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Humanistic geography in an indigenous community of Mexico: Santa Catarina Lachatao

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Introduction: The present study aim was to rethink the geographical reasoning of everyday life toward a new understanding of knowing how to think about space through an interdisciplinary approach, architecture-psychology. This allowed establishing logical relations in spatial and socio-spatial distributions and uses of social phenomena, typical of Santa Catarina Lachatao, an indigenous Mexican community in Sierra Norte Zapoteca.

Methods: Based on ethnographic qualitative interdisciplinary research methods along with a total of three visits lasting 15 weeks, the daily experience of people and their community in different times and spaces, experiences, perspectives, and prejudices, were studied. The geographical approach (cartographies) reflects the social construction of the spatial components as the basic understanding of the territory from everyday life. In this study we worked on indigenous citizenship and its territory, analyzing, and contrasting social phenomena such as power-subjection, wealth-poverty, and exclusion-inclusion that transversally allow us to reflect and understand some of the characteristics of diversity and territoriality of the indigenous communities in Mexico.

Results: Characteristics that predominating in indigenous communities was recognized and featured. This was observed in the social production of their public space which evidence intergenerational pride and sense of community and belonging and their commitment to preserve their life project sustaining their space, community, and traditions. The natural rural context emerges from the interplay between the natural landscape and the built environment (in constant expansion). The bodies of water are respected and protected by the community and the original crossings are still preserved as precious resources, just as any other natural element. Landscape takes precedence over the irregular built environment, reflected in the urban trace.

Discussion: Developing interdisciplinary research -architecture and psychology- allowed studying the community development of a Mexican indigenous community, respectfully approaching diversity and territoriality of Santa Catarina Lachatao, Oaxaca. Societies must be understood in and by means of space. Public policy is crucial to strengthen the autonomy and configuration of indigenous communities, warranting their active participation in the design and evaluation of government programs that favor the sustainable use of their lands and natural resources, as well as the preservation of their values and traditions.

The principles of justice are chosen behind a veil of ignorance.
John Rawls

KEYWORDS

humanistic geography, cartography, lived space, rural sociology, life space analysis

1. Introduction

In the contemporary world, we often find ourselves face to face with complex social movements, fighting for the recognition of universal human rights and searching for respectful acceptance of sociocultural particularities. These phenomena tend to place before us a false dichotomy. On the one hand, we may continue sharing universal values from the idea of the global village, as suggested by McLuhan and Powers (2002). On the other hand, we may continue participating in the nostalgic longing for the tribe and the primitive cultural models at the cost of exclusion as noted by Fernando Savater and further developed by Maffesoli (2004).

In the presence of this dynamic, indigenous social groups witness and participate in a paradoxically ancient global modernity, whose origin dates back to the historical moments when contrasts of power–subjugation, wealth–poverty, and exclusion–inclusion became visible and explicitly identified. Since then, the relationship between the ways of life has been strained under the force of exclusion. Reflecting on these phenomena, considering them as permanent processes that reconfigured the spatial and psychosocial lives of communities allows us to understand the meaning, the direction, and finally, the importance of contemporary indigenous movements.

To systematically observe everything that is happening in Santa Catarina Lachatao, Oaxaca, three field visits were accomplished. During the first two visits, immersion and participation with the community were carried out (Guber, 2015; Seamon and Lundberg, 2017; Seamon and Larsen, 2020), which mediated the emergence of an intersubjective context of constant redefinition and construction, a *geography of daily life* (Lindon and Hiernaux-Nicolas, 2006; Kuri Pineda, 2017; Werlen, 2017; Lindon, 2020), allowing a spatial survey to elaborate a cartographic (urban) expression of the inclusive environment.

The first visit was made after researching the anthropological literature and bibliography of the study site and their customs and traditions, reflecting *intersectionality* (Crenshaw, 2005; Hankivsky, 2011, 2012; Esmiol et al., 2012), that is, a researcher acting as a person with different social and political conditions, respectfully approached the indigenous community. It lasted 2 weeks. Activities with the community for introducing the people were carried out to establish empathy and build reciprocal ties. The representatives of the community and the political system—Assembly and Municipal President—and the leaders of the tourism committee, among others, were present. A tour of the urban area and main tourist sites was conducted.

The challenge during the second 5-week visit was to carry out a physical survey of the indigenous rural landscape. We focused on identifying, recognizing, and recording parameters that evidenced the lives of the indigenous community (*space–time–life*) with their identity and ethnicity. The participation of the natives was encouraged, but not controlled, in witnessing the researcher's work and facts and offering support and points of view (Lindon and Hiernaux-Nicolas, 2006; Kuri Pineda, 2017; Werlen, 2017; Lindon, 2020).

During the third visit, with a view to build a psychosocial profile to verify the correspondence between space/society, one of the activities was asking children to draw their indigenous community; their drawings honor their elders' storytelling and

reveal their intergenerational pride and sense of community and belonging. Social memory is tightly interwound with everyday life and rituals serve to preserve both the awareness concerning history and cosmovision evincing their life project. Environmental embodiment is also posed in the preservation of the surrounding forest, as well as vernacular architecture, street configuration, building bioconstruction, and community urban center. The children's drawings accounted for what was socially constructed (Auyero, 2002; Charmaz, 2009; Hruby et al., 2020).

1.1. Area of the study

The *Santa Catarina Lachatao* community refers to those living in the Sierra Norte region of Oaxaca, a spacious mountainous terrain of sociocultural divergence, where the Zapotec people have created ways for sustainable life with their own cosmovision, labor dynamics, and organizational structure through fundamental communitarian experiences. These aspects permit the transcendence of thought and history sharing through a common cultural horizon that defines its way of life in terms of, for example, the concept of *space–time–life*, which constitutes a reality, a total unit that articulates its environment, time, and cosmovision, and a space where life expresses itself and develops as the transcendental act of being human.

This cosmovision defines the way of life of each community and locates all subjects under equal conditions. These respective communities produce a sense of belonging that allows the reproduction of the ways of being a Zapotec, which is unique for each member. With this level of social consciousness, actors can construct a society whose identity and culture are coherently articulated with a world and humanized space in individual, familial, and community life cycles. Basically, the Zapotec Sierra Norte is a sociocultural and territorial indigenous space configured by a family/community organization with traditional rural activities and religiosity based on a profound relationship with nature and a millennial history linked to a life project under constant reconstruction.

The current population is principally indigenous. According to the (National Institute of Statistics Geography, 2021), approximately 420,324 people live in this region, with three districts, 68 municipalities, and 89 municipal agencies. Altogether, the Zapotec Sierra Norte comprises an 8,918.03 km² region, located in the 93,000 km² of the state of Oaxaca. Thus, the Zapotec Sierra Norte counts for 9.5% of state land, where just over 4% of the total population resides.

Communitarian life is based on the indigenous social organization of customs and traditions that emerge through the participation of the entire citizenry. Nevertheless, these customs and traditions adapt to familial and communitarian necessities since family units are the principal support for these organizations. This indigenous social organization of customs and traditions is used in communal decision-making. It promotes the indigenous citizenry's fulfillment of diverse activities related to public participation, such as nomination to social and public posts and active participation in assemblies. It is this very participation by which they award themselves rights to pertain to and reside in the community.

The community where all of these events happen is a rural one. Santa Catarina Lachatao, located in the rough Oaxacan mountain range at an altitude of 2,100 m above the sea level, preserves its unmistakable features of vernacular architecture, such as the cobbled streets, houses with adobe walls and tile roofs, and the local green quarry temple, while struggling for land, control of means of production, and a political-ecological character (Toledo, 1992). In Mexico, different government institutions report that rural problems are intense in many indigenous communities as they cope with serious problems: poverty, difficulties in accessing health services (CONEVAL, 2022) and justice institutions (CNDH Mexico, 2023), and discrimination (CONAPRED, 2023). Based on what we observed in Lachatao, the indigenous movements are not homogeneous; therefore, we must visualize them in their diverse forms of organization and participation, avoiding generalization.

In this regard, currently, environmental justice research claims that procedures—policies, decision-making processes, and participation—and recognition of cultural differences need attention (Parsons et al., 2021) to overcome environmental injustices and inequities legitimized by capitalism, colonialism, and patriarchy (McGregor, 2015). Indigenous environmental justice scholarship made explicit the relationships between indigenous worldviews, cultural continuance, and sovereignty embodied in the fundamental components of power, authority, and justice within their contexts (Whyte, 2011; Weaver, 2016; Holifield et al., 2017). Recently, not only human actors but Earth itself (McGregor, 2018; McGregor et al., 2020) and other more-than-human (nonhumans) factors at the spiritual, cultural, and temporal levels are recognized (Parsons et al., 2021).

Besides, from a psychosocial perspective through which we understand the community as a collective phenomenon, we did not perceive the collective as an abstract entity or symbolic world but rather as a space where people learn to share an openly metaphoric language. Relatedly, metaphors have a key role in framing and fostering a shared understanding of societal issues and thereby bridging multiple interpretations and discourses toward collective action (van der Hel et al., 2018). The diverse forms of interaction clearly express power relations and positions and shared experiences, differences, or exigencies (Ríos, 2013). This common setting offers a lattice for interactional and communicative possibilities through internalized language. This subjective language permeates the collective and its social structure, recreating the expectations, archetypes, and concrete expressions of local identity. Furthermore, kowtowing is a common ground that facilitates co-orientation to the collective response, which in turn is affected by such co-orientation (Schoeneborn et al., 2022).

The public space of Lachatao makes an important contribution to the processes of social cohesion of this mountain society, facilitating meetings between all people, enabling social and egalitarian dynamics, and allowing social learning based on roles, genders, and ways of behaving, among others, from their ethnicity and Zapotec identity. For this indigenous community, the system of social organization known as *tequio*, or communitarian work, is fundamental to build self-recognition. *Tequio* is the donation, by everyone in the community, of goods or money or services through their participation in the construction and development of local infrastructure. If we consider identity as a consciousness of being intimately linked to recognition (Fanon, 2009; Tsakiris, 2017; Dobai and Hopkins, 2020; Amer and Obradovic, 2022),

self-determination (Hecht et al., 2019; Jacobs, 2019; Mijs and Savage, 2020), and cultural roots (Conrad, 1968; Milne, 2018; Oladjeou and Dansou, 2019; Burkitt, 2021), which keeps indigenous villages and communities alive and kicking (Weaver, 2001; Salinas and Fernández, 2014), then we can create spark and inspire the inclusive development of indigenous communities.

1.2. Spatial description

Since the late 1980s, the social sciences have undergone an epistemic renovation resulting from their encounters and disagreements between subdisciplines. This renovation revealed an evident spatial turn (Lindon and Hiernaux, 2006). The notions of territory, space, and place cease to be pure elements of localization. Instead, they emerge as fundamentally analytic dimensions that enable understanding complex social phenomena in a relation between society and space. It is worth noting that, through this lens, space is addressed as a social construction (Auyero, 2002; Schroer, 2018; Low, 2022).

Not only did we look for evidence of traditional descriptions of rural zones and their functional dynamics but we also considered the archetypes Lindon and Hiernaux call *geographies of daily life* that most often emerge in diverse contexts. Communities—in this case indigenous—find their *raison d'être* in the understanding of relations between space and society from the perspective of the person, the subject, and the individual (Kuri Pineda, 2017). Based on this, if we apply certain psychological discoveries of daily life to the field of geography to specify space/society relations “in an intersubjective context from which they give meaning to space and to the other, in a constant process of resignification and construction of living spaces” (Hiernaux-Nicolas and Lindon, 2006, p. 357), in which meanings are attributed to establishing relations and bonds (Werlen, 2017), then it is understood that spatiality, as the active dimension of the development of societies, synthesizes their social, geographical, and cultural forms to read and understand the world.

The current research rests on *humanistic geography*, a small yet vibrant social science (Tuan, 1976, 1977, 1983, 2010; Sapkota, 2017; Seamon and Larsen, 2020). The object of study is the spatial organization of the Santa Catarina Lachatao society and its interpersonal relations, specifically among the children of this indigenous community and its environment (Johnston et al., 2000; Low, 2022), connected to the land (Dudgeon and Bray, 2019) and Earth (Moreton-Robinson, 2017), in one of the least-accessible regions in southern Mesoamerica. John Chance described the mountain range as “the steep slopes and deep canyons of the Zapotec mountain chain stand in stark contrast to the flat alluvial plain of the Valley of Oaxaca” (Chance, 1998, p. 24).

In this study, we illustrated how the sociocultural characteristics of Oaxaca's Sierra Norte indigenous community reflect its capacity, as a society, to assure the wellbeing of all members in the promotion of an environment that guarantees “everyone's wellbeing, including equal opportunities, recognition of human dignity, respect for diversity and promotion of autonomy” (CEPAL, 2007, p. 15). This type of social organization represents an opportunity to trigger and promote inclusive development in indigenous communities, intrinsically linked to recognizing own

identity—the awareness of being (Fanon, 2009)—as cultural roots are kept alive (Salinas and Fernández, 2014). They also thrive through reinterpreting, not without certain tension, the centralized structure that prevents them from finding development strategies to maintain their insertion at the national level (Gaussens, 2019).

This was possible based on interdisciplinary research involving architecture and psychology, where the feelings of the indigenous people were documented from its sociospatial dimension, where the Lachatao indigenous community finds its purpose knowing the space/society relationship through each person. Based on this, if certain advances in everyday life are taken up from psychology, they are then brought to geography to specify the space/society relationship. This intersubjective context provides meaning to space and to the other in a constant process of resignification and construction of living spaces.

2. Material and methods

Our method entailed ethnographic qualitative research in the field of humanistic geography, by which we explored the everyday experiences of people and their communities in different times and spaces. Our study took into consideration that the position, experiences, perspectives, and prejudices of the principal investigator play a significant role, affecting both the development of research and the results (Philip, 1998; Moreton-Robinson, 2017; Hausermann and Adomako, 2022). Considering this structure, we can identify prospective elements for a graphic cultural representation (cartography), in which the geographic approximation permits the construction of the basic comprehension of the territory through essential components of daily life.

2.1. Participants

The indigenous citizenry of the Santa Catarina Lachatao community, with an emphasis on children between 5 and 16 years of age.

2.2. An instrument for bibliographical data collection

In relation to ethnographic research techniques, “the meaning of social life is expressed through discourses that appear informally in daily life, in comments, anecdotes, manners and conversations” (Guber, 2015, p. 69). Data collection tools and participant observation were used during the following two activities: the systematic controlled observation of all that occurs around the researcher during the entirety of two periods of fieldwork and a third visit in which she participates in various activities of the indigenous citizenry, playing a role “as the natives do, learning to perform certain activities and to behave as a member of the community” (Guber, 2015, p. 53). The collected data were the object of the present study and that of a biographical-narrative study of the ethnographic approach to children’s graphic representations of Lachatao. Researcher participation emphasizes

her experience integration with the studied community and offers the opportunity for further reflexive studies.

2.3. Procedure

As the immersive work develops in total involvement in the geographic reality (Sanguin et al., 1981; Hochschild et al., 2020; Hruby et al., 2020), the fieldwork must be differentiated spatially and temporally from the rest of the research (Guber, 2015). We carried out three onsite visits for a total of 15 weeks. The first visit occurred after a process of bibliographical anthropology and a literature review of the study site and its customs and traditions. Once onsite, the researcher began a reflexive process concerning her personhood and sociopolitical conditions, through coexistence with the indigenous community. This first approach lasted 2 weeks. The researcher met officially with each member of the community with the intention of establishing reciprocal empathic connections. Greeting activities were also organized with representatives of the communitarian political system, such as the Assembly, the Municipal President, and the leaders of the tourism committee among others. Finally, we organized a tour to the central (urban) center and the main tourist sites.

Subsequently, we made a second visit for 5 weeks to achieve a physical rural land survey. The objective was to identify, examine, and record parameters demonstrating the Sierra Norte of Oaxaca indigenous community’s life project (*space-time-life*) according to their identity and ethnicity. We encouraged native participation through a wide range of possibilities. They functioned as witnesses to the researcher, monitoring the interventions and the precision of the data collected. They also offered to help the researcher and also other unplanned, informal participation.

The third visit lasted 2 months (8 weeks) onsite. Our objective was to fulfill our responsibilities as a member of the indigenous community. We were able to participate in tequio activities for the construction of a chapel and to help women in their tasks in the kitchen. Furthermore, we carried out investigative activities such as completing the physical land survey and hosting participative workshops for school children and community adults. The graphics depicted in the results section come from the fieldwork and personal elaboration, compiled, and analyzed during the abovementioned visits and interventions.

2.4. Data analysis

To objectify subjectivity and to subjectify objectivity to provide an understanding of the specific complexity or idiosyncrasy of the fieldwork (Bolívar, 2002), we reflected the collected data using the qualitative methods of *humanistic geography*, a philosophical movement that emerges from the principle of lived space. Based on the principles of phenomenological existentialism, we reflected on the abstract central idea of spatiality. From this perspective, spatiality acquires significant dimensions by uniting people with an environment that pre-exists systematic understanding. Dardel named this pre-systemic spatial dimension *geographicité* (Estébanez, 1982), referring to a reflexive critique of landscape,

considering not only climate and environment but also the notions of education, social inclusion, customs and traditions, public participation, infrastructure, accessibility, among other indicators which condition the corporatization of the living world. Later, *human-being-in-place* was conceptualized as “place is a primary ontological structure that encompasses both human experience and the physical world in which that experience unfolds” (Seamon and Lundberg, 2017), a *lived emplacement* or *embodied place* (Seamon, 2013).

3. Results

Through the application of descriptive ethnographic research models to elements of localization and analysis of interrelations between subject and spatial experience, we were able to understand complex social phenomena typical of the Santa Catarina Lachatao indigenous community, also present in distinct Latin-American indigenous communities. This permitted us to acknowledge that societies must be understood in and by means of space (Santos, 2000; Kuri Pineda, 2017; Schroer, 2018). The spatial element should not be simply approached through the purely social element but through the socially constructed elements (Auyero, 2002; Werlen, 2017; Jacobs, 2019).

Figure 1 shows that “no space is the pure reflection of society of its time, but rather in this space the dimensions of the perceived, the conceived, and the lived are transplanted” (Hiernaux-Nicolas, 2004, p. 19). Due to the intergenerational transmission of the bond between indigenous communities and territory, the materiality of the constructed environment reflects the past, sanctuary, and patrimony of the present generations. In this regard, women’s strengths are based on custodial kinship with the land, caring for and protecting it, nurturing and safeguarding families and future (Oscar, 2018), and not far away, a woman presiding the *tequio* (Rojas-Serrano and Martínez-Corona, 2017).

Using systems of bioconstruction, taught and practiced throughout history, we understand the most representative forms of production and spatial reproduction in harmony with the distinct manners of appropriation and use of space and how these allow the subject to valorize and revalorize over time the daily experience of living as a native Zapotec. Linton and Hiernaux (2006) call this phenomenon, the *geographies of everyday life*. Tuan reflects that “the space is transformed in place as we know it better and we endow its value” (1983, p. 6).

In Santa Catarina Lachatao, the municipal seat stands out, both because of its location at the center of the community (Figure 2) and also due to being the site of the municipal city hall of the community and other neighboring communities. Other important sites are the Catholic Santa Catarina Temple of Spanish origin, the Communitarian Museum, a restaurant, and a sports field (Figure 3). The communitarian character of public space profoundly impacts and anchors social space.

In Figure 4, we can observe the municipal seat as a central node stimulating and configuring meeting points and social life in the indigenous community. In the same way, it is possible to observe the expression of vernacular architecture framing the municipal seat. This vernacular architecture was constructed by the Lachatao

citizens using *tequio* and systems of bioconstruction for native and touristic use.

Reality is more than material and it is also the intrinsic underlying ideal uniting this material (Godelier, 1990; Guyer and Horstmann, 2002), a matter of re-imagining humanity’s place in nature extending to its co-habitation with all manner of others: human as well as nonhuman (Anderson, 2014). For indigenous cultures, the concept of territory is linked to judicial guarantees of territorial protection, with the intention of safeguarding their culture and their future as people. Recognizing rights to land is insufficient; their autonomy is indispensable. In this way, describing a territory not only refers to the existence of geographic space but also to those subjective bonds of identity and affect coexistence between people and their territory. As such, no space is a pure reflection of its era, since temporalities are overlapped because of continuous updating through social practice (Rolfi and Chaboux, 2016; de Lavour and dos Santos, 2018), in a never-ending creation of symbols, signs, and meanings integral to culture and object-oriented activities (Burkitt, 2019, 2021).

The evident anatomy of the rural territory in question helps to understand that the relations between actors and their territory are governed by the project of communitarian life. This project merges space–time–life to articulate its entourage, time, and cosmovision in a respectful relation toward the environment according to present necessities, all the while considering future generations. The community’s own ethical code demonstrates this, as shown publicly in the office of tourism (located in the municipal seat). This ethical code governs social behavior on the part of all indigenous citizens and any external visitor regarding the natural and social environment. The built environment maintains the citizenry’s relations with the territory. Consequently, the municipal seat, insofar as it hosts a public space accessible to all, stimulates social cohesion as seen by the meeting of children, youth, adults, and seniors in a sociospatial dimension where all are equal and interact according to traditions and customs.

The natural rural context could be described as a rural panorama emerging from the interplay between the natural landscape and the built environment (in constant expansion). Figure 5 shows the existing residential buildings surrounding public infrastructure installations in an irregular urban trace. This irregular dispersion is due to respect for the natural topography of the site as well as the lotification of zoning.

Based on reports and descriptions such as those expressed in Figures 6–8, the incidental topography of the Sierra Zapoteca Mountain range spanning the state of Oaxaca, with its deep canyons and steep summits, constitutes an extreme environment of diverse mountain formations. Over 90% of the state’s surface area consists of mountainous terrain, with very few plains or valleys. At the top of Jaguar Hill is an almost intact archeological zone, where equinoctial celebrations are held every year.

The natural water paths (creeks), cut across the community, flow from North to South. These bodies of water (Figure 8) are respected and protected by the community and the original crossings are still preserved as precious resources, just as any other natural element. One can observe how the natural landscape takes precedence over the built environment, which allows nature to inform the aesthetics of space, making it easier to interpret, interrelate, and mimic natural elements, thus creating a single space. The community, despite being nestled deep in the Sierra,



FIGURE 1
Photograph of the infrastructure and geography.

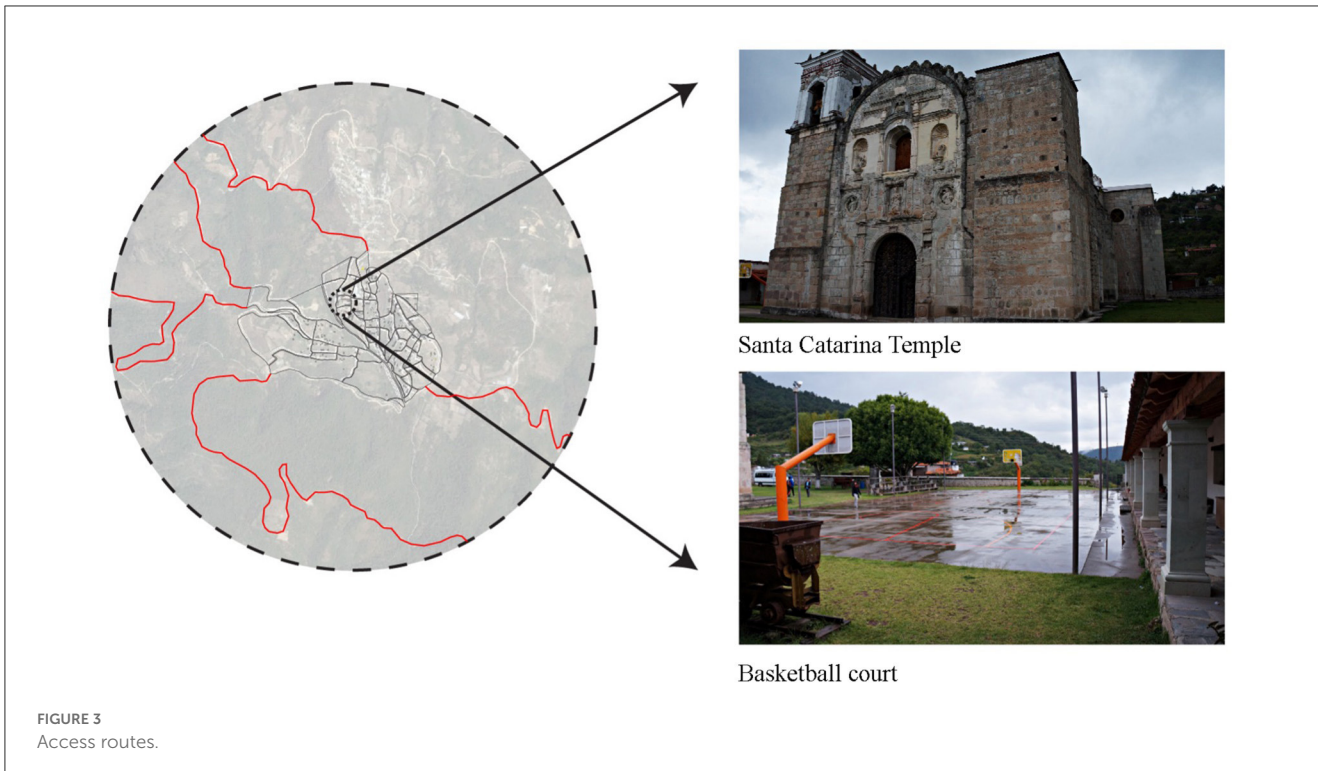


FIGURE 2
Aerial photography of Santa Catarina Lachatao.

has the potential to consolidate itself as an ecotouristic destination. The infrastructure and the inhabitants' objectives of preserving and caring for the environment show an ideal location for enjoying nature's bounties and recovering ties to culture as a pre-Hispanic community.

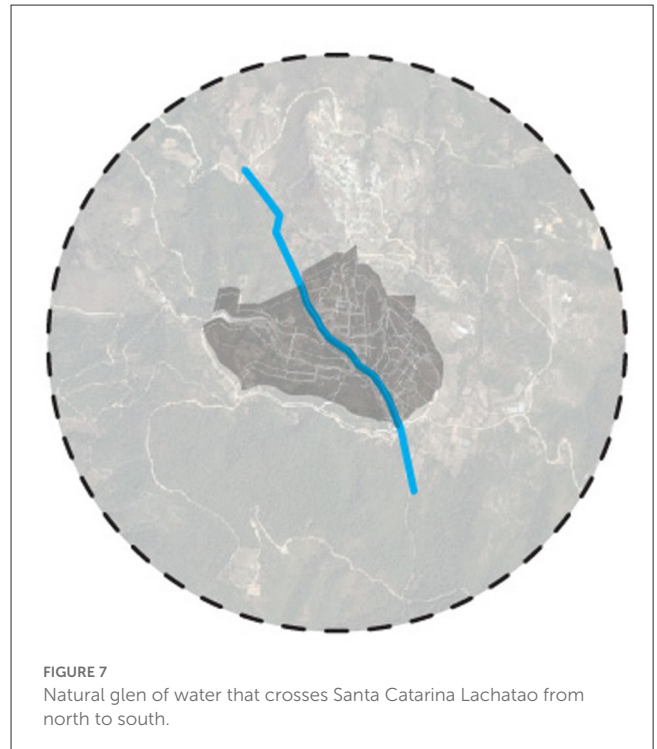
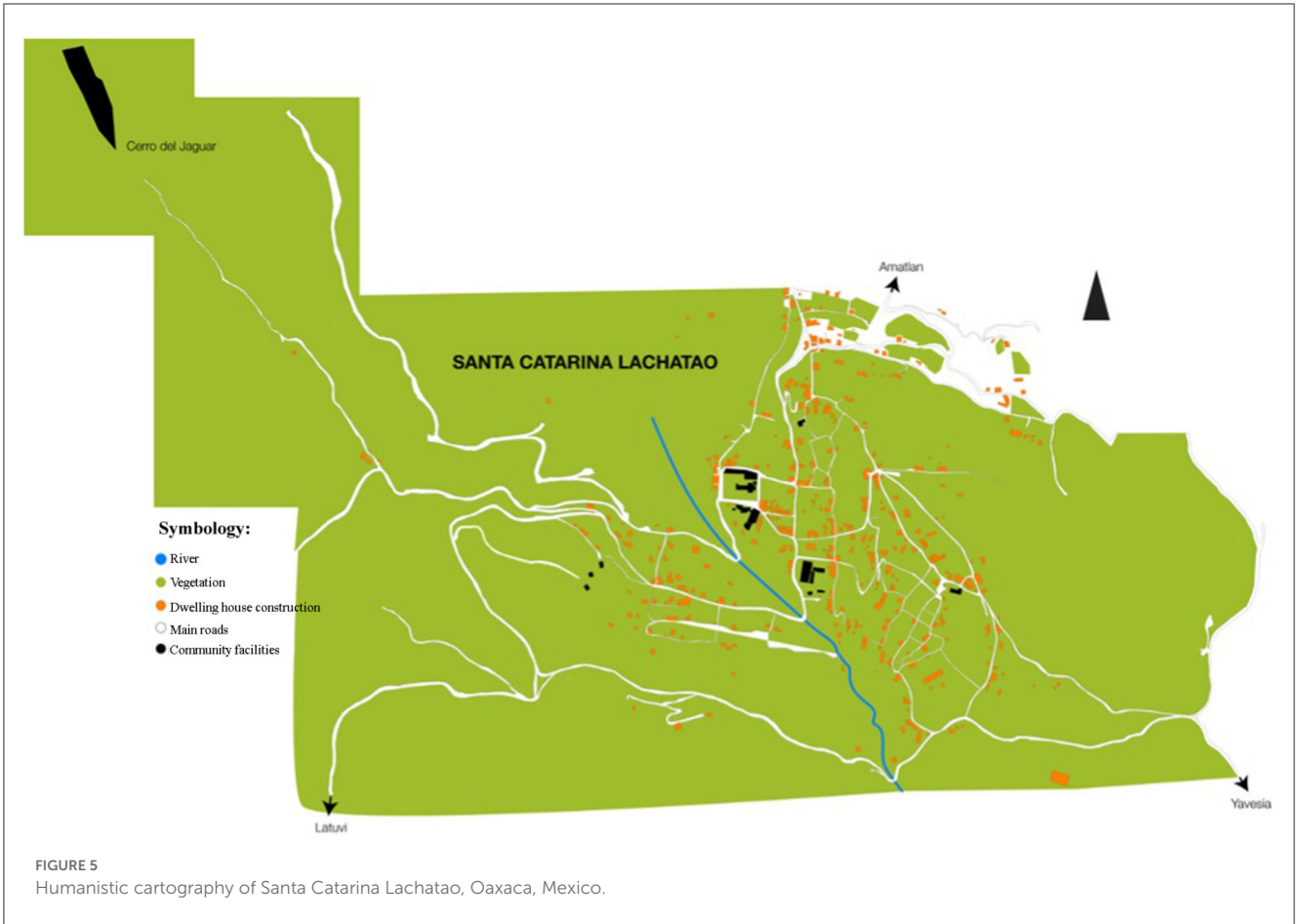
Considering the natural resources and elements informing Santa Catarina Lachatao life, agricultural practices are the most

important economic activities whose yields provide sustenance for the citizenry as well as sustaining herds and flocks of domestic animals. Figure 9 shows the distribution of flora in balance with the spatial distribution of natural resources; the waterway traces a north–south guiding axis. The residential zone is in the east to make the most of the rising sun, taking advantage of the early hours of sunlight and the territorial topography



for the most beautiful, panoramic vistas of the community and peripheral forests. The community grows to the west, visibly divided by the waterway. Considering this geography, with

municipal aid and the custom of *tequio*, the populace raises the infrastructure and features of a downtown, available to all indigenous citizens and any visitors or tourists who so wish





to know the community (Rojas-Serrano and Martínez-Corona, 2017). Seasonal tourism and visits through the city space are geographically controlled.

The results of our interdisciplinary research project are shown in Figure 10. The feelings of indigenous subjects were registered according to their socio-spatial dimension and then reinterpreted through, in this case, artistic engraving techniques produced by the undergraduate students of the Bachelor of Graphic Arts at Universidad de Monterrey, Mexico. We concluded that the territorial conception synthesizes geographic space with political, identitarian, and affective dimensions, thus, in this way clothing the natural geography in sociocultural constructs (Montañez, 2001; Kuri Pineda, 2017; Schroer, 2018; Low, 2022).

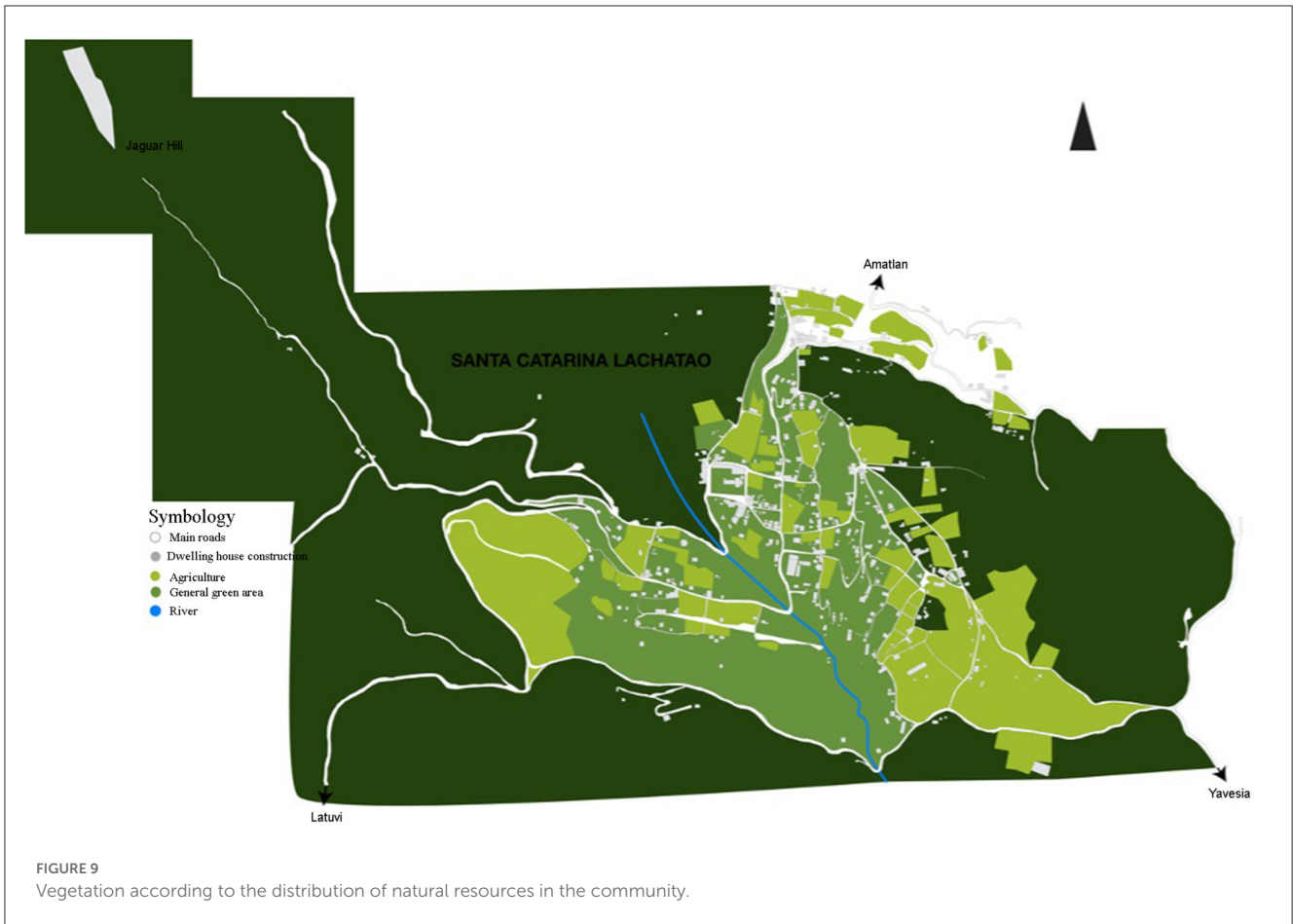
4. Discussion

Developing qualitatively descriptive ethnographic research *in situ* allows geographic critical thinking, which when applied precisely, generates a new geographical logic of *savoir-penser* of space. We were able to establish the logical relations of distribution

and study the uses and phenomena of social space, all the while respecting the characteristic diversity and territoriality of the Santa Catarina Lachatao indigenous community in the Sierra Norte of Oaxaca.

Our fieldwork approach allowed us to work with the indigenous citizenry and their territory. We undertook multiple tours and rounds through the urban center, principal tourist locations, and residential and agricultural areas. By identifying and registering parameters, we were able to demonstrate the indigenous community's life project in harmony with its millenarian ethnic identity. In line with recent proposals to examine indigenous ontologies as a competent of land and natural resource management through complex interrelations (Theriault, 2017; Hausermann, 2021; Hausermann and Adomako, 2022), we respectfully approached Santa Catarina biophysical contexts and traditions, working with indigenous people rather than on them (Wilson, 2008; Smith, 2021).

Generally, ethnic identities are forms of self-representation shared within a community entailing the acceptance of certain rights, obligations, and rules for mediation that the same society



protecting, and endowing this legacy of knowledge with a spirit of belonging in contrast to the others of Westernized society. Similar findings were reported not long ago in a field study in this community. Researchers found that the residents of Lachatao have succeeded in protecting their forest not only as a fundamental material space, but also as an identitarian and “conserving the indigenous ownership of the land, as well as its traditional government form” (Rojas-Serrano and Martínez-Corona, 2017, p. 465).

In our study, we conducted a series of transversal and intersecting political analyses to understand the social phenomena specific to Lachatao from a critically reflexive perspective. The resulting discussion originates in our recognition that Oaxaca has communities that are conscious of their internal processes in opposition to late modernity. This societal transparency leads to the continual reconstruction and consolidation of new economic political and cultural situations with their concomitant identities. This *society in movement* contrasts with late modernity insofar as it does not only declare itself different but also insists on greater self-awareness.

In the specific case of the Santa Catarina Lachatao, collaboration predominates in opposition to social relations leading to ideological and political consensus. This helps us to understand the morphology of vernacular architecture as described in the relevant images, as well as images of the community’s urban center. This collaborativeness stands out in the inclusive democratic culture and, as well, posits how environmental

embodiment is supported or stymied by material and spatial qualities like street configuration, population density, and mix of activities (Seamon, 2013; Seamon and Lundberg, 2017).

Social memory is tightly interwound with everyday life and rituals and serves to preserve both the sense of history and cosmivision, a life project (Ríos, 2013; Johnson et al., 2015). In this way, the public space of the urban center functions as a meeting place for everyone and anyone (Tuan, 1977; Sapkota, 2017). The geographical location of the basketball court at the downtown center functions as the symbol of community growth before others in social encounters (García, 2018). The restaurant, the bed and breakfast, the museum, the tourism office, and its complementary infrastructure destined to pioneer the future project of ecotourism and economic growth can be found in the urban center. In this regard, the inhabitants recognize the forest's environmental services, the possibility of ecotourism, but also as a space that provides fertile land, firewood, water, recreation, and physical healing (Rojas-Serrano and Martínez-Corona, 2017). So, they safeguard and control community access.

By observing our humanistic cartography, we can visualize how time and life as experienced in an indigenous community are not constituted individually, but rather collectively. These Kantian coordinates are continually recreated through linguistic narrative, just as living languages evolve. Just as time, life and language are continuously molded and reshaped (Burkitt, 2019; Nölle et al., 2020; Australian Government, 2022; Tasew, 2022); therefore, the style of bioconstruction employed to create buildings with clay and lumber informs us of the communities' respect for the environment through their ethical code.

In Santa Catarina Lachatao, ancestral traditions are still alive. Those, in the absence of written testimonies destroyed during the Mexican Revolution by the Municipal President on duty (Propuesta, 2009), have been passed from generation to generation. Children of all ages know the Zapotec customs and traditions and the community's openness toward a participatory architecture in which modernity coexists in harmony with the traditional practices of building spaces to live, subsist and coexist—basketball and soccer fields in front of the Millenary temple of green quarry and an external staircase to reach its bell tower framed by Jaguar Hill which are diligently protected by the elderly who live on its slope and *de facto* by the young people who climb the mountain and, if necessary, spend the night in the cabin of caregivers, as a never-ending togetherness between old and new generations keeping guard of space, community, and traditions (Austin et al., 2019; Yunkaporta, 2019; Russell and Ens, 2020; Ngurra et al., 2021). Children's drawings show interactions, elements, and shared common ties (including the psychological sense of community and belonging) in line with culture and ideas that the elders of Lachatao have been able to storytell to the little ones (Chan, 2021); that is, a rooted, self-aware, and integral social group that synthesizes the beliefs and values of the community spirit (Sánchez, 2007; Rojas-Serrano and Martínez-Corona, 2017; KILLSBACK, 2019), promoting children's spiritual and cultural ties to their land, indigenous identity, and survivance (McCarty and Nicholas, 2014; Sun, 2022).

Though one can find certain emerging social phenomena, such as migration, in Santa Catarina Lachatao, each personal history constitutes an approximative exercise of communitarian practices. This tradition creates the spectrum in which ancient practices are reenacted in new forms of indigenous Zapotec beings, with the

characteristics of constant searching to pass on new generations' oral traditions and their built and natural environment. This frames the life project of indigenous Zapotec beings; that is, a citizenry of loyal and faithful souls dedicated to preserving the Lachatao way of life, kinship, customs, and traditional laws (KILLSBACK, 2019).

Public space derives its value as a function of being used and transformed through diverse experiences (Monnet, 2009; Seamon, 2013; Werlen, 2017; Qian, 2018). Though public spaces are often designed for some pre-established purposes, their daily use gives them worth by complementing social vision. Lachatao public space contributes significantly to the social cohesion of the Zapotec society, creating spaces that promote meetings. This allows egalitarian social dynamics, promotes observational learning of social and gender roles, and stimulates cohesion with collectively generated ideals of Zapotec ethnicity and identity. Undoubtedly, every place “is knitted into the fabric of Indigenous law and sociality” (Porter, 2018).

5. Final considerations

Developing interdisciplinary research—architecture and psychology—allowed studying the community development of a Mexican indigenous community, respectfully approaching the diversity and territoriality of Santa Catarina Lachatao, Oaxaca. A rich data collection features its urban expression, with children's graphic productions accounting for the cultural baggage that their community has transmitted and modeled over time evincing relevant social, spatial, and cultural milestones compiled in their historical memory. As with any reflexive activity, to speak of conclusions would entail a mere formalism after our leap of faith. What we seek is to open different perspectives and new reflexes from the interdisciplinarity where we look to not lose hope that one day, paraphrasing Pico della Mirandola, “to fulfill the task entrusted and finish with our own work”... if this is possible.

The public space of Santa Catarina Lachatao is a significant contribution to the social cohesion of this highland society. Spaces facilitate meetings between all people, allowing egalitarian social dynamics and allowing the community to learn from each other based on social differences, roles, genders, ways of behaving, and so on, while preserving their ethnicity and Zapotec identity. All this commits us to develop public policy to strengthen the autonomy and configuration of indigenous communities warranting their active participation in the design and evaluation of government programs that favor the sustainable use of their lands and natural resources, as well as the preservation of their values and traditions.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Author contributions

AG-L did the immersive work in geographic reality, carried out three onsite visits for a total of 15 weeks, and generated the idea and collected onsite data. AQ-G was responsible for

drafting the manuscript. AG-L and AQ-G critically revised it for important intellectual content, gave final approval to the finished manuscript, and agreed to be accountable for all aspects of the work. All authors contributed to the article and approved the submitted version.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships

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