

Gentes and Forests: clues for imagining other agri-cultures

Caroline Zalamena  

Federal University of Pelotas (UFPel) – Pelotas, Rio Grande do Sul, Brazil.

e-mail: zalamena.carol@gmail.com

Lúcio André de Oliveira Fernandes  

Federal University of Pelotas (UFPel) – Pelotas, Rio Grande do Sul, Brazil.

e-mail: lucio.fernandes@ufpel.edu.br

Marielen Priscila Kaufmann  

Federal University of Pelotas (UFPel) – Pelotas, Rio Grande do Sul, Brazil.

e-mail: marielen.kaufmann@ufpel.edu.br

Abstract

This research addresses Agroforestry and its people, which transform landscapes and create alternative worlds and ways of relating to the land. They resist and re-exist against the hegemonic agricultural model, offering clues to imagine other *agri-cultures* amid diverse socio-environmental challenges. Through an intervention-research approach using the Cartographic Method, this study aimed to map the micropolitical movements intensifying in the relationships between people and forests across four agroecosystems located in the Sul-Riograndense “Escudo Cristalino”, in the southern region of Rio Grande do Sul state of Brazil. Grounded in lived experiences with farmers, this work presents narratives that serve as clues for *becoming-other*.

Keywords: Agroforestry; agroecology; cartography.

Gentes e Florestas: pistas para imaginar outras agri-culturas

Resumo

A pesquisa aborda as Agroflorestas e suas gentes que transformam paisagens e criam outros mundos e formas de se relacionar com a terra. De forma que resistem e re-existem ao modelo hegemônico de agricultura e contribuem com pistas para imaginar outras agri-culturas frente aos diversos desafios socioambientais. Nesse sentido, a partir de uma pesquisa-intervenção pelo Método Cartográfico, teve como objetivo mapear os movimentos micropolíticos que se intensificam nas relações das gentes e florestas em quatro agroecossistemas localizados no Escudo Cristalino Sul-Riograndense, na região sul do estado do Rio Grande do Sul. A partir da vivência e experimentação juntamente com as agricultoras e agricultores, esta escrita traz as narrativas que operam como pistas para devir-outro.

Palavras-chave: Agroflorestas; agroecologia; cartografia.



This work is licensed under a Creative Commons [Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

Gentes y bosques: pistas para imaginar otras agri-culturas

Resumen

Esta investigación aborda las Agroflorestas y sus gentes, que transforman paisajes y crean otros mundos y formas de relacionarse con la tierra. Así, resisten y re-existen frente al modelo hegemónico de agricultura, aportando pistas para imaginar otras *agri-culturas* ante diversos desafíos socioambientales. En este sentido, a partir de una investigación-intervención mediante el Método Cartográfico, se propuso mapear los movimientos micropolíticos que se intensifican en las relaciones entre las gentes y los bosques en cuatro agroecosistemas ubicados en el Escudo Cristalino Sul-Riograndense, en la región sur del estado de Rio Grande do Sul. A partir de la vivencia y experimentación junto a agricultoras y agricultores, este escrito presenta narrativas que operan como claves para *devenir-otro*.

Palabras-clave: Agroforestería; agroecología; cartografía.

Introduction

This work takes as its starting point the multiple socio-environmental crises that spread across space and time, deeply rooted in the capitalist way of life that degenerates life itself (Melo, 2006; Comité Invisible, 2018). This research problematizes the dissociation between science, nature, and traditional knowledge—a colonial-capitalist legacy¹—that reduces life to a commodity while disregarding biocultural and micropolitical² dimensions (Rolnik, 2018; Toledo; Barrera-Bassols, 2015).

The expansion of monocultures in the Pampa biome of southern Brazil is the primary driver of native vegetation loss (MapBiomass, 2022, 2023). This process reveals the historical erasure and invisibilization of agri-cultures, reinforced by policies that weaken³ biodiversity protection. Such policies are embedded in an imaginary that not only fails to acknowledge and value naturally occurring species but also perpetuates the idea that the biome consists exclusively of grasslands. However, Hasenack *et al* (2010) describe the phytoecological formations of the Pampa biome, demonstrating its vast diversity of ecosystems, which reflect its rich geological diversity and are strongly shaped by land use (Figueiró; Sell, 2020; Hasenack *et al.*, 2010).

This is particularly evident in the geomorphological region of the Southern Rio Grande do Sul Shield, one of the oldest formations, characterized by reliefs up to 600 meters in altitude and rocky outcrops that have limited the large-scale advance of monocultures. As a result, this region remains among the most conserved areas, with a strong presence of

¹ Rolnik's concept (2018) refers to a historical pathology ingrained in the collective imagination, which directly impacts the structure and functioning of institutions.

² For Guattari (2012), micropolitics refers to the molecular level of desire formations in the social field.

³ An illustrative example is Decree No. 52.431/2015—only recently revoked (2025)—which had allowed 20% of the land designated for conservation areas to be used for other purposes such as livestock grazing.

family farming and a concentration of agroecological practices. This is evidenced by the high number of organic certifications and the significant presence of agroforestry systems (Figure 1) (Zalamena et al., 2024; Santin, Silva; Fernandes, 2024; MapBiomass, 2022, 2023; Zalamena; Silva, 2021; Salamoni; Waskiewicz, 2013).

It is worth noting that in this region the agroecological transition dates back to the 1990s⁴, while the first initiatives around agroforestry began in the early 2000s, later formalized in 2009 through Embrapa's participatory action-research project for the implementation of Participatory Experimental Agroforestry Units across three agroecosystems (Henzel et al., 2021; Cardoso, 2018, 2016). These experiences emerged precisely from debates on the impacts of the hegemonic agricultural model, particularly its role in simplifying ecosystems—

Agroforestry, or Agroforestry Systems, here understood from the perspective of Agroecology as the final stage in the redesign of agroecosystems (Gliessman, 2016), has been “pollinated”⁵ in the Southern Rio Grande do Sul Shield region. They demonstrate positive impacts on biodiversity enhancement by uniting conservation with food production (Santin et al., 2023; Henzel et al., 2021; Cardoso, 2018, 2016).

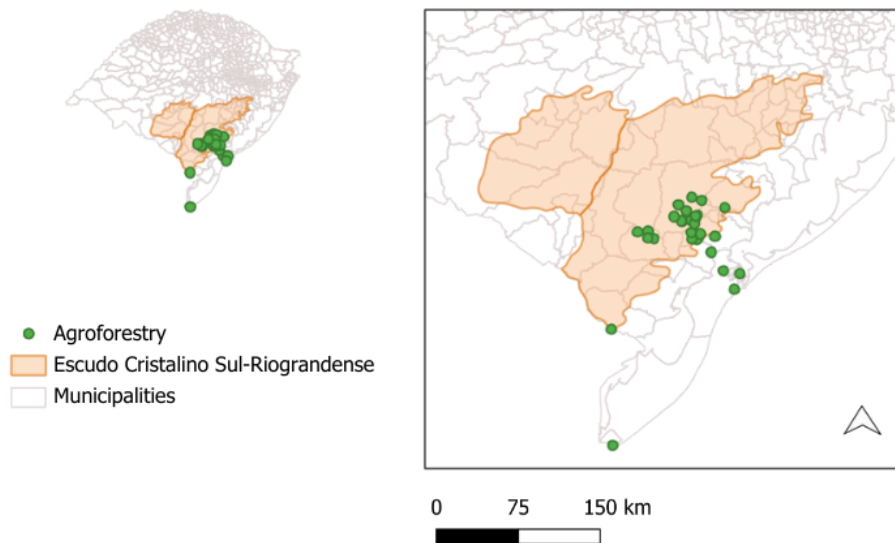
In this sense, agroforestry emerges as an ancestral strategy rooted in the complex relationship between humans and their environment, characterized by its heterogeneous composition of socio-cultural, geological, and biological elements (Steenbock, 2021; Toledo; Barrera-Bassols, 2015). This relationship is a co-production between subjects and their environment, expressed in the transformation of landscapes—*gentes* and forests—where Agroecological science helps to understand the logic of nature, upon which agroforestry principles are based.

Figure 1 shows the location of the Southern Rio Grande do Sul Shield and the presence of agroforestry systems based on georeferenced data collected by the Agroforestry Observatory of Southern Brazil up to the time this research was conducted.

⁴ more specifically, in the Serra dos Tapes region.

⁵ (See Embrapa's Agroforestry Systems Project; cf. Cardoso 2016, 2018).

Figure 1: Survey of Agroforestry Systems in the geomorphological unit of the Southern Rio Grande do Sul Shield.



Source: Prepared by Felipe Aires Thofehn and Caroline Zalamena based on IBGE data and the georeferenced points of agroforests surveyed by the Observatory of Agroforests of the Extreme South of Brazil (2024).

Driven by joint experiences with farmers and the agroecological network composed of institutions and collectives such as *Embrapa Clima Temperado* (Embrapa Temperate Agriculture), *Emater/Ascar-RS* (Technical Assistance and Rural Extension Company of Rio Grande do Sul), the Federal University of Pelotas (UFPEL), the Agroecology Group (GAE/UFPEL), and the Agroforestry Observatory of Southern Brazil, a line of flight was launched,⁶ stemming from the question of how we learn to learn—the way institutions reproduce this process, and its impact on the transition of food systems.

This movement stems from the contradictions encountered in the practical experience of agroecosystems, which highlight the inherent tensions in their complexity. The first contradiction is the invisibilization of agroforestry experiences in the Pampa biome, considering that such practices are commonly associated with tropical climates. The second relates to agricultural models disseminated through technological packages or a romanticization of ways of life “aligned with nature,” without recognizing the pressures that such biodiverse systems face when confronted with externalities. These pressures are intensified in territorial disputes and manifest at the borders of agroecosystems and, above all, within the collective imagination.

Along this path, contributions from diverse fields of knowledge converge to outline the problem at hand. First, we begin with Krenak’s (2019) idea, which draws our attention to

⁶ In Deleuze and Guattari’s philosophy (1995), a line of flight refers to movements that resist the pressures imposed by hegemonic visions of forms and ways of life.

the disconnection of *us* from the world. This thought resonates with Rolnik's (2018) reflection on the loss of what she calls the knowledge of the living. Steenbock (2021) further develops this by discussing the reduction of learning capacity. Together, these authors point to the distancing from the world that undermines cognitive, creative, and practical capacities—knowing-through-doing.

This distancing occurs to the extent that we cease to work with and as nature, instead operating within an abstraction of what the world is understood to be. However, nature continuously reveals to us the collective and diverse fabric of life. However, the dominant notions of progress, development, and innovation tend to simplify life through monocultures in agricultural fields, in thought, and in the practices of knowing and doing. Guided by a logic that Rolnik (2018) describes as a historical pathology—what she terms the colonial-capitalist regime—these combined forces persist today, preventing us from imagining other worlds (Rolnik, 2018).

It is in this context that the words of Antônio Nêgo Bispo dos Santos (2023) gain strength, stressing the need to *Envolve*, which he identifies as the principle of biointeraction. This principle is rooted in sharing and represents an alternative, anti-capitalist and anti-colonial way of living. In this canoe, many embark on a journey to contribute clues for creating other worlds—worlds that converge with Agroecology and *Buen Vivir*, offering pathways toward alternative ways of living and relating to the land (Ferreira, 2021; Acosta, 2016; Primavesi, 2016).

Therefore, both Agroecology and *Buen Vivir* must not be dissociated from their territorial contexts in their social, geological, biological, and cultural complexity. Nor should they be understood as the construction of yet another single valuation model, but instead as multiple ones. Both encounters move forward together, exploring other ways of relating to the land in relation to health. Agroforestry, in this sense, is no different, as it represents systems that engage in dialogue with the logic of nature (Steenbock, 2021).

In this movement, Cartography emerges from an epistemological inversion (*hódos-metá* “a path made in walking”), which assumes the non-dissociability of researchers and what they study. It also functions as a political strategy, insofar as what is being resisted is monoculture itself. Thus, the methodology seeks to overcome the representational model of reality by understanding subjectivity as a form of cognition/creation. Creation is the process of structural coupling that constitutes the autopoietic dynamic—the capacity to create oneself (Passos, Kastrup; Escóssia, 2020).

It is therefore necessary to affirm oneself within relations of political and social forces. Farmers' narratives operate as a similar power of affirmation, insofar as other ways of life also contribute to imagining a becoming-other, thereby overcoming the hegemonic

worldview that imposes a single perspective, historically extended as a generalization across all forms of life.

From this perspective, we draw on Deleuze and Guattari's (1995) understanding of micropolitics (molecular), which cannot be separated from macropolitics (molar). For these philosophers, micropolitics dissolves binaries and institutions, taking shape in the unpredictability of the heterogeneous composition of societies and their intensifications. More directly, micropolitics addresses perceptions, affections, and desires beyond the ontological, as it does not aim to establish categories. Intensifications that gain centrality at the molar level become models and representations that escape the molecular level—whether in individual or collective experience—yet still affect it (Neto, 2015; Deleuze; Guattari, 1995).

Understanding such concepts requires an anti-moralist openness that resists dualistic tendencies. In the context of territorial approaches, micropolitics emphasizes the power of differentiation at the molecular level, enabling processes of singularization in movements that may tend toward decentralization of the body and its surroundings. Without overusing Deleuzo-Guattarian terminology, micropolitics, in their view, gains ground as long as territories are understood as living spaces in constant transformation. Advancing such debates can also contribute to the development of more adequate public policies in response to the heterogenesis that is underway (Rolnik, 2014, 2018; Neto, 2015; Deleuze; Guattari, 1995).

These relations are reinforced as the impacts of climate change on territory intensify. Climate change adds to a set of global risks to which humanity is exposed, redirecting the ways of life of communities (Beck, 2010). Capitalism has brought about drastic transformations in landscapes, directly impacting the environment and necessitating a reevaluation of modes of production, consumption, and spatial relations. In this sense, the experiences of ecological farmers—especially those already in an advanced stage of agroecological transition—stand out. This is particularly significant in one of the Brazilian states most affected by extreme climatic events in recent years (Pillar; Overbeck, 2024).

This article, therefore, aims to map the micropolitical processes involved in the relations between *gentes* and forests and their co-evolution, through transformations in rural spatial dynamics via Agroforestry. It also seeks to identify clues for creating other possible worlds—lines that resist and re-exist the pressures of monocultural politics. This movement is oriented toward sensitization, for as Guattari (2012) emphasizes, it is not a matter of destroying everything in order to build something new. The path is constructed processually, and transformations in valuation dispositifs will cease to be operated by monocultural politics, making way for new dispositifs.

Methodology

This is a qualitative study in the social field, woven through encounters and affections. The cartographed territory was delimited both by the capacity of these researcher-bodies-cartographers to intervene and, for reasons of convenience, by the effort to follow and connect the lines of the agroecological and agroforestry networks of the Southern Rio Grande do Sul Shield region.

Cartography, or the Cartographic Method, arises from the philosophy of Deleuze and Guattari (1995) and has been developed as a methodology by various Brazilian authors⁷. Understanding methodology as the pathway of thought (Minayo, 2016), cartography entails precisely an epistemological inversion—*hódos-metá*—where the path is made as one walks it, through encounters, affections, and percepts that co-produce both these researcher-bodies-cartographers and the territory at the same time (Rolnik, 2014; Passos, Kastrup; Escóssia, 2009). Thus, research becomes intervention through the very capacity to intervene and transform (Passos; Barros, 2009).

From this perspective, it becomes clear that there is no separation between subject and object, and that data are produced simultaneously as these researcher-bodies-cartographers intervene in reality. This is why philosophers propose cartography as a rhizomatic principle, since the rhizome is reality itself in a state of constant production (Deleuze; Guattari, 1995). This premise stands in contrast to what Deleuze and Guattari have called arborescent thought, or root-type thinking.

The difference lies precisely in the structure of thought: the rhizome, as in botany, is a polymorphic stem that grows horizontally, expanding in all directions with great capacity for differentiation and multiplication. The root, by contrast, is a static structure that, when cut, cannot multiply; its only movement is linear and hierarchical. This genealogy of concepts highlights that rigid, linear, and hegemonic structures persist within thought itself and are expressed in the forms and ways of life characteristic of Monocultural Politics (Núñez, 2023; Rolnik, 2014; Deleuze; Guattari, 1995).

What guides this research is its *ethos*: following the clues of *gentes* and forests in order to map the co-evolutionary relations that emerge from social, geological, biological, and cultural interactions. The tools employed in this Cartography were diverse, including the use of field diaries and audiovisual records, all conducted with the presentation of a Free and Informed Consent Form (TCLE). In this process, farmers are identified by the names of trees, which are chosen in collaboration with them.

⁷ The authors cited throughout this text are part of the methodological foundation.

In terms of intervention, three activities were proposed: (a) The agroecosystem walk—a guided tour by farmers across their property, during which it becomes possible to observe how thought moves and what elements draw the most attention; (b) The agroecosystem drawing—a practice that is particularly valuable for understanding how farmers perceive the agroecosystem, revealing how they organize space over time; (c) *Mutirões*—highly significant social tools for the exchange of practices and knowledge. They are themselves pure interventions, since they are activities with great transformative capacity, both for the landscape and for the people involved.

Cartography also involved multiple encounters with the agroecological network of the Southern Rio Grande do Sul Shield region, including agroecological fairs, seed fairs, meetings, technical field trips, *mutirões*, and other collective events. This study examines the moments when cartography became an intervention—through visits to farmers, agroecosystem walks, and drawing activities, as well as the *mutirões*. In total, nine field trips were carried out (Table 1) across four agroecosystems. As shown in Table 1, each agroecosystem is identified by the name of a tree (chosen collectively with the farmers), the municipality in which it is located, and the period during which the visits took place.

Table 1: Identification of the agroecosystems.

Agroecosystems	Municipalities	Trips (days)	Period
Araçá-Butiá	Canguçu	4	Apr. 2024 – Jan. 2025
Cambará	Canguçu	1	
Vassoura-Vermelha	Morro Redondo	2	
Yatay	Jaguarão	2	

Org.: Authors (2025).

Following the rhizome traced by the four agroecosystems in presenting the data, we draw inspiration from Deleuze and Guattari (1995) to propose a rhizomatic writing style—one that seeks to approximate the way life is lived. Here, cartography unfolds through the narratives of farmers, as well as through their perceptions and affections.

The narratives are presented in accordance with the conventions for direct quotations, with the farmer's identification and year indicated at the end, even for those shorter than three lines. This decision was made in order to highlight the narratives that mark the intensities of the cartographed territory in this work. Field diary notes also appear, identified in the same way, as follows: (Field Diary, Year). Photographic records are presented as mosaics of overlapping images, inspired by the Agroforests themselves, which form mosaics as expressions of nature's patterns across different spaces and times.

Results

To contextualize and facilitate the understanding of the data produced, Table 2 presents the guiding questions, as well as the systematization of the data collected from the lived experiences with farmers. This table enables the observation of the diversity of territorial experiences associated with the agroforestry system.

Table 2: Guiding questions and systematization of collected data.

Ano referência pesquisa (2025)					Diversity perceived based on experiences, transcriptions, and photographs
Agroecosystems	Araçá-Butiá	Cambará	Vassoura-Vermelha	Yatay	
Family Composition	4	1	1	2	oldo; rosemary; rue; aloe; canjerana; grábia; tarumã; cambará; coronilha; butiá; red araçá; yellow araçá; uvaia; guabiroba; cherry; jabuticaba; pineapple; passion fruit; mountain guava; wild peach; banana; fig; lemon; tangerine; orange; lime; brown laurel; red broom; acacia; eucalyptus; araucaria; bamboo; blackberry; uvaia; peach; persimmon; pineapple; pigeon pea; apple; pear; rice; beans; corn; pumpkin; moranga squash; watermelon; aroeira; grape; guava; margaridão; tomato; zucchini; brazilwood; pitanga; sugarcane; ora-pro-nóbis; coffee; forage cactus; chili; carrot; arugula; lavender; castor bean; margaridão; lettuce; cedar; guabijú; yacón potato; collard greens.
Who works in the agroecosystem?	2	1	1	2	
What is the motivation for practicing agriculture through Agroforestry Systems? How did the contact with this practice begin, and when was it first implemented in the agroecosystem?	Embrapa Project – Action Research	Unconscious process – cultivation of species for personal consumption	Embrapa Project – Restoration	Life Dream – Experiences through the GAE	
What is the age of the Agroforestry System (AFS)?	12	9 (since renamed agroforestry)	3	5	
How was the decision-making process regarding the species cultivated in the Agroforestry System (AFS) carried out?	Commercial interest / Seedling availability / Biodiversity conservation / Self-consumption	Self-consumption / Availability of seedlings / Biodiversity conservation	Regeneration / Seedling availability / Biodiversity / Self-consumption	Regeneration / Seedling availability / Biodiversity / Self-consumption	
How was the location and design of the Agroforestry System (AFS) planned on the property?	Degraded area without cultivation at that moment / design in dense rows	Close to the house / no pattern	Degraded area without cultivation at that moment / design in discontinuous rows	Degraded area without cultivation at that moment / design in dense rows	
Where did the seedlings/seeds come from?	Embrapa / Public-private nursery (purchase) / Donations / Own seedlings	Emater / Donations / Own seedlings	Embrapa / Purchase / Donations / Own seedlings	Purchase / Donations / Own seedlings	
Marketing of Agroforestry Products	PAA/PNAE/Feiras	None	None	None	
Do you have any certifications? If so, which ones?	Organic Certification (OCS/OPAC) / Forest Certification (SEMA)	None	Organic Certification (OCS)	None	
Performs activities outside the	Yes, the farmer	Yes, work and study	No	Yes, both work	

agroecosystem? Is there income generation?	
--	--

Notes: OCS (Social Control Organization); OPAC (Participatory Organization for Conformity Assessment); SEMA (State Secretariat for Environment and Infrastructure). Org.: Authors (2025).

The data presented in Table 2 demonstrate the heterogeneity of the relationships between *gentes* and forests, as well as their intersections arising from engagement with degraded land, in the regenerative potential expressed through the biodiversity experienced within agroecosystems, across time spans ranging from three to twelve years. Above all, it highlights the lines of flight of farmers in their re-existence—their capacity to recreate themselves—emerging as fissures within the rigid structures of colonial-capitalist knowledge and power.

These lines of flight mark the very construction of cartography, as they represent movements of differentiation in the production of subjectivities at the molecular (micropolitical) level, which is the concern here. It is precisely here that representations, normativity, and dualities dissolve, making room for reality in its constant becoming, overflowing the institutionalizations that otherwise categorize ways of life and ways of farming into models.

The lived experience with farmers enabled a broad understanding of the intrinsic role of *gentes* in shaping biodiversity, but it also highlighted rigid pathways that take shape at the borders. These borders are expressed in a double sense: mental, social, and institutional. In this regard, they manifest in agricultural boundaries through the drift of pesticides and pollen that contaminate seeds of traditional varieties; they also appear in the relations of judgment and isolation that farmers face when practicing a form of agriculture “different” from the dominant model. They further materialize in norms and values constructed based on the colonial-capitalist logic, reflected in the lack of technical assistance, public policies, and locally adapted technologies.

Do you know what was happening with people? I think people were excited about the SAF, but we were very suffocated by the conventional agriculture model. What was happening with people? People would meet with other farmers, and the other farmers would only say, ‘What are you doing with this? What do you want with that? Here I am making money with soy, with tobacco, and you are going to keep doing this, playing at farming—whoever heard of planting weeds?’ (Farmer from Butiá, 2024)

The farmer’s account refers to a context in which, at the beginning, thirteen families gathered around the theme of agroforestry. They held meetings, organized *mutirões* (collective work efforts), and exchanged seeds. The COVID-19 pandemic, however, was the central event that led to the disarticulation of these activities. It is worth noting that, during the same period, we were also experiencing the rise of the far right in the country, which worked

to dismantle and weaken various Public Policies, such as the Food Acquisition Program (PAA) and the National School Feeding Program (PNAE).

Throughout the Cartography, it becomes evident that while Agroecology, *Buen Vivir*, and Agroforestry function through diversity and collectivity, in practice, it is an enormous challenge to mobilize people toward collective construction, with activities aimed at managing complex systems that foster flows of cooperation and mutual support. This perception expanded even further over the course of the cartography, especially in the articulation of the *mutirões*, in which there was never participation from farmers outside the agroecosystem where the practice took place, with the participants mainly consisting of undergraduate and graduate students from the Federal University of Pelotas (UFPEl).

Working in isolation here becomes even more difficult. Because, first of all, here—here is the backwards place, I am backwards. They say: “You are losing money, where is the money?” (Farmer from Cambará, 2024).

This movement indicates not only the effects of the pandemic but also how isolation has strengthened the political projects of colonial-capitalist forces, which rely on the logic of capital accumulation over the reproduction of life. These forces operate by capturing processes of differentiation, appropriating both collective and individual creative impulses (Rolnik, 2018), and this is evident in the rupture of collective relations.

I could not get anyone to work with me to plant food, only tobacco and soy. I could not see any return; it was not comparable; the return was incomparable. And this bothered me so much—come on, how can planting food have less value than planting tobacco and soy? What kind of nonsense is this? (Farmer from Butiá, 2024)

The narratives intersect in the values taken as reference points through which relationships are built. Here, the importance of affirming singularities becomes evident, as they represent precisely other-ways of differentiating desire, thought, and one’s relationship with the world itself—such as *gentes* and forests—that denounce the pressures to which they are subjected by anthropocentric values, under the degenerative logic of nature as a synonym of progress and development. Núñez (2023) contributes to this reflection by pointing out that a process of generalizing hegemonic thought constitutes a methodological and epistemic arrogance, as it is precisely the colonial process that is still experienced today through the imposition of policies constructed from the perspective of the dominant society (Núñez, 2023).

The productive-economic-subjective mode of subjectivation, pre-discursively, edits the way of relating to the world, and beyond class struggle, it has shifted to a multifactorial struggle that cuts across both bourgeois and proletarian alike, such as racism, sexism, and the climate crisis (Guattari, 2012).

Among *gentes* and forests, this issue is expressed in the difficulty of appropriating technical-scientific means, resulting in an unequal propagation that marginalizes agroecological and agroforestry farmers through hegemonic rationality (Santos, 2006).

The main things missing are adapted technologies. The technologies available are much more connected to monocultures. Look here, for example. Next door there is a property with 10 hectares of soy. The farmer who owns that land can manage this and many other areas by himself—planting, weeding, harvesting, all alone. In agroforestry, it's good that things cannot be done alone. It takes work. But there are no adapted technologies for harvesting, for processing. We have created and developed technology to process peaches, which come from Greece, but we are still unable to have technology to adequately harvest and process *guabirova* in a sanitary and viable way, which is necessary. We need to invest in technology so that we can have more people working with agroforestry. On a property with the diversity, we have in our 15 hectares, I don't have a single piece of equipment that meets the needs I have to process this production, to manage this production—they are not adequate. There are many adaptations that farmers themselves make, which are great. But they are not enough. We need research, we need science in this. (Farmer from Butiá, 2024).

This inequality in the distribution of technologies begins with the creation of technical-scientific knowledge directed toward the technological package of monocultures. It is also expressed in what lies outside the agroecosystem: the construction of markets, road conditions, public transportation, and even social relations and collective construction (Steenbock, 2021; Minayo, 2016; Toledo; Barrera-Bassols, 2015; Passos, Kastrup; Escóssia, 2009).

Despite this, farmers become artists through their capacity to create new tools, strategies, techniques, and technologies, building new ways of doing and knowing through engagement with reality. In a confluence, *gentes* and forests present themselves as cartography and rhizome, which arise precisely from this relation with and as nature.

The issue of agroforestry for me today is the way out. I see no other alternative to address the climate issue, you know? We know it is quite difficult, because I have always worked very much in isolation. One of the things, when I arrived here, they told me, was that the biggest problem would be getting the production out. Because we are far away. (Farmer from Cambará, 2024).

Agroforests emerge as responses to various socio-environmental challenges. During the cartography, this becomes evident, insofar as the intensifications of micropolitical processes do not focus on an *ethos*⁸ surrounded by the difficulties of managing complex systems in relation to diversity. In this sense, cartography opens itself to an ecosophy (Guattari, 2012), as the practice of reinventing other ways of living. Guattari (2012) states that a political, social, and cultural transformation is necessary to overcome ecological challenges. Therefore, the folds follow the narratives of farmers. At a certain moment, we

⁸ The attention that guides the cartography centers on the themes of *gentes* and forests.

GENTES AND FORESTS: CLUES FOR IMAGINING OTHER AGRI-CULTURES

questioned whether we should not learn cartography as farmers do, given their intrinsic and intimate relation to multiplicity. In fact, their cartographies led precisely to socio-cultural-political issues, rather than necessarily ecological ones, since questions involving production amid diversity and forest stratification have already been surpassed (Steenbock, 2021).

We have our cedar, *louro pardo*, *angico*, even pau-brasil. There are some fruits there, but they did not adapt very well. There is *canjerana*, *grapia*, *tarumã*, *cambará*, and *coronilha*—these belong to our landscape. They are ours, but they were decimated and are now hardly found anymore. People only extracted these woods from the landscape, and no one cared about planting them. I mean, people don't plant, and one of the reasons is that it takes a long time to get a return. But if my father had planted, I would have them. And if I don't plant, my son will not have them. So, someone has to start planting again. We come from a very pioneering culture, thinking that we must always clear everything in order to produce. And that is our great mistake. (Farmer from Butiá, 2024).

The four agroecosystems established their agroforests in areas with a history of degraded soil (Table 2), and in their different time spans—ranging from 3 to 12 years of experience—the agroforests demonstrate a high regenerative capacity. Forests are being studied as central elements in production designs that may mitigate the damages caused by anthropogenic climate change, as they are productive systems that fix Carbon in their biomass and act as a storage of greenhouse gases (Sanson, 2016), thus becoming potential ways to mitigate climate change.

Moreover, even if not all agroforests produce for sale, all contribute in some way to food production, and above all, they play a role in soil recovery and in functions such as attracting fauna and balancing the ecosystem. It is precisely the expansion of diversity that makes agroforests resilient and responsive systems in the face of climate change (Frederico; Moral, 2022).

To be a *safeiro*, an agroforester—I don't exactly call myself that, but I think this is part of the construction we set out to build. It is a process; agroforestry is part of a process that we have been constructing throughout our lives.” “Throughout my life. I have been an environmental defender since I was a boy. Since I was 5 or 6 years old. From back then. It is in my DNA. To preserve. And then, for us, agroforestry is the way to preserve while generating income. With income. Having income, supporting the family with dignity. So, that is what it means for us. (Farmer from Butiá, 2024).

The walks and drawings of the agroecosystem draw attention to diversity and the relationship of *gentes* with the environment beyond the space designated for or as agroforestry. They arise in the presence of native vegetation that forms islands and corridors, or in barriers such as windbreaks, hedgerows, vegetable gardens, and diversified orchards. Landscapes sketch other systems of values beyond profit, considering social, ecological, and cultural reproduction as deeply interwoven (Steenbock, 2020; Figueiró; Sell, 2020; Guattari, 2012).

Such arrangements, formed within agroecosystems, embody a constant interspecies dialogue, which takes place in structural coupling within an autopoietic dynamic. “This process is observed in management strategies and in nature’s own way of regenerating.

I let nature express itself. (Farmer from Cambará, 2024).

Other management strategies include *mutirões* among farmers and group technical visits, which, despite a reduction in the number of participants, continue to persist. During the *mutirões* carried out in the context of this research-intervention (Figure 2), the need for labor becomes evident, given both the decrease in family members working in agriculture and the simultaneous need to work outside the agroecosystem (Table 2). Thus, the *mutirões* prove to be powerful activities, rich in exchanges of practices and knowledge, and capable of transforming landscapes and, above all, the people who take part in them.

The clue is collectivity, and the land, in this sense, is multiplicity—the plurality of *gentes* in a *muvuca* working for the land. (Field Diary, 2025)

Figure 2: Images of forests and their *gentes*, managing collectively.



Source: Authors' Archive (2024).

The *mutirões* carried out in the agroecosystems arose from the needs of farmers who, at that moment, considered them priorities. In this sense, the *mutirões* also shape the focus of cartography, leading to distinct perceptions that align with the complexity of the activities performed. Some of these were the need for specialized labor for pruning, especially of native species; the clear exposure of the impact of fluctuations in institutional markets during the pandemic, when the *mutirão* involved reusing expired juices as fertilizer

GENTES AND FORESTS: CLUES FOR IMAGINING OTHER AGRI-CULTURES

for orchards; the need for maintenance and expansion of border areas to protect from drift; and also, the impact of the *mutirões* on motivation for management.

Nature does not keep up with the pace of capitalism. (Farmer from Yatay, 2024).

At every moment, the movement of Agroecology, Agroforestry, *Buen Vivir*, and their *gentes*—agents of transformation—demonstrates life in the diversity of species and multiplicity of flows of matter and energy, which are constantly being made and unmade in an endless dance. The relationship is nomadic. That is also why diversity invites alternatives to monocultures and capitalist modes of production/consumption. They open pathways for us to imagine possibilities to create from the land as pure multiplicity.

In this weaving, *gentes* and forests co-produce themselves through *engagement*. Once again, Antônio Nêgo Bispo dos Santos (2023) contributes with the concept of biointeraction and its principle of sharing, which takes shape in the confluence of practices and knowledges. In the same way, Guattari (2012), through ecosophy, refers to processes of diversification, whether of agroforestry systems and conservation practices of *agrosociobiodiversity*, or, at the genetic level, of *sementes crioulas*. The author argues that “individuals must become at once more solidary and increasingly different.” (Guattari, 2012, p. 55).

Final remarks

The cartographed reality presents itself as a mobile map, such that everything that appears as “the same” is nothing more than a concentration of meaning, knowledge, and power, which may sometimes illegitimately claim to be the center of rhizomatic organization. However, the rhizome has no center (Passos, Kastrup; Escóssia, 2020, p. 10).

The central problem underlying this work stems from the dissociation of technical-scientific knowledge from ancestral popular practices, knowledge, and technologies, which have co-evolved with geological, biological, social, and cultural diversity. In this sense, what has been characterized as a displacement of the living with the world unfolds in the dissemination of values produced by the colonial-capitalist regime, which reduces the capacity for learning as it distances itself from the world in an attempt to understand it.

Cartography arises not only as another epistemology but as the confluence of art, philosophy, and science in this movement to expand the tools needed to confront chaos. Here, this chaos aligns with Guattari’s (2012) perspective, which suggests a political, social, and cultural revolution as a means of overcoming ecological problems.

At this point, it becomes clear that the ecological issues involved in the challenges of living with climate change not only reproduce themselves but also provide the clues to create other possible worlds for *Buen Vivir*, as well as agroecology and agroforestry that are enacted in ways of life that articulate difference with health, in a close relation to the land and its multiplicity. This movement arises precisely from the limitations of monocultures, as framed by macropolitical representations articulated through generalizing categories of “one form” or model of doing, living, and knowing.

The micropolitics of *gentes* and forests mapped here are forged in the constant confrontation with values and rationalities that are presented macropolitically, in institutions that orient ways of living toward a single form—mono-culture—that spreads into every dimension of life and finds expression in our social imaginary and in the multiple social-environmental-political-economic crises.

Gentes and forests constitute the rhizome itself of possibilities of becoming, in their multiple branches that differentiate, and therefore not only resist but re-exist, as they create ways of life. The narratives in this work do not seek to “give voice” or affirm the existence of *gentes* and forests, since these relations exist before and beyond this research; rather, the effort here is to think from the language of *gentes*, which opposes root-like narratives that block collective processes.

Cartography has no beginning, nor end—it is always a middle that is made at every moment. In this sense, this work does not close itself in an answer that attempts to represent reality or conclude a truth. It is made of the intensities that present themselves in the field of the experience of cartographed reality, which in this research mapped the lines of *gentes* and forests that draw not only other forms of agriculture but ways of life, values, desires—those very forces that move us as living beings and, as living beings, transform reality. Perhaps the clues to guide our wanderings lie in the question: *how can we mobilize difference with health?* Since this is a question that must be answered from each socio-geological-biological-cultural context, from the encounters and affections that are constituted in each territory.

References

- ACOSTA, A. **O Bem Viver**: uma oportunidade para imaginar outros mundos. Tradução de Tadeu Breda, São Paulo: Editora Elefante, 2016.
- BECK, U. **Sociedade de risco**: rumo a uma outra modernidade. São Paulo: Ed. 34, 2010.
- CARDOSO, J., *et al.* Estratégias Eco-pedagógicas em Processos de Pesquisa-ação Participativa: a Experiência do Projeto de Sistemas Agroflorestais no Território da Serra dos Tapes, RS. In: Congresso da Sociedade Brasileira de Sistemas de Produção, Pelotas, RS. **Anais** [...]: SBSP, 2016. Disponível em: <http://www.alice.cnptia.embrapa.br/alice/handle/doc/1052597>. Acesso em: 16 abr. 2024.

CARDOSO, J., *et al.* Pesquisa-ação Agroflorestal: uma abordagem metodológica. **Extensão Rural**, DEAER – CCR – UFSM, Santa Maria, v.25, n.1, jan./mar. p. 112-128. 2018. <https://doi.org/10.5902/2318179627331>

COMITÊ INVISÍVEL. **Aos Nossos Amigos Crise e Insurreição**. Tradução Edições Antipáticas. 2ª ed. São Paulo: n. 1 edições, 2016.

DELEUZE, G; GUATTARI, F. **Mil platôs. vol. 1**. São Paulo: Editora 34, 1995.

DELEUZE, G; GUATTARI, F. **O que é a Filosofia?**. São Paulo: Editora 34, 2010.

FERREIRA, J. **Por Terra e Território**: Caminhos da Revolução dos Povos no Brasil. Arataca (Bahia): Teia dos Povos, 2021.

FIGUEIRÓ, A., S.; SELL, J., C. Paisagem e Geoconservação nos Territórios do Pampa Brasil Uruguai reflexões para uma política transfronteiriça. **Revista Ciência e Natura**, v. 42, e. 47, p. 1-34, 2020. <https://doi.org/10.5902/2179460X55109>.

FREDERICO, S.; MORAL, Y., P. Sistema Agroflorestal e autonomia: uma revisão sistemática. **Revista NERA**, v. 25, n. 63, 2022. DOI: <https://doi.org/10.47946/rnera.v25i63.8968>.

GLIESSMAN, S. Transforming food systems with agroecology. **Agroecology and Sustainable Food Systems**, v. 40, n. 3, p. 187-189, 2016. <https://doi.org/10.1080/21683565.2015.1130765>.

GUATTARI, Félix. **As três ecologias**. 21 ed. Campinas, São Paulo: Papirus. p.56. 2012.

HASENACK, H. *et al.* **Mapa de sistemas ecológicos da ecorregião das Savanas Uruguaias em escala 1:500.000 ou superior e relatório técnico descrevendo insumos utilizados e metodologia de elaboração do mapa de sistemas ecológicos**. Porto Alegre: UFRGS/Centro de Ecologia; 2010. Disponível em: https://multimedia.ufrgs.br/conteudo/labgeo-ecologia/Arquivos/Publicacoes/Relatorios/2010/R elatorio_projeto_IB_CECOL_TNC_produto_4.pdf. Acesso em: 04 jul. 2024.

HENZEL, A., B., D. *et al.* Vozes Rurais: a racionalidade nos Sistemas Agroflorestais do Sul do Brasil. **Revista IDeAS**, v. 15, p 1-22, 2021. Disponível em: <https://revistaideas.ufrj.br/ojs/index.php/ideas/article/view/310>. Acesso em: 07 fev. 2024.

KRENAK, Ailton. **Ideias para adiar o fim do mundo**. 1ª ed. São Paulo: Companhia das Letras. 2019.

MINAYO, M., C., S., *et al.* **Pesquisa Social**: teoria, método e criatividade. Petrópolis, Rio de Janeiro: Vozes. (Série Manuais Acadêmicos), 2016.

MAPBIOMAS. **Mapeamento Anual de Cobertura e Uso da Terra no Pampa - Pampa - Coleção 7**, 2022. Disponível em: <https://brasil.mapbiomas.org/2022/10/13/pampa-passa-por-profundas-transformacoes-e-esta-cada-vez-mais-distante-de-sua-configuracao-original/>. Acesso em: 20 julho de 2024.

MAPBIOMAS. **Pampa Sul-Americano segue perdendo a vegetação nativa**. 2023. Disponível em: <https://brasil.mapbiomas.org/2023/11/28/pampa-sul-americano-segue-perdendo-a-vegetacao-nativa/>. Acesso em 17 de jul de 2024.

MELO, M., M. **Capitalismo versus Sustentabilidade**: o desafio de uma nova ética ambiental. Editora da UFSC, 2006.

NETO, J., L., F. Micropolítica em Mil Platôs: uma leitura. **Psicologia USP** – São Paulo – SP. V 26. 2015. p. 397-406. <https://doi.org/10.1590/0103-656420140009>.

NÚÑEZ, G. **Descolonizando afetos**: experimentações sobre outra forma de amar. São Paulo: Planeta do Brasil, 2023.

PASSOS, E.; KASTRUP, V.; ESCÓSSIA, L. (org.). **Pistas do método da cartografia**: Pesquisa Intervenção e Produção de Subjetividade. Porto Alegre: Sulina, 2009.

PASSOS, E.; BARROS, R. D. B. A. Cartografia como método de pesquisa-intervenção. In: Eduardo Passos; Virginia Kastrup; Liliana da Escóssia. (org.). **Pistas do método da cartografia**: pesquisa-intervenção e produção de subjetividade. 1a ed. Porto Alegre: Sulina, 2009, v. , p. 17-31.

PETERSEN, P. Agroecologia: prática, ciência e movimento em defesa da vida. **Agroecologia: prática, ciência e movimento**. 1ª ed. Bahia. Serviço de Assessoria a Organizações Populares Rurais. p.16-23, 2022. Disponível em: <https://sasop.org.br/2022/07/revista-agroecologia-pratica-ciencia-e-movimento/>. Acesso em: 13 mar. 2024.

PILLAR, V. D.; OVERBECK, G. E. Learning from a climate disaster: The catastrophic floods in southern Brazil. **Science**, v. 385, n. 6713, 2024. <https://doi.org/10.1126/science.adr8356>.

PRIMAVESI, A. **Manual do Solo Vivo**: solo sadio, planta sadia, ser humano sadio. 2ª edição. São Paulo: Expressão Popular, 2016.

ROLNIK, S., **Cartografia Sentimental**: Transformações contemporâneas do desejo. 2ª edição, Porto Alegre: Sulina; Editora da UFRGS, 2014.

ROLNIK, S. **Esferas da Insurreição**: Notas para uma vida não cafetizada. 2ª ed, São Paulo: n-1 edições, 2018.

SALAMONI, G.; WASKIEVICZ, C. A. Serra dos Tapes: espaço, sociedade e natureza. Tessituras: **Revista de Antropologia e Arqueologia**, v1, n. 1, p. 73-100, 2013. <https://doi.org/10.15210/tes.v1i1.2670>

SANSON, Fábio Eduardo de Giusti. **Florestas do Antropoceno**: tensões no contexto das mudanças climáticas. Florianópolis, 2016, 375f. Tese (Doutorado em Ciências Humanas), Programa de Pós-Graduação Interdisciplinar em Ciências Humanas, Universidade Federal de Santa Catarina (UFSC), 2016.

SANTIN, F., G., T.; SILVA, B., N., M.; FERNANDES, L., A., O. Fluxos Econômicos-Ecológicos de Sistemas Agroflorestais Sucessionais na Serra dos Tapes (SAFST), Rio Grande do Sul. **Revista NERA**, v. 27, n. 3, e10309, jul-set., 2024. <https://doi.org/10.47946/nera.v27i3.10309>

SANTOS, M. **A natureza do espaço**: Técnica e Tempo, Razão e Emoção 4. ed. 2. reimpr. - São Paulo: Editora da Universidade de São Paulo, 2006.

SANTOS, A., N., B. **A terra dá, a terra quer**. São Paulo: Ubu Editora/PISEAGRAMA, 2023.

STEENBOCK, W., **A arte de Guardar o Sol**: Padrões da Natureza na reconexão entre florestas, cultivos e gentes. Rio de Janeiro: Bambual Editora. 2021.

TOLEDO, V; BARRERA-BASSOLS, N. **A memória biocultural**: a importância ecológica das sabedorias tradicionais. 1ª ed. São Paulo: Editora Expressão Popular, AS-PTA, 2015.

ZALAMENA, C.; SILVA, P., M. Relevância dos Sistemas de Certificação Orgânica em Pelotas e Municípios da Região. In: VII Semana Integrada: Congresso de Iniciação

Científica, Pelotas. **Anais** [...]. Pelotas, 2021. Disponível em: https://cti.ufpel.edu.br/siepe/arquivos/2021/CA_04470.pdf. Acesso em: 25 mar. 2025.

ZALAMENA, C., *et al.* Agroflorestas e Fitoecologia do Bioma Pampa. In: IX Seminário Anual PPGDTSA - Desenvolvimento e Território: Olhares sobre o Pampa. 2024, Pelotas: UFPel. **Anais** [...]. Pelotas, 2024. Disponível em: <https://guaiaca.ufpel.edu.br/handle/prefix/15307>. Acesso em: 02 abr. 2025.

WEZEL, A. *et al.* Agroecology as a science, a movement and a practice. A review. **Agronomy for Sustainable Development**, v. 29, p. 503-515, 2009. <https://doi.org/10.1051/agro/2009004>.

Translator's notes (TN)

Certain terms have been intentionally kept in Portuguese throughout the text in order to preserve their cultural, political, and epistemological specificity. These words evoke meanings and practices that cannot be fully conveyed by direct English equivalents, and should therefore be read as situated concepts within the Latin American context. Explanations are provided below:

gentes (TN): kept in Portuguese to preserve its epistemological and cultural specificity. The term evokes collective subjects and modes of existence that go beyond the English “people” or “peoples.”

mutirão (TN): maintained in Portuguese. Refers to collective work efforts or community-based mobilizations, often involving mutual aid, with a strong cultural resonance in Brazil.

muvuca (TN): kept in Portuguese. In colloquial use, means a crowd or a busy gathering, but in agroecological practice it refers to a technique of planting diverse seeds together, emphasizing collective and regenerative dynamics.

saifeiro (TN): kept in Portuguese. Refers to seasonal workers engaged in crop harvesting (safra), commonly used in southern Brazil.

guabirova (TN): maintained in Portuguese. Refers to a native Brazilian fruit of the *Campomanesia* genus (family Myrtaceae), typical of the Atlantic Forest region.

sementes crioulas (TN): kept in Portuguese. Refers to traditional, locally adapted seeds preserved and exchanged by farming communities, carrying cultural, political, and ecological significance.

native tree species (TN): terms such as *louro pardo* (*Cordia trichotoma*), *angico* (*Anadenanthera colubrina*), *pau-brasil* (*Paubrasilia echinata*), *canjerana* (*Cabralea canjerana*), *grapia* (*Apuleia leiocarpa*), *tarumã* (*Vitex megapotamica*), *cambará* (*Gochnatia polymorpha*), and *coronilha* (*Scutia buxifolia*) are kept in Portuguese to preserve their cultural and ecological specificity. They refer to native trees from the Pampa and Atlantic Forest biomes.

About the authors

Caroline Zalamena – Bachelor's degree in Agricultural Engineering from the Federal University of Pelotas (UFPel). **OrcID** – <https://orcid.org/0000-0002-5677-5740>.

Lúcio André de Oliveira Fernandes – Bachelor's degree in Agricultural Engineering from the Federal University of Pelotas (UFPel). Specialization in Economics from the Federal

University of Pelotas (UFPel). Master's degree in Economics of Environment and Development from the Institute for Development Policy and Management. PhD in Development Policy and Management from the Institute for Development Policy and Management. **OrcID** – <https://orcid.org/0000-0002-0095-1186>.

Marielen Priscila Kaufmann – Bachelor's degree in Forestry Engineering from the Federal University of Santa Maria (UFSM). Master's degree in Rural Extension from the Federal University of Santa Maria (UFSM). PhD in Rural Development from the Federal University of Rio Grande do Sul (UFRGS). **OrcID** – <https://orcid.org/0000-0003-1041-7531>.

How to cite this article

ZALAMENA, Caroline; FERNANDES, Lúcio André de Oliveira; KAUFMANN, Marielen. *Gentes and Forests: clues for imagining other agri-cultures*. **Revista NERA**, v. 28, n. 3, e11064, jul.-sep., 2025. <https://doi.org/10.1590/1806-675520252811064en>.

Research data availability statement

Regarding the availability of research data, the authors of the manuscript entitled **Gentes and Forests: clues for imagining other agri-cultures** state that:

The dataset supporting the findings of this study is not publicly available.

Individual Contribution Statement

The scientific contributions presented in the article were jointly developed by the authors. **Caroline Zalamena** was responsible for Conceptualization, Data Curation, Formal Analysis, Investigation, and Methodology. The second author, **Lúcio André de Oliveira Fernandes**, was responsible for Writing – Original Draft, Writing – Review & Editing, Supervision, and Validation. The third author, **Marielen Priscila Kaufmann**, was responsible for Writing – Original Draft, Writing – Review & Editing, Supervision, and Validation.

Received for publication on June 30, 2025.

Returned for review on August 4, 2025.

Accept the publication on August 25, 2025.

This article was edited by Lorena Izá Pereira.
