The Puerto Rican Connection: Recovering the "Cultural Triangle" in Global Histories of Agricultural Development

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This essay revisits a 1947 article about race and colonial history in the Americas to uncover overlooked geographic and intellectual components of the emerging Green Revolution in agricultural technologies then in formation. It argues that Puerto Rico and the island's agricultural and educational institutions served as critical sites of inter-hemispheric collaboration and convergence in agricultural science and technology with global implications. Focusing on the collaboration and careers of the article's authors, the Puerto Rican polymath Carlos Chardón and the US geographer Raymond Crist, this essay traces intellectual traditions of race and nation as early organizing principles in the social and political projects of agricultural development in the Caribbean that laid the foundations for the Green Revolution in Latin America.

In 1947, an article appeared in the *American Journal of Economics and Sociology* comparing historical experiences of race and colonialism in the British and Spanish Americas. The year before, the first edition of Frank Tannenbaum's landmark and now-infamous book, *Slave and Citizen: The Negro in the Americas*, had tackled similar comparative themes.[1] Unlike the Columbia professor, however, the authors of the 1947 article were neither historians nor sociologists. Nor were they economists, as the journal of publication would suggest. Instead, Carlos Chardón, the Puerto Rican polymath, reformer, and university chancellor was probably best known internationally for his biological fieldwork, particularly in mycology and the study of disease-resistant sugarcane varieties. His coauthor, Raymond Crist, was a notable Latin Amer-

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icanist geographer whose intellectual connection to Chardón stemmed from his fieldwork on land tenure and agricultural geographies in Colombia and the Greater Caribbean.[2] Together, they crafted their article on the history of race and colonialism while working at the University of Puerto Rico-Mayagüez, the island territory's land-grant campus, and the adjacent Institute of Tropical Agriculture.[3]

The context of their collaborative article, "Intercultural Colonial Policies in the Americas: Iberians and Britons in the New World," reveals Puerto Rico and its agricultural institutions as transnational spaces of intellectual cross-fertilization.[4] The article's publication in 1947 further underscores these spaces' significance at a critical juncture in the opening of the Cold War and the rise of what would become a Green Revolution in agricultural science and technology.

Intellectual exchange at such Puerto Rican sites connected the Latin American social sciences, including the emerging interdisciplinary arena of Latin American studies, to biology and agronomy. Indeed, the authors' historical interpretation drew from a Latin American fountain of cultural imaginaries, particularly the notions of Spanish *mestizaje* and Luso-Tropicalism's "racial democracy." But they also applied a stream of agricultural metaphors from shared experiences in the field. The Spanish, they argued, "grafted" their culture to the "Indian" and "Negro," forming a new and superior "hybrid" variety.[5] I argue that the authors, looking out from Puerto Rico in 1947, offered this article and its framing analogy to speak to social scientists and politicians about the widespread need for hybrid seeds, including as a prescription for the problems of racial strife and injustice and the urgent political crises these problems wrought worldwide. A solution to the problem of racial tensions, they wrote, was of "paramount importance in our shrinking world, for policies involving race relations are no longer a matter of purely domestic concern for any nation." The old racial hierarchies "evolved by the whites for the purpose of subordinating the colored races are rapidly crumbling."[6] In the article, the authors suggested a social prescription based on agricultural science that now looks like an alternative vision of modernization contrasting with the eventual ascendance of a US-directed Green Revolution. As such, the article reminds us that this eventual Green Revolution was a historical process, one that changed over time and in space, shifted its ambitions, and grew out of an assortment of rarely recognized people and places in its genealogy.

Although their 1947 article has largely been forgotten, Chardón and Crist were, at the time, towering figures in their fields.[7] Chardón pioneered the

study of aphids as a vector for spreading the mosaic virus, which decimated sugarcane crops around the world in the early twentieth century. He was a close confidant of Nathaniel Lord Britton and Elizabeth Britton, founders of the New York Botanical Garden, and he played a key role in the Scientific Survey of Puerto Rico and the organization of the Tropical Plant Research Foundation.[8] His *Plan Chardón* guided the New Deal in Puerto Rico and influenced later development projects including "Operation Bootstrap" on the island and John F. Kennedy's Alliance for Progress in the Western Hemisphere.[9] He consulted widely in Latin America on agricultural and biological matters and recommended political reforms in Colombia, Venezuela, and the Dominican Republic. During his extensive travels, he collected biological specimens, hundreds of which are still preserved at the New York Botanical Garden's William and Lynda Steere Herbarium. Crist, for his part, was among the vanguard of US social scientists working in Latin America during World War II, and he went on to have a profound influence in shaping the emerging field of Latin American studies. His six-decade career molded the expectations of geographic fieldwork in Latin America and beyond, and he mentored scores of students. In 1989, the *Journal of Cultural Geography* devoted an entire issue as a *festschrift* to Crist's professional influence.[10] Although Chardón and Crist's 1947 article may now appear as little more than a footnote to the broader intellectual currents of their day, their statures give significance to its fusion of interdisciplinary ideas and the shared space of Puerto Rico as an intellectual workshop.

Chardón and Crist's collaboration offers a window into an interhemispheric intellectual exchange with Puerto Rico as one important center.[11] This exchange mattered for global agriculture and Cold War development projects. Over the course of their careers, Chardón and Crist helped pioneer the scientific techniques, lay the intellectual groundwork, and forge the institutional capacity and interpersonal networks that would precipitate what later would be called a Green Revolution in Latin American agriculture. The Rockefeller Foundation, in particular, entered networks of collaboration and exchange in Latin American agricultural research long carved out by the work of individuals like Carlos Chardón and Raymond Crist. Yet as the Cold War increasingly defined the terms of this work, an earlier generation of purveyors such as Chardón and Crist gradually shifted their energy to academic work and yielded their sociopolitical influence to US government agencies and private foundations obsessed with diminishing the appeal of communism.

The site of Chardón and Crist's collaboration—Puerto Rico, and specifi-

cally the land-grant campus of the University of Puerto Rico-Mayagüez and the adjacent experiment station—comprised a critical node in this network of collaboration and exchange. Stuart McCook and other scholars have already argued for the territory of Puerto Rico's significance to transnational networks of "creole science," or, conversely, what Ricardo Salvatore has termed the United States' informal "enterprise of knowledge."[12] Recently, historians have re-examined Puerto Rico's role as a territory and scientific nexus between the United States and Latin America in tropical biology and other fields.[13] Megan Raby, for example, situates Puerto Rico and the El Yunque rainforest as critical sites in the international growth of the Cold War idea of biodiversity. Unlike Raby and her work on tropical biology, however, much of the scholarship on Puerto Rico and agricultural expertise, including McCook's significant contributions, conclude before the onset of the Cold War and the era of international development. For the Cold War, Puerto Rico's connection to broader processes in arenas other than agronomy have received considerably more attention, particularly industrial development, urban planning, climatology, population control, and electrification.

The historical role of Puerto Rico as a social and political laboratory during the Cold War needs only brief review here. Luis Muñoz Marín became the first democratically elected Governor of Puerto Rico in 1948. A critical component of his campaign came by way of an ambitious development program through partnerships with private corporations and the Puerto Rican Industrial Development Company (*Compañia de Fomento*) to transform the island's economy from agrarian to industrial. This initiative, termed Operation Bootstrap, served as a bridge from the New Deal economic relief programs of the 1930s to broader programs of hemispheric development during the Cold War in Latin America, culminating with John F. Kennedy's Alliance for Progress in 1961.[14] Indeed, Muñoz Marín served as an advisor to Kennedy on Latin America, and Kennedy appointed Teodoro Moscoso, who had directed Operation Bootstrap in the 1950s, to the post of US coordinator of the Alliance for Progress from 1962–1964.

Less discussed, however, is how Puerto Rico had long since served as a laboratory and training ground for agricultural development and research collaboration between the United States and Latin America. In fact, Puerto Rico played what remains an often unrecognized role in a network of agricultural research in Latin America into which the Rockefeller Foundation entered in the 1940s and 1950s.[15] Major figures in the Cold War dissemination of agricultural science, planning, and development models from the United States

cut their international teeth in the island's politics and scientific institutions. These included former Undersecretary of Agriculture and Director of the Resettlement Administration (1933–1938) and then Governor of Puerto Rico (1941–1946) Rexford G. Tugwell as well as future President of the Rockefeller Foundation J. George Harrar (1961–1971). Their experiences offer just two prominent examples of the island's status as a formative middle ground for the agricultural sciences between the United States and Latin America during the interwar years. Expanding on Robert Kohler's assessment of laboratory-field borderlands in biology, I argue that Puerto Rico's agricultural laboratories and institutions comprised a major convergence zone between the United States and Latin America at the dawn of the international development era.[16] Because of Puerto Rico's territorial status and the presence of a US land-grant university and agricultural research station under the auspices of the US Department of Agriculture (USDA), the Spanish-speaking island was uniquely positioned to incorporate Latin American historical experiences and cultural ideologies into US policy and development templates. This situation persisted into the Cold War. The island's universities and research stations sent and received scientists and students from across the Americas throughout this period. In the other direction, Puerto Rico also served as an outward-bound training site for early cohorts of Peace Corps volunteers in the 1960s, many of whom were destined for agricultural work in Latin America.[17]

This essay introduces the Chardón and Crist article to unpack Puerto Rico's role in the growth and maturation of international agricultural development practices geared initially toward social improvement. Critically, it examines how Latin American scholars and scientists, including Puerto Rican intermediaries like Chardón, collaborated with their counterparts from the north and fostered political projects of agricultural modernization premised on pressing regional social problems rather than globally interchangeable models for neo-Malthusian and anti-communist ends. But beyond merely providing an alternative template for rural development, their work and the institutional networks they developed actually influenced and facilitated the postwar internationalism of US-led development projects, even though these projects ultimately settled on different objectives. The US Department of State and US-based philanthropic foundations applied their robust resources to this pre-existing network and, in the process, reoriented its objectives toward anti-communist international development. In so doing, the new objectives eclipsed the intellectual foundations and social politics of an earlier collaborative era, as preserved in the prescriptions and language of Chardón

and Crist's text.

In tracing this process, I link the rich scholarly literature on science and intellectual exchange in the Greater Caribbean ending around 1930 to the similarly evocative work on US postwar international development, including the extension of New Deal ideas and individuals into the Global South. Puerto Rico is by no means the only suitable location to connect these eras and historiographies.[18] Yet its evolving status vis-à-vis the United States at the precise moment of the Chardón and Crist article offers an opportunity to excavate layers of contextual convergence that reveal the political and cultural negotiations at work in this broader period of transition.

Carlos Chardón and the "Cultural Triangle"

In 1943, Chardón became director of the Institute of Tropical Agriculture, the name then for the United States' old Federal Experiment Station across the street from the University of Puerto Rico's land-grant campus at Mayagüez. The acclaimed agronomist and architect of Puerto Rico's New Deal recovery program, in fact, navigated in and out of these Mayagüez institutions for much of his career. His vision for agricultural science as a means of social reform reflects an intellectual journey between land-grant Progressivism and Cold War technocracy filtered through a pan-Americanist Caribbean sensibility. Steeped in agronomy, his influence in the Greater Caribbean transcended agriculture.

Carlos Eugenio Chardón was born on September 28, 1897, in Ponce, the urban center of Puerto Rico's south-coast sugarcane industry. A gifted student, he studied at the new agricultural college in Mayagüez from 1915 to 1918. A 1918 earthquake leveled much of the city and offered him an unexpected opportunity. While the university focused on reconstruction, Chardón acquired a dean's recommendation to continue his advanced studies at Cornell, New York state's land-grant university. In Ithaca, the talented transfer came under the tutelage of esteemed pathologist H. H. Whetzel and earned his BS in 1919 and his MS in 1921.

Returning to Puerto Rico in 1921, Chardón took a job as a plant pathologist at the Insular Experiment Station at Rio Piedras outside San Juan. He earned attention through his research in Rio Piedras during the 1920s, particularly for his study isolating the role of aphids in the spread of the mosaic virus in sugarcane. Identifying aphids as vectors for the disease, Chardón recommended the importation of resistant varieties and careful weeding to limit the insects' mobility, a technique that combined science and stewardship and that

contrasts with the "biological warfare" of capital-intensive chemical pesticide applications associated with the later Green Revolution.[19]

At the age of twenty-five, the precocious Chardón became the Commissioner of Agriculture and Labor in the government of Horace E. Towner, serving in that capacity from 1923 to 1930. As commissioner, he continued to work with his successor at the Insular Experiment Station at Rio Piedras, Arthur Rosenfeld, who had formerly directed the experiment station at Tucumán, Argentina. Commissioner Chardón and his allies in Rio Piedras furthered agronomic partnerships with experiment stations across Latin America and with the USDA in Washington, DC, to continue the importation of newly hybridized sugarcane varieties to the island.[20] As a plant pathologist, Chardón originally maintained a strict focus on these biological improvements as a panacea for economic underdevelopment. The harsh realities of the Great Depression caused him to reflect upon and alter these views to further account for social inequalities.

In 1930, Chardón wrote an article entitled "The New Pan-Americanism" in which he presented a vision of agricultural self-sufficiency before the challenge of economic depression. Connecting agronomy to Latin America's political and economic problems, he asked whether the region could "awaken to the necessity of a policy of self-protection and adopt a definite line of research and education in the study of her vital crop problems?"[21] His intellectual identity at this point encompassed Progressive ideals of technocracy, such as political policy inflected by university-driven research.[22] Chardón's agricultural philosophy could be discerned too in his support for extension services for the island's populace, in contrast to the opinions of some of his contemporaries. D. W. May, for example, the director of the federal experiment station in Mayagüez from 1904 to 1930, expressed frustration with the limitations extension imposed on scientific achievement. May wrote, "the proper function of an experiment station is research, and instruction should not be expected of it." Science in Mayagüez, according to May, was bogged down by the constant need to "translate its work to a public not familiar with scientific agriculture."[23] Chardón, however, believed the opposite; the task of an experiment station was to teach the public about scientific agriculture. He championed strategies such as the *expertos ambulantes*, walking agronomists sent out from Rio Piedras or Mayagüez to canvas the countryside and bring agronomy to the people. Other influential Latin American agricultural experiment stations adopted this model at Chardón's urging.[24] Most notable among these, perhaps, was the Palmira Agricultural Experiment Station in Colombia,

which would later be praised by Norman Borlaug, Paul Manglesdorf, and other Rockefeller Foundation scientists looking for a suitable site to expand their international work in agriculture in 1948.[25]

Chardón served as chancellor of the University of Puerto Rico (UPR) from its flagship campus in Rio Piedras from 1931 to 1936. Influencing policy from the university, he led efforts to bring an "enlightened development" to Puerto Rico through the merging of agricultural science and New Deal policies on the island. During this time, he drafted his influential *Plan Chardón*, a New Deal recovery plan for the island. He resigned from his position as chancellor to administer the Puerto Rican Reconstruction Administration (PRRA) created by Franklin D. Roosevelt based on his plan.[26] Despite his pioneering work with sugarcane hybrids, his state- and university-led development ideology attempted to curtail the power of the corporate sugar industry in pursuit of a diversified economy and technical assistance to Puerto Ricans, many of whom were suffering from the island's large population, low wages, and limited access to resources. Chardón's emphasis on social outreach, economic protectionism, and self-sufficiency suggests the spirit of what we now call food security, a sentiment shared during the 1930s by those sociologist Jess Gilbert has called "agrarian intellectuals" in the USDA and their Latin American counterparts, who largely remain absent in agricultural histories of the period.[27] Although political rivalries caused him to resign within a year, Chardón's political project emphasized how agricultural science could yield not only robust economies but also peaceful countrysides. He joined other Puerto Rican experts of his era in using the New Deal to subvert colonial oversight by increasing autonomy and local governance of development projects, from the training of agricultural technicians to the construction of dams for rural hydro-electrification.[28]

As Chardón's reputation spread for his complementary abilities as a scientist and a reformer, he found his consultation services in high demand. He traveled widely throughout Latin America during this period as a technical advisor. He led expeditions and scientific surveys to Colombia, Venezuela, Bolivia, the Dominican Republic, and the US Virgin Islands. Revealing his sensibility as a traveling naturalist, he published a compilation of his diary entries from these travels.[29] A friend of Nathaniel Lord and Elizabeth Britton of the New York Botanical Garden, Chardón imagined himself an heir to the scientific survey tradition of Alexander von Humboldt, Charles Darwin, and his peers in New York. He later dedicated four years of his spare time and consulted over two thousand books and papers to draft a 1,670 page manu-

script on nineteenth-century scientists' travels in the Americas.[30] As a hybrid intellectual, a Humboldtian-pan-American-New Dealer, Chardón made lasting contributions to scientific classification and influenced agrarian politics and subsequent agricultural development schemes proposed in the locations he visited.[31]

In his inaugural address as chancellor of the University of Puerto Rico system in 1931, Chardón described for a broad audience at San Juan's Municipal Theatre his interpretation of the island territory's central position as a zone of contact for the hemisphere's scientific and intellectual exchange. After noting the university's links to the United States, Chardón declared, "Our thoughts, naturally, also go to the South, to our sister republics by tradition and blood." Echoing his own travel itinerary and interpersonal scientific network, Chardón continued, "To the universities of Caracas, Bogotá, Michoacán, Medellín, Cauca, San Marcos, Quito, Buenos Aires, La Plata, Córdova, Tucumán, those of Chile and Mexico, as well as those of Cuba and Santo Domingo, we send our message of salutation and fraternity."[32] Puerto Rico's land-grant university, he said, should serve as a convergence zone for these various intellectual and cultural traditions. As such, the university could fulfill its mission to educate the island's youth for the personal and collective well-being of society. This was a "practical" objective to improve social and economic conditions. Puerto Rico needed "*hombres modernamente técnicos*," or modern technocrats.[33]

Science, and for Chardón agricultural science, lay at the heart of Latin America's recovery of its own destiny. As he told the audience at the Municipal Theatre:

> In 1859 while the youth of Ecuador studied dead languages in the ancient university of Quito, the English botanist Richard Spruce studied quinine in the Pacific jungles without being bothered and sent the first seeds to India and Malaysia, thus depriving America of one of its most valuable autochthonous industries. And while the Peruvian youth in the classrooms of the University of San Marcos were critiquing the results of the War of the Pacific and the loss of Tacna-Arica in their doctoral theses, the English and Dutch, almost lost in the unmarked jungles of Huallaga, Marañón, and Ucayali, obtained rubber seeds, and this second rich resource transplanted to the far Orient has abandoned America and will never return.

He said, in short, "We are losing our natural riches one by one."[34] For Chardón, in an admittedly awkward situation at a land-grant college in Puerto Rico ("which by fortune or disgrace enjoys a privileged position in the Americas"),

Latin American history was as much about lost opportunities as it was about colonial and imperial dispossession.[35]

Puerto Rico did not only look to its fraternal connections to Latin America, of course. Chardón imagined Puerto Rico, and in particular its universities, at the "center of a cultural triangle." He began to develop this notion as an advocate for the establishment of a graduate school of tropical agriculture in the territory in the late 1920s. He premised his argument on the island's growing position as a nexus between Latin America and the United States, bridging a Spanish colonial heritage and the rise of the United States with a special emphasis on inter-American cooperation.[36] Chardón cited William Crocker, the president of the Biology and Agriculture Division of the National Research Council, who noted how Latin American countries and the United States "have not begun to understand one another and as such have not been able to cooperate for general progress."[37] Puerto Rico could serve as the remedy. Chardón saw Latin America in the twentieth century as similar to the US West of the nineteenth century. "Tropical America," he wrote in 1928, "plays such an important role in the economic stability and future of the United States, such that the prosperity and the progress of distant countries like Brazil, Peru, and Colombia are as valued by the American citizen as the progress and well-being of Arizona, Montana, Idaho, and other states of the North American republic."[38] With an agricultural college and pair of experiment stations inherited from an expansionist United States, Puerto Rico offered an obvious training ground for facilitating further connections. The United States needed tropical agricultural products. Latin America needed culturally and linguistically competent agronomists. Chardón recognized the niche available to Puerto Rico, especially its universities, in connecting the two.

United States officials noticed Chardón and quietly supported his efforts, not least through the creation of the PRRA. Chardón enjoyed access to US institutions and key officials, and he used his position to lobby in DC for Puerto Rican and Latin American agricultural programs, including natural disaster relief, the Tropical Plant Research Foundation, and partnerships with the USDA.[39]

Meanwhile, US officials expressed growing concern about the state of the Latin American countrysides that the itinerant Chardón knew so well. One of these officials had a vested interest in agricultural policy and also happened to be the Governor of Puerto Rico. Rexford Tugwell connects debates internal to New Deal agrarian modernisms to this story by way of his role in the

"cultural triangle" linking the United States, Puerto Rico, and Latin America.

Rexford Tugwell has been characterized as a quintessential "high modernist," to use scholar James Scott's term.[40] For his part, Jess Gilbert describes Tugwell during his tenure as Undersecretary of Agriculture as "the archetypical urban liberal: Ivy League, outspoken, iconoclastic," qualities that stood in stark contrast to his Midwestern agrarian boss, Henry A. Wallace. "An ardent statist and collectivist planner," Gilbert continues, "[Tugwell] obviously wanted to change the world in a hurry."[41] After resigning from the USDA in 1936, Tugwell pursued other planning ventures, including a period working as director of the New York City Planning Commission, where he battled another one of James Scott's band of high modernists, Robert Moses. Tugwell next served as chancellor of the University of Puerto Rico (following in Chardón's footsteps) and then, from 1941 to 1946, as the last non-Puerto Rican governor of the island. He became a strong ally of Luis Muñoz Marín and his development ambitions for the island, supporting the coordinated industrial development program Operation Bootstrap in 1947, Muñoz Marín's election in 1948, and the achievement of Commonwealth status in 1952.

What James Scott and Jess Gilbert both miss about Tugwell, however, is that his connection to Puerto Rico had earlier origins. As undersecretary of agriculture, Tugwell joined Eleanor Roosevelt in a delegation to the island in March of 1934. During this trip, Tugwell met Chardón, then the chancellor of the University of Puerto Rico, at a meeting regarding Puerto Rican relief and reconstruction efforts convened at the governor's residence.[42] Tugwell observed Depression-ravaged Puerto Rico and listened to Chardón's proposition for the government's redistribution of land held privately by large sugar interests. Chardón directed Tugwell's gaze toward the Puerto Rican countryside, focusing on absentee landowners and an export-dominated agroeconomy. The experience confirmed Tugwell's suspicion of big business and capitalist enterprise, which he further blended with a racist Malthusianism reminiscent of views held by other American officials in Puerto Rico.[43] After his meeting with Chardón, Tugwell wrote to Henry A. Wallace in Washington, recommending birth control and the large-scale socialization of the island's agriculture:

> I rather dislike to think that our falling fertility must be supplemented by these people. But that will probably happen. Our control of the tropics seems to me certain to increase immigration from here and the next wave of the lowly xxxx—succeeding Irish, Italians, and Slavs—will be these mulatto, Indian, Spanish people from the south of us. They make poor material for social organization

but you are going to have to reckon with them.[44]

Tugwell added such slurs to what was otherwise a variation on Chardón's prescriptions, veering toward large-scale social engineering in the countryside to slow population growth and stimulate local economies and local food supplies. Tugwell even pondered a Soviet-styled socialization of the corporate sugar industry.[45]

Tugwell's high-modernist approach to engineering a new Puerto Rico continued during his tenure there as chancellor of UPR and as governor in the 1940s. He supported his Puerto Rican successor as governor, Muñoz Marín, and the economic development initiatives of Operation Bootstrap, begun the previous year to modernize and industrialize the Puerto Rican economy under the leadership of planner Teodoro Moscoso. Operation Bootstrap would become a model for later Cold War development programs sponsored by the United States in Latin America, in particular John F. Kennedy's Alliance for Progress, which was directed by Moscoso. Tugwell's high-modernist agenda during the New Deal in the United States and support for the extension of such ambitions to Muñoz Marín's Puerto Rico en route to Cold War Latin America reveals the island's intermediary "laboratory" role in inter-American affairs.[46]

Yet this position was staked out by another Muñoz Marín ally as early as the 1920s, when Chardón outlined his conceptualization of the "cultural triangle." In fact, it was Chardón's advocacy for a redistributive agrarian plan that first caught Tugwell's attention in 1934. Chardón's version of the "cultural triangle" rested on Puerto Rico's position as intermediary and convergence zone, a vision which later materialized with the scaling up of Operation Bootstrap into the Alliance for Progress. A memo to Undersecretary Tugwell during his visit to the island in 1934 described this earlier vision by name. Quoting Chardón, the memo described how Puerto Rico should become the center of a cultural triangle linking US technology to Latin America: "The vast continent of immense natural wealth, little touched by human enterprise, peopled by a race of our common stock, that speaks our language, a race whom continental Americans have wholly failed to understand, due to past diplomatic blunders and to the preponderance of eminently and exclusively dollar-seeking agents."[47] At their first meeting in 1934, Chardón and Tugwell differed radically in their assessment of Puerto Rican and, by extension, Latin American racial and cultural vitality. Yet they agreed on the significance of the island territory, its need for agrarian restructuring and agricultural science, and its capacity as a host site for broader hemispheric initiatives.

One especially important site on the Latin American side of Chardón's cultural triangle was Colombia's Cauca Valley, as noted above. Chardón consulted in the valley beginning with his leadership of an influential survey there in 1929, producing a detailed report on Latin American agricultural services that would be remembered as the "warm-lands farmer's bible."[48] Chardón's periodic work there continued to inform his thinking about agrarian, cultural, and intellectual relationships between the United States, Puerto Rico, and Latin America, and he used his position as a liaison to the USDA to advocate for enhanced cooperation with Colombia.[49] From the USDA's vantage point, Chardón's work in Colombia generated exposure to its domestic agricultural institutions and the continuing research conducted there. Not surprisingly, then, Colombia became one of the initial recipients of Moscoso and Kennedy's Alliance for Progress as an earlier set of ideas and connections molded into a new Cold War era.[50] The Alliance for Progress, as an inter-American Cold War development scheme, followed the scientific itinerary of Chardón, who earlier influenced and facilitated the transnational circulation of New Deal agrarian intellectualism. Although New Deal and US-in-the-World historians have outlined how Cold War development initiatives grew out of the work of New Deal planners abroad, Chardón's efforts offer a particularly striking example of how New Deal planners such as Tugwell actually were informed (and had their itineraries determined) by Latin American domestic traditions of creole science.

Race and Agriculture in the Cultural Triangle

The Cauca Valley also introduced Chardón to a geographer named Raymond Crist. Crist visited Colombia during World War II and befriended Chardón's local patron, the Cauca Valley's Secretary of Industries Ciro Molina Garcés. Crist's first foray into Colombia came as a Guggenheim fellow in 1940–1941. The following year, Crist began an appointment at the University of Puerto Rico in Mayagüez, where he overlapped with Chardón.[51] After comparing Colombian field notes with Chardón, Crist returned to the Cauca Valley from Mayagüez in 1946 to conduct the fieldwork that would result in his book *The Cauca Valley, Colombia: Land Tenure and Land Use*, which he dedicated to Molina Garcés. In between these tours, Crist consulted for a rubber development corporation in Brazil and Bolivia during the war and maintained his position at the University of Puerto Rico's land-grant campus in Mayagüez from 1942 to 1947.

Like Chardón in Puerto Rico, Raymond Crist took a sympathetic view of

Colombia's rural poor and landless, including the Cauca Valley's large population of Afro-Colombians. Crist cited the example of the predominately Afro-Colombian pueblo of Rozo as an example of the benefits of modest land ownership. There, just kilometers from the country's largest corporate sugar refineries, the inhabitants of a colony populated by the descendants of former slaves who had received land parcels with their emancipation in the eighteenth century cultivated an autonomous existence. Nearly two centuries later this community continued to maintain a comfortable economic existence, selling the fruits of their labor to feed the growing populations of nearby urban centers. Crist cited Rozo, a rare example of community land ownership in the heart of a rapidly growing agro-industrial sugar complex, as a portrait of the possibilities inherent in meaningful land reform.[52]

Crist's work on land tenure in the Cauca Valley reveals the progressive spirit he shared with Chardón. Crist chronicled the plight of the landless and wage laborers in his studies of the Cauca Valley, detailing their loss of common land first to the cattle economy and, more recently, to the corporate sugarcane industry, which devoured cheap, fertile land and further marginalized the small farmers and the landless of the eroding slopes of the *cordillera*. Echoing the agendas of Cauca Valley agronomists, Crist emphasized political reform to encourage multi-dimensional land tenancy that matched a diversified crop regime with proper scale and science. He lamented the inequality of the region's agrarian credit structure and advocated for government regulation to ward off monoculture, the acceleration of land dispossession, and concentration in the sugar industry.[53] He read Frank Tannenbaum and translated a passage from his article "An American Commonwealth of Nations" (1944) into Spanish: "What Latin America needs, if it is to achieve political and economic stability, is the growth of a numerous and independent *campesinado* of small land-owners, and the growth of a broad and vigorous middle class."[54] Yet where other US social scientists, including Louisiana State University rural sociologist T. Lynn Smith, visited the Cauca Valley and interpreted this need through the prism of the idealized agrarian and Jeffersonian sweep of US history, Crist followed Chardón's appreciation for Latin America's unique historical contexts and cultural specificities.[55]

After Crist returned from his 1946 fieldwork in Colombia, he and Chardón embarked on a curious project comparing colonial Iberian and English cultural histories. *The American Journal of Economics and Sociology* published "Intercultural Colonial Policies in the Americas: Iberians and Britons in the New World" in its April 1947 issue. The article resembled Tannenbaum's landmark

and contemporaneous *Slave and Citizen* (1946) in its comparative approach, but it subtly suggested agricultural science and plant genetics as tools for social and racial justice.[56]

Keenly aware of their historical moment, Chardón and Crist began the article with a grand proclamation. "The history of the world," they wrote, "is a series of accounts of how static, contemplative societies become dynamic, explode, and even shatter with their own explosive might, then suffer a period of gradual decline until they become once more contemplative and static."[57] They suggested the need to undertake studies that could curtail or sidestep the "natural historical rhythm" of decline.[58] Opening with this statement, the authors suggested their broader intention: to speak to contemporary crises and to ward off decline.

Crist's background in geography and emphasis on human-land relationships informs much of the piece. The influence of University of California geographer Carl Sauer and the idea of cultural landscapes is pervasive. Climate and latitude are invoked. The Spaniards established their control over the mild climates between Buenos Aires and San Francisco. The northern Europeans felt more comfortable building their towns in the familiar temperate zones, acclimated as they were to cold, rain, and snow. And while English and Dutch buccaneers ventured into the tropics to loot Spanish galleons, sending bullion back to London and Amsterdam to ignite the Industrial Revolution, the Spanish settled for riches and imported manufactures rather than capital investment. Sitting high atop an inland arid plain, the Spanish monarchs did not run their empire with the same emphasis on maritime commerce as their London counterparts.[59]

Before they ventured too far into the foggy environmental determinism of an earlier generation of geographers, the authors altered course and set their sights on a simplified cultural history. The Puritans, and more generally the English, looked upon Native Americans as inferiors and set about their extermination. Emblematic of English destruction, the authors point to the example of Sir Walter Raleigh and his "butchery."[60] The Spanish, on the other hand, viewed Indians opportunistically. "To the Conquistador," the authors claimed, "the good Indian was first, last and all the time, a slave."[61]

The authors attributed a "Spanish heritage of racial tolerance" to eight hundred years of fighting the Moors on the Iberian Peninsula. Confronting the other, and conditioned by the long conflict, the Spaniard "did not know *race* prejudice."[62] As sugar, "the green gold," emerged as the profitable axis around which the colonial Caribbean revolved, the Spaniard and the Englishman

alike turned to importing slave labor from Africa.[63] White plantation owners in English colonies, vastly outnumbered by their black slaves, sought to make a profit and go home to England. They produced a *line* of contact with the slave population, rather than a *zone* of contact. Using a metaphor drawn from geology, the authors described the Spanish alternative, a zone of contact with African slaves, as a "contact metamorphosis" in cultural relations.[64] To the Spanish, baptized African slaves might be discriminated against on the basis of class rather than race. This cultural attitude, in contrast to that of the English, "could not but bring into being a broad zone where the two races met and fused: the mestizo or half-breed class provided a buffer group in which the lines of cleavage blurred."[65]

To this point, Chardón and Crist offered a fairly predictable historical analysis of comparative colonialism for the 1940s, albeit one that drew metaphors from geology. The essay's argument, if not its language and metaphors, reflected Tannenbaum's famous thesis on the subject. Indeed the authors cited an article that the Columbia professor published as an abridged preview of *Slave and Citizen*.[66] Chardón and Crist's interpretation, contemporaneous with Tannenbaum's, offered a relatively new perspective for English-language readers at the time.[67] Like their influences, namely Tannenbaum and Sauer, the authors constructed their perspective from fieldwork and a familiarity with Latin American intellectual currents.

Like Tannenbaum, the authors concluded that the Spanish practiced a paternalistic "sexual democracy," whereas the British organized a "sexual aristocracy."[68] Turning to Brazil, they invoked Gilberto Freyre's 1933 magnum opus *Casa-Grande e Senzala*, translated into English as *The Masters and the Slaves* the year before the publication of Crist and Chardón's article. Freyre, inspired by his observations of US social relations while studying under Franz Boas at Columbia, championed the idea of Brazil's "racial democracy." Freyre depicted the social landscape of the colonial Brazilian plantation, where white planters and black slaves interacted and bred a less racially stratified nation compared to the largely separate racial spheres in English North America. As a result, Freyre argued, Brazil became a less prejudiced tropical alternative to the segregated and violent racial regime of the United States.[69]

Tannenbaum's study and, more significantly here, Freyre's "racial democracy," fits into a wider cultural moment. During the democratic opening that characterized many Latin American states of the interwar period, authors looked inward at race and nation and celebrated the region's racial dynamism. In post–revolutionary Mexico, for example, philosopher and Secretary of Ed-

ucation José Vasconcelos published his famous treatise on that country's national racial composition, *The Cosmic Race,* or *La Raza Cósmica*, in 1926. Like Freyre for Brazil, Vasconcelos argued that Mexico's racial mixing strengthened national society and suggested a vibrant future. Sauer, Tannenbaum, Robert Redfield, and other US intellectuals absorbed post–revolutionary Mexican politics and the revolutionary agrarian atmosphere that produced Vasconcelos through on-the-ground fieldwork. Similarly, in Cuba, Fernando Ortiz used agricultural society as a starting point for cultural analysis. *The Cuban Counterpoint*, *Contrapunteo cubano de tobacco y azúcar,* Ortiz's 1940 study of transculturation in a tropical agrarian economy, resembled Freyre's premise in its depiction of the emergence of a racially mixed nation in the sugarcane and tobacco fields.[70] The inward gaze of such nationalist authors stemmed from the same processes of Latin American state formation that led to the opening of agricultural experiment stations in Brazil, Colombia, and the Caribbean (and Chardón's transnational work as a consultant therein). The intellectual ascendance of racial democracy theories and the homegrown founding of institutions for agronomy overlapped in time and shared origins in the soil, influencing a generation of US social scientists, including Crist.

Crist and Chardón captured this connection. Yet the authors' specific contribution to the comparative study of race in history emerged out of their familiarity with agricultural and environmental science. Using technical metaphors drawn from agronomy, the authors describe how the Iberians successfully "transplanted" their culture to the new world. In the tropics and subtropics of the lower latitudes, "where direct transplantation of a northern European society would have been impossible—in the same way that middle latitude plants fail to thrive in tropical lowlands," the authors continued, "the Iberians *grafted* themselves and their culture on the native Indian or the imported Negro stock." The contemporary awareness, even celebration, of miscegenation, or *mestizaje*, in Latin American intellectual culture and populist politics suggested the graft had "taken."[71]

Such racial and cultural hybridization, achieved through grafting, signified the "colonizing genius of the Iberians."[72] Returning to their introductory statements about the rise and fall of civilizations, the authors concluded by stating that, "the practice of race mixture which has sometimes been considered a weak point in Iberian empire-building, may well prove to be its strength, as the peoples of Iberian blood and culture prepare themselves to assume the responsibilities of the politically adult in the world of the future." The less mature Latin American nations such as those in the Andes, they posited, in

fact resembled the British colonial pattern, maintaining separate spheres and avoiding the infusion of races. As a result, these nations lagged behind their more sophisticated and racially integrated neighbors.[73] For Chardón, Crist, and other contemporary thinkers, the most racially integrated regions of Latin America suggested a roadmap to an idealized post–racial world. Of course, Chardón and Crist's interpretation, like Freyre's and Tannenbaum's, ignored racialized and gendered power dynamics that, in reality, left a tremendous tradition of social whitening and structural inequality in Latin America.

Compared to the social and legal discrimination of the former British colonies in North America, however, Chardón and Crist asserted that in the Spanish-descendent nations of Latin America, "where any racial feeling exists today, its manifestations are extremely mild."[74] Just like the myths of racial democracy, the cosmic race, or transculturation in other Latin American nations, prominent Puerto Ricans adhered to this line of thinking. Muñoz Marín, for example, pushed a similar agenda throughout his career. In 1925, he wrote, "Perhaps the island should be of interest to the American people chiefly as a laboratory experiment in racial ethics, as there you find the nearest approach to social equality of this sort within the supposedly permanent territory of the United States."[75] Observers from the mainland echoed such claims. Advertising to tourists, the American Geographical Society declared, "Puerto Rico derives much of its modern strength from the fact that race makes little difference there. Except at the top social levels, most Puerto Ricans are oblivious to other people's racial origins. There is no discrimination in jobs, on the beaches, in the hotels and in the schools and churches; people are judged on their merits as individuals."[76] Compared to violent headlines from Alabama and Mississippi, Puerto Rico presented a racially harmonious, even racially blind, society. Crist and Chardón believed this. For them, a history of racial mixing precluded racism from forming in Latin America like it had in the Jim Crow South because of the separate spheres of English colonialism.

Looking out from Mayagüez, the authors were well-positioned to take advantage of crossing intellectual currents. In so doing, they offered a unique perspective on what a Spanish colonial heritage of racial mixing might mean for contemporary times. As Freyre and others had before them, Chardón and Crist could not help but wonder why racial strife plagued the United States while a perceived tranquility reigned over Latin America. "All regions in the world where race contact exists," they wrote, "should be subjected to exhaustive study of the circumstances and conditions which surround them."[77] Surely, they thought, the reasons behind this disjunction deserved further ac-

ademic attention. Rather than that of the Jeffersonian United States, Puerto Rico's example, at the center of the cultural triangle, could offer its own "contact metamorphosis" for a more just society.

The article's commentary on race and the subtle nods to agrarian intellectual traditions appealed to the journal in which it was published. *The American Journal of Economics and Sociology* originated in 1941 with support from the Robert Schalkenbach Foundation to promote the economic and social philosophy of Henry George. George, the nineteenth-century US journalist, famously advocated for a "Single Tax" on land rents, restoring a sense of a social commons to land ownership and thereby freeing productive, value-added activities from tax burdens. Georgism, as advocates including the Robert Schalkenbach Foundation called it, would offer a more fair and just land policy and tax reform. George's influence inspired leaders of the Progressive movement and Franklin Roosevelt in the United States as well as writers such as Leo Tolstoy and, in the Caribbean, José Martí.[78] As historian Ian Tyrrell has noted, George's philosophy also gained traction among those engaged in settler colonialism in agrarian societies.[79] For Chardón and Crist, their chosen journal offered a platform to blend elements of land-grant Progressivism, the New Deal reformist state, and a brand of Martí-inspired pan-American nationalism, each vital ingredients in their respective professional developments.

Chardón and Crist thought a solution to the problem of racial tensions to be of "paramount importance in our shrinking world, for policies involving race relations are no longer a matter of purely domestic concern for any nation." Industrialism and enhanced and accelerated mass communication brought societies increasingly together. The old racial hierarchies "evolved by the whites for the purpose of subordinating the colored races are rapidly crumbling." The battle for hearts and minds in this brave new world could be won or lost based on perceptions of sustenance, opportunity, and quality of life. "Ideals of liberty, fraternity, and equality, embodied in the religious and political foundation of western society, which have received fresh impetus from the American, the French, and now the Russian Revolution, continue to kindle the ambitions of suppressed peoples to improve their status."[80] In the critical moment of 1947, Crist and Chardón synthesized everything they had learned and experienced regarding Latin America's colonial legacies, Progressive Era university-government collaboration, New Deal reformism, and agricultural modernization in the Americas into a treatise that used history to make an argument for the future.

If suppressed peoples were to improve their statuses without resorting

to new political revolutions, they needed to have enough to eat. Crist and Chardón emphasized this point, and eventually so did the Rockefeller Foundation. In a 1951 report, the Foundation's Committee for Agricultural Activities asked, "What now are the great enemies of the welfare of mankind?" They answered, "Hunger, the incapacity of the hungry, the resulting general want, the pressures of expanding and demanding population, and the reckless instability of people who have nothing to lose and perhaps something to gain by embracing new political ideologies designed not to create individual freedom but to destroy it—these seem to be basic dangers of our present world."[81]

Agriculture and agricultural science would prove strategic foci in the context of the emerging Cold War. The language of hybridization and grafting in the authors' article not only reflects their expertise on issues of agricultural development but also suggests an awareness of the urgency of such work moving forward.[82] As the authors wrote their 1947 article from Mayagüez, Rockefeller Foundation scientists studied hybrid wheat and maize in Mexico. Invited by the Mexican government on the recommendation of Vice President Henry A. Wallace four years prior, the Rockefeller Foundation launched its Mexican Agricultural Program. One of the geneticists working on hybrid wheat varieties there, Norman Borlaug, would later win a Nobel Peace Prize for his contributions to enhancing agricultural yields. In the context of the Cold War and concerns about ecological carrying capacities and growing "Third World" populations, Borlaug would be credited with saving more lives than any other single individual in world history.

The ideological dimensions of this work soon rose to the surface. The Rockefeller Foundation's statement in 1951 warned that "whether additional millions in Asia and elsewhere will become Communists will depend partly on whether the Communist world or the free world fulfills its promises." The report continued, "Hungry people are lured by promises, but they may be won by deeds. Communism makes attractive promises to underfed peoples; democracy must not only promise as much, but must deliver more."[83]

Facing the midcentury's growing crises in poverty and social conflict, the Rockefeller Foundation expanded its agricultural work to Colombia in 1950, utilizing the agricultural experiment station that Chardón helped establish and Crist often visited as an important base. From Colombia, the Rockefeller Foundation launched similar programs in Chile and then India. By the 1960s, the Green Revolution adoption of technical science in genetics, hybridization, fertilizers, and pesticides had spread to South Asia and Africa.

The Rockefeller Foundation increasingly organized its agricultural proj-

ects around modernization theory in the 1960s.[84] Yet, while modernization theory—which implied that the underdeveloped world needed to follow the historical trajectory of the United States and Western Europe—began to grow in popularity in international development circles during the decade, Chardón and Crist advanced an earlier idea, one of interconnected American collaboration, exchanging ideas, personnel, and expertise, and one that valued the historical trajectories and cultural politics of the Spanish Americas as much, or more, than those of the North American lands colonized by the English. One of the Latin American ideas that Chardón and Crist sought to share in this atmosphere in 1947 and beyond involved the benefits, indeed the modernizing power, of racial hybridity. The authors connected agricultural genetics to the mythic and uniquely Latin American ideal of racial democracy. Together, they modified a racial argument from cultural history to treat a sickened and threatened society. For plants as for bodies, corporal or social, mixture was strength, mixture was modern, and mixture would be the future.

Although the Rockefeller Foundation would ultimately reorganize and reorient the ideological contours of much of this work in the 1950s and 1960s, it too owed much to Puerto Rico and the world of Chardón and Crist. J. George Harrar, mythologized as the "father of industrial agriculture," held his first professional position teaching biology at the University of Puerto Rico at Rio Piedras from 1929 and 1933.[85] Although he would eventually serve as President of the Rockefeller Foundation and lead its expansion in agricultural programming, Harrar was just a twenty-one-year-old track star from Northeast Ohio when he embarked for Puerto Rico. The precocious student had just finished a master's degree from Iowa State when he heard about a job opening as head of the Department of Biology at the territory's public university. Eager to explore and leave the Midwest, Harrar accepted the position.[86] On the island, the young Harrar married his college sweetheart, Georgie, learned Spanish, studied the Caribbean's tropical agricultural systems, met many traveling Latin American agronomists, and coached the UPR basketball team against squads of US sailors on shore leave. The man who later directed the Rockefeller Foundation's efforts in Latin America en route to a "Green Revolution" in agricultural technologies had his formative beginnings teaching bacteriology and the jump shot to aspiring Puerto Rican scientists.[87]

Harrar described his formative experience in Puerto Rico from 1929 to 1933 as being in the right place at the right time. Under the leadership of

the newly appointed chancellor Chardón, the University of Puerto Rico was growing and intensifying its focus on technical science and agriculture. Looking back, Harrar noted, "It's a curious fact that essentially all of the men who have the principal jobs in Puerto Rico today in the field of agriculture, agricultural sciences and related subjects were students of mine."[88] Harrar's observation should be seen as less of a boast than a coincidental fact, as his time in Puerto Rico overlapped with a sustained effort toward the advancement of professionalization in agronomy and the intensification of agricultural research and development through the coordinated effort of the insular government, its public university, and its agricultural experiment station. Harrar benefited from this environment. His Puerto Rico-honed skills in and knowledge of tropical biology, the Spanish language, and Latin American culture and geography, were all exceedingly rare at the time for US scientists, and laid the groundwork for his relationship with plant pathologist Elvin Stakman at the University of Minnesota and his eventual appointment to lead the Rockefeller Foundation's Mexican Agricultural Program. It is no coincidence that J. George Harrar emerged from Chardón's Puerto Rico.

Harrar's early career reflects the often unrecognized place of Puerto Rico in facilitating the collaboration of *yanqui* scientists and institutions in Latin American agricultural development. Geographically, politically, and culturally, Puerto Rico held an intermediary position between the United States and Latin America in the first half of the twentieth century.[89] The island's strategic value to the United States grew as the imperial giant of the north increasingly looked south. Puerto Rican politicians and intellectuals understood this. Muñoz Marín often underscored Puerto Rico's position between the United States and Latin America. In 1959, with the Cuban Revolution giving fresh cause for US leaders to rethink their Cold War approach to Latin America, Muñoz Marín reflected on over a half-century of intermediacy in *The New York Times Magazine*. Puerto Rico's "unique position," he wrote, "has been an undoubted asset for the United States in sensing changing currents in Latin America, and in translating its hemisphere policy into action."[90] The island offered a "laboratory," as one scholar termed it, and could continue to foster this relationship in uncertain times.[91]

In 1947, Harrar and the Rockefeller Foundation looked to expand their agricultural programming beyond Mexico while Puerto Ricans prepared to elect their first governor and launch Operation Bootstrap. The year 1947 offers a critical moment for analyzing a broader transition in agricultural relations between Latin America and the United States. Projects such as the Rockefeller

Foundation's country-specific agricultural programs and Operation Bootstrap each represent a transformative process by which the economic reformism and social engineering of the 1930s and the geostrategic alliance of World War II gradually and unevenly merged into the Cold War politics of the postwar years. In agriculture, this transition brought increased investment in science and experimentation intended to remake Latin American landscapes through the introduction of high-yield variety seeds, mechanization, and chemical inputs. As a package, this formula sought to modernize agricultural production to increase harvest yields and support the broader industrialization of Latin American economies. Industrialized countries in Latin America, accordingly, would make stable trade partners and Cold War allies, suffering less want and, as a result, being less prone to communist revolution. In 1947, these experiments in industrialization linking Latin American urban and rural economies remained in formation and heavily immersed in long-standing domestic political projects intended to foster greater economic autonomy. The Rockefeller Foundation followed the well-trod itineraries of a Greater Caribbean network of agricultural science, setting up shop in places with histories of and existing institutions for pursuing a Latin American vision for agricultural modernity. The shift to Cold War rhetoric came gradually. The Rockefeller Foundation, for example, did not publicly link its work of agricultural experimentation in Latin America to the politics of the Cold War until its oft-quoted 1951 statement.

Puerto Rico served not only, as Múñoz Marín declared, for "translating (US) hemisphere policy in action." It was also a site of exchange where Latin American actors and ideas engaged with and helped determined the course of US action. Amid the intersections of 1947, "Intercultural Colonial Policies in the Americas" implicitly wrapped rationale for what would later be known as a Green Revolution in agricultural technology in then-current debates related to cultural histories of race. It did so from a distinctly Latin American intellectual tradition. In this way, it reveals Latin American and interdisciplinary genealogies to post–Bretton Woods histories of development. Unlike the Rockefeller Foundation or later modernization theorists, Chardón and Crist advanced an idealized interpretation of racial equality and social justice alongside the cause of scientific agriculture. The Rockefeller Foundation and other development agencies eventually sifted out much of this language, if not the whole of its cause, while constructing Cold War projects out of the very ideas, institutions, and connections that individuals like Chardón and Crist helped nurture across the Greater Caribbean. Before this occurred, however, the 1947

article reflected years of collaborative agricultural science and social studies within Latin America and between the United States and Latin America. It speaks to long-standing ties between agronomy and cultural studies and captures the early negotiation of and multiple currents informing Cold War scientific ideology in Latin America.

In this moment of expansion and the tuning of development models, Crist and Chardón applied the language of agronomy to illustrate race relations in the Americas. The article forecasted the inextricable linkage of agriculture and agricultural modernization to the Latin American Cold War experience even as elements of race and social justice became clouded by neo-Malthusian concerns about population growth and the fear of communism.

The merging of Crist and Chardón's careers in Mayagüez in the 1940s and the subsequent publication of their article reflects the growth of interdisciplinary area studies as a technical tool for social problems and international relations. In 1930, Chardón advocated merging culturally sensitive humanistic and technical science education for social improvement at the University of Puerto Rico. That same year, the University of Florida became the first institution of higher learning in the United States to offer a Latin American studies program when it opened the Institute of Inter-American Affairs. Crist, in fact, later became one of the faculty members and was instrumental in nurturing Florida's interdisciplinary study of Latin America. Crist, who moved to Gainesville after five years in Mayagüez, continued to perform the dual labors of academic and policy work. He alternated his university duties with diverse assignments outside the academy, including fieldwork in Colombia supported by the Smithsonian Institution, a stint as a United Nations Food and Agriculture Organization expert to the government of Paraguay, and a year in the Venezuela oil fields contracting with the Creole Petroleum Foundation (a subsidiary of Standard Oil of New Jersey).[92]

For his part, Chardón's work to promote the scientific study of agriculture in Puerto Rico grew into advocacy for interdisciplinary Latin American studies more generally. In the mid-1960s, Chardón corresponded with Dr. Lyle MacAlister, the Director of Latin American Studies at the University of Florida, on the possibility of opening a similarly structured program in Mayagüez. Crist even returned to Mayagüez in 1965, offering his expertise to advise and help launch an undergraduate major in Latin American studies there.[93] Together, Crist, Chardón, and others in Gainesville, Mayagüez, and many other college campuses advocated for the training of policy-oriented experts and the development of technical solutions to fix society's ills. The

Alliance for Progress and, especially, the Peace Corps, which used Puerto Rico as a training site, reflected this broader project. Like the science and networks of the Cold War's development initiatives and agricultural Green Revolution, Latin American studies also grew out of Latin America, not just US policy circles or foundations.[94] Specifically, in this case, the new field of Latin American studies owed a considerable debt to the Puerto Rican vertex in the "cultural triangle." Like an inversion of the boomerang effect traced by Daniel Immerwahr for US-designed community development programs, this formula for development, nurtured in Puerto Rico, returned to Mayagüez from Florida in the 1960s.[95]

In the 1960s, Chardón continued to think about race, plants, and hybridity. Much as the Rockefeller and Ford Foundations spread their programs around the world, Chardón imagined applying his collaborative article on colonial legacies more broadly. In January 1965, in one of his last communications with Raymond Crist before his death, Chardón asked the Florida geographer to revise their 1947 article and extend its applicability to account for colonial models in Africa and Asia.[96] In one of Chardón's final acts, then, he foreshadowed twenty-first-century calls for the extension of a second Green Revolution for Africa.[97] Looking out from tropical agriculture institutions in Puerto Rico, the agronomist postulated that hybrid bodies created and strengthened Latin American societies in the present and that hybrid seeds would safeguard their future. From Puerto Rico, the world might learn the formula.

NOTES

1. For an introduction to Tannenbaum and the controversy surrounding his approach, see Alejandro de la Fuente, "From Slaves to Citizens? Tannenbaum and the Debates on Slavery, Emancipation, and Race Relations in Latin America," *International Labor and Working-Class History*, no. 77 (Spring 2010): 154–73.

2. I refer to the "Greater Caribbean" in this essay rather than the "circum-Caribbean." The circum-Caribbean contributes a useful geographic framing for scholarship treating the transnational region bordering the Caribbean Sea. See, for example, Megan Raby's work on biodiversity and tropical biology field stations in Cuba, Jamaica, Puerto Rico, British Guiana, Panama, and Costa Rica in Megan Raby, *American Tropics: The Caribbean Roots of Biodiversity Science* (Chapel Hill: University of North Carolina Press, 2017). My use of the Greater Caribbean, however, allows for the inclusion of regions such as Northeast Brazil, Louisiana, Florida, or Colombia's Cauca Valley, which had and continue to have deep historical and agricultural connections to this broader Caribbean region. On the Greater Caribbean, see Ernesto Bassi, *An Aqueous Territory: Sailor Geographies and New Granada's Transimperial Greater Caribbean World* (Durham, NC: Duke University Press, 2016); Daniel B. Rood, *The Reinvention of Atlantic Slavery: Technology, Labor, Race, and Capitalism in the Greater Caribbean* (Oxford: Oxford University Press, 2017); Anne Eller, *We Dream Together: Dominican Independence, Haiti, and the*

Fight for Caribbean Freedom (Durham, NC: Duke University Press, 2016); Stuart B. Schwartz, *Sea of Storms: A History of Hurricanes in the Greater Caribbean from Columbus to Katrina* (Princeton: Princeton University Press, 2015); J. R. McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620–1914* (Cambridge: Cambridge University Press, 2010); and Steven Paul Palmer, *Launching Global Health: The Caribbean Odyssey of the Rockefeller Foundation* (Ann Arbor: University of Michigan Press, 2010). On the agricultural dimensions of the Greater Caribbean, see especially Stuart McCook, *States of Nature: Science, Agriculture, and Environment in the Spanish Caribbean, 1760–1940* (Austin: University of Texas Press, 2002). Recently, scholars have traced the connections between agriculture in the US South and the Greater Caribbean for both the nineteenth and twentieth centuries: see, for example, Walter Johnson, *River of Dark Dreams: Slavery and Empire in the Cotton Kingdom* (Cambridge, MA: Belknap Press, 2013); and Tore C. Olsson, *Agrarian Crossings: Reformers and the Remaking of the U.S. and Mexican Countryside* (Princeton: Princeton University Press, 2017).

3. Puerto Rico's west-coast port of Mayagüez captured the extension of US agricultural institutions and government bureaucracy to the territory. In 1901, the US Congress appropriated $5,000 for the establishment and federal maintenance of an agricultural experiment station in Puerto Rico. On May 28, 1902, the Governor of Puerto Rico, William H. Hunt, reported to the US Office of the Secretary of the Interior that two hundred thirty acres outside Mayagüez with excellent existing facilities had been chosen for the new research center. The municipality of Mayagüez and the Puerto Rican insular government jointly made available this acreage of the old Hacienda Carmen across the Yagüez River north of the old Spanish plaza. Although the United States' agricultural offices already operated out of the old Spanish facilities at Río Piedras, in San Juan, the move to the west coast would take advantage of Mayagüez's strategic position and orient the new station toward export crops. The Rio Piedras site became the insular experiment station, oriented toward the study of Puerto Rico's domestic agricultural sector. Although located in San Juan, the Rio Piedras site is now operated by the land-grant campus of the University of Puerto Rico-Mayagüez. The Mayagüez site, in contrast, was overseen by the US government in Washington DC from its inception and christened the Porto Rico Agricultural Experiment Station, sometimes referred to as the Federal Experiment Station. In Crist's day, it went by the name the Institute of Tropical Agriculture. It is still in existence and operated by the USDA as the Tropical Agriculture Research Station (TARS). It comprises the USDA's primary tropical research facility. "William H. Hunt to Secretary of the Interior, May 28, 1902," Folder 3, Box 1 (Dept. Misc, Letters 1902): Records of the Agricultural Experiment Station at Mayaguez, Puerto Rico, RG 164: Records of the Office of Experiment Stations, National Archives and Records Administration, New York City (NARA-NY); United States Department of Agriculture pamphlet: Agricultural Research Service, South Atlantic Area, "Tropical Agriculture Research Station," May 2012. On the extension of US institutional models to Puerto Rico, see César J. Ayala and Rafael Bernabe, eds., *Puerto Rico in the American Century: A History since 1898* (Chapel Hill: University of North Carolina Press, 2007); 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; Antonio Gaztambide-Géigel, *Tan lejos de Dios: Ensayos sobre las relaciones del Caribe con Estados Unidos* (San Juan: Ediciones Callejón, 2006); Humberto García-Muñiz, "International Transfer of Biological Technology in the Caribbean: The Impact of Barbados' John R. Bovell's Cane Research on the Puerto Rican Sugar Industry, 1888–1920s," *Revista Mexicana del Caribe* 3 (1997): 6–40; Carrie Gibson, *Empire's Crossroads: A History of the Caribbean from Columbus to the Present Day* (New York: Atlantic Monthly Press, 2014); McCook, *States of Nature*; Richard

A. Overfield, "Science Follows the Flag: The Office of Experiment Stations and American Expansion," *Agricultural History* 64, no. 2 (Spring 1990): 31–40; Manuel R. Rodríguez, *A New Deal for the Tropics: Puerto Rico during the Depression Era, 1932–1935* (Princeton: Markus Wiener Publishers, 2010); and Manuel Valdés Pizzini, Michael González Cruz, and José Eduardo Martínez Reyes, *La transformación del paisaje puertorriqueño y la disciplina del Cuerpo Civil de Conservación, 1933–1942* (San Juan: Centro de Investigaciones Sociales, Universidad de Puerto Rico, 2011).

4. Raymond E. Crist and Carlos E. Chardón, "Intercultural Colonial Policies in the Americas: Iberians and Britons in the New World," *American Journal of Economics and Sociology* 6, no. 3 (Apr. 1947): 371–85.

5. Ibid., 383.

6. Ibid., 385.

7. Although it is an incomplete analysis, Google Scholar returns only one citation of their article: Martín Sagrera, *Los racismos en América "Latina"* (Buenos Aires: Ediciones La Bastilla, 1974).

8. On the Scientific Survey of Puerto Rico, see Brock, *Botanical Monroe Doctrine and American Empire*. On the Tropical Plant Research Foundation, see McCook, *States of Nature*.

9. On *Plan Chardón*, see Rodríguez, *A New Deal for the Tropics.*

10. David L. Clawson, "Forks in the Road: Raymond E. Crist and Geographical Field Work in Latin America," *Journal of Cultural Geography* 9, no. 2 (1989): 1–11.

11. Despite its unique situation within the US system, with a land-grant university and a USDA-operated experiment station, Puerto Rico served as just one center among others that have also merited attention. Mexico and Brazil, perhaps, provide two of the most compelling cases of such transnational collaborative spaces. Similar arguments could also be made for Colombia and Chile, among others. For Mexico, see Olsson, *Agrarian Crossings* and Christy Thornton, "'Mexico Has the Theories': Latin America and the Invention of Development in the 1930s," in Stephen Macekura and Erez Manela, eds., *The Development Century: A Global History* (Cambridge: Cambridge University Press, 2018). For Brazil, see Eve E. Buckley, *Technocrats and the Politics of Drought and Development in Twentieth-Century Brazil* (Chapel Hill: University of North Carolina Press, 2017). For Colombia and Chile, see the essays in the forthcoming volume Andra B. Chastain and Timothy W. Lorek, eds., *Itineraries of Expertise: Science, Technology, and the Environment in Latin America's Long Cold War* (University of Pittsburgh Press, 2020).

12. On Puerto Rico and "creole science," see McCook, *States of Nature*; and Stuart McCook, "Promoting the 'Practical': Science and Agricultural Modernization in Puerto Rico and Colombia, 1920–1940," *Agricultural History* 75, no. 1 (2001): 52–82. On the "enterprise of knowledge," see Ricardo D. Salvatore, "The Enterprise of Knowledge: Representational Machines of Informal Empire," in Gilbert M. Joseph, Catherine C. LeGrand, and Ricardo D. Salvatore, eds., *Close Encounters of Empire: Writing the Cultural History of U.S.-Latin American Relations* (Durham, NC: Duke University Press, 1998): 69–106.

13. On Puerto Rico's position in the United States' informal empire of science, see Laura Briggs, *Reproducing Empire: Race, Sex, Science, and U.S. Imperialism in Puerto Rico* (Berkeley: University of California Press, 2003); Brock, *Botanical Monroe Doctrine and American Empire*; Daniel Immerwahr, *How to Hide an Empire: A History of the Greater United States* (New York: Farrar, Straus, and Giroux, 2019); Katherine T. McCaffrey, *Military Power and Popular Protest: The US Navy in Vieques, Puerto Rico* (New Brunswick, NJ: Rutgers University Press, 2002); Overfield, "Science Follows the Flag;" Raby, *American Tropics*; and Schwartz, *Sea of Storms*.

14. On "Operation Bootstrap," see Ayala and Bernabe, *Puerto Rico in the American Century*; Sherrie L. Baver, *The Political Economy of Colonialism: The State and Industrialization in Puerto*

Rico (Westport, CT: Praeger, 1993); Déborah Berman Santana, *Kicking Off the Bootstraps: Environment, Development, and Community Power in Puerto Rico* (Tucson: University of Arizona Press, 1996); Carmelo Esterrich, *Concrete and Countryside: The Urban and the Rural in 1950s Puerto Rican Culture* (Pittsburgh: University of Pittsburgh Press, 2018); and A. W. Maldonado, *Teodoro Moscoso and Puerto Rico's Operation Bootstrap* (Gainesville: University Press of Florida, 1997). On the work of New Dealers abroad in the 1940s, see Olsson, *Agrarian Crossings*; Ricardo D. Salvatore, *Disciplinary Conquest: U.S. Scholars in South America, 1900–1945* (Durham, NC: Duke University Press, 2016); Jess Gilbert, *Planning Democracy: Agrarian Intellectuals and the Intended New Deal* (New Haven: Yale University Press, 2015); Daniel Immerwahr, *Thinking Small: The United States and the Lure of Community Development* (Cambridge, MA: Harvard University Press, 2015); and Sarah T. Phillips, *This Land, This Nation: Conservation, Rural America, and the New Deal* (Cambridge: Cambridge University Press, 2007).

15. For example, several important milestones in the study of the United States and international agriculture and development during the Cold War barely mention Puerto Rico, including Nick Cullather, *The Hungry World: America's Cold War Battle against Poverty in Asia* (Cambridge, MA: Harvard University Press, 2010); Immerwahr, *Thinking Small*; Gabriel N. Rosenberg, *The 4-H Harvest: Sexuality and the State in Rural America* (Philadelphia: University of Pennsylvania Press, 2015); David Ekbladh, *The Great American Mission: Modernization and the Construction of an American World Order, 1914 to the Present* (Princeton: Princeton University Press, 2010).

16. Robert E. Kohler, *Landscapes and Labscapes: Exploring the Lab-Field Border in Biology* (Chicago: University of Chicago Press, 2002).

17. Group No. 1, Peace Corps Volunteers Biographical Sketches, box 25, Friends of Colombia Archives, University Archives and Special Collections, American University Library, Washington, DC.

18. The Philippines immediately come to mind as a location in need of further research in this regard. A new monograph will soon address this: Theresa Ventura, *Empire Reformed: The United States, the Philippines, and the Practice of Development* (Princeton: Princeton University Press, forthcoming). Tore Olsson, Christy Thornton, Diana Schwartz Francisco, and Gabriela Soto Laveaga, among others, make similar arguments for the significance of Mexico. See Olsson, *Agrarian Crossings*; Christy Thornton, *Revolution in Development: Mexico and the Governance of the Global Economy* (Oakland: University of California Press, forthcoming); Diana Schwartz Francisco and Gabriela Soto Laveaga each promise forthcoming work on development, dams, and indigenous politics in Mexico and agricultural exchanges between Mexico and India, respectively.

19. Frank D. Kern, "Dr. Carlos E. Chardon (1897–1965)," *Mycologia* 57, no. 6 (Nov.–Dec. 1965), 839. On "biological warfare" and the Green Revolution, see Edmund Russell, *War and Nature: Fighting Humans and Insects with Chemicals from World War I to Silent Spring* (New York: Cambridge University Press, 2001); and J. R. McNeill, *Something New under the Sun: An Environmental History of the Twentieth-Century World* (New York: W. W. Norton, 2001).

20. *Annual Report of the Insular Experiment Station of the Department of Agriculture and Labor of Porto Rico For the Period from July 1, 1924 to June 30, 1925*, 27, Estación Experimental Agrícola-Jardín Botánico, Rio Piedras, Puerto Rico.

21. Quoted in McCook, *States of Nature*, 128.

22. On Progressive politics and the land-grant university system, see Alan I Marcus, ed., *Service as Mandate: How American Land-Grant Universities Shaped the Modern World, 1920–2015* (Tuscaloosa: University of Alabama Press, 2015); Alan I Marcus, ed., *Science as Service: Establishing and Reformulating Land-Grant Universities, 1865–1930* (Tuscaloosa: University of Alabama Press, 2015); Jess C. Gilbert and Ellen R. Baker, "Wisconsin Economists and New

Deal Agricultural Policy: The Legacy of Progressive Professors," *Wisconsin Magazine of History* 80, no. 4 (Summer 1997): 281–313; and A. T. Mosher, "The Wisconsin Idea and World Agricultural Development," *Land Economics* 38, no. 2 (May 1962): 155–68

23. D. W. May, *Report of the Porto Rico Agricultural Experiment Station, 1922*, 1.

24. See, for example, Carlos E. Chardón, *Reconocimiento Agro-Pecuario del Valle del Cauca: Informe emitido por la Misión Agrícola Puertorriqueña, dirigida por el Hon. Carlos E. Chardón, y presentado al Gobernador del Departamento del Valle del Cauca* (San Juan, Puerto Rico: 1930).

25. Timothy W. Lorek, "Strange Priests and Walking Experts: Nature, Spirituality, and Science in Sprouting the Cold War's Green Revolution," in Chastain and Lorek, *Itineraries of Expertise.*

26. "Texto integro del Plan Chardón sometido al Secretario de Agricultura Wallace," *El Mundo*, Nov. 11, 1934, document 5, folder 12, Series 4, Section III, Fundación Luis Múñoz Marín, San Juan, Puerto Rico (hereafter FLMM). On the PRRA, see Burrows, "Rural Hydro-Electification and the Colonial New Deal"; Rodríguez, *A New Deal for the Tropics*; and Valdés Pizzini et al., *La transformación del paisaje puertorriqueño.*

27. See Gilbert, *Planning Democracy*. See also Tore Olsson's *Agrarian Crossings* on how Latin American politics influenced US farm policy and rural development, and Christy Thornton, "'Mexico Has the Theories.'"

28. On Puerto Rican New Dealers, hydro-electric dams, and the reformation of US colonial administration, see Burrows, "Rural Hydro-Electrification and the Colonial New Deal."

29. Kern, "Dr. Carlos E. Chardon (1897–1965)," 841, and Carlos E. Chardón, *Viajes y naturaleza* (Caracas: Editorial Sucre, 1941).

30. Kern, "Dr. Carlos E. Chardon (1897–1965)," 842; Carlos E. Chardón, *Viajes y naturaleza.*

31. Timothy W. Lorek, "Developing Paradise: Agricultural Science in the Conflicted Landscapes of Colombia's Cauca Valley, 1927–1967" (PhD diss., Yale University, 2019).

32. Carlos E. Chardón, *Discurso inaugural del Rector Carlos E. Chardón* (Rio Piedras: University of Puerto Rico, 1931), 2.

33. Chardón, *Discurso inaugural del Rector Carlos E. Chardón*, 7. On Chardón and the "practical," see McCook, "Promoting the 'Practical.'"

34. Chardón, *Discurso inaugural del Rector Carlos E. Chardón*, 8.

35. Ibid., 11.

36. Carlos E. Chardón, "La Escuela Graduada de Agricultura Tropical," *Revista de Agricultura de Puerto Rico* 20 (Jan. 1928), 3; Rodríguez, *A New Deal for the Tropics*, 133.

37. William Crocker, "Puerto Rico, Centro Ideal para la Escuela de Agricultura Tropical," *Revista de Agricultura de Puerto Rico* 20 (Jan. 1928): 10–12.

38. Chardón, "La escuela graduada de agricultura tropical," 3.

39. McCook, *States of Nature*; Schwartz, *Sea of Storms*.

40. "High vs. Low: A Roundtable Discussion of High Modernism and Low Modernism in the History of Agrarian Development," Panel at Annual Meeting of the American Historical Association, Jan. 6, 2018, Washington, DC; James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998); Gilbert, *Planning Democracy*.

41. Gilbert, *Planning Democracy*, 90.

42. Darryl Erwin Brock, "American Empire and the Scientific Survey of Puerto Rico" (PhD diss., Fordham University, 2014), 248–49; Rodríguez, *A New Deal for the Tropics*, 111.

43. Tugwell's agrarian solutions to xenophobic concerns resonate with contemporaneous alternative modernisms in fascist Europe and the focus on native plants in the American Prairie Spirit movement led by landscape architects such as Jens Jensen in the United States. For

fascist Europe, see Tiago Saraiva, *Fascist Pigs: Technoscientific Organisms and the History of Fascism* (Cambridge, MA: MIT Press, 2016). On connections between the native plant movement and xenophobia in the 1930s, see Gert Gröning and Joachim Wolschke-Bulmahn, "The Native Plant Enthusiasm: Ecological Panacea or Xenophobia?" *Arnoldia: The Magazine of the Arnold Arboretum of Harvard University* 62, no. 4 (2003): 20–28; and Daniel Simberloff, *Invasive Species: What Everyone Needs to Know* (Oxford: Oxford University Press, 2013). Tugwell's racist Malthusianism bore some resemblance to the infamous Rockefeller Foundation physician Cornelius P. Rhoads's 1931 shocking and homicidal letter. See Briggs, *Reproducing Empire*, 76–77; and Immerwahr, *How to Hide an Empire*.

44. R. G. Tugwell to H. Wallace, Mar. 16, 1934, Document 13, Folder 10, Series 1: Correspondence, Section 3: Luis Muñoz Marín: El político (1920–1940), FLMM.

45. R. G. Tugwell to H. Wallace, Mar. 9, 1934, Document 14; and Memo for Dr. Tugwell on PR and the VI Tour of Inspection, Apr. 2, 1934, Document 12, Folder 10, FLMM.

46. Michael Lapp, "The Rise and Fall of Puerto Rico as a Social Laboratory, 1945–1965," *Social Science History* 19, no. 2 (Summer 1995): 169–99.

47. Memo for Dr. Tugwell on PR and the VI Tour of Inspection, Apr. 2, 1934.

48. Ciro Molina Garcés, "Informe que el Secretario de Industrias rinde al Señor Gobernador del Departamento del Valle del Cauca, sobre la marcha del ramo a su cargo," (Cali: Imprenta Departmental, 1930), 6, Biblioteca Nacional de Colombia, Bogotá.

49. McCook, *States of Nature*; McCook, "Promoting the 'Practical.'"

50. On the Alliance for Progress and Cold War Colombia, see Robert A. Karl, "Reading the Cuban Revolution from Bogotá, 1957–1962" *Cold War History* 16, no. 4 (2016): 337–58; and Ernesto Semán, "Democracy in the Americas, the Revolutionary Way," NACLA Report on the Americas (Feb. 8, 2017).

51. *Recinto Universitario Mayagüez* (RUM), or the University of Puerto Rico-Mayagüez, the land-grant campus in the UPR system.

52. Raymond Crist, *Por los países de América tropical 1942–1975* (Bogotá: Universidad Nacional de Colombia, 1987), 128.

53. Crist, *Por los países de América tropical*, 132.

54. Frank Tannenbaum, "An American Commonwealth of Nations," *Foreign Affairs* 22, no. 4 (July 1944): 588, quoted in Crist, *Por los países de América tropical*, 139.

55. This is an early nod to what would be known as modernization theory after the publication of W. W. Rostow's *The Stages of Economic Growth* in 1960. See Timothy W. Lorek, "Imagining the Midwest in Latin America: US Advisors and the Envisioning of an Agricultural Middle Class in Colombia's Cauca Valley, 1943–46," *The Historian* 75, no. 2 (Summer 2013): 283–305.

56. Frank Tannenbaum, *Slave and Citizen: The Negro in the Americas* (New York: Alfred A. Knopf, 1946); Crist and Chardón, "Intercultural Colonial Policies in the Americas."

57. Crist and Chardón, "Intercultural Colonial Policies in the Americas," 371.

58. Ibid. The notion of a "natural historical rhythm," of course, recalled a long tradition of historical theory, including Marx and Hegel, as well as the work of Oswald Spengler, whose *Decline of the West* (1923) enjoyed long-lasting popularity in Latin America.

59. Crist and Chardón, "Intercultural Colonial Policies in the Americas," 374–76.

60. Ibid., 376.

61. Ibid., 373.

62. Ibid. (italics original).

63. Ibid., 377.

64. Ibid., 378.

65. Ibid., 378–79.

66. Tellingly, this is one of but three footnotes in the article. The others cite Eric Williams and Donald Pierson, two important figures in promoting the notion of a less racially prejudiced society in the Caribbean and Brazil, respectively, when compared to the United States. The cited Tannenbaum article is Frank Tannenbaum, "The Destiny of the Negro in the Western Hemisphere," *Political Science Quarterly* 61, no. 1 (Mar. 1946): 1–41. On Eric Williams and the Caribbean, see Humberto García-Muñiz, "Introducción: Pensar la historia, hacer la política: el proyecto pancaribe de Eric Williams," in Eric Williams, *De Colón a Castro: La historia del Caribe 1492–1969* (New York: Vintage, 1984), 11–94.

67. On contextualizing Tannenbaum and the scholarly legacy of *Slave and Citizen*, see de la Fuente, "From Slaves to Citizens?"

68. Crist and Chardón, "Intercultural Colonial Policies in the Americas," 379. On gender, sex, race, and colonialism in Puerto Rico, see Briggs, *Reproducing Empire*; Isar Godreau, *Scripts of Blackness: Race, Cultural Nationalism, and U.S. Colonialism in Puerto Rico* (Urbana: University of Illinois Press, 2015); and Hilda Lloréns, *Imaging the Great Puerto Rican Family: Framing Nation, Race, and Gender during the American Century* (New York: Lexington Books, 2014).

69. Gilberto Freyre, *The Masters and the Slaves: A Study in the Development of Brazilian Civilization*, trans. by Samuel Putnam (New York: Knopf, 1946). Significantly, Frank Tannenbaum provided an introduction to the 1963 Knopf edition. On Freyre, see Jeffrey D. Needell, "Identity, Race, Gender, and Modernity in the Origins of Gilberto Freyre's Oeuvre," *The American Historical Review* 100, no. 1 (Feb. 1995): 51–77.

70. Freyre, *The Masters and the Slaves;* Jose Vasconcelos, *La Raza Cósmica* (Madrid: Agencia Mundial de Librería, 1925); Fernando Ortiz, *Cuban Counterpoint: Tobacco and Sugar* (Durham, NC: Duke University Press, 1995 [1940]). On contemporaneous notions of *mestizaje* in the Caribbean, also see Pedro L. San Miguel, "Visiones del mestizaje en las antillas hispanoparlantes: Pedro Pérez Cabral y su 'comunidad mulata,'" *Boletín del Archivo General de la Nación* 32, no. 118 (May–Aug. 2007): 435–52.

71. Crist and Chardón, "Intercultural Colonial Policies in the Americas," 383 (italics original).

72. Ibid., 382.

73. Ibid., 383.

74. Ibid., 379.

75. Luis Muñoz Marín, "Porto Rico: The American Colony," *The Nation*, Apr. 8, 1925, 379, document 6, folder 15, Series 3, Section III, FLMM.

76. American Geographical Society, *Puerto Rico, Around the World Program* (Nelson Doubleday, Inc.: 1968), 20, document 1, folder 2, Series 3, Section XII, FLMM. On tourism, see Dennis Merrill, "Negotiating Cold War Paradise: U.S. Tourism, Economic Planning, and Cultural Modernity in Twentieth-Century Puerto Rico," *Diplomatic History* 25, no. 2 (2001): 179–214.

77. Crist and Chardón, "Intercultural Colonial Policies in the Americas," 384.

78. Robert Schalkenbach Foundation, schalkenbach.org (accessed July 8, 2019); Bill Batt, "José Martí and Henry George," *Georgist Journal* (June 2, 2015), www.georgistjournal.org/2015/06/02/jose-marti-and-henry-george/ (accessed July 8, 2019); Jorge Ibarra, "Martí and Socialism," in Christopher Abel and Nissa Torrents, eds., *Jose Martí: Revolutionary Democrat* (Durham, NC: Duke University Press, 1986), 108.

79. Ian Tyrrell, *True Gardens of the Gods: Californian-Australian Environmental Reform, 1860–1930* (Berkeley: University of California Press, 1999).

80. Crist and Chardón, "Intercultural Colonial Policies in the Americas," 385.

81. Rockefeller Foundation Advisory Committee for Agricultural Activities, "The World Food Problem, Agriculture, and the Rockefeller Foundation," June 21, 1951, pg. 1, folder 23,

box 3, Series 915, Record Group 3, Rockefeller Archive Center, Tarrytown, NY (hereafter RAC).

82. See Cullather, *The Hungry World*; Immerwahr, *Thinking Small*; Inderjeet Parmar, *Foundations of the American Century: The Ford, Carnegie, and Rockefeller Foundations in the Rise of American Power* (New York: Columbia University Press, 2012); and Raj Patel, "The Long Green Revolution," *The Journal of Peasant Studies* 40, no. 1 (2013): 1–63. On divisions within the New Deal in agricultural policy, see Gilbert, *Planning Democracy*; and Phillips, *This Land, This Nation*.

83. Rockefeller Foundation Advisory Committee for Agricultural Activities, "The World Food Problem," p. 4, RAC.

84. For modernization theory and Latin American development schemes, see Arturo Escobar, *Encountering Development: The Making and Unmaking of the Third World* (Princeton: Princeton University Press, 1995). For alternative models, see Immerwahr, *Thinking Small*; and 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 (Nov. 2012): 565–95. Important recent contributions to the Latin American origins and contexts of 1960s development and Cold War politics include Thornton, "'Mexico Has the Theories'"; and the essays in Chastain and Lorek, eds., *Itineraries of Expertise*.

85. Readers of this journal will no doubt disagree with this assessment, correctly identifying a much more complex history of "industrial agriculture" that long predated Harrar's career. In any case, this Rockefeller-centric argument is advanced by the journalist and former editor of *Mother Jones*, Mark Dowie: "If anyone deserves the title father of industrial agriculture, it is Harrar." Mark Dowie, *American Foundations: An Investigative History* (Cambridge, MA: MIT Press, 2001), 109. Harrar, of course, would go on to earn a PhD from Minnesota under the tutelage of the plant pathologist Elvin "Stak" Stakman. This relationship ultimately led to Harrar's appointment as Director of the Rockefeller Foundation's new Mexican Agricultural Program (MAP) from 1943 to 1951. In the early 1950s, Harrar served as Deputy Director of Agriculture as the Rockefeller Foundation expanded its agricultural programming from Mexico to Colombia and Chile. He became Director in 1955 and led the Rockefeller Foundation's expansion to India. By 1961, Harrar had risen to President of the Rockefeller Foundation and garnered a reputation as one of the towering figures of the so-called Green Revolution, alongside his more outspoken MAP colleague and fellow Stakman student Norman Borlaug.

86. Harrar earned the nickname "The Flying Dutchman," or simply "Dutch," for his speed as a multi-sport athlete at Oberlin College. John J. McKelvey Jr., "J. George Harrar, 1906–1982," National Academy of Sciences (Washington, DC, 1987), 29, http://www.nasonline.org/publications/biographical-memoirs/memoir-pdfs/harrar-j-g.pdf (accessed July 8, 2019).

87. J. George Harrar interviewed by Barbara Land in New York City, 1961–62 (revised and updated in 1967 and 1969), folder 5, box 17, Record Group 13: Oral Histories, Rockefeller Foundation records, RAC.

88. Harrar interviewed by Land, pg. 9.

89. On US-Caribbean relations, see Gaztambide-Géigel, *Tan lejos de Dios*; and Gibson, *Empire's Crossroads*.

90. Luis Muñoz Marín, "Puerto Rico Does Not Want to Be a State," *The New York Times Magazine*, Aug. 16, 1959, document 1, folder 162, Series 1, Section XII, FLMM.

91. Lapp, "The Rise and Fall of Puerto Rico as a Social Laboratory."

92. Crist correspondence, box 8, Raymond E. Crist Papers, George E. Smathers Library, University of Florida, Gainesville (hereafter UF).

93. Carlos E. Chardón to Dr. Lyle MacAllister, Feb. 26, 1965, box 8, Raymond E. Crist Papers, UF.

94. The origins of area studies in the overlapping spaces of US policy and philanthropic foundations is examined in Parmar, *Foundations of the American Century*. For Latin American studies, specifically, see Gilbert M. Joseph, "Border Crossings and the Remaking of Latin American Cold War Studies," *Cold War History* 19, no. 1 (2019): 141–70.

95. Immerwahr, *Thinking Small*.

96. Letter from Carlos Chardón to Raymond Crist, Jan. 8, 1965, box 8, Raymond E. Crist Papers, UF.

97. On a second Green Revolution in Africa, see Patel, "The Long Green Revolution."