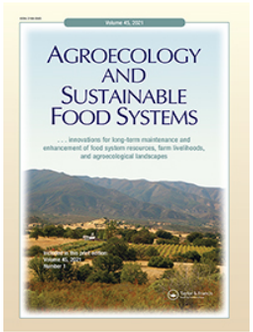

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Pensamiento Latinoamericano Agroecológico: the emergence of a critical Latin American agroecology?

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ABSTRACT

Latin America is known for social movement organization and innovation, and for dialog among different types of knowledge ('*dialogo de saberes*'). This has included dialog between academic knowledges framed by Western science, popular and ancestral 'peoples' knowledges and wisdoms,' and so-called *critical thought* from global and Latin American revolutionary traditions. We postulate that a specifically Latin American agroecology has emerged from these dynamics. While the global academy recognizes that agroecology is simultaneously a science (in the Western sense), a movement, and a practice, it is the emergent Latin American version that is the most politically charged and popularly organized. This contribution uses a survey of selected Latin American agroecologists to evaluate the extent to which such a *critical Latin American agroecology* actually exists, and if so, what its characteristics are.

KEYWORDS

Agroecology; Latin America thought; *diálogo de saberes*; epistemologies; Social movements

Introduction

Agroecology stems from the accumulation of knowledge about nature through indigenous and traditional farming and food production systems over millennia. Using their intricate local knowledge, traditional peasant farmers have maintained high levels of biodiversity associated with their farming systems, developing agroecosystems that cycle nutrients through closed systems, maintain soil fertility and need very few external inputs (Gliessman 2014). In its contemporary usage, agroecology is variously known as the *science* that studies and attempts to explain the functioning of agroecosystems, primarily concerned with biological, biophysical, ecological, social, cultural, economic and political mechanisms, functions, relationships and design; as a set of *practices* that permit farming in a more sustainable way, without using dangerous chemicals; and as

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a *movement* that seeks to make farming more ecologically sustainable and more socially just (Rosset and Altieri 2017; Wezel et al. 2009).

Agroecology as a science and a movement has been built upon concerns with the main tenets of the Green Revolution, namely that crop genetics and the application of purchased synthetic chemicals to monoculture plantations is the most efficient way to produce food (Rosset and Altieri 2017). The basic assumptions of high-input, industrial agriculture have led to enormous negative externalities, in terms of resource depletion, air, land and water pollution, and greenhouse gas emissions, at the same time as they have concentrated power over food systems in the hands of a few large corporations, and contributed to the deterioration of the health of farm workers and consumers. Perhaps most conclusive, even on its own terms of ending hunger, the Green Revolution has failed – around 900 million people continue to suffer from malnutrition, even as half a billion now suffer from diet-induced obesity (Patel 2012).

Resisting the homogenizing ethos of industrial agriculture, agroecology aspires to mimic nature by organizing food systems around the principles of diversity, energy efficiency, and mineral recycling. This means, in practice, the use of local resources, including knowledge, and the development of complex feedback relationships among agroecosystem components (Rosset and Altieri 2017).

In this essay we pose the question of the existence – or nonexistence – of a specifically *Latin American* agroecology. Why do we ask this question? First, because while the antecedents of contemporary agroecology come from different continents (Rosset and Altieri 2017), it is also clear that both the largest academic production as well as social movement organizing using agroecology as a principle over the last three decades has been found in Latin America (Altieri and Nicholls 2017; Altieri and Toledo 2011; Rosset and Altieri 2017). However, that alone would not be enough for us the ask the question of a peculiarly Latin American agroecology. To the merely quantitative observation above, we add our *gestalt* perception as international academics and activists that agroecology in Latin America is qualitatively more political, more social, more cultural, and more driven by grassroots social movements, than agroecology in North America, Europe, Africa or Asia. Various papers on agroecology in Latin America (Altieri and Nichols 2017; Altieri and Toledo 2011; Ferguson and Morales 2010) highlight the same characteristics, and *imply though do not explicitly state*, that they are unique to Latin America. Similarly, if one compares the social movement declarations from Africa, Europe, Asia and Latin America in the agroecology compendium of La Via Campesina (2013), the greater politization of agroecology by Latin American movements stands out. To our knowledge, however, the question of a uniquely Latin American agroecology has not been addressed explicitly. We attempt to address the question

of whether there indeed is a Latin American agroecology – and how it was formed and what it looks like – through both a brief reading of the literature and by means of a survey sent to Latin American agroecologists (described later in this essay).

We posit that a uniquely Latin American agroecology has indeed arisen, and that it is an example of *Latin American Critical Thought*. If *critical thought* is that which questions established wisdom and authority, then in the case of Latin America this takes the form of questioning Eurocentrism and more recently neoliberalism (Lander 2002). As Bialakowsky et al. (2014, 70) explain:

> Debates of critical thought have blossomed in Latin America over the past decade. Although they are influenced by the scientific accumulation of Western social sciences, they produce a fusion with them, with a shifting of contents and epistemological bases. Currently they are defined in resistance to the hegemony of neoliberal thought which still defines a major part of the Academy and the institutions of scientific production, their forms of control, [and] the rift between the natural and social sciences and humanities . . .. In this context we can analyze the continental circulation of critical thought . . . and its epistemological validity for interpreting social movements and the collective intellect of Latin America.[1]

While the global, Western-dominated academy recognizes that agroecology is simultaneously a science (in the Western sense), a movement, and a practice (Wezel et al. 2009), we examine if in Latin America there might be a greater emphasis on critical political, social and cultural content than is the case in other continents. To address this question, in what follows we first offer an overview of the origins, history and characteristics of Latin American critical thought. We then briefly define agroecology, and offer a brief history of it in Latin America in contrast to Europe and North America, with emphasis on the role of social movements and on the somewhat unique nature among scientific academies of the Latin American Scientific Society for Agroecology (SOCLA). We then examine the responses of twenty selected Latin American agroecologists[2] to a survey we conducted on their opinions concerning the possible existence of a specifically Latin American agroecology. We close with reflections that summarize our findings. We show that agroecology in Latin America carries historical, social, cultural and political connotations which it does not necessarily carry in other continents, though it may be that these meanings charged with social movement perspectives and deeper counterhegemonic meanings may be spreading across the globe, for example in La Via Campesina (Martínez-Torres and Rosset 2014; Val et al. 2019). We also find that agroecology is part of and contributes to Latin American critical thought by being anti-colonial and decolonizing, anti-patriarchal and more autonomist than much of the debate on the Left. Thus, Latin American critical agroecological thought is contributing to Latin American regional processes.

From Latin American thought to Latin American agroecological thought

Who among us did not learn in school, from history books, that America was "discovered" by brave, seafaring European explorers? Who never read that those "discovered" lands were inhabited by "Indians", with rudimentary if not primitive ways of life. And that the conquerors determined them to be peoples without souls, who should be catechized, domesticated, as the starting point for the civilizing process?

The date October 12, 1492 came to serve as the historical framing of the discourse of the "discovery" of most of America, while Brazil was assigned April 21, 1500. In both cases there is a common historical element: imposition via the sword and the cross, and the christening as "Indians" of those who inhabited these territories for thousands of years, civilizations with hundreds of languages, cosmovisions and socio-cultural, spiritual, territorial and political organization that long pre-dated the Conquest.

The educational model implemented by the ensuing colonies and then nation states used and continues to use historiographic narrative to moderate the legacy of epistemic violence and epistemicide of the Conquest, minimizing and hiding the preexistence of an Amerindian thought of a millenary scale (Dussel 2010; Rivera Cusicanqui 2010).[3] In the interpretative frameworks that were created to describe the process of sociocultural formation of the American continent, a *primitive-civilized* binary categorization predominated, and was common in anthropological, historiographic, sociological and literary works though the middle of the 20th century. This was effectively an epistemological apartheid or exclusion based on the categories of *race* and *culture*, that was responsible for a taxonomy based on oppositional identities (Castro-Gómez 2002).

Before the Conquest, the original peoples who inhabited the continent had different names to designate the different territories that make up what we know today as Latin America: *Tawantinsuyo* (the region that today comprises Bolivia, Ecuador and Peru), *Anauhuac* (today's Mexico and Guatemala), *Pindorama* (the Tupi name for today's Brazil), etc. The Kuna people[4] called the region we know today as Latin America *Abya Yala*, which in the Kuna language means *flowering land, mature land, living land* (Albó and Barrios 1993). These territories were inhabited by a wide range of civilizations with their own epistemes and ontologies originating in cosmogonies, linguistic matrices that provided them with complex conceptual frameworks and a *modus vivendi* based on an intimate relationship between human life and the plurality of living and non-living beings existing in the cosmos, as attested to by pre-Hispanic historiography (Barrera-Vázques and Rendón 2012; Rivera Cusicanqui 2010; Recinos 1982; de la Garza 2012). In the historical process of the Conquest, virtually all of the rich complexity of thought of the diverse peoples was subject to colonial epistemic violence, suffering epistemicide, thereby becoming *societies of colonial silences* (Rivera Cusicanqui 2015).

The *idea* of *America* has existed since the times of the Conquest, as a sort of permanent dialectic between the Old World and the New World, part and parcel of a European ideation that demarcates the emergence of a new part of the world, different from Europe, Asia and Africa (Ardao 1980). The term *New World* has been used in writings and maps for centuries, for classifying and qualifying purposes, a descriptive or explanatory condition which denotes a world that is discovered and revealed before European eyes. The expression *Latin America* emerged in the eighteenth century to designate the Americas characterized by the Spanish, French and Portuguese languages, and cannot be explained outside of its dialectical relationship with Anglo-Saxon America, given that "they are related concepts, although by opposition; they could not appear and develop but together, through their contrasts" (Ardao 1980, 24).

Within the framework of the social and political history of the region, the question of Latin America *identity* has been the driving force of Latin American critical thought. The political action of the independence struggles in the continent translated into concrete reality the very clear popular will concerning what they *wanted not to be*, especially in the case of the Spanish colonies and their situation of dependence on peninsular Spain. What remained was an historical need that was seen to highlight what was *wanted to be*, and what real possibilities existed to build a *Latin American identity* (Sambarino 1980).

The question of a Latin American identity found an important referent in the eloquent pen of José Martí, whether through his expression of the ethical-political desire for the unity of *Nuestra América* ["Our America"] (Martí 1974), or as a very original theoretical-methodological entry point to interpret the process of socio-historical formation and the paths of decolonization of thought in relation to the combative and revolutionary spirit that infected the region in the 19th century, framed by the independence struggles waged by Simón Bolívar (Martí 2005, 2009) .

The years that Martí lived in Mexico (1875–1876) and Guatemala (1877–-1878) were fundamental to his elaboration of the concept of *Nuestra América*,[5] helping him to develop a consciousness and definition of Latin American autochthony, especially though contact with the indigenous cultures of these countries. In his text *The New Codes*[6] he developed initial elements of his conception of *Nuestra América*, positing the existence of a new identity, fruit of the Conquest:

> With the natural and majestic work of American civilization interrupted by the conquest, a new strange people was created with the arrival of the Europeans. Not a *Spanish* people, because the new sap rejects the old body; and not *indigenous*, because it has suffered the intervention of a devastating civilization; two words that, in their antagonism, constitute a process. A *mestizo* people was created such that, with the reconquest of its freedom, it develops and restores its own soul. An extraordinary truth: the great universal spirit has a unique and particular face in each continent. Thus we, with the

> weakness of a severely injured and ill infant in the cradle, have all the spirited fieriness, brave restlessness and angry flight of an original, fierce and artistic race. Every work of ours, of our robust America, will inevitably have the seal of the conquering civilization; but it will also improve upon it, advance it, and astonish it with the energy and creative drive of a people that is in essence different, superior in noble ambitions, and while wounded, not dead. It already revives! [Translation by the authors.]

Inspired by the liberal ideas of the conformation of nation states, Martí elaborated his conception of Latin American identity based on three essential ideas (Rodríguez 2007): 1) Latin America is constituted by new peoples; 2) there is a particular Latin American character, with its own spiritual qualities and social psychology; 3), therefore Latin American particularities and specificities require their own analysis and their own solutions.[7]

In the 20th century, Mariátegui (1928) argued that all theses that ignored the indigenous problematic or abstractly reduced it to an ethnic and moral question were doomed to be but "sterile theoretical exercises". In his theoretical-analytical conceptualization of an *Indo-American socialism*, as distinct from a European socialism, the Peruvian thinker identified germinal elements in the historical process of Peru, linked to the survival of peasant and indigenous communal traditions in the face of developing capitalism. This he argued, created a different specificity in regard to the nature of the contradiction between labor and capital predominant in Europe. In the perspective of an Indo-American socialism, he emphasized that the historical overcoming of the indigenous problematic should be the task of indigenous people themselves, as a historical-political and revolutionary subject distinct from a European-style working class. In his words, "an indigenous revolutionary consciousness will perhaps take a long time to form; but once the Indian has made the socialist idea his own, it will serve him with a discipline, tenacity and strength in which few proletarians from other milieus would be able to best him" (Mariátegui 1982, 185–186).

If at first the concept of a Latin American identity was born in the spirit of liberal republican intellectuals or Latin American revolutionary Marxists, such as Martí and Mariátegui, that same identity has another face, that of the original peoples and peasants, with their historical struggles, many of them of a revolutionary sort, though marked by both legacies of and ruptures with conventional Eurocentric conceptions of the *political project* and the *political subjects* of the revolution (Barbosa 2017). By positioning themselves as historical-political subjects, indigenous peoples vindicate their millenary existence, while affirming a different epistemic paradigm for their way of being, thinking and living. According to the great Colombian sociologist, Orlando Fals-Borda (2008), this means that the indigenous influenced Latin American episteme is *Sentipensante* – that is, both thought and felt – adding the heart (*corazón*) to the thought process, in contrast to the almost exclusively *rational thought*-based European episteme.[8] Here, the *corazón*

constitutes the epistemic and ontological nucleus of a *rationality* proper to the epistemologies of the peoples of Latin America, the *feelings, word, political action* proper to this rationality, delineated as a different paradigm of thought and construction of knowledge, one that is closely linked to the defense of territories and of nature ('Mother Earth' or *Madre Tierra*), in a communal and agroecological sense (Barbosa 2019a).

The *sentipensante* perspective establishes a different relationship with nature and the reproduction of life. Here we find the seeds of what we call *Latin American Agroecological Thought*, especially when based on the concrete experiences of peasant and indigenous peoples' movements and organizations, as they recover their collective historical memory of Abya Yala in the reconstruction of their own history, no longer as the soulless primitives in the eyes of the European colonizer, but as peoples endowed with their own, often millenary, wisdoms and knowledges.

Today we can observe the theoretical-political claim to *Abya Yala* made by the peasant, indigenous and Afro-Latin movements of the region, employed to express a geographical, socio-cultural and political territorial unity. This phrase was used in its political sense in 2004, within the framework of the *II Continental Summit of the Indigenous Peoples and Nationalities of Abya Yala*, held in Quito, Peru. In the Kito Declaration, they stated[9]:

> We are the original peoples of *Abya Yala*. Our ancestors, our grandparents taught us to love and venerate our fecund *Pacha Mama*, to live in harmony and freedom with the natural and spiritual beings that co-exist in her. Our own political, economic, social and cultural institutions are an inheritance from our ancestors and are the basis for the construction of our future.

At the *III Continental Summit of Indigenous Nationalities and Peoples of Abya Yala*, held in Iximche, Guatemala, in 2007, they explicitly convened themselves as *Abya Yala* and formed a Continental Coordination of the Indigenous Nationalities and Peoples of *Abya Yala*, understood as[10]:

> [...] a permanent space for liaison and exchange, where experiences and proposals can converge, so that together we can confront the policies of neoliberal globalization and fight for the definitive liberation of our sister peoples, of Mother Earth, of territory, of water and of all our natural heritage in order to live well (*vivir bien*).

We are witness to processes of political-identity construction and resignification of *Abya Yala*, where discursive practices and political positions play a relevant role in the decolonization of thought, recovering *other* paradigms that are positioned in the critique of the paradigm of modern Western capitalism and associated thought. These discursive practices have helped fuel the expansion of indigenous and peasant resistance in Latin America, in the defense of their territories as they are confronted with new patterns of the capital accumulation, characterized by the deepening of the extractivist model based on accumulation by dispossession, as seen in large-scale mining

concessions, the privatization of water, and the energy industry, among others (Harvey 2004).

It is important to note that increasingly these organizations and movements articulate a political discourse based on matrices that structure *other* intersubjective rationalities with their territories. Similarly, there is a gradual process of conceptual elaboration that subsidizes, from the theoretical and epistemic point of view, the conceptualization of a political project through the prism of popular struggle and the strategies for the confrontation of transnational capital on a national, regional and global scale (Barbosa 2016). In essence, this constitutes a critique of the reproduction of life under the hegemony of Capital, which can be understood as what Barbosa (2016) has called the *Epistemic Paradigm of the Countryside* (Barbosa 2016).

Some concepts are central to this epistemic paradigm of the countryside, such as *Sumak Kawsai* (from equatorial *quéchua*) or *Sumak Qamaña* (from the Bolivian *aymara*) or *Buen Vivir* (*living well*), understood as an essential principle of the rights of humans and of Nature, in contrast to the perspective of "living better" defended by modern capitalism (Giraldo 2014; Royero-Benavides et al. 2019). These are concepts rooted in indigenous cosmovision, endowed with an epistemic rationality based on the notion of a harmonious intersubjective link with the community and with *Abya Yala*. Organizations and movements of indigenous peoples and peasants bring with them a set of concepts conceived from the epistemic matrix of indigenous cosmovision, ancestral knowledge and traditional practices, all of which were historically and systematically denied in colonial relations. Despite negation during centuries, these referents remained alive in the collective memory and oral traditions of the peoples, allowing them to both recognize themselves as oppressed and subalternized, and to begin to decolonize their thought and put into practice other ways of reproducing life (Barbosa 2016).

Within this framework, we can imagine a critical *Latin American agroecological thought* that is structured on three perspectives. The first is articulated to an epistemic understanding of territory (Barbosa 2018), in which it is a locus of resistance and conformation of an *identitary ethos*, incorporated into the political narrative of Latin American indigenous and peasant movements, in the defense of land, nature, common goods and the recognition of territory as a space for the reproduction of life, a place of creation and resignification of socio-cultural and power relations. This appropriation of territory directly challenges that which prevailed at the time of the Conquest, under the eyes of the conqueror, that is to say, of an "empty" land, a no man's land, an uninhabited territory, therefore open to colonization, exploitation, and unlimited appropriation (Barbosa 2018, 2019a). These movements and currents of thought see territories as inhabited, or even as spaces of co-habitation among peoples and between human beings and nature (Giraldo 2018).

The second has to do with the biocultural memory of traditional knowledges and wisdoms (Toledo and Barrera-Bassols 2008), which often underlie efforts to preserve native seeds, to conserve soils, to make sustainable use of water, to recover ancestral agroecological practices, among other ancestral knowledges, and which underpins this conception of Agroecology (Guzmán Luna et al. 2019). The third is directly linked to the rural social movement use of agroecology as a banner of collective struggle and (re)construction and as a political project in the defense of its territories and food sovereignty (Barbosa and Rosset 2017).

These three axes of a possible Latin American Agroecological Thought can be seen in different peasant and indigenous peoples' organizations and movements in the continent. For example, the organizations of the *Coordinadora Latinoamericana de Organizaciones del Campo* (CLOC), the Latin American part of La Via Campesina (LVC), articulate an agroecological peasant pedagogy (Barbosa and Rosset 2017) based on epistemes that dialogue inside CLOC/LVC (Rosset 2015).

Agroecology in Latin America

In Latin America and the Caribbean, agroecology has long-existed on the margins of the *latifundio*, or landlord estate, a feudal system established by colonial powers (Hecht 1999). Much of the New World endured slave agriculture for centuries, during which indigenous and African peoples were forced to work in monoculture plantation *latifundios*. The peasant farming in resistance, as well as the small areas that enslaved workers dedicated to food production, relied on local resources, seed saving, and complex intercropping. These historical experiences of a hegemonic "their agriculture" in contrast to an "our agriculture" of everyday resistance deeply inform the relationship that peasants, indigenous peoples, rural proletarians, and Afro-descendent populations in Latin America maintain with agriculture (La Vía Campesina 2013).

It is precisely this history that has led agroecology to insert itself as "the scientific, methodological, and technological basis for a new 'agrarian revolution'" in Latin America (Altieri and Toledo 2011, 587). As 20th century struggles against *latifundio* have led to renewed land access via land occupations, tillers have reclaimed their knowledge systems as well. Agroecology in Latin America tends to explicitly address the socioeconomic structure within which agriculture exists by acknowledging the need to transcend *latifundio* property relations. At the same time, it can be argued that Latin American agroecology challenges the "*latifundio* of the mind" that remains tied to Eurocentric categories of analysis and Cartesian reductionism. As such, the biocultural relationship between people and territory transcends both exclusion and exploitation: popular sectors that gain or defend land access enact a productive model that contrasts with that of agrarian capitalism.

Agroecology is understood in popular movements as the recovery of ancestral knowledge associated with food production, as well as access to the productive means needed for this knowledge to contribute to the collective right to build and defend food systems, a right also known as food sovereignty. In Latin America, agroecology is largely seen as being part of a relationship that involves knowledge, land, and political power. In this sense, the Latin American Agroecological Scientific Society (*Sociedad Científica Latinoamericana de Agroecología* – SOCLA) has played a unique role in galvanizing alliances that not only include popular actors, but in many cases are inspired by and even led by the methodological proposals of these actors (Ferguson and Morales 2010). As such, academic approaches toward agroecology in Latin America tend to respond to demands to democratize knowledge and learning institutions themselves. The co-evolution of the agroecology movement in Latin America and the anti-neoliberal agenda has produced rich experiences in agroecology as a form of resistance to capitalist relationships.

The pioneering work of Mexican agronomist Efraím Hernández Xolocotzi, who sent Chapingo University students to learn from indigenous peasant farming techniques, was complemented in the 1970 s by Stephen Gliessman and his team, who systematized the ecological basis of traditional agricultural systems of Tabasco (Altieri and Nichols 2017). By the 1980s, agroecology existed as a scientific discipline with transdisciplinary, participatory and action-oriented tendencies (Méndez, Bacon, and Cohen 2013). The peasant-to-peasant agroecological movement gained traction as a horizontal method for taking agroecological practices to scale in Guatemala, México, Nicaragua and other Mesoamerican countries during the same time period (Holt-Giménez 2006). By the mid-1990s, the world witnessed the agroecological transformation of Cuban agriculture as a creative response to the Special Period that began when the Soviet Union fell and the US blockade was tightened. The capacity of Cuba to show that a national-level transition to agroecology was possible, further consolidated the Latin American understanding of agroecology as a form of resistance to neoliberal globalization. The consolidation during the 1990s and early 2000s of the Latin American Coordination of Rural Organizations (CLOC) and La Vía Campesina International (LVC), with their demands for food sovereignty and against free trade agreements, provided further momentum to a conception of agroecology as a class project of the global peasantry in opposition to capitalist relations in the countryside (Altieri and Toledo 2011). As opposed to apolitical Northern notions of agroecology as the productive techniques (and scientific basis) of market-friendly "organic" or local agriculture, agroecology in Latin America carries historical, social and political weight (Ferguson and Morales 2010). Remarkably, academic configurations such as SOCLA, rather than repressing these broader connotations of agroecology in Latin America, have synthesized and translated them, deepening the global discussion of agroecology (Altieri 2008).

Responses to our survey: is there a Latin American agroecology?

We posed this question in an e-mail survey of twenty Latin American agroecologists, both from academia and from rural social movements in the region. The 20 were those who responded to a survey sent to 40 agroecologists, balanced between academics/researchers and cadre and activists of grassroots social movements. The survey consisted of three open ended questions:

(1) Do you think there is such a thing as a "Latin American agroecology"?
(2) [If it exists,] what characteristics, if any, define this "Latin American agroecology" for you?
(3) How do you differentiate this "Latin American agroecology," if it exists, from other "agroecologies"?

The majority of respondents, more than 75%, argued in favor of the existence of a Latin American agroecology (LA). Although not an exhaustive sample, this percentage, as well as the coincidences in the characteristics highlighted by the interviewees, are highly significant. It also seems that even those who do not adhere to the idea of a particularly Latin American agroecology recognize the same set of distinctive characteristics of agroecological development in the region.

In general, the main features identified by the agroecologists consulted that would characterize Latin American agroecology can be summarized as follows:

- Deep roots in the historical development of *agri*-culture and the continuing existence of numerous indigenous, peasant and Afro-descendant communities and territories with their own ontologies and epistemes, with inherited ancestral cosmovisions and spiritual relations with Mother Earth;
- The articulation of agroecology in a social movement of resistance and construction of alternatives, where agroecology serves as a strategy for the defense of land and territory, and peasant-indigenous ways of life in the face of agro-hydro-extractivist projects;
- The strong determination of peasant and indigenous peoples' organizations and rural social movements to promote broadly-based (technical-productive and socio-political) training in agroecology;
- The blending and mutual feedback of the local, vernacular and ancestral knowledges and wisdoms of indigenous and peasant communities through *diálogo de saberes* (dialog among different knowledges) with productive innovations and technical, scientific and academic knowledge;
- A growing trend toward the search for independence and autonomy in the configuration of socially, economically and environmentally sustainable agroecosystems and modes of production and reproduction.

It should be clear that this Latin American agroecology has been constructed through real struggle and experience, and thus is not essentialist (Escobar 1999). We can schematically group these points into 3 mutually related axes: 1) *Agri*-culture and ancestrality: deep roots in traditional *agri*-cultures and co-evolution between human beings and their environment; 2) Organization and common horizons of struggle: The articulation in a social movement of resistance and construction of alternatives in the search for independence, autonomy and socially, economically and environmentally sustainable modes of production and reproduction; and 3) Formation and dialogue of knowledge: the emphasis of the organizations in the formation of technicians/cadre in agroecology and the dialogue of knowledge between the ancestral/vernacular/local knowledge and that of technicians/scientists/academics. We develop each of these as follows:

1) Agri-*Culture and ancestrality*

One question that appears in almost all the answers is the ancestral relationship between human beings and their environment. The sustainable management of agroecosystems through an agricultural practice that conserves biodiversity and the natural commons is a consequence of a long *agri*-cultural tradition (i.e., the South American *chacra*, the Mesoamerican *milpa*) of co-evolution and co-creation of landscapes. In the words of the Argentine agroecologist Walter Pengue (*Universidad Nacional de General Sarmiento*): *"Agroecology in Latin America involves not only agricultural issues, but is framed by humanity and in its environment, its landscapes and the configuration that has been historically given to the same (…)"*. In the same vein, Marta Chiappe, an agroecologist at the University of the Republic (Uruguay), affirms that in Latin America *"there is a greater identification of agroecology with ancestral agrarian practices that form part of its cultural identity than in countries or regions where agroecology appears as an alternative to conventional production"*.[11]

From the production point of view, it is pointed out that the origin of Latin American agroecology is linked to the need for farmers to reduce their dependence on external inputs (mainly energy, fertilizers and pesticides – called *agrotoxics*) and to reduce their costs of production in the face of endemically unstable and generally unfavorable marketing conditions for peasants and family farmers in the region. For some, this is the very origin of a Latin American agroecology: *"I believe that Agroecology is of Latin American origin (…) and was born as an approach or paradigm by which to reduce the dependence of Latin American farmers on inputs, and as a consequence allow them to produce quality food,"* says Santiago Sarandón of the National University of La Plata (Argentina) and new president of SOCLA.

Likewise, many people highlighted the endogenous peasant-indigenous character of the development of Latin American agroecology; arguing that

its power lies in the fact that it emerges from the territories and communities, and not as a proposal external to them. In the words of Bolivian agroecologist Georgina Catacora-Vargas, vice president of SOCLA: *"Latin American agroecology is characterized by being peasant based, based on traditional knowledge, biodiverse and integrated into proposals for food sovereignty."*

In short, and as Lorena Soto Pinto of *El Colegio de la Frontera Sur* (Mexico) very clearly puts it, agroecology in Latin America is *"an agroecology based on culture, on what people have been doing for thousands of years."* As will be seen throughout this text, these arguments are repeated in almost every intervention, even among those who do not believe in the existence of a Latin American agroecology.

2) Organization and common horizons of struggle

The vast majority of agroecologists interviewed referred to the high degree of politicization and organization of Latin American rural populations. Moreover, they affirm that this is a fundamental and characteristic aspect of Latin American agroecology. In Latin America, agroecology has been constructed in a context of struggles for land and territory, gradually becoming a tool of resistance to the attacks of territories promoted by neoliberal globalization, as well as a device for the territorialization of alternative projects *for life* (i.e. *Sumak Kausay, Buen Vivir*).

As Marlen Sánchez, a young woman agroecologist from the Association of Rural Workers of Nicaragua (ATC) and the *IALA Mesoamerica* (CLOC-VC) clearly states, *"Latin American agroecology brings to the debate the structural violence suffered by peasants and indigenous peoples; the militarization of their lands, territories and the dispossession of natural goods . . . "*. In the same sense, the Mexican academic Jaime Morales characterizes the agroecology of *Nuestra América* based on its articulation with social movements: *"(. . .) with a strong content of local knowledge, rooted in grassroots experiences and as part of broader struggles. It has a very clear political dimension. It transcends technical aspects, serves marginalized and vulnerable sectors, and is aimed at family and peasant agriculture."*

Agroecology in this context is central to the (re)emergence of a sociohistorical project that, from the recovery of ancestral knowledge and worldviews and dialogue with other ontologies and epistemes, articulates a new horizon of meanings outside the frameworks of modern-capitalist globalization (Rosset et al. 2019; Val et al. 2019). In this framework, agroecology, agrarian reform and food sovereignty are part of the same horizon of struggle (Martínez-Torres and Rosset 2014; Rosset 2013; Rosset and Martínez-Torres 2012). In the words of Walter Pengue *"Agroecology in Latin America (. . .) implies a revolutionary social process, which has fully understood that the human being is nothing without the land he treads on, and therefore, agroecology and agrarian reform clearly go hand in hand."*

Another question that emerges from the opinions of Latin American agroecologists revolves around the public policies for agroecology deployed in the region. Professor Irene Cardoso of the Brazilian Association of Agroecology (ABA) provides an account of this demand of the Latin American agroecological movement when she affirms that *"it expresses itself in the struggle, even for public policies, for the transformation of agro-food systems"*. Some of the interviewees also suggest that in Latin America *"agroecology has greater recognition in national regulatory frameworks, compared to other regions"* (Georgina Catacora-Vargas).

On the other hand, there are those who believe that it is precisely the lack of public policies and, in general, the non-presence of the State, that has promoted more autonomous and self-governing processes in Latin American agroecology. Professor Tomás León-Sicard of Colombia inscribed himself in this tendency when he affirmed that *"the very existence of the peasantry, of the 'roots' and Afro communities, and of the indigenous nations that still fight for their territories, becomes a characteristic of our agroecology, not inscribed in other latitudes (. . .). Add to this the fact that we practice it in very varied soils, in different climates (. . .), with precariousness in property rights, subsistence economies and deficiencies in public policies"*.

Finally, there seems to be a tacit consensus that an important characteristic of the Latin American agroecological movement is its capacity to develop multilevel organizational processes (from local communities to continental processes), in dialogue and articulation with broad sectors (academia, environmental movements, NGOs, consumer organizations, urban social movements, neorural movements, etc.) (Martínez-Torres and Rosset 2014; Val et al. 2019).

Thus, in Latin America, agroecology is emerging as a broad and inclusive movement toward the transformation of agrifood systems, as well as of social and environmental relations. This profoundly revolutionary aspect is clearly expressed in the characterization of José Maria Tardin, agroecologist and militant of the Landless Workers' Movement (MST) of Brazil, for whom Latin American agroecology is based on *"the multiplicity of cultural ethnic foundations expressed in the cosmovisions and praxis of the continent's ancestral peoples (. . .) and enslaved Afro-descendants. A second aspect is that within the peoples' social movements of the countryside, articulated in the CLOC/VC, agroecology is constitutive of the struggles and projects of human emancipation, is radically anti-capitalist and anti-patriarchal, and is of socialist orientation"*.

3) Training/formation and diálogo de saberes

Closely related to the previous block are the processes of training and formation[12] -especially among youth- of professionals/technicians/cadre in agroecology. Proof of this is the enormous variety of proposals, approaches, methodologies and practices in agroecological training that have emerged in recent years. Among them, the Latin American Institutes of Agroecology (IALAs), which are CLOC-VC peasant universities in several countries of the

region (Rosset et al. 2019), stand out. The training processes in this type of schools reinforce the holistic sense of agroecology (as a system of production, of struggle and of life), while at the same time contributing -from this holistic perspective- to the symbolic and material construction of Latin American agroecology (Rosset and Martínez-Torres 2012; Rosset et al. 2019; Val et al. 2019).

This was also a recurrent theme in the interviews and is clearly summarized in the argument of Freddy Congo Suarez, of CLOC/VC in Ecuador for whom *"Latin American agroecology is distinctive because it is simultaneously a social process, a science and a practice to promote healthy food systems, for which it relies on solidarity and spiritual relations with Mother Earth, through peasant to peasant processes, dialogical education based on processes of research-action-participation-systematization as a strategy for the collective construction of knowledge, in which scientific knowledge interacts with the current and ancestral knowledge of farmers"*.

As can be seen in many of the responses, there is a strong link between the local, vernacular and ancestral knowledge of indigenous and peasant communities and technical, scientific and academic knowledge, and their mutual feedback from the exchange of experiences and the *diálogo de saberes* (Martínez-Torres and Rosset 2014).

We conclude this section with a phrase from the response of the environmental philosopher and agroecologist Omar Felipe Giraldo of *El Colegio de la Frontera Sur* (Mexico), which articulates clearly and relates the proposed blocks in a clear and elegant way: *"Latin American agroecology has been forged in the context of struggles to resist the deterritorialization of neoliberal globalization and at the same time plant the seeds of re-existence and* Buen Vivir, *in which the popular sectors of the countryside and the cities (…) are recovering ancestral knowledge, constructing new knowledge situated in their own worldviews, in dialogue with Science, while reaffirming their cultural identities. In short, it is the defense of territory, which includes autonomy and self-determination, decolonization and depatriarchalization, all for* Buen Vivir."

Agroecology(ies) from South to North

When asked about the differences between a Latin American agroecology and other agroecologies, the answers were remarkably similar. Here again, the connection between Latin American agroecology, traditional agriculture and peasant-indigenous worldviews, as well as the strong link with social and political movements, was highlighted. In relation to the ancestral cultural traditions, the words of Dana Avila of the IALA María Cano of Colombia (CLOC/LVC) make this clear, when she affirms that agroecology in Latin America *"is based on two principles: indigenous cosmovision, and communal or collective work. It is deeply nourished by cultural and spiritual elements that are interwoven*

with the practices of everyday life, while in other latitudes of the planet it is more linked to productive processes without the ancestral and spiritual aspect".

Similarly, her compatriot Tomas Enrique León-Sicard of the National University of Colombia affirms: *"I am absolutely sure that there is a profoundly Latin American agroecology, not only in the field of science, in social movements or in farming practice, but ultimately in a series of attitudes and values that can be called the 'symbolic framework of agroecology.'"* The political dimension as a characteristic feature of agroecology in Latin America contrasts sharply with the perceptions the respondents hold concerning other agroecologies. The agroecologies practiced in the industrial north (mainly in Europe and the United States) are perceived as a set of agronomic practices and technical developments detached from the political, social and cultural dimensions of agroecology. These northern agroecologies are seen more as a market-driven transition of family farmers to organic production to meet the demands of the healthy food market.[13]

In this sense, it is worth noting the responses of two Latin American professors of agroecology at universities in the United States. Puerto Rican agroecologist Ivette Perfecto of the University of Michigan points out that Latin American agroecology *"is an agroecology that incorporates a strong political and social component in addition to the scientific one (…). In the North, little is said about agroecology (…). However, those who do speak of agroecology tend to use the term in a very narrow sense that does not incorporate socioeconomic or political aspects."* In the same vein, El Salvadoran V. Ernesto Méndez of the University of Vermont, maintains that *"(…) agroecologies in the global north are more oriented toward environmentally healthy practices/technologies, but without very strong political or cultural connections".*

Professor Manuel Parra of *El Colegio de la Frontera Sur* in Mexico and Walter Pengue of the *Universidad Nacional de General Sarmiento* in Argentina express themselves along similar lines of thought, though from the northern and southern extremes of the Latin American academy. The Mexican agroecologist explains the differences of contexts: *"Latin American Agroecology is commonly associated with peasant agriculture. But in the US or Europe the contexts are very different, in terms of the scale of production, forms of organization, markets, and culture."* For his part, the Argentine researcher warns about the risks of a depoliticized agroecology: *"(…) the European view of agroecology, which is much more limited to the production processes of organic production (…), and to some newer perspectives that seek to impose so-called* smart agriculture *and* ecological intensification *(which use essentially agroecology as a battering ram), seek only to achieve "efficiencies" in the agricultural system. This empties agroecology of content, of the farmers, of their land, and of the food they produce."*

Latin American agroecology doesn't exist . . . or does it?

In Latin America there is an old popular saying that says *"witches don't exist, or do they?,"*[14] as a way to temper very categorical assertions, opening the door to reflections that go beyond the obvious black and white scenarios. In this sense we note that, paradoxically, even those respondents who deny the existence of a particularly Latin American agroecology mention the same characteristics that are recognized by the majority of respondents, those who argue that there is such a thing.

Among those who do not adhere to the idea of a Latin American agroecology, the prevailing opinion is that there are not *agroecologies*, but rather *an agroecology* which has a diversity of regional and local expressions depending on the different ecological conditions and socio-historical and cultural contexts. Most point out that Latin America is characterized by enormous environmental, cultural and social heterogeneity, making it impossible to speak of a continental entity. The Mexican professor Manuel Parra summarizes this position: *"I do not recognize an agroecology, but rather multiple complementary meanings"*. The position expressed by Paulo Petersen of the Brazilian agroecology NGO AS-PTA is forceful; in this sense: *"I am not in favor of the existence of "agroecologies" (in plural). From my point of view, there are heterogeneous forms of expression of agroecology in different socio-environmental, cultural and historical contexts. Agroecology has many roots in Latin America, but the blend of science, practice, and social movement is global. Its roots in the ecological approach is also universal, but of course, with varied materializations in different ecological contexts."*

On the other hand, some respondents propose a division between two great continental archetypes, with many intermediate cases. They distinguish between regions that have a long tradition of indigenous peasant agriculture (i.e. the Andes and Mesoamerica) and countries with a very different composition and agrarian structure, and a strong bias toward conventional production systems with just an incipient movement toward agroecology (i.e. the pampas of Argentina and Uruguay). This argument is summarized in the position of Professor Marta Chiappe of the University of the Republic (Uruguay): *"I believe that each country, and even within each country, there are different forms of agroecology (. . .). In some countries agroecological systems have existed since pre-Columbian times and are associated with peasant forms of production of populations, and in others (. . .) agroecological production systems are more recent and are more associated with producers who are in transition from conventional to agroecological production."*

However, even those who disagree with the idea of a Latin American agroecology recognize some particularities of its development in the region. In this sense, they coincide in pointing out the importance of ancestral cultural roots, the vernacular agricultural tradition and the powerful politics that the presence and territoriality of organized peasants, indigenous and afro-descendants imprint on agroecology in *Abya Yala*. Likewise, they emphasize the strong and

growing articulation between the scientific-academic field, NGOs and diverse grassroots organizations, configuring a dynamic and heterogeneous agroecology social movement oriented toward the transformation of the modes of production and ways of life of rural populations. This reasoning appears repeatedly in the opinions of those who don't believe in a specifically Latin American agroecology, and is clearly evidenced in Paulo Petersen's analysis: *"I identify two main historical specificities of agroecology in Latin America 1) a strong link with the movements and peasant organizations rooted in territory; 2) the building of ever closer links between the scientific-academic world and the social movements and organizations based of territories (…). The association between agroecology as a scientific approach and peasant struggles for territories is a central aspect"*.

In some of the responses we detect that in the reluctance to distinguish a particularly Latin American agroecology there is an underlying notion that agroecology must maintain its character as a global social movement, without borders or divisions that could attenuate its power in the global dispute for the transformation of agrifood systems. This reasoning is clear and forceful in the response of Iridiani Seibert of the Brazilian Movement of Peasant Women (MMC), a member organization of LVC and CLOC in Brazil:

> I believe that there is no Latin American agroecology, because what exists is the agroecology of peasants and of peoples, organized in movements and struggles to fight the model of Capital in the countryside (…). The characteristics of Capital in the countryside are common to the whole world, (…) and the forms of resistance of peoples are also very similar (…). We present Agroecology as an alternative proposal of life in the countryside, which is also a cultural, social, political and economic alternative. A way of life, geared towards building Food Sovereignty, the right to self-determination of peoples over their lives, their food and their territories (…) I do believe that in Latin America we have our own history and context that mark the birth and development of agroecology in our continent (…). However, this particularity does not lead us to build our own agroecology, but rather we seek to build a single agroecology, adapted to local and regional contexts, yet the same, because agroecology is the construction of peoples according to their environmental, socio-historical, economic and cultural realities. Agroecology is one of the elements that unifies the peasant struggle of the peoples of the world.

In short, we see that both among those who defend the thesis of a Latin American agroecology and among those who do not, there are many similarities and point of agreement. Beyond the differences, there seems to be a general consensus on some aspects that characterize the development of agroecology in the continent. Even the "naysayers" agree on these points. Thus, to paraphrase the opening of this section, we might conclude that a Latin American agroecology doesn't exist, *or does it?*.

Final reflections: Latin American critical agroecological thought

If agroecology is reduced to a scientific approach uniting ecology with agronomy (and even with sociology and anthropology), then everywhere it will be just

another "improved seed" bringing exogenous concepts to new lands – ultimately conforming to the dominant food regime (Levidow, Pimbert, and Vanloqueren 2014). However in Latin America, agroecology is understood more broadly, as ways of resistance and survival of food and farming cultures, in which agroecosystems are biocultural repositories of traditional knowledge systems and agroecologists are agitators for structural change. Many in Latin America see agroecology as a way of *being, living* and *producing* (da Silva 2014), a way of *being* and of *being in* territories (Giraldo 2018; Royero-Benavides et al. 2019).

When these elements come into present-day dialog with academic research, NGO networks and anti-capitalist movements, the possibilities shift, as agroecology becomes a critical contribution of Latin American indigenous, peasant and African diaspora peoples, particularly women, to the construction of alternatives to the dominant capitalist system of social reproduction (Giraldo 2018; Val et al. 2019).

Critical agroecological thought has accompanied the last four decades of capitalist restructuring and counterhegemonic initiatives in Latin America. In Cuba, for example, agroecology passed from being a minority scientific tendency in the Cuba of the 1980s to the offensive during the Special Period beginning in 1990s, and has proven itself capable, in the hands of a peasantry with access to land, education, health care and markets, of feeding the Cuban people in a sovereign fashion, in line with the revolutionary and socialist "sense of struggle" (Machín et al. 2013; Rosset et al. 2011). Across the continent, agroecology is present in the anti-capitalist organizing struggles of Latin America, but it also is a radicalizing element within these struggles; a "revolution within the revolution," as former Cuban ANAP president Orlando Lugo Fonte put it (Machín Sosa et al. 2013). The anti-colonial and anti-patriarchal praxis of agroecology is a permanent challenge to the established forms of doing politics, even within the anti-capitalist Left of Latin America (Rosset et al. 2019; Val et al. 2019). Latin American agroecologists emphasize self-determination, self-sufficiency, autonomy, and change from below (Giraldo 2018). This perspective has provided vitality to – and deepened debate within – regional integration processes in Latin America. With its ability to generate dialogue (Martínez-Torres and Rosset 2014), and having survived conventional scientific institutions and the realpolitik of "friendly" governments, anti-peasant centralized planning, neoliberal reforms, repression, and incipient neofascism, we believe that Latin American critical agroecological thought is here to stay.

Notes

1. Translated by the authors.
2. Following Rosset and Altieri (2017, 1) we use the word "agroecologists" to refer to agroecological researchers, academics, non-governmental organizations (NGOs) that

promote agroecology, ecological farmers, agroecological peasants and agroecology activists.

3. With the exception of Mexico, Ecuador, Bolivia and Peru, which include much more of the history of pre-Hispanic civilizations in their standard curricula.
4. Currently located on the Caribbean coast of Panama, the Kuna people originated in the Sierra Nevada of northern Colombia and inhabited the region of the Gulf of Urabá and the Darien mountains.
5. His classic essay *Nuestra América* was first published on 30 January 1891, in the Mexican newspaper *El Partido Liberal.*
6. First published in Guatemala in 1877.
7. According to Rodríguez (2006), these three ideas appear in different writings of José Martí and not as a specific reflection on the question of identity.
8. Fals-Borda (2008) identified the concept of *sentipensante* when he heard it in fishing villages of the Colombian Atlantic Coast: "we believe, in reality, that we act with the heart, but we also use the head. And when we combine the two, we are sentipensante." See: https://www.youtube.com/watch?v=LbJWqetRuMo
9. Available at <http://www.cumbreindigenabyayala.org/>
10. Available at < https://www.ocmal.org/3740/>
11. r from the survey responses (translated by the authors), are presented in italics.
12. Latin American social movements use the word "formation" to refer to those types of training that include a transversal political and organizing component.
13. Although this is a relatively small sample of the Latin American agroecological universe, the little recognition of and connection with the agroecological movements of other regions of the global South, mainly Asia and Africa, is notable. The few references that were provided to other regions came from people linked to rural social movements (CLOC, LVC), who in general showed a broader and more integral view of agroecology as a social movement and alternative mode of production and way of life.
14. Apparently it is an adaptation of the traditional Galician saying: "I don't believe in witches, but if there are witches, then there are witches". This phrase also appears in the 17th century Spanish-language literary work *Don Quijote* by Miguel de Cervantes.

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