

# Indigenous Rights, Insurgent Cartographies, and the Promise of Participatory Mapping

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## The Power of Maps and Mapping

Maps fascinate us; they entertain and they educate. And in recent years, with the profusion of web-based mapping interfaces operating on ubiquitous communication tools such as GPS units and Smartphones, we have all become cartographers of sorts. But for those who study maps—how they are made, how they are used, and with what consequences—maps are not innocent objects but rather social productions that are vested with authority and rhetorical power. Through their authority, maps produce and reproduce social relations in multiple, complex, and often poorly understood ways.

The power of maps derives from the role of symbology—colors, fonts, icons—to convey meaning and shape our perceptions of people and places. Their power also stems from their selectivity: maps by their very nature include certain places and features and exclude others, and this holds true in Google Maps as well as maps produced by NGOs and government agencies. And, more subtly, the power of maps derives from our assumption that they are “accurate,” especially since they are products of the authoritative science of cartography and the sophisticated technologies of Geographic Information Systems. This elusive, intrinsic power of maps has long been the focus of interest by scholars in such diverse fields as urban planning, geography, and anthropology, all joined in their concern with how the world is categorized, divided, bounded, and represented in maps, and with what social, political, and economic consequences (Crampton 2001; Harley 1989; Kitchin and Dodge 2007; Pickles ed. 1995; Wood 1992).

In this article I turn my attention to the recent scholarship, activism, and professional practice associated with participatory approaches to maps and mapping, particularly in indigenous territories in Latin America. Much of this work takes as its starting point the troubling relationship between cartography and colonialism, which, in fact,

continues today in the close associations between state-sponsored cartography and global capital. This is to say, maps have long been the means and metaphors of state dominance in Latin America and elsewhere.

Maps (and mapmakers) have served the process of colonization and neocolonial projects of territorial control through their powerful representation of boundaries and new place names superimposed on indigenous lands. They have served the economic development of the neocolonial state through their selective representation of “natural resources” in indigenous spaces; they have served the disciplinary purposes of the state through their demarcation of “protected” lands; and they have contributed to the criminalization of indigenous livelihood strategies through their exclusionary and rigid “zoning” of land uses in traditional lands. Other examples of how the rhetorical power of cartography has been used to marginalize indigenous people abound: indigenous toponyms have been eliminated from state maps; indigenous lands have been labeled as “empty” and ripe for development; and contiguous indigenous land-use zones have been fractured in isolated “reservations,” “agricultural communities,” and so on (Bryan 2011; Craib 2004; Wainwright and Bryan 2009).

## Indigenous and Participatory Mapping

But indigenous people are now trying to harness the power of cartography to better represent their material cultures and conceptions of space and place. This alternative cartography typically involves some form of participatory mapmaking designed to capture indigenous spatial knowledge, often through community-based workshops where indigenous representatives work with cartographers and GIS specialists to describe, document, and represent indigenous landscapes. In indigenous lands throughout Latin

America and beyond, indigenous communities and organizations are forming alliances with scholars, activists, and NGOs to render legible community rights, resource uses, sacred places, and other important spatial features to outside entities (Caballero Arias 2007; Mansutti 2006; Offen 2003; Sletto 2010).

Because of the potential of such participatory mapping projects to bring forth indigenous knowledge and perspectives, they are increasingly becoming central to participatory approaches to biodiversity conservation and land-use planning in areas populated by indigenous people. In some cases, participatory mapping projects have contributed to greater indigenous self-determination and more democratic planning and resource management. But more important, this new counter-mapping (Peluso 1995) represents the potential for an alternative means of storytelling and place-making, a radical change in the ways landscapes and places are documented, represented, and vested with meaning. The rhetorical power of maps and GIS, which for so long has served to marginalize indigenous people, thus ironically becomes the source for indigenous community building, territoriality, development and land-use planning, and cultural survival (Caballero Arias and Zent 2006; Chapin et al. 2005; Chapin and Threlkeld 2001; Fox et al. 2005; Herlihy and Knapp 2003; Stocks 2003).

The creative productions of new forms of maps in such participatory mapping projects have been made possible by technological and political developments: cheaper and more user-friendly tools for participatory mapping are readily available, an increasing number of NGO and academics are engaged in participatory mapping, and the postdictatorship and postwar period has opened up access to mapping technologies and data previously available to only the military, including much cheaper and easier access to satellite imagery and georeferenced spatial data produced by state agencies, international organizations, and NGOs.

### Rethinking Participatory Mapping

The availability of these new technologies, coupled with decentralization of state power and increasing capacities on the part of indigenous cartographers and their

allies, has resulted in an explosion of creative, participatory mapping practices and critical deliberations of this emerging field among indigenous people and their allies. These articulations of intellectual explorations with activism and technical innovations have broad implications for scholarship on space, power, and identity in the post-neoliberal state, but are only beginning to be systematically documented in academia and beyond. At the University of Texas, scholars associated with the LLILAS Faculty Research Initiative “Participatory Mapping and the Struggle for Land and Resources”<sup>1</sup> are now working with colleagues in Brazil, Colombia, Argentina, Venezuela, and elsewhere to provide a space for reflections on these recent, exciting trends in participatory mapping. This includes a series of international conferences on participatory mapping starting at Cornell University in 2006 and followed by Rio de Janeiro in 2010; Bogotá, Colombia, in 2011; and Rosario, Argentina, in 2012.

The Cornell conference, hosted by the Cornell Society for Humanities, and the Bogotá conference, cosponsored by the Rights and Resources Initiative and LLILAS and hosted by the Universidad de Los Andes, were both chaired by the author, and both events sought to bring together indigenous and nonindigenous leaders, scholars, and practitioners to facilitate transdisciplinary dialogue and

publications (Sletto 2009a, b; Sletto ed. 2012).<sup>2</sup> These exchanges and collaborative scholarship have revealed three principal trends in what can loosely be called a new, participatory cartography: innovations in the practices and conceptualizations of the process of mapmaking; a rethinking and expansion of the role of mapmaking for endogenous community building and resource management; and inventions in the forms of maps and the conceptions of what maps and other spatial representations are and can be.

As our thinking about maps and mapmaking continues to evolve, we are seeing a shift in focus from “maps” to “cartographies.” This is to say, the work currently done by indigenous practitioners and scholars and their colleagues is resulting in a wealth of creative, radical, and alternative spatial representations that push the boundaries of what was commonly considered a “proper map.” We are seeing a reconceptualization of maps as creative re-presentations of space and culture, constructed by indigenous peoples on their own terms through a multitude of forms and media, and ultimately serving to reconfigure spatial and social relations to their benefit. These radical innovations in techniques and representational forms promise to better reflect spatial phenomena that were excluded or poorly represented in traditional



Reviewing the first draft of the map of Yukpa territory in Toromo, Venezuela, July 2011.

participatory maps, such as the deeper spiritual meanings of places and landscapes, the variability of boundaries depending on kinship and other social relations, and the temporality of landscapes and land uses.

For example, in the Cauca region of Colombia, the Fundación Minga has developed innovative mapping projects resulting in *mapas parlante*, that is, living maps that serve to facilitate critical conversations and endogenous documentation of local knowledge among residents in Afro-Colombian communities. In Venezuela, the author has worked for the past five years with the Yukpa to develop an interactive web-based map that includes video, photos, and drawings, and that is intended for preservation of culture as well as territorial claims-making. And in Ecuador, the Kichwa de Pastaza have adapted participatory mapping tools to their own cultural context, producing endogenous re-presentations of space that incorporate spiritual significance and social relations associated with landscapes with Western cartographic standards.

This reconceptualization of what constitutes a “map” also requires new thinking about the process of mapmaking. The discussion surrounding participatory mapping has tended to emphasize maps as products rather than mapping as process. Maps, however, are not neutral objects divorced from social context,

but rather evolving stories of space and culture that are shaped by the engagement of readers (Kitchin and Dodge 2007; Sletto 2010c). Mapping can be thought of as a space of engagement where social and spatial relations are reconfigured, and where representations of these relations will take a multitude of forms. In order to productively reconceptualize maps as cartographies and take advantage of their potentials for democracy and liberation, mapmaking must be situated within community-led social processes, that is, mapmaking should follow from social mobilization. We see this reconceptualization of the process of participatory mapmaking in the Projeto Nova Cartografia Social da Amazônia (PNCSA)<sup>3</sup> in Manaus, Brazil, where social cartography is conceived of as a means for expression of collective identities. Within the *quilombola* communities, for example, mapmaking has been reconceptualized as a natural extension of endogenous, community-led social processes, that is, maps follow from social mobilization, not the other way around.

Finally, this new thinking about process has been accompanied by innovative uses of participatory mapping *within* indigenous communities for purposes of social development, cultural preservation, and endogenous resource management. By reconceptualizing participatory mapping as social engagements,

the “power of maps” can be used to strengthen social bonds and a sense of community, to reproduce cultures and identities in the face of social change, and to rebuild connections to a common heritage. Indigenous peoples are now increasingly using social cartography for purposes of place-making and resource management: documenting traditional resources and resource uses in ways that accord with local realities; developing socially embedded, sustainable land-use and resource management strategies; and perhaps more important, using creative mappings to reestablish their own, unique relationships with place and nature.

In Peru, for example, indigenous communities in the Cuenca del Río Corrientes have already gained titles to their lands, but they continue to suffer from contamination caused by oil companies and external pressures exerted by extractivist interests. In order to document this contamination and create community-based master plans and resource management strategies, they have adopted participatory mapping as a principal research and planning tool. They are not, however, simply copying strategies used elsewhere, but instead they are constantly innovating and adapting these tools to serve their future needs.

## Discussion

In coming years, scholars at the University of Texas at Austin and beyond will continue to reflect critically about the social implications of participatory mapping in indigenous lands. Productive dialogue between indigenous and Western scholars and practitioners about the potentials and pitfalls of participatory mapping has long been lacking, and critical thinking about the politics, potentials, and pitfalls of these technologies has been spotty and uneven. By its very nature, Western cartography results in maps that fail to represent the complexities of indigenous landscapes. Indigenous land tenure and boundaries are fluid, overlapping, and changing; indigenous conceptions of space reflect complex social relations, and the meanings of landscapes are interwoven with spiritual relationships. Often, participatory mapping projects result in maps that simplify indigenous cultures and gloss over the contested relationships between identity formations and constructions of histories and landscapes. Also, participation in such



Section of the participatory map of Yukpa territory, Venezuela.

mapping projects is often limited, and participatory mapping projects may reshape identity formations and exacerbate local inequalities.

As participatory mapping technologies are increasingly appropriated and refined by indigenous peoples themselves, however, the possibilities increase for more representative and socially appropriate processes and more innovative and productive forms of maps. One such technological frontier is the Internet and the host of rapidly developing web-based mapping technologies, which allow indigenous people and their allies to use Google Earth, Google Maps, and other user-driven mapping interfaces to facilitate participation in mapping projects, and to publish online maps where users can explore not only spatial information but also other data such as photographs and video. These new Internet technologies can make possible representations that are more true to the complex articulations of space, time, and culture that characterize indigenous landscapes. On the other hand, while the Internet permits indigenous people and their allies to rapidly disseminate their own representations of space and culture worldwide, wide dissemination does not necessarily translate into effective claims-making, and the use of digital technologies carries the risk of increasing inequities between those with access to these technologies and those without. Participatory maps thus constitute increasingly important elements of broader indigenous representational strategies, reflecting the complex entanglements of local and global processes that accompany the productions of postcolonial landscapes.

Participatory mapping is shifting rapidly from being the purview of North American and European scholars and development practitioners to a set of tools and epistemologies of spatial production that is increasingly driven by indigenous people, on their own terms, embedded within their own community-driven social processes, and oriented toward their own ends. In the process, indigenous practitioners and intellectuals and their collaborators have brought participatory mapping from a prescriptive set of Western-driven tools to a fulcrum for creative thinking and intellectual exploration. The innovative practices and theory development in participatory mapping promise to expand the frontiers of postdevelopment theory and,

most important, to further the struggle for justice in indigenous communities and other marginalized communities that have long lacked a map of their own—let alone the means to make one. ✨

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#### Notes

1. See <http://www.utexas.edu/cola/insts/llilas/faculty/fri.php>
2. The Bogotá conference was made possible through financial support provided by the Rights and Resources Initiative (<http://www.rightsandresources.org/>) and generous staff and logistical support from the Departamento de Historia de la Facultad de Ciencias Sociales at the Universidad de Los Andes (<http://historia.uniandes.edu.co/index.php>). The examples discussed in this article were presented at the Bogotá conference and are available for download at [https://docs.google.com/leaf?id=0B9h8MnJJQyEmMTA1NTBmZGZmZmIyZC00NW11LW0E4YzMtMTZiYWJhODZiZm&hl=en\\_US](https://docs.google.com/leaf?id=0B9h8MnJJQyEmMTA1NTBmZGZmZmIyZC00NW11LW0E4YzMtMTZiYWJhODZiZm&hl=en_US).
3. <http://www.novacartografiasocial.com/>

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