‘Creating Wealth Out of the World’s Waste Spots’: The United Fruit Company and the Story of Frontiers, Environment, and American Legacy, 1899-1930

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Abstract

Between 1899 and 1930 the United Fruit Company emerged as the world's largest exporter of bananas. Initially dependent on the purchase of bananas through contracts with small-scale Native growers, the Company sought greater control over the quality and supply of its product. Transitioning itself into the production process and focusing on the establishment of its own sources of fruit, the Company began the construction of large-scale, export-driven, and industrialized plantations by 1910. In this process it embarked upon a new relationship with the tropical environments of the Caribbean Basin, which in turn presented environmental obstacles resistant to ecological change. Dedicated to creating wealth out of what it deemed as 'waste spots,' the United Fruit Company approached the task of plantation construction utilizing a cultural and conceptual framework that was a product of both historical influences, and eventually, by its own encounters with the environment. Drawing on under-utilized Company publications, this study explores the ways in which United Fruit developed a distinctly American cultural understanding of frontier environments. Perceiving Caribbean landscapes as 'uncivilized' and supposedly in need of improvement, the Company transposed American historical understandings of the environment in order to justify the creation of a productive and essentially Americanized version of Nature.

Entre 1899 et 1930 Le United Fruit Company a émergé comme le plus grand exportateur mondials de bananes. Initialement dépendante de l'achat de bananes par des contrats avec les cultivateurs indigènes à petite échelle, le Company a voulu plus de contrôle sur la qualité et le réserve de son produit. S'immergeant dans le processus de fabrication et en se concentrant sur la création de ses propres sources de fruits, le Company a commencé la construction de plantations industrielles à grande échelle dans lequel le point de focalisation était l'exportation par 1910. Pendant ce processus il s'est engagé dans une nouvelle relation avec les milieux tropicaux du bassin des Caraïbes, qui a ensuite présenté d'obstacles environnementaux résistants aux changements écologiques. Dévoué à créer la richesse sur ce qui était jugé comme «les tâches de déchets», Le United Fruit Company a adressé la tâche de construction de plantation par utilisant un cadre culturel et conceptuel qui était un produit des influences historiques et à la longue, par ses rencontres avec l'environnement. En s'appuyant sur les publications sous-utilisées du Company, cette étude explore les façons dont United Fruit a développé une compréhension culturelle typiquement américain des environnements frontalières. Percevant des paysages Caraïbes comme «non civilisés» et soi-disant besoin d'amélioration, le Company a modifiés l'interprétation historiques américaine de l'environnement pour justifier la création d'une version de la nature productive et essentiellement américanisée.

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I am extremely indebted to the assistance of McGill University's history librarian, Eamon Duffy. Finding information on the United Fruit Company can be a daunting venture. The Company, which exists today as Chiquita Brands International, is well known in the academic community to withhold information regarding its checkered past. One of the major challenges of writing on United Fruit today stems from this lack of access to Company information. With Mr. Duffy's dedication to aiding my search we were able to locate and obtain a number of unused and underused Company sources that today make up the foundation of this thesis. In locating information on the Company I am also thankful for the assistance of Sarah Hartwell, Reading Room Supervisor at the Rauner Special Collections Library of Dartmouth College. Mrs. Hartwell facilitated the copy and shipment of key sections of former United Fruit President Victor M. Cutter's personal papers to Montreal. The papers, which proved to be of tremendous use, were instrumental in the completion of this project.

I am incredibly grateful to Professor Kevin Coleman at the University of Toronto who opened up his personal collection of United Fruit Company materials, as well as his home, to me during a trip to Toronto in December of 2012. The kindness and generosity Professor Coleman showed me, knowing only that I was a young academic interested in the Company, will shape the way I share my research and my time with fellow academics in the future. While I regret that the sources he provided do not have a bigger role in this paper, my understanding of United Fruit as a whole is much stronger because of them. I am deeply in his debt.

I am thankful to Sylvia Crawford and Mitali Das, advisors in the McGill Department of History, who have met my various questions and concerns with nothing but patience and consideration over the past two years. To Professor Thomas Jundt, who first introduced me to environmental history, Professor Lorenz Luthi, Professor Jason Opal, and Professor Catherine LeGrand who have all opened up their schedules at one point or another over the past three years and generously offered to hear my ideas and opinions, while offering guidance of their own. I have always felt welcomed and valued by faculty members in the Department of History at McGill. I believe it is a true testament to the character of the Department and this school.

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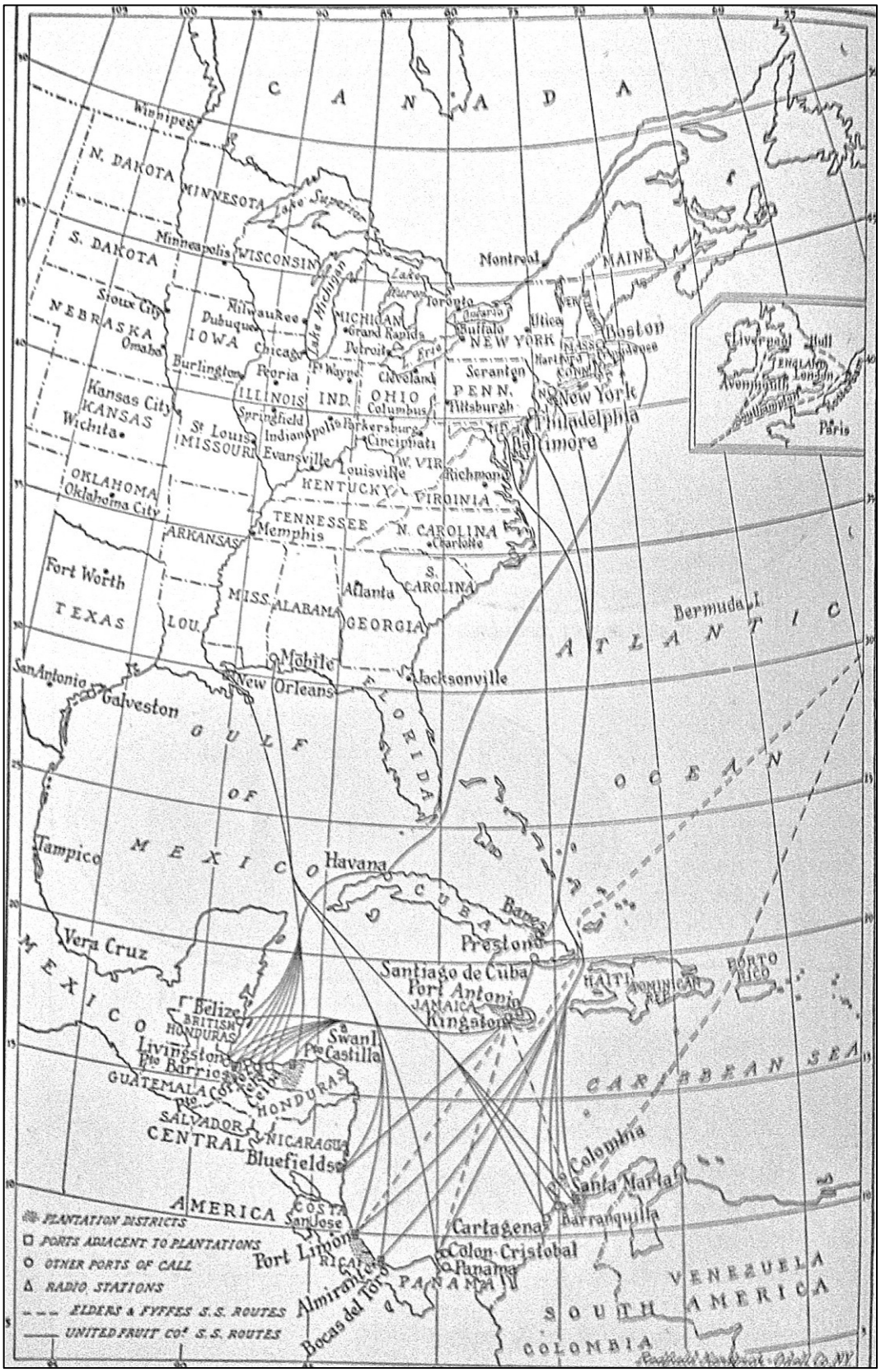

Map of United Fruit Company operations – United Fruit Company Medical Reports v.14-19, 1925-1930

Introduction

Prior to the beginning of the Great Depression in 1930, the United Fruit Company had experienced three decades of considerable growth and success as a tropical farmer in the Caribbean Basin. Incorporated in Boston by Minor C. Keith, Andrew Preston, and Lorenzo Dow Baker in 1899, the Company soon emerged as "the greatest farmer in the world."[1] Capitalizing on a growing demand for bananas in North America and Europe, United Fruit took on the task of constructing an international agrarian enterprise on a scale that had never existed in the history of the western hemisphere. Between its inception in 1899 and the global economic crash in 1930, United Fruit had altered nearly 525 000 acres of tropical landscape, with a further 3 million acres either leased or owned across nine countries in the Caribbean Basin.[2] Controlling an area roughly equal to the size of Connecticut and Rhode Island combined, the Company's dedication to plantation construction and environmental transformation in the Tropics was responsible for the creation of a new, and essentially 'Americanized,' version of nature. This process was regarded by one contemporary observer as the ultimate "conquest of the impossible."[3]

During its initial stages of operation United Fruit grew only a small portion of the bananas it sold, obtaining the primary bulk of its product through

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[1] Victor M. Cutter, "Caribbean Tropics in Commercial Transition" *Economic Geography* 2 (1926): 494.

[2] See United Fruit Company, *Thirty-First Annual Report* (Boston: Rand Avery Supply Co., 1930), 13 and Thomas F. O'Brien, *The Revolutionary Mission: American Enterprise in Latin America, 1900-1945* (New York: Cambridge University Press, 1996), 34. United Fruit operated in Colombia, Panama, Costa Rica, Nicaragua, Honduras, Guatemala, The Dominican Republic, Cuba, and Jamaica.

[3] Thomas F. Lee, "The Fruit of Paradise," *Fruit Dispatch Magazine* 10 (1924): 10. Lee's "The Fruit of Paradise" is also the source for the title quote of this study.

contracts with local Native growers. By 1910, however, in seeking to gain more effective control over the quality and supply of its product, the Company began to invest in the construction of its own large-scale, export-driven, and industrialized banana plantations. "The successful company of the future is the one that controls the growing of its own fruit," wrote Andrew Preston to Lorenzo Dow Baker during discussions regarding the shift to Company-controlled production.[4] In making the decision to integrate itself into the production process and focus on the establishment of its own sources of fruit, the Company embarked upon a new relationship with the environments of the Caribbean Basin. Dedicated to the task of transforming tropical jungles into large-scale plantations, United Fruit shaped this relationship through the application of a cultural and conceptual framework that was a product of both historical influences and, eventually, its own ongoing encounters with the environment.

When European settlers arrived in the New World (present-day United States), they were quick to label the environments they encountered as 'virgin,' 'wild,' and fundamentally 'unimproved.'[5] Generally disregarding signs of Native American usage, Roderick Nash contends that early settlers perceived the environments of the New World as a "moral and physical wasteland fit only for conquest and fructification in the name of progress, civilization, and Christianity."[6] These settlers, seeking to transform the environment, laboured to create landscapes that produced agricultural surplus, trade goods, and reflected a

[4] Quoted in John Soluri, "Bananas Before Plantations: Smallholders, Shippers, and Colonial Policy in Jamaica, 1870-1910," *Iberoamericana* 6 (2006): 148.
[5] Alan Taylor, "Wasty Ways: Stories of American Settlement," in *American Environmental History,* ed. Louis S. Warren (Malden: Blackwell Publishing, 203), 105.
[6] Roderick Nash, *Wilderness and the American Mind* (New Haven: Yale University Press, 1967), xi.

more European version of Nature. Early understandings of Native American land-use were unconvincing to European settlers. Traditional Indigenous practices of hunting and gathering were believed to neglect the true productive potential of the land. Only through the application of roads, fences, plowing, and other sedentary agricultural practices termed as 'improvements,' could this potential be realized. Environments that had been improved held value in the eyes of settlers, those that were not were considered waste spots. Given what settlers perceived to be a lack of proper improvements, they categorized Natives as 'uncivilized' and 'savage.'[7] According to Patricia Limerick, settlers went so far as to view their takeover and control of the environment as a form of philanthropy. From their own perspective, it was incumbent on them – as a duty and a right – to 'liberate' the landscape and its people from an uncultivated state in order to transform it into a new version of Nature which reflected a supposedly advanced form of civilization.[8]

In their transposition of familiar concepts of land-use and environmental design, settlers brought themselves into direct contact with the landscapes that they sought to transform. In this process, a cyclical dynamic formed between 'human culture' and the responsive resistance of the environments which they sought to alter and bring under their own control. As an interactive agent in this process, the environment itself presented certain options to settlers pushing into 'virgin' landscapes. The essence of climate patterns, topography, and soil composition created situational circumstances that were instrumental in determining the limits into which the imposition of human culture could extend.

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[7] Patricia Limerick, *The Legacy of Conquest: The Unbroken Past of the American West* (New York: Norton, 1987), 190.
[8] Ibid, 191.

The response of settlers to these environmental features, during their attempts at transformation, contributed to a new series of environmental conditions and obstacles that could also be reshaped by settler culture.[9] This continuous interplay, illustrated by William Cronon in his book *Changes in the Land,* perpetuated a cycle of culture-nature encounters and exchanges that demonstrated the importance of both humans and the environment as interactive agents of change, while demonstrating to settlers the power of environmental circumstances and resistance.

As settlers began pushing westward over the continental United States, the boundary at which this cyclical relationship occurred became known as the frontier. Here, viewing environmental obstacles as forms of resistance to human designs, new breeds of settlers labeled as pioneers, conceptualized their drive to tame, order, and civilize the environment as a relationship based in conflict. Serving as a battleground between cultural progress and environmental resistance, the frontier became the space where human and environmental agency met and, according to Frederick Jackson Turner, existed as "the outer edge of the wave – the meeting point between savagery and civilization."[10] By the middle of the nineteenth century in the United States the pioneer had come to embody the conflict between the imposition of culture, the creation of a new version of nature, and environmental resistance. Their enemy, the frontier, stood out as an obstacle

[9] William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983), 13.
[10] Frederick Jackson Turner, *The Frontier in American History* (New York: Holt, Rhinehart and Winston, 1962), 3.

to the extension of cultural and material progress, and needed to be conquered.[11] Stating rhetorically in an 1830 Presidential address, Andrew Jackson highlighted this attitude when he stated, "What good man would prefer a country covered with forests and ranged by a few thousand savages to our extensive Republic, studded with cities, towns and prosperous farms."[12]

Influenced by a historico-cultural relationship that conceptualized its interaction with the 'untamed' environments of the continental United States in these terms, the United Fruit Company applied a similar conceptual framework toward the environments of the tropical Caribbean Basin. Casting the tropics as 'backward,' 'uncivilized,' 'unimproved,' threatening, and resistant to Company designs, United Fruit drew on these historical interpretations of the environment and approached the task of plantation construction, or environmental transformation, by utilizing this historically-informed – and fundamentally American – cultural lens. The Company viewed their efforts as a benevolent struggle to bring transposed ideas of civility, material progress, improvement, and a revision of Nature to the lands and peoples of the Caribbean Basin. In the process of this environmental transformation, United Fruit was faced with significant obstacles that reflected a natural form of resistance put forth by the landscapes that they were working to alter.

Not unlike the conflicts between American pioneers and the frontier landscapes of the continental United States, wherein settlers fought against a barrage of territorial dangers, including flooding, crop blight, wolves, panthers,

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[11] Nash, *Wilderness and the American Mind,* 42.
[12] Quoted in Nash, *Wilderness and the American Mind,* 42.

and extreme climate conditions in their pursuit of environmental transformation, the United Fruit Company faced forms of resistance from the landscape as well. Characterized by dense jungles, high humidity, heavy rainfall, and extreme temperatures, tropical environments posed a series of threats to the imposition of Company designs. Torrential downpours washed out roadways, railways, and bridges. Hurricanes knocked out power generation stations, radio communication, and entire crops of bananas. Droughts affected whole Company divisions forcing costly irrigation works or the loss of a profitable crop. Plant diseases infected soils and reduced output, while human diseases like yellow fever and malaria plagued Company employees and workers causing mortality and morbidity rates that threatened to cripple production.[13] Through this experience of environmental resistance, United Fruit increasingly conceptualized its relationship with the Tropics, just as American pioneers had done, as one defined by conflict and framed the successful control, transformation, and elimination of environmental threats as a form of conquest.

Seeking the successful creation of neo-American environments, United Fruit 'attacked' the jungle landscapes while simultaneously developing widespread sanitation programs to eliminate the prevalence of tropical disease.[14] Carving their way into the jungle, United Fruit labourers under the guidance of Company engineers removed dense underbrush, felled forests, cleared pathways for rail lines, and excavated intricate drainage systems designed to empty swamps

[13] For this paper the term "employee" will commonly refer to 'white' North Americans working in the Tropics, while the term "worker" will refer to 'coloured' plantation labourers from the Caribbean Basin and West Indies.
[14] Samuel Crowther, *The Romance and Rise of the Tropics* (Garden City: Doubleday, Doran & Co., 1929), 222.

and lower water levels. Acre after acre fell under the relentless blades of Company workers who were charged with eliminating environmental obstacles and paving the way for a new Americanized version of Nature.[15] Tasked with the prevention and treatment of diseases, the United Fruit Company Medical Department also joined the assault on nature by implementing programs dedicated to the elimination of ecological conditions that were conducive for the reproduction of *Aegis agypti* and *Anopheles* mosquitoes: vectors for the spread of yellow fever and malaria. Medical Department officials thus actively worked to remove stagnant pools of water, screen windows and doors, and spray anti-larval agents in high-risk areas. Given the significant alteration of land that took place during the construction of Company plantations, new environmental conditions conducive to the propagation of mosquitoes were created unintentionally; at times Company officials were therefore forced to battle environments of their own making.

By 1930, through the dedication of United Fruit and its Medical Department, the tropical environments within its domain had been successfully transformed. Shipping over 65 million bunches of bananas in the final year before the Great Depression, United Fruit had constructed a new 'productive' version of nature. This version was equipped with modern American amenities such as golf courses, tennis courts, electricity, paved roads, radio, and modern sewerage

[15] It is important to note that the creation of a 'civilized' neo-American environment in the tropics was viewed by the Company as beneficial for both workers and employees. While the overwhelming majority of plantation amenities and services were constructed solely to the latter group, United Fruit did work to provide a level of health care, medication, clean sources of drinking water, screened living quarters, and sanitized living environments to workers during the course of plantation operations.

systems, while also significantly minimizing the perils of tropical disease.[16] Going so far as to advertise its plantations as 'health resorts' in the United States, the United Fruit Company successfully battled, subjugated, and imposed cultural dominance on the supposedly 'wild' landscapes of the tropics.[17] Its environmental imprint stood as a reflection of the relationship it shared with the landscape, influenced by American history and the fight for civilization.

Scholarly traditions surrounding the United Fruit Company have focused on its growth as a business, its interaction with landscapes and peoples, and its connection to American trade and empire. This rich body of literature has created analytical categories for the Company's commercial practices, its relationships with Caribbean governments, as well as its impact on labour relations, race, shipping, trade, politics and the environment. While the approaches of these historiographical areas vary, the majority of the literature dedicated to the Company analyzes any combination of these components within the same work, highlighting connections between social, political, economic, and to a lesser extent, ecological issues. Still, within the substantial body of research on the United Fruit Company, and the prominent overlap that exists within the literature, there are a number of historiographical gaps which remain to be thoroughly studied. This paper, written as a cultural and environmental history, addresses the

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[16] United Fruit Company, *Thirty-First Annual Report,* 6. Note, when taking into account the measurement figures used by the Company it may be helpful to keep in mind that each banana tree grows one stem or 'bunch' of bananas at a time. To the United Fruit Company, which grew Gros Michel and then Cavendish bananas, each bunch consisted of approximately six to nine 'hands' on which ten to twenty 'fingers' (or individual bananas) grew. The number of 65 million bunches thus represents between 3.9 and 11.7 trillion individual bananas. For more information on 'bunches,' 'hands,' or 'fingers' see Reynolds, *The Banana,* 63-64.

[17] Untied Fruit Company, *United Fruit Company: Its Activities at Home and in the Tropics* (Boston: United Fruit Publicity Department, 1937), 15.

interplay of American historical influence and environmental agency in the development and conceptualization of United Fruit's relationship with the tropical landscapes which it sought to transform. In the process, this study will highlight the key historical connections between the United Fruit Company and American frontier culture, the transposing of environmental concepts developed in the United States, and the Company's understanding of the environment as a dynamic agent often resistant to the changes it sought to induce.

Indeed, while there is a considerable amount of literature on the United Fruit Company, U.S-Latin American relations, and American frontier history, very little work has been dedicated to understanding the relationships that United Fruit developed with the environment in this way. Early literature on bananas highlighted various aspects of the industry. Authors such as Frederick Upham Adams and Samuel Crowther focused their efforts on illustrating the power and prosperity of American tropical fruit companies, adding a triumphalist and beneficent tone to the discourse that surrounded environmental transformation and the impact of banana companies in the Caribbean Basin. According to Adams, the story of United Fruit was one of "peaceful and honorable conquest… and one which every [American] citizen should be proud."[18] While authors like Adams and Crowther concentrated on the success of American enterprise in the tropics, others focused their attention on the botanical and technical aspects of banana

[18] See Frederick Upham Adams, *Conquest of the Tropics: The Story of the Creative Enterprises Conducted by the United Fruit Company* (Garden City: Doubleday, Page & Co.,1914), 13; Wallace Thompson, *Rainbow Countries of Central America* (New York: E.P. Dutton & Co., 1926); Arthur Brown Ruhl, *The Central Americas: Adventures and Impressions Between Mexico and Panama* (New York: C. Scribner's Sons, 1928); Samuel Crowther, *The Romance and Rise of the American Tropics* (Garden City: Doubleday, Doran & Co., 1929); Hugh Wilson, *The Education of a Diplomat* (London: Longmans, Green and Co., 1938).

farming.[19] In his 1927 book *The Banana: Its History, Cultivation and Place Among Staple Foods,* Philip Keep Reynolds provided an early, comprehensive monograph outlining the major components of a banana's life cycle. Following the fruit from planting to sale, Reynolds' work illustrated the necessary steps implemented by fruit companies to successfully produce bananas for export on an industrial scale.

Further literature on Company history leading up to the 1970s emerged to offer far more critical analyses of United Fruit.[20] Moving away from the early triumphalist tone, Kepner and Soothill in a two part series on the Company, worked to assess the development of United Fruit and the factors that made it successful as a foreign company operating in the tropics. *The Banana Empire* and *Social Aspects of the Banana Industry* provided an in-depth look at major aspects of United Fruit operations in the tropics, including critical analysis on environmental land transformation processes and the social costs of plantation development. Stacey May and Galo Plaza's *The United Fruit Company in Latin America* followed Kepner and Soothill in 1958 as a report published for a series on American enterprises operating abroad. The book's primary focus, highlighting the economic interrelationships between the United States and Latin America, studied the influence of Company investments "on the volume and structure of

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[19] See W. Fawcett, *The Banana: Its Cultivation, Distribution and Commercial Uses* (London: Duckworth & Co., 1913); Philip Keep Reynolds, *The Banana: Its History, Cultivation and Place Among Staple Foods* (Boston: Houghton Mifflin Co., 1927).

[20] See Charles David Kepner and Jay Henry Soothill, *The Banana Empire: A Case Study of Economic Imperialism* (New York: Vanguard Press, 1935); Charles David Kepner, *Social Aspects of the Banana Industry* (New York: AMS Press, 1936); Charles Morrow Wilson, *Empire in Green and Gold* (London: Longmans, Green and Co., 1938); Stacey May and Galo Plaza, *The United Fruit Company in Latin America* (Washington: Acropolis Books, 1971)

United-States-Latin American trade."[21] Seeking greater insight into the impact United Fruit had on local Latin American economies, May and Plaza gained access to United Fruit and U.S. government sources in their attempts to quantify the effects of Company operations throughout the region.

Increasingly, recent scholarship on the United Fruit Company has become regionalized.[22] As access to information directly from the Company has grown more difficult to obtain, authors have relied heavily on local and national archives of the Caribbean Basin, as well as U.S. government sources, to further their understandings of the dynamic ways that United Fruit and other foreign interests influenced the region. These findings, no longer presented as the actions of a benevolent American enterprise, focus primarily on the exploitive nature of the Company's social, political, economic, and ecological practices. Books like Marcelo Bucheli's *Bananas and Business: The United Fruit Company in Colombia, 1899-2000* broke new ground in its assessment of the Company's long-term international business strategy, relationship with the Colombian government, and influence on Colombian plantation labour movements. Aviva Chomsky's *West Indian Workers and the United Fruit Company in Costa Rica, 1870-1940*

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[21] May and Plaza, *The United Fruit Company in Latin America,* xii.

[22] See Robert MacCameron, *Bananas, Labor, and Politics in Honduras, 1954-1963* (Syracuse: Maxwell School of Citizenship and Public Affairs, 1983); Paul J. Dosal, *Doing Business with the Dictators: A Political History of the United Fruit Company in Guatemala, 1899-1944* (Wilmington: SR Books, 1993); Aviva Chomsky, *West Indian Workers and the United Fruit Company in Costa Rica, 1870-1940* (Baton Rouge: Louisiana State University Press, 1996); Dario Euraque, *Reinterpreting the Banana Republic: Region and State in Honduras, 1870-1972* (Chapel Hill: University of North Carolina Press, 1996); Mark Moberg, *Myths of Ethnicity and Nation: Immigration, Work, and Identity in the Belize Banana Industry* (Knoxville: University of Tennessee Press, 1997); Steve Striffler, *In the Shadows of State and Capital: The United Fruit Company, Popular Struggle, and Agrarian Restructuring in Ecuador, 1900-1995* (Durham, N.C.: Duke University Press, 2002); Lara Putnam, *The Company They Kept: Migrants and the Politics of Gender in Caribbean Costa Rica, 1870-1960* (Chapel Hill: University of North Carolina Press, 2002); Marcelo Bucheli, *Bananas and Business: The United Fruit Company in Colombia, 1899-2000* (New York: New York University Press, 2005).

addressed Company relations with West Indian workers from a 'bottom up' approach.[23] Concentrating on United Fruit's plantations along Costa Rica's Atlantic coast, Chomsky analyzed Company operations from the perspective of a largely West Indian labour force, examining their history, relationship with the Company, as well as the nature of their cultural and political lives. Paul Dosal's exhaustively researched *Doing Business with the Dictators: A Political History of United Fruit in Guatemala, 1899-1944* provided a more politically minded look into United Fruit and its operations in Guatemala, and to a lesser extent Honduras. Concentrating on the Company's relationships with Guatemalan political elites, most notably dictators Manuel Estrada Cabrera (1898-1920) and Jorge Ubico (1920-1944), Dosal delved into the corrupt and repressive regimes that aided Company interests at the expense of their people.

Further literature, such as Daniel J. Faber's *Environment Under Fire: Imperialism and the Ecological Crisis in Central America,* Richard P. Tucker's *Insatiable Appetite: The United States and the Ecological Degradation of the Tropical World,* and John Soluri's *Banana Cultures: Agriculture, Consumption, and Environmental Change in Honduras and the United States,* do more to address the ecological impacts of plantation agriculture in the tropics, while inviting more direct comparisons to the findings presented in this study.[24] In

[23] Chomsky, *West Indian Workers,* xi.
[24] See Daniel J. Faber, *Environment Under Fire: Imperialism and the Ecological Crisis in Central America* (New York: Monthly Review Press, 1993); Richard P. Tucker, *Insatiable Appetite: The United States and the Ecological Degradation of the Tropical World* (Berkeley: University of California Press, 2000); John Soluri, *Banana Cultures: Agriculture, Consumption, and Environmental Change in Honduras and the United States* (Austin: University of Texas Press, 2005); John Soluri, "Bananas Before Plantations: Smallholders, Shippers, and Colonial Policy in Jamaica, 1870-1910," *Iberoamericana* 6 (2006). For works that deal with American transformation of tropical ecologies but do not deal directly with the United Fruit Company or

particular Soluri's research on the banana industry and its transition from small-scale production to industrial plantations, along with the resulting impact it had on the environment, is noteworthy. Utilizing an agro-ecological analytical framework in its examination of land development, *Banana Cultures* placed "agriculture back into banana plantation history."[25] In the process Soluri made strong connections between environmental transformation in the tropics and a growing American demand for bananas in the United States. Still, despite Soluri's rich account of plantation ecology, his discussion of agrarian practices and their ties to the U.S. economy, *Banana Cultures* leaves substantial room to address the environmental and cultural factors that shaped the Caribbean Basin's tropical environments. This study seeks to capitalize on the availability of United Fruit publications, employee document collections, Company Medical Reports and Annual Reports to Stockholders in order to help fill that space and shed new light on the relationship United Fruit had with the environment.

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agrarian enterprises, see Myrna Santiago, *The Ecology of Oil: Environment, Labor, and the Mexican Revolution, 1900-1938* (New York: Cambridge University Press, 2006); Paul S. Sutter, "Nature's Agents or Agents of Empire: Entomological Workers and Environmental Change During the Construction of the Panama Canal," *Isis* 4 (2007); Paul S. Sutter, "Tropical Conquest and the Rise of the Environmental Management State: The Case of U.S. Sanitary Efforts in Panama," in *Colonial Crucible: Empire in the Making of the Modern American State,* ed. Alfred W. McCoy and Francisco A. Scarano (Madison: University of Wisconsin Press, 2009): 317-326; Mariola Espinosa, "A Fever for Empire: U.S. Disease Eradication in Cuba as Colonial Public Health," in *Colonial Crucible: Empire in the Making of the Modern American State,* ed. Alfred W. McCoy and Francisco A. Scarano (Madison: University of Wisconsin Press, 2009): 288-296; Greg Grandin, *Fordlandia: The Rise and Fall of Henry Ford's Forgotten Jungle City* (New York: Metropolitan Books, 2009). For works that address the role of global factors in the transformation of tropical ecologies (but are not specifically focused on American influences), see Alfred W. Crosby, *The Columbian Exchange: Biological and Cultural Consequences of 1492* (Westport: Greenwood Press, 1972); Alfred W. Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900-1900* (Cambridge: Cambridge University Press, 1986); J.R. McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620-1914* (New York: Cambridge University Press, 2010); Stuart McCook, "The Neo-Columbian Exchange: The Second Conquest of the Greater Caribbean, 1720-1930," *Latin American Research Review* 1 (2011).

[25] Soluri, *Banana Cultures,* 4.

Concentrating on previously under-utilized sources, including the Company's own *Unifruitco* and *Fruit Dispatch* magazines, this thesis analyzes the concept of environment through the study of Company discourse.[26] With access to a variety of articles written by Company engineers, shipping managers, steamship captains, division managers, doctors, scientists, botanists, wives, and even presidents this study has been able to produce a well rounded and in-depth understanding of how United Fruit conceptualized the tropics and the manner in which it transformed them. Combining this information with a rich body of literature on American frontier and environmental history, this study highlights key connections between the development of American concepts of environment and the Company's own views of the tropical Caribbean Basin, while taking into consideration the role of the environment and environmental agency in shaping Company-Nature relations.[27]

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[26] *Unifruitco Magazine,* was a bimonthly publication produced by the Publications Division of the United Fruit Company. The magazine was distributed primarily among United Fruit Company employees and contained articles on a wide variety of topics ranging from Company engineering projects to divisional baseball team scores. *Fruit Dispatch Magazine* was a monthly publication also produced by the Publications Division of the United Fruit Company on behalf of United Fruit's American distribution subsidiary, the Fruit Dispatch Company. While the magazine heavily emphasized fruit distribution practices (including shipping, packaging, refrigeration, and delivery), it provided, much like *Unifruico,* a wide range of articles addressing varying sections of United Fruit's operations in the United States, Canada, and Caribbean Basin.

[27] Important literature on American frontier and environmental history includes Louis Hennepin and Reuben Gold Thwaites, *A New Discovery of a Vast Country in America* (Chicago: A.C. McClurg & Co., 1903); J. Franklin Jameson, *Original Narratives of Early American History* (New York: C. Scribner & Sons, 1917); Duncan Aikman, *The Taming of the Frontier: El Paso, Ogden, Denver, St. Paul, San Francisco, Portland, Kansas City, Cheyenne, San Antonia, Los Angeles* (New York: Minton & Balch, 1925); Walter Prescott Webb, *The Great Plains* (Boston: Ginn and Co., 1931); Hans Huth, *Nature and the American: Three Centuries of Changing Attitudes* (Berkeley: University of California Press, 1957); Gilbert Courtland Fite, *The Farmers' Frontier, 1865-1900* (New York: Holt, Rinehart and Winston, 1966); Clarence J. Glacken, *Traces on the Rhodian Shore: Nature and Culture in Western Thought From Ancient Times to the End of the Eighteenth Century* (Berkeley: University of California Press, 1967); Roderick Nash, *Wilderness and the American Mind* (New Haven: Yale University Press, 1967); George Perkins Marsh, *Man and Nature* (Cambridge: Harvard University Press, 1967); John Francis McDermott, *Travelers on the Western Frontier* (Urbana: University of Illinois Press, 1970); Richard Slotkin, *Regeneration*

United Fruit: Beginnings

The United Fruit Company began its relationship with the environments of the tropical Caribbean Basin in 1899. Formed by Minor C. Keith, Andrew Preston, and Lorenzo Dow Baker, it rapidly emerged as the world's largest banana corporation. Keith, an established railroad baron, had utilized land concessions first granted to him by the Costa Rican government in 1871 with the intention of subsidizing railway construction. Given the difficult task of connecting the Costa Rican capital of San José with the Port of Limón, on the Atlantic coast of the country, Keith was able to secure 7 percent of Costa Rica's national territory in the form of land grants for his personal use.[28] Keen to exploit his concessions and generate freight for the newly constructed rail line, Keith's continued development of agriculture for export made him Latin America's largest single producer of the fruit by 1890. The decision to focus on producing

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Through Violence: The Mythology of American Frontier, 1600-1860 (Middletown: Wesleyan University Press, 1973); William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983); Patricia Nelson Limerick, *The Legacy of Conquest: The Unbroken Past of the American West* (New York: Norton, 1987); Carolyn Merchant, *Ecological Revolutions: Nature, Gender, and Science in New England* (Chapel Hill: University of North Carolina Press, 1989); Thomas F. O'Brien, *The Revolutionary Mission: American Enterprise in Latin America, 1900-1945* (New York: Cambridge University Press, 1996); Alan Taylor, "Wasty Ways: Stories of American Settlement," in *American Environmental History,* ed. Louis S. Warren (Malden: Blackwell Publishing, 2003): 102-118; Carolyn Merchant, *American Environmental History: An Introduction* (New York: Columbia University Press, 2007) Lisa Ford, *Settler Sovereignty: Jurisdiction and Indigenous People in America and Australia, 1788-1836* (Cambridge: Harvard University Press, 2010); Carroll Smith-Rosenberg, *This Violent Empire: The Birth of an American National Identity* (Chapel Hill: University of North Carolina Press, 2010). Further literature on American empire and U.S.-Latin American relations that provided relevant background to this study includes Fredrick B. Pike, *The United States and Latin America: Myths and Stereotypes of Civilization and Nature* (Austin: University of Texas Press, 1992); 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: Duke University Press, 1998); James E. Lewis Jr., *The American Union and the Problem of Neighborhood: The United States and the Collapse of the Spanish Empire, 1783-1829* (Chapel Hill: University of North Carolina Press, 1998); Greg Grandin, *Empire's Workshop: Latin America, the United States, and the Rise of the New Imperialism* (New York: Metropolitan Books, 2009); Jason M. Colby, *The Business of Empire: United Fruit, Race, and U.S. Expansion in Central America* (Ithaca: Cornell University Press, 2011).

[28] Faber, *Environment Under Fire,* 35.

bananas was a relatively easy one for the American engineer. The silt-laden lowlands of the Costa Rican coast provided ideal soil conditions for banana growth and unlike more prevalent tropical agricultural commodities of the time, including cocoa, sugar, and coffee, bananas required no additional processing prior to sale in the United States. Combined with its use as a highly nutritious and dependable source of food for workers, the banana was Keith's ideal choice.

In 1885, Lorenzo Dow Baker, originally a schooner Captain from Cape Cod, teamed up with Andrew Preston, a grocery wholesaler in Boston, to form the Boston Fruit Company. Baker had shown in the early 1870s that shipping bananas from the Caribbean to Boston was a profitable venture. With the development of steam ships and the reduction of travel time between eastern American ports and Caribbean banana growers, Baker and Preston saw an opportunity. Establishing operations in Jamaica, Cuba, and the Dominican Republic, Baker organized the purchase and shipment of locally grown bananas to Boston, where Preston was responsible for their distribution and sale. As more ships came under their control, the duo of Baker and Preston consolidated their position as the number one banana exporter in the Caribbean by the turn of the twentieth century.[29]

Keith merged his interests with Preston and Baker in 1899 in order to create the United Fruit Company. Vertically integrating rail lines, shipping, production, and distribution, the triumvirate began their first steps towards total control of the banana's life cycle, from planting to consumption.[30] Combining

[29] Tucker, *Insatiable Appetite*, 124.
[30] Marcelo Bucheli, "United Fruit Company in Latin America," in *Banana Wars: Power, Production, and History in the Americas,* ed. Steve Striffler and Mark Moberg (Durham: Duke University Press, 2003), *81.*

vast areas of land in widely separated areas under its control, United Fruit possessed a dispersed international farm of 212 394 acres, of which 61 363 were designated as 'improved' by the end of its first year.[31] Charles Kepner argues that from the very beginning United Fruit was focused on reinvesting profits in order to expand its reach throughout Central America and quickly developed operations in additional locations situated across the Caribbean Basin.[32] In 1916, an article published in *Fruit Dispatch Magazine* noted that the Company's continued expansion had created "a rim around the Caribbean Sea," where tropical landscapes had been "improved and made sanitary, livable, and agriculturally productive" to the extent of 1 210 443 acres.[33] Nearly two decades after its inception, United Fruit had expanded to include plantations in Costa Rica, Cuba, the Dominican Republic, Jamaica, Panama, Guatemala, Honduras, Nicaragua, and Colombia.

Early Company officials who trekked into the jungle thought very little of the environment and its use by indigenous inhabitants. In an article discussing the work of United Fruit founder Minor C. Keith, B. C. Forbes wrote in 1916 that "The whole Atlantic coast from Mexico to Panama was then a dense, unexplored, formidable jungle, with only a few Caribs and Creoles here and there, who eked out an existence by fishing for hawksbill turtle, gathering sarsaparilla, vanilla beans and wild rubber."[34] According to Forbes, not only did the sparsely populated tropical wilderness hold little value in its natural state, but its

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[31] Kepner, *Social Aspects of the Banana Industry*, 45.
[32] Ibid, 46.
[33] "An Industrial Empire Builder," *Fruit Dispatch Magazine* 2 (1916): 494.
[34] B.C. Forbes, "Men Who Are Making America: Minor C. Keith and Railway Building," *Fruit Dispatch Magazine* 2 (1916): 87.

inhabitants did little to add to it by carrying on with traditional forms of subsistence production. Latin American elites mirrored views held by Company interests when assessing the wilderness and those who lived in it. The indigenous groups, escaped slaves, and poor mestizo settlers who populated these landscapes were considered by both parties to be "backwards," "savage," and "uncivilized."[35]

Throughout the Caribbean Basin, isolated from major population centers, the tropical landscape was left to its own designs. Lacking the capacity, and often the need, to construct modern infrastructure, indigenous inhabitants of Caribbean wilderness were viewed by the Company as ineffective agents of progress. Publications emerging from the United States promoted the image of an unproductive, and backward Native farmer who did little to improve his land or capitalize on the natural resources at his disposal. These farmers, considered to be lacking ambitions toward so-called progress and civilization, were connected to the pervasive idea that the cultivation of tropical foodstuffs, and plantains in particular, encouraged indolence. "The facility with which the banana can be cultivated had doubtless contributed to arrest the progress of improvement in tropical regions," wrote the *Penny Magazine* in an article titled simply "The Banana, or Plaintain."[36] Harvard University archaeologist George Byron Gordon echoed these sentiments when he expressed his distain for the Carib, Xicaque, and Spanish inhabitants of the Ulua River in Honduras upon returning from a trip in 1897. "The inhabitants follow the usual occupation of doing nothing," Gordon

[35] Soluri, *Banana Cultures,* 233.
[36] "The Banana, or Plantain," *The Penny Magazine* 31 (1832): 252. The *Penny Magazine* was a weekly illustrated magazine published every Saturday from March 1832 to October 1845. Sold for a penny, the magazine initially had a circulation in the United States and United Kingdom of 200 000 copies, but was unable to sustain that number and ceased publication thirteen years later due to a lack of sales.

stated.[37] Noting the abundance of fish and wildlife at their disposal, Gordon wrote "they seldom take the trouble of procuring either, preferring to subsist on green plantains alone."[38]

That Indigenous farmers took little interest in exploiting their natural resources in the method seen fit by the American-based Company was instrumental in promoting the application of historically-shaped conceptions developed in the United States. Writing in the second half of the seventeenth century during his time as secretary to the proprietors of the Carolina Colonies, John Locke observed the increasing contention between Native American and early settler land-use systems. Settlers arriving from Europe were motivated to establish an agrarian system that reflected their Old World roots and allowed them to capitalize on the resources available in the so-called New World. In order to do this, it was vital to establish permanent structures of property and territorial sovereignty. Due to their status as "natural men," Locke argued, Indigenous peoples could neither own property nor exercise sovereignty over people and land.[39] This rationale continued with the idea that as Natives harvested products created by Nature, their ownership only extended as far as the product itself. If a wild animal was hunted and killed, ownership only applied to the carcass of the beast. According to European definition, property, and thus ownership, came only from making improvements upon the land.[40] Believing that Indigenous groups did

[37] Quoted in Soluri, *Banana Cultures, 8.*
[38] Ibid, 35.
[39] Quoted in Ford, *Settler Sovereignty,* 15.
[40] Limerick, *The Legacy of Conquest*, 15.

not "enhance" the land they inhabited, settlers viewed the wilderness as vacant and free for the taking.

Utilizing a conceptual framework shaped by Locke and these Euro-American understandings of property and sovereignty, the United Fruit Company was unwilling to elevate Native tropical inhabitants above the line of "inferior animal" with similar erasure of their claim to land.[41] To Company officials and Latin American elites alike, land that was not connected to the efficient production, transportation, and distribution of bananas for export did not constitute an effective use of resources and was thus considered wasteful. United Fruit's transformation of land use patterns, in regions under its control, away from Indigenous subsistence cultivation was viewed as progressive and thus a benevolent act. In the process of improving the tropical wilderness, establishing large-scale plantations and producing surplus for export, United Fruit argued that it was performing philanthropic work. Company officials were eager to advertise the number of jobs created, the amount of export taxes paid to federal governments, and the establishment of modern improvements and infrastructure.[42]

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[41] Soluri, *Banana Cultures,* 34.

[42] See Victor M. Cutter, "Caribbean Tropics in Commercial Transition," *Economic Geography* 2 (1926): 495-496 and William K. Jackson, "Business An Unofficial Ambassador to Latin America," *Unifruitco Magazine* 3 (1927): 78. While United Fruit is generally understood to have paid few taxes to national governments of the Caribbean Basin between 1900-1930, Company records do show that export taxes, negotiated on a country-to-country basis, were common. As an example, in an October 1918 letter between Almirante Company Manager J.M. Kyes and his assistant E.C. McFarland, the latter noted that the United Fruit Company was paying an export tax that averaged one-cent per bunch of bananas in Costa Rica, Panama, Colombia and "all other Central American countries." See E.C. McFarland, "Company correspondence with J.M. Kyes," October 26, 1918, United Fruit Company Letters, Bocas del Toro Division, courtesy of Kevin Coleman.

United Fruit's imposition of an American cultural framework, and one conjointly supported by (inter)national liberal elites, on the tropical landscape shaped both the value placed on tropical wilderness and the perceived benevolence of its actions. In the early decades of the twentieth century, perceptions of the United Fruit Company within the United States were generally favourable.[43] In the eyes of the American public the Company was not exploiting the Tropics or its people, because when it had arrived there was nothing available to exploit. "These tropics are productive just about in proportion as American initiative, American capital, and American enterprise make them productive," read an article in *Fruit Dispatch Magazine*.[44] William K. Jackson, General Attorney to the United Fruit Company, reaffirmed these views in *Unifruitco Magazin*e, stating that "the countries of Central America have almost wholly lacked all of the modern improvements and influences which give rise to prosperity, comfort and leisure." He continued:

> They have had few railways, almost no roads or streets and all but a few of their cities have been without electric lights, water or sewer systems. Their transportation and other systems of communication between themselves and the rest of the world were poorly developed and inadequate.[45]

In a land of indolence where Native inhabitants shirked the opportunity for improvement, progress, and environmental exploitation, the United Fruit Company portrayed itself as a positive force providing material improvements and driving cultural progress.

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[43] "The Banana in Its Infancy," *Fruit Dispatch Magazine* 1 (1916): 5.
[44] Ibid, 5.
[45] Ibid, 68.

United Fruit and a 'Frontier' Frame of Mind

From its inception, United Fruit classified newly acquired jungle environments as "frontier zones."[46] The decision, beyond simple labeling, was instrumental in the way that these landscapes were developed and demonstrated a deliberate historical connection made by Company leaders between current tropical landscapes and historic American frontiers. From its opening in the seventeenth century until its close in 1890, the American frontier existed as a point of conflict between 'savage' versus 'civilized,' 'chaos' versus 'order,' and 'wild' versus 'tame' elements. It served as a battleground on which American culture fought to impose itself. Viewing the 'virgin' and 'wild' landscapes of the Tropics as a frontier zone demonstrated United Fruit's decision to conceptualize the environment as a force of opposition.[47] Still, while the nature of Company-environment interaction was placed in the framework of American frontier history, United Fruit's tropical frontier possessed some notable differences over its American counterpart. Unlike the western frontier in the United States, which took the shape of a linear boundary progressing from Atlantic to Pacific, United Fruit's banana frontier existed in multiple locations, and in multiple countries, at the same time. What evolved was a patchwork of frontier zones, often isolated in

[46] Personal correspondence, George P. Chittenden to Victor M. Cutter, July 12th, 1921, Historical Archives of the Bocas del Toro Division, United Fruit Company, Panama. Private Collection of Philippe Bourgois. Philippe Bourgois Papers.

[47] Much like early European settlers arriving in the New World who classified the unsettled environments of America as "virgin," United Fruit's views of tropical environments in the Caribbean Basin were far from accurate. Initial classifications of the landscape as "virgin" persisted even after clear indications of Indigenous land use were discovered. For more see Cronon, *Changes in the Land* and Alan Taylor, "Wasty Ways: Stories of American Settlement," 105.

pockets from population centres.[48] Whereas roadways and rail lines helped link the American frontier with settled communities in what became the United States, tropical jungles made initial forms of communication over land hazardous, if not impossible.

In the early stages of development, Company communications relied heavily on local messengers who were expert boatmen and possessed a lifelong understanding of the natural terrain. Messages that ranged from cutting orders, to shipping schedules, to employee correspondence were entrusted to the skills of these men. For moving larger items, however, including food supplies and plantation equipment, river floats and mule trains were most often the preferred methods of transportation. From a small number of isolated port sites, all goods from outside of the country could only be carried inland by waterway or on the backs of men and animals. Attempts to expand trails and construct roads and railroads proved to be enormously difficult as the humidity and heavy rainfall of the dense jungle provided constant obstacles.[49] Trails and roadways could be sucked away by a torrential downpour in a matter of hours, while railway lines were subject to frequent floods and mudslides, leaving the way impassable. In 1928 Company engineer R.W. Fry was given the task of transporting a five-ton tractor deep into the jungles surrounding an emerging Company district in Guatemala. The tractor was needed in the construction of freshwater pipelines for the new district. Describing the event, Fry wrote:

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[48] Shawn Miller, *An Environmental History of Latin America* (New York: Cambridge University Press, 2007), 132.
[49] Wilson, *Empire in Green and Gold*, 5.

> You start at the water tank in Bananera and dive into bamboos so thick and full of thorns that you must cut your way with a machete… Arrived at a swamp you have to balance yourself on a three-inch pipe… This is not the only swamp that you will cross as there are six more all in a row to test your acrobatic prowess…The bush is all a tangle of small trees, plants, ferns, vines, and parasitic growths. I had a five-ton tractor and trailer to haul the pipe with, but no roads or bridges on which to travel… Mosquitoes worked in swarms to make life more miserable, the rains began to fall, and mud was everywhere on your boot tops. [50]

Fry's example demonstrates just a sample of the environmental obstacles to effective and efficient transportation that plagued the Company's attempts in transforming the environment. Reliant on itself to construct an efficient and effective infrastructure, United Fruit understood that the growth and success of operations would only be achievable if environmental obstacles to transportation were overcome.

Despite unique differences that distinguished tropical frontiers from their American counterpart, the prominence of a key historical concept remained consistent in the eyes of Company executives: in order to successfully continue to advance the frontiers, and to engage with the environment as a battleground, the company required men who embraced the characteristics and qualities of the western frontier. They needed pioneers. In the human-environment conflict of America's frontier narrative it was not possible to advance the frontier, the interests of civilization, and material progress, without the strenuous efforts of pioneers. Existing as a point of tension between a transposed culture and the environment, the frontier would stagnate or even recede altogether if not for the continual pressure brought forth by the strength and willpower of intrepid

[50] R.W. Fry, "Piping Water Through Guatemala Jungles," *Unifruitco Magazine* 3 (1928): 643.

individuals. These pioneers emerged in the United States during westward expansion as soldiers in the battle to secure order and establish civilization in the face of an 'untamed' and largely uncharted wilderness. Ray Allen Billington noted in Gilbert Courtland Fite's 1966 book *The Farmers Frontier* that pioneer American farmers were "true harbingers of advancing civilization." According to Billington, "not until the forests fell before their axes, their plow broke the prairie sod, and their barbed-wire fences crisscrossed the plains would the West be won."[51]

A product of viewing the environment as a physical threat to their survival as well as the ideological belief that the wilderness stood in the way of cultural and material progression, pioneers became a key historical reference for United Fruit and its relationship with tropical frontiers.[52] *Harper's Magazine: A Journal of Civilization* noted in 1868 that pastors who preceded settlement, fur traders who left civilization far at their backs, politicians who promoted expansionist policies, and engineers who laid plans for improvement were all considered to be pioneers in their own right.[53] In every branch of business, and in every profession, pioneers existed. By the second half of the nineteenth century, the magazine stated, intrepid pioneers of all kinds had fought so hard, and pushed so completely across the continent, that "progress [was] everywhere."[54] Understanding the significance of the pioneer legacy, and seeking to bring an American version of

[51] Ray Allen Billington in Fite, *The Farmers Frontier 1865-1900*, v.
[52] Nash, *Wilderness in the American Mind*, 24-25.
[53] *Harper's Magazine: A Journal About Civilization* was a weekly publication with wide circulation from 1857 until 1916 that covered a broad base of foreign and domestic news.
[54] "The Pioneer," *Harper's Magazine: A Journal of Civilization* 01-11 (1868), 18.

progress to the Tropics, United Fruit embraced its association with the pioneer soldier.

United Fruit's founders, who were often given the label of pioneer by American literary figures, were quick to internalize the association on their own.[55] Speaking of Baker, Keith, and Preston, Thomas F. Lee wrote in 1924 that "[n]o more thrilling a chapter has been written in the history of American pioneering than is found in the story of this youth who fashioned an enduring monument to American achievement out of a tropical jungle." Victor M. Cutter, who began with the Company as a timekeeper in 1904 and worked his way to become its President in 1924, shared the same sentiment when he recorded in his personal papers that the early years of Company development were the "pioneer days."[56] Commended by numerous sources within the United States for his work, Victor Cutter did not shy away from the pioneer label placed upon him. The dedicated Company employee embraced it and internalized it as part of his character. In an interview with Cutter by the *New York World Telegram* in 1925, journalist James Edmund Duffy commented on the Company President's appearance. "He looks the pioneer," wrote Duffy, who noted that Cutter liked to call himself one.[57] When

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[55] Both Company controlled publications and numerous secondary sources during the early decades of the twentieth century were quick to apply the label of 'pioneer' to United Fruit. The association between the Company and American pioneering heritage was viewed by United Fruit as both a crucial component of selling their brand in the United States and an effective way of focusing attention on the perceived beneficence of its actions in the region. For Company published articles see F.J. Baron, "Pioneering for the Chiriqui Land Company," *Unifruitco Magazine* 3 (1928): 706; R. Jensen, "Drainage Work and River Diversion in Chiriqui," *Unifruitco Magazine* 5 (1929): 3; Verson W. Gooch, "Chiriqui, Most Southern Development," *Unifruico Magazine* 5 (1929): 261; "The Banana In Its Infancy," *Fruit Dispatch Magazine* 1 (1916): 5; E.C. Calkins, "A Short History of the Banana, *Fruit Dispatch Magazine* 1 (1916): 78. For secondary sources see Colby, *The Business of Empire,* 94 and Adams, *Conquest of the Tropics,* 51-53. .

[56] Victor M. Cutter Papers, Alumni File, MS-63-2 VMC 14, 1903.

[57] James Edmund Duffy, "Says Hard World Made Him Head of United Fruit Co.," *The New York World Telegram,* November, 1925, 9.

asked about his time as a young employee during the initial development of United Fruit operations in the Tropics, Cutter claimed that he felt "like a real pioneer."[58]

Cutter's dedication to the role of tropical pioneering was crucial in the fight to push the Company's own frontiers forward against the staunch environmental resistance it faced. Growing to become one of United Fruit's most touted pioneers, Cutter was prominent in the lengthy battle to impose civilization and order in the Tropics. "He spent years in the field in command of an ebony-skinned army armed with machetes with which to subdue the jungle," wrote a Company publication in 1928.[59] "A Napoleon in the modern sense," continued the article, "instead of conquering peoples, he conquered the lands whose very fertility had held the people powerless in their tentacles of rank growth."[60] Under the command of men like Cutter, the Company claimed, the battle between frontier and wilderness was being won. "He [Cutter], at the very front of his fighting forces, saw the land transformed," boasted *Unifruitco Magazine* in an August 1928 article.[61] Progress, perceived as arriving in the form of modern amenities, transportation, and health, was a product of the successful implementation of civilization and the ordering of chaotic and wild elements in the environment.[62] Newly constructed banana farms carved into the tropical frontier were given American names such as "Boston" and "Chicago," as well as

[58] Ibid, 9.
[59] "The United Fruit Company Today," *Unifruitco Magazine* 4 (1928): 3.
[60] Ibid.
[61] Ibid.
[62] While amenities such as running water, flush toilets, recreational spaces, and automobiles were produced almost exclusively for its white, North American, employees the Company did invest heavily in the production and maintenance of 'healthful' conditions for its workers.

"Western" names like "Cheyenne" and "Arapaho."[63] The usage of these terms, imbued as they were with frontier history, created a symbolic reminder of an American cultural and historical legacy, and the significance of the use of the frontier by Company officials in framing the relationship between itself and the environment.

Environmental Transformation: The Construction of a Plantation

The United Fruit Company faced an arduous task carving out large-scale plantations from tropical frontiers. Like earlier American pioneers, United Fruit utilized land that had been classified as 'virgin' and was thus considered unimproved and uncivilized.[64] Existing as a tangle of trees, vines, and undergrowth, the untamed wilderness provided an obstacle to plantation construction that required in the eyes of Cutter, "herculean labor" to overcome.[65] On a tour of plantation construction in the Aguan River Valley, Honduras, in 1927 Company ship Captain W.H. Fagen accompanied a group of United Fruit Company engineers. Fagen's description of the Company employees highlighted their strength and attributes that defined them as pioneers. "Just to look at them one could see what kind of men were required to build up banana farms; no mollycoddlers will do here for this sort of work," Fagen began.[66] "This really is frontier work and those who are to succeed at it must have the frontier spirit," he continued, noting, "Their talk principally was of obstacles they are overcoming or

[63] Espinosa, "A Fever For Empire: U.S. Disease Eradication in Cuba as Colonial Public Health," 94.
[64] George P. Chittenden, "The Banana From Field to Market," *Fruit Dispatch Magazine* 5 (1919): 41.
[65] Cutter, "Caribbean Tropics," 496.
[66] W.H. Fagen, "The Aguan River Valley in Honduras," *Unifruitco Magazine* 3 (1927): 21.

have already overcome."[67] The process of plantation construction made clear to the Company the difficulties inherent in environmental transformation. Embodiment of the pioneer character and the "frontier spirit" was viewed as necessary if the significant environmental obstacles it faced were to be overcome.

Once land for the plantation was selected and surveyed, workers began the task of "attacking" the jungle.[68] "The jungle is a tangled mass," observed Samuel Crowther in his 1929 book *The Romance and Rise of the American Tropics.* "It is impossible to travel ten feet without cutting; so thick are the brush and vines," he exclaimed. [69] While workers cleared out the dense underbrush, Company engineers proceeded to map out and dig drainage ditches, designed to lower water

Surveying party occupied in direction drainage ditch construction – United Fruit Company Medical Reports v.18, 1929.

[67] Ibid, 21.
[68] Crowther, *The Romance and Rise of the Tropics,* 222.
[69] Ibid, 222.

levels and empty swamps.[70] Stakes, marking the desired location of each banana plant, were placed at intervals in order to produce an environment composed of "regularity and orderliness."[71] The distance between stakes varied according to the soil and climatic conditions. Company plantations in Cuba and Jamaica produced smaller plants, which were located fifteen feet apart. In all other United Fruit divisions that distance rose to between eighteen and twenty-four feet.[72] After staking was complete, workers began the process of planting. Banana rhizomes, also known as banana rootstock, were imported from nearby Company plantations and planted in their predetermined intervals.[73] It was only at this point that United Fruit workers begin the task of clearing the forest, where, as George P. Chittenden noted in a 1919 edition of *Fruit Dispatch*, "it is not unusual to encounter giants of the jungle which require a week or ten days to chop down."[74] After the forest was successfully felled, the emerging plantation grounds were in an "almost impassable" state of "tangle[ed] stumps... and trees, with interlocked branches and matted vines." Chittenden continued. "In fact, its aspect at this stage is one of a heavy forest shorn off at the ground and laid flat in a tangled mass. The felled land is one that is in the wake of some devastating agent instead of a plantation in

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[70] As an example of the sheer size of Company drainage operations, in two and half years at United Fruit's Tela Division in Honduras more than twenty-three miles of dragline canals – some of which compared favorably in size with rivers found in New England – had been dug. In addition, in the same period of time eight miles of rivers and existing canals had been deepened and widened representing a total excavation of approximately 1 900 000 cubic yards. See R. M. Beasley, "Tela Has Changed in 30 Months," *Unifruitco Magazine* 4 (1929): 621.

[71] Chittenden, "The Banana From Field to Market," 45.

[72] Cutter, "Caribbean Tropics,",496

[73] Because the Gros Michel (and later the Cavendish) species of banana do not produce seeds, reproduction of the banana plant must be done by cutting off a section of the plant's rootstock, known as a rhizome or 'bit.' The 'bit,' which can be removed without killing the plant it was cut from, is then replanted in a different location where it will root and begin producing bananas within nine to twelve months if conditions are right. For more information on the biology of banana plants see Reynolds, *The Banana,* 59-71.

[74] Chittenden, "The Banana From Field to Market," 41.

the making."[75] Removal of the leveled forest was rarely necessary as the heat, humidity, bacteria, and fungi prevalent in the Tropical environs quickly decomposed the trees into soil in a matter of months and in turn provided necessary nutrients for the newly planted banana stocks.[76]

While this work was being performed, crucial components of plantation infrastructure were also in the process of construction. Roads, railways and small-gauge tramlines were laid out across the plantation as quickly as paths could be carved into and through the jungle. Necessary from the start to bring supplies and materials for Company engineers and plantation construction workers, the vast rail network was designed for future use in the transportation of fruit, employees, labourers, and supplies efficiently throughout the plantation.[77] The building of workers' quarters, employee housing and Company offices followed, along with fenced pastures for draught animals, modern port facilities for the Company's

"Clearing the area of the virgin forest" – From United Fruit Company Medical Reports v.19, 1930.

[75] Ibid, 41.
[76] Cutter, "Caribbean Tropics,",496.
[77] Ibid, 496.

fleet of ocean-going transport ships, telegraph lines and radio stations to foster expedient communication, medical facilities to address plantation health, water filtration plants, and power generation stations to provide electricity. Unlike most pioneers of America's frontier who were connected to the established settlements of the east by structural amenities such as roads and railways, United Fruit was so isolated from civilization and modern amenities, that it ultimately constructed its own. Driven by the prospect of financial gain, an impulse towards material progress, and a desire to create an Americanized and 'civilized' environment, United Fruit committed to transforming the tropical frontier in a manner that closely reflected American cultural conceptualizations of a well-ordered and 'modernized' environment.

Plantation communities in the Tropics were thus intentionally designed and built in order to replicate an atmosphere found in the United States. For example, amenities constructed for white employees consisted of baseball fields, running tracks, tennis courts, pools, flush toilets, electricity, and golf courses.[78] Vast areas were drained and planted with common North American grass species so that Company officials could look out upon lush green lawns instead of tangled jungle undergrowth. Tropical vegetation spared from the axe, and allowed to grow within the plantation, stood as a symbol of the Company's dominance over the wild, reduced as it was to serve aesthetic purposes. By 1930, travelers to these United Fruit Company towns from the United States could begin to relax in the same comforts and security offered back home. Travelling through Guatemala's

[78] See Gooch, "My Two Weeks in Colombia," 188 and "Una Quicena En Almirante," 233-236.

Motagua Valley on his way to United Fruit operations at Quirigua, Arthur Ruhl noted the significant cultural distance created between tropical environments and the United Fruit's plantations. Observing an ordered landscape accompanied by a wealth of American amenities, including Quirigua's "spotless" modern hospital, Ruhl wrote that "you are, for all practical purposes, in a detached bit of the United States, with a colonial ruling class as remote, psychologically, from the land it lives in, as are the Canal Zone Americans in Panama."[79]

Chiriqui – Constructing a Neo-America

In August 1927 the United Fruit Company began construction on its newest agricultural division located in Chiriqui, Panama, three hundred miles west of Panama City along the country's Pacific coast. The landscape, a lush jungle, was seemingly so wild and unapproachable that the initial party of Company surveyors could only reach the site on mule-back.[80] Upon arriving in what the Company called, "a sea of green," workers set about clearing pathways through the dense underbrush while surveyors, scientists, and engineers began the process of determining the plantation's layout.[81] Soil samples, taken throughout the newly acquired jungle environment, allowed the Company to categorize the landscape through the use of a grading system. First-class land required the least amount of additional work in order to create the prime soil conditions United Fruit was looking for. Proper water level, soil nutrient density, and soil composition

[79] Ruhl, *The Central Americans,* 270.
[80] Untied Fruit Company, *United Fruit Company: Its Activities at Home and in the Tropics*, 21.
[81] See United Fruit Company, *Its Activities at Home and in the Tropics,* 21 and E.C. Calkins, "A Short History of the Banana," 78.

were all considered key components of first-class land.[82] Second- and third-class lands were frequently flooded, required significant drainage, and additional topographical work in order to create the ideal conditions for banana growth.

Once the land was categorized and sectioned off into ten-hectare sections, procedures for efficient drainage began. Given the lack of available transportation options and the incredibly challenging qualities of the landscape, draining the land in preparation for planting posed a considerable series of issues for the Company. R. Jensen, Chiriqui's lead engineer, described the practice:

> As drainage goes ahead of planting, which is as it should be, it often goes ahead of transportation as well, making it a very difficult job for the men connected with it. First, the field engineers and their gangs, pushing lines through thorny tropical forest, often knee deep in water, get the topography for canal locations. When the location is made, then clearing gangs, sometimes located from six to eight miles from the nearest railroad lines, fell and clear the right of way. Six to eight miles through wet tropical forest is a long way to walk. Riding is seldom possible. Then, the dragline operators and crew, after bringing the sixty-ton machines on 'mats' from the Railroad to the Canal location (occasionally sliding off the 'mats' and burying the machine in mud), cut in and start the dirt flying.[83]

Chiriqui's construction was opposed by unique environmental challenges. Given the nature of the division's landscape, the proportion of acres requiring drainage to those acres in production was the highest in the Company. Located on a flat coastal plain, a combination of environmental conditions, including heavy rainfall (at times over fifty inches a month) and the silting of nearby streams and riverbeds, which caused water to be pushed out across the landscapes, produced significant obstacles for Company intentions.

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[82] Gooch, "Chiriqui, Most Southern Development," 265.
[83] R. Jensen, "Drainage Work and River Diversion in Chiriqui," *Unifruitco Magazine* 5 (1929): 3.

"The drainage problem has furnished many busy days and nights," wrote Verson W. Gooch regarding the Chiriqui division in 1929.[84] In order to combat this landscape, United Fruit imported five large mechanical draglines and manned them with three operators each in order to work a twenty-four hour schedule seven days a week. In the first ten months of operation, these draglines excavated nearly one million cubic yards of soil. By 1930 that number had risen to nearly four million.[85] "I often wonder how many people realize the tremendous amount of pioneering work it takes to bring a banana division into production," stated Jensen in *Unifruitco Magazine.* "I am sure but very few of the millions eating bananas every day would be able to see the connection between the dragline excavating a huge canal through a tropical forest and a "Banana Split," he concluded.[86]

Mechanical dragline digs drainage canal – United Fruit Company Medical Reports v.18, 1929.

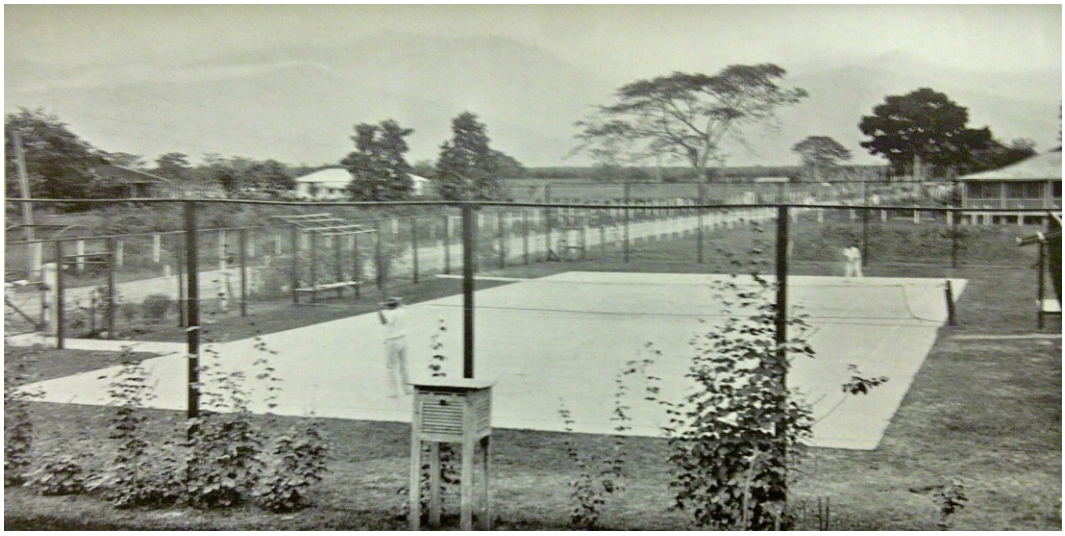
[84] Gooch, "Chiriqui, Most Southern Development," 265.
[85] R. Jensen, "Drainage Work and River Diversion in Chiriqui," *Unifruitco Magazine* 5 (1929): 3.
[86] Ibid, 3.

After drainage had sufficiently lowered water levels, the process of planting began. Farms were staked and planted with the Company's hardiest rootstock while additional engineers and agriculturalists, accompanied by mechanical men, material store handlers, and the medical department arrived to begin their respective jobs. Construction began on a modern port, including a steel pier that ran 1500 feet out into the Pacific. Large steam-driven mechanical hammers pounded home 78 foot pilings into the seabed as the wharf lurched towards deep water and the international marketplace.[87] Rail and tramline construction proceeded in a network that crisscrossed the new division and established connections between Chiriqui's twenty-three banana farms and three principle districts.[88] Forty-ton American-made diesel electric engines, the first of their kind to be used by the Company, were brought in for the purpose of hauling cars laden with fruit, people, and various commodities across the division and beyond.[89] Roadways were carved through the jungle, while hundreds of employee residences, workers housing, a school, a movie theatre, a baseball diamond, flower gardens, a swimming pool, modern sewerage systems, a radio station, and Company commissaries soon followed. The division was fed electricity from a new power plant and fresh water from a newly constructed dam and filtration plant located over four miles away at the Guanavanito River.

By the end of 1929, United Fruit's operations in Chiriqui covered approximately 7500 acres, with nearly 3000 acres designated as 'improved' and producing. Seven years later, Chiriqui boasted an additional 17 000 acres of land

[87] F.J. Baron, "Pioneering for the Chiriqui Land Company," *Unifruitco Magazine* 3 (1928): 706.
[88] Gooch, "Chiriqui, Most Southern Development," 265.
[89] United Fruit Company, *Its Activities at Home and in the Tropics,* 21.

under production.[90] By 1935, within United Fruit's enclave community at Chiriqui, surrounded by the Panamanian jungle, an American visitor could stroll through a flower garden, watch an American film, listen to American radio, or jump in a Ford Model T and drive to an evening baseball game. While profit maximization was instrumental in dictating plantation design, it did not account for all features of United Fruit Company towns. United Fruit's replication of key American cultural elements, produced in the process of plantation construction, represented a desire to assert cultural dominance in the face of environmental opposition. Transplanting American civilization to the frontier zones of the Tropics was a fulfillment of an American frontier narrative and the product of a historically-influenced American conceptual framework, as described above, that was imposed by the Company on the tropical landscape. To United Fruit, the closer a company plantation community carved from the frontier appeared to a community in the United States the more complete was the conquest of Nature.



United Fruit Company employees take part in a tennis match – United Fruit Company Medical Reports V.18, 1930.

[90] Gooch, "Chiriqui, Most Southern Development," 261.

In fact, the United Fruit Company was not the only American-based venture during this period seeking to recreate American civilization in the tropics. In 1928 Henry Ford obtained a land concession in the heart of the Amazon rainforest, approximately the size of the state of Tennessee, with the goal of establishing a large-scale rubber plantation. Hailed in the United States as a "proxy fight" between Ford's "vigor", "dynamism" and rushing capitalist energy, and a primal ancient world that had so far "proved unconquerable," the construction of Fordlandia (as it was named) represented what one American publication called "a new and titanic fight between nature and modern man."[91] Like the United Fruit Company, Ford's mission to bring American industry and progress to the Amazon was praised in the United States as philanthropic work. Michigan's *Iron Mountain Daily News* wrote in 1932 that Henry Ford had "transplanted a large slice of twentieth century civilization" to the Amazon, bringing "a prosperity to the natives that they never before experienced."[92] In the eyes of the *Washington Post*, Fordlandia cultivated not only rubber, "but the rubber gatherers as well."[93]

Ford's confidence in his ability to construct neo-American towns in the tropical Amazon was in part derived from his success in urban development at home. Seeking to create an idealist version of America within the United States itself, Ford had constructed company towns in Pequaming, Michigan, and Muscle Shoals, Alabama. In each case he transformed the natural environmental to suit the industrial nature of his enterprise. Ford's view of what an ideal company town

[91] Quoted in Grandin, *Fordlandia,* 4.
[92] Ibid, 9.
[93] Ibid, 9

looked like remained constant whether that town was constructed in the Amazon or in the United States. Fordlandia was built with every modern American amenity and stood out as a beacon of civilization to those who arrived at its door from the United States. It was equipped with "modern wooden houses," wide paved streets, sidewalks, street lamps, a clubhouse, a hospital, a hotel, tennis courts, a swimming pool, a movie theatre, a golf course, an open-air dance hall, a power generation plant, and massive water tank. "A feeling akin to disbelief comes over the visitor on suddenly seeing projected before him a picture which may be considered a miniature of a modern industrial city," wrote Ogden Pierrot, an assistant commercial attaché assigned to the United States embassy in Rio de Jainero, during a visit to Fordlandia in 1932.[94] While Ford ultimately failed to produce enough rubber to make his investment viable, the establishment of a neo-America isolated in the Amazon rainforest illustrated the drive by American interests to view the transformation of the environment through an American cultural lens, and to impose upon these landscapes American concepts of civilization, productivity, and material progress.

The Realities of Resistance: Environmental Agency and the Fight to Secure the Landscape

In 1891, *Harper's Magazine: A Journal of Civilization* published the tale of two pioneer lumbermen working in the uninhabited frontier zone of northwestern Michigan.[95] Early one winter morning, while felling a tree, one of the men slipped and severely wounded himself with an axe. After binding the

[94] Quoted in Grandin, *Fordlandia,* 220-21.
[95] "Canadian Frontier Life," *Harper's Magazine: A Journal of Civilization* 03-04 (1893), 207.

wound as best he could, the other lumberman set off by sled for the nearest doctor. By the time he had returned with medical help the wounded man who was left behind had been attacked, killed, and eaten by a pack of wolves. "They left only some tatters of his clothing," the article reported.[96] Isolated, alone, and deep in a wilderness that had yet to come under the control of advancing civilization, these two pioneers faced a formidable threat to their survival. For American settlers pushing the boundaries of the frontier in the United States, the environment provided an abundance of resources as well as a significant amount of danger. Early American landscapes offered valuable storehouses of firewood, potash, lumber, and plant and animal life; the soils provided fertile ground on which to raise domesticated farm animals and sow crops. Yet in the process of transforming the landscape and creating a new and more civilized version of Nature, the pioneer-settlers faced significant environmental obstacles that demonstrated the active resistance of frontier landscapes. Predatory animals, such as bears, wolves, and panthers, preyed on domesticated food sources crucial for settler survival, and at times on the settlers themselves. Pigeons and deer offered diverse sources of food yet were also a menace to newly planted crops. Dense forests provided the necessary materials for the construction of housing and fencing, but also impeded access to the fertile soils beneath.[97]

Attempts to transform the environment, whether by American pioneers along the western frontier in the eighteenth and nineteenth centuries or by United Fruit Company pioneers along the scattered frontiers of the Caribbean Basin in

[96] Ibid, 207.
[97] Taylor, "Wasty Ways," 103-104.

the first three decades of the twentieth, brought the agency of both human and environmental actors into contention. Like its predecessors on the American frontier, the United Fruit Company faced numerous environmental threats against its mission to impose its will on the natural landscape. These threats demonstrated the precariousness of United Fruit's control over Nature and highlighted the power and dynamism of the tropical frontier. From its earliest days in 1899, Company operations were consistently menaced by a tropical landscape that was unpredictable, threatening, and at times misunderstood. The successful imposition of American civilization was rarely straightforward and certainly not without significant setbacks. During the Company's first year, in a shocking sequence of events, operations in Jamaica, the Dominican Republic, and Cuba were all devastated by environmental disasters. Planting season opened in Jamaica with the arrival of a storm that crippled the Company plantations and destroyed some of the country's highest yielding farms. United Fruit workers fought tirelessly to repair and replant the tracts, only to watch their efforts swept away by heavy flooding before the replanted fruit could be harvested.[98] A few months later, as a deadly drought afflicted the Company's Cuba operations, a second hurricane wiped out farms and infrastructure at United Fruit's Dominican Republic division.[99] Company production was sent reeling as it called upon its other districts in Costa Rica and Colombia to pick up the slack. Less than five years later Jamaica was again hit by a tropical storm that cost the division 6 000 000

[98] Adams, *Conquest of the Tropics,* 76.
[99] Ibid, 95-96.

bunches of bananas, a figure that represented 25 percent of United Fruit's total production for that year.[100]

In 1909, a Company radio transmission station located in Cape San Antonio, Cuba, was partially blown away by high winds and rain. The station was rebuilt but again seriously damaged the following year by a hurricane. Rebuilt for the second time, the station was completely demolished in 1915 by what was labeled as an "unusually strong hurricane."[101] John A. Cole, a Company radio operator at the station during the 1915 hurricane, described the event:

> Our kitchen was first to go, then the gas plant, warehouse and roof of water storage plant were blown down, and some of the iron roofing carried for miles into the woods. Next the tower, which had been guyed with four one-inch steel cables, broke in two about half way up, breaking the guys, which blew straight out with the force of the wind. The roof of the operating house was next blown off and the windows and doors blown in. Myself, the cook and the engineer were inside at the time, and we then took shelter in the engine house…The engine house, where we went for shelter, stood only about twenty minutes after we got there. That being the last house, we started for the woods.[102]

In the autumn of 1921, Company workers began construction of a dam at the Rio Negro River close to Puerto Castilla, in Honduras. The dam would provide a source of fresh water to United Fruit's operations in the region, which relied almost entirely on rainwater for drinking purposes and on swamp water for general use. It became clear to Company officials that, before plantations in the region could be further extended, an adequate water supply would have to be

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[100] Andrew Preston, *Fifth Annual Report to the Stockholders of the United Fruit Company* (Boston: Rand Avery Supply Co, 1904), 6-7. The number of 6 000 000 bunches represented a loss of anywhere from 360 million to 1.08 billion bananas.

[101] Roy Mason, "The History of the Development of the United Fruit Company's Radio Telegraph System," *Fruit Dispatch Magazine,* 8 (1922): 147.

[102] Quoted in Mason, "The History of the Development of the United Fruit Company's Radio Telegraph System," 214.

installed.[103] Company engineers began by blocking the river's course with eighty cubic yards of rock, piling it to a height five feet above the Rio Negro's highest known watermark. Two days later, with construction underway, a tremendous flood came down the valley, causing the Rio Negro to rise over thirty feet in twelve hours, and carried away all of the stone and part of the work that had been completed on the dam. The flooding was so powerful that it nearly destroyed the worker's camps.[104] Company official Harold Parker wrote of the challenges encountered during dam construction for *Fruit Dispatch Magazine* in 1922. "These disastrous results showed the difficulties to be encountered and overcome," he stated.[105] After the river had subsided, work was again started, forms put in place and concrete work begun at one end. Throughout the second round of construction Company engineers, increasingly aware of their vulnerability to environmental conditions, were forced to leave a large opening in the dam designed to take care of any possible future flooding. Only in the final stages was it to be closed. "Great care had to be taken in getting proper foundations for the dam to so tie in the reinforcing steel and concrete that all possibility of its washing out during some future flood would be avoided," Parker concluded.[106]

A brief analysis of the United Fruit's annual reports helps to further shed light on the continuous level of opposition that the tropical environment posed to the successful implementation of Company designs. Between 1899 and 1930 the

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[103] Harold Parker, "The New Water Supply at Puerto Castilla, Honduras," *Fruit Dispatch Magazine* 8 (1922): 355.
[104] Ibid, 356.
[105] Ibid, 356.
[106] Ibid, 357.

Company reported fourteen major environmental events to its stockholders. In 1920 it was "severe drought and windstorms," in 1922 it was flooding caused by "changes in the course of rivers," in 1923 it was "an unusual succession of droughts, wind storms, and heavy rains," in 1924 it was "material damage to plantations" caused by flooding, and in 1928 "exceptionally heavy rains washed away railway lines," cutting off transportation to all mountain districts in Honduras and curtailing "banana shipments from the districts affected."[107] In each case, environmental resistance, in the form of flooding, draughts, winds, rains, and tropical storms, crucially impacted the successful fulfillment of cultural and physical transformations by United Fruit along its tropical frontiers. Company workers fought to replant, rebuild, and rethink their methods of transformation, while always maintaining their dedication to producing an American version of civilization and material progress in the Tropics. Nowhere was the Company compelled to fight harder to overcome environmental resistance than in their battle to eliminate tropical disease.

Sanitization in the Tropics: United Fruit and the Fight Against Disease

In 1924, the United Fruit Company hosted a medical conference in Kingston, Jamaica. The meeting, which was a gathering of "eminent physicians and scientists," was organized to address what one article claimed as the

[107] See Andrew Preston, *Twenty-First Annual Report to the Stockholders of the United Fruit Company* (Boston: Rand Avery Supply Co., 1920), 5; Andrew Preston, *Twenty-Third Annual Report to the Stockholders of the United Fruit Company* (Boston: Rand Avery Supply Co., 1922), 4; Andrew Preston, *Twenty-Fourth Annual Report to the Stockholders of the United Fruit Company* (Boston: Rand Avery Supply Co., 1923), 4; Victor M. Cutter, *Twenty-Fifth Annual Report to the Stockholders of the United Fruit Company* (Boston: Rand Avery Supply Co., 1924), 4; Victor M. Cutter, *Twenty-Ninth Annual Report to the Stockholders of the United Fruit Company* (Rand Avery Supply Co., 1928), 5.

"problems of safety for the white man in the Tropics."[108] With over ninety disease experts from across the 'civilized' world, United Fruit hoped to further develop the tools it utilized in its ongoing conflict with the environment. Dr. William E. Deeks, head of the United Fruit Company Medical Department and Chair of the convention, summed up the purpose of the conference in the following way. "It is our duty to clean up this vast territory, to make it habitable, and the purpose of this convention is to correlate our best experiences and methods so that it will be easier for all of us to carry on the warfare against tropical disease."[109] Unlike the arid west of the United States, United Fruit fought to transform frontier environments that were heavily prone to water- and mosquito-borne illnesses such as yellow fever and malaria. Characterized by humidity, heat, high levels of precipitation, standing water, and dense underbrush, tropical landscape provided ideal breeding grounds for harmful bacteria, viruses, and insects that spread disease. In an address delivered before The Bond Club of New York, Victor M. Cutter stated that the jungles of the coastal Caribbean lowlands, where Company plantations were focused, were rank with yellow fever, malaria, a lack of sanitation and "all other unpleasant factors which accompany pioneering in the Tropics."[110]

During the initial stages of Company development in the twentieth century, tropical diseases were misunderstood and misdiagnosed. Not yet capable of producing effective options for treatment, the Company's medical division was

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[108] "The Best Kind of 'Safety First,'" *Fruit Dispatch Magazine* 10 (1924): 263.
[109] Ibid, 263.
[110] Victor M. Cutter, "Destiny and Development in Latin America" (paper presented before The Bond Club of New York, New York, March 29, 1928.

often helpless against their devastating effects. Classified early on as 'tropical fevers,' these diseases, spread through consumption of contaminated water and mosquito bites, became the single largest environmental threat to United Fruit's success in the first thirty years of operation. Constructing a version of Nature that was conducive to human health was crucial to securing order, progress, and a true representation of American civilization. Morbidity and mortality amongst employees and workers was expensive and proved to be one of the environment's most potent methods of disrupting the imposition of human designs. When Company co-founder Minor Keith began construction of the San José to Puerto Limón railway in 1871 the prevalence of disease amongst his workers proved to be an almost insurmountable obstacle. The coastal jungle, which Keith was required to build through, was classified as a "miasmatic swamp," that was home to "waves of mosquitoes" and the growth of "parasitic plants."[111] Over the course of the proceeding nineteen years, with a labour force that fluctuated between a few hundred and a few thousand, Keith witnessed the profound power of tropical disease. Over four thousand men, including two of Keith's brothers, would succumb to the Tropics in the first twenty-five miles of construction alone.[112] Keith himself was forced to battle three separate bouts of malaria before the completion of the railway in 1890.[113]

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[111] Lee, "The Fruit of Paradise," 9. See also Wilson, *Empire in Green and Gold,* 46.
[112] For more information on Minor Keith and his experiences in Costa Rica see Lee, "The Fruit of Paradise," 9; John E. Pember, "An Outline of the Work in the Tropics of the Medical Department of the United Fruit Company," *Fruit Dispatch Magazine* 8 (1922): 301-302; Crowther, *The Romance and Rise of the Tropics,* 155; Wilson, *Empire in Green and Gold,* 50.
[113] The French shared a similar fate in Panama between 1881-1889 and provide another clear indication of the impact of tropical disease and environmental resistance at this time. Attempting to construct a canal through the tropical Panamanian isthmus, the French project experienced a 25

United Fruit's response to the pervasive threat of tropical disease, developed within a transposed and historically-shaped cultural framework, mirrored its reaction to other frontier obstacles. It sought to fight, control, and ultimately transform the environment into a supposedly secure, neo-American version of Nature. Discourse emerged among Company officials and related literature that escalated the perceived level of conflict between United Fruit and the environment. Pushing toward an end goal that involved a total elimination of tropical disease, the Company increasingly envisioned the interplay between human and Nature through the metaphor of war.[114] Referring to Keith's fight to construct the San José to Limón railway line, Howard R. Barnes compared the struggle between Keith and the environment to the First World War. He wrote in United Fruit's *Unifruico Magazine* that "the record of casualties in this engagement reads like a report from the front of the late war [WWI] – one death to every thirty-foot rail in the first twenty-five miles of track."[115] John E. Pember, writing in *Fruit Dispatch Magazine* in 1922, called United Fruit's fight against disease "a war without an armistice," while the Dr. William E. Deeks defined the stance of the Medical Department when he stated in 1924 that the fight to control disease required "a relentless warfare" against mosquitoes and the environments conducive to their breeding.[116]

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percent death rate amongst its workers. The deaths, attributed to tropical diseases, were instrumental in preventing the completion of the project.

[114] For more information on the use of war metaphors and their relations with human-nature interaction see John A McPhee, *The Control of Nature* (New York: Noonday Press, 1990).

[115] Howard R. Barnes, "Trade and Transport in the Tropics," *Fruit Dispatch Magazine* 10 (1924): 83.

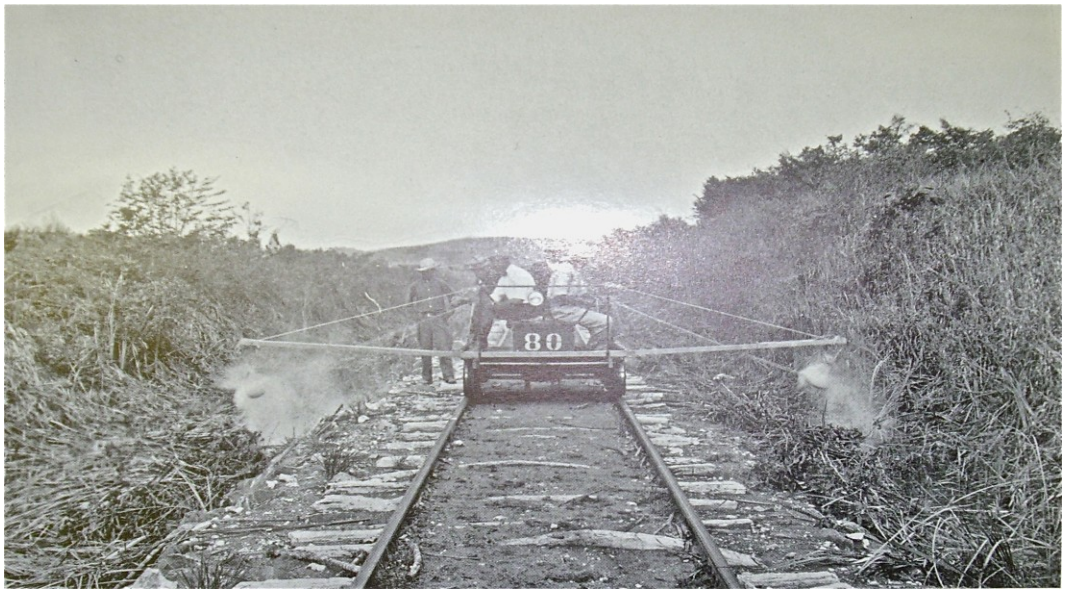
[116] See Pember, "An outline of the Work in the Tropics," 256, and William E. Deeks, quoted in Samuel Crowther's, *Rise and Romance of the Tropics,* 307.

As United Fruit conceptualized its relationship with disease and disease-producing environments as a terminal battle, it introduced new conflict terminology into its lexicon, connected to the notion of 'sanitation.' Encompassing the Company's desires to transform wilderness, impose order, and eliminate disease produced by a 'wild' tropical landscape, sanitation became a key component in the fight to win the war in the Tropics. Environmental conditions that propagated the spread of disease were classified as 'insanitary' or 'unsanitary,' and thus required the attention of the Medical Department, which was given the pioneering task of implementing and overseeing the Company's sanitation programs. Until the environmental threats posed by tropical disease were addressed, the Company's success was far from certain. Achieving victory in the battle between itself and disease-propagating tropical environments therefore became a cornerstone of Company policy, as well as a key to the viability of United Fruit's long-term agricultural enterprise.

Operating in hazardous frontier zones, Medical Department officials in charge of sanitation mapped out the Company's plan of attack. In the case of yellow fever and malaria, the procedure emphasized the elimination of environments conducive to mosquito breeding. Preliminary stages consisted of the removal of standing water from low-lying areas. Swamps, marshes, and stagnant pools of water were drained or filled with dirt and sand. Where access permitted, some were flushed with salt water, or covered with a thin layer of oil along the surface. Heavy-duty mechanical diggers, brought in to dig drainage ditches, transferred massive amounts of earth across the landscape, altering natural run-off systems and channeling the flows produced by heavy rains away from Company

camps.[117] In 1915, United Fruit's Bocas del Toro Division was responsible for digging 5350 feet of ditches in order facilitate the removal of standing water and accommodate the construction of new workers' quarters. The operation, completed as part of plantation sanitation, was in addition to the 17 450 feet of ditches already in operation.[118]

In cases where the Company was unable to remove standing water, or it was not cost-effective to do so, the application of both natural and synthetic anti-larval treatments were taken. Larvacide plants, staffed by United Fruit scientists, were constructed throughout Company operations in the Caribbean Basin and were primarily responsible for the production of an anti-larval agent known as Paris Green.[119] The compound, which proved effective in killing *Anopheles*



Application of Paris Green mixture alongside Company railways – United Fruit Company Medical Report V.17, 1928.

[117] United Fruit Company Medical Department, *Fourth Annual Report* (Boston: Press of Geo. H. Ellis Co., 1916), 23.
[118] Ibid, 23.
[119] Paris Green (cooper acetate triasenite) was used primarily as a rodenticide and insecticide all the way up to 1950. Despite its highly toxic nature, it was used as a pesticide on American produce well into the twentieth century.

larvae, was a highly toxic poison. Used in conjunction with crude oil, the application of Paris Green was widespread throughout tropical frontier operations and provided a useful tool in the battle against malaria.

In order to minimize the proximity of Company quarters to water sources, the construction of offices and housing was completed on higher ground, where possible, with all windows, doors, and water barrels (for drinking and washing) screened. The construction of modern sewage systems, flushed with salt water where possible, was followed by the increased use of fresh water systems that relied on newly constructed dams, often many miles from the plantations they served.[120] Company grounds were consistently manicured to a distance of up to two hundred yards around all living establishments with vegetation cut short for the prevention of water accumulation and formation of breeding grounds.[121] As an example of the sheer scope of United Fruit's commitment to sanitization through land alteration, in 1916 the Company's Bocas Division led all other divisions with over 50 million square feet of grass or bush cut around or near quarters and camps.[122] The production of an ordered, carefully-controlled, and well-manicured environment served the promotion of greater health on Company plantations, but also reflected a larger cultural desire to subjugate the environment, demonstrate mastery over it, and create a neo-American landscape.

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[120] The Company's dedication to the creation of sanitary conditions in the Tropics was so pervasive that beginning in the early 1920s all sewage and fresh water plumbing was completed up to standards set by the Massachusetts State Board of Health. See Verson W. Gooch, "Guatemala Has Another Good Year," *Unifruitco Magazine* 3 (1927): 535.
[121] Adams, *Conquest of the Tropics,* 274.
[122] United Fruit Company Medical Department, *Fifth Annual Report* (Boston: Press of Geo. H. Ellis Co., 1917), 55.

When Company operations first began in 1899, the implementation of preventative health measures was practically non-existent. The importance of sanitation as a preliminary step in its attack on the wilderness was not yet fully realized.[123] Engineers, surveyors and labourers plunged into the jungle to launch the battle of transformation, while United Fruit's Medical Department followed as best it could. The results of these early methods demonstrated the necessity of preventative action in order to mitigate the deadly effects of tropically-bred disease. For example, during the establishment of Company operations in Panama, between 1899-1903, yellow fever, acute forms of malaria, and various other infections overcame workers. By 1903, over eighty percent had spent time recovering from illness.[124] Company Medical Department records show that in the first two years of operation it experienced an annual death rate of over five percent among 'white' (namely American) employees.[125] The numbers, which were estimated at closer to ten percent for non-white labourers, were the highest recorded in the Company's history and attributed to a host of tropical illnesses. [126] Indeed, the two diseases primarily responsible for the high levels of morbidity and mortality among Company employees in the first ten years of operation were yellow fever and malaria.

In United Fruit's first published medical report, Medical Department Superintendent Dr. Robert E. Swigardt addressed both diseases. Beginning with

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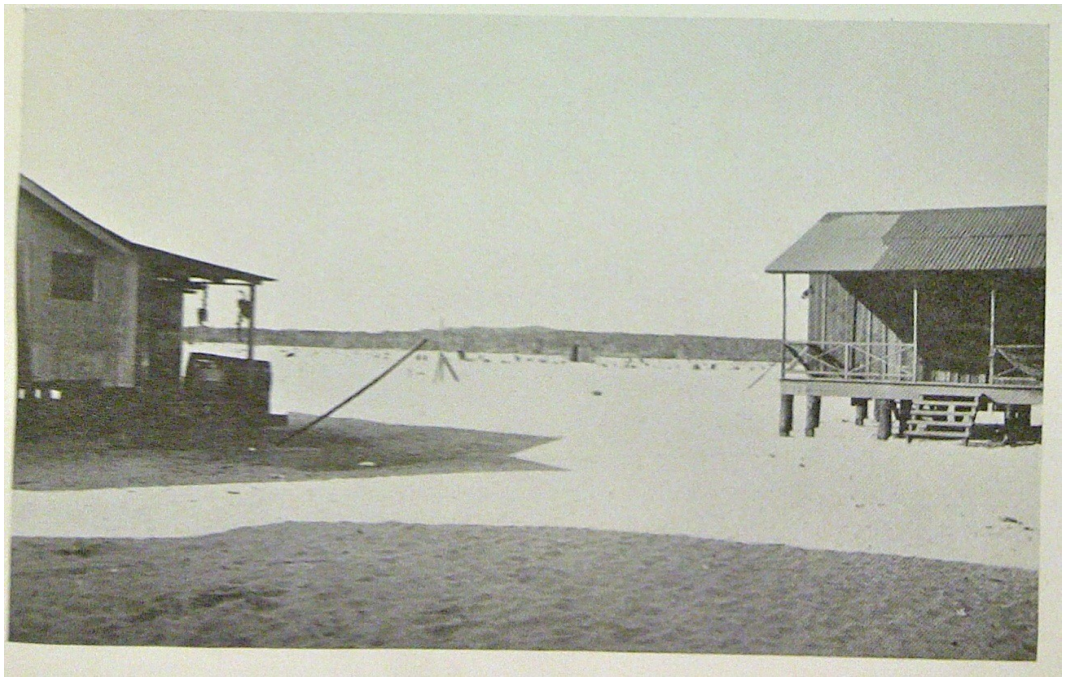
[123] Adams, *Conquest of the Tropics,* 290.
[124] Ibid*,* 290.
[125] United Fruit Company Medical Department, *First Annual Report* (Boston: Geo. H. Ellis Co., 1913), 52.
[126] The estimates of ten percent were given by Adams in his 1914 book, *Conquest of the Tropics*, although, Company records for the hospitalization of coloured workers did not yet exist at that time, as medical facilities for 'non-whites' remained a lower priority.

Labourer camp at Puerto Castilla, Honduras, prior to the implementation of sanitary measures – United Fruit Company Medical Report v.14, 1925.



Labourer camp at Puerto Castilla, Honduras, after the implementation of sanitary measures – United Fruit Company Medical Reports v.14, 1925.

yellow fever, Swigardt argued that it was "the most important transmissible disease we have to contend with."[127] Endemic until 1903, yellow fever became a potent threat to the health of American employees in the Tropics – just as it had recently been a scourge to American occupying troops in Cuba, and the French in Panama. It was not until the 1890s when three Cuba-stationed American Army physicians combined their efforts with Cuban doctor and scientist Carlos Finlay to first connect specific mosquito species with the spread of yellow fever and malaria. The *Aedes aegypti* (yellow fever) and *Anopheles* (malaria) mosquito were found responsible for the transmission of the two illnesses. In the case of the *Aedes aegypti,* reproduction required clean, unpolluted water for eggs to mature into larvae and pupae. Unlike the *Anopheles*, *Aedes aegypti* preferred to breed in water vessels rather than swamps or puddles. J.R. McNeill notes that "wells, cisterns, open barrels, buckets, or pots" suited the species best.[128] Given the much narrower range of acceptable breeding grounds for the *Aedes agypti,* focused efforts at eliminating them proved much more successful than attempts to control the *Anopheles.* With a clearer understanding of the yellow fever vector, United Fruit implemented sanitary programs that transformed the environment, eliminated breeding grounds, and tackled the obstacle of yellow fever head on. Sanitation programs focused on ending the prevalence of yellow fever were so successful that the Company Medical Department was able to drastically reduce infection rates by 1910.

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[127] United Fruit Company Medical Department, *First Annual Report,* 55.
[128] McNeill, *Mosquito Empires,* 41.

The success in combating the dreaded 'yellow jack,' however, did not mean similar gains in the parallel battle to eliminate malaria.[129] "Locally, within the precincts of our various divisions, the most prevalent disease is malaria," stated Swigardt, "malaria has always been prevalent in the district, and is worse in a new area being opened to cultivation."[130] More diverse in its breeding grounds, the *Anopheles* mosquito was not limited strictly to clear, clean, and fresh water sources. Puddles, swamps, tire tracks, and numerous other areas of accumulated moisture – both naturally occurring and man-made - which proliferated in jungle environments newly disturbed by Company intervention, offered the *Anopheles* opportunities for reproduction. With such widespread conditions conducive to their growth, the challenge of curbing their impact on Company operations as well as eliminating their reproductive habitats proved extremely challenging. Indeed, early reports from the Medical Department highlight the struggle of the United Fruit Company to gain the upper hand in the battle against the *Anopheles*.

In the Banes (Cuba) Division of the United Fruit Company, medical reports between 1913 and 1914 highlighted the glaring reality that faced those workers who were active in frontier plantation construction. Approximately fifty-four percent of all cases requiring attention from Company medical facilities were for the treatment of malarial fever, or more precisely, in the first five years of record keeping (1912-1917) the United Fruit Company Medical Department recorded approximately 130 000 cases of malaria with nearly 29 000 cases treated

[129] "Yellow jack" was the name given to yellow fever by the United States Army.
[130] United Fruit Company Medical Department, *First Annual Report,* 53.

Company wide in 1917 alone.[131] Ten years later, despite dedicated work by the Medical Department in combatting the environmental conditions conducive to *Anopheles* reproduction and a substantial monetary investment from the Company, the rate of malarial infection among workers across Company operations held at a debilitating thirty percent.[132] While increasingly effective medications (including plasmochin and quinine) were developed for the treatment of malarial infection, which one Company doctor referred to as an "enervating, ambition-sapping disease," United Fruit's constant push to expand operations into frontier tropical wildernesses guaranteed a high level of contact between workers, employees and the stagnant pools of water, high levels of heat, and constant humidity that combined to form ideal environmental conditions for the *Anopheles* mosquito. With a continued drive to increase production and profits, United Fruit was faced with the challenge of developing effective methods of sanitary control, or risk a slow and exhausting defeat at the hands of the environment it sought to conquer.

The implementation of sanitation programs and the ultimate goal of creating a habitable and productive environment for Company employees and workers became a key component in the construction of a less threatening environment. Fighting against the ravages of disease, Company sanitation

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[131] See United Fruit Company Medical Department, *First Annual Report*; United Fruit Company Medical Department, *Second Annual Report* (Boston: Press of Geo. H. Ellis Co., 1914); United Fruit Company Medical Department, *Third Annual Report* (Boston: Press of Geo. H. Ellis Co., 1915); United Fruit Company Medical Department, *Fourth Annual Report*; United Fruit Company Medical Department, *Fifth Annual Report*; United Fruit Company Medical Department, *Sixth Annual Report* (Boston: Geo. H. Ellis Co., 1918). According to United Fruit medical reports the total number of malaria cases treated, either by Company hospitals or medical dispensaries between 1900-1930, totaled 570 032.

[132] Dr. W.E. Deeks, "The Medical Department of the United Fruit Company," *Fruit Dispatch Magazine* 8 (1927): 175.

programs attempted to manipulate the landscape into one that was more healthful for the habitation of both workers and employees, effectively creating a new, safer version of Nature. Furthermore, to Company officials, environmental transformation intended to remove the breeding grounds of the *Aedes aegypti* and *Anopheles* mosquito became a necessary foundation for the production of a true neo-America. For Americans who sought to subjugate tropical environments, but had developed no childhood immunity to tropical diseases such as yellow fever and malaria, the necessity of creating an environment that was safe for the 'white man' was crucial. By its very definition a neo-America was a new, transposed piece of the United States. This definition not only extended to the amenities found throughout Company plantations, but to the overall quality of life that was available in the Tropics. Until the Company was able to secure environmental conditions that reduced the prevalence of disease to levels close to, or below, those found in the United States, the label of neo-America was inapplicable.

Inaugurated in August 1899, at Bocas del Toro, Panama, the Medical Department began small, but quickly expanded with the construction of fully-fledged and permanent hospitals and medical dispensaries in Panama, and Costa Rica.[133] Answering the call of United Fruit for medical professionals, scientists and physicians who had experience in tropical climates across the world, including Java, India, and Africa, responded to aid in what one author called a "pioneer industrial invasion of the tropics."[134] Working to both treat tropical disease and to research their causes in order to create plans for more effective

[133] Reynolds, *The Banana*, 151.
[134] Adams, *Conquest of the Tropics,* 270.

sanitary campaigns against the environment, the United Fruit Company Medical Department took on the central role of pioneering sanitation techniques intended to create a safer version of the landscape.[135]

United Fruit's attempts to construct a new and secure version of Nature, however, were not always conducive to disease-reduction in the Tropics. Alteration of the environment through both the production and sanitation processes created different landscapes and new challenges to the health of Company workers and employees, while casting doubt on the Company's ability to control nature. In his recent monograph on *Mosquito Empires,* J.R. McNeill assessed the impact of ecology and disease on the geopolitical struggles of the Greater Caribbean between 1620 and 1914. McNeill argued that the historic struggles between European empires for wealth and power in the Greater Caribbean were responsible for altering the region's ecologies. In turn, these ecologies shaped the fortunes of empire and war.[136] Transforming environments to better suit economic and imperial interests, European forces created tropical landscapes that were increasingly characterized by deforestation, soil erosion, and plantation agriculture. McNeill contends that these changes produced "unstable evolving ecologies" and altered environmental conditions, which proved to be ideal for the growth of *Aedes agypti* and *Anopheles* mosquito populations.[137] Additionally, Paul S. Sutter echoes McNeill's perspective in his article on

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[135] Major Company hospitals spread throughout the Caribbean Basin typically served as both treatment centers and medical research facilities, offering doctors and researchers alike the opportunity to work closely with patients suffering from tropical diseases. Collaboration with American based medical research facilities was common, however, Company medical staff operating in Central America carried out the primary bulk of United Fruit's medical research.
[136] McNeill, *Mosquito Empires, 4.*
[137] Ibid, 4.

"Nature's Agents or Agents of Empire." Sutter assessed the environmental change and sanitation programs wrought by Americans in the Panama Canal Zone and their impact on malaria. He contended that American entomological workers, sent to "conquer a singular and unalloyed tropical nature," instead discovered that the "environmental impacts of modernization-in-process were at the heart of the 'tropical' threat to public health and that mosquito control in Panama involved conquering a nature that Americans helped to make." [138] Environmental conditions, and thus the threat they posed as prime habitats for *Aedes agypti* and *Anopheles* mosquito reproduction, were not solely a product of 'virgin' tropical conditions, but also the result of altered environments produced by foreign interests.

What both authors do well to illustrate are the key connections between disease as an environmental obstacle to human designs, and the unintentional creation of conditions conducive to disease prevalence. This is directly relevant to the experiences of the United Fruit Company throughout this period. In each case, the transformation of the Tropics intended to produce beneficial outcomes during the imposition of human designs on the environment ended up creating ideal conditions for natural forms of resistance to human incursion. The results, particularly in the case of American sanitary workers in the Panama Canal Zone, as well as United Fruit's own Medical Department, was that sanitation programs implemented to reduce disease were fighting environmental conditions that had been created by Canal Zone labourers and Company workers. The battle to defeat disease as an environmental obstacle was then, to a certain extent, a battle to gain

[138] Paul S. Sutter, "Natures Agents or Agents of Change," 751.

control over a newly created version of Nature. More importantly, it was one that the United Fruit Company was again fundamentally responsible for creating.

Dedicated to transforming the environment into large-scale and modernized plantation districts, what McNeill refers to as "plantation agro-ecologies," the Company was soon forced to acknowledge that the outcome of their efforts created new and unforeseen opportunities – or environments – for the propagation of disease. Dr. P. Malaret Jr., medical officer with the United Fruit Company, provided a clear example of this circumstance in an article written for *Unifruitco Magazine* in 1929. In the second half of the 1920s, the article explains, United Fruit constructed three separate dams near the sources of the Guaro, Sojo, and Guayabo rivers in Cuba. Their purpose was to provide clean drinking water to all points of the Company's Preston Division. The water, however, which flowed from the dams through a system of pipes, required a large number of what Dr. Malaret called "water-faucet drains."[139] Excess water that went unused by the Division was consistently released through these drains and accumulated in various quantities throughout the Division. "This excess water presents a peculiar problem," wrote Malaret, "for the reason that, while water accumulated directly from the rainfall tended to diminish progressively as the drier period of the year approaches, this type of 'artificial' water flows continuously throughout the year."[140] Due to the purity of the water and its exposure to sunlight, the drains provided ideal breeding grounds for the *Anopheles* mosquito, the most important vector of malaria in the region. "What this means with regard to the spread of

[139] Dr. P. Malaret Jr., "History of Malaria and Results of Control Measures in the Preston Division," *Unifruitco Magazine* 10 (1929): 595.
[140] Ibid, 595-596.

malaria," Malaret wrote, "is self-evident."[141] In its attempt to provide clean drinking water to the division and reduce the rates of water borne illnesses, United Fruit had created environments for the propagation of a natural threat that it was fighting to defeat.

From Humans to Plants – The Attack of Panama Disease

United Fruit's responsibility in creating conditions favourable for the spread of disease was not limited solely to the infections of humans. In order to maximize production and grow a consistent product for export, the Company carried out a form of agriculture known most commonly today as monocropping. Entire divisions, made up of tens of thousands of acres of land under cultivation, were dedicated to the growth of one specific species of banana: the Gros Michel.[142] Prior to its expansion into large-scale plantations, United Fruit had obtained the majority of its bananas from small-scale local Caribbean growers. These farmers typically grew a variety of different banana species on their land and thus maintained a healthy natural diversity of crops.[143] With its establishment of large-scale banana monocropping, United Fruit eliminated this diversity. In his book *Banana Cultures* John Soluri argues that the transformation of ecologically-diverse tropical environments into single-species plantations was directly responsible for reducing levels of "bio-diversity" in the Tropics and placed the

[141] Ibid, 596.
[142] United Fruit grew the Gros Michel variety of banana until the 1940s when the impact of plant disease became so severe that it was forced to switch to the Cavendish variety, which was found to be more resistant to Panama disease.
[143] Tucker, *Insatiable Appetite,* 147.

newly created environments at risk of attack.[144] Supporting Soluri's claim, Richard P. Tucker wrote in his book *Insatiable Appetite* that the concentration of the Gros Michel bananas species by the United Fruit Company "virtually assured a massive attack by some species of micropredator."[145] Producing the conditions conducive to an environmental attack, Nature struck back in the form of a fungus (*Fusarium oxysporum f. sp. Cubense*) known as Panama disease after the origins of its discovery at a plantation in 1903. The disease, which lived in the soil, took the form of a root mold that actively attacked the base of the Gros Michel, reducing its ability to yield bananas. Given that the Company achieved propagation of the Gros Michel by transferring a portion of the plant's rootstock from one plantation to another, the spread of the disease between areas infected and new regions to be brought under cultivation made it virtually impossible to interrupt the cycle of contamination.

Panama disease was subsequently found in Cuba (1908), Jamaica (1911), and was rampant throughout Company plantations by the mid-1920s. Upon initial infection, a plantation had only eight to ten years before production levels began to fall drastically, undermining the plantation's ability to generate profits for the Company. Unable to find effective means of combating the disease, United Fruit was forced to extend its frontier and subject new tropical landscapes to Company designs. By 1925 United Fruit had been forced to abandon over 100 000 acres of land previously under cultivation due to the ravages of Panama disease.[146]In its

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[144] Soluri, *Banana Cultures,* 54.
[145] Tucker, *Insatiable Appetite,* 147-148.
[146] Jenkins Scott Jenkins, *Banana: An American History* (Washington DC: Smithsonian Institution Press, 2000), 30.

attempts to create a simplified, ordered, and controlled environment, the Company was responsible for eliminating ecological diversity and producing the very conditions that made Panama disease so prevalent in the Tropics.

The Company Gains the Upper Hand

By 1930, through the dedication of United Fruit's Medical Department, the prevalence of tropical diseases among workers had declined substantially. At a 1927 United Fruit Company Health conference held in Guaro, Cuba, Medical Department head Dr. William E. Deeks presented a talk titled "Health in the Tropics." Dr. Deeks spoke to an audience that consisted of high-profile Company officials and distinguished guests on what he called "the old fallacy" of the Tropics.[147] Dr. Deeks argued that no longer could the Tropics be considered an inhospitable zone for the "white races."[148] "Advancing science has now rendered tropical diseases almost powerless and the new conceptions of sanitation enable their spread to be efficiently blocked," stated the doctor.[149] Dr. Deeks extolled the Medical Department's work in eradicating yellow fever "from the whole of the Tropics" before noting malaria had been checked to a remarkable extent and that those who followed "simple proscribed rules of sanitation need not fear its existence."[150]

Three years later, in an address to stakeholders, Victor M. Cutter continued to laud the progress of United Fruit's battle against tropical disease.

[147] "Heath Conference in Guaro," *Unifruitco Magazine* 11 (1927): 715.
[148] Deeks' referral to "white races" is focused on those of Anglo-Saxon decent who originated from temperate climate zones.
[149] "Health Conference in Guaro," 715.
[150] Ibid, 715.

"Tropical hazards which existed in the lands surrounding the Caribbean a few years ago are negligible today: malaria, hookworm and enteric disease are under control," Cutter stated.[151] Between 1925 and 1930, United Fruit was successfully able to reduce the rate of hospitalization due to malaria from 254 to 85 per thousand.[152] The drop represented a nearly sixty-seven percent decrease in cases of malaria and included all statistics on approximately 70 000 workers and employees. With the establishment of eight modern hospitals, numerous clinics and medical dispensaries, research partnerships with American medical universities, including the Tulane School of Tropical Medicine in New Orleans, and an annual commitment of over half a million dollars, United Fruit's attack on the wilderness brought tangible results. The transformation of the previously inhospitable jungle lowlands was considered so absolute by the 1930s that the Company began referring to its established plantation communities as sanitized "health resorts."[153]

Demonstrating the pride it felt in achieving progressive victories in the battle to transform the tropical environment and make it healthful, United Fruit welcomed a comparison of health statistics between American cities and Company plantation communities. Writing with pride in an article published in *Economic Geography* in 1926, Cutter noted that in the districts where Company operations were centered, "the health records compare[d] favorably with those of

[151] Victor M. Cutter, "Statement of V.M. Cutter to Stockholders at Annual Meeting," *Unifruitco Magazine* 5 (1930): 451.
[152] Ibid, 451.
[153] United Fruit Company, *Its Activities at Home and in the Tropics*, 15.

communities of equal size in the temperate zone."[154] According to a 1936 Company report, through the exhaustive battle to make the Tropics healthful, the Company had maintained an overall death rate among employees and their families living in plantation communities that was lower than in numerous cities in the United States.[155] In the process of establishing its own version of Nature, United Fruit was able to attain a level of dominance on par with the United States. In overcoming the obstacle of disease and creating an environment that provided conditions just as healthful for 'white races' as those found in the United States, United Fruit had succeeded in producing a verifiable neo-America.

Beauty and Interpretation: Shifting Conceptualizations of the Tropics

According to Roderick Nash, the announcement by the U.S. Land Bureau in 1890 that the frontier had closed gave "statistical confirmation to what most Americans knew first hand: the frontier was moribund, wilderness was no longer dominant." [156] The population of the United States looked out upon the environment from the safety of their comfortable homes, the threat of wilderness lost on those not staring from a "frontiersman's clearing."[157] Americans were no longer required to battle against the wilderness, to take up arms against Nature and Native alike. Victory against the wild now defined the continental United

[154] Cutter, "Caribbean Tropics in Commercial Transition," 503.
[155] United Fruit Company, *Its Activities at Home and in the Tropics*,15. In particular, Company Medical reports point out that mortality rates amongst "white" workers, at 7.68 per 1,000, is significantly lower than mortality rates for whites in New Orleans and Atlanta, while a mortality rate of 14.10 for "colored employees" is lower than the rates for the colored populations of Memphis, Baltimore, New Orleans, and Washington DC. See United Fruit Company Medical Department, *Thirteenth Annual Report* (Boston: Press of Geo. H. Ellis Co., 1925), 26.
[156] Nash, *Wilderness in the American Mind,*143.
[157] Ibid, 143.

States and shifting interpretations within the country began to place the environment in a new light. With the landscape successfully 'tamed' and 'civilized,' Americans shifted their discourse away from conflict and towards a softer and more appreciable tone. This transition away from battle discourse, upon the perceived "victory" of the man-versus-Nature struggle, was echoed in the Tropics as the United Fruit Company displayed its own success in battling new frontier environments. Due to the Company's dedicated efforts to make the Tropics habitable for its employees and workers, conceptualizations of the Tropics within the United States began to shift in the late 1920s.

"What do you think of Central America?" Edmund S. Whitman, writer for *Unifruitco Magazine*, asked his friends in a 1930 interview.[158] "Oh, bare-foot consuls and gin bottles, buried treasure, revolutions, jungles with white-faced monkeys swinging through the lianas," was the response. Whitman continued, "Would you say there were such modern institutions as railroads, hotels, automobiles, radios, airplanes, and electric refrigerators in this jungle wilderness?" The question drew a laugh from the group. Whitman's queries, aimed at highlighting the discrepancy between public perceptions and the new realities of the Tropics, demonstrated the advances of Company development in Latin America. Popular images in the United States of oxcarts lumbering along dirty roads and burros struggling through frontier jungles had been imbedded in the minds of the nation.[159] The transformation of the Tropics had been so expeditious and thorough that the delay in realizing United Fruit's contribution to

[158] Edmund S. Whitman, "Adventuring in Central America," *Unifruitco Magazine* 5 (1930): 570.
[159] Ibid, 570.

the construction of neo-Americas in Latin America took time to be fully recognized and acknowledged.

As travelers from the United States increasingly came into contact with United Fruit's revision of the Tropics, their writings began to reflect a shifting conceptualization of the relationship existent between "white" foreigners and the supposedly backward jungles of Latin America. Tropical landscapes, whose threats to health and comfort had once stood prominently in opposition to civilization and material progress, were reduced in the presence of those who had very recently feared its power. The result was an emerging admiration for tropical environments in the very regions that once required the fighting skill of a "Napoleonic" Victor M. Cutter to conquer.[160] Where pestilential swamps, parasitic vines, and clouds of mosquitos had once greeted American pioneers, now travellers from the United States could tour plantation communities and enjoy first class amenities. "How lovely the parks and gardens," wrote Leroy R. Sawyer as he toured the Company's Preston Division in 1928.[161] Pleasantly overwhelmed by the various plant species organized for his viewing pleasure, Sawyer beamed when he spotted a familiar sight. "Our own northern pond lilies!" he exclaimed.[162] To Sawyer this flash of recognition, in what to him was a foreign and exotic environment, was symbolic of the changes that had come to the Tropics. The flourishing pond lily, so far from home, demonstrated the prevalence of Company control and the success of American cultural imposition. Writing of his trip through United Fruit's Guatemala division, A.D. Morford was shocked

[160] See "The United Fruit Company Today," 4 (1928): 3 and Lee, "The Fruit of Paradise," 9.
[161] Leroy R. Sawyer, "A Phenomenon Witnessed At Sea," *Unifruitco Magazine* 3 (1928): 410.
[162] Ibid, 410.

when his train from Puerto Barrios into the Motagua River Valley left a jungle backdrop of "almost every variety of tree, plant, shrub, and flower" and entered into a pocket of civilization and modernity. "From the jungle, our train passes into the banana country along the Motagua River, and here we begin to get proof of what modern transformation and bananas have done for Guatemala," Morford began. "The towns are amazing in their up-to-date electric lights, steam laundries, ice plants, railroad shops and stores with the latest merchandise from the United States," he continued.[163]

Similarly, H.L. Harris, travelling on one of the many Caribbean cruises offered by United Fruit's shipping subsidiary, the Great White Fleet, glowed with appreciation at the landscape he encountered in Kingston, Jamaica. Taking a picture of one of the many gardens surrounding Company headquarters, Harris commented on a natural "intensity unknown in the less colorful North."[164] Harris' picture, published in United Fruit's *Fruit Dispatch Magazine* in late 1924, provided an example to readers of the newly ordered and civilized tropical landscape. The construction of a pond, manicured grass, and a garden lush with tropical species intersected by concrete footpaths acted as a symbol of improvement and dominance over the landscape, while providing the opportunity for visitors to access and appreciate a previously threatening environment.

Life in United Fruit's Tropics, vividly broadcast by Company publications, photographs, and numerous travel accounts, highlighted the similarities between the familiar and the foreign. For Helen T. Mack, wife of a

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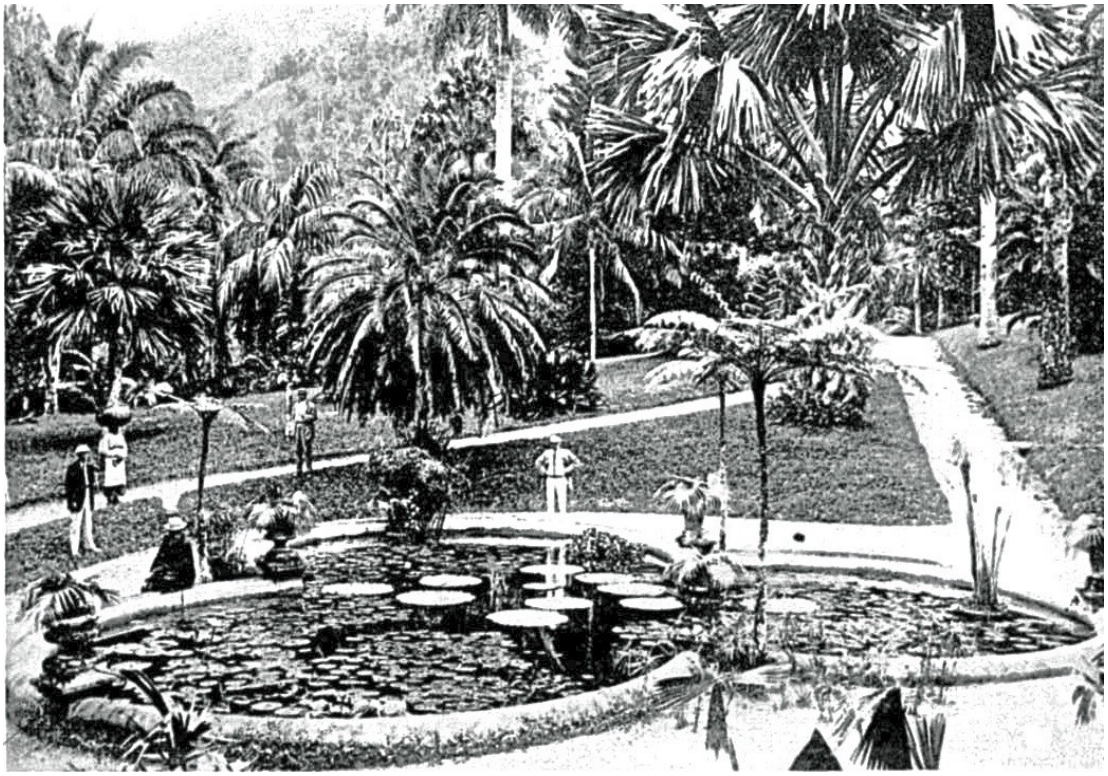
[163] A.D. Morford, "A Trip To Guatemala," *Fruit Dispatch Magazine* 3 (1918): 353.
[164] H.L. Harris, "The Cruises of the Great White Fleet," *Fruit Dispatch Magazine* 10 (1924): 266.



View of the Castleton Gardens, Kingston Jamaica, From *Fruit Dispatch* 10 (1924): 95.

United Fruit Company official assigned to Santa Marta, Colombia, life in a Company town did not strike her as all that different from the America with which she was familiar. First commenting that the "weather might well be that of any summer hot spell in any part of the United States," she went on to note that "Even the food is not so different from that to which we are accustomed. Staples and even fresh fruits and vegetables are imported from the States."[165] An American cruise line brochure advertising trips to Panama in 1922 echoed the sentiment of a familiar America within the Tropics. "For Americans who like to take their country with them" the brochure read, "and whose favorite emotion is a

[165] Helen T. Mack, "A New Resident's Impressions of Santa Marta," *Unifruitco Magazine* 4 (1929): 552-553.

swelling of the breast with patriotic pride, Panama is equally satisfying."[166] Often the focus of numerous travel accounts, Panama stood out among travellers from many western nations. Writing to the editor of *Fruit Dispatch,* a young British man visiting Company operations at Colón, a port city located on the Caribbean Sea coast of Panama, was shocked to find that there were "no mosquitoes."[167] "Not a bloomin' mosquito did I see, nor is there, as far as I know, a single screened window," he wrote.[168] Expectations of being harassed by "flocks" of insects were quickly dispelled as the young Brit immediately realized he had arrived in a landscape no more threatening than his home. The successful creation of a second Nature in the tropics, broadcast abroad as an environment defanged, subdued and civilized, provided a prominent symbol of cultural victory, the basis of a new appreciation of Nature in the Tropics and was vital in the development of tourism in the region.

Writers working for United Fruit published articles in the United States encouraging more Americans to journey to the Tropics in order to see for themselves the healthful and secure conditions that the Company had created. A 1927 article in *Unifruito Magazine* titled "Notes on Tropical Travel" pushed American travellers of the Tropics to find time to stroll through the residential section of the local Company operations in the country through which they were travelling. Only after visiting a United Fruit plantation community, the article argued, "will you come back with the proper picture of living conditions provided

[166] Sutter, "Tropical Conquest," 319.
[167] "Colon," *Fruit Dispatch Magazine* 12 (1926): 76.
[168] Ibid, 76.

for North American employees down south."[169] The article went so far as to challenge readers to find any differences between the conditions in which they raised their families in the United States and those that existed in United Fruit's Tropics. The traveller "should see the youngsters of these families, and determine in his own mind whether they are less husky than his own at Cedar Falls. He should stand on the wind-swept beach and watch them swim and play and ride their ponies, and he should determine himself how well his own little Willy would stack up with them."[170]

By 1930, the Company could comfortably promote an environmental image that not only possessed American cultural values and amenities, but one that provided an adequate setting for continued growth as well. As United Fruit's influence grew, and its hold over environmental conditions was solidified, living and working in the Tropics became less of a temporary endeavor for employees and their families and more of an acceptable long-term reality. Company magazines touted employee weddings and new additions to their ever-growing families, selling the Company's success in achieving an environment that fostered the secure reproduction of an American way of life. Reporting on his trip to Tela, Honduras, in 1926, Verson W. Gooch noted that nineteen marriages were scheduled in the next eighteen months, with five more considered "on the books with rings and wedding cakes ordered."[171] Convinced not only of the success, but also of the permanence of American culture in the Tropics, employees and travellers alike accepted the newly constructed landscape as their own.

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[169] Edmund S. Whitman, "Notes on Tropical Travel," *Unifruitco Magazine* 4 (1927): 379.
[170] Ibid, 379.
[171] Verson W. Gooch, "Three Weeks at Tela," *Unifruitco Magazine* 2 (1927): 395.

Conclusion and Connections

In the thirty-one years between its establishment in 1899 and the global economic recession in 1930, the United Fruit Company was responsible for developing more land in the Caribbean Basin than any other private enterprise. Its dedication to environmental transformation in the name of progress, civility, profit and philanthropy led the Company to construct agricultural divisions in nine separate countries and alter over half a million acres of land. Seeking to master and enhance all facets of the banana trade, United Fruit invested millions of dollars, and thousands of lives, in devising and controlling environmental conditions that were conducive to the growth, transport, and sale of bananas at an industrial level. In the process the Company developed a distinct relationship with the tropical environments that it constantly sought to transform. Utilizing documentation produced by the Company, its employees, and its workers, this thesis has sought to better understand the nature of this relationship as it developed between United Fruit and the tropical environments it remodeled into efficient industrial plantations. In the process, this study has highlighted the existence and interaction of historical and environmental factors in the development of Company-environment engagement, and argued that the application of a transposed American cultural framework onto the tropical landscapes it sought to alter was instrumental in maintaining the particular relationship that United Fruit had with its operative environments.

Shifting its focus to the control and production of its own sources of fruit, United Fruit transitioned its supply of bananas away from primarily small-scale and locally run farms to large-scale industrial enterprises. Seeking to continuously

increase output to meet rising demand from the United States, Canada, and Europe, the Company commenced the transformation of thousands of acres of undeveloped tropical environments into banana plantations. This process brought the United Fruit Company into direct contact with the environment. Drawing on historically grounded concepts of 'primitive' landscapes, the Company applied an Americanized cultural framework, developed during American frontier settlement, onto the tropics. Echoing American settlers who arrived in the New World and pushed across the western frontier, United Fruit viewed the sparsely inhabited tropical lowland territories as 'virgin' environments lacking civilization, modern developments, order, improvements and a population willing to add value to the landscape. The Company thus considered the significant alteration of jungle environments as a benevolent act, one that would bring material prosperity, modern amenities and cultural progress to what it considered desolate waste spaces.

The process of environmental transformation, however, was not straightforward for the United Fruit Company. Through this undertaking, during which the Company sought to create a new and Americanized version of nature, United Fruit came into direct conflict with significant environmental obstacles. Understood as forms of environmental agency in this study, climatic conditions such as droughts, floods, and hurricanes, combined with the prevalence of plant and human disease, all provided significant environmental obstacles to the successful imposition of Company designs. United Fruit's response, reflecting the actions of American frontier pioneers, was to conceptualize the struggle to overcome these natural impediments as a conflict. Labeling areas under

development as frontiers and itself as a pioneer, United Fruit rooted its fight against the environment in a similar historical conceptual framework utilized by American settlers during their battle to advance America's western frontier in the name of civilization, and cultural progress. The importance of 'civilizing,' 'taming,' and ordering these 'wild' landscapes, or transforming them into modern industrialized plantations, took on a new impetus as features of the battle to defeat the environment.

The battle United Fruit waged against the Caribbean Basin was complex and, despite its concentrated efforts to overcome the environmental obstacles that it faced, a positive outcome for the Company was far from certain. Plant diseases, such as Panama Disease, had spread to every United Fruit division by 1925 and were responsible for the Company's abandonment of over 10 000 acres of blighted land by 1930. Morbidity and mortality rates from tropical diseases like yellow fever and malaria afflicted thousands of Company employees and workers, threatening to halt plantation construction altogether and prevent the development of new areas of 'virgin' land. Assigned with the task of battling disease-producing environments, namely those conducive to the spread of the *Aegis Agypti* and *Anopheles* mosquitoes, United Fruit's Medical Department implemented sanitation programs designed to reduce the prevalence of infection and eliminate environmental obstacles to progress. Seeking to eliminate environmental conditions that were a product of both naturally occurring landscapes, and those created by the Company's creation of a new version of nature, the Medical Department battled a diverse set of challenges.

By 1930, however, through the dedication of United Fruit and its medical department, the fight to secure 'civility' and construct an American version of nature was being won. Company plantations no longer resembled the 'wild,' and chaotic tropical landscapes that had first greeted it decades before. Employees and travelers alike spending time in one of United Fruit's nine major divisions could enjoy modern American amenities, eat food imported from the United States, and relax in sanitary conditions that had reduced the prevalence of disease to a rate below many American cities. Confident in its success, and in part working to develop tourist appeal, the Company sold its plantation communities as 'health resorts' to those living in the United States and Canada. Through advertising and American publications, the Company began to change the perception of the tropics in the United States. Its portrayal of a land transformed, one that existed as a neo-America in the tropics, symbolized the achievements it had made, and the victory it had won in the battle to construct a new version of Nature. The Company, which had wiped out leagues of tangled jungle, constructed vast plantations, crisscrossed the Tropics with miles of steels rails, won the battle against yellow fever, and produced bananas by the millions of bunches, had achieved what Thomas F. Lee called "an epic of accomplishment." In the process it defeated the environment and brought wealth, civilization, and American culture to the "world's waste spots."[172]

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[172] Lee, "The Fruit of Paradise," 10-11.

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