THEMATIC COLLECTION: TRANSnationalizing STS

ORIGINAL RESEARCH ARTICLE

Chakana and Thirdspace: Engaging Ecuadorian STS in Places of Knowledge Co-Production

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Abstract

Ecuadorian STS studies connects to earlier Latin American scholars' concerns over science and technology. Like many other academic communities, Ecuadorian STS emerged from the collision of scholarly interest, the building of new research centers, and opportunities for collaboration among undergraduate and postgraduate programs. Primarily rooted in the need to develop social technologies these studies form part of a regional movement aimed at questioning: technological dependence, the role of science in peripheral contexts, and public policies of science, technology, and innovation. The ways in which an STS academic community forms around Ecuadorian STS—is in this case, less about a network than—a matter concerning Henri LeFebvre's "trialectics of spatiality" ([1974] 1991). In particular, Homi Bhabba (1994) and Edward Soja's (1996) contributions to the decolonial development of a "thirdspace" is understood as a "particular way of thinking about and interpreting socially produced space" (ibid.). This essay offers a reflection on identity (re-)formation in the making of community. Developing a thirdspace as a transformative process draws inspiration from the Chakana, an Andean symbol of wisdom. A specifically decolonial thirdspace unfolds through the three ascending-descending steps of the Chakana that represent both the expansion and the sustaining of the community: 1. as an Andean referencing point (evoking the bridging-staircase symbol); 2. which allows for the co-creation of situated knowledge from different transnational STS genealogies located in Latin America; 3. and as an obligatory point of passage for STS community creation through identity building. Conceptualizing Ecuadorian STS as a thirdspace, helps to socially comprehend community formation as a social process that is also a critique of symbolic space for membership and knowledge production. By discussing why place is fundamental in community institutionalization, this essay creates possibilities to comprehend-dimensions of STS in the Global South-socially, politically, and cognitively.

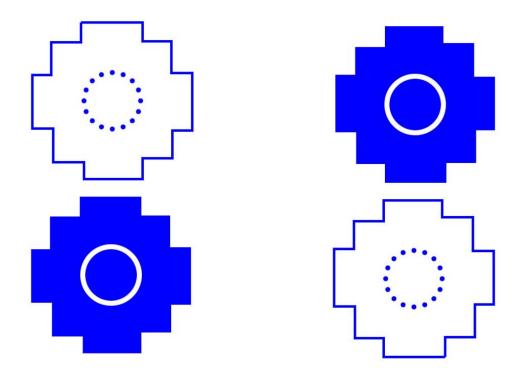
Keywords

Chakana; Ecuador; thirdspace; third space; education; pedagogy; space; place

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To cite this article: Albornoz, María Belén. 2023. "Chakana and Thirdspace: Engaging Ecuadorian STS in Places of Knowledge Co-Production." *Engaging Science, Technology, and Society* 9(1): 63–80. <u>https://doi.org/10.17351/ests2021.1239</u>.



Chakana: Symbol of Staircase and Bridging

Figure 1. Multiple three-step Chakana figurations. Chakana is an Andean symbol of wisdom which is a combination of a bridge and staircase motif (Source: <u>Windle 2023</u>).

In the Kichwa language, the Chakana means a bridge, or a staircase built to explain the cultural diversity of the indigenous peoples of the Tawantisuyu (Figure 1). The Chakana in its structural composition is constituted of: *Uku pacha* (subsoil), *Kaipacha* (soil or earth) and *Hawa pacha* (sky); the *Hanan* (above) and the *Urin* (below). In the Chakana we find the principles and values of the life of living beings and life after life such as the reciprocity and harmony of *Pacha mama* (mother land). Consequently, the Chakana is an integral system of explanation of knowledge and wisdom and its interrelation between Andean cultures. Before explaining the symbolic use of the Chakana in Ecuadorian STS it is important to understand how it refocuses a discussion of thirdspace to Andean places. The following two sections, trace the ascending–descending steps of the staircase and bridging metaphors to be found in the Chakana figuration.

Andean Thirdspace: Social Bridging Spaces as Steps to Stabilize STS Community

The formation of an STS community in Ecuador brought forth ways to re-imagine an Andean thirdspace as a "particular way of thinking about and interpreting socially produced space" (<u>Soja 1996</u>). Furthermore, it is a way to reflect on how a community sustains itself. Geographical theories of space—as a reflection on identity formation in the making of community—can be perceived as an expansion (of ascending steps of identity formation) and contraction (the descending steps of identity reformation) of sustaining community. The institutionalization process was to an extent key to stabilizing the Ecuadorian epistemic community

around STS sensibilities by creating enduring structures and governance mechanisms. This follows Edward Soja's understanding of "thirdspace" as derived from his fieldwork in Kenya. Soja's fieldwork expanded the French philosopher LeFebvre's concept of a "trialectics of space" ([1974] 1991), in which a spatial imagination of the community could only exist with the social and historical imaginations, where the real and the imagined places coexist. The article traces the journey of the spatialization of time and history of a group of scholars and institutions who were at the forefront on introducing STS in the country.

The Ecuadorian epistemic community transformed from an *STS studies' informal network* to a *legally established institution*. Therefore this essay moves beyond *networks* (and labs) as the organizing matters of concern with both appearing primarily in the context of community discussion. The paper's aim is to trace the ups and downs of community-making, as an enquiry into sustaining community. CTS Ecuador, the first Ecuadorian STS academic society, set-out to develop a *thirdspace* where the action of the imagined community becomes evident and iconically identifiable. As a witness and as a protagonist of the building of this epistemic community I will show the reader the way that this took place, as a stepped process through which different STS scholars come into constant dialogue with their research centers, policy makers and international STS societies and associations to institutionally stabilize their trajectories. This process is conveyed through the dialectical (bridging) relationship between the notions of Andean "place" and imagined "STS" communities in the creation and endurance of an Ecuadorian thirdspace.

Using the symbolic symmetry to be found in the Chakana, the ascending and descending steps in community formation is a pathway of associations of—people, artifacts, institutions, imaginaries and places. The reader can expect a journey through the—mentors, theoretical traditions, research programs and inscription devices that contribute to assembling identity, belonging, and epistemic validation. Starting with the symbolic interpretation of the Chakana as part of the identity formation, next to consider is the emergence of the epistemic community and the consolidation of the academic society by asking: why a thirdspace is fundamental in community institutionalization in the Andean place of Ecuador? In so doing, it is also possible to comprehend the challenges and opportunities of colonial and decolonial STS from social, political, and cognitive dimensions as viewed from a Global South vista.

Thirdspace, Chakana, Territory

Epistemic communities (<u>Hass 1992</u>) operate much like imagined communities (<u>Anderson 1983</u>) because they rely on symbolic representations capable of shaping people's imaginations by making them receptive to shared identity conceptions. Spatially disjointed scholars, practitioners, and students—with the aid of shared identity—can create a sense of belonging. In this case, to an integrated Andean community located in Ecuador, that is, a belonging beyond territorial borders and national identities. An imagined Andean community within the place of Ecuador, maintains a dialectical mechanism by co-producing an identity through the institutionalization of their actions.

Thinking through Soja's thirdspace of epistemic community and human geography in which it is immersed (<u>1996</u>), illuminates both a critical significance and a historical dimension to community formation. By introducing the Chakana as a symbolic Andean form of thirdspace, I'm emphasizing a compounding dimension to Soja's work in Kenya. For instance, where Soja explores the transformative potential of the social, cultural, and spatial dimensions of the in-between spaces, the Chakana operates as a model of territorial organization (<u>Puma Uguña 2014</u>) and a cartography of the new relations that arise from

the ascending and descending of space in the making of the community (Figure 2, and for more see 2022). It includes both, the material and mental spaces, the real and the imagined, co-equally privileging the spatial, the historical, and the social (Carson 2010). An Andean thirdspace is therefore vital to explaining the process of institutionalizing the epistemic community as a configured identity in Ecuador. Utilizing the Chakana, was an open possibility for the advancing of spatial politics. As a mechanism of power the symbolic Chakana keeps open a spatial debate for new and different possibilities, and because it is imagined as it is dialectically open, it's a logic towards a continuing expansion and refiguration of spatial knowledge for Latin American STS.

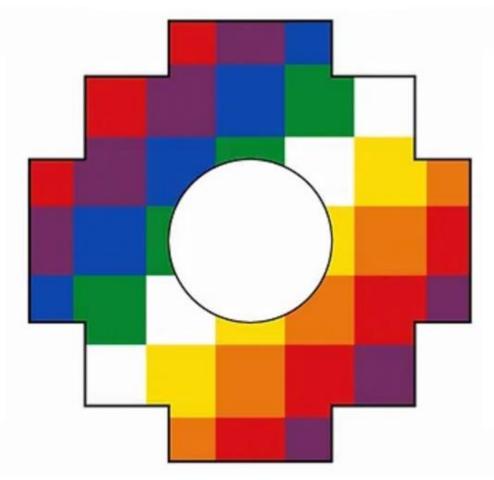


Figure 2. A rendering of the Chakana symbol by (author unknown).

The same way as maps, the capitalist press, museums, and census helped to build Benedict Anderson's idea of imagined communities and nationhood (<u>1983</u>), institutions can help to hold together epistemic communities by creating academic programs, research centers, and networks. Considering that institutions work as obligatory points of passage, as a locus of practices and the production of situated knowledge, in this

way, CTS Ecuador¹ has become a new locus of: knowledge production and practice, an obligatory point of passage for those who wish to be identified as STS scholars and practitioners in the country, and most importantly, a place where people and institutions co-create epistemic community.

Chakana as Logo: A Marker of Community Legitimation

The emergence of CTS Ecuador as an academic society began as an imaginative endeavor but there's a politics to producing such a spatial metaphor. By using the Chakana (<u>Albornoz 2019a</u>) symbol in its logo (<u>Figure 3</u>), the society established an imagined cartography for combining textual and material practices. This symbol is the backdrop that drives the social commitment of the society's research production. This imagined geography was the base from which the society could critique knowledge production regimes and knowledge dependence.

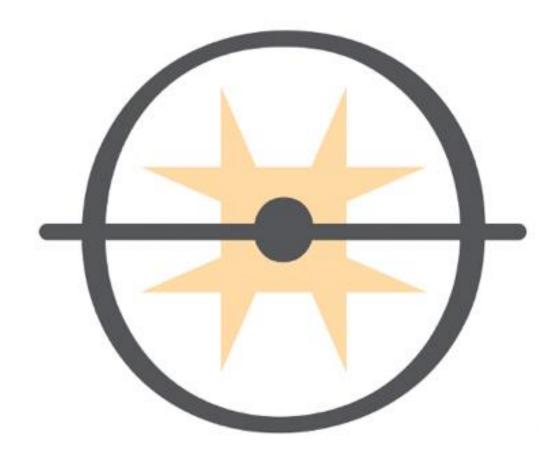


Figure 3. The CTS Ecuador logo (<u>www.ctsecuador.org</u>).²

¹ CTS Ecuador is an STS Lab or laboratory of science, technology and society of FLACSO Ecuador (CTS in Spanish). ² See <u>Facebook</u> for more. Following Oscar Varsavsky's questioning of the role of science in peripheral contexts (<u>1969</u>), the first generation of the Latin American Thinking in Science, Technology and Society—PLACTS³—(<u>Dagnino et al.</u> <u>1996</u>) inquired about the nature of science and how the field of STS could contribute to societal transformation. The community of CTS Ecuador were interested in the rebel scientist's mission: to change the social system which was at the base of Latin American STS genealogy. There was a reflexive position about how a new research field starts before its origins are naturalized (<u>Kreimer and Vessuri 2018</u>). Therefore, the community inscribed tensions, conflicts, and epistemological disputes into a series of documents that could tell the story about the origins of STS within Ecuador.

How can the construction of a thirdspace relate to how different groups can produce specific histories of sciences when they target different audiences? According to the historian Mitchel Ash (<u>1983</u>) and philosopher Ulfried Geuter (<u>1983</u>) a field's history has an internal and an external self-presentation that function as legitimation forms. The first STS community in Ecuador paid special attention to documentation in order to produce arguments of utility and cultural value directed to the academic community, policy makers, and other sponsors. Instead of accounting for heroic achievements at the frontiers of knowledge, it actively promoted a socializing function toward students and newcomers.

Creating a thirdspace within the academic community was also of paramount importance in starting the institutionalization process of STS as an interdisciplinary field. Where faculty members strongly advocated disciplines, STS highlighted the interdisciplinary practices within the lines of research in the Ecuadorian social sciences—encompassing fields such as sociology, anthropology, political sciences, and history. The advocacy opened a controversy between the old paradigms and the new research practices which were used to legitimize political interests. The struggle to create a symbolic space for the community formation was directly related to the developing and documenting of epistemic identity.

This essay includes the artifacts that are part of the *STS Infrastructures* essay "Ecuadorian STS: A Story from the Middle of the World" (<u>Albornoz and Sanclemente 2019</u>), which was a first attempt to describe how academic communities often emerge from the collision of scholarly interests, the building of new research programs, and opportunities of collaboration in the country. This paper aims to view this first narrative through the lenses of space and institution to work out how STS formation can help to rethink place by following artifacts such as: the Chakana (<u>Albornoz 2019a</u>), academic programs (<u>Albornoz and Sanclemente 2019</u>), summer schools (<u>Albornoz and Castro 2019</u>), doctoral schools; publications (<u>Albornoz and Sanclemente 2019</u>), mentors (<u>ibid.</u>), and research centers (<u>Albornoz, Sanclemente, and Castro 2019</u>). The description of these artifacts contributes to the comprehension of how the conceptualizing of a thirdspace combines the practices embedded within institutions, and how institutions contribute to the formation and stabilization of epistemic communities.

³ Acronym for Pensamiento Latinoamericano en Ciencia, Tecnología y Sociedad.

Thirdspace and Its Institutions

The epistemic community that conceived of a thirdspace in Ecuador, not only designed it through practices, but also imagined it as a space of knowledge and "utopian thought and vision" (ibid., 67). As Soja emphasizes, a thirdspace in parallel to being a perceived space becomes a "lived space," as seen through the eyes of those who interact with it (1996, 239). Directly inhabited by those who wished to create a new interdisciplinary field, an Andean thirdspace was a space *for* and *of* representation. By conceptually combining "things and thought," the "real and the imagined" on equal terms, without privileging one over the other *a priori*, the conceiving of a thirdspace became possible. Collectively, the logo, website, legal constitution, and annual meetings played a vital role in embedding academic practices within STS researchers' domain. The epistemic community reimagined space in an attempt to break with existing power structures and dynamics by creating a directly-lived counterspace, and achieved this by reimagining existing structures through a process of thirding spaces (Meskell–Brocken 2020).

Forming a spatial perspective that combines both the real and the imagined (<u>Soja 1996</u>) in Bhabha's contribution to a concept of thirdspace is a metaphor for a hybrid encounter (<u>Bhabha 1994</u>). Extending Bhabha's contribution. The cartographic image of an epistemic community invites a study of the institutional role in envisioning places in relation to how individuals negotiate their hybrid identities. Even though Bhabha's concept of hybridity is often applied to the construction of hybrid cultural identities, his idea of "third space" emphasizes a quasi-identity.

The importance of hybridity is not to be able to trace two original moments from which the third emerges, rather hybridity to me is the "third space" which enables other positions to emerge. (<u>Bhabha 1990, 211</u>).

The Ecuadorian STS community has followed a unique institutionalization path to community building through hybridity. While other communities have developed *networks* with little institutionalization, the Ecuadorian case is concerned with the role institutions play in forming epistemic identity. At a time when Latin American communities such as the Argentinian, Brazilian, and Chilean have constructed a real and imagined space by establishing organizations that operate without official legal registration or government recognition, the Ecuadorian community faced the challenge to co-construct a thirdspace, a space that could be "conceived, perceived and lived" (Soja 1996, 74). The institutional strategy was chosen in order to create stability (Shepsle 1986) and to help negotiate hybrid identities and STS genealogies within the community. This was the case of the Latin American Faculty of Social Sciences, the National Polytechnic School (EPN), as well as Kaleidos, and CTS Ecuador.

Latin American Faculty of Social Sciences (FLACSO)

How could a new field emerge? This is a political question that involves the capacity of institutions to consolidate academic projects. The question was debated by a group of students and professors at FLACSO in 2007. They also created the first STS community in the country (<u>Albornoz 2019b</u>), inspired by social and political concerns of the Latin American Thinking in Science, Technology and Society regarding knowledge

and technological dependence, and the role of science in a peripheral context.⁴ Driven by political values and the history of the field in the region, the STS Community was borne out of two trajectories: the political and the academic. It is crucial to note—when considering the history of the field in Ecuador—that the STS community followed this double function of legitimation (<u>Lepenies and Weingart 1983</u>; <u>Dagnino and Thomas 1999b</u>).

Yet, despite enthusiasm for interdisciplinary approaches in teaching and researching, many institutional barriers emerged when the graduate program on STS was presented to the University Faculty at FLACSO. Most of those barriers derived from an array of established arrangements and practices that discouraged STS as a new academic field, due to an institutional structure that promoted the continuity of disciplinary programs (<u>Abbott 2001</u>). A great effort had to be made to negotiate the importance of incorporating "science and technology studies" as a new academic program in order to avoid existing on the margins of established disciplines.

The STS group who co-constructed the first attempt to build an epistemic community in the middle of the world was initially weaving a *network* of actants to re-imagine place as a key element of identity formation. FLACSO was the first place to host STS researchers at the Media Studies Department. From 2008 to 2012, the community started enrolling scholars from Argentina, Colombia, France, and the United States. In doing so, a combination of STS genealogies was offered as tools for research, debate, and training.

Seminars and workshops were organized to start a conversation of STS in FLACSO, with an open invitation to other faculty members, students, and policy makers. Because social research in Latin America scarcely tackled the discussion on the technology-poverty relationship, the notion of social technologies emerged as part of a research-action program to consider the technological and cognitive dimension in the processes of social change and in the strategies for solving the problems of poverty and underdevelopment (Dagnino 2010, 2008; Dagnino and Thomas 1999a, 1999b; Thomas and Fressoli 2009). The concept of social technologies (Dagnino et al. 1996; Thomas and Fressoli 2007) was used to question why the research community's reorientation was fundamental to the study of structural inequalities in the region, and how they (understood as technologies aimed at solving social or environmental problems) were of critical strategic importance for Latin America's future.

The Colombian war, so close to Ecuador's social and political life of the past fifty years was included in the STS debates with Ernesto Lleras' approach of "learning communities" (<u>Albornoz 2019b</u>). His personal experience of the war and his training in research-action with Orlando Fals Borda and Paulo Freire, led him to develop a methodological approach when working with the structural problems of villages, social organizations, and institutions. Learning communities can be considered on two levels. First, the explicit relationships between people's cooperation, loyalty, and solidarity, and second, the emergence of a permanent space for dialogue and collective empowerment. By unfolding a series of practices that enable a

⁴ The first STS community included the following professors — María Belén Albornoz, Javier Jiménez, Mónica Bustamante and students — María Laspina, Gabriela Menéndez, Narcisa Camacho, Francisca Luenga, Ángeles Andrade and Consuelo Albornoz.

transformation of the self-consciousness of its members, a learning community transforms as a result of the communities' own practices. This change cannot be imposed.

For the Ecuadorian STS community, Lleras' contribution was vital to explore identity formation through two reflexivity practices: (i) being-in-the-world, and (ii) community institutionalization. Inspired by the Heideggerian notion of being-in-the-world (Heidegger [1927] 1962), Lleras has developed a methodology where the existential identity of being-in-the-world are a unitarian phenomenon. Place became a notion worth discussing and debating in the community learning process. Can it be that place intrinsically is related to a territory, or can it be imagined as a thirdspace? In the framework of postcolonial studies, "place" has played a significant role in how one defines one's own identity and how that identity is defined by others (Saïd 1978; Williams 1975; Chambers and Curti 1996). "Place" has been integral to the postcolonial experience as an imaginative geography (Brennan 1989; Gikandi 1996; Boehmer 2005; Pratt 1992; During 2000). Therefore, experiencing an epistemic community's emergence from a learning community perspective implies debating "place" and its representations.

Based on Michel Callon's sociology of translation, the STS community debated with Dominique Vinck "network mobilization" (<u>Albornoz 2019b</u>). The community considered how researchers are moved by relations and activities that reach beyond the laboratory and their epistemic communities. Place was perceived through a new prism of trans-epistemic arenas where researchers publish, procure funding, travel to meetings with industry, manage public research interventions and advise policy-makers. Due to this continued networking, researchers modify their proposals, redraft articles, continue or abandon enquiries according to industry's response, with implications beyond the laboratory life.

This series of workshops and seminars contributed to the creating of a simultaneously real and imagined space that allowed its recognition as an emerging field in the country. In this context, the institutional process at FLACSO continued by creating an STS postgraduate research and training program, the *Diploma on Technology and Development* (Albornoz and Sanclemente 2019). In 2011 and 2012, this online program trained more than fifty students throughout the country.

Following its double function of legitimation (the academic and the political) the STS community⁵ became part of the advisory group that presented a proposal of the National Plan of Science, Technology, and Innovation (2013–2017) to the National Secretariat of Higher Education (SENESCYT). The community's research trajectory was already recognized by decision-makers, many of whom had been students of FLACSO's STS courses.

Even though institutionalizing STS and imagining an epistemic community was possible over time, co-producing knowledge and institutional recognition was a difficult task. An institutional explanation of the stabilization of an epistemic community was permeated by (a) the social construction of place, (b) practices embedded within institutions, (c) structural factors, and (d) the role that organizations play in shaping decisions (<u>Hay 2002; Rowe 1997; North 1990</u>).

⁵ See *Íconos Journal* in Albornoz (<u>2019b</u>).

New "inscription devices" (Latour 1987; Latour and Woolgar 1979) were used to continue with the institutionalization at FLACSO. For instance, STS special issues and books were published,⁶ the aforementioned STS graduate program was attended, research projects were designed and implemented with international organizations, and STS Summer Schools were launched annually since 2019 (Albornoz and Sanclemente 2019). These devices became obligatory points of passage for other students and scholars who were introduced to the social construction of technology, the theory of technological politics, and social technologies, among other STS approaches. They also made visible a new geography of networks where the real and the imagined coexist.

The Laboratory of Science, Technology and Society—*CTS Lab* (<u>http://ctslab.org</u>)—was inaugurated in 2018. Committed to generating knowledge that is relevant to decision-making, the laboratory has opened a place for the co-design of public policy in local contexts and for experimental implementation. STS and public policy analysis nourish the laboratory's proposal for a robust interdisciplinary vocation. At the intersection of STS and public policy are the shared topics that shape the laboratory's local orientation with an international projection. They are—social innovation, big data, artificial intelligence, and science, technology and innovation policies, cities laboratory, and fair work in the gig economy. The Laboratory sponsors a small number of stipends and non-stipend fellowships each year to conduct research and receive STS training. This space offers a unique environment in which fellows become an integral part of the FLACSO STS community.

One of the fundamental characteristics of institutions is that they can create stability and produce outcomes of equilibrium. If a community with an informal structure is less stable and predictable (<u>Shepsle</u> <u>1986</u>), then what kind of place do institutions create when shaping epistemic communities? Institutional analysis often overlooks the concept of space and the dynamic processes which account for their evolution.

Institutionalization is not always a linear path. Kaleidos (<u>Suárez and Núñez 2019; Núñez and Suárez</u> 2021) for example, was designed as an Interdisciplinary Ethnography Center, in a joint effort between FLACSO and the University of Cuenca. This experimental project talks about the difficulties of institutionalizing STS research when the program does not emerge from the institution's academic traditions. Founded by academics from the Global South trained in the Global North the research center has moved between institutions. After a two-year contract with both universities, the center based in Cuenca was relocated to Quito and to a third university. Kaleidos' trajectory speaks to how epistemic communities bring forth ways to re-imagine place as a constitutive element of identity formation. It also illustrates how the institutionalization process deeply affects the notions of place when imagining epistemic communities. The lack of a rooted institutional process has forced Kaleidos to imagine place in Bhabha's terms as primarily imagined and only secondarily rooted in a material geography (<u>1994</u>).

⁶ Publications include: "Technology Policies and Political Technologies: Dynamics of Inclusion, Development and Innovation in Latin America" (<u>Thomas, Albornoz, and Picabea 2015</u>), "Engineering, Innovation and Social Technology" (<u>Albornoz, and Jiménez Becerra 2012</u>; <u>Albornoz, Jiménez Becerra, and Rojas Álvarez 2017</u>), "Computers and Black Boxes" (<u>Albornoz et al. 2012</u>), and "Socio-Technical Study of Broadband: An e-inclusion Policy" (<u>Albornoz and Jiménez 2012</u>).

National Polytechnic School (EPN)

The EPN was the second university to start two graduate programs with STS components. In 2017, the Faculty of Administrative Sciences opened a Ph.D. Program in *Technology Management*. The program was designed to train researchers with an interdisciplinary background to contribute to the transforming of the country's productive matrix. The managerial perspective was predominant in the formulation of the academic program. When Pablo Kreimer from the Maimónides University, Argentina, was invited to be part of the Advisory Committee, STS courses from the Master's program were incorporated into the doctoral program.

Kreimer and Fernando Herrera participated in designing a Master's program introducing STS courses such as *Social Studies of Science and Technology*; *Science and Technology Policies*; and *Social Perspectives of Technology*.⁷ Kreimer's mentorship was key to the institutionalization of STS in the Polytechnic School's teaching program. Both scholars had to overcome institutional barriers when the Master's program in *Science and Technology Management* was presented to the Academic Council. The importance of social sciences in STEM disciplines had to be proven before faculty members and students. The Master's program was approved and launched in 2018 only when both scholars showed that STS is concerned with understanding how people create new devices and new knowledge, and how STS researchers look at technology and society together.

Kreimer's reputation as one of the well-known STS scholars in Latin America helped to include STS components in both programs. However, STS remained peripheral to established disciplines and EPN failed to successfully open a line of research using STS lenses.

CTS Ecuador. An Ecuadorian Story of Thirding Space

In 2018, the Society for Social Studies of Science and Technology (CTS Ecuador) was legally recognized by the Ecuadorian government as an academic society. After a few months as an academic network, its members decided to co-construct a place for STS over other institutionalized STS centers such as CTS Lab, Kaleidos, and Kuna (a community of promoters of scientific and ancestral knowledge). The decision was made based on the experience of other STS networks in Latin America which had a long history of developing STS programs. Some elements converged in creating this new space including: the limitations of other institutions to include young researchers; the concentration of STS programs in Quito; and the promotion and consolidation of STS as a unified and organized effort.

Imagination was essential to identity construction. By the time of CTS Ecuador's creation, FLACSO, the National Polytechnic School and the University of Cuenca had supported STS programs. Young researchers coming back to Ecuador from their Doctorate and Master's degrees had no institutional affiliation in the country. CTS Ecuador imagined itself as a place that could harbor STS scholars, students, practitioners and policy makers, and produce persistence in the building of the STS field while creating autonomy to pursue its own goals. Attempting to foster STS through more informal networks have shown

⁷ Kreimer served as thesis adviser of Herrera's PhD thesis in FLACSO.

uneven and less organic results—while an institutionalized endeavor could offer stability through a more structural organization and projection over time. CTS Ecuador was an imagined community (<u>Norton 2000</u>; <u>Wenger 1998</u>) providing researchers with connections to people beyond their immediate academic and social networks. Through forms of engagement, CTS Ecuador impacted on the researcher's identity, and self-image in relation to the world (<u>Pavlenko and Norton 2007</u>).

CTS Ecuador became a thirdspace, a combination of the physical space, the imagined representational space, and the lived space (Soja 1996, 10). The coming together of the three spaces was rooted in a material geography. Each member of the society came from a different background and from diverse STS genealogies. In this context, place was a hybridized product that was "neither the one, nor the other [...], but something in between" (Bhabha 1994, 25–28); in which institutions offered a framework for community formation and continuity over time.

The institutionalization process of CTS Ecuador involved the design of a legal organization which had to be approved by the Secretariat of Higher Education, Science and Innovation (SENESCYT). The founding members came from FLACSO, the National Polytechnic School and the Ministry of Education. A few months later, CTS Ecuador welcomed twenty-one new members from various institutional affiliations. Those joining the Society included returning fellows from seven European universities,⁸ scholars and PhD students from other universities throughout the country.⁹ Since its constitution, CTS Ecuador has organized two annual meetings (2019 and 2020) and one doctoral school (2019).

The First STS Ecuadorian Meeting took place in April 2019 and was hosted by the National Polytechnic Institute around the theme: "Thinking about the Relationship between Science, Technology and Society in Ecuador." The organizers invited international speakers such as Noela Invernizzi, president of the Latin American Society for Social Studies of Science and Technology (ESOCITE); Rigas Arvanitis, researcher director of the Institut de Recherche pour le Développement (IRD) in Paris; and Rosalba Casas, former president of ESOCITE and professor at the Universidad Nacional Autónoma de México (UNAM). The second STS Ecuadorian meeting was held online (due to the COVID-19 pandemic confinement) around the theme "Challenges of Interdisciplinary Research." This meeting focused on the academic work of ESOCITE's members—their investigation lines, methodologies, and their research networks.

FLACSO and the National Polytechnic University organized the Sixth Doctoral School of Social and Political Studies on Science and Technology of ESOCITE which took place in Quito in August 2019. The meeting brought together a group of twenty-five young researchers and twenty highly regarded STS scholars such as Hebe Vessuri (2017 Bernal Prize), Rosalba Casas, Hernán Thomas, Noela Invernizzi, and Pablo Kreimer among others. The doctoral school offered the students a privileged space to share their research work, and discuss analytical models, methodologies, and contributions to the regions' STS field. It opened a unique opportunity to strengthen national and regional research networks.

⁸ Edinburgh University, Freiburg University, Erasmus University Rotterdam, Salamanca University, Vienna University, Humboldt University, and École des Hautes Études en Sciences Sociales.

⁹ Northern Technical University, University of Cuenca, University of the Armed Forces (ESPE), Equinoctial Technological University, and the Catholic University.

The endeavor that required the development of a thirdspace—that combined the social, spatial, political and historical (Saïd 1978; Bhabha 1994)—of Ecuadorian STS is embedded in the formation of other Latin American STS communities, which are deeply rooted in the history and geography of the first generation STS scholars in the region. The idea of an imaginative geography, enacted as an actual physical space, is what the politics of producing a spatial metaphor is endowed with in the case of Ecuadorian STS. The STS scholars at CTS Ecuador have experienced the construction of an imagined space and its identity as fundamental to positioning the epistemic community among others with longer trajectories in South America.

Ecuador is a new chapter in the regional history of STS in the Global South; however, it has followed a unique path to community building. Unlike other Latin American communities, which have been able to establish very strong historical trajectories and networks, but with little institutionalization, the Ecuadorian community immediately sought institutionalization as a strategy to consolidate the thirdspace and its epistemic identity.

The STS Ecuadorian community emerged decades after STS scholars were concerned with technological dependence, national science, and the peripheral role of science in Latin America (Sábato 1975). This back catalogue of STS matters of concern relate in parallel to a late design of public policies for Science, Technology and Society (STI) within the country. Since 2007, science and technology have become part of the struggle to reimagine Ecuadorian society in order to attempt a technological catch-up (Kim 2015), which to an extent enables science and technology to operate as political agents of change (Jasanoff 2004). In this context, social scholars begin to use STS lenses to question deterministic versions of technology in the framing of policy instruments. STI policy and its most iconic projects like the Yachay City of Knowledge, the *Prometeo* (Prometheus) and *Viejos Sabios* (Old Wise Men) programs rapidly became the subject of research (Chávez and Gaybor 2018; Gómez 2019; Albornoz 2020).

Although the relevance of STS is no longer openly questioned as it was a few years ago, STS scholars are still struggling to stabilize the field within universities. STS programs and research centers remain underfunded, and their relevance has yet to be demonstrated on a day-to-day basis. The creation of a thirdspace has helped to achieve the epistemic identity needed to gain credibility in the academic environment. However, we are only at the beginning of this story. Institutions alone cannot guarantee the sustainability of the community and STS scholars are still striving to consolidate their academic work.

From its very beginnings, those involved in the developing of a new field of research have dealt with tensions, definitions, and political visions (<u>Kreimer and Vessuri 2018</u>). But above all, they have worked with situated practices of place, and CTS Ecuador interweaves all these struggles between actors and institutional trajectories.

When the "Pioneers" focused on the production of original knowledge, the location of knowledge was of paramount importance (<u>ibid.</u>).¹⁰ The "Latin American Thought in Science, Technology, and Society"

¹⁰ According to Pablo Kreimer and Hebe Vessuri, the "Pioneers" were the first generation of STS scholars in Latin America from 1950 to 1980 (2018, 27).

was created from such a geographical endeavor and has represented a "kind of mythodological foundation of the field" (Kreimer and Vessuri 2018, 22) for next generation STS scholars in the region. In this context, asking—why epistemic communities bring forth ways to re-imagine place as a constitutive element of identity formation?—has been useful in understanding the identity trajectory of CTS Ecuador. The emergence of an interdisciplinary field evoked distant proximities among various places. The STS community co-constructed a place where worldly relations used dialogues with other places and spatial orders. This paper aimed to explore the fundamental role that place played in constructing the country's STS field by following institutions, mentors, theoretical genealogies, and inscription devices with a symmetrical approach. While the ascending steps have been described, the descending steps of sustaining the community are yet to be explored because place is not only linked to a spatial order but to practices embedded within institutions. Universities have been the main institutions which have allowed the stabilization and the continuity of the community over time. Throughout this essay we have seen what kind of spaces institutions create when shaping epistemic communities, since they bring together simultaneously real and imagined places. The notion of a thirdspace has been vital to show this confluence. While Soja's thirdspace (1996) is mainly real and then imagined by its inhabitants, Bhabha's third space (1994) is primarily imagined and only then rooted in a material geography. Each perspective speaks to and nurtures the other allowing the co-creation of situated knowledge from different STS genealogies, and as an obligatory point of passage for identity formation.

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Data Availability

Supplemental data published in this original research article can be accessed in STS Infrastructures at: <u>https://n2t.net/ark:/81416/p4xs39</u>.

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