aires, or provisioning of caravans toward the Littoral, Cuyo, or Upper Peru (Valdemarca, 2003; Tell, 2008).

Later, with the cadastral surveying of lands for provincial and national states, the eastern slope of the Sierras Pampeanas - closest to the Chaco-Pampean Plain - received expeditioners who came to describe its resources for exploitation. A new vector of development and dispossession imposed itself upon the region: the railway and industrial mining in lime kilns and quarries.

Soon, cadastral classifications baptized the mountain range as the Sierras of Lime, Marble, and Granite, and alongside them appeared other machines: gigantic kilns not meant for baking bread, but for producing lime and cement. At the beginning of the 20th century, livestock activity began to be restricted in certain towns that, together with mining, experienced another shift in their territorial, landscape, and morphoclimatic dynamics: tourism, reservoirs, forestry plantations with exotic species, and urban centers for curing diseases and pandemics originating in major cities (Buenos Aires, Rosario, Rafaela, Santa Fe, and Córdoba sought in the Sierras a cure for tuberculosis, malaria, meningitis, syphilis, and leprosy). Watercourses progressively saw a reduction in available water due to the increasing construction of reservoirs, dams, and intake structures to supply the lime and cement industry and to provide water to urban centers - generating severe impacts on family-based mountain livestock practices.

Gradually, livestock establishments turned into "European" landscapes, with conifer plantations, enormous mansions, and paddle and golf courts, while livestock suddenly "dirtied" the scene. From the 1940s onward, a process began in which agricultural establishments located near now-impounded waterways were lost, and, in parallel, urban growth flourished, consolidating tourist centers such as those that today dominate the valleys of the Sierras Chicas, Punilla, Paravachasca,

and Calamuchita. Here began what we have called *des-serranización*: the loss of mountain ecosystems, the leveling of hills through mega-quarrying, and rural depopulation - driven by an abrupt territorial and landscape transformation, simultaneously affecting flora and fauna and the built environment, propelled by mining companies, urban and tourism developers, and groups that speculate on environmental conservation while promoting "ecological" urbanizations without state authorization.

Comunas and municipalities emerged that enabled the hunting of native animals (peccaries, brocket deer, armadillos, birds), the capture of wild animals as pets (turtles, birds, certain reptiles), while horses, loose cattle, backyard chicken keeping, and livestock raising in urban areas were prohibited and "ordered" through a specific governmental body: the Instituto Superior de Agricultura. This process persisted until the 1990s with the arrival of gated communities (*barrios cerrados*) (Balmaceda; Deon, 2021).

Livestock came to symbolize rusticity or rebellion and was "useful" only as food purchased at the butcher shop. As Mereco Luna states:

> entre comienzos 1950 y hoy los animales sólo llegan a las ciudades serranas en fiestas patrias o procesiones de patronas, vírgenes o santos. El resto del año queda relegada al monte. Sierra adentro, la gente no ve una vaca o un caballo ni ahí en la ciudad fuera de las fiestas patronales o de los festivales. Sino viaja sierra adentro o si no se le escapó alguien desde algún barrio popular, esos animales no los ves, y pensá que antes en el Polideportivo o la Plaza de Unquillo o Villa Allende tenías barrales y postes para atar el caballo, la mula o el burro al lado del banco donde te sentabas a charlas con amigos o podías ir a la costanera y llevar a pastar el animal ahí u ofrecerlo para pasear y ganarte algo de plata, pero ahora no te lo saca la policía y la municipalidad te cobra un multón. Pocos pueblos ofrecen ese servicio o dejan que la gente lleve a pastar sus animales al río. También es entendible el riesgo (Entrevista 16-01-2024).

From the 1980s onward, livestock began a steep decline as a central economic practice in the mountain range: municipal slaughterhouses and those of local small and medium enterprises (SMEs) closed. Horses were allowed only in summer for tourism purposes, and owners had to register as alternative tourism providers. More recently, such activities can be carried out only at attractive points far from town centers, and service providers must hold specific training and guide certification under provincial Law 8801 and local regulations. Thus, livestock gradually lost territorial presence in mountain life. At the same time, the population also lost territorial rootedness due to fires that, in the 1980s, burned 420,000 hectares (many of them more than five times). Watersheds suffered contamination from dead cattle in watercourses; wells and watering points were covered in ash; hoses were destroyed; corrals were lost; and, tragically, not only 89 dispersed rural homes were partially or totally affected, but also - according to journalistic reports of the time - 13 people died while

attempting, in different fires, to contain flames that threatened their livelihoods. These events increased male pluriactivity and heightened women's rural responsibilities, not only in caring for children but also for an increasingly aged rural population confronting both the right to remain and the right to migrate of younger family members seeking better living conditions and employment in the city. This dynamic contributed to women over 40 becoming the predominant dispersed rural population in the national censuses of 1980 and 1991, representing 56% and 61%, respectively. These women endured multiple forms of violence aimed at forcing them to definitively abandon the Sierras and their lands, under pressure from mining and real estate entrepreneurs and governmental agents who, through the 1986 Provincial Constitution, compelled mountain communes and municipalities to shrink their jurisdictions, limiting them to service-provision areas and excluding rural lands and their ties to dispersed populations. Rural schools closed; roads and waterways ceased to be maintained; and health, water supply, and public support for rural mountain areas declined - facilitating extractivist neoliberal urban and mining expansion in a new stage of *des-serranización*, with *desbovinización* at the center of the territorial dispossession of those who inhabit and work in Córdoba's Sierras.

2.1 The gradual deterritorialization of mountain livestock farming

Until the 1980s, every mountain town and city had one or more slaughterhouses and meatpacking plants - municipal or locally owned SMEs (Fratini, 2013; Deon et al., 2021) - that supplied local meat consumption. Whereas in 1980 the Punilla and Colón departments had 47 municipal and local SME slaughterhouses/meatpackers to supply approximately 135,000 inhabitants, by 1995 only 10 remained, and by 2020 only 3 supplied 380,000 inhabitants. This does not mean that people eat less beef; rather, capital concentration in Argentina's beef agro-food complex has increased nationwide and, indeed, globally (Villulla et al., 2019). While production and consumption were previously 100% local, today approximately 95% of beef is processed by transnational meatpackers located more than 200 km from the place of consumption, seriously affecting livestock production and local trade in these basic goods. This dynamic has also contributed to rising beef prices and, coupled with inflation and the political-economic crises of the last two decades, consumption has declined, with annual meat intake increasingly replaced by pork and poultry, which are produced closer to consumption centers and at lower cost.

The deterritorialization of mountain livestock has intensified not only since the arrival of the railway or the closure of slaughterhouses, but especially since the 1990s. In that decade, neoliberal

policies reduced the territorial power of local governments over rural spaces and facilitated the arrival of mega-quarrying and, subsequently, real estate and tourism ventures. Constitutional and provincial reforms that stripped municipalities and communes - previously exercising jurisdiction over wide territories - reduced their authority to service-provision areas alone, leaving rural lands exposed to capital.

In this way, territorial transformations were consolidated that relegated livestock to recreational-tourism uses or deterritorialized it as a family - and even community - agrocultural practice. Livestock became an activity used to assert possession over large, uncadastrated areas or over properties whose livestock-keeping families, for various reasons, ceased to inhabit the land and either sold it or had it occupied by concentrated power groups who introduced cattle and employed non-resident, pluriactive workers - paid very low wages - to care for the herds in their spare time.

On one side, this process was driven by concentrated power groups acting territorially through intentional fires (Deon, 2022). On another, there was a growing commodification of certain popular festivities, which ceased to be spaces of gathering where families sold food and celebrated. In parallel, the purchase of meat and dairy derivatives became concentrated in multinational companies that imposed sanitary and legal restrictions on family producers, who had relied on selling food products at festivals, national celebrations, and popular gastronomic events - thus stripping them of economic power. This outcome was reinforced by another measure that harmed family livestock production: prohibiting farm animals in peri-urban areas and closing local municipal markets where families that slaughtered animals could sell or exchange cuts of meat, preserved foods, and charcuterie.

Consequently, territorial and population dynamics associated with family livestock are losing their spatialities due to continuous urban expansion and the gradual absorption of rural spaces (Sánchez, 2016; Valdez, 2013) and their agrocultural practices. This phenomenon is driven by new patterns of urban growth, where real estate business advances through dispossession and severe environmental impacts via deforestation and the construction of landscapes imported from elsewhere, with downstream effects on watersheds. The “Miami-ization” and “European-ization” of landscape and leisure have negatively impacted watersheds, native forests, and mountain agrocultural dynamics. Livestock has increasingly been confined to feedlots or corral-based systems, dependent on introduced species associated with these processes of “Europeanization” and “Miami-ization,” contributing to the spread of exotic landscapes. In response, a form of hardline environmental conservationism - combined with an ideal of uninhabited mountain ranges - pressures for the deterritorialization of family livestock and of those who inhabit the Sierras.

We thus witness a new set of territorial and morphoclimatic dynamics under construction, in which livestock no longer holds a central role and instead suffers deterritorialization amid fires, floods, and increasingly prolonged droughts, driven by altered hydrological regimes resulting from native forest loss and the uncontrolled consumption of water from watercourses and underground natural reservoirs.

For more than 300 years, livestock (first mules, then equines, and more recently cattle) has been the agrocultural practice that constructed the geographic and geomorphological dynamics shaping the mountain landscape of the Sierras Pampeanas in present-day Córdoba Province (Giberti, 1961; Arceo, 2017). Yet today, in the specific case of the urban–mining process unfolding in the Colón, Totoral, Punilla, Santa María, and Calamuchita departments - and expanding into San Alberto and San Javier in Traslasierra (Quirós, 2021; 2022) - mountain livestock is not necessarily the threat to mountain territories, as those who sought its deterritorialization in earlier centuries claimed, nor as current detractors suggest when invoking conservationist and real estate discourses to expel those who inhabit and work in the Sierras.

Accordingly, *des-serranización* has met with growing resistance since the 1980s, and more strongly since the 1990s, through neighborhood assemblies and collectives such as the Association for the Protection of the Mountain Environment, rural neighborhood councils, and new communes that have emerged or been strengthened across the Sierras (El Manzano, Cerro Azul, Amancay, Cabana, Calmayo, among others). In this way, communal and municipal hydrological and natural reserves have been promoted to gradually recover mountain territoriality in the watersheds that supply settlements with water (Páez et al., 2017).

Fortunately, mountain livestock and families who practice it still exist. But how is this re-existence sustained?

3 CARNEADAS, FERIAS, PEÑAS, CARRERAS CUADRERAS, THE JUNTADAS THAT SUSTAIN SERRANO LIFE

We have called it *family-based serrano livestock raising* throughout this paper because, across the entire Sierras Chicas region, only about 16 establishments concentrate roughly 82,000 head of cattle and are owned by large companies dedicated to cattle breeding, while the remaining 175,000 head of bovine cattle are distributed among approximately 1,025 livestock establishments across the five departments, with management shared among members of the same family and neighboring families. All of them operate extensive production systems and, in many cases, community-based

ones (not specifically quantified or recorded) in which they share grazing lands and the care of animals that use natural pastures, alongside equine, caprine, and ovine livestock.

This feature is central because, even though localities no longer have their own slaughterhouses, they still have one or more families who slaughter and share, exchange, or sell meat. It is important to note that when we consulted SENASA personnel about the legality or recognition of this practice, they clarified that:

> todos los establecimientos ganaderos y todo el ganado bovino están registrado y posee un código, los vacunadores somos responsables junto a las familias o personas dueñas de los animales de la zoonosis de los mismos, por ello no podemos limitar esos intercambios o comercializaciones de carnes, aunque tampoco los alentamos, porque sabemos que están basados en la confianza mutua y el compartir que son la base misma de la agricultura y la ganadería al igual que de las festividades. Lo que siempre, una y otra vez que visitamos a los productores, insistimos es en el mantener la higiene y el aviso de cualquier situación de enfermedad, mordedura de murciélago, mortandad por razones desconocidas y actualización en las vacunaciones. Por suerte la gente es cuidadosa, creo que sabe que de ello también depende su salud y economía. En la zona rural de Villa Allende, por ejemplo, recibimos la denuncia de un productor respecto a la muerte de muchas vacas. Cuando fuimos constatamos que estaban todas vacunadas pero se trataba de un problema de zoonosis ocasionada por unos murciélagos que tuvimos que controlar con la ayuda de especialistas. En Río Ceballos tuvimos que trabajar mucho para determinar que un problema de enfermedad de varios animales se debía a que estaban comiendo mucho siempre verde, una especie de árbol introducida para parquización que las vacas y caballos la ingieren ante la falta de pasturas causándoles problemas intestinales y ocasionando también la expansión más acelerada de esta y otras especies exóticas. En este caso tuvimos que lidiar con una Asociación Civil conservacionista que tiene a cargo los campos que se excusa en la necesidad de tener los animales para evitar incendios, algo inentendible porque están intoxicando animales qu a la vez expanden los bosques invasores que dañan las cuencas hídricas y otros establecimientos ganaderos próximos parte de la economía familiar campesina. (Entrevista a vacunador del Senasa, solicita se resguarde su nombre. 11-01-2014).

Recent studies have highlighted the advance of exotic and invasive plants[4], largely caused by human activity stemming from the Europeanization of landscapes in the Serrano Chaco and by the presence - planned or not - of livestock that ingest these plants (fruits, stems, and leaves) and, through digestion or by having fruits or propagules adhere to the animal's body, disperse them into new areas. The Colón Department and sectors of Punilla, Calamuchita, Santa María, Ischilín, and Totoral are among the most

[4] According to Bernardello et al. (2025), *exotic plants* are understood as those whose presence in a given territory is due to accidental or intentional introduction resulting from human activity, or that have arrived—without human assistance—from another area where they are native. This category includes *adventitious plants* (exotic species that do not form persistent populations and require repeated introductions to persist) and *naturalized plants* (exotic species that maintain populations over several generations without direct human intervention). These are indicated in the respective descriptions by a black circle placed before the scientific name. On the other hand, *invasive plants* are naturalized plants that produce new reproductive individuals—often in large numbers—at a certain distance from the parent plants (>100 m in <50 years for taxa dispersed by seeds and other propagules; >6 m every three years for species reproducing via roots, rhizomes, stolons, or creeping stems) and have the potential to spread over a large area. Many exotic plants that are not currently classified as "invasive" because they do not meet these criteria may become so in the future. In this sense, invasive plants are those naturalized species that spread autonomously in natural or semi-natural habitats, inducing significant changes in the structure, composition, or functioning of ecosystems (Bernardello et al., 2015:44).

invaded. This generates severe impacts on watersheds, on water availability and quality, and on biodiversity loss, with consequences for peasant economies and serrano agrocultural landscapes. There is intense debate in scientific and political-environmental arenas about whether or not to control these plants and livestock management in areas where exotics and invasives are present (Zak, 2019; Cingolani, 2008). Other studies have shown that, in territories where livestock has been removed and conservation plans financed by international or provincial forest-recovery funds have been established, processes of tourism expansion - through cabins, undeclared subdivisions, works such as retention ponds, motor-sport circuits, "sustainable quarry mega-mining," among other uses - are accelerating the destruction of native forests more than the presence of exotic species and livestock (Martina et al., 2021; Deon; Díaz, 2021; 2025).

As exotic species advance, rural serrano landscapes are transformed into new "natures" that destroy ecological stages and food processes for serrano inhabitants, while also creating new risks for watersheds and for consolidated urban centers that demand this vital element - water - which in Córdoba is increasingly brought from basins farther away than those of the cities themselves.

Thus, from the standpoint of landscape, a new stage of *serranización* is underway - i.e., a renewed society–nature connection in the Córdoba ranges. Here, mulberries, grapevines, fig trees, poplars, *talas*, willow groves, and ancient carob stands form part of a vast "yard" where people plan how to control species such as elms, *siempre verdes*, "Spanish flags," ash trees, and other invasive exotics that are harming water supply while creating a newly Europeanized landscape. On those workdays, a guitar also plays; technicians, biologists, and park rangers talk; the vaccinator has just finished his work with cows and sheep, and the meal is prepared - a barbecue, with sandwiches and/or salads. The vaccinator treats a cow bitten by a bat and takes a blood sample to rule out rabies. Laughter may be coming from the river by the previous house, where a family birthday is celebrated in a wide gallery bordered by a *molle* with an asado, or it may be coming from the corral where children play hide-and-seek. It is a day of *juntada*. They hurry the slaughter. They send the children and those who might be squeamish to fetch firewood, or to cut *siempre verdes* with the park rangers, to play, or to sharpen knives and machetes. Don Loza plays the guitar louder. People from the mountains want to keep living and sharing there; that is why they do so with the solidarity of those who want to help them - and of those whom they, in turn, can help.

A silence followed by a loud animal moan gives way to the final thrust. "Collect the blood… collect it so we can make blood sausages," says Doña Betty. They hang the animal from the hook that drops from the largest branch of the four-hundred-year-old carob tree (as Doña Ochoa calls it). "…They asked me in secret; in secret I will give it…" sings the guitarist, and people appear with dish towels to dance. From the end of the table, Don Pelayo calls us:

> 'mire mijo', me dice, esto no lo van a romper, menos aún lo van a incendiar… esto es las Sierras, no es solo cerros agua y hoteles, tampoco son las motos haciendo ruido y rompiendo todo, menos aún es canteras, por más que sean las que plata y trabajo a veces nos dan o los que cada tanto nos compren una vaquillona. No, estas son las Sierras, es la gente que comparte, la familia, las solas, los solos, los amigos, los que se arriman como Ustedes con respeto, que vienen a ayudar y compartir con su familia, a comer, que traen alguito, que comparten. Usted preguntaba si creemos que la ganadería familiar serrana está perdiéndose, yo creo que sí, mire, ahí está la tapera de Carmen Ochoa, más arriba Usted y su familia conocieron a Don Luna, sus abuelos y tíos los Deon vivian en el obrador y hoy está todo demolido, Ustedes conocieron a Don Abelino Gonzalez ('El Brujo'), como desalojaron a los Caresani en La tranquerita[5] y del otro lado, en la Cañada de los Liones en Cosquín a las 5 familias que vivían ahí, le puedo nombrar muchísimos, si, nos están sacando… Pero también acá estamos de fiesta, no porque nos quieran sacar sino porque estamos vivos, con el cuchillo al cuello como el ternero, pero no podrán matarnos porque hay muy mucha gente que ahora está con nosotras, las gentes de las Sierras (Pelayo Loza, 14-01-2024).

Fig trees, patios, *talas*, flowers, guitars, and drums remain and keep growing. There may be no slaughterhouses, but the rotating monthly slaughtering days allow people to share meat among those who live in Cabana with the Tarditti family whenever a calf or a heifer is butchered. There may be no local cold-cut factories, but the Falchini family, with María and Amado, still make *Salames Allende*. Juanchi already sells his *chorizos criollos* and mixed links at the agroecological fair in Villa Allende. Don Ángel enlarges the *locro* each year in Barrio Español, and the pig and Becerra's meat arrive. Mereco holds the Virgin's celebration every July 6, but on the 5th he has already slaughtered a sheep and stocked several refrigerators with meat for the barbecue in the Parish Hall. And Dani's *Locro* has already surpassed 1,000 people, and each ingredient is thoroughly Unquillense. Not to mention the empanadas from Rancho Tucumano made by Delia, or the collections organized by the firefighters of Mendiolaza or Villa Allende, who receive meat and vegetables from families across the region. As Gloria recounts at the Río Ceballos fair:

> Irupé hace los mejores alfajores con frutos del monte, pero su madre los mejores panes rellenos con queso casero de vaca o con chicharrón de las carneadas de Colanchanga (Entrevista 07-01-2023).
> "Y los Torres", agrega Isabel, (...) no dejan ganado en pie con sus 4 carnicerías de la familia, carne propia del monte y las Sierras, carne riquísima, cría buenísima, montes muy cuidados, ríos sanos donde las familias y veraneantes disfrutan el agua y el río sin que nadie los corra. Un ejemplo de producción local que resiste, gente que produce hace décadas que nos comparte la carne recién bajada del Alpatauca, aclara Don Luis en Agua de Oro en la carnicería (Entrevista del 07-01-2024).

[5] This is how Victos Valente presents the case of the eviction of the Caresani family in *La Unión Regional* (2020). In 2012, the Caresani family was evicted from the place where they were born, raised, and had built their lives. The machinery of the company El Gran Ombú demolished their homes. As if that were not enough, a dispossession lawsuit was initiated against them, which they lost, and they are now required to pay nearly one million pesos. Available at: https://www.launionregional.com.ar/el-extrano-desalojo-de-la-tranquerita/.

Summarizing, in a few paragraphs, an enormous network that sustains family-based serrano livestock raising is difficult, but we will try. Of 23 small butcher shops (excluding supermarkets and shopping centers) surveyed in the Colón and Punilla Departments, 21 produce meat locally. According to trade and industry data for those departments, there are about 183 butcher shops; of the remaining ones we did not obtain responses, so we focus on these. While most butcher shops remain to be surveyed, the visits to the 64 selected provide relevant evidence that they stock meat from the region, purchased from local families or produced by the shops themselves. Of the remaining 119, around 20 belong to regional chains of slaughterhouses or regional and national meat distributors. The remaining 99 purchase from private departmental slaughterhouses such as La Superiora of Villa Allende, Novara and Río Segundo, San Antonio, Bustos and Beltrán, and Qualita - medium-sized companies that buy live cattle from family producers in the hills and piedmont areas where agriculture is not possible due to geographical conditions.

In addition, it is important to highlight that local festivities not organized by large municipalities such as Villa Carlos Paz, La Calera, La Falda, or Alta Gracia have agreements with local producing families for the supply of various meats (kid goats, suckling pigs, chickens, bovine meat, etc.). Moreover, there are municipalities with regulations that reduce taxes on events that consume food produced in the same locality (Colonia Caroya, Salsipuedes, Cosquín, Río Ceballos, Huerta Grande, Capilla del Monte, among others).

Carreras cuadreras and *peñas* are festivities where a lot of barbecue is shared, as Eduardo recounts:

> en ellas quienes organizan se encargan siempre de darle un espacio a los productores o productoras y que cuenten donde viven, qué hacen, cómo trabajan los animales y suelen ser después los receptores de alguna otra juntada, es una tradición que en algunos pueblos quedó como tradición el rotar casa en casa. Algunos dicen que en la zona de Guiñazú, General Paz, Caroya y otros pueblos se hacía cuando se juntaban los acequieros y compartían comida mientras decidían cosas comunes. Otros dicen que son costumbres de fiesta para sentirnos mejor. Otros sabemos que ahí siempre salen cosas lindas. Por ejemplo en una juntada en San Esteban hace unos años decidimos ir a participar toda la paisanada a la marcha para defender el monte y allá fuimos pusimos 60 caballos y un par de vacas y nos fuimos a la marcha, tuvimos que hacer un lío bárbaro, pero fuimos a Colón y General Paz, pleno centro de la segunda ciudad argentina, y allá fuimos en caballo, tirando mierda para todos lados pero firmes ahí acompañando a la hippiada para que no nos destruyan el monte donde vivimos y donde tenemos los animales (Entrevista del 10-01-2014).

The family livestock web is sustained through self-managed practices that do not find a clear channel in specific governmental or institutional policies; indeed:

> renegamos mucho de las asociaciones ganaderas, los clubes de equitación o las sociedades rurales porque ellos manejan todo como si fueran grandes empresas y nosotros por ahí para pagar los impuestos del campo carneamos una vaca, para pagarle al abogado para que nos

> ayude con la posesión, carneamos un ternero, para festejar un cumpleaños compartimos un asado y para cuidar a los animales pasamos con ellos nuestra vida, no queremos más que seguir aquí. (Cuenta A. F. en lo alto de las Sierras entre Unquillo y Molinari E.18-01-2024).

As Bustos Mantovani (2024) argues, serrano landscapes are re-signified through walking and sharing within the mountains themselves. This occurs on both sides of the Sierras Chicas and is replicated whether we speak of meat and family livestock production or of the growing agroecology in backyards or fairs. Resistances are not only flags and marches; they are also, as Pelayo Loza says:

> en las casas en fiestas y carneadas, al vera de las taperas de quienes se fueron, en las puertas y patios de escuelas que ya cerraron o que encuentran a los vecinos a resistir a una minera o a un loteo como en Candonga o en La Calera. Por eso nos ayudan cuando un incendio viene por nuestro territorio, estamos muy agradecidos a que hay cientos de jóvenes que se plantan apagando los incendios con nosotros, que después hacen colectas de comida para los animales, que consiguen dinero para que volvamos a tener agua en las casa y en los bebederos de los animales, para que vengan veterinarios a curar a los que se quemaron o lastimaron y mas que nada para que nosotros sigamos viviendo y produciendo cuidando el monte y compartiendo las Sierras con ellos. (Entrevista, 11-05-2011).

Quiros (2020) points to the economic, political, and cultural importance of sustaining rural life in Traslasierra, Córdoba. Although she offers the example of a raffle organized by a family to buy tickets to take their daughter to the doctor in Córdoba, she proposes seeing how this practice, which mobilizes the whole family, also mobilizes the community, and also functions as a very common mechanism through which communities of serrano inhabitants place personal needs on the political agenda - needs that cannot be covered through selling food such as meat or a calf - when facing an urgent situation or a demand that must be addressed quickly and that the state often does not help with. As the author suggests, many times, disputes and tensions with governmental agents are at play in the actions of serrano inhabitants - agents who disregard or ignore them and who impose territorially and socially unjust policies on local populations.

In the case of the problem, we analyze here regarding family livestock raising in Sierras Chicas, we see that these unjust and violent policies are depopulating the mountains and gradually destroying the bonds of local communities that seek to sustain themselves with animals, people, and meat in the Sierras. It is necessary and urgent to enable collective strategies that do not violate this population and these territories, since they continue to feed the broader population safely - whether with herbs, fruits, or meats - and to safeguard the watersheds that supply the urban centers of the Córdoba Metropolitan Region and other localities.

Currently in Sierras Chicas, both on the eastern slopes of departments such as Colón and Santa María and on the western slopes in Punilla, some 45,000 hectares of serrano forests - with the people who inhabit them and their livestock - are at risk due to plans for real-estate and mining

expansion promoted by the Provincial Government through Laws 10004 and 9841. In addition, Decree of Necessity and Urgency No. 70/2023 and Law 27.742, approved by the National Congress in 2024, and other proposals advanced by Milei's National Government, seek to roll back laws that prohibit changes in land use after fires; they also seek to repeal animal health laws and regional commercialization rules that benefit small producers and regional economies.

While territorial urgency has been addressed by the mobilized community, we also see another urgency: that of capital advancing by making invisible unjust geographies, landscape-sad violences made of abandoned homesteads, dispossession, clearing, and socio-environmental damage.

Fortunately, amid these multiple "territorialities of urgency" for capital, "there are community actions responding with meat and soul" (interview 11-08-2024). For it is in family and neighborhood gatherings - *peñas*, *juntadas*, assemblies, and fairs - that new community orderings are slowly woven: spaces such as water and cultural reserves, Indigenous territories, family livestock territories, sacred and community heritage sites - such as in Villa Cerro Azul, Agua de Oro, Río Ceballos, Villa Allende, Dique Chico, Anizacate, Cosquín, Villa Ciudad Parque, Santa Rosa de Calamuchita - wherever it is possible, resistances and re-existences are being reassembled. A quiet uprising and territorial sustenance maintained between those who inhabit and defend the woodland and those who defend the commons while living in the city, yet aware that food and water come from territories inhabited by people who need support to move forward in the face of each dispossession.

As Mabel Vekik stated, raising a tin cup in the little rural school of San Fernando up in the Sierras in 2022 on the patrimonialization of serrano agro-livestock territories:

> acá estamos las serranas, los serranos, baqueanos, hippies y guardaparques, maestras y carniceros, bebiendo del arroyo como el ternero, con el cobijo de las rocas como el carnero, compartiendo entre todos, para defender todo lo común que con el monte tenemos. (Palabras en conmemoración del aniversario y patrimonialización de la escuelita rural de San Fernando 21-08-2021).

As Sara lowers her cup, she raises her own:

> Acuerdo con vos Mabel en tan lindas palabras. Y me duele tener que sumarle que me avisó recién Roberto que otra vez encontró vacas baleadas, dos muertas y tres heridas echadas, son las últimas que nos quedan. Desde que la minera supuestamente compró las 1100 hectáreas donde vivimos las 3 familias que quedamos de las 7 que eramos en el campo, sólo han hecho circuitos de enduro, han incendiado y nos han matado las vacas, las ovejas y caballos. ¿Cómo nos defendemos? Ya fuimos a la justicia y nada. A la policía y nada. A seguridad ciudadana y nada. NO es llamativo que pase esto acá y también en Berrotarán donde otra minera está cerrando caminos públicos y maltratando a los habitantes serranos y los animales, o en San Agustín donde una cantera está haciendo lo mismo con los animales y silenciando a un pueblo entero que respira cal y cuyos jóvenes se van hartos de lidiar con un progreso tóxico y contaminante del aire (Palabras en conmemoración del aniversario y patrimonialización de la escuelita rural de San Fernando 21-08-2021).

4 QUARRY MEGA-MINING AND MEGA-GATED SUBDIVISIONS, MEGA-RESISTANCES ON THE MOVE

Since the mid-2000s, mining projects and land subdivisions for gated communities have expanded dramatically due to changes in the mining code and the provincial cadastre law that enabled the continuation of extraction in new operational fronts with laxer environmental controls, following Decree 2131/2000 and the Interdisciplinary Technical Committee of the Secretariat of Environment - largely staffed by business-sector representatives within the state. In this period, a new stage began in the attempt to "de-mountainize" (*des-serranización*) the region, marked by large fires (Argañaraz et al., 2021; Deon, 2022; Cincolani et al., 2022) and by mega-works that facilitate water grabbing on private properties through retention ponds and projects to privatize the margins of reservoirs and rivers. This, combined with the fencing of watercourses, has mobilized residents in localities of the Calamuchita, Colón, Punilla, and Santa María Departments (Martina et al., 2020).

The case of Minera El Gran Ombú in Villa Allende is among the most violent, together with the La Deseada subdivision in La Calera. In the serrano livestock territories of Sierras Chicas, tensions with mining companies - or with real-estate firms such as SADE S.A[6], and Landsur, in Alta Gracia, Cosquín, or Río Ceballos - follow the same pattern of action and even extend beyond provincial borders. And when it is not private companies, it is the provincial state that, without prior notice, launches highway works and crushes houses, corrals, and animals with expressways, as in the San Roque Commune or in Bialet Massé.

Territorial tensions and disputes continue to drive desterritorialization in Córdoba, and it is rural inhabitants, popular peri-urban neighborhoods, and livestock-raising families who continue to resist.

The accelerated metropolitanization that Córdoba is undergoing - driven by speculative real-estate capital and by the mining advance carried out by extractive companies - threatens not only livestock raising but also the ecosystem processes that livestock and its population help sustain. We refer to the ensemble of serrano landscapes and their morphoclimatic domains that combine native and introduced species, forming mixed forests of mulberries, fig trees, elms, *chañares*, carob trees,

[6] Some notes on fraud involving the sale or implementation of real estate developments in mountain territories can be found at: https://www.opencity.tv/rio-ceballos-la-municipalidad-dio-detalles-del-emprendimiento-denunciado-por-vecinos/ or https://infodelestero.com/2025/05/26/sade-desarrollos-la-empresa-cordobesa-que-prometio-barrios-cerrados-y-dejo-a-700-familias-santiaguenas-con-terrenos-sin-servicios/ or at https://www.lavoz.com.ar/regionales/reabren-causa-judicial-por-aval-un-emprendimiento-turistico-serrano/.

molles, *espinillos*, cattle, foxes, pumas, dogs, and so much other diversity - high-elevation woodlands built in the arrieros' hamlets that have existed for centuries on mountain ridgelines.

Small groves in ravines, where houses of stone, lime, adobe, and wood sustain ways of life with fruit trees, farm animals, and spaces for community gatherings, embody knowledge shared daily with school students, hikers, and neighbors from the next field over.

The advance of capital's territoriality threatens all of this - and much more - while offering only a great deal of money to a very few people. Too much destruction in order to impose morphoclimatic control through dispossession, catastrophe, and permanent risk. Is such a scale of destruction what capital needs today for its reproduction?

"An asado belongs to no one and belongs to everyone" is a historic phrase attributed to Jorge Cafrune, an Argentine musician. Yet, more recently, the asado has also become a mechanism of collective encounter and celebration, but likewise of agreement-making and the co-optation of interests by the mining and urban-development sectors. Subdivisions are not decided only in offices or on golf courses, as we analyzed in previous work (Deon, 2024). As one interviewee - who took part in those asados where subdivisions and mining projects are approved - puts it:

> los asados de la familia Lugón, propietaria de la minera El Gran Ombú S.A. y de Cantera Diquecito o los asados de empresarios como los judicializados de empresas como Euromayor, SADE, Landsur, Proaco, entre otras, han sido motivo de encuentro entre políticos, empresarios y técnicos que buscan autorizaciones ambientales para sus proyectos pretenden hacer legales en territorios donde son ilegales. Muchos políticos y técnicos tienen tablas y cuchillos de estas empresas de recuerdo de asados donde se 'cocinaron' proyectos inviables legalmente. Proyectos que se concretaron tras un convencedor y ensobrado asado, como dice Daniel Moyano en su libro Los Pájaros Exóticos, y sí ahí los del comité técnico interdisciplinario se iban con tablita, cuchillo y sobre con dinero bajo el brazo y los empresarios se quedaban con la garantía de un nuevo proyecto minero aprobado o un nuevo loteo. Esto ha sido investigado denunciado y hasta judicializado en la causa de Ticupil S.A. en Candonga, por ejemplo[7] (Entrevista a S.C. del 18-09-2019).

These asados are also an example of resistance in the Villa Allende area:

> Antes la minera nos compraba un ternero para asados frecuentes, pero cuando conocimos que ellos mandaban a balearnos los animales o nos incendiaban los campos para desalojarnos, no sólo les dejamos de vender, los denunciamos y nos sumamos a las marchas contra ellos, hace poco quisieron comprarnos unos caballos para un centro de equitación que hicieron llamado

[7] The case of Ticupil S.A. is central, as it involves a lawsuit that has been ongoing for ten years following a complaint filed by the Chavascate Neighbors' Assembly regarding a real estate development carried out in a protected area, involving the burning of territories belonging to agro-livestock families and carried out with the acquiescence of the former Secretary of the Environment, who has been charged as an accomplice: https://latinta.com.ar/2025/08/01/candonga-conflicto-fallo-judicial-ordena-paralizar-loteo-zona-protegida/. The case of El Gran Ombú has been analyzed in Deon (2019) and addressed in several journalistic reports: https://difusionnoticias.com.ar/la-empresa-el-gran-ombu-es-la-responsable-de-un-proyecto-extractivista-en-villa-allende/. And https://elresaltador.com.ar/megamineria-en-villa-allende-la-reserva-natural-esta-en-peligro/

> La Granja del Sr. Brito, un predio que se lo clausuró policía ambiental 3 veces por desmonte, les dijimos que no al saber que ese centro 'educativo' no fue autorizado y además ellos lo presentan como una remediación del impacto social que generan con la minera. Por eso volvimos a la calle a manifestarnos y decir: Fuera Minera El Gran Ombú de las Sierras[8] (Entrevista a G.R. del 11-09-2023).

These state "facilities" for the territorialization of mining capital and the urban-development business have become a normative framework in the serrano region of the departments addressed here (with the exception of Totoral), through the actions of the Córdoba Metropolitan Area Planning Institute since 2010, with Laws 9841 and 10004, and more recently through Provincial Law 10936 on Integrated Management Consortia for Agricultural Watersheds and the Environmental Policy Law 10208, which complements National Law 25.675. These regulatory frameworks facilitate the construction of private waterworks benefiting agribusiness in lower basins and tourism and mining in the mid- and upper-basin serrano areas. Such laws, and renewed advances of capital after the 2021–2022 fires, have activated new expressions of struggle and resistance by serrano livestock-raising families together with local assemblies and the Córdoba Environmental Forum, which throughout the 2020s have filed petitions with the state and brought lawsuits against new subdivisions and mining expansion.

Indeed, these subjects of struggle have joined collective spaces that, in solidarity and with a feminist and gender-conscious orientation, act against *des-serranización* through the implementation of municipal and communal management councils for Water and Nature Reserves, Indigenous sacred territories, heritage sites, territorial or socio-environmental assemblies, and community forest brigades, among other initiatives that seek to assist serrano individuals and families affected by fires. In reciprocity with these acts of struggle, rural inhabitants have opened their territories to collective university practices involving park rangers, geographers, agronomists, technicians, artists, and a wide range of agents who contribute to the re-existence of those who, through low-scale livestock raising, safeguard serrano watersheds, fight for healthy food, and recover ancestral sites still used for food production, spiritual practices, health, science, and education at all levels.

In parallel, short circuits of agroecological food production face disputes within the socio-environmental field itself, challenged by veganism and by an "ultra" conservationism that largely envisions Sierras without people and without livestock. In this context, the most recent debate in agroecological nodes, networks, and fairs raises doubts such as: Should the production of meat and

[8] For further reading, see: https://www.laizquierdadiario.com/Este-11-de-diciembre-tambien-marchamos-contra-la-megamineria-que-destruye-nuestros-bosques.

animal-derived products be incorporated into agroecological and organic networks? How can we continue to accompany and sustain life in the Sierras beyond the risks brought by fires?

The answers lie in these very collective activities - during locros, asados, communal kitchens, agroecological networks, festivities, and walks - by sharing the Sierras and the food produced within them.

5 CONCLUSIONS

The ongoing process of de-bovinization has encountered resistances and re-existences that oppose it and place a brake on a new phase of *des-serranización* currently underway.

What is at stake is neither meat nor livestock per se, but rather land and water within the watersheds of this portion of the semi-arid Serrano Chaco. The voices of local struggles expressed here articulate a territoriality under construction from family-based livestock raising, from sharing, dancing, and collectively defining a common course of action: defending the mountain region as a common good.

Recent political developments in Argentina, marked by the arrival of fascism at the national level of the state, have done nothing more than legalize dispossessions that were previously "cooked" at asados among certain politicians, aligned technicians, and business interests, advancing the miamization and Europeanization of serrano landscapes.

The province of Córdoba, paraphrasing Horacio Guaraní, raised from a foal the national dispossession that is today institutionalized under the Milei government. Yet the hands of the *pirquero* from the hills, of serranas and serranos engaged in pluriactive livelihoods - food production, herb harvesting, masonry, fencing, clearing - along with festivities filled with songs, dances, poetry, and voices resonating like cowbells through the mountains, stand as the animal cry after the capital's blow. They are the burning expression of serranas and serranos who resist, both judicially and through mobilization in the streets, the enclosure and grabbing of the Sierras.

Commercial butcher shops may have expanded, but the loss of local slaughterhouses and meatpacking facilities, along with the closure of family livestock establishments, has gradually depopulated the serranía. Fortunately, paths, stream banks, stone fences (*pircados*), corrals, abandoned homesteads (*taperas*), and ruined schools are once again becoming sites of encounter, patrimonialization, and struggle to prevent the total rural depopulation of the serrano region. This is the will - and the achievement - of mountain guides, scouts, teachers, park rangers, fire brigadists,

peri-urban residents, cyclists, and countless others who care for these territories by cohabiting with the forest, its people, and its animals.

REFERÊNCIAS

AB'SABER, Aziz Nacib. Os domínios morfoclimáticos na América do Sul: primeira aproximação. **Revista Geomorfologia**, São Paulo, 1977.

AGROFY NEWS. **Mapa cárnico de la provincia de Córdoba**. Disponible en: https://news.agrofy.com.ar/noticia/157377/mapa-carnico-provincia-cordoba. Acceso en: 26 dic. 2025.

ARANDA, Diego; MOVSESIAN, Lucía. Incendios forestales en el Valle de Paravachasca (Córdoba): fragmentaciones, intereses y disputas a partir de las formas de organización comunitaria y su politización e institucionalización en el territorio. In: **Congreso Argentino de Antropología Social**, 12., 2021, La Plata. Anais […]. La Plata, 2021.

ARCEO, Nicolás. La evolución del ciclo ganadero argentino en la segunda fase del modelo sustitutivo de importaciones. **América Latina en la Historia Económica**, v. 24, n. 3, p. 161–192, 2017.

ARGAÑARAZ, Juan Pablo *et al.* Fire incidence along an elevation gradient in the mountains of central Argentina. **Ecología Austral**, v. 30, n. 2, p. 268–281, 2020. Disponible en: https://doi.org/10.25260/EA.20.30.2.0.1054. Acceso en: 26 dic. 2025.

ARGIBAY, Daihana Soledad; RENISON, Daniel. Efecto del fuego y la ganadería en bosques de *Polylepis australis* a lo largo de un gradiente altitudinal en las montañas del centro de la Argentina. **Bosque (Valdivia)**, Valdivia, v. 39, n. 1, p. 145–150, 2018. Disponible en: http://dx.doi.org/10.4067/S0717-92002018000100145. Acceso en: 26 dic. 2025.

BALMACEDA, Nadia Alexandra; DEON, Joaquin Ulises Favre. Configuración de tramas comunitarias y autonomías alimentarias agroecológicas en Sierras Chicas, Córdoba, Argentina (1985–2025). **Intersticios de la Política y la Cultura. Intervenciones Latinoamericanas**, Córdoba, v. 14, n. 27, p. 93–138, jan./jun. 2025. Disponible en: https://revistas.unc.edu.ar/index.php/intersticios/article/view/48405. Acceso en: 26 dic. 2025.

BALMACEDA, Nadia Alexandra; DEON, Joaquin Ulises. Sistemas alimentario-nutricionales agroecológicos en Argentina: ¿desterritorializando al agronegocio en la provincia de Córdoba? **Cuadernos de Geografía: Revista Colombiana de Geografía**, v. 32, n. 1, p. 158–176, 2021.

BERNARDELLO, Gabriel *et al.* **Flora de la Provincia de Córdoba**. 1. ed. Córdoba: Editorial UNC, 2025.

BUSTOS MANTOVANI, Melina. El paisaje de las Sierras de Comechingones atravesado y (re)significado por mujeres caminantes. **Cardinalis**, n. 21, p. 57–76, 2024.

CELTON, Dora. Una reducción de vilelas en Córdoba. **Revista de la Junta Provincial de Historia de Córdoba**, n. 14, p. 67–120, 1991.

CENSO NACIONAL AGROPECUARIO (Argentina). **Resultados definitivos – CNA 2018**. Buenos Aires: INDEC, 2021. Disponible en: https://www.indec.gob.ar/ftp/cuadros/economia/cna2018_resultados_definitivos.pdf. Acceso en: 26 dic. 2025.

CINGOLANI, Ana *et al.* La ganadería extensiva: ¿es compatible con la conservación de la biodiversidad y de los suelos? **Ecología Austral**, v. 18, n. 3, p. 253–271, 2008.

CINGOLANI, Ana M. *et al.* La vegetación de las montañas de Córdoba (Argentina) a comienzos del siglo XXI: un mapa base para el ordenamiento territorial. **Boletín de la Sociedad Argentina de Botánica**, Córdoba, v. 57, n. 1, p. 1–17, jan./mar. 2022. Disponible en: https://doi.org/10.31055/1851.2372.v57.n1.34924. Acceso en: 26 dic. 2025.

DE MOUSSY, Victor Martín. **Description géographique et statistique de la Confédération Argentine**. v. 3. Paris: Firmin Didot Frères, 1864.

DEON FAVRE, Joaquin Ulises. **Luchas por la tierra y el agua en Sierras Chicas, Córdoba (1990–2020)**. 2022. Tesis (Doctorado en Estudios Sociales Agrarios) – Centro de Estudios Avanzados, Universidad Nacional de Córdoba, Córdoba, 2022. Disponible en: https://rdu.unc.edu.ar/items/f832575b-86b4-4f7e-9f2d-c567dc1228e8. Acceso en: 26 dic. 2025.

DEON, Joaquin Ulises *et al.* Patrimonio serrano: luchas territoriales de la comunidad de Villa Allende. **Revista del Museo de Antropología**, v. 15, n. 3, p. 151–168, 2022. Disponible en: https://doi.org/10.31048/1852.4826.v15.n3.33374. Acceso en: 26 dic. 2025.

DEON, Joaquin Ulises. Desmontando bosque, sumando luchas sociales: territorialidades y alternativas en el desastre ambiental argentino. **Íconos. Revista de Ciencias Sociales**, n. 70, p. 151–169, 2021.

DÍAZ, María Guillermina; DEON, Joaquin Ulises. Co-producción de conocimiento y reconfiguraciones de las luchas en la provincia de Córdoba, Argentina. **Revista Geografares**, v. 6, n. 42, en prensa.

DOBRIZHOFFER, Martin. **Historia de Abiponibus**. Viennae: Typis Josephi Nob. De Kurzbek, 1784.

FRATINI, Noemí. El proceso productivo de una planta frigorífica y su incidencia en la configuración territorial de Río Segundo. **Cardinalis**, n. 1, 2013.

FURLONG, Guillermo. Las regiones rioplatenses a mediados del siglo XVIII, según noticias de Florián Baucke. **Anales de la Sociedad Argentina de Estudios Geográficos**, Buenos Aires, t. 4, n. 2, p. 209–229, 1935.

GAIDO, María Fernanda; SAPP, Mari; GOZÁLVEZ, Martín R. **Carta de Minerales Industriales, Rocas y Gemas – Hoja 3163-III Córdoba**. Buenos Aires: SEGEMAR, 2015.

GIBERTI, Horacio. **Historia económica de la ganadería argentina**. Buenos Aires, 1961.

HOCSMAN, Luis Daniel; PREDA, Graciela. Agriculturización y bovinización: la renovada territorialización capitalista en Córdoba. In: **IV Jornadas Interdisciplinarias de Estudios Agrarios y Agroindustriales**. Buenos Aires: UBA, 2005.

INSTITUTO NACIONAL DE ESTADÍSTICA Y CENSOS (INDEC). **Censos Nacionales Agropecuarios 1988, 2008 y 2018; Censos Nacionales 2010 y 2022**. Buenos Aires: INDEC. Disponible en: https://www.indec.gob.ar. Acceso en: 26 dic. 2025.

JIMÉNEZ-ESCOBAR, David; MARTÍNEZ, Gustavo. Plantas que mantienen al ganado. **Boletín de la Sociedad Argentina de Botánica**, v. 54, p. 617–635, 2019.

MARTINA, Emilia; BARRI, Fernando; DEON, Joaquin. Desarrollo urbano en las Sierras de Córdoba. **Quid 16: Revista del Área de Estudios Urbanos**, n. 14, p. 187–214, 2020.

MONTAIUTI, Magalí Luciana Paz. Subordinación al capital en unidades domésticas campesinas de Córdoba. **Cuadernos de Antropología Social**, n. 49, p. 1–19, 2019.

MONTES, Aníbal. **Cami-Chin-Gon, serranías con pueblos numerosos**. Córdoba: Repositorio Digital Americanistas, UNC, 1950.

PAUCKE, Florian. **Hacia allá y para acá**. 3 v. Tucumán–Buenos Aires: Universidad Nacional de Tucumán, 1942.

PORTO-GONÇALVES, Carlos Walter; PEREYRA SANTOS, V. **Dos Cerrados e de suas riquezas**. Rio de Janeiro: FASE; CPT, 2019.

QUIRÓS, Julieta. Nacidos, criados, llegados. **Cuadernos de Geografía**, p. 271–287, 2021.

REYNA, Pablo. **Crónica de un renacer anunciado**. Córdoba: Editorial ECOVAL, 2021.

SERVICIO NACIONAL DE SANIDAD Y CALIDAD AGROALIMENTARIA (SENASA). **Estadísticas bovinas**. Disponible en: https://www.argentina.gob.ar/senasa. Acceso en: 26 dic. 2025.

This version was originally presented in Portuguese and translated into Spanish with the assistance of Artificial Intelligence.

Editors:
Liliane Pereira Amorim;
Karla Karoline Rodrigues Silva;
Isabel Christina Gonçalves Oliveira;
Giovana Nobre Carvalho.

Editor-in-Chief: Thiago Henrique Costa Silva.