



ALTERNAUTAS

(Re)Searching Development: The Abya Yala Chapter

Articulating a place of resistance: Mapping otherwise in the Middle Yanuncay River Basin, Ecuador

Catalina Rey-Hernández , Jaime Hoogesteger  & Rutgerd Boelens 

Wageningen University

Accepted: 7 July 2026 / Published online: 31 July 2026

Alternautas is a peer reviewed academic journal that publishes content related to Latin American Critical Development Thinking.

It intends to serve as a platform for testing, circulating, and debating new ideas and reflections on these topics, expanding beyond the geographical, cultural and linguistic boundaries of Latin America - Abya Yala. We hope to contribute to connecting ideas, and to provide a space for intellectual exchange and discussion for a nascent academic community of scholars, devoted to counter-balancing mainstream understandings of development.

How to cite: Rey-Hernández C. Hoogesteger J. & Boelens R. (2026), Articulating a place of resistance: Mapping otherwise in the Middle Yanuncay River Basin, Ecuador. *Alternautas*, 13(1), 160-198, DOI: 10.31273/e0fsmm06.

University of Warwick Press
<http://www.alternautas.net>



ISSN - 2057-4924

Catalina Rey-Hernández¹, Jaime Hoogesteger² & Rutgerd Boelens³

Articulating a place of resistance: Mapping otherwise in the Middle Yanuncay River Basin, Ecuador

Abstract: This paper examines how rural communities in the middle Yanuncay River basin in the southern Ecuadorian Andes construct and mobilise a sense of place in response to extractive and territorial threats. In this study, the notion of sense of place is articulated through the collective process of ‘mapping otherwise,’ since it is through the map that this sense of place becomes materially and visually manifested. Combining participatory workshops, ethnographic engagement, artist-scholar-activist actions, and research-by-drawing, we engaged with rural communities along the middle Yanuncay River to articulate and visualise their emotional, material, and symbolic relationships with the riverine environment. Based on this experience, we show how mapping otherwise can be a place-making practice in which communities strategically (re)articulate different dimensions of sense of place (attachment, identity and dependence) in response to existing territorial threats. We advance that articulating this sense of place in contexts of territorial threats can best be grasped through the notion of place of resistance. This notion recognises explicitly that local notions of sense of place are deeply transformed in response to territorial conflict and that their articulation and visualisation can become an important tool for their political struggle and an instrument of territorial defence.

¹ Catalina Rey-Hernández is a PhD candidate in the Water Resources Management Group at Wageningen University & Research, The Netherlands. Email: catalina.reyhernandez@wur.nl. ORCID: <https://orcid.org/0009-0001-9516-1047>

² Jaime Hoogesteger is Associate Professor at the Water Resources Management Group at Wageningen University & Research, the Netherlands; and Research Associate at Centro de Investigación en Regadíos y Agrosistemas Mediterráneos (CIRAM), Universitat Politècnica de València, Spain. Email: jaime.hoogesteger@wur.nl. ORCID: <https://orcid.org/0000-0002-6784-0552>

³ Rutgerd Boelens is Professor of Water Governance and Social Justice at Wageningen University & Research and Professor of Political Ecology of Water at CEDLA, University of Amsterdam, the Netherlands. Email: rutgerd.boelens@wur.nl. ORCID: <https://orcid.org/0000-0002-8412-3109>

Keywords: sense of place, counter-mapping, hydrosocial territories, place of resistance.

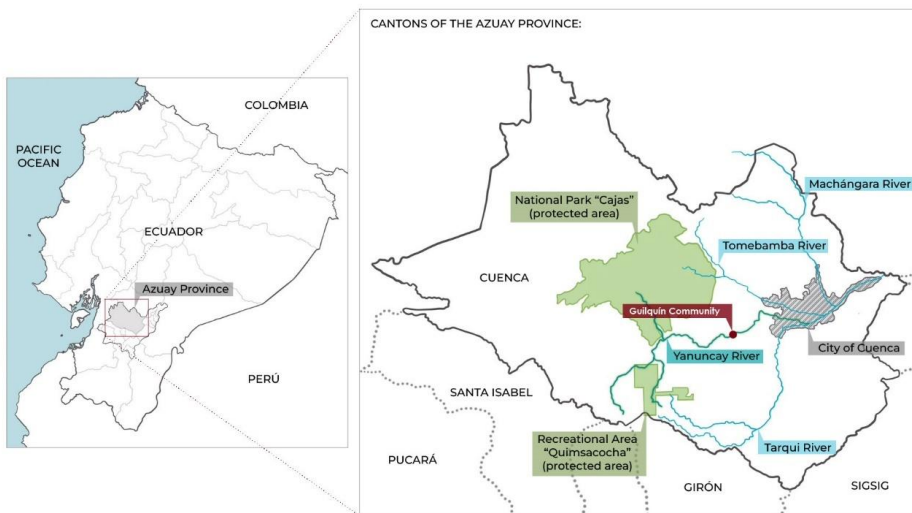
Introduction

In the southern Andes of Ecuador, the Yanuncay River basin serves as both a lived space and a site of competing territorial visions, where local communities' ecological, cultural, and economic practices are confronted by extractivist agendas. Rural territories and riverine environments in Ecuador have increasingly been targeted by projects that aim to “develop” land and water for mining and hydropower, practices that are deeply embedded in broader political–economic processes of resource extraction and capital accumulation (Bebbington et al., 2018; Gudynas, 2009). In the middle section of the Yanuncay basin, smallholder agriculture and livestock production co-exist with these pressures, creating a context in which everyday relations with water and land are entangled with territorial struggle, identity, and resistance. Within this contested terrain, communities increasingly turn to alternative spatial practices to defend their territories and reassert their meanings of place (Escobar, 2001; Hoogesteger & Verzijl, 2015; Manosalvas et al., 2023; Mills-Nova et al., 2023).

This study focuses on the middle Yanuncay River basin, located in Azuay Province in the southern Ecuadorian Andes (Map 1). The Yanuncay River originates in the high-altitude páramos⁴ and wetlands of the Kimsakocha and Cajas ecosystems at approximately 4,000 m above sea level and flows through grazing lands, smallholder agricultural areas, tourism enterprises, and rural settlements before reaching the city of Cuenca (Acosta & Cajas-Guijarro, 2020; Velásquez, 2022). The middle Yanuncay River basin comprises a predominantly rural territory inhabited by a network of fourteen communities, whose livelihoods are closely linked to the river through dairy production, small-scale agriculture, cattle grazing, tourism, and local food-related activities. These relationships have been shaped over generations through everyday practices of water use, land management, and collective organisation, creating strong social, economic, and affective ties to the river and surrounding environments (Bebbington, 2010). The area is ecologically significant because it forms part of the water recharge system that sustains both rural livelihoods and downstream urban populations. At the same time, it has become a site of intense socio-environmental conflict due to proposed mining and hydropower developments (Sacher & Acosta, 2012). Over the last two decades, the basin has experienced increasing pressure from

⁴ High-altitude tropical alpine moorlands ecosystems of the Andes region, characterised by unique biodiversity, water regulation and carbon storage functions.

large-scale extractive and infrastructural projects. These include the “Loma Larga” gold mining project, located in the páramo water recharge area (Sánchez-Mendieta, 2022; Sempértegui & Báez, 2023), and the “Soldados-Yanuncay” hydropower project by the public-private consortium ElecAustro. While mining activities are perceived as threatening water quality and ecological integrity in the headwaters, the hydropower project is viewed as potentially altering river flows and affecting local livelihoods dependent on the basin's hydrological dynamics. These Yanuncay River basin interventions are justified through discourses of economic development, energy production, and resource efficiency, framing the river primarily as a resource for extraction and infrastructure (Valladares & Boelens, 2019). Community responses have included legal actions, popular consultations, public demonstrations, water defence campaigns, and the strengthening of territorial organisations such as the “Biocorredor Yanuncay”, a grassroots territorial defence network composed of peasant families, smallholder farmers, cattle herders, tourism entrepreneurs, restaurant owners, environmental advocates, and local water users living along the middle basin of the river. These mobilisations started in the early 2000’s and culminated in 2021 with a popular consultation that restricted mining activities in sensitive water recharge areas. Nevertheless, the conflict and mobilisations continue to this day due to growing governmental and corporate efforts to advance extractive activities in the region.



Map 1. The Yanuncay River and its basin in the Province of Azuay, Ecuador (source: own elaboration).

Against this background, this paper explores how ‘mapping otherwise’ (Boelens et al., 2025b; Harris & Hazen, 2005; Oslender, 2021) can become a tool for territorial defence through the rearticulation of local communities’ sense of place (SoP) in contexts of threats from extractive and hydroelectric projects (Dukpa et al., 2018; Jorgensen & Stedman, 2006; Massey, 1994). This research and resulting paper aim to respond to the following question: How do communities re-articulate their sense of place through the practice of participatory counter-mapping in contexts of territorial threats?

This work is grounded on the interlinked notions of hydrosocial territories (Boelens et al., 2025a), sense of place (Relph, 1976; Tuan, 1977) and counter-mapping (Duggan & Gutiérrez-Ujaque, 2025; Harris & Hazen, 2005; Peluso, 1995). Methodologically it is based on semi-structured interviews and counter-mapping with the communities. Based on the analysis of the data, we show how this counter-mapping, both as a process and as an outcome (a physical counter-map), is a practice through which communities defend territory and transform attachment, identity, and dependence into politically charged spatial claims. Additionally, we advance the notion of ‘place of resistance’ as a notion that captures how communities strategically rearticulate their sense of place in response to territorial threats.

The following sections outline the theoretical framework, describe the participatory methodology employed for the action research, present the results of the counter-mapping process, and discuss how these practices contribute to broader struggles over territory, identity, and water governance. The paper concludes with reflections on the potential of counter-mapping to support grassroots territorial defence and to expand conceptual understandings of place as both lived and actively contested.

Grounding a territory of meanings: Situating sense of place in territorial conflicts

Hydrosocial territories as arenas of struggles

Hydrosocial territories are conceptualised as spaces where water, society, and power are co-produced and deeply contested. Hydrosocial territories, especially in riverine areas, are intricately connected to local livelihoods, identity, and culture being confronted with the intrusion and imposition of dominant territorialisation projects (Boelens et al., 2016, 2023; 2025a; Hommes et al., 2022). Territory, in this sense, is a socio-political project through which actors seek to establish control, authority, and particular forms of order over people, resources, and socio-natural relations in pursuit of specific objectives. Territorialisation therefore involves efforts to organise and govern space according to distinct political, economic, or cultural

visions, often generating conflicts between competing territorial projects (Hoogesteger et al., 2016; van Teijlingen, 2019).

The concept of hydrosocial territories then, emphasises the co-production of water and society, where water is seen as a central element in the social, cultural, and political fabric of communities (Bakker et al., 2018; Linton & Budds, 2014; Sultana, 2011). When these territories are threatened by extractive industries, hydropower projects, or agricultural expansion, around the world and with growing intensity, numerous communities mobilise collectively to protect the water and the social and cultural meanings attached to it. These mobilisations resonate with Latin American climate justice perspectives that foreground territorial defence, care, and the reproduction of life as central political axes, particularly from feminist and Southern epistemologies (Moreano Venegas et al., 2022). At the same time, these conflicts are often framed in terms of hydrosocial struggles (Bakker, 2012; Boelens et al., 2010), where communities assert their right to manage their water resources and resist external impositions. The struggle for water, in this context, becomes a struggle over how hydrosocial territories and their meanings and identities are defined, as external actors attempt to reconfigure local territorial configurations for their own agendas (Swyngedouw, 2009).

The dynamics of these struggles are complex, as communities often face multiple layers of external pressure, from state policies to corporate interests (Bebbington, 2010; Hoogesteger et al., 2023) that seek to territorialise space through extractive governance, often generating plural and conflicting territorial projects (van Teijlingen, 2019). In riverine territories, these forces are compounded by the fact that rivers are often seen as vital to both local livelihoods and national economic development, positioning them as strategic arenas of conflict where situated and external visions collide (Hoogesteger et al., 2016; Manosalvas et al., 2023). Thus, we understand rivers and riverine territories as spaces of active contestation, where community attachments, identities, and dependencies are inherently political. In this context, the notion of sense of place becomes a lens to understand why and based on what emotional and cognitive understandings, communities engage in practices of resistance to defend their relationships with water and land.

Dimensions of place in contested riverine territories

Scholarship on sense of place, highlights how people develop deep emotional, social, and cultural connections to the environments they inhabit (Gillespie et al., 2022; Relph, 1976; Tuan, 1977). In human geography, a distinction is often made between *space* and *place*. Space generally refers to the material and geographical dimensions of the environment, often understood as a more abstract physical setting or spatial arrangement (Massey, 1994; Tuan, 1977). Place, in contrast, is a socially and culturally produced interpretation of space that emerges when people

imbue space with meanings, memories, identities and values (Relph, 1976; Tuan, 1977). Place, then is created and re-created through the grounded lived experiences that regulate and sustain local socio-natural visions and ideas. Place, then, can be defined as a deeply complex construct that is profoundly relational (Harvey, 1996; Sébastien, 2020). As Massey (1994) explains, place should be understood as an interconnected process which results from social-material relations, networks and communications. Furthermore, these social interactions are constantly changing, making place into a progressive and dynamic construction which is not static and never finished (Massey, 1994, 1995, 2004).

Within this framework, we acknowledge that a place can hold multiple, even contradictory, meanings which are “not only temporally and spatially variable, but intrinsically plural and contradictory [...] fractured, overlapping, and sometimes an unstable condensation of various social influences.” (Martin, 2007, p. 99). A place does not have a single, immovable interpretation and pre-existence; its significance and interactions are situated and “always [...] temporary, uncertain, and in process.” (Massey, 1995, p. 190). These meanings derive from a variety of elements where personal lived experiences and memories, symbolism and imagery, as well as the spiritual, material and functional roles of a space are central. In other words, a place is not a place if there is not an interpretation, identification and representation of that space by a social group and its individuals. In that regard, people “make place” by attributing deeply embedded meanings and values to a specific geographical space depending on their varied experiences and related visions (Chayakul et al., 2026; Dukpa et al., 2018; Massey, 1994, 1995; Reyes-Escate et al., 2022). Consequently, what is often referred to as a community sense of place should not be understood as singular or fixed. Rather, communities are composed of diverse actors whose place meanings are continually negotiated, contested, and reconfigured through everyday interactions and broader political struggles (Agnew, 1987; Martin, 2007; Massey, 1994, 2004). Recent work further emphasises the politico-spatial and power-laden aspects of place meanings (Bonaiuto et al., 2016; Peng et al., 2020).

To conceptualise the dimensions of sense of place, Jorgensen and Stedman (2006) propose a framework that identifies three components: place-attachment, place-identity, and place-dependence. Place-attachment refers to the emotional bonds people form with a place over time. This attachment emerges through personal experiences, cultural practices, and collective memories. Place-identity is grounded in how individuals define themselves through the places they occupy. It encompasses the symbolic meanings associated with a geographical place and its role in shaping individual and collective identities (Escobar, 2001; Feng et al., 2022; Proshansky, 1978). Thirdly, place-dependence refers to the resource-based reliance on a particular place to sustain everyday activities and livelihoods, including access to water, agriculture production, grazing lands, mobility routes, and economic opportunities.

Conflict and external pressures can intervene in already dynamic processes through which place meanings are continuously produced and negotiated. Extractive projects, infrastructure developments and environmental transformations influence the dimensions of sense of place and can lead to new forms of collective action. Therefore, in contexts marked by conflict or resource pressures, place attachment can become strained, as cultural and livelihood bonds are challenged by external threats, such as land and water dispossession or environmental degradation (Devine-Wright & Howes, 2010; Manzo, 2005). Similarly, place identity may become fragmented or contested when external actors attempt to redefine space according to their own interests (Cresswell, 2004; Ruoso & Plant, 2018). In that line of thought, place dependence can also become increasingly precarious when the resource base is threatened by extractive industries or development projects (Hernández et al., 2013). Together, these dynamics reveal how the aforementioned dimensions of sense of place are not static, but are constantly changing under conditions of pressure and conflict. Therefore, these dimensions offer a foundational understanding of sense of place, but they do not fully account for the ways in which places can become arenas of resistance in the face of conflict. In such contexts, place is not only remembered or depended on, but may also be actively defended. To address this, we introduce the notion of ‘place of resistance’, as a means to explicitly articulate the fact that attachments, identities, and dependencies are actively rearticulated in direct relation to ongoing external threats. This conceptualisation extends the understanding of place as dynamic, felt and lived through territorial defence by explicitly recognising the strategic and political character that articulating a sense of place in response to external territorial threats has in such contexts. Through this process, many of the conventional dimensions of sense of place are reworked, reframed, and synthesised into strategies for defending the territory and its socio-material lifeworlds (Jankowski et al., 2025; Zwarteven & Boelens, 2014).

Drawing on work in human geography that conceptualises resistance as a temporal and spatial practice shaping and appropriating territory (Keith & Pile, 1997), place of resistance can be understood then, as the process through which time, place-based meanings, socio-material relationships, spatialities and power dynamics are collectively activated and rearticulated in response to external threats, transforming place into a site of political action, territorial defence, and contestation (e.g. Arbeláez et al., 2025; Bakker et al., 2018; Escobar, 2001; Forigua-Sandoval et al., 2025). The introduction of place of resistance adds a layer of agency and counter-vailing power to place sensing struggles (Agnew, 1987). The theoretical expansion of place, therefore, incorporates its emotional and functional dimensions along with its political and contested nature. These practices of defending and redefining ‘place’ can be ‘*materalised*’ to show what matters to communities through community counter-mapping (Rey-Hernández et al., 2026) as is also elaborated in the section below.

Mapping otherwise as spatial practice of hydrosocial resistance

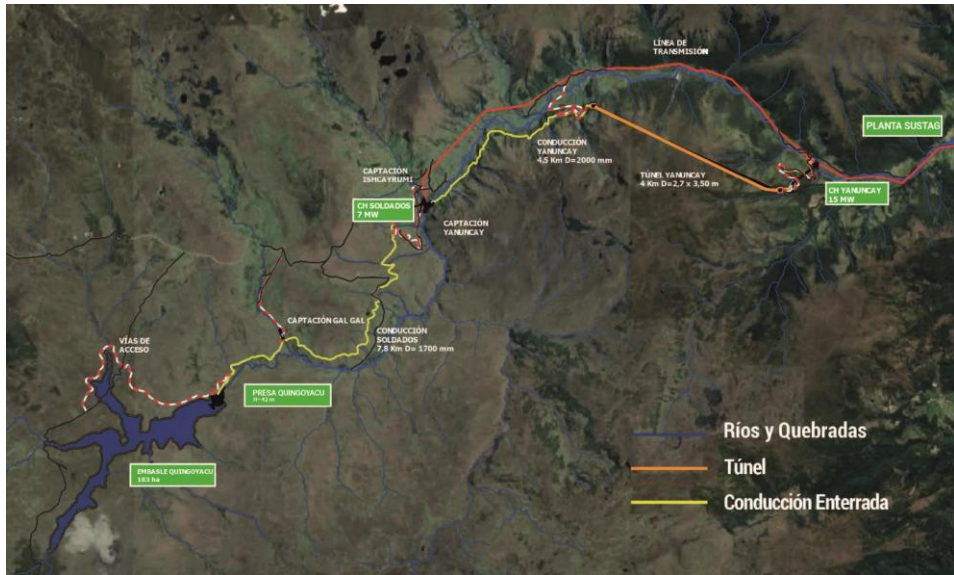
If we understand place as a process produced through lived meanings, contested attachments, and hydrosocial struggles, counter-mapping practices emerge as crucial instruments through which these meanings can be materialised, narrated, and politically mobilised. Within critical cartography, maps have been widely recognised as instruments that shape territorial governance, epistemic authority, and spatial imaginaries rather than being neutral representations of reality (Harley, 1989; Pickles, 2004). Mapping participates in the production of territory by defining boundaries, legitimising claims, and organising how space becomes visible and governable (de Souza et al., 2025b).

Counter-mapping emerged and initially developed as a critical response to these dominant/power-laden cartographic regimes that legitimise extractive expansion while marginalising alternative territorial claims (Bryan & Wood, 2015; Peluso, 1995; van Teijlingen, 2025). Peluso (1995) conceptualised counter-mapping as a grassroots practice through which indigenous and local communities reclaim representational authority over their territories in contexts of dispossession and environmental conflict. Subsequent scholarship has shown how, by translating lived territorial knowledge into spatial representations, counter-mapping operates across struggles over land, water, conservation, and extractivism, enabling communities to challenge state and corporate claims, assert alternative territorial claims, and mobilise political and legal recognition (Bryan & Wood, 2015; Harris & Hazen, 2005).

In practical terms, counter-mapping involves collective processes through which participants challenge dominant politico-spatial and onto-epistemological representations of their realities, and at once identify, discuss, negotiate, and represent spatial features considered meaningful, threatened, or omitted from the dominant representations (Harris & Hazen, 2005; Peluso, 1995). Participants engage in activities such as drawing environmental elements, annotating memories and stories, identifying ecological relationships, locating culturally significant sites, and collectively debating what should be made visible. Through these interactions, otherwise-maps emerge as negotiated representations of what participants consider important (Bryan & Wood, 2015; Oslender, 2021).

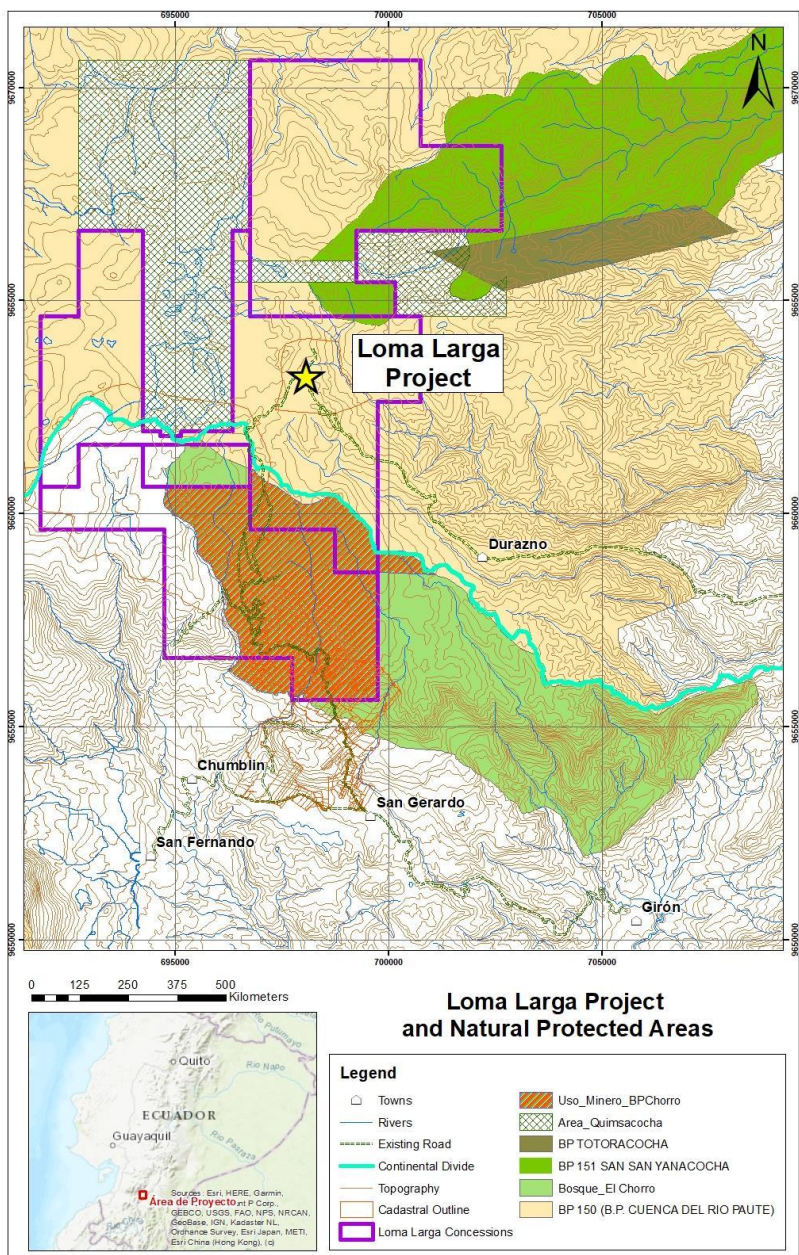
As mentioned before, these processes stand in contrast to the dominant cartographic representations produced by state and corporate actors in the Yanuncay River basin. For example, maps produced by the hydropower sector (Map 2) and by the mining sector (Map 3) represent the páramo and river primarily through project-centered logics that prioritise mineral extraction and hydro-energetic development. These representations selectively visualise infrastructure, concessions, reservoirs, and technical interventions while largely omitting the communities and the latter's historical collective property and territorial rights geographies. This way, they also

invisibilise their livelihoods, ecological interdependencies, cultural practices, and water relationships that sustain the territory. In doing so, they portray the river basin as a technical and controllable space composed of manageable units available for resource utilisation, reinforcing extractivist territorial imaginaries and legitimising external intervention (Boelens et al., 2025b; Pickles, 2004; Radcliffe, 2017).



Map 2. Technical layout of Soldados-Yanuncay hydropower project (source: ElecAustro).

Within riverine hydrosocial territories, counter-mapping functions as a situated practice of place-making that articulates sense of place through visual, narrative, and spatial forms (Boelens et al., 2025b; de Souza et al., 2025b; Rey-Hernández et al., 2026). It documents everyday relationships with rivers, wetlands, irrigation systems, and floodplains, translating attachments, identities, and dependencies into collective representations. In doing so, it renders visible the emotional, cultural, and material dimensions through which communities experience and sustain their environments, including their historical sufferings and displacements, contemporary conflicts and coping strategies, as well as imaginaries and life-projects for more equitable and healthy river futures. Counter-mapping thus operates as a form of visual materialisation of place-attachment, place-identity, and place-dependence, while also activating the political dimension of place of resistance.



Map 3. Official project map of the “Loma Larga” mining concessions of Dundee Precious Metals in the Kimsakocha wetlands (source: Dundee Precious Metals Inc.).

Within these debates, recent research shows that “mapping what matters” not only makes visible the socio-environmental values and dependencies of a community territory but also functions as a tactical tool to assert community priorities, contest imposed projects, and reinforce local agency (Rey-Hernández et al., 2026). Counter-mapping intervenes by foregrounding alternative hydrosocial imaginaries rooted in relational knowledge, care practices, community priorities and vernacular understandings of water (Perreault, 2014). Therefore, counter-maps contribute to struggles over water governance, collective memory, and territorial defence by making visible the intersections of power, infrastructure, and everyday practices (Aubriot et al., 2018; Arbeláez-Trujillo et al., 2025; de Souza et al., 2025b; Forigua-Sandoval et al., 2025; Giraldo-Martínez et al., 2025; Houart et al., 2025).

In this way, ‘mapping otherwise’ (Oslender, 2021) extends counter-mapping beyond opposition to dominant cartographies. Mapping otherwise emphasises the creation of alternative spatial imaginaries grounded in local knowledge, experience, and socio-environmental relations. It prioritises relational, affective, and ecological dimensions of territory, reframing maps as tools for social, political, and ontological intervention rather than purely technical or legal instruments. This approach aligns with decolonial perspectives that challenge western spatial rationalities and open space for plural ways of knowing and inhabiting territory (Escobar, 2018; Harris & Hazen, 2009; Radcliffe, 2017). This perspective reframes territory not as a resource to be exploited, but as a living socio-ecological entity to be cared for and defended; offering alternative cartographies that foreground relationality, reciprocity, spirituality, and historical continuity.

The epistemic and ontological trajectory from counter-mapping to mapping otherwise situates mapping as a performative, political, and relational practice. Epistemologically, it recognises multiple forms of knowledge beyond expert and technocratic spatial representations. Ontologically, it assumes that territories are not fixed objects waiting to be represented but are continuously enacted through relationships among humans, non-humans, infrastructures, memories, practices, and political struggles. Mapping otherwise highlights how communities transform attachment, identity, and dependence into spatial representations that defend and reshape their territories.

Methodology: Cartographies of resistance in the Yanuncay River

During this research we employed an action-research methodology in the middle basin of the Yanuncay River, integrating walking conversations, co-creative mapping, and audiovisual methods to explore how communities produce and share territorial knowledge. Fieldwork engaged a group of smallholder farmers, cattle herders, and local water users, who maintain daily relationships with the river while

facing pressures from mining and infrastructure development. Participants were gathered through existing networks of trust and prior engagement in territorial initiatives, and community members participated across workshops with approximately 15–20 participants each, including elders, adults, and youth from the community of Guilquín and surrounding areas, gathered under the organisation “Biocorredor Yanuncay”. Many participants had previously been involved in anti-mining mobilisations associated with the defence of the Kimsakocha wetlands and were actively engaged in ongoing resistance to the proposed Yanuncay hydroelectric project.

Although participants shared a broad concern regarding mining and hydropower interventions, they did not constitute a homogeneous group. Rather, they bring different experiences, priorities, and understandings of territory that –though diverse and different in terms of livelihood interests and occupational backgrounds– converge around a shared commitment to defending the ecological integrity of the Yanuncay River and the socio-ecological relationships that sustain life in the basin. The mapping process therefore did not seek to reveal a single pre-existing territorial perspective or a unified river-future vision but to create a space where different experiences, concerns, and understandings of the river could be discussed, negotiated, and temporarily articulated through a collective cartographic representation.

The methodology was structured in three sequential phases (see also de Souza et al., 2025a; Freire, 2000; Colectivo de Geografía Crítica del Ecuador, 2018). Firstly, the pre-fieldwork stage included archival and documentary research on territorial planning, hydropower infrastructure, and previous mapping initiatives, as well as initial visits to build trust and identify key actors and sites of concern. Secondly, participatory workshops were facilitated by the first author in a communal space, where participants collectively mapped territorial elements such as water sources, irrigation channels, grazing areas, biodiversity zones, economic sites, and areas of conflict. Stories, memories, and experiences were translated onto large base maps through drawing, annotation, and symbol-making. Workshops were designed as open and dialogical spaces, encouraging reflection, discussion, and co-production of spatial knowledge, where these elements were drawn, revised, and reorganised through iterative group conversations. The final phase consisted in a visual synthesis (made by the first author) and subsequent collective validation. The materials generated during sessions such as drawings, sketches, and oral narratives, were systematised into preliminary maps that were returned to the communities for feedback, allowing participants to suggest changes, reflect on the map’s uses, and discuss representation and visibility concerns. This iterative process was guided by the lead researcher, and it aimed to ensure that the final maps reflected local concerns, priorities, and territorial claims. Following the workshops, the maps

circulated in community meetings, territorial defence activities, public presentations, and exchanges with allied organisations. In these contexts, the maps functioned as communicative and political devices that supported collective reflection, strengthened territorial narratives, and helped contest official representations of the river basin.

The workshops were facilitated by the first author in collaboration with local movement leaders and community participants. As a Latin American but non-Ecuadorian researcher, the first author occupied a position that simultaneously facilitated trust-building and required continuous reflexivity regarding the production, interpretation, and representation of territorial knowledge. Specifically, her role combined facilitation, documentation, and analytical interpretation, while participants contributed territorial knowledge, historical memory, ecological expertise, and strategic reflections regarding ongoing socio-environmental conflicts. Throughout the process, methodological decisions, map content, and forms of representation were discussed collectively with participants, seeking to ensure that the resulting outputs reflected local priorities and concerns.

The lead researcher's role evolved from external observer to facilitator and co-learning scholar-activist throughout the process (cf. Borrás & Franco, 2025; Duggan & Gutiérrez-Ujaque, 2025; Hale, 2006). Ethical considerations, including the protection of sensitive sites and collective consent over representation and circulation of visual materials, were central to the methodology (cf. Freire, 2000; Colectivo de Geografía Crítica del Ecuador, 2018). Time constraints, participant availability, and internal community dynamics occasionally shaped engagement, but the participatory design aimed to foster inclusivity, dialogue, and collective authorship –while recognising cultural-political frictions (cf. Boelens et al., 2025b; de Souza et al., 2025a; Hale, 2006). Finally, the methodology positioned mapping as both a tool for documenting territorial knowledge and a site of collective action, supporting the expression of shared concerns, the strengthening of inter-community networks, and the articulation of local visions for territorial governance.

Results: Attachment, identity, dependence, and territorial defence along the Yanuncay River

In Ecuador, rural areas and rivers face ongoing pressures from development projects aimed at exploiting natural resources and advancing economic interests (Bebbington et al., 2018; Gudynas, 2009). Large-scale mining and hydropower initiatives have posed serious threats to the livelihoods, ecosystems, and cultural practices of communities living in these areas (Hidalgo-Bastidas et al., 2018; Sempértegui & Báez, 2023).

Local communities along the Yanuncay River, including peasant and indigenous populations, have a long history of mobilising to protect their riverine territory. For

more than two decades, they have resisted large-scale mining promoted under the former president Rafael Correa government's "Mining for the Good Living" agenda, which framed extractive projects as essential for national progress (Valladares & Boelens, 2019; van Teijlingen, 2016). Communities have responded through legal challenges, popular consultations, street protests, and the strategic use of collective identities and knowledge systems to assert water rights and safeguard their connection to Pachamama (Acosta & Cajas-Guijarro, 2020; Sacher & Acosta, 2012). These processes are embedded in broader national policies that have reconfigured resource control and territorial governance, often reinforcing unequal power relations and reshaping local access to land and water (Boelens et al., 2015; Rodríguez de Francisco et al., 2013). These efforts culminated in the 2022 declaration that mining in the area was unconstitutional (Sánchez-Mendieta, 2022). Yet, the threat of mining remains a pressing concern, as the current Daniel Noboa presided government continues to ignore the popular decision and insists on authorising mining activities in the water recharge zones, meaning the struggle to protect water persists.

At the same time, the public-private consortium ElecAustro is advancing a multipurpose hydropower project along the Yanuncay River. Communities are already mobilising against this project, which threatens to dry out sections of the river and alter the upper watershed by creating a new reservoir, potentially disrupting the delicate ecosystem of the communal páramos (Andean highland moors) that local livelihoods and water systems depend on. The project has become a focal point of ongoing territorial resistance, illustrating that the fight to defend water, wetlands, and local ecosystems is far from over.

Affective bonds as catalyst of resistance

Relationships with the Yanuncay River have long been shaped by changing environmental conditions, livelihood practices, historical struggles, and socio-political transformations. Contemporary extractive and infrastructural threats do not create place meanings from scratch but intensify and reconfigure existing attachments, responsibilities, memories, and territorial concerns. Within this context, communities increasingly articulate these relationships through practices of territorial defence, transforming everyday experiences with the river into explicit forms of political engagement.

Relationships of place along the Yanuncay River have long been shaped by changing environmental conditions, livelihood practices, historical struggles, and socio-political transformations. Contemporary extractive and infrastructural threats do not create place meanings from scratch but intensify and reconfigure existing attachments, responsibilities, memories, and territorial concerns. Therefore, sense of

place is not static; it shifts as communities confront external struggles, transforming everyday relationships with the river into a dynamic place of resistance. Attachment, identity, and material dependence are continuously reshaped in response to perceived risks to the river and surrounding páramos, transforming everyday experiences with the river into explicit forms of political engagement. In Guilquín (Map 1), now a key node of collective mobilisation, these dynamics converge into an active defence of the territory. Organised under the name “Biocorredor Yanuncay”, residents along the river transformed the area into a shared space of coordination, memory, and resistance (Fig. 1).

Emotional attachment to the Yanuncay is deeply entangled with the moral imperative to defend it. For many inhabitants, the river and its surroundings are saturated with childhood memories, daily routines, and intergenerational bonds that become more intense under the threat of loss. During participatory mapping workshops, residents expressed how affection for the river is inseparable from a sense of responsibility toward future generations:

Since I was a child, I remember that we used to wash clothes there in the river, and we would take our Sunday baths there. It was a special place for the family, for the community. You grow up with those memories, with that affection for the river. I don't have children, but I always think about my nieces and nephews, about what I will tell them one day if they ask why I didn't defend the river when I had the chance (pers. comm. community member of Guilquín, 20 July 2023).

This narrative situates attachment as an affective bond produced through lived experience and moral responsibility across generations, which creates a driver for resistance. Material and emotional ties, then, transform into ethical motivation to act in the present and consider future accountability and loss. The fear of environmental transformation and losing the river thus intensify this bond, linking grief, anxiety, and defence of everyday life:

I imagined and thought: if I walk out of my house one day and see that there is no river anymore, it will be horrible. People will stop coming, they won't come to eat here, they won't come to the pools, they won't come to fish. Just thinking about it makes me sad, because the river is part of our daily life (pers. comm. leader of Biocorredor Yanuncay, 20 July 2023).



Figure 1. Representation of the location of the resistance point next to the bridge and waterfall in the community of Guilquín (source: own elaboration).

Sensory and spiritual encounters as well as histories of hardship, hacienda-based oppression and subsistence struggles over land, water and territory in the páramo wetlands and lagoons, which sustain Yanuncay’s hydrosocial territory cycle (Fig. 2) reinforce this affective connection, experienced as energetic and historically charged spaces rather than abstract ecosystems: “There are places in the páramos where you arrive and feel something special, where the clouds, the thunder, the water... everything has a different energy. It’s something you feel, not just something you see” (pers. comm. community member of Guilquín, 02 May 2024).



Figure 2. Illustration of the system of sacred lagoons for the Yanuncay River communities, which feed the river (source: own elaboration).

During the workshops, sacred lagoons, wetlands, and spiritually significant páramo areas such as sponge vegetation were incorporated in the map as a response to the logic of mineral extraction promoted in the watershed. By marking places where mineral presence coexists with cultural prohibitions against extraction, their map articulated, at once, vernacular values grounded in reciprocity, respect, and

cosmological relations with water and land, as well as the strategic-politically mobilised symbols that would garner internal and external support for their struggle. Importantly, many of these elements were absent from official planning documents and technical maps associated with mining and hydroelectric development proposals. Sacred lagoons, wetlands, sponge vegetation zones, culturally significant sites, and locally recognised ecological relationships were largely invisible within institutional cartographies, which primarily represented the territory through hydrological, engineering, and resource-oriented categories (e.g. by not naming lakes, sacred areas or rivers, the official maps only showed “empty” spaces suitable for extraction). Their inclusion in the collaborative map therefore challenged dominant representations of the basin and foregrounded alternative territorial values that participants considered essential for understanding and governing the river system. These representations contested extractivist framings that reduce territory to resource potential only. Analytically, these spatial inscriptions reveal how ontological understandings of territory inform collective resistance and shape a place-based moral geography opposed to mining expansion.

Through the participatory mapping workshops, the visualisation exercises enabled residents to spatialise these affective and strategic relationships by inscribing personal histories, family ties, and lived encounters onto cartographic space. Tributaries, waterfalls, caves, sacred places, but also battles won and lost, were mapped as meaningful geographic points of daily life importance and resistance. As another participant expressed, a mutual sense of belonging among people and river, community and territory, is what makes them stay here. “It’s not only necessity, it’s because we feel that this place is part of us, of our history, of who we are” (pers. comm. community member of Guilquín, 20 July 2023). In this way, attachment becomes a vernacularly founded infrastructure that sustains collective defence.

Identity rearticulation as collective defence

Identity along the Yanuncay is likewise shaped through resistance, as communities define who they are through their relationship with water, territory, and struggle. Yanuncay place identity, in this sense, is shaped both through everyday practices and symbolic meanings associated with water, territory, culture, and belonging, and as a strategic-political response to conflictive historical encounters with the racist, classist and modernist Other (see Valladares and Boelens, 2019). During participatory mapping sessions, residents narrated their daily movements such as crossing bridges, tending livestock, sending children to school, and managing tourism initiatives, all of which are embedded in the river’s flow and threatened by extractive projects. Community members defined themselves through their relationship with the river and their struggles for river-based livelihoods, framing water as central to self-definition and territorial belonging: “For us as indigenous people, there is something important to understand: we live here and we are

indigenous. For indigenous people, the river is life, water is life. Taking the river away from us means taking life itself, because our identity is tied to this territory” (pers. comm. community member of Guilquín, 02 May 2024).

This way, place identity and people’s corresponding self-definition are grounded in both symbolic and strategic place makings and meanings, where the river is not external to the self but constitutive of collective existence and resistance. Identity emerges then as relational, ecological, and territorial: “Human beings are part of nature, we are not separate. We are not something different; we are part of the water, the land, the páramo. So, defending nature means defending ourselves.” (pers. comm. leader of Biocorredor Yanuncay, 20 July 2023). These notions dynamically correspond to and make part of the broader cultural politics and struggles for territorial identification and defence in Latin America, coined in notions as “*rexistir*” (resist and exist), and slogans in marches and street protests as “*Resisto, luego existo*” or “*Existo, porque resisto*” (Anthias & Flores, 2023; Escobar, 2018; Ranta et al., 2026).



Figure 3. Location of the communities (icons in blue) along the Yanuncay River (source: own elaboration).

This ontological identification is reinforced through the idea of water as collective being: “We are water. If we are water, why wouldn’t we defend what we are? Defending the river is defending our own existence, our culture, our way of living” (pers. comm. community member of Guilquín, 20 July 2023). The maps further

highlighted how the location of communities and homes along the river shapes a shared identity as inhabitants and guardians of the Yanuncay (Fig. 3). By connecting sacred places, ancestral routes, as well as localised histories of fierce battles and '*tomas de tierras*' vis-à-vis the landlords, the co-created map (Fig. 4) became a performative identity device, affirming belonging, historical continuity, and stewardship: "People have lived here all their lives. Campesinos, communities, indigenous peoples. This is not just a physical space; it is a place full of history, culture, and collective memory" (pers. comm. community member of Guilquín, 02 May 2024).

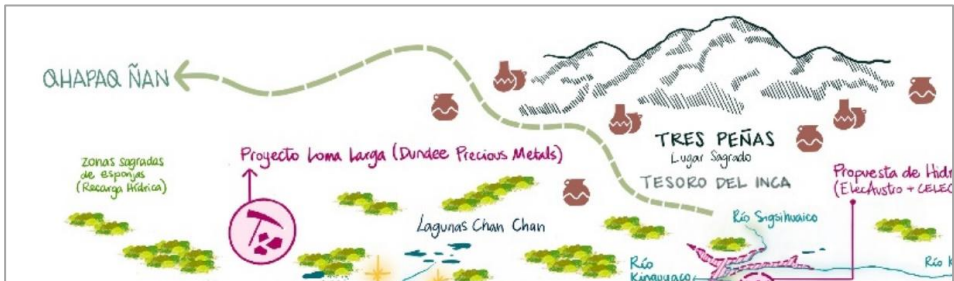


Figure 4. Illustration of sacred places for the inhabitants of the Biocorredor Yanuncay, including Cerro Tres Peñas, ancient traces of the Inca Trail (Qhapaq Ñan), an Inca treasure beneath Cerro Tres Peñas, and sponge vegetation (source: own elaboration).

The map became performative not because it merely represented identity, but because it actively participated in producing and reinforcing it. Through workshops, community meetings, public events, and territorial mobilisations, the map was repeatedly used to narrate collective histories, communicate territorial concerns, and articulate a shared political position. Therefore, identity was continuously enacted through the social practices surrounding the map itself.

The mapping of communities, ancestral pathways, and culturally significant landmarks highlighted long-standing human presence and historical continuity along the Yanuncay River. These elements responded to implicit extractivist narratives that frame rural environments as underutilised or open for intervention by external actors. By foregrounding territorial occupation, cultural heritage, battlegrounds and intergenerational ties, the map asserted legitimacy of local stewardship and strengthened claims to decision-making authority. These representations reveal how, always under threat, identity is asserted as a lived, spatial evidence of historical belonging and a politically grounded process, reinforcing resistance as a form of self-preservation.

seasonal flow dynamics constituted a direct response to the technical arguments used to justify the hydroelectric project, particularly those related to flood control. Community members documented the extensive network of streams feeding the Yanuncay and identified their temporal variations, demonstrating that flooding processes emerge from cumulative hydrological interactions across the basin rather than from the section where the dam is planned. This way, by spatialising these hydrological relations, the mapping challenged expert-driven simplifications that framed infrastructure as a necessary technical solution. The inclusion of these elements transformed local ecological knowledge into a territorial argument that questioned the legitimacy of infrastructural intervention and reasserted community authority in defining river dynamics.

Economic practices linked to tourism and local enterprise such as restaurants, fishing spots, lodgings, and hot springs, were also documented as part of broader survival strategies (Fig. 6), showing how reliance on the river extends beyond subsistence:

[...] almost 20 years ago, ... there were no bicycles here yet. But not now, now we have developed tourism, our livestock. There are also two hot springs up here, which are natural spas where the water comes from below. They are beautiful places where people come to enjoy themselves, they are already tourist places [...] now we have more than 48 restaurants here, before there was nothing... in 2010 there was nothing, but now there is! [...] People come because they eat by the river, go to the pools, go fishing. If they damage the river, the local economy collapses (pers. comm. community member of Guilquín, 02 May 2024).

The representation of restaurants, fishing areas, hot springs, agricultural fields, and livestock activities responded to development narratives that portray extractive projects as engines of economic progress. By documenting existing livelihood systems dependent on river integrity, their mapping endeavor demonstrated that local economies are already structured around ecological continuity and small-scale tourism. These mapped elements made visible the material risks posed by river alteration and reframed economic viability from a community perspective rooted in environmental sustainability. This particular act of visual representation shows how economic dependence on ecological processes becomes a central argument in territorial defence.

Participants also expressed concern that ecological degradation would undermine food security and agricultural productivity, revealing strong environmental ethics: “If they damage the water, production becomes poor. We have already harmed nature by using too many chemicals [...] imagine if they also damage the water sources; agriculture would be severely affected” (pers. comm. community member of Guilquín, 20 July 2023).



Figure 6. Depiction of economic activities along the Yanuncay River carried out by its inhabitants, including restaurants, fishing spots, lodgings, and hot springs (source: own elaboration).

The integration of water sources, ecological functions, economic activities, and social practices within one collective cartographic frame responded to extractivist approaches that isolate resources from their broader relational contexts. The map represented the river as part of a hydrosocial system in which socio-ecological processes are mutually constitutive. This representation highlighted connections that are often overlooked in sectoral planning approaches, drawing attention to the multiple ways in which changes in water flows may affect social and ecological relations across the basin. By bringing streams, springs, soils, cattle, crops, restaurants, and households into the same cartographic frame, participants foregrounded forms of interdependence that shaped their understanding of the territory. These mapped relationships provide further insight into how the river was collectively imagined not only as a water source but also as a key element linking livelihoods, ecological processes, and territorial futures.

Resistance as reconfiguring force of sense of place

Resistance to extractive interventions in the Yanuncay basin has developed through multiple and overlapping processes. Community mobilisations against large-scale mining projects in the Kimsakocha region started during the early 2000s and continued through the successful 2021 constitutional ruling that prohibited mining activities in the area. More recently, opposition to the proposed Soldados-Yanuncay hydroelectric project has emerged since the announcement and feasibility stages of the project, generating new forms of territorial organisation, public mobilisation, and community-based knowledge production.

Due to these territorial processes, resistance itself in the middle basin of the Yanuncay River emerges as a spatial, political, and relational process that reorganises these affective, identity-based, and material dimensions. As the hydroelectric project (Fig. 7) initiated by ElecAustro, CELEC, and other stakeholders began to advance in 2021, the Biocorredor Yanuncay mobilised to defend their territory. The community's resistance was developed as a struggle against the physical transformation of the river and for the recognition of their rights, voices, and ways of life.

Regarding the advance of the mentioned hydroelectric project, community members described the consultation process as deceptive, exclusionary and dismissive of situated knowledge and right:

The process carried out by the government and private companies was a disaster, because they didn't take us into account or didn't tell us the good things and the bad things. It was a disaster because they never socialised it, they never told us that they were going to carry out this project [...] There were many demonstrations where we opposed the hydroelectric project. Prior to that, we had already asked Doctor Pérez, the prefect of the province at the time, to listen to us, to tell us how they were going to build something like this?!, and right in the middle of a pandemic! [...] The prefecture's technicians carried out a feasibility study of the project where we saw that there were many shortcomings. One of the shortcomings that most caught our attention is that at the area where they began to build the first engine house, the study clearly states: 'the studies cannot be carried out due to the complexity of the system.' This is what they themselves say in their technical studies, not what we said (pers. comm. community member of Guilquín, 20 July 2023).

In response, residents engaged in grassroots knowledge production since 2021 to the present day, transforming themselves into local experts and using scientific and community-based evidence to strengthen their defence:

With the help of students from the universities of Cuenca and volunteers who wanted to help us in good will, we carried out our own technical

studies and began to see all the shortcomings: the possible disappearance of the fauna, the destruction of nature, the change in the water, the changes in the chemical composition of the water... We began to understand what it was like, because before we didn't have an understanding of any of this. So we educated ourselves, we became experts as well and decided that we had to defend our river, and we did. All the comrades who are here went to Cuenca, in front of the journalists and the press to tell our story [...] There were fights here with the police, with the army. We put up chains so that the machines and the petrol would not pass through to continue with the works to destroy our nature (pers. comm. leader of Biocorredor Yanuncay, 20 July 2023).

Resistance took physical, symbolic, and territorial forms, but it also challenged official narratives. Hydroelectric proponents justified the project as a measure to control flooding, yet community members contested these claims by pointing to the disproportionate environmental damage relative to the proposed benefits:

They embellished the project on the issue of flooding. According to the study, the hydroelectric plant has to destroy up to 182 hectares to store 21 million cubic meters to try to eliminate the almost 13 hectares of flooding that occur periodically [...] In our opinion, it is a lot of destruction to simply eliminate floods that for us are normal, inundations are part of the river. Every year the river carries away a bridge, and then we do a 'minga' and rebuild it. We don't need to destroy the river to control flooding. And it is going to affect everything; it is not worth destroying so much for a pittance of 21 megawatts [...] (pers. comm. leader of Biocorredor Yanuncay, 20 July 2023).

They further explained the hydrological dynamics that undermine the project's justification:

Those floods that are so much talked about, the ones that destroy areas down there in the city, are the product of all the little streams that reach the Yanuncay. All those little waters that come straight down from the páramos all over the valley and join the river. When it is the rainy season, these waters are transformed into large flows that fill the river and flood parts of the city where the Yanuncay has been channeled. But the hydroelectric plant is going to be built up there, where only two small rivers reach. So how is the hydroelectric plant going to control the flow of the streams that actually cause the flooding? It doesn't make any sense, you see? (pers. comm. community member of Guilquín, 02 May 2024).



Figure 7. Depiction of economic activities along the Yanuncay River carried out by its inhabitants, including restaurants, fishing spots, lodgings, and hot springs (source: own elaboration).

In this contested context, mapping became an explicitly political practice as community members documented both environmental features and sites of collective mobilisation. Participants charted tributaries omitted from state maps (e.g. Riera Riera, Zhiguin, Pircón, Lliguina, and twenty-eight others as seen in Fig. 8), marked ancestral land uses (such as “Tres Peñas”, Fig. 4), and visualised ecological damage (e.g. presence of mining concessions and the layout of the future hydropower plant, Fig. 7 and Fig. 8). Locations associated with protests, assemblies, and acts of territorial defence were also incorporated (figure 1), recording the spatial history of

opposition to the hydroelectric project. These sites captured moments of confrontation, coordination, and community decision-making, while highlighting forms of territorial engagement that are rarely represented in official cartographies. Their presence on the map suggests how participants understood the river basin as a space shaped by ongoing struggles over governance, development, and territorial futures.

After the workshops, in diverse occasions of inter-community mobilisations (see Rey-Hernández et al., 2026), the counter-maps functioned as tools to contest official spatial narratives, reclaim territorial authority, and articulate alternative futures. The final map (Fig. 8) carried emotional and political weight, demonstrating the tangible impacts of the hydroelectric project on the environment, livelihoods, and community identity. For the members of Biocorredor Yanuncay, resistance was understood not solely as oppositional but as a generative process that sustains life, memory, and collective agency:

If we leave this behind, what will we tell the children? One day they will ask why we didn't defend the water. That question forces us to keep fighting [...] This is not only an environmental struggle. It is a territorial, political, and social struggle. It is a struggle for life, for water, for the right to continue existing in this place (pers. comm. community member of Guilquín, 02 May 2024).

Table 1 synthesises the relationship between the main threat narratives identified by participants, the cartographic elements incorporated into the collaborative map, and the place meanings activated through these representations. This synthesis illustrates how specific spatial inclusions operated as counter-arguments to dominant development discourses and how cartographic practices enabled the articulation of a coherent territorial narrative that linked lived experience to collective political action.

Threat narrative addressed	Elements mapped	Place meanings activated	Features absent from official maps	Counter-extractivist function
Flood control as justification of hydropower	Tributaries, seasonal flows, hydrological connections	Ecological knowledge, material dependence	Small tributaries and seasonal flows	Challenges technical narratives through situated hydrological evidence
Mining as economic development	Sacred lagoons, wetlands, spiritually significant sites	Spiritual attachment, ethical responsibility	Sacred lagoons, wetlands sites and sponge vegetation	Reframes territory as culturally and ontologically protected
Development through large-scale infrastructure	Tourism sites, agriculture, fishing, local businesses	Livelihood dependence, everyday practices	Small-scale tourism and local economic activities	Demonstrates existing economies based on ecological continuity
Depoliticised territorial planning	Protest sites, resistance points, community spaces	Collective memory, political identity	Protest locations and assembly points	Inscribes conflict and agency onto the space
Territory as underutilised land	Communities, ancestral paths, historical landmarks	Historical belonging, place identity, collective territorial rights	Cultural pathways, ancestral routes and historical landmarks	Reinforces legitimacy of local stewardship and collective ownership
Resource-based territorial management	Integrated water–ecology–livelihood relations	Relational sense of place, interdependence	Interconnections between ecological processes, livelihoods, and water governance	Visualises hydrosocial complexity and governance alternatives

Table 1. Cartographic elements as territorial responses to extractive threats in the Yanuncay River (source: own elaboration).

The empirical findings suggest a process through which external threats trigger a reconfiguration of place meanings that is materialised in and through participatory mapping practices. As mining and hydroelectric projects intensified perceived risks to livelihoods, ecological relations, and cultural continuity, affective bonds, territorial identities, historical contestation arenas, and material dependencies became more explicitly articulated. The collaborative mapping process translated these rearticulated meanings into spatial representations that functioned as forms of situated knowledge and political argumentation. Through this mediation, mapping enabled communities to transform everyday understandings of territory into collective strategies of territorial defence, linking lived experience to organised resistance.

Place of resistance along the Yanuncay River emerges as a collective reactivation of place-based meanings, socio-material relationships, and power dynamics in response to external threats. Across processes of attachment, identity reformulation, material dependence, and political mobilisation, communities rearticulate their relationship with the river through practices that connect everyday life with territorial defence. The cartographic process played a central role in this transformation by spatially representing tributaries, sacred sites, livelihood infrastructures, protest locations, and ancestral territories as elements of a shared political narrative. Mapping, thus, became a mechanism through which lived experience, ecological knowledge, cultural values, and political claims converged into a coherent territorial narrative capable of contesting external interventions. This process evidences the active production of place-based resistance, where mapping operates as an affective and strategic-political medium.

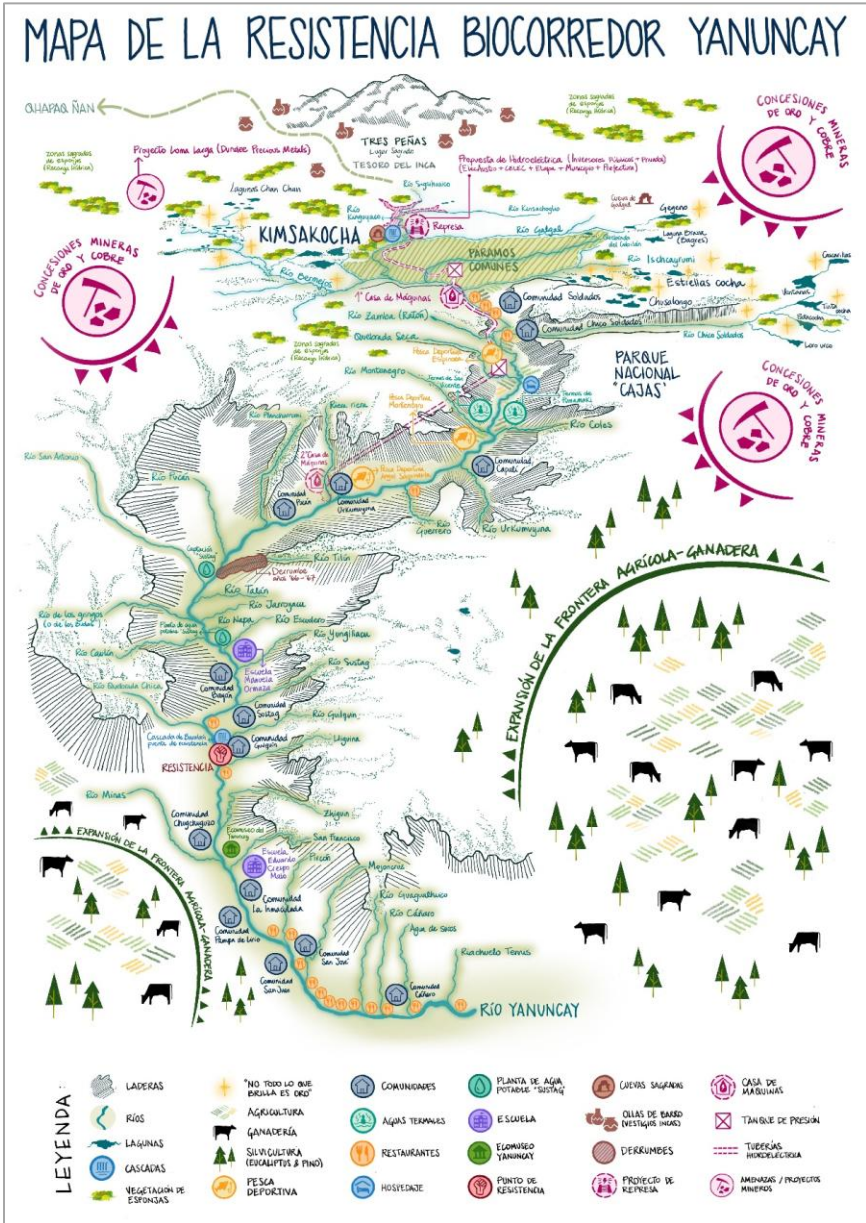


Figure 8. Final version of the collaborative counter-map, integrating all community contributions and corrections. Collectively, the map was titled: ‘Map of the Resistance of the Biocorredor Yanuncay’ (own elaboration based on Biocorredor Yanuncay organization knowledge).

Conclusions: place of resistance as territorial practice

This paper has introduced the concept of *place of resistance* to understand how, under conditions of territorial threat, sense of place becomes strategically rearticulated as a form of collective defence. The mapping process along the Yanuncay River demonstrates how communities translate lived, emotional, symbolic and material relationships into territorial practice. Through collective counter-mapping, residents of the middle basin made visible the ecological, cultural, and economic dimensions of their hydrosocial territory. In doing so, sense of place is rearticulated as a practice of resistance, where attachment, identity, and dependence are dynamically mobilised to respond to external extractive and hydroelectric threats. The resulting map represented the river not as an isolated resource but as part of a hydrosocial system linking streams, springs, soils, livelihoods, and community practices, thereby foregrounding the relational dependencies that underpin territorial defence. The participatory counter-mapping methodology was crucial in making this transformation analytically visible, as it allowed the layered dimensions of attachment, identity, and dependence to surface, converge, and become collectively mobilised.

Participatory mapping allowed community members to spatialise memories, daily practices, and ecological knowledge. Decisions about what to include, such as sacred sites, hidden springs, grazing routes, or tributaries; encoded histories, values, and responsibilities that extend across generations. Each mapped element is simultaneously a lived, affective, and functional dimension of place, but under threat it becomes a tool for territorial defence. By collaboratively mapping, residents negotiated internal visions and external pressures. The final map operates as living document that translates vernacularly rooted and material dependence into spatial claims legible to broader political audiences.

Counter-mapping in Guilquín and surrounding communities thereby supports challenging extractive and hydroelectric narratives. The hydroelectric project promoted flood-control as a justification for environmental transformation, yet the visualisation of all tributaries revealed that most streams generating downstream floods are far from the hydroelectric site. Mapping these waters created a compelling, visual argument that counters the hydroelectric company's claims, showing that the project would not address the majority of natural flooding patterns while simultaneously threatening ecosystems, livelihoods, and cultural spaces. Each stream and ravine only makes sense in the context of this conflict: by mapping them, communities constructed evidence that undermines the flood-control narrative and reinforces their territorial argument. What emerges from this process can be understood as the consolidation of a place of resistance: a territory whose meanings are actively reorganised in response to external intervention.

The transformation of sense of place under conditions of external threat becomes visible through the specific elements that community members selected in the collaborative mapping process. Tributaries, sacred lagoons, livelihood, infrastructures, ancestral routes and sites of protest each articulated distinct dimensions of territorial defence, linking ecological processes, cultural values, material dependencies, and political struggles. Their inclusion situated collective mobilisation within the territorial narrative itself, documenting how struggles over water governance and development became embedded in particular places. These cartographic representations illustrate how everyday relationships with the river were redefined as territorial arguments and reorganised into a shared framework of collective defence.

Furthermore, the case of the Yanuncay illustrates how place of resistance emerges as a relational and dynamic process. Emotional attachment motivates defence, identity becomes inseparable from territorial stewardship, and material dependence on water, crops, and livelihoods grounds resistance in everyday survival. Sacred sites, family histories, and community practices transform into instruments of defence, while mapping consolidates these dimensions into a coherent narrative that is both performative and political. Water, territories, and human practices are inseparably intertwined in these struggles.

In conclusion, the concept of place of resistance advances understandings of sense of place by foregrounding its explicitly political and strategic character under conditions of territorial threat. Mapping otherwise strengthens grassroots territorial defence since it enables communities to articulate, visualise, and collectively perform this place of resistance.

Rather than treating attachment, identity, and dependence as stable dimensions, this study shows how they become reconfigured as instruments of territorial struggle. Place of resistance thus enriches hydrosocial territory scholarship by revealing how lived spaces transform into explicitly political places through collective spatial practice.

Acknowledgments

We acknowledge the communities of Biocorredor Yanuncay and Guilquín for their openness, hospitality, and collaboration throughout this research. Their knowledge, experiences, and engagement were fundamental to this study. We are also grateful to Yasunidos Guapondelig and the Cabildo por el Agua de Cuenca for their support in facilitating local connections and enabling the fieldwork. Finally, we extend our thanks to David Fajardo for his dedicated support during the research activities and to Paul Cedillo for helping bring the counter-maps into public spaces of protest. This research was conducted as part of the Riverhood project, which has received funding

from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement No. 101002921).

References

- Acosta, A., & Cajas-Guijarro, J. (2020). *Democracia o barbarie minera: Cuenca por el agua, Cuenca por la vida*. Centro Latino Americano de Ecología Social.
- Agnew, J. (1987). *Place and Politics: The Geographical Mediation of State and Society*. Boston: Allen & Unwin.
- Anthias, P. & Flores, P.C. (Eds.). (2023). *Neoextractivism and Territorial Disputes in Latin America: Social-ecological Conflict and Resistance on the Front Lines*. Routledge. <https://doi.org/10.4324/9781003267461>
- Arbeláez-Trujillo, A.M., Cuervo-Escobar, L., Vos, J., & Boelens, R. (2025). From denouncing dry streams to a river of resistance: the role of law in contesting hydropower in the La Miel River, Colombia. *The Journal of Peasant Studies*, 53(3), 674–701. <https://doi.org/10.1080/03066150.2025.2536492>
- Aubriot, O., Fernandez, S., Trottier, J., & Fustec, K. (2018). Water Technology, Knowledge and Power. Addressing Them Simultaneously. *WIREs Water*, 5(1), e1261. <https://doi.org/10.1002/wat2.1261>
- Bakker, K. (2012). Water: Political, biopolitical, material. *Social Studies of Science*, 42(4), 616–623. <https://www.jstor.org/stable/41721344>
- Bakker, K., Simms, R., Joe, N., & Harris, L. (2018). Indigenous peoples and water governance in Canada: Regulatory injustice and prospects for reform. In R. Boelens, T. Perreault, & J. Vos (Eds.), *Water Justice* (pp. 193–209). Cambridge University Press. <https://doi.org/10.1017/9781316831847.013>
- Bebbington, A. (2010). Extractive industries and stunted states: Conflict, responsibility and institutional change in the Andes. In K. R. Raman & R. D. Lipschutz (Eds.), *Corporate social responsibility: Comparative critiques* (pp. 97–115). Palgrave Macmillan.
- Bebbington, A., Humphreys Bebbington, D., Sauls, L. A., Rogan, J., Agrawal, S., Gamboa, C., Imhof, A., Johnson, K., Rosa, H., Royo, A., Toumbourou, T., & Verdum, R. (2018). Resource extraction and infrastructure threaten forest cover and community rights. *Proceedings of the National Academy of Sciences*, 115(52), 13164–13173. <https://doi.org/10.1073/pnas.1812505115>

- Boelens, R., Getches, D., & Guevara-Gil, A. (2010). Introduction: Water struggles and the politics of identity. In *Out of the mainstream: Water rights, politics and identity* (pp. 3–25). London: Earthscan.
- Boelens, R., Hoogesteger, J., & Baud, M. (2015). *Water reform governmentality in Ecuador: Neoliberalism, centralization and the restraining of polycentric authority and community rule-making*. *Geoforum*, 64, 281–291. <https://doi.org/10.1016/j.geoforum.2013.07.005>
- Boelens, R., Hoogesteger, J., Swyngedouw, E., Vos, J., & Wester, P. (2016). Hydrosocial territories: A political ecology perspective. *Water International*, 41(1), 1–14. <https://doi.org/10.1080/02508060.2016.1134898>
- Boelens, R., Escobar, A., Bakker, K., Hommes, L., Swyngedouw, E., Hogenboom, B., Huijbens, E. H., Jackson, S., Vos, J., Harris, L. M., Joy, K. J., de Castro, F., Duarte-Abadía, B., Tubino de Souza, D., Lotz-Sisitka, H., Hernández-Mora, N., Martínez-Alier, J., Roca-Servat, D., Perreault, T., Sanchis-Ibor, C., Suhardiman, D., Ulloa, A., Wals, A., Hoogesteger, J., Hidalgo-Bastidas, J. P., Roa-Avendaño, T., Veldwisch, G. J., Woodhouse, P., & Wantzen, K. M. (2023). Riverhood: Political ecologies of socionature commoning and translocal struggles for water justice. *The Journal of Peasant Studies*, 50(3), 1125–1156. <https://doi.org/10.1080/03066150.2022.2120810>
- Boelens, R., Hommes, L., Hoogesteger, J., Swyngedouw, E., Vos, J., & Wester, P. (2025a). Hydrosocial territories: imaginaries, materialities, and struggles over knowledge, order and meaning. *Water International*, 50(5), 426–462. <https://doi.org/10.1080/02508060.2025.2528261>
- Boelens, R., Duarte-Abadía, B., Arbelaez-Trujillo, A. M., Forigua-Sandoval, J., Giraldo-Martínez, L., Reyes-Bejarano, S., Tubino-de-Souza, D., Silva-Orozco, J. S., Klarenbeek, M., & Zavala-Taday, S. (2025b). Travelling rivers, mapping movements. Counter-mapping and translocal river defense networks. *The Journal of Peasant Studies*. <https://doi.org/10.1080/03066150.2025.2562592>
- Bonaiuto, M., Alves, S., De Dominicis, S., & Petrucci, I. (2016). Place attachment and natural environmental risk: Research review and agenda. *Journal of Environmental Psychology*, 48, 33–53. <https://doi.org/10.1016/j.jenvp.2016.07.007>
- Borras Jr., S. M., & Franco, J. C. (2025). Scholar-activism in agrarian and development studies and practice. *World Development*, 195, 107119. <https://doi.org/10.1016/j.worlddev.2025.107119>
- Bryan, J., & Wood, D. (2015). *Weaponizing maps: Indigenous peoples and counterinsurgency in the Americas*. Guilford Press.

- Chayakul, J., Veldwisch, G. J., Bruins, B., & Boelens, R. (2026). Contested waters: Hydrosocial territories and power dynamics in the landscape of peri-urban Chiang Mai, Thailand. *Geoforum*, 169, 104457. <https://doi.org/10.1016/j.geoforum.2025.104457>
- Cresswell, T. (2004). *Place: A Short Introduction*. Oxford: Blackwell.
- de Souza, D. T., Hommes, L., Wals, A., Hoogesteger, J., Boelens, R., Duarte-Abadía, B., Hidalgo-Bastidas, J. P., Huijbens, E., Harris, L. M., Suhardiman, D., Melsen, L., Buijse, T., de Castro, F., Cremers, L., Hogenboom, B., Garcia Vargas, M., Roca-Servat, D., Veldwisch, G. J., & Joy, K. J. (2025a). River co-learning arenas: Principles and practices for transdisciplinary knowledge co-creation and multi-scalar (inter)action. *Local Environment*, 30(1), 58–80. <https://doi.org/10.1080/13549839.2024.2428215>
- de Souza, D. T., van Teijlingen, K., Boelens, R., & Ruales, G. (2025b). Seeing rivers otherwise: Critical cartography as a form of critical pedagogy. *Geoforum*, 158, 104167. <https://doi.org/10.1016/j.geoforum.2024.104167>
- Devine-Wright, P., & Howes, Y. (2010). Disruption to place attachment and the protection of restorative environments: A wind energy case study. *Journal of Environmental Psychology*, 30(3), 271–280. <https://doi.org/10.1016/j.jenvp.2010.01.008>
- Duggan, M., & Gutiérrez-Ujaque, D. (2025). Counter-mapping as praxis: Participation, pedagogy, and creativity. *Progress in Human Geography*, 49(6), 562–580. <https://doi.org/10.1177/03091325251348610>
- Dukpa, R.D., Joshi, D., & Boelens, R. (2018). Hydropower development and the meaning of place: Multi-ethnic hydropower struggles in Sikkim, India. *Geoforum*, 89, 60–72. <https://doi.org/10.1016/j.geoforum.2018.01.006>
- Escobar, A. (2001). Culture sits in places: reflections on globalism and subaltern strategies of localization. *Political Geography*, 20(2), 139–174. [https://doi.org/10.1016/S0962-6298\(00\)00064-0](https://doi.org/10.1016/S0962-6298(00)00064-0)
- Escobar, A. (2018). *Designs for the pluriverse: Radical interdependence, autonomy, and the making of worlds*. Duke University Press.
- Feng, X., Zhang, Z., & Chen, X. (2022). Paper Analysis of the Relevance of Place Attachment to Environment-Related Behavior: A Systematic Literature Review. *Sustainability*, 14(23), 16073. <https://doi.org/10.3390/su142316073>
- Forigua-Sandoval, J., Melsen, L. A., Duarte-Abadía, B., & Boelens, R. (2025). The synchronization of hydrotemporalities in fishing territories: Debating time and

- history in the Llanito swamp, Magdalena River (Colombia). *Geoforum*, 165, 104381. <https://doi.org/10.1016/j.geoforum.2025.104381>
- Freire, P. (2000). *Pedagogy of the oppressed* (30th anniversary ed.). Continuum.
- Colectivo de Geografía Crítica del Ecuador. (2018). *Geografiando para la Resistencia: Territorios y Comunes, Utopías y Desafíos (Cartilla 2)*. Colectivo de Geografía Crítica del Ecuador.
- Gillespie, J., Cosgrave, C., Malatzky, C., & Carden, C. (2022). Sense of place, place attachment, and belonging-in-place in empirical research: A scoping review for rural health workforce research. *Health & Place*, 74, 102756. <https://doi.org/10.1016/j.healthplace.2022.102756>
- Giraldo-Martínez, L., Boelens, R., & Duarte-Abadía, B. (2025). River mapping and the politics of eco-scalar fixes. Reconnecting upstream–downstream networks through critical cartographies of Colombia’s Bogotá River. *Geoforum*, 165, 104379. <https://doi.org/10.1016/j.geoforum.2025.104379>
- Gudynas, E. (2009). La ecología política del giro biocéntrico en la nueva Constitución de Ecuador. *Revista de Estudios Sociales*, 32, 34–47. <https://doi.org/10.7440/res32.2009.02>
- Hale, C. R. (2006). Activist research v. cultural critique: Indigenous land rights and the contradictions of politically engaged anthropology. *Cultural Anthropology*, 21(1), 96–120. <https://doi.org/10.1525/can.2006.21.1.96>
- Harley, J. B. (1989). Deconstructing the map. *Cartographica*, 26(2), 1–20. <https://doi.org/10.3138/E635-7827-1757-9T53>
- Harris, L. M., & Hazen, H. D. (2005). Power of maps: (Counter) mapping for conservation. *ACME: An International Journal for Critical Geographies*, 4(1), 99–130. <https://doi.org/10.14288/acme.v4i1.730>
- Harris, L. M., & Hazen, H. D. (2009). Rethinking maps from a more-than-human perspective: Nature–society, mapping and conservation territories. In M. Dodge, R. Kitchin, & C. Perkins (Eds.), *Rethinking Maps : New frontiers in cartographic theory* (pp. 50–67). Routledge.
- Harvey, D. (1996). *Justice, nature, and the geography of difference*. Blackwell Publishers.
- Hernández, B., Hidalgo, M. C., & Ruiz, C. (2013). Theoretical and methodological aspects of research on place attachment. In L. C. Manzo & P. Devine-Wright (Eds.), *Place attachment: Advances in theory, methods and applications* (pp. 125–138). Routledge. <https://doi.org/10.4324/9780203757765>
- Hidalgo-Bastidas, J.P., Boelens, R., & Isch, E. (2018). Hydroterritorial configuration and confrontation: The Daule-Peripa multipurpose hydraulic scheme in

- coastal Ecuador. *Latin American Research Review*, 53(3), 517–534. <https://doi.org/10.25222/larr.362>
- Hommes, L., Hoogesteger, J., & Boelens, R. (2022). (Re)making hydrosocial territories: Materializing and contesting imaginaries and subjectivities through hydraulic infrastructure. *Political Geography*, 97, 102698. <https://doi.org/10.1016/j.polgeo.2022.102698>
- Hoogesteger, J., & Verzijl, A. (2015). Grassroots scalar politics: Insights from peasant water struggles in the Ecuadorian and Peruvian Andes. *Geoforum*, 62, 13–23. <https://doi.org/10.1016/j.geoforum.2015.03.013>
- Hoogesteger, J., Boelens, R., & Baud, M. (2016). Territorial pluralism: Water users' multi-scalar struggles against state ordering in Ecuador's highlands. *Water International*, 41(1), 91–106. <https://doi.org/10.1080/02508060.2016.1130910>
- Hoogesteger, J., Suhardiman, D., Boelens, R., de Castro, F., Duarte-Abadía, B., Hidalgo-Bastidas, J. P., Liebrand, J., Hernández-Mora, N., Manorom, K., Veldwisch, G. J., & Vos, J. (2023). River commoning and the state: A cross-country analysis of river defense collectives. *Politics and Governance*, 11(2), 280–292. <https://doi.org/10.17645/pag.v11i2.6316>
- Houart, C., Hoogesteger, J., & Boelens, R. (2025). Power and politics across species boundaries: towards Multispecies Justice in Riverine Hydrosocial Territories. *Environmental Politics*, 34(1), 49–69. <https://doi.org/10.1080/09644016.2024.2345561>
- Jankowski, F., Bousquet, F., Diao Camara, A., Diol, M., Defives, B., Hertzog Adamczewski, A., Sane, A., & Mbalo, S. (2025). Making sense of territorial changes: Affective and moral dimensions of place attachments and meanings. *Ecology and Society*, 30(1), 36. <https://doi.org/10.5751/ES-15787-300136>
- Jorgensen, B.S., & Stedman, R.C. (2006). A comparative analysis of predictors of sense of place dimensions: Attachment to, dependence on, and identification with lakeshore properties. *Journal of Environmental Management*, 79(3), 316–327. <https://doi.org/10.1016/j.jenvman.2005.08.003>
- Keith, M., & Pile, S. (Eds.). (1997). *Geographies of resistance*. Routledge.
- Linton, J., & Budds, J. (2014). The hydrosocial cycle: Defining and mobilizing a relational-dialectical approach to water. *Geoforum*, 57, 170–180. <https://doi.org/10.1016/j.geoforum.2013.10.008>
- Manosalvas, R., Hoogesteger, J., & Boelens, R. (2023). Imaginaries of place in territorialization processes: Transforming the Oyacachi páramos through nature conservation and water transfers in the Ecuadorian highlands.

- Environment and Planning C: Politics and Space*, 41(5), 1010–1028.
<https://doi.org/10.1177/23996544231168050>
- Manzo, L.C. (2005). For better or worse: Exploring multiple dimensions of place meaning. *Journal of Environmental Psychology*, 25(1), 67–86.
<https://doi.org/10.1016/j.jenvp.2005.01.002>
- Martin, J. (2007). Identity. In D. Atkinson, P. Jackson, D. Sibley, & N. Washbourne (Eds.), *Cultural Geography: A Critical Dictionary of Key Concepts* (pp. 97–102). I.B. Tauris.
- Massey, D. (1994). A global sense of place. In *Space, place and gender* (pp. 146–156). University of Minnesota Press.
- Massey, D. (1995). Places and their past. *History Workshop Journal*, 39, 182–192.
<https://doi.org/10.1093/hwj/39.1.182>
- Massey, D. (2004). Lugar, identidad y geografías de la responsabilidad en un mundo en proceso de globalización. *Treballs de la Societat Catalana de Geografia*, 57, 7–29.
- Mills-Novoa, M., Boelens, R., Hoogesteger, J., & Vos, J. (2023). Resisting, leveraging, and reworking climate change adaptation projects from below: placing adaptation in Ecuador’s agrarian struggle. *The Journal of Peasant Studies*, 50(6), 2283–2311. <https://doi.org/10.1080/03066150.2022.2144252>
- Moreano Venegas, M. E., Lang, M., & Ruales Jurado, G. (2022). *Perspectivas de justicia climática desde los feminismos latinoamericanos y otros sures*. Universidad Andina Simón Bolívar.
- Oslender, U. (2021). Decolonizing cartography and ontological conflict: Counter-mapping in Colombia and “cartographies otherwise.” *Political Geography*, 89, 102444. <https://doi.org/10.1016/j.polgeo.2021.102444>
- Peluso, N. L. (1995). Whose woods are these? Counter-mapping forest territories in Kalimantan, Indonesia. *Antipode*, 27(4), 383–406.
<https://doi.org/10.1111/j.1467-8330.1995.tb00286.x>
- Peng, J., Yan, S., Strijker, D., Wu, Q., Chen, W., & Ma, Z. (2020). The influence of place identity on perceptions of landscape change: Exploring evidence from rural land consolidation projects in Eastern China. *Land Use Policy*, 99, 104891.
<https://doi.org/10.1016/j.landusepol.2020.104891>
- Perreault, T. (2014). What kind of governance for what kind of equity? Towards a theorization of justice in water governance. *Water International*, 39(2), 233–245.
<https://doi.org/10.1080/02508060.2014.886843>
- Pickles, J. (2004). *A history of spaces: Cartographic reason, mapping and the geo-coded world*. Routledge.

- Proshansky, H. M. (1978). The city and self-identity. *Environment and Behavior*, 10(2), 147–169. <https://doi.org/10.1177/0013916578102002>
- Radcliffe, S. A. (2017). Decolonizing geographical knowledges. *Transactions of the Institute of British Geographers*, 45(1), 100–112. <https://www.jstor.org/stable/45147094>
- Ranta, E., López Flores, P. C., & Caballero Paz, S. J. (2026). Eco-territorial feminisms and re-existences against neo-extractivism in Bolivia. *Third World Quarterly*. <https://doi.org/10.1080/01436597.2026.2625302>
- Relf, E. (1976). *Place and Placelessness*. London: Pion.
- Rey-Hernández, C., Hoogesteger, J., & Boelens, R. (2026). Materialising grassroots hydrosocial territories: Visualising and politically reframing what matters in the upper Yanuncay River, Ecuador. *Political Geography*, 109, 103613. <https://doi.org/10.1016/j.polgeo.2026.103613>
- Reyes-Escate, L., Hoogesteger, J., & Boelens, R. (2022). Water assemblages in hydrosocial territories: Connecting place, space, and time through the cultural-material signification of water in coastal Peru. *Geoforum*, 135, 61–70. <https://doi.org/10.1016/j.geoforum.2022.07.005>
- Rodríguez de Francisco, J.C., Budds, J., & Boelens, R. (2013). Payment for environmental services and unequal resource control in Pimampiro, Ecuador. *Society & Natural Resources*, 26(10), 1217–1233. <https://doi.org/10.1080/08941920.2013.825037>
- Ruoso, L.-E., & Plant, R. (2018). A politics of place framework for unravelling peri-urban conflict: An example of peri-urban Sydney, Australia. *Journal of Urban Management*, 7(2), 57–69. <https://doi.org/10.1016/j.jum.2018.05.001>
- Sacher, W., & Acosta, A. (2012). *La minería a gran escala en Ecuador: Análisis y datos estadísticos sobre la minería industrial en el Ecuador*. Ediciones Abya-Yala.
- Sánchez-Mendieta, C. (2022, July 14). Loma Larga: Segundo proyecto minero que se para en Cuenca. *El Mercurio*.
- Sébastien, L. (2020). The power of place in understanding place attachments and meanings. *Geoforum*, 108, 204–216. <https://doi.org/10.1016/j.geoforum.2019.11.001>
- Sempértegui, A., & Báez, M. (2023). Ontological conflicts in the plurinational state: The case of Indigenous resistance against the Mirador mega-mining project in Ecuador. *Society & Natural Resources*, 37(5), 660–677. <https://doi.org/10.1080/08941920.2023.2228241>

- Sultana, F. (2011). Suffering for water, suffering from water: Emotional geographies of resource access, control and conflict. *Geoforum*, 42(2), 163–172. <https://doi.org/10.1016/j.geoforum.2010.12.002>
- Swyngedouw, E. (2009). The political economy and political ecology of the hydro-social cycle. *Journal of Contemporary Water Research & Education*, 142(1), 56–60. <https://doi.org/10.1111/j.1936-704X.2009.00054.x>
- Tuan, Y. (1977). *Space and Place: The Perspective of Experience*. Minneapolis: University of Minnesota Press.
- Valladares, C., & Boelens, R. (2019). Mining for Mother Earth: Governmentalities, sacred waters and nature's rights in Ecuador. *Geoforum*, 100, 68–79. <https://doi.org/10.1016/j.geoforum.2019.02.009>
- van Teijlingen, K. (2016). The “will to improve” at the mining frontier: Neo-extractivism, development and governmentality in the Ecuadorian Amazon. *The Extractive Industries and Society*, 3(4), 902–911. <https://doi.org/10.1016/j.exis.2016.10.009>
- van Teijlingen, K. (2019). Minería a gran escala, pluralismo territorial y contención: Un mapeo de encuentros y desencuentros en la Amazonia ecuatoriana. *Estudios Atacameños*, 63, 275–299. <https://doi.org/10.22199/issn.0718-1043-2019-0031>
- van Teijlingen, K. (2025). Mapping the truth about mining: Corporate cartography and its contestations. *Environment and Planning F: Philosophy, Theory, Models, Methods and Practice*, 4(4), 492–518. <https://doi.org/10.1177/26349825231202251>
- Velásquez, T. A. (2022). *Pachamama politics: Campesino water defenders and the anti-mining movement in Andean Ecuador*. University of Arizona Press. <https://doi.org/10.2307/j.ctv2gs4gq5>
- Zwarteveen, M., & Boelens, R. (2014). Defining, researching and struggling for water justice: Some conceptual building blocks for research and action. *Water International*, 39(2), 143–158. <https://doi.org/10.1080/02508060.2014.891168>