
Practicing Population in Latin America

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Population involves the counting of a group in a place. To count is to know. To know is to intervene. Knowing and intervening are complicated practices. Assigning groups to places is complicated as well. This set of essays, that examine how scientists make Latin American groups into “objects of inquiry and intervention” (Suárez-Díaz 2017a [this volume]) allows for a fundamental examination of how practicing population can involve seemingly disparate accounts of the relationship of groups to places. North American scientists tend to constitute the populations described in these papers as biologically essential groups located in timeless landscapes or as malleably cultural groups within national territories, while Latin American scientists tend to constitute populations through the examination of groups formed in relation to land.

Debating the nature or culture of groups of people is a relatively recent activity. While nature became identifiable as “a thing” in early Enlightenment thought, until the mid-nineteenth century humans were understood as shaped in continuous relation to the material world around them, not through x percentages of nature or culture (Keller 2010). The German philosopher, Johann Gottfried Herder (1744–1803) is often credited with providing us with culture, coming from *volkgeist*, the genius of a people. But it was only later that culture came to emphasize ephemerality and non-materiality as opposed to the hard reality of nature. Herder, instead, linked culture to cultivation (as in agriculture), signifying specific groups of people embedded within a particular climate, geography and language over time. Culture was made through the constant back and forth of land and bodies, both subject to continuous change.

It wasn't until the late nineteenth century in the industrialized northern world that nature “hardened,” becoming less relational and more internal

to individual organisms. This transformation produced the politically powerful practice of debating whether human characteristics or behavior belonged to the discrete categories of nature or culture, codifying “natural” hierarchies of race and sex through the emergent fields of biology and scientific medicine (Stepan 1991). In the northern industrial world, hard nature became difficult to argue with, and so in accounting for human difference, early to mid-twentieth century U.S. social scientists juxtaposed the hard and essential biological unity of human kind with the soft malleability of culture (Meloni 2014; Roberts 2016). Populations, which then were formed in relation to nation states, could be counted as either natural or cultural. Additionally, hard nature excised historical change from biological processes, because organismal change came about only through genetic mutations to a static, ahistorical environment. With biology fixed, except by mistaken mutation, territorially isolated groups of people, “virgin soil populations,” could be studied as biologically fixed in time (Fabian 1983).

Making distinctions between groups of people in relation to place precedes counting populations in nation states, of course. In Latin America *castas* and *razas* came before both nation states and distinctions between hardened nature and malleable culture. These categories distinguished between kinds of labor, language and religiosity in relation to place (Silverblatt 2004). While the continued “softness” of both nature and *raza* in Latin America makes it no less perniciously hierarchal than North American race (Wade 1993; Cadena 2000), *raza* demonstrates the non-universality of North American assumptions about ahistorical, biological fixity. The articles in this volume demonstrate that while Latin American scientists did not explicitly contest the hard nature/soft culture distinction, they tended to constitute population through the examination of relationships between bodies and places, while North American scientists constituted populations as either natural or cultural through the examination of ahistorical processes contained mostly within the bodies or minds of group members. These different population practices were not contradictory per se, especially in light of hierarchies between North American and Latin American scientists. Differences remained (and still remain) implicit, allowing for divergent models of nature/culture, and relationships of land and bodies to frame questions and findings about populations.

In the majority of these articles we find scientists constituting populations by identifying groups whose “otherness” impeded the development of modern nations, whether economically, politically, or biologically. While all of these scientists assumed that these populations must and would change, their specific predictions and prescriptions for change varied. Latin American scientists tended to see these differences as surmountable through change in environment and custom. North American scientists tended to

assume that stone-age vs. atomic age humans were of different genetic kinds, so industrialization threatened their very existence. As we see in four of these essays (Dent and Santos, Molina, Suárez-Díaz, Vargas-Domínguez) these different scientific population practices shared a preoccupation with land that was framed through the status of autochthony.

Mid-twentieth century Latin American and North American scientists harnessed varied groups in Latin America with varied relationships to land in order to “practice population”. Sometimes these groups complicated North American assumptions about the essential difference of hard nature, but not much. In “Amerindians, Europeans, Makiritare, Mestizos, Puerto Rican, and Quechua: Categorical Heterogeneity in Latin American Human Biology” (2017 [this volume]) Santiago José Molina describes how evolutionary biologists and physical anthropologists sought to do away with race as the locus for difference in the aftermath of World War II, when the logic of hard race played out through genocide. Through efforts like the UNESCO Statement on Race and the International Biological Program, Human Adaptability arm (IBP-HA), these scientists sought to replace race with population in order to talk about human variation through statistical averages and not through typological kinds. Their efforts, however, kept intact the hardness of the biology underpinning North American race. The historical connections and contingency of groupings in Latin America in relation to land complicated hard nature, but didn’t overwhelm it. Groups like Andean Quechua speakers who lived in entangled proximity with mestizos were pragmatically classified on continuums of primitive to industrialized through their geographical location, dress and language, and rendered a genetic “Population of Cognition” in order to study high altitude adaptation. At the same time, North American scientists bemoaned how difficult it was to find truly “fixed” populations. One population geneticist, William Schull, lamented, “Unfortunately, human populations can be viewed as fixed only if the interval between the initiation and the completion of the census is infinitesimally small” (Schull 1966, p. 27; Vargas 2017, XX [this volume]). The unexamined desire for fixed populations could only find fulfillment among small remote populations. Santiago José Molina (2017, XX [this volume]) argues that these ambiguities about a group’s fixity in relation to land were productive for developing population studies. They were also productive in maintaining the dominance of hard and ahistorical nature in North American biological thought.

In the “The Problematic Otomi: Metabolism and Nutrition as Tools for Classifying Indigenous Populations in Mexico in the 1930s” (2017 [this volume]), Joel Vargas-Domínguez describes another model of constituting native populations in relationship to land. Environmental change, not fixity, was the focus of the combined efforts of Mexican and French physiologists,

who came from nations inclined towards soft nature. The French scientists wanted an ethnic comparison for understanding and managing the effects of labor on bodies, especially the metabolism of peasants and industrial workers. Exemplifying the Indian problem, impeding the development of Latin America, and positioned as abject, the Otomi provided one such comparison. Their abjection manifested in their food ways. While both groups of scientists posited the Otomi as possessing physiologically different metabolisms developed in the far past (permitting them to overlook how colonization might in fact have shaped contemporary bodies), this difference was not essential. The different metabolic rates of the Otomi people were seen as symptom of environment on the material—but also the moral bodies—of the Indian. By changing their food environment, the Otomi's biological difference could be resolved and the problematic population could be metabolically absorbed into the nation.

In Edna Suárez-Díaz “Blood Diseases in the Backyard: Mexican *Indígenas*’ as a Population of Cognition in the Mid-1960s” (2017b [this volume]), blood disease research in human population genetics appears based on soft or hard nature depending on the nationality of the scientist. Rubén Lisker, from a Mexican-Jewish family, studied the distribution of the blood traits among admixed Mexican populations. Lisker began his search for “blood difference” through language, examining Mixtecos, a language group thought to be of “one blood.” Location, not language, turned out to be more important, however, in understanding the distribution of blood traits among Mixtecos, as the blood of Coastal Mixtecos differed from mountain Mixtecos, who spoke the same language. G6PD anomaly, a genetic trait that was understood as adaptive to ward off malaria, did not come from recent environmental adaptation to land, but from the historical event of the African slave trade, which involved mixing with people adapted to land far away.

While Lisker's logic involved the admixture of two groups from distinct places, his method allowed for historical change through the mixture of populations within a territory to tell the story of blood. In contrast, James Bowman, an African American geneticist raised in the hard nature of the United States' one-drop rule, tested his blood disease hypotheses through the Lacandon Indians of the Chiapas lowlands. The Lacandon were appealing to Bowman, because of their “isolated” and “inbred” nature, despite evidence of intensive Lacandon contact with other groups. Like the North American scientists involved in the IBP-HA described by Molina (2017 [this volume]), Bowman constituted the Lacandones as an isolated population who told us about hard heredity. According to Bowman, G6PD came from two alleles, not from historical change. Positing the Lacandon as a group with static molecules, isolated in a static place, was essential to this “discovery.”

Rosanna Dent and Ricardo Ventura Santos's article, "An Unusual and Fast Disappearing Opportunity': Infectious Disease, Indigenous Populations, and New Bio-Medical Knowledge in Amazonia, 1960–1970" (2017 [this volume]) demonstrates again how for North American scientists constituting population has involved parsing relationships of groups to land within embedded assumptions about hard nature. Geneticists James Neel and Francisco Salzano, a Brazilian who trained with Neel at the University of Michigan, and Francis Black, a virologist and immunologist from Yale, were interested in using indigenous groups as portals to the past. Neel and Salzano saw immunity to infectious disease among small-scale indigenous groups as evidence of the contamination of pure groups, making their data unusable. Starting with similar assumptions, the conditions of Black's research compelled him to use the present immunity of small-scale Amazonian groups to make knowledge about the past.

Neel and Salzano were interested in the genetic acquisition of immunity, assuming that susceptibility and resistance were essential determinants of genetic fitness. They meticulously planned an expedition to Amazonia in order to study isolated native groups as proxies for the susceptibility and immunity of ancient human populations. In Neel's formulation, antibodies among native groups signaled a compromised purity, thus were unhelpful to his research. In other words, antibodies or immunity did not change Neel or Salzano's sense of ahistorical hard nature, but reinforced instead their sense that nature was a pristine entity in danger of contamination. Francis Black's initial goal was similar to Neel and Salzano's. Black sought to find a group untouched by measles, given his association of measles with agriculture. During Black's initial field encounters, though, which were organized last minute, he experienced violent interactions between Indians and colonists, compelling him to consider how infectious disease was shaped in the past through varying levels of human density within a territory. Perhaps because he was a virologist (vs. a geneticist) and, through having more direct unplanned contact with the realities of Amazonia, Black found the contemporary incidence of immunity among small-scale groups to be useful for understanding the past. His approach maintained hard nature, however, by locating Amazonian groups in the past both temporally and spatially through his assumption that the environment had remained unchanged for millennia.

Two papers in this special issue describe Latin American populations formed outside the abiding interest in autochthony; nevertheless, relationships between land and nature/culture were and are essential to their constitution. In "Fertility Surveyors and Population-Making Technologies in Latin America," Raúl Necochea López examines two simultaneous practices of population: 1) mid-century, cold war concerns about population limitation within nations; and, in turn 2) the creation of a supranational Latin American

population of women with an “unmet need for contraception” (2017 [this volume]). Like several of the other articles, this piece focuses on two North Americans, Joseph Stycos and Marie-Francoise Hall, whose careers, starting in the 1940s, spanned several Latin American nation states. With the nation state as a frame, Stycos and Hall were part of the international effort making population management a problem of culture. Both researchers disseminated a new tool, the KAP survey, which measured and sought to change knowledge, attitudes, and perceptions seen as malleable among maladaptive subcultures. The logic of KAPS as applied to population reduction also constituted a population who lacked contraception. Divorcing KAPS from the material conditions in which they were embedded reinforced the North Americans’ assumption of a nature/culture divide. Eventually those in Latin America, positioned on the receiving end of KAPS and of resulting family planning programs, grew suspicious of population limitation attempts that did not focus on material conditions.

Lindsay Smith’s essay “*Los migrantes desaparecidos* as a Population of Cognition: Crisis, Unknowability, and the Making of the Missing” (2017 [this volume]), brings us to the present, focusing on how disappeared migrants in Central and North America are constituted as a population. Making a population of missing migrants involves associating and dissociating bodies and land through counting, biology, and kin making. It’s estimated that 70,000 of the 400,000 migrants who have attempted the journey from Central America through Mexico to the United States are now missing. Their efforts, as well as efforts to count them, are extremely difficult because their bodies are not linked to the land of their destination. They categorically don’t belong. Another count, that of 2000 bodies found in the Sonoran Desert, links this terrible toll to non-belonging, chillingly instantiated when immigrants are encouraged to undergo DNA testing before their journey, so that if they die they can be counted properly. This counting reconnects the dead to families whose conditions of life were so dire that this perilous journey for foreign labor served as a desperate form of familial care. DNA testing, however, determines both that family of origin is only genetic and that the dead are counted as foreign to the place of their death. This is a quintessential practice of population, the counting of a group in a place in order to intervene. But intervene how?

What is the future for population in Latin America and in general? Given its fraught history, counting in order to intervene, do social theorists or critical biologists have any use for population? It may be that population is inseparable from the murderous racial logics of hard nature and the soft nature of racial assimilation that focus on exterminating, limiting or assimilating problematic populations (Murphy 2017). What if instead we counted while knowing that what we counted was contingent? What if we focused

on the shifting conditions of life, land and labor as we counted? This would allow us to count missing migrants as a way to note all the historical, biological, and economic histories that have produced mass death in the Mexican borderlands. Maybe we should only count groups, though, not populations. Either way, let's get to work on a kind of counting that results in more accountability towards the unequal life conditions most groups have endured within Latin American scientific modernity.

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