

Geontologies of Stone: Uses and interpretations of the central andean Cultural Landscape through the pirca constructive system.

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Abstract

This article explores how the *pirca* constructive system—dry-stone walls traditionally used for ritual, pastoral, agricultural, and territorial practices across the Andes—actively configures multispecies and geological relationships within cultural landscapes. Focusing on the highland territories of Farellones and the Yerba Loca Natural Sanctuary in central Chile, where *pircas* span from Inca ceremonial platforms on Cerro El Plomo to contemporary *arriero* shelters, the study argues that these structures operate as spatial agents with material agency rather than inert archaeological remains. Drawing on embodied knowledge from extended engagements with *arrieros* and park rangers, as well as archaeological archival research, the article demonstrates how *pircas* shape patterns of transhumance, ecological continuity, and spatial memory, anchoring complex temporalities and forms of more-than-human cohabitation. Engaging geontological theory as a conceptual lens, the study examines how *pircas* enact relations between the living (humans, animals, plants) and the non-living (stone and mineral strata), positioning vernacular spatial technologies as agentic material interfaces that mediate, store, and modulate these interactions. While local communities seek to preserve these structures, dominant heritage regimes and tourism infrastructures often degrade or misappropriate their uses—transforming corrals into parking areas or Inca *tambos* into vandalized tourist shelters. Ultimately, the paper argues that the significance of *pircas* lies not in their monumentality but in their capacity to sustain interscalar relations across species, temporalities, and geographies. As such, they offer a critical framework for rethinking spatial practices through relational, and multispecies perspectives.

Keywords

Arrieros; Cultural Landscapes; Geontologies; Multispecies Relations; Pircas, Vernacular Architecture;

Epigraph.

Each summer, between December and March, *arriero* communities in the central Chilean Andes drive their cattle up into the mountains in search of the pastures reserved by winter. The routes of this seasonal ascent—known as *veranadas*—are marked by stone shelters, low stone walls, stone enclosures, and barely perceptible stone traces in the landscape, many of which are locally referred to as *pircas*. At first, I approached these structures with a technical gaze: I wanted to document

their form, compare their patterns to the Incaic architectural models I had studied in classical texts, and understand both their current and historical uses. But I quickly realised that, for the *arrieros* and park rangers with whom I shared fieldwork, *pircas* were not inert structures, but active points of reference. They were shelter, boundary, memory—and, at times, a source of contention.

This article emerges from that shift in perspective: from seeing *pircas* as archaeological ruins to understanding them as active structures—capable of mediating relationships between species, between humans and more-than-humans, between present and past, between the functional and the ritual. I am interested in exploring how these seemingly simple dry-stone constructions—often overlooked by heritage or tourism frameworks—function as spatial technologies that continue to organise ways of dwelling in the high Andes.

My relationship with this landscape did not begin as a formal ethnographic undertaking. I first encountered it as a hiker, driven by a desire to explore and inhabit the mountain. It was in this context that I first spent the night at Piedra Carvajal, an ancient stone shelter—possibly a pre-Inca structure—located near the La Paloma glacier. At that time, the *pircas* offered me shelter and orientation, but I had yet to learn how to read them as traces of ongoing relations. Over time, my presence in the territory evolved. I assumed responsibilities related to heritage mediation, the coordination of educational visits, and the development of interpretive materials within the context of the Yerba Loca Natural Sanctuary. It was through these roles—particularly during the research and design of the *Niño del cerro El Plomo* (1) Interpretation Centre in Villa Paulina—that I came to know and work alongside local *arrieros*. Our conversations, along with the knowledge and stories they generously shared, transformed the way I came to

interpret the landscape. I came to understand that *pircas* structure routes and rest stops, while simultaneously encoding ecological ties and situated knowledge.

Rather than a planned ethnography, what is proposed here is the retrospective account of a long-term participant observation, whose field memories are complemented by archival review, institutional records, SIGPA (2) system files, and audiovisual materials such as those from the *Memorias del Siglo XX* programme. Through this process, the research became a form of learning—not only about the ways in which the mountains are inhabited, but also about how relations between humans, animals, and minerals constitute a multispecies network of agency, made possible by the *pirca* system that sustains them. This journey led me to engage with theoretical frameworks drawn from the post-humanities—not as externally imposed lenses, but as a useful vocabulary to name intuitions already present in the practices I observed. For this reason, rather than recounting a field experience from a position of detachment, this article attempts a situated mode of relate: one that observes, becomes entangled, and learns from the agency of the landscape and those who co-inhabit it.

Figure 1: View of the La Paloma Glacier, seen from Piedra Carvajal. Photograph by Pierre Bouillot (2015). Used under CC0 1.0 Universal Public Domain Dedication. Retrieved from [https://commons.wikimedia.org/wiki/File:Poniente_Yerba_Loca_\(Unsplash\).jpg](https://commons.wikimedia.org/wiki/File:Poniente_Yerba_Loca_(Unsplash).jpg)



1. Introduction:

This study is situated within the Yerba Loca Natural Sanctuary (3), located in the Metropolitan Region of Chile—an area where multiple regimes of value converge: ecological conservation, mountain tourism, and pastoral lifeways. Here, *pircas* emerge as material nodes where these tensions condense: *arrieros* use them as corrals and shelters; mountaineers also use them as shelters, and at times as improvised toilets or rubbish heaps;

while the park administration frames them primarily as part of the scenic landscape —and useful boundaries for parking purposes, thus accelerating its deterioration. In this intersection of uses and appropriations, key questions arise: which structures are deemed worthy of preservation? Which forms of knowledge are recognised? And what kinds of relationships with the territory are made possible?

To address these questions, this article articulates a conceptual framework that weaves together two central axes: cultural landscapes and geontology—and, by extension, geontopower. These are complemented by recent approaches that invite us to rethink the agency of the more-than-human and the frictions between ontologically divergent worlds.

The notion of *cultural landscape* provides a foundational lens through which to understand *pircas* not as isolated architectural objects but as embedded traces of lived experience, relational memory, and ecological co-production. Originally proposed by Carl Sauer (1925) as the material expression of the interaction between culture and natural environment, the concept has since evolved to encompass more dynamic, processual understandings of landscape—as something shaped not only by human labour but also by multispecies agency and overlapping temporalities (Ingold, 1993; Mitchell, 2001; Tilley, 1996). In this view, *pircas* function as spatial inscriptions of pastoral knowledge and mobility, interwoven with seasonal rhythms, ancestral routes, and geomorphological features.

This understanding aligns with recent debates in heritage and geography studies that reconceptualise landscape as a “living archive” (Harrison, 2016)—a site where memory, matter, and social practices are entangled. Far from being static backdrops or aesthetic vistas, cultural landscapes are animated by the very practices that sustain them. In this light, *pircas* emerge as nodal points within a larger territorial grammar: organising relations between humans and animals; articulating boundaries without enclosing them; and negotiating access, care, and survival in ways that challenge colonial and extractivist logics of space.

From the perspective of geontology, as proposed by Povinelli (2016), *pircas* may be understood as artefacts that unsettle the modern distinction between the living and the non-living. Although built from stone—a material typically associated with inertia and permanence— they are material agents that shape routes, practices, and forms of dwelling. In other words, the focus shifts from asking what *pircas* are, to what they do: what kinds of

relations do they enable? Whom do they affect? What rhythms of life do they sustain? And how should they be assessed—by whom, and according to which values? This idea resonates with the notion of earth-beings developed by Marisol de la Cadena (2015), who, working from the Peruvian Andes, demonstrates how certain entities—mountains, for instance—possess ontological agency and actively participate in both political and everyday life. Far from being mere “environments,” these entities give shape to modes of existence that do not fit within the Western divide between nature and culture. In this sense, *pircas* can be understood as assemblages in which worlds become entangled, where materiality is not the opposite of the living, but rather its very condition of possibility. Complementing this perspective is a conception of landscape as an embodied process, where space is not a passive backdrop but a web of relations in motion. Tilley (Tilley, 1996) suggests that landscapes are constitutive of the social self: they are lived, remembered, and contested. Ingold (Ingold, 1993), through his notion of the *taskscape*, emphasises that landscape is defined by the tasks that traverse it—paths, labours, gestures. In this light, *pircas* are not merely walls: they are imprints of herding practice, inscribed within a geography that is sensitive and rhythmic.

Finally, the article draws on scholarship addressing situated knowledges and multispecies relations in Andean and rural contexts (Amador-Jiménez & Millner, 2024; Razeto et al., 2022), alongside the propositions of Haraway (2016) and Escobar (2016) on *thinking-feeling with the Earth* and *staying with the trouble*. These perspectives allow for an understanding of pastoral life not as a vestige or cultural anecdote, but as a relational practice rich in cognitive, affective, and territorial density. *Arriero* knowledge—tactical, embodied, and non-codified—finds expression in the reading of signs on the ground, the intuition of the animal, the improvised shelter.

The guiding hypothesis of this study is that *pircas*, more than archaeological remnants nor functional ruins, are active structures that mediate relationships between humans, animals, and territories—activating memories, affects, and forms of contestation. Their agency does

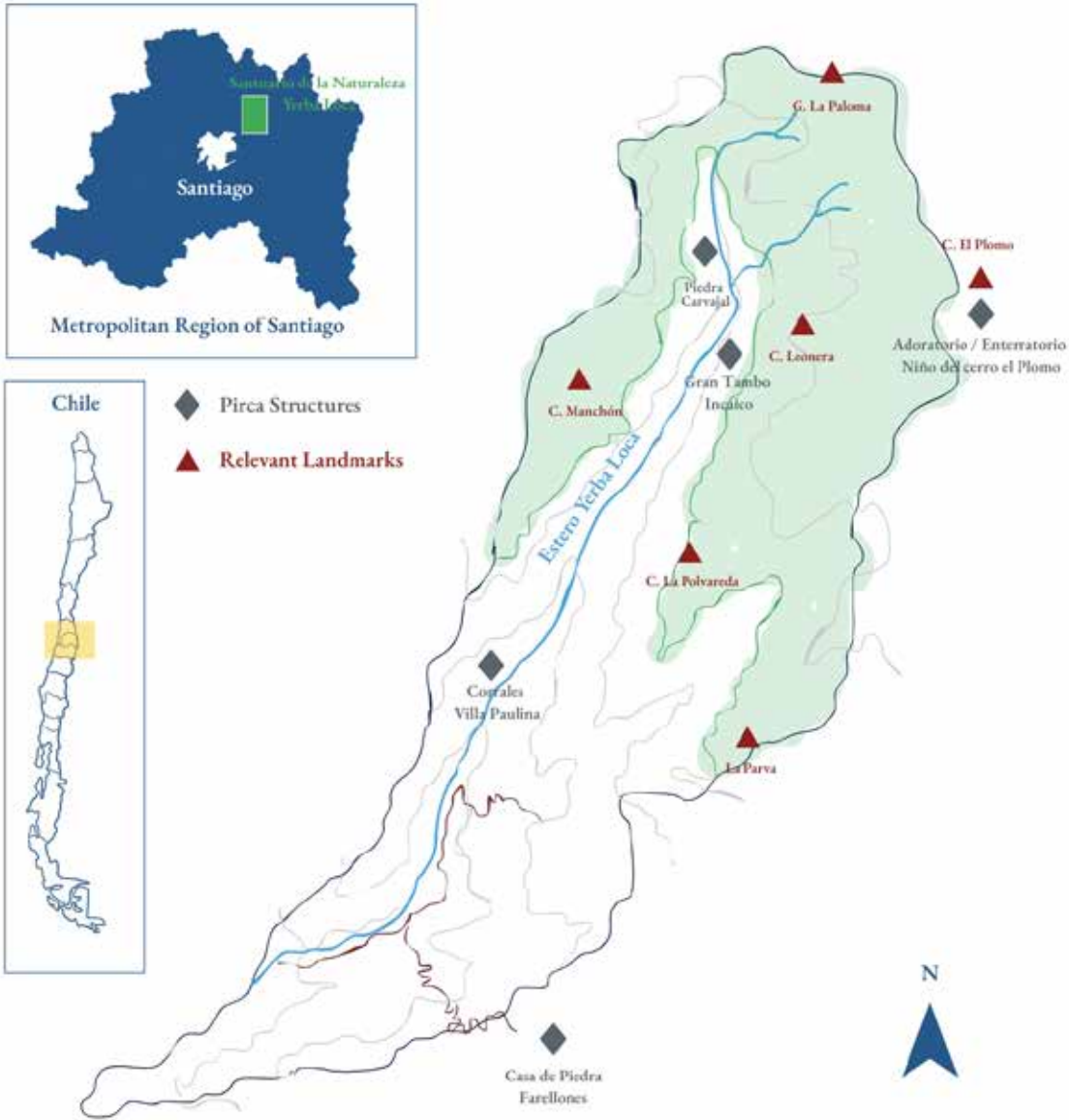


Figure 2: Map of the Yerba Loca Sanctuary and key sites. Map created by the author (2025).

not lie in their monumentality, but in their capacity to organise space and shape rhythms of cohabitation. They are spatial technologies that continue to structure highland dwelling today, even though their value remains largely invisible within heritage and state frameworks. In the sections that follow, I first describe the typologies and the historical and contemporary uses of *pircas*, before turning to the *arriero* practice as a mode of highland dwelling. I then examine how these stone assemblages allow us to rethink cultural landscapes and forms of cohabitation within the contested terrain of the Anthropocene.

2. On Pircas: Typologies, Uses, and Disputes

Pircas—dry-stone walls built without mortar—have long served as a widespread method of spatial organisation in the high Andean zones, dating back to pre-Inca times (Stanish, 2001). This construction technique is based on the careful placement of stones gathered from the immediate environment, assembled without binding agents, following a logic that prioritises compression, structural stability, and responsiveness to the terrain (Protzen, 2008). Though seemingly simple, these structures embody a complex technical knowledge, accumulated and transmitted through practice, observation, and familial instruction. They are vernacular technologies that demand meticulous attention to materials, slope, climatic cycles, and the movements of animals and people alike (Pedrotta, 2016).

During the Inca period, *pircas* were employed for multiple purposes: as ritual platforms (*usnu*), administrative and storage enclosures (*qollqas*), wayfarer shelters (*tambos*), and as landscape features that structured ceremonial and political space (Fullerton & Medina, 2017). In this context, stone was an ontological mediator: walls demarcated the sacred from the profane, the agricultural from the ritual, and operated as thresholds between worlds. This dimension has not been lost. As Tomic (2015) observes, even today, *pircas* retain their capacity to function both as sign and as substrate: material markers that structure the landscape while evoking deep-seated memories of rural Andean dwelling.

Today, *pircas* remain active within pastoral practices across the Andes. In the Yerba Loca Natural Sanctuary, these structures continue to delineate corrals, to function as shelters in climatically exposed zones, and serve as orientation markers along transhumant routes. Far from being ruins or archaeological remnants, they form part of an infrastructure that articulates mobility. As Araya et al. (2019) note, such structures constitute a “memory in stone” that organises the *arriero* craft and its relationship to the environment.

However, the contemporary use of *pircas* is not without tension. Their heritage status is ambivalent: while *arrieros* view them as vital infrastructure for seasonal herding, other regimes of value—such as tourism or park management—tend to interpret them as scenic backdrop. This dissonance produces material frictions: *pircas* converted into improvised parking areas, shelters used as toilets, corrals dismantled out of ignorance or institutional neglect. At its core, this is an ontological conflict: for some, *pircas* are technologies of subsistence; for others, they are secondary artefacts in a landscape imagined through the picturesque rather than through lived dwelling. This dispute echoes the ontological conflicts articulated by de la Cadena (2015): divergent ways of understanding what a thing is and what relations it enables. In this light, the *pirca* becomes a site of failed translation (4) , where distinct regimes of visibility and legitimacy over territorial knowledge uneasily coexist.

2.1 Typologies: Beyond Form, a Situated Functionality

Although visually similar, *pircas* exhibit a wide typological diversity depending on their function, location, altitude, shape, and relationship with geographical or cosmological features. Protzen (2008), Tomic (2015), Pedrotta (2016) and Araya et al. (2019) concur that this diversity reflects a logic of micro-territorial adaptation rather than any standardised formal pattern. Some of the most recurrent typologies include:

Linear *pircas*: These delineate transhumant routes or trails, often aligned with watercourses or notable topographic formations. They serve as territorial signposts, connecting key nodes along seasonal migration paths.

Enclosed enclosures: Structures used as corrals, *majadas* (herding camps), or overnight shelters. They typically feature denser stone layering at the base, and in some cases include shaded areas or partial roofing for protection.

Circular or semi-circular structures: Small, individual shelters used for resting, tending to sick animals, or taking cover during sudden weather events.

Ritual *pircas*: Less frequent, but identifiable by their placement in sites of landscape prominence, such as mountain peaks, *apachetas* (5), or locations where offerings have been found. Some of these are associated with ancient *usnus* or Inca ceremonial platforms, like those documented near *cerro El Plomo*.



Figure 3: Photograph of the usnu ritual platform near Cerro El Plomo, associated with the preparation site of the Niño del Cerro El Plomo for the capacocha. Photograph by Corporación Cultural de Lo Barnechea, 2022. Used with permission.

These typologies are neither exclusive nor rigid. Many *pircas* are reused or re-signified over time, depending on productive, symbolic, or affective contexts. An abandoned corral may become a shelter; an old *tambo* may be occupied by tourists or reactivated by new generations of herders. This functional plasticity reinforces the idea that *pircas* are less fixed structures than territorial assemblages—less finished products than ongoing processes. As Tomic (2015) observes, these are not merely “stone walls” but material witnesses of a way of life. Their presence embodies a form of situated knowledge that has not vanished, but has been marginalised by official heritage frameworks. To understand *pircas* from this perspective is to see them as part of a relational ecology: one formed between bodies, territories, and memory; between humans, animals, and stone (Escobar, 2016).

In what follows, I turn to the figure of the *arriero*—not merely as a social actor, but as an epistemic agent whose practice embodies a living, itinerant form of knowledge, deeply entangled with the mountain landscapes and the structures that render them habitable.

3. Being Arriero: Embodied Knowledge and Itinerant Dwelling

The practice of *arriero* lifeways is not acquired through manuals or classrooms: it is inherited. It is observed and learned experientially. The knowledge of the craft is passed down from generation to generation during the summer *veranadas*, through caring for animals, preparing pack mules, and reading the landscape. What is transmitted are not fixed instructions, but cultivated modes of attention: how to read the sky, interpret snowfall, or distinguish a barely perceptible path through the rocks.



Figure 4: Photograph of an *arriero* during the *veranada* process. From Corporación Cultural de Lo Barnechea (2022). Used with permission.

This deeply embodied territorial knowledge is anchored in seasonal forms of mobility known as transhumance—the movement of livestock from lower valleys to highland pastures that flourish in summer due to snowmelt, described by Araya et al. (2019) as a cyclical return to places that harbour family memories, traces of passage, and more-than-human connections. In this context, being an *arriero* is also a way of interpreting and producing territory. The routes, *majadas*, *pircas*, and watercourses form a memorial cartography—one that is reactivated each year through the movement of the herd.

The figure of the *arriero* embodies a form of tactical, situated knowledge that challenges the boundaries

between the technical and the symbolic. As Amador-Jiménez and Millner (2024) demonstrate in their work on the páramos of the Colombian Andes (6), rural Andean knowledges do not emerge from abstraction but from gesture, the temporality of doing, and the care for rhythm. In this sense, the *arriero* is not merely a productive actor, but an epistemic agent whose practice continuously reconfigures the landscape. This knowledge is affective, and multispecies. It depends on bonds with animals (Escobar, 2016)—especially with the *mulas madrinas* that lead the pack—on the reading of the mountain's affective geography, and on interactions with other forms of life. As Donna Haraway (2016) suggests, it is a kind of knowledge that is built *with* the world, rather than *about* it.



Figure 5: Dry-stone shelter of apparent Aconcagua origin, formerly used by *arrieros*. Located on the Valle Nevado trail, Metropolitan Region, Chile. Photograph by Ennio Nasi (2018). Licensed under CC BY 4.0. Retrieved from https://commons.wikimedia.org/wiki/File:Refugio_de_piedra_Valle_Nevado_-_panoramio.jpg

3.1 The practice of arrieria: Pircas as Spatial Technologies of Dwelling

Pircas form a central part of this embodied knowledge, understood as territorial tools whose agency mediates practices, orientations, and affective relations with the landscape. In his research on stone corrals in central Chile, Tomic (2015) shows how these structures condense a mode of spatial engagement grounded in repetition, and memory.

For *arrieros*, a *pirca* can be a shelter, a boundary, a point of reference—or all of these simultaneously. Their design does not follow architectural blueprints, but rather emerges from logics of use: where the wind blows, where water runs, where it makes sense to gather animals.

As in the case of Piedra Carvajal or *Casa de Piedra* in Farellones—once an Inca shelter, now used by *arrieros* and mountaineers alike—these constructions shift in function without losing their spatial centrality. In doing so, *pircas* operate as technologies of dwelling: structures that, through their material use, stabilise modes of cohabitation among humans, animals, and geological elements. Following Povinelli (2016), one might say they function as geontological artefacts: grey zones where the living and the non-living are productively entangled. In this context, acknowledging the *arriero* as a relevant actor means recognising ways of thinking and dwelling that fundamentally challenge extractivist logics and the modern separation between nature and culture. The *arriero* is not an anachronism, but a political and



Figure 6: Photograph of an *arriero* camp in Yerba Loca, circa 1920. From the Lo Barnechea en Imágenes archive, donated by Adolfo Dell'Orto. Used with permission of Corporación Cultural de Lo Barnechea.

ecological subject whose daily practices—anchored in seasonal movement, attentive care for animals, and a sensitive reading of the terrain—constitute a form of situated knowledge. Through *pircas*, transhumant routes, and the knowledges they embody, arrieros continue to set the pace of the highland. Their knowledge may not be written in documents, but it remains inscribed in the traces of stone and cattle.

This embodied and affective form of territorial knowledge invites a reconsideration of how agency is distributed across landscapes. The *arriero*'s interactions with stone, weather, animals, and terrain point to a broader ecology of action in which matter itself participates in shaping relations. To fully grasp the significance of *pircas* within this ecology, it becomes necessary to shift from anthropocentric frameworks toward ontological models that acknowledge the vitality of the non-human. It is in this conceptual terrain that geontology provides a critical lens.

4. Applied Geontopower in Yerba Loca Stonescape

The concept of geontology, proposed by Elizabeth Povinelli (2016), opens a path for analysing how societies differentiate between the living, the non-living, and that which dwells at the edges of those categories. It invites us to consider the exercise of power beyond the life/non-life dichotomy, expanding Foucault's (1976) notion of biopower to encompass the governance of existence itself—both human and more-than-human—in the ontological terrain of late liberalism. This section seeks to explore how *pircas* actively participates in that threshold zone, articulating material and symbolic relations among species, bodies, and forms of existence beyond the human. Rather than approaching them from a strictly archaeological or technical lens, *pircas* are treated here as agents within geosocial assemblages, whose agency lies not merely in their physical presence but in their capacity to mediate time, practices, and memory. These are stones that *do* things: that mark passage, that endure time, that hold ritual significance. In other words, they do not simply exist—they act.

In their persistence and adaptability, *pircas* embody a form of knowledge that exceeds modern ontologies.

Through them, we encounter what Elizabeth Povinelli (2016) terms *geontopower*—a regime that contests binary oppositions such as life/non-life, nature/culture, and subject/object. Within the highland landscapes of central Chile, these structures may be understood as active figures of geontopower, in Povinelli's sense. Each *pirca* is a gesture that interrupts and generates modes of dwelling. It is not “outside” life—it sustains it, frames it, and troubles it. Through their material presence, *pircas* condense the ecological, epistemological, and ontological tensions that traverse contemporary mountain landscapes.

Povinelli (2016) introduces three emblematic figures through which geontopower operates: the *Desert/Carbon*, the *Animist*, and the *Virus*. Each figure represents a distinct configuration of the relationship between life, non-life, and governance. The *Carbon figure* depicts environments stripped of vitality and agency, rendered into resources for extraction and visual consumption—landscapes flattened into economic or aesthetic value. The *Animist figure*, by contrast, embodies forms of relationality where rocks, rivers, and other more-than-human entities are understood to be active participants in social and ecological life—animated not through metaphysics, but through practice and care. Finally, the *Virus figure* represents a zone of ontological indeterminacy: entities that cannot be easily classified as either alive or inanimate, but that nevertheless interrupt and reconfigure the terms of relation. This figure foregrounds ambiguity, contamination, and co-agency—challenging the stability of binary logics that underpin modern governance.

4.1. Pirca as Carbon Figure: Extractivism and Scenic Spectacle

In its most instrumentalised form, the *pirca* is reduced to a “natural backdrop”—a scenic prop that frames the tourist gaze or supports the state's visual management of the landscape as an inert archive. Within Yerba Loca Natural Sanctuary, mountain tourism has stripped many of these structures of their original functionality, repurposing them as makeshift car parks or even improvised toilets. Under this logic, stone becomes inert, disposable, and value-neutral—its existence measured

by aesthetic appeal rather than historical or relational depth. This is the *pirca* as a carbon figure: a remnant, a raw resource, matter without will, ready to be translated into economic or visual capital. Such a reading emerges from an extractive regime that denies territorial agency and silences the multispecies entanglements that sustain these forms of existence.

4.2. Pirca as Animist Figure: Relational Agency and Embodied Memory

From within the practice of *arriero* transhumance, however, another reading arises. For those who traverse the mountains seasonally, the *pirca* is not merely a wall—it is a guide, a refuge. Its construction is the outcome of a correspondence between body, animal, and terrain: it requires reading the wind, sensing the weight of the stone, and intuiting the gesture of the land. As Araya et al. (2019) show, these practices are underpinned by a tactical and situated knowledge, where each *pirca* marks not only a location but a relation. Here, the *pirca* operates as an animist figure—not because it is attributed a “soul,” but because it is embedded within a mesh of affective and perceptual relations. It is, following Ingold (1993), a *technology of correspondence*: its form answers to the rhythm of the herd, the language of the weather, the memory of the herder. Its agency is not metaphorical—it is operational and grounded.

4.3. Pirca as Viral Figure: Ontological Interstice

Perhaps the most disruptive of these figures is what Povinelli calls the virus: an entity that unsettles the binary between the living and the non-living. An abandoned *pirca*, inhabited by lichens, or insects, becomes an ecosystem that generates refuge and thresholds for other-than-human lifeforms. In Yerba Loca, some *pircas* have begun to be colonised by resilient flora that simultaneously stabilise and transform their structure. Others collect moisture in their interstices, creating fertile habitats within an otherwise arid alpine terrain. This is the realm of multispecies co-agency, where the lithic not only supports life but modulates and reshapes it. In this sense, *pircas* act as viral structures: they interrupt, contaminate, and multiply modes of relation that defy absorption by modern classificatory systems. Their power lies in this ambiguity: neither ruin nor

infrastructure, neither nature nor artefact—they mark a present that escapes the ontological closures of modern design paradigms.

Taken together, these three geontological figures offer a plural analytic through which to interpret the *pirca* not as a singular object, but as a relational form that mediates between visibility and marginality, vitality and obsolescence. Whether consumed as scenic resource, re-animated as affective infrastructure, or inhabited by other-than-human agents, *pircas* in Yerba Loca are zones of ontological friction—where divergent regimes of value and being overlap, and conflict.

This ontological friction is not only expressed through the *pirca*'s material agency, but also through its embeddedness in lived landscapes. To fully grasp the relational power of these structures, it is necessary to shift from viewing *pircas* as isolated artefacts to recognising them as integral components of a broader cultural terrain. This shift invites a deeper engagement with the landscape itself—not as a static container, but as a temporal and affective field co-produced by multispecies practices.

5. The Temporality of Landscape and the Pirca System as Cultural Landscape

Landscape is not a stage: it is a practice. This assertion—widely supported across cultural geography and spatial anthropology—helps to shift the gaze from landscape as a visual representation to landscape as a materialisation of relational practices. Since Carl Sauer's foundational formulation (1925), in which he defined cultural landscape as “an area fashioned from a natural landscape by a cultural group,” the concept has evolved from a descriptive framework into a processual and embodied one. Contemporary approaches, particularly those advanced by Ingold (Ingold, 1993), Lavrenova (2019) and Singh et al. (2023), position landscape not as a backdrop but as a dynamic assemblage of tasks, trajectories, and inhabitation.



Figure 7: Photograph of the Niño del cerro El Plomo burial site. From Corporación Cultural de Lo Barnechea (2022). Used with permission.

In the context of the Central Andes, the *pirca* system operates as a territorial mesh that expresses a situated way of relating to mountainous environments. These structures do not appear in isolation, nor do they emerge from exclusively technical logics; they are embedded in transhumant routes, intermittent agricultural cycles, sheltering strategies, observation points, and ritual practices that reactivate both geological and social memory. They constitute what could be interpreted in Lavrenova (2019) terms, a text legible in layers of time, where the natural and the cultural are not opposites but co-constitutive elements.

To conceive of the Andean landscape as a palimpsest (8) is to recognise that territory is not organised into clearly demarcated layers of time or function, but rather into overlapping forms—tensed by memory, practice, and absence. Carl Sauer’s morphological view of cultural landscapes already warned that such landscapes are not passive backdrops for human action but inherited forms shaped by ongoing interactions between historical and natural processes (Sauer, 1925). This insight takes on renewed vitality when read alongside contemporary thinkers like Ingold (1993), who proposes that landscape is not an archive but a *taskscape*: a field of embodied activity where time is lived rather than represented.

In this sense, *pircas* are not passive ruins or frozen monuments, but active inscriptions within a highland palimpsest. They are mobile traces, reactivated through *arriero* movement, reshaped by rainfall or animal passage, re-signified through tourism and administrative use. As Tomic (2015) notes, these dry-stone structures operate within a territorial logic that is cyclical, adaptive, and relational—aligned more with an ethics of cohabitation than with policies of ownership. To propose that landscape is a living palimpsest is to reject the notion of static stratification (with the past buried and the present on the surface) and instead adopt a vision of entangled temporalities and materialities. The andesitic stone that forms a *pirca* may once have been part of an Inca *ceque*

(9), later a colonial *tambo*, then a seasonal corral, and today a wayfinding point for trekkers. Each use does not erase the previous one; it brushes against it, displaces it, or reactivates it, leaving a resonance more audible than visible.

A fundamental characteristic of cultural landscapes is their temporal depth. *Pircas* condense multiple historical and functional moments: from their possible origins in pre-Inca networks, their incorporation into imperial systems of transit and ritual (Hyslop, 1990), to their contemporary use as corrals or shelters in transhumant herding. This multi-temporality does not unfold in a linear sequence, but rather as a superposition of material, practical, and affective layers.

As a temporal knot, the *pirca* weaves together at least four overlapping registers. It embodies geological time through the mountain’s slow processes of folding and fracturing, which yield stone fragments ready to be handled and arranged. It holds ritual time, as certain stones were historically inscribed into Andean cosmologies—manifest in structures like *ceques* and *apachetas*. It enacts pastoral time, re-signifying stone as a medium of shelter, territorial demarcation, and seasonal rest. And it absorbs touristic-administrative time, where its forms are increasingly aesthetised, regulated, or trivialised by regimes of heritage and conservation. This entwinement is far from neutral: it is dense with epistemic, political, and affective tensions. To read landscape as palimpsest, then, is not a poetic indulgence but a methodological imperative—an effort to recognise stones as more-than-human archives in which memory is not merely stored, but continually enacted and embodied (Singh et al., 2023).

Conclusion

This article has argued that *pircas*, far from being static remnants of an archaeological past, are active agents in the configuration of cultural landscapes in the Central Andes. Through their ongoing use, adaptation,

and relational significance, *pircas* articulate a living geography where multispecies entanglements and memory coalesce. By reading these structures through the lens of geontology and cultural landscape theory, we have shown that *pircas* are not merely infrastructural artefacts but temporal and ontological knots—mediating between geological, pastoral, ritual, and administrative registers.

The findings foreground the epistemic contributions of *arriero* practices, revealing how embodied knowledge and multispecies cohabitation continue to shape the highland taskscape. Furthermore, the application of Povinelli’s geontopower has illuminated how *pircas* enact multiple modes of agency: as extractable carbon figures, animist companions, and viral disruptors of modern classificatory regimes. These readings challenge extractivist and heritage frameworks that render these structures either obsolete or consumable, advocating instead for a situated understanding of landscape as a dynamic and contested field of relations. Ultimately, this study advances a conceptual and methodological shift: from interpreting *pircas* as inert heritage to recognising them as active infrastructures of dwelling and survival. In doing so, it calls for a rethinking of design and conservation practices that take seriously the relational ontologies embedded in highland landscapes. *Pircas*, as vernacular technologies, do not belong only to the past—they organise the possibilities of inhabiting the present otherwise.

Notes.

1. *Niño del cerro El Plomo* refers to the exceptionally well-preserved body of an Inca child offered in a capacocha ritual and discovered in 1954 near the summit of Cerro El Plomo (5,424 m) in central Chile. Estimated to be about 8 years old, the child was ceremonially sacrificed to the mountain deity (*apu*) as part of state-sanctioned Inca religious practices. The site and body are among the southernmost known examples of Inca high-altitude ritual offerings.
2. SIGPA (Sistema de Información para la Gestión del Patrimonio Cultural Inmaterial) is Chile’s official registry for documenting and supporting intangible cultural heritage.

3. *Natural Sanctuary* is a legal conservation category in Chile that protects areas of ecological, scenic, or scientific value under national heritage law.
 4. In *Earth-Beings* (2015), de la Cadena uses “translation” to describe the partial and often failed process through which Indigenous ontologies—such as those recognizing mountains as beings—are rendered intelligible within modern political and legal frameworks, often losing their ontological specificity.
 5. Ritual stone piles or cairns found along Andean paths, built as offerings to mountain spirits and markers of sacred or significant places in the landscape.
 6. Amador-Jiménez and Millner (2024) explore peasant lifeways in the páramo of Monquentiva (Colombian Andes), showing how their way of being *paramuno* entails an already-existing multispecies coexistence and ethic of care. They argue that these communities have developed an ethics of incorporation and resilience in the face of change, renegotiating relationships with indigeneity and collectivity through “world-making practices” that offer a sustainable point of departure for conservation.
 7. the seasonal herding practice carried out by *arrieros*.
 8. a surface where traces of past inscriptions remain beneath newer ones—used metaphorically to describe layered histories in landscapes.
- A ritual line radiating from a sacred Inca centre, connecting shrines and ceremonial sites.

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