INTRODUCTION

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We contend that, beneath the conflicts waged by diplomats and militaries, the Latin American Cold War was conducted by experts. Scientists and engineers, doctors and social workers, agronomists and architects—as well as the webs of expertise they wove—made material the political ideologies of the era. Indeed, the intertwined dreams of development and modernization that animated the Latin American Cold War relied on an army of highly specialized experts whose influence reverberates across the hemisphere and around the globe. The advent of new crop varieties and animal breeds, new houses and transportation systems, and new infrastructures of energy and tourism intimately changed the way millions of Latin Americans ate, worked, lived, and played. Around the globe, how many billions continue to feel the effects of the Green Revolution or, alternately, rally around or condemn new ways of knowing such as biodiversity conservation or neoliberal political economy, all of which germinated in Cold War Latin America? Perhaps because the technologies associated with these developments were often mundane or invisible to the naked eye—the genetics of seeds and cattle, the invisibility of electrical currents, radio waves, or market trends—they have too often been overlooked by historians of the Cold War in Latin America in favor of more dramatic moments of conflict and confrontation.

The roles of conventional Cold War actors such as diplomats, intelligence agencies, revolutionaries, political parties, and militaries have been the focus of traditional histories of the Cold War in Latin America.[1] More recently, scholars have shown how culture, broadly conceived, became an instrument in the Latin American Cold War, as artists, writers, intellectuals, and stu-

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dents helped to shape the contours of conflict.[2] Yet the experts who constitute the focus of this volume have escaped these categories: they often portrayed themselves as removed from politics, even as their work directly and indirectly contributed to the key geopolitical agendas of the day. Moreover, whereas social scientists have written extensively about development projects in Latin America, the individual actors behind that work too often evade direct historical analysis.[3] The experts behind the region's Cold War projects of modernization and development are too easily taken for granted, rather than examined as complex historical actors in their own right. In this volume, we intend to pull back the curtain to reveal a set of individuals and institutions, trace their physical and intellectual itineraries across time and space, and dissect their roles in the on-the-ground negotiation of the Cold War.

This book sets out to answer the following questions: In the Latin American Cold War, who constituted an expert, and why? Where did experts originate, how did they travel, and who funded their work? How did local, national, and international actors negotiate expertise on the ground? Readers acquainted with US-led Cold War development projects will encounter some familiar names: the Rockefeller Foundation, the World Bank, David Lilienthal of the Tennessee Valley Authority, and Norman Borlaug of Green Revolution fame all make appearances in the following pages. However, none of the essays focus primarily on these figures. Although such individuals and institutions played critical roles in the circulation of technical knowledge and the implementation of development projects in Cold War Latin America, our intent is to dig deeper and uncover the national and transnational negotiation of expertise, including the role of Latin American experts in these processes.[4]

The task of historicizing experts and expertise is particularly relevant now, as global events have cast doubt on the onetime aura and authority of experts. The ideas presented in this volume emerged out of a conference held at Yale University in October 2016. Months before our event, in the United Kingdom, a chorus of economic experts urging voters to remain part of the European Union seemed to do little to sway the opinion of the electorate. The shock caused by Brexit was met or exceeded by the election of Donald Trump in the United States just weeks after our conference, where all the apparently expert polling promised that he would be roundly defeated. While explanations for Brexit and Trump continue to be hotly contested years later, increased skepticism toward urban elites and experts is undoubtedly a factor. And the erosion of trust in expert authority is by no means confined to the ideological Right, as measles outbreaks caused by low vaccination rates and antivaccination propaganda have demonstrated. Indeed, some have warned that we are witnessing the "death of the ideal of expertise itself," with alarming consequences for science, the environment, and democracy.[5]

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It is hardly this volume's intention to promote a blind trust of scientific and governmental authority. Nevertheless, as we began to assemble the book, the fury galvanized by the Trump administration against journalists, intellectuals, scientists, and political bureaucrats seemed determined to unravel both the internal mechanics of US federal agencies and US-shepherded global order. The president's political appointments to head federal agencies, including the Environmental Protection Agency, the Department of Energy, and the Department of Housing and Urban Development, to name a few, exhibited a critical lack of experience with the work of the agencies in question and often an outright hostility. Meanwhile, key sources of federal funding threatened to dry up as the new administration's initial budget proposal slashed the National Endowment for the Arts, the National Endowment for the Humanities, the Institute of International Education and other programs supporting the circulation and exchange of knowledge and expertise.

Diverse resistance fought off some of these measures, including science and expertise in its intersectional outrage. Groups of rangers with the National Park Service opened a renegade Twitter handle. Signs reading "Science Is Real" appeared alongside those championing the rights of women, people of color, undocumented immigrants, sexual minorities, and other marginalized communities. By the time this volume went to press, it was clear that the administration that had labeled falsehoods "alternative facts" had deepened a cultural chasm regarding the validity of knowledge. Out of the culture wars giving rise to populist neonationalist movements, a sharpening war on expertise has emerged.[6] Yet as Javiera Barandiarán reveals in this volume's penultimate chapter, the contemporary breakdown emerges from the late–Cold War ascendance of free-market ideology, which undid the formerly close relationship between expertise and the state. The first nationwide experiment with neoliberal shock treatment occurred under Pinochet's military dictatorship in Chile and, as Barandiarán writes, set the stage for a new era of conflict between a reoriented power structure and scientific experts.[7] In this way, and in many other ways described in these pages, the Latin American experience in the Cold War continues to resonate in our contemporary moment. The ongoing transformation of the role of experts in government demands new histories of expertise, specifically ones that focus on the Latin American laboratories where Cold War knowledge was generated, applied, and contested.

As this volume shows, the politicization of expertise is nothing new. However, we argue that the Cold War raised the stakes of expert knowledge in concrete ways. From iconic Cold War technologies such as atomic bombs and satellites to social scientific knowledge about strategic peoples and places, experts seemed to hold the secrets to state security and prosperity. The

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United States sought to prevent the spread of communism in Latin America through the deployment of experts and funding tied to technical aid missions, including those in Truman's Point Four program and, later, Kennedy's Alliance for Progress. Many Latin American leaders, for their part, embraced the promise of the expert—first through efforts at import-substitution industrialization and state planning, and later through authoritarian, technocratic projects to dismantle the state's role in the economy. The thorniest sociocultural problems posed by the Cold War—such as how to feed, shelter, and educate a rapidly growing population—seemed to offer a carte blanche for the intervention of a host of experts. The embrace of technical solutions to solve complex sociocultural challenges was a hallmark of Cold War modernization projects, as Mary Roldán notes in her chapter. "Hungry? Produce more food. Low yields? Apply fertilizer or selective breeding. Too many children, unable to feed, clothe or educate them? Control your fertility. Longing to escape the shackles of ignorance, poverty, and subordination? Plagued by clientelism, paternalism, or oppressive government? Learn to read." As Fernando Purcell argues in this volume, the politicization of expertise during the Cold War in Latin America became a "revolutionary phenomenon."

Merging Science and Technology Studies with Environmental History

This volume grows out of a conviction that the perspectives of two important and growing subfields—science and technology studies (STS) and environmental history—can help us rethink the Latin American Cold War in productive ways. Both fields have grappled with how to understand increasing human control over nature and the consequences this has wrought for both the natural and built environment over the course of the twentieth century. Indeed, both STS and environmental history have posed new questions about the relationship between human and nonhuman actors, the intersection of technology and power, and the often-unseen processes by which individuals and communities produce new knowledge. As the environmental historian Richard White and the historian of science Gabrielle Hecht have shown for different contexts, the invisibility of power does not signify that it is uncontested or without material consequences.[8] In this volume, we intend to illuminate how "technologies of power" traveled and became negotiated along circuits of expertise in Latin America during the Cold War.

We follow other scholars who aim to advance dialogue and scholarship at the nexus of these two fields.[9] We also build on the growing literature that examines histories of Cold War science and technology in the United States and the world, as well as the Cold War's impact on the environment.[10] Yet, with some notable exceptions, Latin America has been relatively absent in these accounts.[11] Our volume aims not only to bring Latin American per-

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spectives to bear on Cold War "envirotech,"[12] but to probe the interactions between "high" and "low" expertise, between state officials and the grassroots, and between national or international actors and local forms of knowledge. All our authors are specialists in Latin America, many of them particularly versed in its cultural and social histories, which comes through in their studies of science, technology, and the environment.

This collection also builds on dynamic new scholarship in the field of Latin American environmental history. Until relatively recently, some environmental historians characterized scholarship on Latin America in terms of one-sided narratives of degradation, declension, and exploitation while increasingly robust historiographies in the United States and other regions dissected nature, culture, and the state through complex webs of interaction. J. R. McNeill, for example, observed an earlier generation of Latin Americanist environmental historians inspired by dependency theory to produce large-scale narratives in which individuals and individual agency could sometimes get clouded.[13] More recently, Mark Carey picked up on these assertions and advocated for further integration between Latin American environmental history and the field's signature social histories. Historians of science, he argues, have offered more sophisticated analyses linking science and scientific actors to social relations, nation-building, and state formation.[14] To be fair, some of these critiques of Latin American environmental history evaluated the field according to parameters developed in the United States for US historical contexts. They also tended to focus on major works by US-based authors. In fact, as Carey notes, the strong tradition of scholarship on agrarian and natural resource issues in Latin America predates the popularity of "environmental history" in the United States. Yet it can hardly be denied that a new wave of scholarship has complicated and elevated Latin American environmental history in the international arena. This is evident in recent collections that highlight the diverse interpretations of Latin American environmental history and explore the concept of the "nature state" within and beyond Latin America.[15]

Rather than offering a definitive statement on how these various fields coalesced in the Latin American Cold War, this collection seeks to open new avenues and provoke new research on the role that experts played, both in relationship to political processes broadly conceived and to their own fields of expertise. We thus highlight the role of certain experts more than others, with an emphasis on individuals whose work touched on the natural or built environment, such as engineers, environmental scientists, agronomists, and architects. We conceive of technology broadly, taking it to include infrastructures such as dams, housing, transportation systems, and radio, as well as technologies modified from the natural world such as hybrid seeds and animals. We trace these experts in their individual and institu-

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tional itineraries and their engagement with technologies, environments, and state projects in an era of intensified international political pressure and exchange.

We draw significant inspiration from an increasingly sophisticated literature on medicine and public health in Latin America, which offers a roadmap for the type of scholarship we seek to expand for other arenas of expertise. Bridging histories of medicine and the larger historiographies of social and cultural relations and state formation in Latin America, Marcos Cueto and Steven Palmer depict public health as "contested by a wide variety of actors (including the sick) through complex local processes of reception, adaptation, eclectic redeployment, and hybridization." The resultant "polycentric networks" and "creative interplay" between centers and peripheries in the realm of public health expertise might be adopted as a template for other forms of expert circulation and interaction across borders.[16] Indeed, Stuart McCook recast Palmer's description of a "republic of rational health" as a "republic of rational agriculture" in order to describe the growing professionalization and internationalization of another type of expert.[17]

By focusing on case studies of individual experts and the localized application *and* generation of knowledge, we find that itineraries of expertise were more varied and complex than modernization orthodoxies of the Cold War era would make them out to be. That is, specialized knowledge and technologies did not always flow from the Global North to the Global South, or from the United States and Europe to Latin America; the center–periphery model of development is insufficient to account for the transnational exchange of expertise within Latin America and between Latin America and the world. As we see in the contributions by Thomas Rath and Tore Olsson, Latin American veterinary scientists and hydroelectric engineers shaped the way their counterparts in England and the United States fought hoof-and-mouth disease and promoted rural development, respectively. Expertise also traveled through unexpected and even South–South networks. In this volume we see Mexican experts in the US South, Puerto Ricans working in Colombia, and Japanese experts in Chile, among others. By tracing the itineraries of Latin American Cold War expertise, these studies help us reconsider well-worn binaries: they explore how traveling experts traversed the boundaries between the rural and the urban; how networks of expertise strengthened or undermined the North–South and East–West axes imposed by Cold War geopolitics; and how experts reinforced or defied other binaries, such as developed–developing, First World–Third World, and Global North–Global South. Throughout the book, we highlight the multiple levels of expertise at play and show how it was not always easy to disentangle "local" or "domestic" from "global" or "foreign" knowledge.

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Expertise and the State from the Eighteenth Century to the Cold War

The study of expertise and state power is not limited to the Cold War era, of course, and the figures studied in this volume emerged out of a longer tradition of scientific governance reaching back at least to the eighteenth century. It is important to recognize that this long process predated the onset of the Cold War and modernization theory in order to account for the Cold War's continuities as well as accelerations, not to mention the preexisting traditions of expertise in Latin America.

Historical frameworks of expertise and governance grew out of associations between science and natural law. In tracing a "genealogy of technologies of power," Foucault argued that eighteenth-century physiocrats, or those who believed in the "rule of nature" in economics and government, were crucial in establishing a close connection between the state and expertise. Physiocrats, he noted, emerged from the prestige carried by the scientific study of economics and its association with physics in eighteenth-century Enlightenment circles. Physiocrats and their governing patrons thus believed that politics should function according to the strict application of perceived natural law to society.[18] Governance, like physics, drew its authority from the inalienable truths of science, best interpreted and applied by experts.

For our purposes, Foucault's analysis of the naturalizing of economics in the eighteenth century has provided foundations for contemporary scholars to trace the history of capitalism.[19] When viewing capitalist development through a historical lens, the Cold War's practitioners of modernization theory and, later, those of neoliberalism, grow out of this tradition of merging the laws of the market with the laws of nature. The literature critiquing the self-assurance of expertise in pursuit of naturalized notions of modernization and twentieth-century development schemes is vast but fundamental to the framing of our studies of expertise in Latin America.[20] These works question the seemingly natural, universal logic of capitalism and thus serve as a useful model for this volume's critique of the universalizing logic of Cold War modernization.

Historically, the example of Europe's physiocrats touched Latin America in a variety of ways. European colonial powers sent engineers and botanists, among others, to construct and collect in their overseas territories. During the independence era of the early nineteenth century, Latin America hosted numerous transnational scientific expeditions, most famously those of the Prussian Alexander von Humboldt.

Humboldt's travels in Latin America would inspire both international and domestic itineraries of expertise in Latin America during the nineteenth century. Among these, Darwin's voyage of the *Beagle* to the Americas launched the study of evolutionary biology and influenced both scientific

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theories and racist social dogmas in Latin America and beyond. Yet, as Jorge Cañizares-Esguerra has argued, both the colonial expeditions sent from the metropole and their nineteenth-century republican descendants masked the parallel existence of a domestic Latin American scientific tradition. European transplants, such as Claudio Gay in Chile and José Celestino Mutis in Nueva Granada; homegrown Latin American scientists and intellectuals; and the countless denizens of "local knowledge" influenced the work of their more famous European counterparts.[21] New scholarship on domestically funded surveys and cartographic expeditions in nineteenth-century Mexico, Chile, and Colombia, for example, trace Humboldt's legacy in the Americas while shifting the focus to national actors and often racialized projects of state formation and imagined communities.[22]

The prestige of physiocrats in the European Enlightenment tradition spread to muscular and sometimes authoritarian Latin American projects of modernization in the late nineteenth century. The *científicos* employed under the Porfirio Díaz regime in Mexico resembled Foucault's physiocrats in name and deed. Blending science and governance, *científicos* employed interpretations of rational and natural law based on Comtean Positivism. With the blessing of the Díaz regime, *científicos* sought to modernize Mexican infrastructure and prepare the natural and social landscape for the reception of foreign capitalist investment.[23] Positivism spread throughout Latin America, with many governments turning to meritocratic expertise in an effort to modernize their growing state bureaucracies.[24] European expertise was especially prominent in the modernization campaigns of the late nineteenth and early twentieth centuries, with British and German influence in fields such as railroad construction, electrification, and the professionalization of national militaries. Overall, the rich literature on nineteenth-century expertise in Latin America reveals the importance of local citizen-experts, including women and people of color, in building what Stuart McCook calls "creole science."[25]

With the Spanish–American War at the close of the nineteenth century, the United States' power and interest in shaping networks of expertise in Latin America grew dramatically. As Greg Grandin and Gilbert Joseph have argued, the decades-long rise of US hegemony was deeply intertwined with a long Latin American Cold War, and many of the traveling experts discussed in this volume emerged out of US initiatives that predated World War II.[26] In the 1920s and 1930s, for example, US financial experts facilitated the extension of new banking and currency systems through "dollar diplomacy," while labor and social welfare policies in Latin America also reflected transnational currents.[27] Meanwhile, and as recent work by Ricardo Salvatore demonstrates, Cold War academic interest in Latin America built on the networks established by scholars during the New Deal and World War II.[28] Gilbert

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M. Joseph's essay in this volume further explores the vexed origins of Latin American studies in the United States and its connection to the Cold War.

The Progressive movement and New Deal in the United States each cast ripples across Latin America, serving as the training ground for the experts who would later travel abroad in the context of World War II and the Cold War.[29] Some of the circulation of ideas and expertise in these earlier eras filtered through the US territory of Puerto Rico, which positioned itself as an intermediary in a "cultural triangle" connecting the United States and Latin America. Puerto Rico served as a convergence zone and training ground for both US and Latin American professionals, while Puerto Rican experts like Carlos Chardón influenced significant national development campaigns in multiple countries. Significantly, Puerto Rico's early role in the hemispheric circulation of expertise would blossom into the Alliance for Progress. The Puerto Rican governor Luis Muñoz Marín served as a key adviser to Kennedy on Latin America, and the head of Puerto Rico's Operation Bootstrap, Teodoro Moscoso, became the inaugural coordinator of the Alliance for Progress.[30]

After World War II, these preexisting foundations for an international order of expertise gained funding and a renewed ideological mission. From Truman's Point Four program to Kennedy's Alliance for Progress, and from the Bogotá-based Inter-American Center for Agrarian Reform (CIRA, sponsored by the Organization of American States) to the UN's Economic Commission for Latin America and the Caribbean (CEPAL), experts of different nationalities and backgrounds constructed blueprints for development programs in Latin America and beyond. After the watershed victory of the Cuban Revolution in 1959, the urgency of state expertise and modernization schemes intensified, even as US–Latin American partnerships foundered amid the rise of more radical—and less expert-oriented—solutions to underdevelopment.

In tracing this relationship between experts and Latin American states, we focus most intently on several locations that, we argue, constituted particularly fertile sites in not only the application but also the generation of Cold War expertise. Because of domestic factors as well as their strategic importance for the United States—in which friendly diplomatic relations, economic ties, and the potential for communist influence combined in a potent mix—we find that the Caribbean, Mexico, Colombia, and Chile served as crucial laboratories of Cold War expertise in the region.[31] Puerto Rico and Mexico, for example, became early sites of experimentation that previewed and catalyzed what would become broader hemispheric programs for Cold War development and science, as the chapters by Olsson, Lorek, and Rath describe here. Colombia and Chile, as well, attracted a density of experts in many fields, a fact that was tied to their strategic potential during the Cold

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War. Taken together, the locations studied in this volume became important Cold War centers in what the Cuban historian Leida Fernández-Prieto calls the "global archipelago of knowledge."[32] Our focus on specific convergence zones opens an opportunity to critique the notion of Latin America as peripheral either to the Cold War struggle or to global knowledge production. In focusing in depth on these particular sites, we follow the historian of science and medicine Julia Rodríguez in pursuing the "smart centering of Latin America."[33]

Our centering of these convergence zones of expertise contributes to a growing scholarship reorienting the Latin American Cold War experience. Such new histories of the Cold War in Latin America, in part, reflect a broader scholarly commitment to expanding the historiography of the global Cold War to account for archives and actors in so-called developing or Third World countries.[34] However, as recent edited volumes have effectively modeled, a Latin American perspective is cast from not only the use of Latin American archives but also the incorporation of nontraditional actors, interactions between state actors and the grassroots, and an expansive periodization that brings to light long-running national projects of state formation and modernization. Drawing from Greg Grandin's seminal *The Last Colonial Massacre*, Joseph describes this move as a need to "take discussion of the Latin American Cold War in a different direction, beyond—or better *beneath*—the great diplomatic debates that have particularly stunted the region's Cold War historiography."[35] As Joseph observes in his contribution to this volume, new research that goes beneath superpower conflict to examine grassroots encounters highlights "a history of the *Latin American* Cold War—rather than just a history of the Cold War *in* Latin America."

Over the past two decades, historians of Latin America have emphasized cultural politics and state formation in order to showcase the locally or nationally situated contingencies of the Cold War.[36] Building on these contributions, the chapters in this volume examine how state formation conditioned the way Cold War experts could do their work. Although the United States is a crucial part of this story, it cannot be explained as merely an enforcer of a one-dimensional "enterprise of knowledge" in support of an "informal empire" in Latin America.[37] We need an analysis that entangles experts and expertise in webs of power, what William Roseberry described as social fields, placing "the local within larger networks." "The local is global," he wrote, "but the global can only be understood as always and necessarily local."[38] We seek to incorporate a multiplicity of locally situated *and* internationally traveling experts, highlighting moments of interaction among experts, state actors, and the grassroots in twentieth-century Latin America.

We therefore propose "itineraries" as a conceptual framework for analyzing Cold War expertise both spatially and chronologically. Spatially, "itin-

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eraries" refer to pathways of negotiated knowledge, similar to Neil Safier's use of the term in his discussion of European and Amerindian knowledge in the Amazon.[39] Chronologically, the concept of "itineraries" also underpins our argument for a "long Cold War" periodization that predates World War II. Several chapters demonstrate how Cold War transformations such as the Green Revolution (Lorek) or the "concrete revolution" (Purcell and Olsson) were rooted in local forms of expertise prior to 1945.[40] Itineraries, conceptually, help us expand traditional Cold War spatial relationships and historical periodizations.

The histories in these chapters deepen international histories of the Cold War and development to introduce critical actors previously invisible to non–Latin American specialists: actors motivated by long-standing domestic political concerns but operating in an international context of bipolar ideological struggle. In this volume, knowledge moves along an alternative itinerary wherein Havana, San Juan, Mexico City, Bogotá, Santiago, and even the Peruvian Amazon join New York, London, and Moscow as intellectual centers and generative laboratories of Cold War expertise, not as mere receiving locations or proxies on the Cold War geopolitical map.

Everyday Forms of Expertise

The chapters that follow employ an expansive definition of experts and expertise. For our purposes, an expert is someone with specialized knowledge whose identity is strongly shaped by his or her profession, whether or not he or she possesses specific educational credentials. Many of the experts discussed in the following chapters attended prestigious institutions, whether in their home countries or abroad. But others acquired their expertise through hands-on experiments, practical experience, and other forms of local knowledge beyond the bounds of elite university training. Rather than presuming that expertise was necessarily outside or foreign, or that experts arrived in Latin America from the Global North, the following chapters trace how the ideals of development and modernization were negotiated on the ground by local, national, and transnational actors. Similarly, we aim to question the assumption that experts came into conflict with local people and values. Although some high-modernist development schemes and the experts who promoted them did clash with local populations, expert visions at times aligned in unexpected ways with local worldviews.[41] As Eve Buckley describes in her study of technocrats in the Brazilian Northeast, individual experts could often express deep solidarity and empathy with their subjects, despite "the frequent tensions between a universalizing technocratic vision of progress and the particular cultural and political contexts in which scientific reformers operated."[42]

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Methodologically, we contend that the study of Cold War expertise in Latin America ought to be grounded in the histories of specific people and places. Certainly, the trajectories of individual experts cannot be understood without having a firm grasp on the histories of key international institutions that shaped much of the Cold War–era development landscape, such as the World Bank, the Rockefeller Foundation, or the UN's Economic Commission for Latin America and the Caribbean. The chapters that follow are indebted to the work of scholars who have charted these institutional histories and revealed the funding and policy networks that shaped Latin American development initiatives.[43]

Yet this volume seeks to ask other questions—such as what motivated individual experts, including the complex mix of personal, professional, and political motives that conditioned the work they did; how their expertise was negotiated in local contexts; and how their itineraries were influenced by, or helped to influence, the unfolding of Cold War conflicts in the region. We treat expert knowledge not as a pure, disembodied set of principles that travel from "a point A of high expertise, to a point B of low expertise," but as evolving knowledge practices that are deeply informed by the personal backgrounds of experts and their own identities. In some cases, it may even make sense to speak of the "hybrid nationalities of experts," as these individuals often belonged to multiple communities—not only their countries of birth and the nations where they practiced but also the international communities that shaped their professional identities.[44]

Indeed, an important theme that runs through these studies is that the use of science and technology in pursuit of development transcended geopolitical divides. Despite the fact that modernization theory has garnered significant attention in the Global North's waging of the Cold War in the Global South, the United States and its allies did not have a monopoly on the dream of development. Indeed, as Reinaldo Funes-Monzote and Steven Palmer point out for the Cuban case in these pages, "the idea of scientific development, progress, and expertise cut across political and economic systems." The application of science and technology for human betterment was pursued by those on both sides of the East–West and North–South divide, as well as those in the interstices of the conflict. We contend that experts played a key role in the Cold War precisely because they could adapt their knowledge and skills to different political regimes and diverse global audiences. As Mary Roldán puts it in her chapter, Cold War experts could adjust their "discursive framing" to suit different political agendas both at home and abroad.

The ideological flexibility of expertise did not mean that experts escaped the sway of politics, however. In this regard, another important theme in this volume is that Cold War politics did shape the spread of expertise. Indeed, we contend that certain kinds of expertise held concrete political significance in

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that they aligned with particular moments in Latin American state formation. For example, as Mark Healey shows, the focus on "aided self-help" rural housing at the Inter-American Housing and Planning Center in Colombia paralleled a broader shift in Colombian political culture after 1958. Tore Olsson, likewise, demonstrates how the United States' New Deal model for rural development, the Tennessee Valley Authority, inspired two dramatically contrasting dam projects in rural Mexico, each sponsored by presidents with ideologically distinct visions of development. As Javiera Barandiarán shows, the consolidation of neoliberalism in Chile's transition from an anticommunist military regime to the democratic Concertación government deeply shaped the work that environmental scientists could do. As these authors and others show, politics shaped expertise to fit particular ideological frameworks.

We also argue that the geopolitics of the Cold War shaped the way experts and expertise traveled. Programs such as the Alliance for Progress opened up funding channels that influenced the circulation of experts, but in other cases, Cold War rivalries (such as the US embargo against Cuba) foreclosed some avenues of knowledge exchange while opening up others. On this latter point, Funes-Monzote and Palmer demonstrate how the US embargo led Cuba's revolutionary regime to look to Canada for collaboration in livestock breeding and dairying. A Cuban stockyard even emerged at the port of Saint John, New Brunswick, to further the project of supplying purebred temperate cattle for the tropical island. At times, the influence of geopolitics on expertise was more subtle. As Pedro Ignacio Alonso and Hugo Palmarola show, NASA officials portrayed their agenda as scientific (and thus outside of politics) partly in order to cover up their military and intelligence aims in Latin America.

Finally, we contend that many of today's global knowledge systems owe substantially to everyday forms of expertise that originated in Latin America's long Cold War. As Fernando Purcell argues in chapter 9, on hydroelectric dams, US institutions accumulated a "dense internalization of local knowledge" around the world and applied this to broader development initiatives through technical assistance. Similarly, Emily Wakild, in her contribution here, examines the creation of local or "residential" knowledge in the Peruvian Amazon and shows how it contributed to biodiversity science and the global conservation movement. And, not least, recent work by Tore Olsson, Gabriela Soto Laveaga, Netzahualcóyotl Gutiérrez, and Timothy Lorek reveals how the Rockefeller Foundation's agricultural programs in Mexico and Colombia—which would go on to lay the institutional foundations for the Green Revolution—owed substantially to prior domestically funded, locally oriented centers of expertise.[45] One of the key aims of this book is to unearth the local and regional Latin American roots of Cold War technical expertise

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that informed, influenced, and catapulted would-be global movements from the "concrete revolution" to the Green Revolution. Via "itineraries of expertise," the Cold War not only entered Latin America; Latin America's internal historical struggles also entered global circulation.

Chapter Outline

In his essay following this introduction (chapter 1), Gilbert M. Joseph situates this volume's focus on experts and expertise within the expanding field of Latin American Cold War studies. As Joseph demonstrates, the conflict was "cataclysmic" for the region not just because of the scale of violence unleashed by anticommunist dictatorships and civil wars, but because of the way broader ideological struggles and the dialectic of radical reform and repression resulted in the profound "politicization and internationalization of everyday life." His essay reveals how recent scholarship probes beneath and beyond the high politics of superpower rivalry, opening up rich new veins of research on the cultural encounters of the Latin American Cold War and the ways that it fused with longer cycles of revolution reaching back at least to the Mexican Revolution of 1910.

In this volume's first section, "Agrarian Antecedents and Rural Development," Tore C. Olsson , Timothy W. Lorek , and Mary Roldán examine individual experts' ideological formation in the 1940s, as well as in pre–World War II historical contexts, including the Mexican Revolution, the Progressive movement, the New Deal, and interwar Europe. In Olsson's chapter 2, we travel with Mexican dam engineers to the US South, where they viewed the Tennessee Valley Authority as a shining example of rural modernization. Yet the two Mexican river valley commissions inspired by the TVA were not simple "transplants"; they instead demonstrated the multiple meanings of national development projects that were, paradoxically, born of transnational comparisons. In the following two chapters, we move south to Colombia. In chapter 3, Lorek examines the localized roots in the Cauca Valley of what would become the Green Revolution. He excavates the worldviews of three experts—two from Colombia, and one from Puerto Rico—whose partnership in the 1920s and 1930s would create a foundation for agricultural research in the postwar world. In Roldán's chapter 4, we meet an altogether different kind of expert, the Catholic priest, Father José Joaquín Salcedo, who used a different kind of technology—radio networks—to promote rural literacy and development. Roldán demonstrates how Salcedo's Catholic development organization nimbly adjusted to different contexts and modified its message for different funders.

The second section, "Cold War Scientific Exchanges," extends the first section's focus on agriculture and rural development to the politics of animal

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genetics, veterinary science, and aeronautics. In response to concerns about the mid-twentieth century's demographic growth, national leaders on both sides of the Cold War divide enlisted livestock experts to boost the production of protein, both to feed their own growing populations and to remain competitive in global markets. In chapter 5, Reinaldo Funes-Monzote and Steven Palmer reveal how, in postrevolutionary Cuba, the reform of the cattle ranching industry was a top priority, as the shift toward an intensive dairy industry promised to provide protein to the people. We see in their account how a famous dairy cow, Ubre Blanca (White Udder), became a symbol of the revolution's success—and became, in the words of Fidel Castro, a "machine for producing milk." In chapter 6, Thomas Rath examines a transnational network of veterinary labs in Mexico, Brazil, the United States, and the United Kingdom that together sought to eradicate foot-and-mouth disease. The scientific exchanges studied here were multidirectional, as outbreaks of the disease in Latin America affected institutional structures in the United States. Guiding our shift from the natural to the built environment, chapter 7, by Pedro Ignacio Alonso and Hugo Palmarola examines the visual politics of the Cold War, showing how NASA used graphic design to brand itself as scientific (and thus apolitical) partly in order to obscure its military and intelligence aims in Latin America.

The third section, "Infrastructures of the Built Environment," probes the role of traveling experts in the fields of housing, hydropower, and urban transportation. In chapter 8, Mark Healey traces the emergence of Bogotá as a center for training and experimentation in "aided self-help housing," as key housing experts from elsewhere in Latin America developed new technologies for rural housing. In chapter 9, Fernando Purcell charts the circulation of hydropower expertise in Chile, Peru, and Colombia and argues that technological imaginaries were crucial in fostering wide public acceptance of dams and electricity. Finally, in chapter 10, Andra Chastain's study of the Chilean urbanist Juan Parrochia emphasizes the flow of expertise between Chile and France during the planning and construction of the Santiago metro system. She demonstrates how the Cold War raised the stakes of expertise in the late 1960s, as the Christian Democratic government that spearheaded the metro was roundly attacked by both the Right and the Left for the way it planned the project.

As in the first section, our final section, "Toward New Regimes of Expertise," similarly stretches the periodization of the "long Cold War" in Latin America. Here our authors complicate the logic of the Cold War's sudden end between 1989 and 1991. We emphasize new regimes of expertise that emerged in the Cold War cauldron but have reoriented global knowledge systems in the twenty-first century. Focusing on case studies in environmental science, we offer two essays that introduce the contrasting knowledge sys-

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tems of biodiversity and neoliberalism in formation in their respective Latin American laboratories. In chapter 11, Emily Wakild's examination of conservation, biology, and national parks in the Peruvian Amazon during the 1970s foreshadows the international scientific ascendancy of biodiversity that emerged parallel to heightened conservation efforts and national campaigns for ecotourism. Continuing the theme of environmental science, in chapter 12 Javiera Barandiarán explores the paradoxes of Chile's transition to democracy and the consequences this had for environmental scientists and their relationship to the state. Neoliberalism, she shows, threatened to privatize environmental expertise, with sobering consequences for twenty-first-century Chile and beyond. It is worth noting that the "new regimes" examined here are commonly understood in opposition to one another: biodiversity arguably suffers from the triumph of unbridled capitalism and the lack of state regulations under neoliberal models. Yet, in this section, we ask readers how these might instead be viewed as entangled processes, not diametric opposites.

Finally, the volume ends with a collaborative essay joining leading figures in Latin American science and technology studies and environmental history. In the Conclusion, Eden Medina and Mark Carey begin with a story of national technological prominence on display at the 2016 Olympics in Brazil. Challenging the embedded meanings of this display, the authors launch a conversation about changing depictions of science, technology, and environment in Latin America. In particular, they highlight four themes through which the chapters in this book engage with this changing historiography. First, Medina and Carey outline how this volume's authors build on the project of dismantling simplistic core–periphery frameworks and the directional flow of expertise. Second, they describe how the various authors redefine technology, nature, and expertise in these pages. Third, Medina and Carey suggest that the volume contributes to historiographies that decenter the state and state-centric periodization. Instead, they show how the authors here examine regional and transnational dynamics and alternative chronologies. Finally, they note how each chapter in this collection contributes to an emphasis on diverse and changing forms of expertise and multiple knowledges, especially including Latin American voices often overlooked in grand Cold War narratives of development.

As noted above, our chapters engage most with certain regional centers that acted as convergence zones in the circulation of expertise. Mexico City, Bogotá, and Santiago, for example, played significant roles within Latin America as both host sites for international agencies and senders in intraregional circuits of expertise and development. Moreover, Cuba served as an engine for the generation and dissemination of alternative varieties of expertise. Our efforts to foster dialogue between chapters necessarily overlooks

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other important sites and forms of expertise.[46] Connections between Latin America and Soviet models of expertise, for example, represent a compelling avenue for further research.[47] Brazil and Argentina, as well, played influential roles in the hemispheric circulation of Cold War development schemes, yet each remains largely absent from this volume.[48]

Similarly, although the experts presented in these chapters are heterogeneous, we deliberately narrow our gaze on select fields of expertise to enhance the volume's cohesiveness. Many forms of expertise beyond our purview likewise deserve mention as subjects of current and future research—including, but not limited to, the work of anthropologists, economists, doctors and public health officials, nuclear scientists, and teachers.[49] Across the varying professions of Cold War experts in Latin America, more attention is needed on how expertise intersected with racialized and gendered understandings of the nation-state and constructions of citizenship.[50] Astute readers will note that our experts are a fairly narrow group: largely white or mestizo, middle or upper-middle class, and mostly men. We acknowledge that while we have pushed the boundaries beyond the Global North in terms of who gets to count as an expert, there is still much more work to do to uncover the role of marginalized actors in developing and spreading Cold War expertise in Latin America. To a certain extent, we think that this limitation in our volume reflects an important historical theme: our experts were largely linked to the state, and their knowledge was validated by specialized training in universities and institutes. This does not mean that the specialized knowledge of women, people of color, workers, and other marginalized actors was insignificant, but that they often had more limited access to the official halls of power—such as universities, institutes, and government ministries—where knowledge was deemed policy-relevant expertise. Our aim is for this volume to provide a base from which current and future scholarship on non-elite and otherwise silenced forms of knowledge might connect to foreign relations and transnational histories of the Cold War that have hitherto largely marginalized Latin American contexts altogether. We hope this volume will provide a platform for important questions and stimulate future research in these areas.

Although the Berlin Wall fell three decades ago, the legacies of the Cold War in Latin America are present now as much as ever. From Cuba to Nicaragua, onetime revolutionaries have become reactionaries, refusing to concede power to a younger generation. In Colombia, the state and the Revolutionary Armed Forces of Colombia (FARC) negotiated a long and difficult peace accord in 2016, though a turn toward the political Right in 2018 chipped at the cracks in a fragile peace. Meanwhile, in Brazil, the far-right Jair Bolsonaro was elected on a platform of hate and violence toward women, people of

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color, the LGBT community, indigenous people, and the poor. He not only speaks in favor of torture; his administration has also sought to rewrite history to glorify the country's Cold War–era military dictatorship. Recent trials of Chilean and Argentine military officials for abuses committed during those countries' dirty wars likewise reveal the continuing challenges of rendering justice for victims of the Cold War.

But we also note less obvious continuities with Cold War expertise in Latin America. The persistence of neoliberal policies in Chile, for example, has sparked mass protests over income inequality, with experts and citizens alike wrestling with the long-term consequences of the Pinochet regime. Moreover, the dream of modernization through large-scale infrastructure investment remains alive and well, with China displacing the United States in funding many ambitious ventures, including a transoceanic canal in Nicaragua, lithium mining in the Andes, and a space station in Argentina.[51] As the following chapters show, new dams, seeds, cows, vaccines, houses, subways, and parks gave material expression to the Cold War and its driving aspiration of development. Throughout Latin America and beyond, the itineraries of Cold War expertise reverberate in the ways citizens eat, work, and play. The sweeping implications of these transformations live with us still.

Notes

1. For a provocative assessment of the foreign relations literature on the Latin American Cold War, see Gilbert M. Joseph, "What We Now Know and Should Know: Bringing Latin America More Meaningfully into Cold War Studies," in *In From the Cold: Latin America's New Encounter with the Cold War*, ed. Gilbert M. Joseph and Daniela Spenser (Durham, NC: Duke University Press, 2008), 3–46. Recent scholarship in the vein of diplomatic and international history has shown that the Latin American Cold War was more than a one-sided conflict with the United States, with the diplomatic agency of multiple countries highlighted. See Tanya Harmer, *Allende's Chile and the Inter-American Cold War* (Chapel Hill: University of North Carolina Press, 2011); Virginia Garrard-Burnett, Mark Attwood Lawrence, and Julio E. Moreno, eds., *Beyond the Eagle's Shadow: New Histories of Latin America's Cold War* (Albuquerque: University of New Mexico Press, 2013); Hal Brands, *Latin America's Cold War* (Cambridge, MA: Harvard University Press, 2012); Piero Gleijeses, *Conflicting Missions: Havana, Washington, and Africa, 1959–1976* (Chapel Hill: University of North Carolina Press, 2002); and Tanya Harmer and Alfredo Riquelme Segovia, eds., *Chile y la guerra fría global* (Santiago: RIL, 2014).

2. See, for example, Joseph and Spenser, *In From the Cold*; Benedetta Calandra and Marina Franco, eds., *La guerra fría cultural en América Latina: Desafíos y límites para una nueva mirada de las relaciones interamericanas* (Buenos Aires: Biblos, 2012); Victoria Langland, *Speaking of Flowers: Student Movements and the Making and Remembering of 1968 in Military Brazil* (Durham, NC: Duke University Press, 2013); Patrick Iber, *Neither Peace nor Freedom: The Cul-*

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tural Cold War in Latin America (Cambridge, MA: Harvard University Press, 2015); and Renata Keller, *Mexico's Cold War: Cuba, the United States, and the Legacy of the Mexican Revolution* (New York: Cambridge University Press, 2015).

3. We are not alone in our project to further contextualize and historicize knowledge production and expertise in Latin America. For one example from Europe, see Stefan Rinke and Delia González de Reufels, eds., *Expert Knowledge in Latin American History: Local, Transnational, and Global Perspectives,* Historamericana 34 (Stuttgart: Heinz, 2014).

4. In this way we differ from scholarly treatments of international development centered on the United States, such as David Ekbladh, *Great American Mission: Modernization and the Construction of an American World Order* (Princeton, NJ: Princeton University Press, 2009), as well as popular narratives of individual experts such as Charles C. Mann's recent and acclaimed book about Norman Borlaug and William Vogt, *The Wizard and the Prophet: Two Remarkable Scientists and Their Dueling Visions to Shape Tomorrow's World* (New York: Alfred A. Knopf, 2018).

5. Tom Nichols, "How America Lost Faith in Expertise," *Foreign Affairs,* March/April 2017, and *The Death of Expertise: The Campaign against Established Knowledge and Why It Matters* (New York: Oxford University Press, 2017).

6. In addition to the recent articles cited above, there is growing academic literature on the demise of expertise in US politics and culture. See, for example, Katherine J. Cramer's *The Politics of Resentment: Rural Consciousness in Wisconsin and the Rise of Scott Walker* (Chicago: University of Chicago Press, 2016).

7. See Javiera Barandiarán's essay in this volume (chapter 12). On neoliberal economics and the remaking of the global political order, including the seminal role of Chile in this process, see David Harvey, *A Brief History of Neoliberalism* (New York: Oxford University Press, 2005).

8. Richard White, *The Organic Machine* (New York: Hill and Wang, 1995); Gabrielle Hecht, *The Radiance of France: Nuclear Power and National Identity after World War II* (Cambridge, MA: MIT Press, 1998); and Michael Thad Allen and Gabrielle Hecht, *Technologies of Power: Essays in Honor of Thomas Parke Hughes and Agatha Chipley Hughes* (Cambridge, MA: MIT Press, 2001); and Gabrielle Hecht, "The Work of Invisibility: Radiation Hazards and Occupational Health in South African Uranium Production," *International Labor and Working Class History* 81 (Spring 2012): 94–113.

9. Dolly Jørgensen, Finn Arne Jørgensen, and Sara B. Pritchard, eds., *New Natures: Joining Environmental History with Science and Technology Studies* (Pittsburgh: University of Pittsburgh Press, 2013).

10. See Gabrielle Hecht, ed., *Entangled Geographies: Empire and Technopolitics in the Global Cold War* (Cambridge, MA: MIT Press, 2011); Naomi Oreskes and John Krige, eds., *Science and Technology in the Global Cold War* (Cambridge, MA: MIT Press, 2014); and J. R. McNeill and Corinna R. Unger, eds., *Environmental Histories of the Cold War* (Cambridge: Cambridge University Press and German Historical Institute, 2010). There is a rich and extensive literature on the history of US science and technology during the Cold War. For an outstanding recent study of the political uses of US science and scientific freedom in the Cold War, see Audra

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J. Wolfe, *Freedom's Laboratory: The Cold War Struggle for the Soul of Science* (Baltimore: Johns Hopkins University Press, 2018).

11. For a pathbreaking collection on science and technology studies in Latin America, see Eden Medina, Ivan da Costa Marques, and Christina Holmes, eds., *Beyond Imported Magic: Essays on Science, Technology, and Society in Latin America* (Cambridge, MA: MIT Press, 2014). In addition, there seems to be growing interest in the role of science and technology in the Latin American Cold War, as evidenced by a panel organized by the historians Barbara Silva and William San Martin at the 2017 conference of the Society for the Social Studies of Science (4S).

12. Scholars working at the intersection of environmental history and the history of science and technology have recently adopted the term *envirotech*. For Latin America in the period preceding the Cold War, Mikael D. Wolfe recently made strong use of the concept in his book, *Watering the Revolution: An Environmental and Technological History of Agrarian Reform in Mexico* (Durham, NC: Duke University Press, 2017).

13. J. R. McNeill, "Observations on the Nature and Culture of Environmental History," *History and Theory* 42, no. 4 (December 2003): 5–43.

14. Mark Carey, "Latin American Environmental History: Current Trends, Interdisciplinary Insights, and Future Directions," *Environmental History* 14, no. 2 (April 2009): 221–252.

15. John Soluri, Claudia Leal, and José Augusto Pádua, eds., *A Living Past: Environmental Histories of Modern Latin America* (New York: Berghahn Books, 2018); and Wilko Graf von Hardenberg, Matthew Kelly, Claudia Leal, and Emily Wakild, eds., *The Nature State: Rethinking the History of Conservation* (New York: Routledge, 2017).

16. Marcos Cueto and Steven Palmer, *Medicine and Public Health in Latin America: A History* (New York: Cambridge University Press, 2015), 9. See also Gabriela Soto Laveaga, *Jungle Laboratories: Mexican Peasants, National Projects, and the Making of the Pill* (Durham, NC: Duke University Press, 2009).

17. Steven Palmer, "Central American Encounters with Rockefeller Public Health, 1914–1921," in *Close Encounters of Empire: Writing the Cultural History of U.S.-Latin American Relations*, ed. Gilbert M. Joseph, Catherine C. LeGrand, and Ricardo D. Salvatore (Durham, NC: Duke University Press, 1998), 311–332; and Stuart McCook, *States of Nature: Science, Agriculture, and Environment in the Spanish Caribbean, 1760–1940* (Austin: University of Texas Press, 2002), 3. Rebecca Tally emphasized this concept in her contribution to the October 2016 conference: "The Body of Experts: Masculinity, Agronomy, and the Rockefeller Foundation in Colombia," paper presented at the conference "Traveling Technocrats: Experts and Expertise in Latin America's Long Cold War," Yale University, October 14–15, 2016. The intersection of public health expertise and the Latin American Cold War is coming under increased scrutiny; see Anne-Emanuelle Birn and Raúl Necochea López, eds., *Calenturas! Health and Medicine in Cold War Latin America* (under contract with Duke University Press).

18. Michel Foucault, "Lecture 18 January, 1978," in *Security, Territory, Population: Lectures at the Collège de France, 1977–1978* (London: Palgrave MacMillan, 2009), 29–53.

19. For example, see Steven Stoll, "A Metabolism of Society: Capitalism for Environmental Historians," in *The Oxford Handbook of Environmental History*, ed. Andrew C. Isenberg

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(Oxford: Oxford University Press, 2014), 369–397. Stoll's advocacy for using Braudel and the Annales School to trace the history of capitalism likewise fits with this volume's objective to merge local, regional, and global scales in studying the circulation of experts and expertise.

20. See, for example, Bruno Latour, *We Have Never Been Modern* (Cambridge, MA: Harvard University Press, 1993); James Ferguson, *The Anti-Politics Machine: Development, Depoliticization, and Bureaucratic Power in Lesotho* (Minneapolis: University of Minnesota Press, 1994); Arturo Escobar, *Encountering Development: The Making and Unmaking of the Third World* (Princeton, NJ: Princeton University Press, 1995); James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven, CT: Yale University Press, 1998); Timothy Mitchell, *Rule of Experts: Egypt, Techno-Politics, Modernity* (Berkeley: University of California Press, 2002); and Tania Murray Li, *The Will to Improve: Governmentality, Development, and the Practice of Politics* (Durham, NC: Duke University Press, 2007).

21. Jorge Cañizares-Esguerra, *Nature, Empire, and Nation: Explorations of the History of Science in the Iberian World* (Stanford, CA: Stanford University Press, 2006).

22. See, for example, Daniela Bleichmar, *Visible Empire: Botanical Expeditions and Visual Culture in the Hispanic Enlightenment* (Chicago: University of Chicago Press, 2012); Raymond B. Craib, *Cartographic Mexico: A History of State Fixations and Fugitive Landscapes* (Durham, NC: Duke University Press, 2004); Patience A. Schell, *The Sociable Sciences: Darwin and His Contemporaries in Chile* (New York: Palgrave Macmillan, 2013); Rafael Sagredo Baeza, "Ciencia, historia y arte como política: El Estado y la *Historia física y política de Chile* de Claudio Gay," in *Ciencia-Mundo: Orden republicano, arte y nación en América*, ed. Rafael Sagredo Baeza (Santiago: Editorial Universitaria y Centro de Investigación Diego Barros Arana, 2010), 165–234; and Nancy P. Appelbaum, *Mapping the Country of Regions: The Chorographic Commission of Nineteenth-Century Colombia* (Chapel Hill: University of North Carolina Press, 2016).

23. Craib's *Cartographic Mexico* connects the *científicos* of the Porfiriato to earlier histories of cartographic expertise in the nineteenth century, whereas Christopher Boyer's work on forestry links the transitional period of the Porfiriato and its *científicos* to a later history of expertise in the twentieth century. Christopher R. Boyer, *Political Landscapes: Forests, Conservation, and Community in Mexico* (Durham, NC: Duke University Press, 2015).

24. Ivan Lins, *História do positivism no Brasil*, 2nd ed. (São Paulo: Companhia Editora Nacional, 1967); Patricio Silva, *In the Name of Reason: Technocrats and Politics in Chile* (University Park: Pennsylvania State University Press, 2008); Todd A. Diacon, *Stringing Together a Nation: Cândido Mariano da Silva Rondon and the Construction of a Modern Brazil, 1906–1930* (Durham, NC: Duke University Press, 2004); and Teresa Cribelli, *Industrial Forests and Mechanical Marvels: Modernization in Nineteenth-Century Brazil* (Cambridge: Cambridge University Press, 2016).

25. McCook, *States of Nature*.

26. Greg Grandin, "Living in Revolutionary Time: Coming to Terms with the Violence of Latin America's Long Cold War," and Gilbert M. Joseph, "Latin America's Long Cold War: A Century of Revolutionary Process and U.S. Power," in *A Century of Revolution: Insurgent and Counterinsurgent Violence during Latin America's Long Cold War*, ed. Greg Grandin and Gilbert M. Joseph (Durham, NC: Duke University Press, 2010), 1–43 and 397–414, respectively.

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27. On financial missions, see Paul Drake, *The Money Doctor in the Andes: The Kemmerer Missions, 1923–1933* (Durham, NC: Duke University Press, 1989), and Emily S. Rosenberg, *Financial Missionaries to the World: The Politics and Culture of Dollar Diplomacy, 1900–1930* (Durham, NC: Duke University Press, 2003). On labor policies, see, for example, Paulo Drinot, *The Allure of Labor: Workers, Race, and the Making of the Peruvian State* (Durham, NC: Duke University Press, 2011).

28. Ricardo D. Salvatore, *Disciplinary Conquest: U.S. Scholars in South America, 1900–1945* (Durham, NC: Duke University Press, 2016). For further references on the origins of Latin American studies in the United States, see Gilbert Joseph's essay in this volume (chapter 1).

29. Tore Olsson, *Agrarian Crossings: Reformers and the Remaking of the US and Mexican Countryside* (Princeton, NJ: Princeton University Press, 2017); Nicole Sackley, "Cosmopolitanism and the Uses of Tradition: Robert Redfield and Alternative Visions of Modernization during the Cold War," *Modern Intellectual History* 9, no. 3 (November 2012): 565–595; Sarah T. Phillips, *This Land, This Nation: Conservation, Rural America, and the New Deal* (Cambridge: Cambridge University Press, 2007); Deborah Fitzgerald, "Exporting American Agriculture: The Rockefeller Foundation in Mexico, 1943–1953," in *Missionaries of Science: The Rockefeller Foundation and Latin America*, ed. Marcos Cueto (Bloomington: Indiana University Press, 1994), 72–96. For a counterexample wherein economic development initiatives hatched in Latin America during the 1930s, see Christy Thornton, "'Mexico Has the Theories': Latin America and the Invention of Development in the 1930s," in *The Development Century: A Global History*, ed. Stephen Macekura and Erez Manela (Cambridge: Cambridge University Press, 2018), 263–282.

30. See Timothy Lorek's chapter 3 in this volume as well as Timothy W. Lorek, "The Puerto Rican Connection: Recovering the 'Cultural Triangle' in Global Histories of Agricultural Development," *Agricultural History* 94, no. 1 (January 2020): forthcoming; Manuel R. Rodríguez, *A New Deal for the Tropics: Puerto Rico during the Depression Era, 1932–1935* (Princeton, NJ: Markus Wiener, 2010); Darryl E. Brock, *Botanical Monroe Doctrine and American Empire: The Scientific Survey of Puerto Rico* (Tuscaloosa: University of Alabama Press, forthcoming); Geoff Burrows, "Rural Hydro-Electrification and the Colonial New Deal: Modernization, Experts, and Rural Life in Puerto Rico, 1935–1942," *Agricultural History* 91, no. 3 (Summer 2017): 293–319; and McCook, *States of Nature*. See also see Manuel R. Rodríguez and Silvia Álvarez Curbelo, *Tiempos Binarios: La Guerra Fría en Puerto Rico* (San Juan: Ediciones Callejón, 2017).

31. On "laboratories," see Michael Lapp, "The Rise and Fall of Puerto Rico as a Social Laboratory, 1945–1965," *Social Science History* 19, no. 2 (Summer 1995): 169–199. On colonial, racial, and gendered laboratories in Puerto Rico, see Laura Briggs, *Reproducing Empire: Race, Sex, Science, and U.S. Imperialism in Puerto Rico* (Berkeley: University of California Press, 2003), and Daniel Immerwahr, *How to Hide an Empire: A History of the Greater United States* (New York: Farrar, Straus and Giroux, 2019). On another framing of the laboratory beyond Puerto Rico, see Nicole Sackley, "The Village as Cold War Site: Experts, Development, and the History of Rural Reconstruction," *Journal of Global History* 6, no. 3 (2011): 481–504.

32. Leida Fernández Prieto, "Islands of Knowledge: Science and Agriculture in the History of Latin America and the Caribbean," *Isis* 104, no. 4 (December 2013): 797.

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33. Julia Rodríguez, "Beyond Prejudice and Pride: The Human Sciences in Nineteenth- and Twentieth-Century Latin America," *Isis* 104, no. 4 (December 2013): 807–817.

34. For example, Odd Arne Westad, *The Global Cold War: Third World Interventions and the Making of Our Times* (Cambridge: Cambridge University Press, 2007), offers a survey drawn from this growing body of scholarship. A helpful introduction to the methodologies of this expansive archival movement is Cindy Ewing, "Cold War Archives in the Third World," Wilson Center Sources and Methods blog, March 13, 2017, https://www.wilsoncenter.org/blog-post/cold-war-archives-the-third-world. For a reflection of this movement in Latin America, see Brands, *Latin America's Cold War.*

35. Joseph, "What We Now Know and Should Know," 16. See also Greg Grandin, *The Last Colonial Massacre: Latin America and the Cold War* (Chicago: University of Chicago Press, 2004).

36. See Daniela Spenser, ed., *Espejos de la guerra fría: México, América Central y el Caribe* (Mexico City: Ciesas/Porrua, 2004); Grandin, *Last Colonial Massacre*; Joseph and Spenser, *In from the Cold*; Greg Grandin and Gilbert M. Joseph, eds., *A Century of Revolution: Insurgent and Counterinsurgent Violence during Latin America's Long Cold War* (Durham, NC: Duke University Press, 2010); Calandra and Franco, *La guerra fría cultural en América Latina.*

37. Ricardo D. Salvatore, "The Enterprise of Knowledge: Representational Machines of Informal Empire," in Joseph, LeGrand, and Salvatore, *Close Encounters of Empire*, 69–104.

38. William Roseberry, "Social Fields and Cultural Encounters," in Joseph, LeGrand, and Salvatore, *Close Encounters of Empire*, 521.

39. Neil Safier, "Global Knowledge on the Move: Itineraries, Amerindian Narratives, and Deep Histories of Science," *Isis* 101, no. 1 (March 2010), 133–145.

40. In chapter 9 in this volume, Fernando Purcell borrows the phrase "concrete revolution" from Christopher Sneddon, *Concrete Revolution: Large Dams, Cold War Geopolitics, and the US Bureau of Reclamation* (Chicago: University of Chicago Press, 2015).

41. On high modernism, see Scott, *Seeing Like a State.* On low modernism, see Jess Gilbert, *Planning Democracy: Agrarian Intellectuals and the Intended New Deal* (New Haven, CT: Yale University Press, 2015).

42. Eve E. Buckley, *Technocrats and the Politics of Drought and Development in Twentieth-Century Brazil* (Chapel Hill: University of North Carolina Press, 2017), 3.

43. See, for example: Cueto, *Missionaries of Science*; Marcos Cueto, *The Value of Health: A History of the Pan American Health Organization* (Rochester, NY: University of Rochester Press, 2007); Jeremy Adelman, *Worldly Philosopher: The Odyssey of Albert O. Hirschman* (Chapel Hill: University of North Carolina Press, 2012); Nick Cullather, *The Hungry World: America's Cold War Battle against Poverty in Asia* (Cambridge, MA: Harvard University Press, 2013); Daniel Immerwahr, *Thinking Small: The United States and the Lure of Community Development* (Cambridge, MA: Harvard University Press, 2015); Amy C. Offner, *Sorting Out the Mixed Economy: The Rise and Fall of Welfare and Developmental States in the Americas* (Princeton, NJ: Princeton University Press, 2019); Amy L. S. Staples, *The Birth of Development: How the World Bank, Food and Agriculture Organization and the World Health Organization Changed the World, 1945–1965* (Kent, OH: Kent State University Press, 2006); Jeffrey F. Taffett, *Foreign Aid as*

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Foreign Policy: The Alliance for Progress in Latin America (New York: Routledge, 2007); and two papers presented at the conference "Traveling Technocrats: Experts and Expertise in Latin America's Long Cold War," Yale University, October 14–15, 2016: Javier Puente, "'Tierra para el que la trabaja': Rural Expertise and Agrarian Technocracy in Cold War Peru, 1960–1970," and Margarita Fajardo, "Autonomy in Question: How Latin American Economists Made ISI History."

44. Thanks go to Paulo Drinot and Gilbert Joseph, respectively, for these turns of phrase.

45. See Purcell (chapter 9), Olsson (chapter 2), and Lorek (chapter 3) in this volume, as well as Gabriela Soto Laveaga, "Traveling Seeds, Stationary People? Contesting Narrative of Agricultural Expertise in the Era of the Green Revolution." paper presented at the conference "Traveling Technocrats: Experts and Expertise in Latin America's Long Cold War," Yale University, October 14–15, 2016; and Netzahualcóyotl Luis Gutiérrez Núñez, "Cambio agrario y revolución verde: Dilemas científicos, políticos y agrarios en la agricultura mexicana del maíz, 1920–1970" (PhD diss., Colegio de México, 2017). Theresa Ventura examines this theme for the Philippines in a forthcoming monograph titled "Empire Reformed: The United States, the Philippines, and the Practices of Development." In the same vein, Megan Raby, in her book *American Tropics: The Caribbean Roots of Biodiversity Science* (Chapel Hill: University of North Carolina Press, 2017), astutely traces the Cold War roots of "biodiversity" in US-operated Latin American field stations.

46. In fact, a wider assortment of expertise may be discerned in the original impetus for this volume: two panels organized for the Latin American Studies Association Annual Congress in San Juan, Puerto Rico in 2015. Presentations on these panels included Emilio de Antuñano, "Mexico City's Mid-Century Housing Crisis: Conceptualizations of Urban Poverty for a Shifting City"; Taylor H. Jardno, "Counterrevolutionary Consultations: The Politics of Private Education in Cold War Mexico"; Jennifer T. Hoyt, "More Like the West: The Last Military Dictatorship, Urban Reforms, and Professional Protest in Buenos Aires, Argentina (1976–1983)"; Marco A. Ramos, "Cold War Violence and Psychoanalysis in Buenos Aires"; Anthony W. Andersson, "Trees, Beans, and Bullets: Forestry, Development, and Counterinsurgency in Northern Guatemala, 1960–1970"; and Eric Rutkow, "The Mountain of Death and the Selegua Gap: The United States, Highway Engineers, and the Early Cold War in Central America." There is also growing interest in histories of expertise and technology and how these underpin economic globalization; see David Pretel and Lino Camprubí, eds., *Technology and Globalisation: Networks of Experts in World History* (Cham, Switzerland: Palgrave Studies in Economic History, 2018).

47. On Soviet as well as US influences in public health in the Latin American Cold War, see the chapters in Birn and Necochea López, *Calenturas!* On the circulation of concrete-block housing technologies from the Soviet Union to Cuba and Chile, see Pedro Ignacio Alonso and Hugo Palmarola, *Panel* (London: Architectural Association, 2014).

48. The rich historiography on experts and expertise in Brazil may be glimpsed in Thomas D. Rogers, *The Deepest Wounds: A Labor and Environmental History of Sugar in Northeast Brazil* (Chapel Hill: University of North Carolina Press, 2010); Buckley, *Technocrats*; and Regina Horta Duarte, *Activist Biology: The National Museum, Politics, and Nation Building in Brazil*

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(Tucson: University of Arizona Press, 2016), among others. See the following two footnotes, as well.

49. For anthropologists and sociologists, see Diana Schwartz, "Transforming the Tropics: Development, Displacement, and Anthropology in the Papaloapan, Mexico, 1940s–1970s," (PhD diss., University of Chicago, 2016); Joanne Rappaport, "Beyond Participant Observation: Collaborative Ethnography as Theoretical Innovation," *Collaborative Anthropologies* 1 (2008): 1–31; Mónica Moreno, "The Relationship between the Sociology Program at the Unie versidad Nacional de Colombia and the Rockefeller Foundation and the Ford Foundation: A Preliminary Description of Its Dynamics," Rockefeller Archive Center Research Report (2013). On medical expertise, see Josh Mentanko, "Development, Tradition, and Decolonization: Racial Thought and Reproductive Politics in post-1950 Mexico" (PhD diss., Yale University, in preparation); Marco Ramos, "Making Disappearance Visible: Psychoanalysis , Trauma, and Human Rights in Cold War Argentina" (PhD diss., Yale University, 2017); Jelke Boesten, *Intersecting Inequalities: Women and Social Policy in Peru, 1990–2000* (University Park: Pennsylvania State University Press, 2010); and the essays in Birn and Necochea López, *Calenturas!*. For public health, see Marcos Cueto, *Cold War and Deadly Fevers: Malaria Eradication in Mexico, 1955–1970* (Baltimore: Johns Hopkins University Press, 2007) and Eric D. Carter, *Enemy in the Blood: Malaria, Environment, and Development in Argentina (Tuscaloosa: University of Alabama Press, 2012).* For economists, see Adelman, *Worldly Philosopher*; Offner, *Sorting Out the Mixed Economy*; Christy Thornton, *Revolution in Development: Mexico and the Governance of the Global Economy* (Berkeley: University of California Press, forthcoming); and Margarita Fajardo, "The Latin American Development Experience: Social Sciences, Economic Policies, and the Making of Global Order, 1944–1971" (PhD diss., Princeton University, 2015). For nuclear science and security experts, see Manuel Rodríguez, "Radioactive Designs: Expertise and Falll- out Shelter Programs in Puerto Rico, 1960–1968," paper presented at the conference "Travele ing Technocrats: Experts and Expertise in Latin America's Long Cold War," Yale University, October 14–15, 2016; Raby, *American Tropics*; and Christopher Dunlap, "Parallel Power Play: Nuclear Technology and Diplomacy in Argentina and Brazil, 1945–1995" (PhD diss., University of Chicago, 2017). For additional work on Cold War housing and urbanism, see Leandro Benmergui, "The Alliance for Progress and Housing Policy in Rio de Janeiro and Buenos Ain res in the 1960s," *Urban History* 36 (August 2009): 303–326; Helen Gyger, *Improvised Cities: Architecture, Urbanization, and Innovation in Peru* (Pittsburgh: University of Pittsburgh Press, 2019); Mark A. Healey, *The Ruins of the New Argentina: Peronism and the Remaking of San Juan after the 1944 Earthquake* (Durham, NC: Duke University Press, 2011); Jennifer T. Hoyt, "Clean, Fast, and Green: Urban Reforms in Buenos Aires and Cold War Ideologies, 1976–1983," *Urban History* 42, no. 4 (November 2015): 646–662; Marcio Siwi, "Making the Modern and Cultured City: Art, Architecture, and Urbanism in Postwar São Paulo, 1945—1969" (PhD diss., New York University, 2017); and Adrián Lerner Patrón, "Jungle Cities: The Making of Urban Space in Twentieth-Century Amazonia" (PhD diss., Yale University, forthcoming).

50. The work of Scott Crago, one of the 2016 conference participants, is especially instructive on these points. See Scott D. Crago, "Perquenco's Travelling Guitarists and the Administrative Inconsistencies of the Pinochet Dictatorship's Indigenous Policies," *Journal of Latin*

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American Studies 50, no. 1 (February 2018): 59–86. For hydroelectric projects, dictatorship, and indigenous politics in Brazil, see Jacob Blanc, *Before the Flood: The Itaipu Dam and the Visibility of Rural Brazil* (Durham, NC: Duke University Press, 2019).

51. The trans-Pacific connections between Latin America and Asia offer an important arena for future research. On Taiwanese experts in Latin America and beyond during the Cold War, see the work of James Lin, including "Sowing Seeds and Knowledge: Agricultural Development in the US, Taiwan, and the World, 1949–1975," *East Asian Science, Technology, and Society* 9 (June 2015): 127–149.

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