

Curing the Ills of Central America: The United Fruit Company's Medical Department and Corporate America's Mission to Civilize (1900-1940)

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In a 1929 issue of *Unifruitco*, the monthly employee magazine of the United Fruit Company (UFCo), an essay contest was announced asking employees to write what in their opinion was the most valuable/important topic in a recently published book detailing the company's wide range of activities in the tropics. The two winning essays, published in a subsequent issue, both argued that sanitation and tropical medicine were the most important aspects of the great transnational company's operations. One of the prize-winners, a Mr. R.E. McDermott, the Scranton Branch Manager for the Fruit Dispatch Company, asserted that sanitation was nothing less than the key to the United Fruit Company's "advancement of civilization in the American Tropics."¹ The United Fruit Company Medical Department's healthcare and sanitation initiatives, along with the civilizing ideology that stood behind them, are concrete manifestations of UFCo's more general cultural agenda in Central America. The role of medicine and sanitation in bringing civilization to the tropics was a recurring theme in works published by the United Fruit Company throughout the first half of the twentieth century. Company doctors identified themselves as agents of science and rational modernity and believed that their mission was not simply to cure the body but also the mind and, by extension, society. Beyond improved healthcare, the Medical Department understood its work as an integral part of the Company's mission of infusing its laborers in Central America with a capitalist American work ethic and making them productive and efficient laborers.

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In recent years, attention has turned towards the Company's socio-cultural influences on the regions in which it operated. Writing primarily from a labor perspective, a number of micro-histories and regional case studies have greatly advanced our understanding of the Company's impact on its workers' lives. Philippe Bourgois' *Ethnicity at Work: Divided Labor on a Central American Banana Plantation*; Aviva Chomsky's *West Indian Workers and the United Fruit Company in Costa Rica, 1870-1960* and Lara Putnam's *The Company They Kept: Migrants and the Politics of Gender in Caribbean Costa Rica, 1870-1960*, are exemplary works in this vein.² Among them, Putnam is especially eloquent in conveying the complex ambiguities of West Indian laborers' relationships to both the Costa Rican Government and United Fruit in their personal experiences and understandings of gender, family and community.³ Taken as a whole, these works have challenged monolithic images of company enclaves and validated the workers' agency in shaping their own destinies and resisting Company efforts at social control, while also illustrating the dynamic relationships between the Company and its diverse groups of laborers.

Aviva Chomsky and Lara Putnam, along with Catherine LeGrand in her essay, "Living in Macondo: Economy and Culture in a United Fruit Company Enclave in Colombia," in *Close Encounters of Empire*, have discussed UFCo's mission and its social impact on workers. Based on their field research, Putnam claims that UFCo's civilizing mission was mainly empty rhetoric and that no substantial efforts at cultural change were attempted, while Chomsky argues that their social policies were not only pervasive, but were also hotly contested by the working population, and LeGrand asserts that the United Fruit Company did affect the cultural identities of its workers, although more often than not indirectly, in ambiguous ways.⁴ Chomsky interprets the Company's medical work in particular as a form of social control, outwardly paternalistic but at its core authoritarian, whose efforts were resisted by workers in order to preserve their own personal independence and cultural identity.⁵ Chomsky further argues that workers were more knowledgeable and pragmatic than Company doctors were willing to admit. Far from being opposed to modern medical assistance, they resisted many of the Company's policies because they felt that they were either inadequate or misdirected.⁶ The present article does not focus on the Medical Department's social impact on workers, but rather examines it from the perspective of the Company's own sense of its civilizing mission by exploring in greater detail the perceptions and attitudes which informed UFCo's work.

Over the past few years scholars have in fact begun paying closer attention to this corporate side of the United Fruit Company's activities, using the Company's own archives and publications to better understand and assess the roles of market forces and ecological change, along with worker mobilization,

in shaping its policies. Marcelo Bucheli's study on UFCo activities in Colombia and Steve Striffler's work on Ecuador are indicative of this new trend, as both pay considerable attention to the intersection of corporate operations with politics and organized labor.⁷ John Soluri adds to this approach in his dissertation, which details the United Fruit Company's agricultural and economic activities in Honduras. He focuses on how in the name of progress and to make a profit the Company altered the region's ecosystems as well as impacted the lives of its workers and local non-company banana growers.⁸

This new emphasis on Company policy and its shifts in response to labor pressures and ecological change is perhaps best exemplified by Steve Marquardt's article, "Pesticides, Parakeets, and Unions in the Costa Rican Banana Industry, 1938-1962," in the *Latin American Research Review*. This groundbreaking analysis of the Company's program to eradicate the Sigatoka plant disease, and the changes it effected in response to labor concerns, intertwines a corporate history with labor and ecological studies. More than simply focusing on worker responses to UFCo initiatives, Marquardt also shows how the Company itself understood the problems encountered by its crop disease program and how its perceptions of the workforce led to policy restructuring. By highlighting the dynamic and shifting relationships between the Company and diverse social and biological factors, Marquardt demonstrates the complexity of Company operations.⁹

My analysis of the literature by the Medical Department of the United Fruit Company aims to add to the rapidly expanding body of work on the Company and its relationship with its Latin American laborers by focusing on UFCo's sense of mission in Central America and how the cultural assumptions this mission entailed affected the Company's medical program. Specifically, I use the Company's self-defined mission to civilize as an interpretative framework for understanding the Medical Department's anti-malarial campaign. After discussing the Company's cultural and medical activities over the first half of the twentieth century, my article focuses on the United Fruit Company Medical Department's anti-malarial campaign which intensified during the 1920s under the direction of Dr. William E. Deeks. While the work of the Medical Department continued for many more years, it was during this period that a rich variety of company publications, including the monthly employee magazine, *Unifruitco*, and the Medical Department's *Annual Reports*, articulated a medical version of UFCo's civilizing work in the tropics.¹⁰ These sources provide us with a rare opportunity to analyze how Company doctors and employees contextualized their work and presented it to their salaried employees, the general public at home, and the international medical community.

The United Fruit Company in Central America

Founded in 1899 by Andrew Preston and Minor C. Keith, within a few short years the United Fruit Company became the world's largest supplier of tropical produce. By 1930 UFCo dominated the Central American fruit market, after buying out its major competitor, the Cuyamel Fruit Company, in 1929.¹¹ Through purchase and concession, it carved out a corporate empire that encompassed a significant amount of territory on the Caribbean coasts of Costa Rica, Honduras, Guatemala and, to a lesser extent, in Nicaragua and Panama. As a vast transnational corporation with railway, radio, telegraph, and steamship subsidiaries, UFCo did much more in Central America than plant bananas and hobnob with dictators. On its payroll, in addition to workers and overseers, were engineers, architects, teachers, sea captains, chefs, scientists, doctors, distributors, managers, radio dispatchers, telephone operators, and even archeologists.¹² Its ethnic composition was similarly complex; while white United States employees dominated the upper echelons of the corporation, Hispanics from the host nations in which the corporation operated permeated middle management positions. The working population within Central American operations varied greatly from division to division but included a significant number of West Indian migrant laborers, along with native indigenous workers from both the coastal lowland and the highland regions.¹³

More than simply labor camps, Company towns were a veritable society in microcosm, complete with employee housing, stores, warehouses, churches, recreational facilities, schools, hospitals, paved streets, water works, sewerage, power plants, and airfields.¹⁴ More or less self-sufficient, these UFCo enclaves were free from much of their host nations' control, and with the partial exception of Costa Rica, UFCo was given a free hand in administering its territory. In addition to employment, the United Fruit Company took it upon itself to provide its workers and the inhabitants in the vicinity of its lands with its own services and the use of its facilities.¹⁵ A 1931 *Unifruitco* article describing the visit of the Guatemalan dictator, Jorge Ubico, illustrates UFCo's pervasive control over nearly all aspects of the region's economy and infrastructure. The author boasted that upon the General's arrival by Company steamship in Puerto Barrios, he stayed in Company housing, traveled on Company trains and ships, toured Company production facilities, and visited Company hospitals and Maya ruins without ever setting foot outside Company property.¹⁶ In a parallel fashion, UFCo exerted a tremendous amount of social control over nearly every aspect of its employees' lives. The United Fruit Company had in effect established its own corporate American colonial beachhead on the Caribbean shores of Central America.

The United Fruit Company's Civilizing Mission

The United Fruit Company viewed itself and was viewed by both its admirers and detractors as an ambassador of American civilization, part of the United States' larger imperial mission in Latin America. Although it was a private enterprise, UFCo was associated with the United States Government's efforts in the Caribbean and Central America. Corporate historians endorsed by the Company spared little ink in propagandizing America's duty to bring the light of civilization to the tropical wilds of the Caribbean, using phrases similar to those that had been bandied about for nearly half a century by European imperialists. With European imperialism as his model, Frederick Upham Adams in his work, *The Conquest of the Tropics: The Story of the Creative Enterprises of the United Fruit Company* (1914), explained: "The commercial conquest by Europe of the tropics of Africa, Asia, and the islands of the Pacific will be recounted by future historians as the monumental achievement of this age...it consists of applying the methods of high civilization and scientific industry to great tropical sections which have remained undeveloped."¹⁷ Fifteen years later, Samuel Crowther, whose work was not only approved by UFCo but was made recommended reading for all employees, similarly praised the United States' (and United Fruit's) activities in Latin America in his *Romance and the Rise of the American Tropics* (1929). Crowther spoke with pride of the United States' "supervision" over the Caribbean, transforming it in a matter of decades into "The American Lake."¹⁸ Regarding its role in the region, Crowther explained, "the United States protects this economic empire from outside interference and also, to some extent, policies within its borders. Without this power their economic development might be retarded or even demolished."¹⁹

For both these writers of imperial mission, the United Fruit Company represented one of the single most important civilizing enterprises. Crowther wrote, "The forming of the United Fruit Company meant a great deal more than the mere joining of the largest companies engaged in the banana trade. Some day it will be recognized as one of the great civilizing forces of the century and entitled to stand apart from the other historic great companies."²⁰ Adams similarly declared: "An empire of agriculture was carved from the jealous and resentful jungles. Hundreds of miles of railroad were constructed into the wilderness, where even the natives had not penetrated. From out of the waters of the Caribbean steamed scores of ships to the marts of the Old and New World bearing commerce which Yankee enterprise had created in a crusade to attain the peaceful Conquest of the Tropics."²¹ More than simply a corporate arm of the United States' larger imperial program, as described here by Adams, UFCo was establishing its own 'empire' by bringing civilization through its business initiatives.

Not all contemporary writers focusing on the United Fruit Company's activities shared this admiration. In their classic study on the United Fruit Company, *The Banana Empire: A Case Study of Economic Imperialism* (1935), Charles David Kepner and Jay Henry Soothill offered a scathing critique of the Company's business practices in Central America: "this powerful company has throttled competitors, dominated governments, manacled railroads, ruined planters, choked cooperatives, domineered over workers, fought organized labor, and exploited consumers."²² Yet even within this critical study, Kepner and Soothill acknowledged the "constructive tasks" of the Company: "In its pursuit of profit it has transformed tangled jungles into centers of human activity, at least temporarily; it has constructed building railroads and other works of modern material civilization; it has erected well-equipped hospitals; and it has reduced although not eliminated the menace of tropical fevers."²³ In this context, Kepner and Soothill highlighted the fact that, for better or decidedly worse, through its economic activities, its control over the livelihood of its workers, and its political clout, the United Fruit Company resembled a political state far more than a private corporation.²⁴

In its own literature, the United Fruit Company demonstrated a historic sense of purpose and a transcendental mission to accomplish in Latin America. To Company writers and officials, its entrance into Central America marked at once the return of civilization and the advent of a new age in the history of the region. In its propaganda, the United Fruit Company adopted both the image of the Maya Civilization and the Spanish Conquistadors. Like the Ancient Maya, UFCo saw itself as a bearer of civilization to the region. The true heirs of the Maya were not given much consideration in this grand narrative, since it was believed by many that the natives of the region were too ignorant and backward to have been related in any way to the once-great civilization.²⁵ Given its self-defined special relationship to the Maya, the United Fruit Company sponsored archeological excavations throughout its tenure in the region, most notably at Quirigua (1913) and Zaculeu (1947), a philanthropic activity that a Company guidebook explained, "is fitting and proper given the United Fruit Company's interest in Middle American Civilization."²⁶ The United Fruit Company also likened its endeavors to those of the Conquistadors. One of their ports in Honduras was in fact named after Hernan Cortés, whose "energy, perseverance, and will-to-do have also characterized those who taking root at Puerto Cortes built up an extensive Banana Division."²⁷

In describing its mission in Central America, Company literature during the 1920s expressed a decidedly positivist approach to human development and civilization. An article by a Company physician published in *Unifruitco* discussed the history of man as a progressive series of stages in which the modern world

had reached “the True Scientific, or Positive Age in which all knowledge can be classified and systematized by exact observation and careful experimentation and explain all natural phenomena.”²⁸ It was UFCo’s duty to bring this enlightened age of positivist science to the still backward and superstitious tropics. Through a combination of modern scientific knowledge and United States capital, the possibility of winning converts to modern society was a strongly felt motivating force informing the Company’s projects.

Prior to the United Fruit Company’s entrance into the region, the eastern tropical zones of Costa Rica, Honduras, Guatemala, and Nicaragua were depicted as uninhabitable savage jungles, which were unfit for civilized man. It was a malaria-ridden land of half-naked savages held captive by deadly disease, which the Spanish for centuries dared not attempt to civilize. As one UFCo employee put it, “the natural resources of this region seemed to defy exploitation, the jungle breathed defiance—the devastating breath of disease.”²⁹ With the arrival of the United Fruit Company, however, all that began to change: “the advent of UFCo marked the beginning of a new era that affected not only the destiny of the enterprises investing capital in Central America, but that of the inhabitants as well.”³⁰

Bringing civilization to the tropics meant draining swampland and clearing jungle foliage followed by the establishment of railroads, bridges, tramways, roads, telegraph and later telephone lines that connected the inland outposts to one of the Company’s Caribbean ports. Following the introduction of machine technology and the establishment of communication networks, these regions were no longer isolated from the wider world. The founding of banana plantations soon followed. This was a complex process in which lands were surveyed, cleared, irrigated, and finally planted. Parallel to these developments, housing complexes, sewage systems, company stores, schools, churches, and a medical dispensary were constructed for the workers’ use.³¹ The result was an outpost of American civilization in the jungle. Traveling from Costa Rica to Tela, the main port of the United Fruit Company in Honduras, Edmond Whitman, an UFCo travel writer, commented: “Adventures of a very different sort await you here...standardized buildings, neat yards, freshly painted bungalows, paved streets, cement curbing—these things are assuredly from your own country.”³²

Company literature was filled with ‘before and after’ photographs illustrating the dramatic changes that American ingenuity was bringing about in the tropics. Otherwise mundane descriptions of the process of establishing a plantation were colored with portrayals of modern American science and technology “reclaiming” wastelands for the productive use of civilization. An article by E.R. Patterson in *Unifruitco* is illustrative of how employees viewed their company’s work:

The great lagoons give way to orderly drainage canals and ditches; the tangled vines and palms and huge trees disappear and in their places grow row upon row of perfect banana trees. The ancient trails along which the Spanish conquerors toiled and fought their way against overwhelming odds of fever, dank, heat, and poisoned arrows, are replaced by shiny steel trails for puffing locomotives, the mud-thatched huts give way to substantial dwellings for overseers and laborers on well-drained land free from fever-carrying mosquitoes...the transformation is complete, the jungle has become a place where men live, work, earn wages and are busy, healthy and happy.³³

The triumph of technology and science over nature's savagery and the creation of a civilized working environment were, however, only a part of UFCo's sense of mission. After taking the man out of the jungle, the next task was to take the jungle out of the man.

"It is a curious, curious place. Here is civilization backed against customs centuries old. Here are people tolerant of your hustle for business but quite content to dream and work as little as possible themselves," so wrote a *Unifruitco* contributor in characterizing life in Puerto Barrios, a Company town in Guatemala.³⁴ Prone to drunkenness and violent outbursts, according to this author, the inhabitants of the Banana regions of Guatemala were savage and lawless before the Company's civilizing work, "a hotbed for trouble. Life was held cheaply in those days, but now, there is left a peaceful little town of dobie huts, manaca shacks and a few neat wooden houses. The increased demand for labor, the advance of education, the thinning out of the undesirables and better understanding between Guatemalans and the North Americans have done away for all time to come the old life."³⁵

In referring to the need for civilization, Company literature often referred vaguely to 'colored' and especially 'native' laborers. Some articles explicitly identified the indigenous workers of the banana region and their outlying communities. For example, José A. López, a Medical Department doctor in Honduras, in an article discussing the low level of mental development and special needs of UFCo workers, explained: "in writing this I am thinking of the pure Indian and of the mestizos; but intentionally overlooking that steady but powerful and ever-increasing colored wave coming from the West Indies."³⁶ The individuals he had in mind were described as "a parade of sadness and disease—of short stature, lemon-colored skins, high cheek bones with soft brown eyes possessing a Mongolian slant."³⁷ This specific interest in the indigenous population can be

explained by the Company's missionary impulse: to bring the benefits of civilization to those 'primitive' peoples still living in a virtual state of nature.³⁸

Upon entering UFCo planned communities, workers and their families living on the Company lands of the Banana region, as well as nearby non-employee residents, were exposed to sanitary, educational, and recreational programs designed to demonstrate the benefits of science and the American way of life. In addition to sanitation measures, which will be discussed below, primary schools were established for the benefit of workers' children and in 1941 an agricultural school, the *Escuela Agrícola Panamericana*, was founded in Honduras. The school's literature suggested that it was to be a beacon of American civilization for the entire Central American region.³⁹ Recreational facilities were also established in each division and Company teams were formed for sports ranging from tennis and polo to soccer and baseball. While membership in these teams was generally reserved for those in management positions, primarily white American employees, it was believed that games would serve as an example of teamwork and good sportsmanship for the populace. "The good sportsmanship exhibited by the teams of the company exerts a strong yet subtle and invisible influence...by our example we will assist in the spread of real sportsmanship and brotherhood in these countries where we live and labor."⁴⁰

The United Fruit Company's Medical Department

The Medical Department was at the heart of UFCo's civilizing activities. Physicians were an integral part of the Company's work in the tropic from its inception, as field hospitals and medical personnel followed in the wake of work crews as they constructed railways and company towns. The establishment of each new division was accompanied by the founding of a permanent hospital and the appointment of a medical superintendent. In 1912, the Medical Department began publishing its own annual reports on its activities, which were sent not only to its divisions but were also made available to members of the international medical community.⁴¹ In 1917 the Department's reputation in the medical world was further enhanced by the appointment of Dr. William E. Deeks to the position of General Manager. Deeks had previously earned a name for himself in tropical medicine by combating yellow fever in the Panama Canal Zone.

During the 1920s, the Medical Department established and ran eight modern hospitals, five of which were located in Central America. With a total of 110 doctors and registered nurses and 584 staff members, the Medical Department treated an average of approximately 28,000 cases per year (22,000 of these within Central American divisions) while Department field dispensaries treated ap-

proximately 230,000 cases per year. The Medical Department's patients included Company workers and their dependents as well as local non-employees living in or around Company enclaves. During this period, the Medical Department spent over one million dollars annually, a sum covering staff salaries, hospital expenses, medicines, and patient treatment, as well as research and professional development. The Company expended an additional \$500,000 annually on sanitary measures.⁴²

Beyond tending to the medical needs of Company employees, the United Fruit Medical Department envisioned a much greater role for itself in the field of tropical medicine. Company doctors felt that their modern facilities and innovative methods of sanitation and treatment of disease should serve as a model to members of the medical profession outside the Company's sphere of influence. Convinced that they were playing a leading role in the development of tropical medicine and the spread of modern medical science in Latin America, the United Fruit Company hosted medical conferences and symposia, most notably an international conference on tropical medicine held in Jamaica in 1924.⁴³ This conference was attended by 78 members of the medical community, including representatives from all the governments of Central America, as well as members of the United States Government, the Rockefeller Foundation, and the British Colonial Office. Prominent participants included Henry Rose Carter, the Assistant Surgeon General, Joseph LePrince of the United States Public Health Service, Vincent George, the President of the Rockefeller Foundation, and George Simmons of the American Medical Association. In an introductory address to the Conference proceedings, Harvard Medical School professor M.J. Rosenau praised UFCo as "a pioneer and leader looking after the health of their employees. It called the conference with the expectation that not only would it be of value to them but also prove a contribution to tropical medicine world over."⁴⁴ Deeks also corresponded often with Henry Rose Carter concerning treatment and prevention of tropical disease.⁴⁵

The Medical Department also developed research divisions whose activities ranged from the collection and categorization of poisonous snakes and the development of antivenins to experimentation with banana flour as a treatment for intestinal disorders.⁴⁶ In describing the Medical Department's value to the Company, Victor M. Cutter (the Company's President from 1925 to 1935) remarked: "The Company's Medical Department has continued its excellent work in preventative measures and its research in tropical medicine. Its contribution to the medical profession is evidenced in its regular annual report, copies of which are requested by leading physicians and surgeons throughout the world."⁴⁷

Sensing that its mission transcended the confines of the United Fruit Company, the Medical Department believed that part of its task was also to improve

the health conditions of the region as a whole. It saw itself as playing the vital role of advancing the medical profession of the host nations by hiring local doctors and serving as their mentors. It was believed that these doctors would in turn spread the knowledge and experience they had acquired at the United Fruit Company to better serve their communities.⁴⁸ However, in his works on medicine in Central America, the historian Steven Palmer has demonstrated that Central American government health programs, especially those within Costa Rica, were also active and even more effective than the United Fruit Company's efforts, which while important in its own enclaves, did not exert a tremendous amount of influence on the wider medical profession.⁴⁹

After 1931, with the death of William Deeks and the suspension of the much-publicized *Annual Reports*, the United Fruit Company's Medical Department no longer seemed to attract the attention of the tropical medical community, as its own medical strategies for combating disease similarly made little progress. Its strength during the 1930s was in providing hospital and patient care within its enclaves, while further research innovations in tropical medicine were for the most part left to the Rockefeller Foundation, upon whose research laboratories UFCo came to rely.⁵⁰

Diagnosing the Problem: Civilization and the Malarial Society

Like many colonial endeavors, the United Fruit Company Medical Department's civilizing mission adopted an assimilationist model of development informed by racial assumptions. However, its particular version of this mission involved an unlikely combination of medicine and productivity born out of a corporate mindset. The logic of this formulation went as follows: productivity and efficiency were equated with civilized society, therefore lack of productivity was a sign of backwardness and ignorance. Since malaria was identified as the root cause of this backwardness, eradicating the disease would result in a healthy civilized labor force.

Regarded as more than a mere physical infirmity, disease generally and malaria in particular were referred to as the defining characteristics of society in the banana regions of Central America. As a 1925 medical report explained: "The anaemic and debilitated appearance of the native population, especially those that inhabit the coastal plain, is for the most part due to malaria."⁵¹ While precise figures are not readily available for the entire region, UFCo Medical Department annual reports suggest a 40% malarial infection rate, although higher percentages were reported in localized areas within divisions, and company doctors often speculated that the true number was in all likelihood higher, given the

difficulty of estimating infection rates among people who avoided hospitalization and treatment.⁵² Whatever the figures, the results were clear to these authors: endemic disease bred idleness and immorality. W.E. Deeks explained: "Malaria is the main cause of morbidity in all of these countries and costs many lives either directly or indirectly: it lowers the efficiency of labor and is probably the greatest single factor known in impeding the progress of the civilized races in the warmer countries of the world."⁵³ Deek's comments imply that a malarial society was by extension unproductive and therefore lacking in civilization. From this assertion, Deeks logically concluded that beyond simply curing the body, the eradication of malaria would also improve the mind, leading to a more civilized society: "The reduction of malaria promotes health and prosperity which in turn means more comfortable homes better food and clothes, improved educational facilities and in short the physical and mental welfare of the inhabitants so that they are better able to help themselves."⁵⁴

It was easy to blame the workers' so-called laziness and lethargy on endemic malaria. As Dr. P. Malaret Jr., a regular medical contributor to *Unifruitco* explained: "We must remember that each Malaria infected family enters a vicious circle which may be drawn thus: Malaria, inability to work, lack of food, less strength—more Malaria, greater inability to work, greater lack of food, greater ignorance—more Malaria."⁵⁵ According to Malaret, UFCo workers were not inherently lazy or irredeemably backward; in fact, they were the victims of a debilitating disease: "A sick man easily drifts into habits of indolence, for which he is not altogether at fault."⁵⁶ Thus the eradication of malaria would make it possible to save these workers and make them productive members of civilized society.

In a series of articles for *Unifruitco* on the history of malaria, Malaret made the connection between malaria and civilization even more explicit. Malaret began his history of malaria by endorsing a theory that claimed that the fall of the Roman Empire was due to malaria, which "caused such havoc on their man-force as to reduce them from conquerors of the known world to virtual subjects of the barbarians, weakening the fiber of the Romans as much as the luxuries and dissipations in which they indulged."⁵⁷ In Central America, the degenerative primitiveness of the indigenous population in a land once the home of the great Maya civilization was likewise explained by the destructive appearance of malaria in the New World. In assessing the modern-day impact of malaria, Malaret described its pervasive power over a society's mental condition and approach to labor: "The result is evident: malaria by devitalizing the inhabitants of a community lowers labor output. This automatically diminishes the earning capacity of the individual which inevitably results in widespread poverty, ignorance, and filth, leading to lethargic existence."⁵⁸ Accordingly, civilization,

productivity, and labor efficiency in the tropics were all reliant upon one's health and well-being.

Poor sanitation, which spread malaria, was further evidence of the tropical laborers' need for civilization. A photographic exposé of the problems of preventative medicine in the tropics in the 1925 Medical Department *Annual Report* illustrated in graphic detail the squalid, unsanitary environment in which the laborers lived prior to the imposition of the Company's sanitary and hygienic measures. According to the author, disease-ridden native communities were the result of natural environmental factors compounded by widespread ignorance, illiteracy, and a general lack of good sense. "The enervating effects of a constantly warm and practically unchanging temperature tend to reduce the energy and the vitality of the inhabitants; the economic resources of such communities are small; the education facilities are few...all these natural obstacles combine to delay or retard the dissemination of a knowledge of hygiene and sanitation."⁵⁹ As a result, native habitations were built in poor locations near swamps and lagoons, notorious breeding grounds for mosquitoes. They did not offer proper protection from the elements, were not properly screened, and were surrounded by underbrush and shrubbery. To make matters worse, pools of standing water often surrounded the dwellings and garbage collection was not attended to. Furthermore, the same streams were used for laundry, bathing, sewage disposal, and drinking water. According to the report, such unsanitary conditions not only accounted for the rampant spread of disease, but also explained the workers' indolence and lethargic existence.⁶⁰ Holding true to the Company's civilizing ethos, this author also saw the possibility for improvement on condition that the laboring population received a proper education, one which provided moral as well as hygienic instruction, "for a low standard of morality and an absence of any sense of responsibility to society" was in large part to blame for their abominable state of existence.⁶¹ Beyond the mere treatment of illness, the Medical Department therefore saw as the central component of its work transforming a backward, disease-ridden society into a modern productive workforce through improved healthcare and education.

Given the direct correlation UFCo doctors made between productivity and civilized society, increasing labor efficiency was more than simply an ulterior motive for the Company's medical work; it was rather an essential component of its corporate concept of a civilizing mission. For UFCo's Medical Department, curing malaria and bringing civilization to Central America were inextricably linked to notions of labor efficiency. A healthy, industrious (and therefore civilized) labor force made good sense from a fiscal as well as a humanitarian point of view. A smooth and profitable operation employing healthy, productive workers, imbued with the traditional American value of hard work, would profit both the

Company and its workers, who would lead healthier, happier lives. According to Deeks, “The inhabitants are the chief assets of any agricultural country. Through the results of their labor prosperity comes; and the more efficient they are the greater the returns.”⁶² As Malaret explained in another *Unifruitco* piece: “The basic factor in the work that must be done is the labor element. The better the health of the labor element the more easily will the work be done and the larger will the return be.” Following this reasoning, combating malaria had a direct bearing on the Company’s bottom line, since “it seems clear that the healthy man will be less apt to lay down on the job than one who is below normal, and, further, that the better the physical condition of the man, the more will he return in work for the wages paid him.”⁶³ In contrast to other corporations’ neglect of their tropical employees, the Medical Department’s *Annual Reports* likewise stated that “it is economically sound policy to reduce morbidity and mortality among employees to the lowest possible rate, and to increase their mental and physical efficacy to the maximum.”⁶⁴ Victor M. Cutter also linked the Medical Department’s work to the Company’s business operations in the region. While discussing the great medical accomplishments of the Company, he declared: “There was no philanthropy in the fact that it was necessary to build up a medical and sanitary service that costs thousands of dollars annually. It was simply good business. [...] We learned that laborers must be in kept in good health if our plantations were to be systematically worked.”⁶⁵ The Company’s primary business operations and the improvement of healthcare were therefore perceived by the Company to be one and the same. This should not discount its civilizing rhetoric, but rather demonstrates how central it was to the United Fruit Company’s operations.

Civilization and the Treatment of Malaria

The United Fruit Company’s anti-malarial campaign intensified in the 1920s. While the Medical Department treated a wide variety of diseases, including hookworm, pneumonia, typhoid fever, tuberculosis, dysentery, and venereal disease, malaria, because of its supposed connection with civilization and labor efficiency, was the main focus of the Department’s efforts, although the less severe hookworm was also closely associated with the Company’s civilizing impulse.⁶⁶ The challenge for the medical staff was to protect workers from malaria through improved sanitation while treating an already infected population. Upon beginning its operations in Central America, the United Fruit Company had developed a formula for the prevention and treatment of yellow fever and malaria based on the pioneering work of Walter Reed in Cuba and William Gorgas in Panama.

While yellow fever epidemics were all but eradicated by 1920, the treatment of malaria remained problematic. Although quinine was more or less effective, the development of plasmochin by German scientists in 1926 constituted an important medical breakthrough. When given in conjunction with quinine, it greatly improved the survival rate of malaria patients. In addition to medical treatment, sanitary measures were prescribed to prevent the spread of malaria, including emptying, filling, draining, oiling with petroleum, or flooding with salt water any areas of standing water, the ideal breeding ground for the deadly mosquitoes. Further measures included installing copper screening in houses, which were to be carefully located on dry land at least one mile away from rivers, streams, swamps or marshlands. In addition, it was recommended that individuals remain inside at night and not gather in large groups at dusk or dawn. By the late 1920s, a more or less effective insecticide called Paris Green was also used to control the mosquito population. The Company also conducted periodic employee blood tests and quarantines to limit the spread of the disease.⁶⁷

Central to the success or failure of this war against malaria was the laboring population itself, whose perceptions would have to undergo transformations as dramatic as those effected on the landscape. Since a clean, well-educated and contented worker was a healthy one, medical officials argued that nothing less than a complete transformation of society would do to render the treatment of disease effective.⁶⁸ The Medical Department therefore worked in close conjunction with the Company's educational and recreational welfare programs in hope of redeeming workers through the introduction of modern American civilization.

Education and moral improvement went hand in hand with the recommended sanitary measures of the Company, for "it should be emphasized that poverty and ignorance favor the spread of malaria, and that general prosperity and universal education are important influences in its control."⁶⁹ Literacy and intelligence were often cited as relevant factors in assessing the successful promotion of sanitary measures. As Deeks explained, "Among the more intelligent employees, who realize the importance of the protective measures instituted, we usually get loyal support; but among the uneducated unintelligent laborers, who constitute the great majority of our employees, close cooperation is almost impossible."⁷⁰ The education of the workers themselves was therefore just as important as the actual treatment of malaria: "We should not only endeavor to help the individual but to encourage him to help himself. Thus and thus only, may we hope for efficient control and the ultimate eradication of malaria."⁷¹

In the name of improved health, Company doctors justified the exertion of a pervasive influence over the social activities of its laborers and their families. This was not simply a pretext for social control; it was thought that in order for healthcare to improve, it was essential for workers to adjust to the civilized

American way of life. Deeks stressed that in order to improve conditions, schools and churches of all denominations were needed to educate the populace by teaching them the value of civilization and modern medicine. He recommended that “we must not only build and maintain attractive and comfortable camps, but we must also provide measures for taking care of the families of married men, by furnishing them with garden facilities, schools and some form of entertainment. In other words we must take interest in our people.”⁷² Interestingly, an employee’s family life and leisure time were given pre-eminent consideration to their physical well-being. Citing the Company’s construction of schools, churches, recreational facilities, amusement halls, and sports fields, Deeks argued that this “welfare work of the company has assumed large proportions and has a direct bearing on the health and well being of employees ...transforming the zone of its tropical operations into modern sanitary healthful areas.”⁷³ Regarding schools in particular, the 1929 *Annual Report* stated: “The school should include elementary studies on malaria, hygiene, and nutrition thus disseminating knowledge of a character to make inhabitants healthy, self reliant, and contented.”⁷⁴

The Medical Department’s own contribution to the education of its workers included the distribution of pamphlets and illustrations providing health tips and detailing the proper way to care for children, alongside the usual preventative sanitary measures. Motion pictures from the International Health Board of the Rockefeller Foundation were shown to inform employees of the dangers of malaria. Lectures, employee health forums, and medical surveys and questionnaires were also essential to educating the workforce regarding proper hygiene and sanitation.⁷⁵

In addition to the dissemination of information, a professional corps of sanitary inspectors supervised the employees’ behavior and inspected Company buildings and workers’ housing. Mobile health patrols examined the cleanliness of worker habitations, evaluated their adherence to company cleanliness policies, fumigated their quarters, and whitewashed interior walls. Since workers were often reluctant to report health problems, inspectors conducted physical examinations of employees and administered blood tests to check for malaria. House-to-house inspections were not uncommon, and sick employees were forced to report to the nearest hospital for treatment.⁷⁶ UFCo medical reports readily admitted that such invasive policies were resisted by workers, but went on to recommend that these complaints be ignored since such policies were for their own good. The 1931 *Annual Report* explained that “such work will produce gratifying results, as the laborers will become more contented and healthier,” and in the end will “show a change of attitude as a result of the conscientious and persistent efforts of our dispensers and the personnel in charge of our labor units, and will recognize the advantages to be derived from sanitation.”⁷⁷ These

sanitary measures were perhaps the most visible manifestations of the Medical Department's role in UFCo's civilizing mission.

By exerting a tremendous amount of influence over its workers' private lives and living habits, medical officials felt that they were doing nothing less than revolutionizing worker attitudes and customs, disregarding in the process whether or not the workers themselves wanted to make such adjustments to their lifestyles. This emphasis on recreational and social activities, especially those not directly related to the specific prevention of disease, was not endorsed by members of the wider tropical medical community. For example, Henry Rose Carter and Joseph LePrince, in their correspondence with Deeks, made no mention of such concerns. Instead, their advice focused more narrowly on the prevention of *Anophele* mosquito production, and the use of repellents and hand killing along with quinine treatments for those infected, without any discussion of a moral education, civilization, or social development, all so essential to UFCo's medical mission.⁷⁸

Hospitals were the focal point of the Medical Department's civilizing efforts. Beacons of modern medicine and bastions of civilization in the jungle, the United Fruit Company hospitals were elaborate works of architecture designed to impress the local population with the power of modern civilization as well as propagandize the Company's work at home. Each tropical division in Central America had a hospital at its core, complete with all the latest advances in medical equipment. The Company showcased its hospitals, filling the pages of its publications with photographs of their extensive facilities. One of the most elaborate Company hospitals of the time was constructed at Quirigua, Guatemala, in 1913, the site of a then recently discovered Maya city. This choice of location is suggestive of the Company's aforementioned sense of its historic role in restoring civilization to the jungle by building a hospital, a temple to modern medical science, in the shadow of Maya ruins. At its opening, Andrew Preston boasted: "The Company has erected a finely appointed hospital for the care of its workers and the public generally...it is a model of its kind, embracing as it does all of the best ideas of tropical hospital construction."⁷⁹ Eleven years later, Deeks proudly declared that "Every hospital is modern and completely equipped with all facilities for the diagnosis and treatment of diseases and the care of patients, including up-to-date surgical and x-ray equipment, laboratory, out-patient department and steam laundry."⁸⁰ Over the years, visitors to the hospitals were duly impressed, as this description of the Company hospital in Golfito, Costa Rica, by Charles Morrow Wilson in his history of tropical medicine, *Ambassadors in White: The Story of American Tropical Medicine* (1942), will attest:

On entering, the visitor might think he was in Grand Central Palace, New York at any exhibition of the very latest in hospital furnishing. Air conditioning, trim and effective tubular lighting, batteries of stainless steel cabinets, superlatively modern kitchens, clinic rooms, and laundry, make one forget the jungle outside. Here are the best, the heaviest, the newest of X-ray devices; huge stocks of surgical and pharmaceutical goods; sparkling much-gadged laboratories; well fitted wards and corridors of private rooms, pleasing and variable color schemes, modern metal furniture; an exquisite choice of decoration throughout – tapestries, seat covers, and room walls painstakingly matched and blended.⁸¹

While not all Company hospitals were as elaborate as the one described here, it is clear that they were designed to be both functional and aesthetic, monuments to modern civilization.

The Impact of the Medical Civilizing Mission

The medical accomplishments of the anti-malarial campaign are impressive overall: the number of malaria cases treated in the hospitals was reduced from 212 cases per 1000 employees in 1920, to 85 per 1000 by 1930.⁸² These results were dampened by the fact that the Central American divisions lagged far behind the Jamaican and Cuban divisions. While Jamaican figures were distorted, since many workers were treated in government rather than Company facilities, within UFCo's two Cuban Divisions malaria was reduced from 382 to 14 cases per 1000 from 1925-1930, while in the five Central American divisions malaria was reduced from 231 to 103 cases per 1000. Within Central America, Panama (230 to 40 per 1000) and Costa Rica (156 to 67 per 1000) fared best, while Honduras (222 to 139 per 1000) and Guatemala (325 to 134 per 1000) reported the worst results.⁸³ Although every country registered significant progress in the treatment of Malaria, the less impressive Central American results were a source of consternation.

Central America's comparatively poor results were explained by a mixture of race, migratory habits, and illiteracy. The 1925 *Annual Report* drew a direct correlation between illiteracy rates and malaria rates, highlighting the fact that Cuba's illiteracy rate was only 43.4% compared to Guatemala's 92.7%.⁸⁴ A paper in the same report entitled "Problems of Preventive Medicine in the Tropics" explained: "the results accomplished will be in direct ratio to the degree of illiteracy and enlightenment of the inhabitants."⁸⁵ Referring to Central America,

the author went on to complain that “the laboring population by their illiteracy, nomadic habits and child-like indifference, and primitive modes of life combine to make it impossible to reduce the morbidity, mortality and fatality rates of tropical plantations to a level satisfactorily comparable to the rate of more favored communities.”⁸⁶

As the 1930 *Annual Report* explained, the transient patterns of many Central American laborers were held responsible: “In the Banana Divisions, the progress made in the reduction of malaria has not equaled that of the Cuban Divisions... the results depend to some extent on labor turnover which is high in some Divisions.”⁸⁷ Another report highlighting the high turnover rates of indigenous and *mestizo* workers in Guatemala and Honduras claimed: “this constant shifting of labor means a low individual earning capacity; this in turn interferes with the workers ability to properly feed and clothes themselves, and lowers their resistance to all kinds of infection.”⁸⁸ Illiteracy and transient labor were combined in the racially-based assertion that these factors caused indigenous populations like those in Guatemala to be more susceptible to disease than other laborers.⁸⁹ One Company doctor, José A. López, provided a psychological sketch of indigenous and *mestizo* patients, with the express purpose of making the medical community understand the difficulty UFCo doctors faced in Central America. According to López, “their mental age is that of a moron. The minds of children are present in the adult bodies; and their response to the daily realities of life agrees in full with their infantile traits.”⁹⁰ Consequently, “Their sense of responsibility is nil; but we must remember that their minds are as virgin as the primeval jungles which surround the plantations.” At once fatalistic, apathetic and egocentric, López asserted that the natives were by nature sexually promiscuous and prone to drunkenness and violent outbursts.⁹¹ While not all UFCo doctors referred to their laborers in such overtly racist tones, less than spectacular statistics were almost always accompanied by an explanatory note reminding readers of the poor quality of tropical labor, which is of “native, colored or of mixed races in large proportion.”⁹²

Frustrated by the limited success of their programs, many doctors blamed the ignorance of the workers and their lack of cooperation as the primary obstacle to their convalescence and entrance into modern civilized society. Dr. R.C. Connors, Deeks’ successor as General Manager, explained in 1931 that

The attitude of many of the natives is a constant handicap in our efforts to control malaria... adults would frequently refuse to take the drugs prescribed and... may not permit them to be given to their children. Not infrequently physical violence is threatened when sanitary inspectors, farm foremen, and other employees in charge

of labor units, endeavor to persuade laborers and members of their families to take their daily doses of quinine and plasmochin.⁹³

There is no evidence to suggest that UFCo doctors made even the slightest attempt to understand possible reasons why workers were resistant to their medical overtures. In evaluating the effectiveness of their anti-malarial measures, workers' responses and concerns are notably absent, not only from the Medical Department's annual reports, but also from United Fruit Company publications in general. On the rare occasion when they do appear, it is only to highlight the worker's own ignorance. For example, a Company doctor submitted a letter to *Unifruitco* written by a West Indian patient who was complaining about his medicine. "Reproduced word for word," to emphasize the worker's poor diction and lack of medical knowledge, its publication was never intended to take the patient's concerns seriously, but rather it was published for the amusement of *Unifruitco* readers.⁹⁴

The reason for the workers' lack of cooperation was always attributed to ignorance and the solution was invariably a call for more education and supervision. One superintendent encouraged "cooperation from all salaried employees in the constant education of the laboring classes on the value of sanitation measures for the prevention of malaria."⁹⁵ As another explained: "The unintelligent class cannot be expected to realize these things. It is therefore the intelligent directing members that must understand them and assist in their enforcement."⁹⁶ Rather than listening to the concerns voiced by the population and adapting their strategies accordingly, Medical Department superintendents, convinced by their own civilizing discourse, continued to impose anti-malarial measures from above and were subsequently vexed by worker resistance.

Conclusion

With redemption and assimilation into modern society as its expressed goals, the United Fruit Company's civilizing mission was imbued with highly prejudicial and paternalistic assumptions. A condescending disregard for its workers' beliefs and practices was the foundation upon which many of the Company's ideological assumptions were constructed. Throughout all the Company's publications that I have examined in this article, there is scarcely any information regarding its workers' varied beliefs or cultural practices. References made to "the natives of the Central American tropics" often do not even specify which region or indigenous group is being alluded to. It is this kind of a mindset which

goes a long way towards explaining the strategies adopted by the Company's medical missionaries.

Using similar Medical Department evidence, Aviva Chomsky has argued in her aforementioned study that the less than impressive results of many of the UFCo Medical Department's policies demonstrate a lack of commitment on the part of UFCo to the genuine health of its workers, their priority being productivity and a cost effective control over workers' lives.⁹⁷ Conversely, my study of the Medical Department has left me with the strong impression that whatever the overall policies of the United Fruit Company may have been—and however disingenuous its own civilizing rhetoric—its Medical Department was sincerely committed to improving what it perceived to be the health and well-being of the workers under its care. I am convinced that the Company doctors I have examined in this article, while taking into account all their prejudices, truly believed in their work and in the importance of their mission. The fact that they wanted to uplift workers so that, as Deeks stated, “they could learn to help themselves,” demonstrates a desire to improve workers' lives rather than simply exert control over them. It was in fact their own misconceptions of the laboring populace, colored as they were by racial stereotyping, which in large part informed and distorted their sense of mission and help to explain the ambiguous impact of the Medical Department's anti-malarial campaign.

As was made clear by the Company literature analyzed above, the Medical Department's civilizing mission was inherently contradictory. Its goal was to bring civilization to the native, mixed-race and West Indian laborers of Central America through the treatment of malaria and other endemic diseases, which supposedly impoverished their minds and outlook on life. Yet, paradoxically, in order to accomplish this goal, the laboring populace had to become civilized through other means, such as education, in order for the medical treatment to be truly effective. It was this tenuous link Company doctors made between civilization and healthcare that caused much of their consternation with their patients' treatment and behavior. One is left wondering whether a pragmatic medical program that was more responsive to the needs of its patients and divorced from any overriding ideological impetus—civilizing or otherwise—would have met with more success and greater local cooperation. In any case, UFCo doctors do deserve credit for what they did succeed in accomplishing in their campaign against tropical disease. Due consideration must be given to the difficulties and challenges that such a foreboding environment posed for these medical missionaries who, however misguided, dreamed of bringing the light of civilization and modern healthcare to the darkest depths of Central America's tropical forests.

NOTES

1. R.E. McDermott, "Sanitation: Two Contest Winners Both Say Sanitation is the Most Important/Valuable Topic in Samuel Crowther's book, *Romance and the Rise of the American Tropics*," *Unifruitco* (February, 1930).
2. Aviva Chomsky, *West Indian Workers and the United Fruit Company in Costa Rica 1870-1940* (Baton Rouge: Louisiana State University Press, 1996); 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); Philippe Bourgois, *Ethnicity at Work: Divided Labor on a Central American Banana Plantation* (Baltimore: Johns Hopkins University Press, 1989); Catherine LeGrand has also explored UFCO's impact on Colombia, in her essay, "Living in Macondo: Economy and Culture in a United Fruit Company Enclave in Colombia," in Gilbert M. Joseph, Catherine C. LeGrand, and Ricardo Salvatore, eds., *Close Encounters of Empire: Writing the Cultural History of US-Latin American Relations* (Durham, NC: Duke University Press, 1998); while Thomas F. O'Brian in *The Revolutionary Mission: American Enterprise in Latin America, 1900-1945* (New York: Cambridge University Press, 1996) has explored more generally UFCO's overall role in both Cuba and Central America. See also Baron Leon Pineda, *The 'Port People' of Bilwi: Ideologies of Race, Lexicons of Identity and the Politics of Peoplehood in the Mosquito Coast* (Dissertation: The University of Chicago, 1998).
3. Putnam, 12.
4. Putnam, 8-9; Chomsky, 88-91; LeGrand, 335-336.
5. Chomsky, 104-105.
6. Chomsky, 90-109.
7. Marcelo Bucheli, *Bananas and Business: The United Fruit Company in Colombia, 1899-2000* (New York: New York University Press, 2005); Steve Striffler, *In the Shadows of State and Capital: The United Fruit Company, Popular Struggle, and Agrarian Restructuring in Ecuador, 1900-1995* (Durham, NC: Duke University Press, 2002).
8. John Soluri, *Landscape and Livelihood: An Agro-Ecological History of Export Banana Growing in Honduras, 1870-1975* (Dissertation, University of Michigan, 1998).
9. Steve Marquardt, "Pesticides, Parakeets, and Unions in the Costa Rican Banana Industry, 1938-1962" in the *Latin American Research Review*, Vol. 37, No. 2 (2002), 3-36.
10. Both these periodicals suspended publication in 1931 due to budgetary cuts associated with the economic depression.
11. Samuel Zemurray, *Thirty-Seventh Annual Report to Shareholders of the United Fruit Company*, (Boston, Massachusetts, 1936) 3.
12. Based on *Annual Report* data, 1899-1950.
13. Information based on the personnel pages of *Unifruitco* (1925-1931).
14. Samuel Zemurray, *Forty-Ninth Annual Report to Shareholders of the United Fruit Company* (1948), 4.
15. Victor M. Cutter, *Twenty-Fifth Annual Report to Shareholders of the United Fruit Company* (1924), 3.
16. "Agradable Visita que hizo El General Don Jorge Ubico, Presidente de la República de Guatemala," *Unifruitco* (June, 1931), 543.

17. Frederick Upham Adams, *The Conquest of the Tropics: The Story of Creative Enterprises Conducted by the United Fruit Company* (New York: Doubleday, Page, and Company, 1914) 9.
18. Samuel Crowther, *Romance and the Rise of the American Tropics* (New York: Doubleday, Doran and Company, 1929) 3.
19. Crowther, 2.
20. Crowther, 182.
21. Adams, 122.
22. Kepner, Charles David, Jr. and Jay Henry Soothill, *The Banana Empire: A Case Study of Economic Imperialism* (New York: Vanguard Press, 1935), 336.
23. Kepner and Soothill, 336.
24. Kepner and Soothill, 341.
25. William Popenoe, "The Greatest Americans," *Unifruitco* (October, 1926).
26. A.V. Kidder, *Guide to the Ruins of Zacaleu* (Boston: United Fruit Company, 1947) 3.
27. Verson W. Gooch, "The Cortés Development Company," *Unifruitco* (January, 1931), 331.
28. P. Malaret Jr., "History of Malaria and the Results of Control Measures in the Preston Division," *Unifruitco* (April, 1929) 524.
29. George C. Eiskamp, "Sanitation: Two Essay Contest Winners both Say the Most Important Valuable Topic in Samuel Crowther's Book," *Unifruitco* (February, 1930) 414.
30. Eiskamp, 415.
31. UFCO Educational Department, *Story of the Banana* (Boston: UFCO, 1936) 19-20.
32. Edmond S. Whitman, "Adventuring in Central America," *Unifruitco*, (May, 1930), 572.
33. E.R. Patterson, "Transformation," *Unifruitco* (March, 1930), 481.
34. George H. Cox, "Shall I go to the Tropics?," *Unifruitco* (December 1925).
35. Ibid.
36. José López, "The Lower Class of Tropical American Patients," in the United Fruit Company Medical Department (UFCOMD) *Annual Report*, No. 19 (1930), 163-164.
37. Ibid.
38. UFCOMD, *Annual Report*, No. 14 (1925), 299-314.
39. Samuel Zemurray in *Story of the Escuela Agrícola Panamericana* (Boston: UFCO, 1946), 1.
40. Fritz Bauer, "Honduras: Sports and Industry," *Unifruitco* (March, 1930), 459.
41. Victor M. Cutter, *Twenty-Ninth Annual Report to Shareholders* (1928), 8.
42. UFCOMD statistics contained in *Annual Reports* 1921-1931; and William E. Deeks, "Activities of the Medical Department of the United Fruit Company," in *Proceedings of the International Conference on Health Problems In Tropical America, Kingston, Jamaica July 22-August 1, 1924*, (Boston: United Fruit Company, 1924) 1007.
43. *Proceedings of the International Conference on Health Problems In Tropical America, Kingston, Jamaica July 22-August 1, 1924* (Boston: United Fruit Company, 1924).
44. Ibid.
45. A number of these letters are part of the Philip S. Hench Walter Reed Yellow Fever Collection available online at www.etext.lib.virginia.edu.

46. N.P. Macphail, "Banana Flour: Manufacture and the Use of Home Made Product in Quiroguia Hospital," *Unifruitco* (August, 1930), and O.T. Brosius, "Snakes," *Unifruitco*, (February, 1930), 411.
47. Victor M. Cutter, *Twenty-Ninth Annual Report to Shareholders* (1928), 8.
48. Charles Morrow Wilson, *Ambassadors in White: The Story of American Tropical Medicine* (New York: H. Holt and Company, 1942) 281.
49. Steven Palmer, "Central American Encounters with Rockefeller Public Health, 1914-1921," in Gilbert M. Joseph, Catherine C. LeGrand, and Ricardo Salvatore, eds., *Close Encounters of Empire: Writing the Cultural History of US-Latin American Relations*, 316. See also *From Popular Medicine to Medical Populism: Doctors, Healers and Public Power in Costa Rica, 1800-1940*, (Durham: Duke University Press, 2003).
50. Indebtedness to the Rockefeller Foundation is expressed in R.C. Connors' opening remarks in UFCOMD *Annual Report*, No. 20 (1931); for UFCo activities in the 1930s and early 1940s, see also Wilson, 312.
51. UFCOMD, *Annual Report*, No. 14 (1925), 110.
52. Based on compiled statistics in UFCOMD *Annual Reports*, (1912-1931).
53. William E. Deeks, "What Our Tropical Employees Should Know about Malaria," *Unifruitco*, (June, 1931), 529.
54. Deeks, *Malaria: Its Cause, Prevention, and Cure*, 2nd edition (Boston: United Fruit Company, 1930), 31.
55. Dr. P. Malaret Jr., "Delenda est Malaria," *Unifruitco*, (March, 1927) 486.
56. Malaret, "On the Subject of Malaria," *Unifruitco* (August, 1926).
57. Malaret, "History of Malaria and Results of Control Measures in the Preston Division," *Unifruitco*, (April, 1929), 524.
58. Malaret, "History of Malaria and Results of Control Measures in the Preston Division," 525.
59. UFCOMD, *Annual Report*, No. 14 (1925), 299.
60. UFCOMD, *Annual Report*, No. 14 (1925), 298.
61. UFCOMD, *Annual Report*, No. 14 (1925), 301.
62. Deeks, *Malaria: Its Cause, Prevention, and Cure*, 4.
63. Malaret, "On the Subject of Malaria," *Unifruitco*, (August, 1926).
64. UFCOMD, *Annual Report*, No. 14, 310-311.
65. Cutter, "Foreign Trade's Golden Rule: You Can't Exploit Your Markets and Have Them Too," *Unifruitco* (February, 1929).
66. Deeks, "Address of Welcome," *Proceedings of the International Conference on Health Problems In Tropical America*, 3.
67. UFCOMD *Annual Report* Nos. 19 and 20 (1930-1931).
68. Deeks, *Malaria: Its Cause, Prevention, and Cure*, 31.
69. UFCOMD, *Annual Report*, No. 14 (1925), 299.
70. Deeks, "Problems in Malaria Control," in UFCOMD, *Annual Report*, No. 14 (1925), 170.
71. Deeks, *Malaria: Its Cause, Prevention, and Cure*, 32.
72. Deeks, "Problems in Malaria Control," in UFCOMD, *Annual Report*, No. 14 (1925), 170-171.

73. Deeks, "Activities of the Medical Department of the United Fruit Company," in *Proceedings of the International Conference on Health Problems In Tropical America*, 1008.
74. UFCOMD, *Annual Report*, No. 18 (1929), 102.
75. UFCOMD, *Annual Report*, No. 13 (1923), 13-14.
76. UFCOMD, *Annual Report*, No. 20 (1931), 23-24.
77. UFCOMD, *Annual Report*, No. 20 (1931), 106-107.
78. See, for example, H.R. Carter's letter to W.E. Deeks, "Suggestions of the Control of Malaria on the Plantations of the United Fruit Company," September 7, 1928, available online at www.etext.lib.virginia.edu.
79. UFCOMD, *Annual Report*, No. 2 (1913), 45.
80. Deeks, "Activities of the Medical Department of the United Fruit Company," in *Proceedings of the International Conference on Health Problems In Tropical America*, 1007-8.
81. Morrow Wilson, *Ambassadors in White: The Story of American Tropical Medicine*, 277.
82. UFCOMD, *Annual Report*, No. 20, (1931), 20.
83. UFCOMD, *Annual Report*, No. 19, (1930), 18.
84. Their source was the 1923 World Almanac, UFCOMD, *Annual Report* No. 14 (1925), 19.
85. "Problems of Preventive Medicine in the Tropics," UFCOMD, *Annual Report* No. 14 (1925), 310.
86. *Ibid.*, 312.
87. UFCOMD, *Annual Report*, No. 19, (1930), 18.
88. UFCOMD, *Annual Report*, No. 17 (1928), 25.
89. UFCOMD, *Annual Report*, No. 17 (1928), 25.
90. José López, "The Lower Class of Tropical American Patients," in UFCOMD *Annual Report*, No. 19 (1930), 164.
91. López, 166.
92. UFCOMD, *Annual Report*, No. 14 (1925), 17.
93. R.C. Connors, in UFCOMD, *Annual Report*, No. 20 (1931), 21.
94. "Tropical Divisions" section, *Unifruitco* (August 1925) 40.
95. MacPhail, "Fighting Anopheles in Guatemala," *Unifruitco* (February, 1929) 422.
96. Calaret, "On the Subject of Malaria," *Unifruitco* (August, 1926).
97. Chomsky, 96-101.