Rail: African & African American Labor and the Ties That Bind in the Atlantic World

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RAIL: AFRICAN & AFRICAN AMERICAN LABOR AND THE TIES THAT BIND IN THE ATLANTIC WORLD

by

Benjamin Wendorf

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Africology at The University of Wisconsin-Milwaukee

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ABSTRACT

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by

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As was intended, the construction of railways transformed the landscape and societies of the Atlantic World. Great fortunes and forces emerged in the directions of the tracks, sufficient to create structures of economy and organize communities in ways that persisted long after a railway’s use had diminished. In this dissertation, the author argues that the connections and reorganization effected by railway construction created new economic paths in the American South, Panama, and Gold Coast West Africa; the transformations were marked by struggles for power along racial lines, enslavement and coercion in labor, and the interchange between communities and their existing markets and a largely foreign, imperial order. Using sources from African Americans, Afro-Caribbean, and West Africans who comprised the bulk of the labor, as well as the communities where the railways were constructed, the author combines these with geographical and statistical data to portray an environment where whole societies were in flux. While the African Americans in the South experienced a retrenchment of racism in the form of segregation – often following railroad tracks – Afro-Caribbean laborers dug a Panamanian thoroughfare that bolstered European trade, and West Africans laid the tracks for gold and cocoa to the Atlantic Coast. The author concludes that, in addition to the power and persistence
conferred by railways, they grant us the opportunity to realize the importance of connections created by communities, and how they were affected by the tracks that ran through them or passed them by. Connections can also provide a refreshing focus in historical methodology; in their persistence, how they are readily revealed by a multitude of sources, and how they amply represent human movement and interaction rather than typical historical emphasis on spatial entities provides a template for exploring reflexive, illustrative approaches to history.
To my parents,

Who supported me wherever my mind wandered,

And my wife,

Who brought me home.
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Introduction: History on the Tracks

Take this hammer, uh
Take it to the captain, uh
Take it to the captain, uh
Tell him I’m gone.

- African American work song

The building of railroads in the 19th and early 20th century was notoriously difficult labor, in part due to logical conundrums: rail transportation required sculpted paths in areas that often lacked the infrastructure necessary to support large excavation equipment. Strenuous manual labor was the agonizing solution. The work was immensely difficult; in fact, an overview of railroad labor from its beginning to the mid-20th century is often a story of poor, itinerant, or oppressed populations…and sometimes all three. When Amiri Baraka (then LeRoi Jones) observed African American work songs in *Blues People*, he set aside a particular category of music for those developed in hard labor, noting:

…songs recorded by Negro convicts working in the South—laying railroad ties, felling trees, breaking rocks, take their impetus from the work being done, and the form of the singing itself is dictated by the work. These workers for the most part do not sing blues. The labor is central to the song: not only is the recurring grunt or moan of these work songs some kind of metrical and rhythmical insistence, it is the very catalyst for the song.

“Take This Hammer” above was a case in point; each “uh” was punctuated by the blow of a hammer. The song might carry for hours.

By the same token, this work not only gave us glimpses into railroad labor and its reflection and influence on culture, but also its structural reproduction of society. Railroad tracks reflected existing power dynamics in political and socioeconomic spheres, but they also created

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2 Jones, *Blues People*, 67-68.
new or increasingly efficient paths of commerce and communications. Focusing on three major projects - the use of rail in constructing the American South, the trans-isthmus railroad in Panama, and the construction of rail in Gold Coast West Africa – we can better explore a variety of regions in the Atlantic World by encircling it with our comparative examples and focusing on projects that sought to engage this broad network of mostly economic relationships. In the American South, for example, the United States was seeking to build on agrarian ideals espoused by the leadership of the early republic, and found increasing success in its global trade in cotton. In Panama, the prevailing impetus behind building the trans-isthmus railroad came from wealthy United States businessmen William H. Aspinwall, George Law, and their “mail and steamship” companies. Though they were initially capitalizing on eager Gold Rush prospectors from the East Coast, traffic in subsequent years included mail steamships from England, New Zealand, and Australia. In the Gold Coast, British entrepreneurs sought to increase the efficiency of transporting gold and other valuable resources out of the deep forests of the Gold Coast interior, soon discovering considerable success with an introduced crop, cocoa.

These major projects were intended to create or increase the efficiency of particular economic relationships, often to the benefit of foreigners to the area they were implemented. The focus of this work is to view the economic and social impact of these rail projects on the communities where they were constructed – and the laborers who constructed them – through an historical lens. Because this approach explores outcomes, it is also important to observe outcomes relative to expected outcomes; because the focus is on rail, it is likewise important to consider usage – by the local community, by those outside the community – and the longevity of

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such usage. In this way, we will see myriad “successes” and “failures” over time among these rail projects, while seeing people of African descent in the Atlantic World drawn or coerced into structuring and re-structuring societies on both sides of the Atlantic.

Africans and the African Diaspora in the 19th and early 20th century Atlantic World were vulnerable to coercion in these enterprises, yet fully aware of their machinations. Formerly enslaved African American Emmaline Kilpatrick, for example, saw both the benefits in terms of time and products brought to market – her words below were transcribed by Sarah Hall, whose grandfather owned the plantation on which Emmaline’s family was enslaved:

Fore dis hyar railroad wuz made, dey hauled de cotton ter de Pint (She meanted Union Point) en sold it dar. De Pint’s jes’ ‘bout twelve miles fum hyar. Fo’ day had er railroad thu de Pint, Marse Billie used ter haul his cotton clear down ter Jools ter sell it. My manny say dat long fo’ de War he used ter wait twel all de cotton wuz picked in de fall, en den he would have it all loaded on his waggins.4

In the late 19th century, the Asante in the West African Gold Coast, still autonomous from British rule, became increasingly interested in employing European technicians to aid in the construction of railways and telegraph communications, having observed the value of both for the British.5 Nearby, other West Africans in the Gold Coast toiled as wage laborers for the British, employment in colonial public works being an effective way to accrue British currency. The Asante, resistant to the British, were eventually compelled to provide reduced-wage labor (relative to other Gold Coast peoples) or free labor on these public works, as fines and taxes were imposed to cover the cost of British expeditions against them.6 Jamaican laborers migrated

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6 *Correspondence Relating to the Ashanti War 1900. Presented to both Houses of Parliament by Command of His Majesty. March, 1901* (London: Darling & Son Ltd., 1901), 113; *Correspondence Relating to the Ashanti War 1901*. 

3
toward the wage opportunities they envisioned in Panama, even after reports of death and disease; an epidemic of cholera ensured life and labor was not considerably safer at home.

Often positioned at the most basic, physical levels of production in their economies, enslaved Africans and later wage or coerced laborers of African descent offered valuable perspectives on the impact railroads would have on their regions. The transition to rail was a transition in their own lives, as it was for the communities along the tracks, and their experiences and actions within these changes provide an alternative socioeconomic history to a railroad historiography so often focused on financiers and statesmen. While the latter history still needs to be understood, by observing the history of railroad tracks as it emerges from the experiences of laborers of African descent, and exploring the structural contributions their labor made to their society, we get closer to understanding transformative and persistent changes in Atlantic World societies. Through comparative history, in this case the building of rail lines in the American South, Panama, and Gold Coast West Africa, we can combine pointed social histories with predominant global currents in areas of economics and politics to create a broad portrait of societal transformation through infrastructure.

**Historiography and Connectivity**

But how do these insights on rail construction, use, and regional transformation contribute to Atlantic World and African Diaspora historiography of the 19th and early 20th century? In these areas, the study of the Atlantic slave trade has loomed large, involving extensive social and economic analysis of a major world-changing event in global history. There

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have been exhaustive efforts to get a sense of its magnitude, the markets and financial institutions that supported it, the society that enslaved Africans and slaveholders constructed in the Atlantic World, and the damaging conditions and restrictions of that society. These studies have examined inside and out the microcosm of the plantation, and placed it within the larger Atlantic World of trade. In the many attempts to grasp the value and impact of this trade, most of the focus has been on the agricultural production and profits, as well as the various European and colonial institutions it bolstered — European banks and insurance companies, the Industrial Revolutions, imperialist governments. Despite these approaches, they only occasionally look at another major construction pressed upon enslaved peoples in the Atlantic World, infrastructure.

Despite the large amount of scholarship on the Atlantic Slave Trade, infrastructure tends to have an almost peripheral relationship to the research — perhaps befitting its physical location

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9 The seminal work in this area is Curtin (1969), with a critical revision offered by Lovejoy (1982). Most recently, an exhaustive effort through Emory University, the Hutchins Center for African and African American Research at Harvard University, and the National Endowment for the Humanities has resulted in the incredible resource of Trans-Atlantic Slave Trade Database. Found at www.slavevoyages.org, the database includes detailed information on nearly 36,000 slave ship voyages and documentation of the transport of around 10 million enslaved human beings.

10 With early texts by Du Bois (1896), James (1938), and Williams (1948) helping set the precedent in academia, Genovese (1965 & 1971) provided additional sourcing and quantitative analysis; sociologists like Du Bois (1903) and Drake & Cayton (1945) linked the institution of slavery with subsequent challenges in the post-abolition United States; contemporary analyses like Johnson (1999), Rediker (2008), and Baptist (2014) have since offered more personal market experiences and machinations; works by Lovejoy (1983, 1986), Law (1995), Thornton (1998), Perbi (2004), and Austin (2005) have noted the diverse institutions of slavery that existed in West and Central Africa, and how it came to contribute and be affected by the emerging Trans-Atlantic trade.

11 The first efforts were obviously autobiographies from the formerly enslaved themselves, including Northup (1853), Douglass (1855), and Jacobs (1861); compilations like those by Curtin (1967) and Greene (2011) have consolidated published and previously unpublished African accounts of slavery in the Atlantic World; even earlier autobiographies by Cugoano (1787) and Equiano (1789) meshed the world of Trans-Atlantic slavery with its overseas machinations; post-Civil War slavery autobiographies tended to have prescriptive messages for life after enslavement for African Americans, including Jones (1883), Washington (1901), and Clement (1908); related to James (1938), Fanon (1952) and Césaire (1955) noted the strong relationship between the past societies of enslavement in the Caribbean and the subsequent societies in colonies; works like Bailey (2005) and Scott (2005) wove together enslaved agency, revisionism among complicit slave traders, and fear and ostracization as societal tools in Caribbean and West African Atlantic history of slavery; Davis (1983), Jones (1985), and White (1999) noted the specific experience of women of African descent within societies of slavery, recognizing their position as primarily field laborers, and subjected to gender oppression; Patterson (1982) placed Trans-Atlantic slavery in a continuum of enslavement in world history, portraying the experience of the enslaved as a march towards death by a wholly parasitic relationship with slaveholders, with manumission as the only alternative.
relative to centers of production, but drastically undermining its value to the economy. The slave ship looms large in the scholarship, but discussions of the connections necessary to link overseas trade to inland resources are lacking. Similarly, there is little, if any, of what might constitute an “infrastructural historiography;” accounts of infrastructure projects are often nationalist mythologies – particularly in the matter of transcontinental railways or imperial achievements like the Panama Canal. As we will see below, it is not until the development theorists of the mid-20\textsuperscript{th} century that we begin to see inclusion of infrastructure as a unit of historical analysis, though the development theorists and later global historians have still rendered it ancillary to historical narratives. This is largely symptomatic of a broader emphasis on place in historiography; whether those locations are empires, states, ports, or cities, scholars tends to place primacy in the places people rest.

While, in place, day-to-day market activity moves with daily and weekly cycles, connections portray continuous cycles of supply, commute, and exchange. With these, prices shift, demand waxes, supply wanes, and this entire dynamic system functions through a network of connections designed to meet those changes. Rome was not Rome without the roads leading to it. The connectivity of a place, then, is vital to understanding the place itself, and helps us move beyond simple territoriality when looking at major historical polities.

Conceptually, a focus on connectivity is not far beyond the pale of historical scholarship, particularly in understanding the more modern history of capital accumulation. In Giovanni Arrighi’s \textit{The Long Twentieth Century}, he argues:

Central…is the definition of “capitalism” and “territorialism” as opposite modes of rule or logics of power. Territorialist rulers identify power with the extent and populousness of their domains, and conceive of wealth/capital as a means or a by-product of the pursuit of territorial expansion. Capitalist rulers, in contrast, identify power with the extent of their command over scarce
resources and consider territorial acquisitions as a means and a by-product of the accumulation of capital.\textsuperscript{12}

In the process of identifying these “world hegemonies”, which Arrighi defined as “the power of a state to exercise leadership and governance over a system of sovereign states,”\textsuperscript{13} he identified three distinct dominant hegemonies: the wealthiest Italian city-states and their financial base in Venice in the 15\textsuperscript{th} century, the Dutch Empire of the 17\textsuperscript{th} century, and the British Empire in the 19\textsuperscript{th} century.\textsuperscript{14} It is impossible to ignore that two of the empires were decidedly small in overall territory; it is also impossible to ignore the primacy of all three in the most efficient mode of large-scale commodity transportation in those eras, shipping. Arrighi attached the persistence of the Dutch and British hegemonies in part to their versatility in the engagement of global finance. Diverse financial institutions invested in a variety of regions, endeavors, and markets that allowed them to maintain their power and influence beyond the eventual decline in power of their respective states.\textsuperscript{15} I would argue that the connections and infrastructure derived during these empires were even more persistent.

Related regional historiography is also amenable to the importance of connectivity. While American South history is dominated by the plantation, William G. Thomas’s \textit{The Iron Way} has drawn attention to the crucial economic transition that occurred with rail construction, particularly after the Civil War. Theodore Kornweibel’s \textit{Railroads in the African American Experience} gives a glimpse of the relationship between enslavement and railroad construction, and clearer pictures of African American experiences in Reconstruction and beyond, his focus is centered on life within the railroad sphere and how larger societal structures can enter into that


\textsuperscript{13} Arrighi, \textit{The Long Twentieth Century}, 28.

\textsuperscript{14} Arrighi, \textit{The Long Twentieth Century}, 40, 45, 48.

\textsuperscript{15} Arrighi, \textit{The Long Twentieth Century}, 46, 55.
history. Many Western 19th century source materials viewed hungrily the economic potential of connections across the Central American isthmus, frequently including estimated costs and revenues and myriad schemes for construction.16 Fessenden Otis’s oft-cited 1868 work on *Isthmus of Panama* carried a dual title referring to it as a “traveller’s guide and business man’s handbook.” These accounts contributed to romantic, Eurocentric, and near-mythical “scholarship” in the 20th century, of which Joseph L. Schott’s *Rails Across Panama* is a prominent example. On the other hand, Aims McGuinness’s *Path of Empire* provides a modern retelling, using the “path” across Panama as an entry point to a global history of Panama’s relationship to the United States, Caribbean laborers, and the rush of prospectors towards California’s gold.

Africa’s historiography provides the deepest scholarship of connectivity, though the connections themselves are rarely the point of focus. This is, in part, due to the fact that the colonial approaches to development included transportation infrastructure as a tool of empire.17 These rail lines rarely extended into the interior, choosing rather to touch on the outskirts of established trade diasporas, supplanting existing networks – frequently targeting mineral wealth – that extended to coastal ports.18 This was done deliberately; Europeans had been well aware of valuable African trade networks, particularly across the Sahara, dating back to the 15th century.19


sufficient for prospective imperialists of the 19th century to possess maps that indicated where they operated. On the other hand, in regions like West Africa road infrastructure was an organic development undertaken by groups like the Asante to ensure the efficiency of trade to and from their region of control. Ivor Wilks’ *Asante in the Nineteenth Century* draws considerable attention to the Asante “Great Roads,” noting one of the oldest Asante administrative agencies was appointed to oversee the maintenance of their infrastructure. Wilks is among the few early Africanists to build his history around connectivity, in this case using the Great Roads; he provided an effective demonstration of Asante agency in the 19th century in addition to reflecting the ebbs and flows of their regional control. By connecting railroads to this longer history of roads and trade routes, and observing how they constructed and were accessed by Gold Coast West Africans, we can draw this history into a more global history of the Atlantic World and include African agency. In this way, we can address contemporary critiques of the historiography of this era, including Paul Tiyambe Zeleza’s assertion that African economic history needs to engage comparative history to reveal “how deeply involved the mainstream and the marginal are with each other,” and ground the analysis in structures that address James Ferguson’s concern that global and cultural narratives all-too-often overlook inequalities. We can also reflect the more recent approach by Carina Ray in *Crossing the Color Line*, where she addresses colonial historiography’s observed gap between “colony and metropole” by observing how race and sex was utilized by colonizing men in the Gold Coast, and how Gold Coast West

Africans responded to the resulting legal and social implications.\textsuperscript{24} As we will see below, this connectivity will also tie into discourses already existing in Atlantic World scholarship, and fill a “gap” they present in the process.

Additionally, the scholarship around mobility informs the research utilizing connectivity below. Emerging over the last two decades and focused around the movement of peoples, often in the process of migration, commercial routes, or the movement within and between polities, mobility provides insight into a less spatially-focused record of history.\textsuperscript{25} Connections are a useful artifice in this scholarship; in fact, connectivity is often referred to in the works.\textsuperscript{26} That said, the disciplines among the scholarship - ranging from economics to anthropology to archaeology – often emphasize a snapshot in time, or focus on contemporary events. To wit, they are not historicizing the analysis, recognizing change over time. Utilizing connectivity in an historical lens can break a project or development outside of its moment and place it into an analysis of change.

Focusing on connectivity also acknowledges that infrastructure has persistence in and of itself that can be built, accessed, maintained, and enhanced. The amount that a polity or community invests in infrastructure is reflective of its financial approach and success, the direction it takes towards maintaining its success, and is part-and-parcel of the kind of systemic control and versatility Arrighi identifies in hegemonies. The more connections places have

\textsuperscript{25} Examples of migration and mobility include Siddle (2000), Shen & Chiang (2011), Nelson & Strawhacker (2011); examples of mobility’s economic impacts and influence in state formation include Clark (2010), Reitalu et al (2010), Shepherd et al (2011); examples of mobility’s influence on culture include Vasquez (2008) and Sperveslage in Garcia (2016); a more comprehensive use of mobility noting all these potential areas of influence, and set in a Western Africa context, is provided through work of Judith Scheele, most notably Scheele & McDougall’s \textit{Saharan Frontiers} (2012).
\textsuperscript{26} A recent memorable example is found in Penny Harvey and Hannah Knox, \textit{Roads: An Anthropology of Infrastructure and Expertise} (Ithaca, NY: Cornell University Press, 2015), 28-30.
between one another, including roads, rail, communications, and trade, the more versatile and influential places can be over local and international spheres. Thus, by looking at connectivity rather than territorial largesse, we focus our understanding of world history and the global economy on phenomena that have less volatility and greater persistence than global finance or financial institutions. A good case in-point: while the Venetian, Dutch, and British hegemonies have all declined in their control of foreign lands, Venice, Amsterdam, and London are still valuable points of trade in the Atlantic Ocean and Mediterranean Sea.

Additionally, connectivity can give us insight into how power can shape economies and their place in the international sphere. The decisions for direction and connections established by infrastructure have always been rigidly controlled, often by a combination of state and private financiers. As we will see, wealthy planters in the American South had almost complete control over the direction of rail lines, to the point that the tracks literally came up to their doorsteps. The original world-changing connection across the Isthmus of Panama was not a canal initiated by United States President Theodore Roosevelt but a railroad traversing a similar route a half-century prior, at the impetus of financiers who quickly established ports on the eastern and western ends of the rail line. The British in Gold Coast West Africa saw railways as an artifice of colonially-hosted profit-making, running them directly from overseas ports to gold mining operations in Tarkwa and the vast interior markets that converged in Kumase. While the focus in this comparative history is railroad development, it is important to note this is for the sake of the comparative, and not the sole means through which connections are created or fostered.
Coercion & Labor

The actual construction of these connections was some of the most difficult – and most vital – work in building the future economies. At a very tangible level, laborers were structuring future society, something that would persist long after they had passed. At the same time, they were often a part of that society, or were to become a part of that society, and their labor was carried out within a complex tapestry of societal constraints and opportunities. One does not have to look too hard to see how their work, and their experiences, comprise a vital perspective on constructing economies in the Atlantic World.

In the scope of these projects, we cover a crucial transitional period in labor globally, with major bearing on railway construction. Entering the 19th century, the institution of slavery had coalesced around the African continent, with Europeans and Middle Eastern and Indian merchants purchasing enslaved Africans and transporting them across the Atlantic and Indian Oceans. Leading up to the 19th century, argued Immanuel Wallerstein, capitalists had responded to the limitations of access to commodities, which could otherwise incur excess technological costs, by coercing people living in these periphery locations into unskilled labor in slavery.27 Subsequently, in areas that enslaved laborers escaped or, in the case of some American Indian communities, died from disease, enslaved Africans from across the ocean were the next closest coerced labor supply. Labor in grueling, unskilled tasks was crucial for capitalization in the Atlantic World, according to Wallerstein, because agreements of indentured servitude were difficult to acquire for deadly tasks like sugarcane harvesting.28 In the solidifying capitalist world-system of the time, capitalists utilized wages and skilled labors of the core, sharecropping

and forms of indentured labor in the semi-periphery, and slavery and coerced, unskilled labor in the periphery.

Yet echoing Steve Stern – who implored that Wallerstein’s world-system was missing crucial complexity, particularly in Latin American labor and the agency of people of color in those regions— we will see Jamaicans and Barbadians pursuing indentured labor in Panama, pushed by epidemics and poverty at home and pulled by the potential for hard currency. Stern suggested penniless death at home was often superseded by wages of death abroad in the “greater Caribbean” for many centuries, especially among people of color. We will see additional complexity in the Gold Coast, where West Africans with hard currency from their railroad labor engaged in land purchases agreements with – as Polly Hill called them – “corporate land-holding lineages” who encouraged cocoa cultivation and captured wealth through tribute from these entrepreneurs. Capitalist endeavors folded over into feudal systems, and depending on the demands of the chieftaincy even sharecropping occurred in an immense center of cocoa production in the early 20th century.

Further complicating matters in the labor transition from slavery to wage labor was the use of convict labor in the American South, by virtue of a convict lease system so exploitative and corrupt it was eventually outlawed.

In sum, the histories of rail in the American South, Panama, and the Gold Coast demonstrate that complexity reigned over labor as previous forms of exploitation were abolished and peripheral communities engaged established global markets. Slavery gave way to a plethora

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of complicated labor agreements that included virtual indentured servitude, very low-wage and contract labor, and legally-sanctioned slavery in the form of convict labor. These positions supplanted coerced and slave labor supply for grueling tasks, but the complex array of arrangements suggested that capitalists had sought and would seek any way to defray new costs in slavery’s absence.

*African Diaspora and an Atlantic World*

It is important to consider this comparative history in the wider global context of the Atlantic World in which it operated, and the African Diaspora’s relation to the Atlantic World historiography. In scholarship, the Atlantic World, encompassing a vast, diverse and evolving geography of trade relationships and travel between ports and polities surrounding the Atlantic Ocean, emerged with the increasing number of voyages of European – primarily Spanish and Portuguese – ships to West Africa in the middle of the 15th century. In truth, the Atlantic World was really a shift in pre-existing trade, which included centuries of commerce and exchange along the African Atlantic coast among African sailors and fishermen, and similar interaction among island inhabitants of the Caribbean and along the Atlantic coast of South America. This trade was peripheral to complex river and overland trade within the continental landmasses, focused toward large communities along the Amazon River and into Mesoamerica and the widespread trans-Saharan and Indian Ocean trade networks.

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Rather than a creation of European exploration, the Atlantic World was an expansion, then connection, of the river and overland networks on either side of the ocean. Egyptian and Mesopotamian sailors had made a similar expansions across the Mediterranean around 3000 BC, as had Chinese sailors to the far western side of the Indian Ocean by 14th century. Emerging in scholarship in the post-World War II era in the context of Cold War geopolitics, for decades the phrase figured more prominently in scholarship concerning the North Atlantic Treaty Organization and the history of its eventual membership. As the Atlantic World entered historiographical lexicon, it likewise emphasized connections among these Westernized nations, placing their increased trans-oceanic travel as primary in the Atlantic World concept. This began to shift in the 1960s, most notably in works by Philip Curtin, Stanley Engerman, and Eugene Genovese on the Transatlantic Slave Trade. Curtin, contrary to the North Atlantic focused scholarship, suggested the slave trade be considered part of a “South Atlantic System,” connected to an economic supply chain extending into the African interior as well as the regions of production established in the Americas. The change was increasingly evident by 1970, when the South Carolina Historical Society hosted a conference emphasizing the “southern colonies” of the Atlantic World – a loose appellation referring to the Caribbean, Americas, and Africa in scholarship on the Atlantic World.


36 Curtin, *Cross-Cultural Trade in World History*, 73.
37 Curtin, *Cross-Cultural Trade in World History*, 120-123.
39 Philip D. Curtin, “Epidemiology and the Slave Trade,” *Political Science Quarterly* 83.2 (June 1968), 191-192.
For large part, though, enslavement was the focus of “southern Atlantic” inclusion in Atlantic World historiography to the 1980s. Then, at the same time of Curtin’s development of the “trade diaspora,” John Thornton’s *Africa and Africans in the Making of the Atlantic World* placed African societies squarely in roles as agents in Atlantic World history, creating a historiographical descendant of the African agency seen in the anthropological assertions of Cheikh Anta Diop or economic arguments of Walter Rodney. Thornton’s historical Atlantic World was a dynamic web of connections; emerging in the 16th century, Thornton characterized it thusly:

One must always remember that in the age before rail and air travel, waterborne travel was immensely cheaper and more practical – despite the risks of storm and shipwreck – than overland travel. Not only could boats and ships average fairly good time, but they were energy efficient in an era that had few energy resources, and they could, moreover, carry heavy and bulky goods easily. Thus, creating a geography of the Atlantic area must take areas accessible by water transport as its first dimension, for use of the water would greatly alter other considerations of space and distance, linking regions that were apparently distant more easily than regions that apparently lay close to each other.

The first of these great water routes was the Atlantic itself, opened for practical use in the fifteenth and early sixteenth centuries. But the Atlantic was also linked to riverine routes in both Africa and the Americas, which formed a vital supplement to the ocean, bringing societies and states that often lay hundreds of kilometers from the coast into contact with the ocean and, thus, with other societies and states. Even the rivers that did not allow ocean-going vessels to pass into interior regions (because of falls, narrows, or sandbanks) served as connections to extensive travel and commercial networks in the interior. The combination of ocean and river routes defined the shape of the Atlantic zone.41

Thornton continued by noting that the navigation was not always straightforward, that ocean currents and cyclical breezes dictated particular navigational patterns. For instance, ship navigation north from West Africa to the Mediterranean was immensely difficult due to a

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resistant southward ocean current.42 Thornton’s characterization of the Atlantic World seems closest to reflecting the underlying network that comprises subsequent Atlantic World historiography, with some cultural and psychological additions thanks to the development of the African Diaspora – or the connections of culture and history among people of African descent outside the African continent – in scholarship.

The Atlantic World has often run parallel to the African Diaspora in historiography, though their combined usage has grown in more recent decades. Conceptually, the African Diaspora in scholarship was the subject of considerable anthropological debate in the early 20th century, though its roots ran back to Ethiopianism in abolitionist and Black nationalist scholars of the early 19th century. The emerging pan-Africanism of Blyden and later DuBois and Garvey also emphasized unity and kinship among people of African descent, as did artists and scholars of the Harlem Renaissance;43 historians Carter G. Woodson and John Wesley Crommell applied this to their discipline, presenting the relationship between African communities of the past and African American communities in North America.44 This current in history, rarely recognized by the discipline’s white establishment, received wider acceptance with Melville Herskovits’ The Myth of the Negro Past, which critiqued anthropological orthodoxy on the cultural loss and disorganization of African cultures due to the slave trade, as well as Hegel’s assertion that Africans did not have a past. Using overwhelming evidence, including citations of examples presented by DuBois and Woodson, Herskovits demonstrated the cultural linkages and

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42 Thornton, Africa and Africans in the Making of the Atlantic World, 15.
43 Much of this development was amply demonstrated in Alain Locke, ed., The New Negro: An Interpretation (New York: A. & C. Boni, 1925).
persistence between African cultures and people of African descent across the Atlantic World, concluding that Africans and people of African descent indeed had a history.\footnote{Melville J. Herskovits, \textit{The Myth of the Negro Past}, 2\textsuperscript{nd} edition (Boston: Beacon Press, 1990), 294-299.}

These developments are strongly presented in the theoretical underpinnings of Atlantic World history; indeed, many were directly referenced subsequently by Curtin and Thornton.\footnote{Examples include Philip D. Curtin, \textit{The Atlantic Slave Trade: A Census} (Madison: University of Wisconsin Press, 1969), 6, 10; Thronon, \textit{Africa and Africans in the Making of the Atlantic World}, 209-210.} When combined, the African Diaspora and the Atlantic World provide a fuller historical portrait of people of African descent, recognizing the history of their communities before the coastal, river, and overland routes expanded to meet their kindred networks across the ocean.\footnote{Examples include Bailey (2005), Hawthorne (2010), Ogundiran & Fhalola (2010), Sweet (2011), Fogleman (2013).}

Furthermore, the structure and actions of these communities, and their interactions with those outside their communities, shaped their history within the expanded Atlantic World, and their culture did not disappear even when oppressed within it.\footnote{Examples include Harris (1982), Bond & Gibson (2002), Greene (2002).} More recent Atlantic World historiography demonstrates the unity among these concepts. Patrick Bellegarde-Smith’s work on Haitian Vodou in \textit{Fragments of Bone} drew together Vodou with its ancestor, the West African religion of Vodun. Bellegarde-Smith noted the development of Vodou was profoundly shaped by subsequent historical events in Haiti; the Haitian Revolution itself is recognized by Haitians as an important event and manifestation of the religion, and many of its leaders are also prominent spiritual figures in Vodou.\footnote{Patrick Bellegarde-Smith, “The Spirit of the Thing: Religious Thought and Social/Historical Memory,” in Patrick Bellegarde-Smith, ed., \textit{Fragments of Bone: Neo-African Religions in a New World} (Urbana, IL: University of Illinois Press, 2005), 53-54.}

Daniel Domingues da Silva’s tireless work deciphering Portuguese documentation of the slave trade from Angola to Brazil has revealed the degrees to which the Atlantic World extended to include concentrated interior Angolan locales across to agricultural and mining endpoints in Brazil, and utilized this network to explore tangible cultural connections.
for the enslaved Africans.\textsuperscript{50} Christopher Fennell used the examples and archaeological evidence of private, secretive BaKongo and Yoruba rituals among enslaved Africans in North America to demonstrate that forced secrecy meant the persistence of African culture in the Americas was buried, and more widespread than previously thought.\textsuperscript{51}

A particularly strong source of Atlantic World and African Diaspora history has been the research on “slave maroon communities” in the Atlantic World. Bellegarde-Smith drew on these considerably, with maroon communities and later remote villages being crucial areas where Haitian Vodou could be practiced freely.\textsuperscript{52} Osei-Mensah Aborampah noted the recreation of Akan religions and community organization among maroon communities in Jamaica, who drew upon their past in West Africa.\textsuperscript{53} More recently, Michael Douma synthesized works that called attention to marronage in North America – contrary to the common focus on Caribbean and South American marronage in historiography. He noted in particular the parallels among resistance and marronage across the Americas, ostensibly because enslaved were draw from similar regions and encountering similar oppression.\textsuperscript{54} Finally, Sylviane Diouf in \textit{Slavery’s Exiles} suggested that recently arrived enslaved Africans from Africa were more likely organize revolts and create maroon communities.\textsuperscript{55} Diouf portrayed the decision to escape upon land arrival as a “continuum” of thought and planning that would have occurred during the Middle Passage; adding to this theory, she also noted that newly-arrived Africans frequently escaped in

\textsuperscript{51} Christopher C. Fennell, “BaKongo Identity and Symbolic Expression in the Americas,” in Ogundiran and Falola, \textit{Archaeology of Atlantic Africa and the African Diaspora}, 219-226. \\
\textsuperscript{52} Bellegarde-Smith, “The Spirit of the Thing,” 56. \\
\textsuperscript{54} Michael J. Douma, “Review: Slave Maroon Communities in the Atlantic World,” \textit{Journal of American Ethnic History} 35.4 (Summer 2016), 96-97. \\
groups, unlike enslaved Africans who had been in the Americas longer.\textsuperscript{56} Diouf’s “continuum,” in particular, is a tremendous psychological addition to the cultural and structural tapestry of the African Diaspora in Atlantic World historiography.

Considering the scholarship, the Atlantic World is conceptualized as networks of social historical ties, working through channels of travel and trade that integrated oceanic routes with existing overland, coastal, and river routes in Africa and the Americas. That the trans-oceanic connection was initiated by Europeans betray s an important fact: over the bulk of Atlantic World history, the overwhelming majority of persons who crossed the Atlantic and established the strongest cultural linkages across the ocean were people of African descent.\textsuperscript{57}

Though Atlantic World communities changed frequently over time, some of the routes that comprised this network were more persistent, largely due to geographic convenience. As Thornton suggested above, railways ushered in a new era of travel in the Atlantic World, a proposed technological improvement upon previous routes within the Atlantic World. The capital and technology necessary to undertake these projects sheds light on the evolving relationships and power dynamics in the Atlantic World in the mid-19\textsuperscript{th} to early-20\textsuperscript{th} century. People of African descent were frequently swept into these projects out of necessity – Western entrepreneurs were supported in their attempts to coerce them into a large, cheap labor force, and people of African descent often needed hard currency to survive the new imperial and colonial economies. They also experienced a crucial labor transition that transformed enslavement into complex, exploitative wage and indenture relationships.

The examples of the American South, Panama, and the Gold Coast are intended to push Atlantic World historiography further forward, beyond enslavement into this labor transition and

\textsuperscript{56} Diouf, \textit{Slavery’s Exiles}, 57-59.
\textsuperscript{57} Thornton, \textit{Africa and Africans in the Making of the Atlantic World}, 14.
railway construction period. People of African descent, pushed to construct these new avenues for foreign commerce, also created own worlds of opportunities and brushed up against utterly new forms of oppression as the specter of enslavement receded. They experienced three different examples of labor roughly intended to offset abolition: sharecropping and low-wage, itinerant labor in the American South, a combination of indentured and low-wage labor in Panama, and colonial labor in the Gold Coast which often had a combination of all three. Thus, these projects were also reflective of what amounted to imperial power in the Atlantic World, implemented in increasingly rigid, structural patterns, as American entrepreneurs sought to expand west across the American South and Panama, in the same way British entrepreneurs eagerly sought expansion to the interior of the Gold Coast.

I see this comparative history most comfortably placed with the intent to expand on previous Atlantic World research, particularly addressing the era of rail alluded to by Thornton, but it is also closely aligned with the recent development in African history of the aforementioned “mobilities” as well as “spatial analysis.” Introduced by Allen Howard and Richard Shain, spatial analysis is an interdisciplinary approach that is “interactive” and “regional” in its focus, emphasizing connections and wider, multi-state regions of cooperation and contention.58 Howard and Shain’s spatial analysis fits quite well with connectivity in recognizing the reflexive changes of communities to different economic and political situations, but their focus on space might subsume connections. For instance, in one passage they note their *The Spatial Factor in African History* “focuses on places and especially on regions in their

The desire to maintain space as an analytical unit, with this approach, could overstate control or influence, where an emphasis on movement would better indicate important connections spatially. In this way, we can use mobility to break from the spatial emphasis of Howard and Shain, while still not entirely removing ourselves from the structures that were created to enable the mobility. In the process, we can observe how those connections in the Atlantic World contributed to movement, yet still avoid the somewhat “frozen” temporal or contemporary restraints that remove the analysis from historicity.

Interlude: Modernity and Globalization

In many ways the decision to exclude needs to be explained as much as what was included, particularly with connectivity; with research focused on railway development and its relationship to the African Diaspora in the Atlantic World, it is important to address the concepts of modernity and globalization and why this author does not consider them particularly useful paradigms for this historical analysis. The topics of globalization and modernity have both often been applied to infrastructure projects in the past, particularly to allude to a sort of ushering-in of the affected regions to Western orthodoxy. I have concerns about both terms, particularly as they tend to operate in the Atlantic World.

Globalization, insofar as it might have cohesive definition, infers that communities worldwide are becoming increasingly integrated, often through technology but also through market formation (in adopting these changes, communities are essentially “modernizing”).

illustrate the confusion, a recent argument in the last few years, made by anthropologist Brian Spooner, is that globalization is achieved through urbanization, a contention that would once again place the spatial (in this case, “urban” areas) above the connections that foster it. He notes that the study of globalization is actually two currents, one a long history of increasing interaction going back 60,000 years, the second the more recent late 20th-century discourse.62 This latter discourse, which emerged in the late 1980s, has been increasingly applied to much more complicated and diverse sets of processes ranging from literary influence to law practice.63

Its usefulness as an historical concept is difficult to ascertain, in part because of this emphasis on contemporary topics, in part because of the unclear definition through varied use and diffusion. The former can well be understood, because the concept did not achieve regular usage till the last quarter-century; therefore, actions through globalization, or in relation to it, can be tangibly sourced. The latter greatly complicates its useful application to the distant past, nevermind the sourcing to validate such application.

The close relationship of globalization as a sort of “modernity” process64 is also troubling in relation to its use in historical narratives of the African Diaspora. Modernity and globalization have often carried Eurocentric definition, oftentimes creating the impression that construction or policy that is European planned or supported is “modern” or “globalizing” where local technology, innovation, and culture is “backward” or “traditional” and therefore in opposition to

modernity and globalization. Recognizing the damage fitting these paradigms might do to analysis goes far back in Atlantic World scholarship, at least to Polly Hill’s arguments for an “indigenous economics” in the 1960s. In subsequent scholarship, modernization was more acceptably (to academia) applied in historical analysis of distinctly Western societies. Globalization apparently did not receive the same level of scrutiny, and recent efforts of academics like Brian Spooner suggested efforts to expand the applicability of the term. This has included Africanist David Northrup’s attempt to fit globalization to a longer lens of history, rebranding globalization as a “convergence” process across global communities starting from 1000 AD forward. Yet even these attempts makes one wonder if academia is not just channeling itself towards the same kind of “double consciousness” (one European identity, the other Black) that Paul Gilroy saw in conceptions of modernity in his Black Atlantic in the early 1990s. Indeed, Africanist James Ferguson noticed a virtual absence of Africa in a majority of “globalization” narratives in the late 20th and early 21st centuries.

In any event, my hesitation is not unique, and widely shared in historical narratives of the regions in this comparative history. None of the aforementioned historians above (Baptist, McGuinness, Curtin, Thornton, Wilks, Kornweibel) use globalization nor modernity to describe or qualify the eras and regions in their historical narratives. William Thomas actually redefines modernity to make it apply in his work, removing it from its prior meaning in the process.

70 Ferguson, Global Shadows, 26-27.
71 Thomas, The Iron Way, 8-11.
That said, a final reason for avoiding the use of modernity and globalization comes from the historical sources themselves. In building the comparative history, the sources rarely provide any ready description of modernizing or globalizing processes without a generous and potentially anachronistic interpretation. The railways in the American South were far more reflective of competing interests in the marketplace and Southern society than they were an integrative force; the thoroughfare across the Panamanian isthmus actually bypassed previously integrated overland networks; Gold Coast peoples, as we will see, did not find the railway particularly useful for the internal economy. More than modernizing or globalizing, these were re-structuring forces, even in the Gold Coast case these structures strode aside pre-existing ones.

Conversely, connectivity emerges from the source materials, and provides a complex and dynamic portrait of personal experiences and structural change. Another concept that emerges, particularly from the Panama and Gold Coast sources, is the concept of development; for this reason, the analysis stretches forward to demonstrate how development efforts shaped railway projects in the future, beyond the analysis’s chronology. This approach grants historicity to the comparative, and provides potential avenues for additional research over a longer duration.

Methods

The primary sources used in this work are drawn predominantly from seven types of sources: so-called “slave narratives” or personal African American histories collected by the United States’ Works Progress Administration in the 1930s and 1940s, Kwame Yeboah Daaku’s interviews with Akan village elders across much of central and southern Ghana in the 1960s, autobiographical works by African Americans, Afro-Caribbean peoples, and Akan peoples published in the 19th and 20th centuries, travelling journalist narratives and newspaper accounts,
colonial reports, and geographical accounts of the regions in question. Each of these sources have considerable scholarship critiquing their production and perspective; Stephanie Shaw provided a reasonable overview of WPA critiques, and her ensuing article, along with Michael Gomez’s efforts in *Exchanging Our Country Marks*, demonstrate that we can effectively use these sources by recognizing interviewer racial biases and leading questions and focusing on interviewee’s words that work around these biases. Johnnie Stover noted that, for African American women’s autobiographies in the 19th century, they often spent time asserting their humanity to the likely majority-white reading audience for their works. With that audience in mind, rail became an important device for African American women to assert their strength relative to men, and autobiographies generally provide useful information about railways and laborers without solicitation. Erlene Stetson provided a great example of navigating biases in all these source materials while tracking the discussions from her course on the Black female slave experience in primary and secondary sources, shared in *But Some of Us Are Brave*. Stetson demonstrated how Black women’s narratives, taken together, are literary and historical, and provide important women’s perspectives to events otherwise predominantly shaped by men’s narratives. Much of my research pays heed to the lessons and discourse from these authors as I build a history from this wide variety of 19th and early 20th century accounts.

76 Stetson, “Dispelling the Myths,” 71-73, 78-79.
On the other hand, travelling journalist narratives – and particularly newspaper accounts and colonial reports – have targeted audiences, and those audiences frequently sought analyses of railways and the efficiency of their laborers. This was certainly the case in the Gold Coast, though I agree with Carina Ray that African-produced newspapers can help include African perspectives to balance colonial reports, and from the reports themselves we can occasionally glean African, especially African male, agency.77 Furthermore, in many of these accounts and reports the travelling author has incentive to be analytically-minded; in the process, they grant us frank portrayals of the construction conditions and challenges – the kind of information that would interest a potential investor or purchaser of bonds. Particularly in the case of Panama, the accounts need to be carefully scrutinized alongside a multitude of contemporary observations. European and American analysis perpetuating racial stereotypes of Black laborers, consistent across the Atlantic World, should be recognized for their bias, rather than insight into any kind of “nature” of laborers of African descent. Indeed, these laborers were consistently employed or coerced in most difficult production in the 19th and 20th century Atlantic World, a fact that provides far more valuable insight into their experiences and the history of the infrastructure projects.

Based on the discourse above, I maintain we can derive robust history from these sources, especially where constructs of infrastructure and society are concerned. I agree with Ray, Stetson, Shaw, and Gomez that there are ways to navigate these biases and gain valuable source material; rail in this case calls attention to an important, evolving object in Atlantic World narratives – and the experiences of people of African descent. While the WPA narratives and the autobiographies including slavery either explicitly or implicitly give rise to descriptions of

77 Ray, Crossing the Color Line, 21-23.
African Americans’ labors, I do not think they solicit rail work in particular. And though journalists and colonial commentators included racial slurs in their descriptions of rail laborers, I think parts of their descriptions of construction are fairly accurate. A couple of contemporary works, Kathleen Hilliard’s *Masters, Slaves, and Exchange* and Edward Baptist’s *The Half Has Never Been Told*, have demonstrated the potential by including these 19th and early 20th century accounts together to provide vivid reconstructions of the American South, and include some valuable insights on economic production in the context of slavery. For these reasons, I maintain these diverse source materials can be brought together and, with critical eye, be used to inform our understanding of the history. To quote Baptist:

> No one autobiography or interview is pure and objective as an account of all that the history books left untold. But read them all, and each one adds to a more detailed, clearer picture of the whole. One story fills in gaps left by another, allowing one to read between the lines.  

As we will see, the significance of railway construction is expressed in a variety of ways through the source materials, and these stories provide an opportunity to include a multitude of perspectives. For these reasons, railways are one example where an examination of connectivity can provide the means for valuable comparative and global history.

**A Focus on the Tracks**

Railroads have long been celebrated as veins of trade, industry, and the extraction and transport of natural or cultivated resources. They were the connections that made the plantations and mines in the Atlantic World profitable for Europeans and Americans, and they had major bearings on value, risk, cost, economic growth, the spread of information, and colonial conquest.

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and expansion. The building process itself was grueling, particularly before the common use of steam power at the turn of the 20th century; the cutting into countryside, the removal of stumps, and the subsequent maintenance involved slow, heavy labor in prolonged exposure to a harsh environment. The paths consumed the sweat, blood, and lives of laborers of African descent, in the process creating persistent networks of trade, commerce, and society that have reverberated through the Atlantic World to the present-day. These laborers and their experiences have a visceral connection to what Kenneth Pomeranz and Steven Topik called “a conceptual revolution in time, space, and commodification.”^79

A comparative history of the American South, Panama, and Gold Coast West Africa will best draw a multitude of global themes from the materials, but I think it important to approach this history by affording each region its story as they emerge from the sources before bringing them together. Each story of railway construction emerges from a regional context, a history that needs to be explored, and the labor and subsequent structure of society likewise run distinct, divergent courses. Then I can demonstrate that these courses nevertheless shed light on global themes; for instance, we can observe the changes over time as labor shifted from enslaved to “free,” where laborers and employers tussled with how “free” their work should be, and how much profit employers were willing – or compelled – to surrender. Before carrying out these steps, I think it will be important to look at the longer world history of rail-building and its labor force, to “set the scene” for the comparative histories of infrastructure in the American South, Panama, and the Gold Coast, and generate ideas about the nature and purpose of both labor and tracks.

In the first chapter, an abbreviated history of railway construction, tracing all the way back to the first use of tracks over 2,500 years ago, will provide an overview of how railways emerged as a useful form of infrastructure, and how its use became increasingly sought in the 19th century. By looking at the evolution of the track and its value for the transportation of goods, we can also realize how much more valuable the marriage of steam power and tracks was in the 19th century. Furthermore, the chapter will provide an overview of rail-building in the Atlantic World specifically, as the projects had specific trajectory related to the dominant economies and financiers of the time.

The second chapter will begin the comparative research in the American South. The South comprises a strong first example for demonstrating the importance of enslaved labor to rail construction as well as the importance of railroads for transforming society. The United States’ first major foray into international trade was as an exporter of cotton, and it became significant globally for its success in the world cotton market. The construction and direction of rail-lines was vital to this accomplishment, as it allowed the primacy of King Cotton to be established; it also entrenched a wealthy planter’s class that had a major, formative presence in the US economy for over a century. At the crucial base of this construction were enslaved African laborers, who broke rock in the quarries, forged iron, logged timber, and laid the track – and found themselves post-emancipation largely carrying out the same tasks. This chapter helps us re-frame the American South’s economy as it moves our attention outside the plantation towards the tangible formation of the connections that made King Cotton thrive and helped create the lines of Jim Crow segregation.

The third chapter turns south of the United States to a familiar point of trade in Panama. Fifty years before the Panama Canal became one of the most celebrated trade linkages in the
world, US and European entrepreneurs financing expeditions all over Central America, desperate for quicker access between the eastern and western coasts of the Americas. The California Gold Rush of the late 1840s only intensified their search, creating a world in which zealous Americans sought to exploit the land and peoples in places such as Nicaragua and Panama. One major event during this period was the taking of Nicaragua by US entrepreneur William Walker and his army of so-called “filibusters,” looking to establish an empire built on slavery in an era when the United States seemed ever-close to abolishing the institution. A second, more-important event was the building of a trans-isthmus rail line across the American continent, the first (albeit short) trans-continental railroad in world history. Its financing fueled by the California Gold Rush, the Panamanian railroad was built in the brutal face of disease; Caribbean laborers of African descent became the core work force as European and Asian laborers perished at alarming rates. The rail line would end up being an essential aid in the later construction of the Panama Canal, allowing contractors to transport workers, tools, and materials to work sites much more efficiently.

In the fourth chapter, we will move across the Atlantic to examine railway construction in Gold Coast West Africa. The mission of European colonial powers during the primary era of rail-building was clear: develop controlled regions for the economic benefit of the home country. As effective medicine began to fight back the crippling impact of malaria and yellow fever at the turn of the 20th century, colonialists were able to move into the interior of African colonies and administer some control over commodities that had previously involved longer networks of trade through free African merchants. In this atmosphere, the building of railroads shared many of the aspects of those prior relationships, including the negotiation of spatial control, the conscription of enslaved and contract labor for the building of infrastructure, and reconfiguration of older
exchanges of regional goods. The colonial era marked a newer, more “legitimate” commerce (as was the verbiage for African and European traders in the region) that reduced slavery but nevertheless maintained most of the economic benefits for the European colonizer. Railroads paved the way for this new, exploitative relationship, though the question of its value for Gold Coast West Africans cast doubts upon its persistence.

The fifth chapter will be used to paint a picture of the comparative themes of these three regional histories. This includes the process of rail-building, especially in regards to the labor force and the work of laborers of African descent, and the relationship of these regions to the labor transition from enslavement to various *corvée* and colonial coercions, then finally to wages. This chapter is also an opportunity to compare the production of laborers of African descent to the construction of Atlantic World economies, in particular the persistent networks of trade and commerce that emerge from railways. In some cases, this work cut new paths, or transformed existing networks; in all cases they created profound change in the regional economies, and transformed their connection to the global economy. Ultimately, the confluence of these rail lines and their production place the African Diaspora at the center, not the periphery, of the history of the Atlantic World.

After identifying connectivity as a concept, emerging from the comparative history, I thought it important to extend the concept forward, engaging historiography and breaking it from the eras of analysis in the comparative history to carry it into the 20th century and development theory. Realizing the narrative break it entailed, the sixth and seventh chapters became a whole second part to the work, and a springboard towards future analysis. I felt this important for two reasons: a) as a concept that emerged from the comparative history, connectivity needed historiographical treatment, and b) lacking a substantial infrastructural historiography meant
engaging world historiography, of which railroad projects do not enter the picture as a unit of analysis until 20th century development theorists.

Across these two chapters, I observe the value of recognizing connectivity in the comparative histories and abroad, placing this approach among historical methodologies and historiography, and find it to be a valuable contribution to historical narratives. I also demonstrate that connectivity, like the connections themselves, has persistent applicability, particularly in the burgeoning movement for “development” in 20th century global history. As the 20th century progressed, each of the regions from the comparative history, their railway projects in myriad degrees of use and disuse, realized the legacy of those projects and how communities shaped and were shaped by them. In this way, we can see how observing connections can help us understand how projects in the name of development might, or might not, reflect the local economies. They can also portray complexity within regions, emphasizing connections of great use or in need of improvement, versus those that might be peripheral or transformative to the local communities.

Finally, the conclusion can also provide a critical re-examination of how history is understood; drawing attention to the connections between places can tell us as much about world history as a discussion of the places themselves. The roads and rail lines to Colón, or Charleston, or Accra, are evolving arteries of the Atlantic World, providing definition based on movement and markets rather than plots of land. This entire comparative research thus draws to a close around connectivity, and provides some avenues for future use of the concept.
Part I: A Comparative History of Rail
Chapter One: Railways and Revolution

The connections between communities and commodities, or communities and neighboring communities, have relied on well-trodden routes for much of human history. Whether these routes signified the safest passage, or the easiest paths to cut, or the shortest distances between two points by land, it is a recent human endeavor to drastically alter the efficiency of the paths themselves. Standardized roads were the first iteration of these innovations and rail lines, though currently subject to debate, were considered an improvement upon roads, particularly for heavy goods. The history of rail’s development in the Atlantic World needs to start with an examination of the infrastructural form itself, along with its uses and construction. By observing this development, we can understand how rail evolved out of the desire for efficient connections and eventually became a major artifice of imperial profiteering, construction, and control.

The beginning of humanity’s attempt to alter all three traces back to Ancient Egypt. The paving and maintenance of roads, though more famously executed by the Romans, dates to 2500 BCE Egypt. Following the Egyptian example, the Assyrians began the process of standardization, including the extensive use of cobblestone in towns and some of the first milestones. While not a vital economic undertaking for the Egyptians, the Assyrians considered road and canal-building as essential networks for the economy of state. As such, the labor employed to create them fell to two groups: the enslaved and corvée laborers owned by the peoples along the canal or road – frequently a patchwork operation, as few private citizens

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owned more than thirty enslave persons – and the large number of enslaved workers in the employ of the Assyrian government.\textsuperscript{83} The Roman system took the Assyrian standardizations to a higher level, including frequent road maintenance, milestones, and courier stations, creating a template that would be repeated by many subsequent organizations of infrastructure.\textsuperscript{84}

The Romans also adapted another innovation of transportation, borrowed from Ancient Greece: railways. First used to aid with the movement of stages and equipment for Greek theatre productions, the track’s value on a grander scale was first realized in the construction of the Diolkos trackway (circa 600 BCE), to aid in crossing the Isthmus of Corinth. The grooved rock track, later including inlaid, more-finely cut “rails,” was an efficient means of moving goods and even ships across the isthmus, sparing vessels the risk of traversing the dangerous waters of the Peloponnese.\textsuperscript{85} The track would be in frequent use for over six centuries; its efficiency earned Corinthian trade the reputation of being fast and persistent.\textsuperscript{86}

Though the Romans would use some of these track designs, they also frequently constructed rail lines more familiar to contemporary designs to help mining operations. M.J.T. Lewis observes that these designs, and their similarities to later medieval designs in Europe, suggest that the knowledge was passed down or at least imitated through the Middle Ages in Europe. He also notes that railways were used for mining consistently in Europe from the Roman Empire to the contemporary era.\textsuperscript{87} Labor and transportation on these railways was difficult, and vital to the state of the economies in Greek and Rome; the building, maintenance, and use of


\textsuperscript{85} Lewis, “Railways in the Greek and Roman Empires,” 10-11, 13.

\textsuperscript{86} Lewis, “Railways in the Greek and Roman Empires,” 15.

\textsuperscript{87} Lewis, “Railways in the Greek and Roman Empires,” 16.
these railways almost always fell to the enslaved, in the same way it had in Assyria and Egypt.\textsuperscript{88} In peacetime, Roman soldiers were often tasked to join the enslaved in the building and maintenance of infrastructure.\textsuperscript{89}

Thus, the knowledge of the value of these tracks for trade and production far pre-dates the engines that would revolutionize its use. It guaranteed that the proliferation of the steam engine, another innovation tracing back to Ancient Greece, would bring much attention from the industrial and agricultural sectors once the technology was available. Nowhere was this more evident than the Industrial Revolution in Great Britain, where vast seams of coal ensured steam engine fireboxes roared throughout the island. Eager entrepreneurs and inventors, seeing opportunities for wealth typically reserved for aristocracy, embraced the new technology; the amount of steam power used in manufacture and transportation increased by 700 percent in the four decades from 1760 to 1800, then quadrupled from 1800 to 1830.\textsuperscript{90} In the first six decades of the 19\textsuperscript{th} century, railway entrepreneurs like George Hudson put considerable efforts towards integrating the rail networks, resulting in immense and increasing domestic prosperity from the 1840s onward.\textsuperscript{91}

While the coverage necessary to support the transport of commodities was relatively modest in Europe, the vast lands and resources seized in the Americas created a great necessity – and thus, great market – for materials and labor for transportation. Kenneth Pomeranz argues that the “New World” provided other opportunities as well; namely, by producing commodities that would normally require large amounts of resources and land in Europe, the New World saved

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\textsuperscript{89} Peter Temin, “The Labor Market of the Early Roman Empire,”\textit{ The Journal of Interdisciplinary History} 34.4 (Spring 2004), 522.
\textsuperscript{90} Nicholas Crafts, “Productivity Growth in the Industrial Revolution: A New Growth Accounting Perspective,” \textit{The Journal of Economic History} 64.2 (June 2004), 525-526.
\textsuperscript{91} Crafts, “Productivity Growth in the Industrial Revolution,” 528.
\end{flushleft}
European territory for less exhaustive crops and the growth of European cities and infrastructure.\textsuperscript{92} Just as importantly, notes Pomeranz, it is necessary for there to be geographical convenience or established infrastructure to ensure the benefits could be reaped by Europeans seeking to utilize these “resource windfalls” in foreign lands.\textsuperscript{93} Great Britain is a prime example of this pursuit of infrastructure, and it was no coincidence that their mid-19\textsuperscript{th} century peak of domination in the world economy was also a period when its iron exports for rail-building more than tripled; exports of the same type to the Americas more than sextupled.\textsuperscript{94} By supplying many other European and emerging American countries with the means to profit from railways, they were also contributing to the development of fast, high-volume exchanges of goods on a global scale.

The value of these exports was only as great as the labor required to accomplish their cultivation or extraction, as well as their transport. By the 19\textsuperscript{th} century, this challenge had largely been addressed through the trans-Atlantic Slave Trade. As Eric Williams argued, a combination of the need for large numbers of laborers and the difficulty in retaining a labor force due to disease, desertion, or indenture limits led most of the European entrepreneurs and agriculturalists to support the kidnapping and sale of millions of enslaved Africans.\textsuperscript{95} It was through these inhumane, exploitative choices that enslaved Africans came to comprise the bulk of the railroad laborers in the American South, Panama, and Gold Coast West Africa, particularly in the areas of “grunt work;” namely, the clearing of land, the breaking of rock, and the laying of track. As we shall see below, European and American perceptions of these laborers were highly racialized,

\textsuperscript{93} Pomeranz, \textit{The Great Divergence}, 253-254.
\textsuperscript{94} Arrighi, \textit{The Long Twentieth Century}, 165.
simultaneously justifying the “place” of workers of African descent in debilitating labor and calling into question their efficiency and intelligence.

Before looking at the spread of railroad construction in these regions, a little more context should be understood. The economic opportunities offered by the extension of rail lines, the advancement of production technology (i.e. steam, cotton gin), and industrialization in European and North American cities gave rise to an growing number of potential financiers emboldened by European and American banks and companies willing to provide venture capital. In many cases, the European and US governments were directly involved in safeguarding private assets overseas, as had their Dutch hegemonic predecessors – sometimes at their own economic peril.96 By the mid-19th century, a rising class of United States East Coast and plantation South investors, spurred by the Monroe Doctrine, joined British overseas financiers in Atlantic World speculation, creating a flurry of land surveyors, lobbyists, and sponsored “explorers.” Eager businessmen and journalists traded ideas for traversing the Central American isthmus decades before a railroad was completed.97 H.R. Hill noted that the concept of building a canal across the Panamanian isthmus goes back even further, at least to German naturalist Alexander von Humboldt’s survey in 1803, though a later British surveyor, John Lloyd – hired by Simón Bolívar to explore the idea – erroneously refuted Humboldt’s claims that a lock system would be necessary.98 Bolívar had earlier expressed hope that a canal system could propel the Isthmus of Panama to the greatness of the aforementioned Isthmus of Corinth, and join the American polities together in a vast confederation.99

96 Williams, Capitalism & Slavery, 98-103; Arrighi, The Long Twentieth Century, 63.
97 Otis, Isthmus of Panama, vii.
99 Simón Bolívar, “Reply of a South American to a Gentleman of this Island [Jamaica],” 6 September 1815, translator Lewis Bertrand, in Selected Writings of Bolívar, Harold A. Bierck Jr., Editor (New York: Banco de Venezuela, 1951), 119.
In addition to the speculation of statesmen and profiteers, a group of marauding American Southerners called “filibusters” began leading rebels and American conscripts in military coups in the new Central and South American states, with the purpose of installing governments friendly to the foreign entrepreneurs. This idea also had early 19th century roots; Aaron Burr expressed interest in overthrowing the early Mexican government for this purpose, as did Francisco de Miranda in Venezuela. Zealous filibuster William Walker and a force of 45 to 60 men attempted to annex Baja California in the 1840s, but were far more successful in taking control of Nicaragua in 1856 and installing Walker as President for nearly a year. He was overthrown in 1857 and executed three years later.100

Radical measures such as these give us a powerful insight to the degree of motivation for imperialists and capitalists to command or connect global marketplaces. A similar drive, aided by the sharing of technological innovations, led United States entrepreneurs to finance railways and steam locomotives at the same time they were spreading across the British countryside.101 Aided by rich anthracite seams in northeastern Pennsylvania, similar to those mined for centuries in southwestern Wales, railroad proponents on the East Coast had sufficient fuel for their endeavor, but lacked the large quantities of iron rails to fulfil their plans. British imports met the demand, though in the 1830s the US government sought to stoke domestic iron production by placing import duties upon unfinished iron bars.102 Unhappy with either choice, some of the first US railways include large sections of wood or stone tracks, though these quickly proved to degrade far too quickly or disappear outright, the valuable finished materials stolen into private

102 Dilts, The Great Road, 124-127.
building projects and their black market.\textsuperscript{103} Earlier US railways had to settle with the imports, and the fledgling domestic iron sector rose and mostly fell with federal tariff adjustments, which largely favored the foreign product.\textsuperscript{104} Domestic iron production would not challenge this problem until the latter third of the 19\textsuperscript{th} century, when massive iron ore deposits discovered in the Great Lakes region were transported by growing rail networks and later large schooners to foundries across the Midwest and northeastern United States.\textsuperscript{105}

The American South and its massive cotton exports, on the other hand, ensured that there was a mutual interest between British rail and Southern cotton. As we will see below, the concentration of wealth in a plantation-based upper class collaborated with rail technology to entrench planters near the top of the antebellum US economy. This partnership was strong enough to ensure that railroad development in the mid-Atlantic and southern United States performed at or above national average to 1850.\textsuperscript{106} While the devastation wrought by the Union Army posed a considerable challenge for the Reconstruction South, the cuts and grades had already been achieved in most regions, and the rise of the Birmingham foundries and Southern coal mining ensured that the wealthy Southerners could diversify and transition rail networks for the United States’ industrial revolution.

The emergence of colonialism in the 19\textsuperscript{th} century came in the wake of a separate internal economic transition for African states, away from the incorporation of the trans-Atlantic slave trade. While this transition strengthened and integrated virtual capitalist states grounded in local

\textsuperscript{103} Dilts, \textit{The Great Road}, 128-131.
\textsuperscript{104} Dilts, \textit{The Great Road}, 312.
currency, markets, and political structures.\textsuperscript{107} African polities that relied on exports to countries outside Africa remained positioned with a singular points of access to those markets through the ports. This considerably compromised their ability to assert influence over those markets, particularly with commodities that could be produced elsewhere.\textsuperscript{108} Additionally, European states were not satisfied with these new relationships that could potentially compromise their access and profits from internal African resources;\textsuperscript{109} by the late 19\textsuperscript{th} century European governments felt sufficiently prepared to begin a new era of conquest. While in the Gold Coast railways initially did not seem to be a priority in realizing British imperial ambitions,\textsuperscript{110} by 1900 increasing entrepreneurial interest in expanding gold-mining and a more receptive British colonial government spurred the beginning of construction.\textsuperscript{111}

Finally, the scope of this research, much like the aforementioned 19\textsuperscript{th} century African economies, covers the critical transition incurred by the end of the trans-Atlantic slave trade. Railroad labor needed to evolve, as total coercion became increasingly illegal or otherwise needed justification outside the support for the institution of slavery. In places like Panama, there was an evolution of labor contract that shifted indentured servitude and slavery to contracted labor from project to project, with varying levels of enforcement and response if a worker was to break that contract. The American South shifted to a version of this contract labor, but also


\textsuperscript{111} Colonial Reports – Annual: Gold Coast 1901 (London: HM Stationery Office, 1902), HDL, 21; Dumett, \textit{El Dorado in West Africa}, 278. All subsequent Colonial Reports – Annual: Gold Coast have same publication and resource information.
included a rapidly expanding convict labor force to rebuild the South. The Gold Coast colony utilized colonial taxation and the threat of imprisonment to gain laborers; in some cases, traditional leadership also provided laborers who were indentured servants of the inland chieftaincies. Alongside them, particularly near the coast, wage laborers of the colonial government toiled as well. Whatever the case, this evolution is important to track during this research, as it demonstrates both the importance of railway building – important enough to lead to drastic revolutions of industry and the labor force – and the nature of the contribution of laborers, particularly those of the African Diaspora.

Rather than isolated geographic regions tied to the comings and goings of European ships in the 19th century, the Americas and colonial Africa and were a dynamic tapestry of affiliations, subterfuge, and maverick investment, truly global in their connections with states beyond their borders. In this context, the American South, Panama, and the Gold Coast all found themselves juggling state and private resources for infrastructure that would set into motion the building of new economic networks of exchange. People of color, at times captive to working in these developments, at other times drawn to the opportunities the labor provided, nevertheless were subjected to incredibly difficult lives within them – yet in their labors, they would create enormous systems of production and wealth.
Chapter Two: Building the American South

For many African Americans, emancipation ushered in an uncertain new world, where the exciting idea of freedom was tempered by the fact that freedom operated in a society structured around their bondage. Observing this fundamental problem, in 1870 Sojourner Truth began to include in her public speeches requests for making Western public lands available for the formerly enslaved, a number of whom had temporary settlement near the nation’s capital. In a petition to Congress, using language that would appeal to the white-dominated chambers, she suggested these African Americans “would be greatly benefited and might become useful citizens by being placed in a position to support themselves.”112 In a speech in Rochester, New York, she pressed what she felt was an important point of comparison (the transcription likely a harsh derivative): “De government hab given land to de railroads in de West; can’t it do as much for these poor creeters?”113

Truth’s comparison was born out of the considerable amount of money and support the government had afforded railroad companies; after the Civil War, the United States made railways an important part of Reconstruction and the American Industrial Revolution.114 The essential launching point from which these rail networks flourished, though, was from an antebellum history of enslaved labor which was all-too-familiar for African Americans. The United States’ first major foray into international trade was as an exporter of cotton, and the

112 Sojourner Truth, Narrative of Sojourner Truth; a Bondswoman of Olden Time, Emancipated by the New York Legislature in the Early Part of the Present Century; with a History of Her Labors and Correspondence, Drawn from Her "Book of Life." (Boston: Published for the Author, 1875), DASA, 199-200.
113 Truth, Narrative of Sojourner Truth, 226.
country became a relatively powerful player in global commerce through its command of the cotton market. The construction of rail lines and their integration with river and overland routes were vital to this accomplishment, and it allowed the primacy of southern cotton to be established; it also entrenched a wealthy planter’s class that had a major, formative presence in the US economy for over a century. At the crucial base of this construction were enslaved African laborers, who broke rock in the quarries, forged iron, logged timber, and laid the track. By re-focusing the American South’s economic history through recognizing the importance of the development of railways, we can discover more persistent economic channels – forged considerably by laborers of African descent – that demonstrate plantations as staid points along a network that made cotton thrive.

King Cotton

Emerging from the United States’ War for Independence, the American South focused their efforts on what came to be known colloquially as “King Cotton,” or the complex and profitable economic system framed around an exclusive class of large plantation owners and their state (and in some cases, federal) government supporters. The system itself was rigidly controlled by the upper class, many times to the detriment of poor planters in addition to enslaved African Americans; the general concern among the wealthy planters was not just an enslaved revolt, but also the concern that competition would upset their primacy in cotton.

And unfortunately for poor farmers and enslaved African Americans, the wealthy planters’ concerns were also those of the government: in the United States economy, cotton was instrumental in the building of the newly independent nation in the early 19th century. Though their relationship with Great Britain was contentious at the turn of the century, by the 1830s
cotton forged a direct tie between the US and the most powerful economy of the time, providing the raw material for the expansive British textile industry. In fact, the South would account for over 50 percent of the world’s supply of cotton in the 1850s; Great Britain and the US accounted for about 75 to 85 percent of the world’s cotton consumption in the same period.\textsuperscript{115} Credit mechanisms and international shipping companies located in the North ensured that copious amounts of profit went to the powerful East Coast economy as well.\textsuperscript{116} From the 1830s to The Civil War, cotton accounted for anywhere from half to two-thirds of all US exports,\textsuperscript{117} sufficient to convince some Southern politicians that the South had a reasonable chance to succeed as an independent country. Later, during the war, they would find in their efforts to influence price control by withholding cotton from global markets that they were more economically vulnerable than they realized.\textsuperscript{118}

Of course, much of the cotton production was achieved through the coercion of enslaved laborers, who comprised around 45 to 50 percent of the entire Southern population from 1800 to 1860.\textsuperscript{119} A further 75 percent of the enslaved population were specifically driven in cotton cultivation.\textsuperscript{120} Their labor and the innovation of the cotton gin helped expand a relatively small US crop at the beginning of the 19\textsuperscript{th} century – 73 thousand bales produced per annum – to a 732

\textsuperscript{120} Gavin Wright, \textit{Slavery and American Economic Development} (Baton Rouge, LA: Louisiana State University Press, 2006), 84.
thousand-bale crop by 1830, and a 3.84 million-bale crop by 1860.\textsuperscript{121} A traveler to the South, Charles Parsons, observed in the 1850s:

One of the first strange sights to a Northern man on visiting the cotton-growing States, is the enormous quantity of this article that he sees wherever he goes. In the streets, in the storehouses; on the wharves, it is constantly before him. He will no longer wonder that Gen. Jackson made a breastwork of it in defending New Orleans. At or near the railroad depot in Savannah, there are, sometimes, literally, acres of cotton bales. Standing in view of it, and remembering that this city is but one of the depots for this trade, he can comprehend, to some extent, the remarkable influence which this great American staple exerts, not only upon industrial pursuits, but upon the business, and even upon the politics of the country.\textsuperscript{122}

75 percent of the “acres” of cotton would be transported away from the plantations, destined for a ship and a part in the European Industrial Revolution.\textsuperscript{123}

The ironies of King Cotton lie in its contradictions: a massive export crop that had a dubious reputation economically for most Southerners, a harvest dramatically aided by innovation except where it preserved antiquated, inhumane labor practices. In the case of the former contradiction, the wealthy planters in the South held a distinct advantage in two major components of the Southern economy: Southern capital and Southern infrastructure, including rail. The initial capital for starting a plantation-level plot was significant; the accumulation of that kind of capital, or the capital that could grow a small farm into a plantation, was drastically undercut by the investment decisions of the wealthy planters. A large amount of the revenue from cotton was not put back into the Southern economy, as the upper class chose instead to import basic commodities – including clothing – and get their credit or house their capital in

\textsuperscript{122} Charles Grandison Parsons, \textit{Inside View of Slavery: Or a Tour Among the Planters} (Boston: John J. Jewett & Company, 1855), 27.
Northern banks.\textsuperscript{124} In fact, they had such a strong relationship a number of wealthy Southerners disliked the idea of war with the North, as it would drive a wedge in their economic relationship with the East Coast banks, merchants, and shipping companies.\textsuperscript{125} The combination of bleeding capital and a sharp division between the wealthy planting class and the Southern poor meant that the South’s regional capital compared to the North was in the range of two to one.\textsuperscript{126}

They also exhibited great control over the construction of railroads, ensuring that the first lines built were located in paths that led to their plantations. Similarly, they were among the few who could afford the prices of the most-fertile land along those lines.\textsuperscript{127} When the opportunity came for the government to contract for railroad construction the wealthy planters, who had considerable influence in the Southern state governments, lobbied to keep the rail lines from extending into poorer regions of the South.\textsuperscript{128} When it came to infrastructure funding in general, they were able to remove federal-approved surveyors, engineers, and administrators, arguing that between tariffs and federal government intrusion the US was trying to find a way to manipulate the slave economy. This narrative particularly began to take hold among Southern planters in the 1830s as debates over free and slave states came to dominate national political discourse.\textsuperscript{129}

To understand the South’s lukewarm reception to technological innovation, it is important to refer back to the demography of the South, where nearly half of the population was enslaved. Technology proliferation meant that there would be a lessened demand for enslaved laborers; in turn, this meant the possibility for a greater number of free African Americans competing in the marketplace. Additionally, newer technology like rail created opportunities for

\textsuperscript{124} Genovese, \textit{The Slave Economies II}, 154, 162.
\textsuperscript{125} Genovese, \textit{The Slave Economies II}, 165.
\textsuperscript{126} Wright, \textit{Slavery and American Economic Development}, 123-124.
\textsuperscript{127} Genovese, \textit{The Slave Economies II}, 153-154, 159.
\textsuperscript{128} Genovese, \textit{The Political Economy of Slavery}, 25, 184.
enslaved African Americans to engage in specialized labor – which could also be paid labor, used to purchase their freedom – or provide the means for escape.\textsuperscript{130} Thus, technology was not simply a contributor to the economy; it also threatened the hierarchy Southern whites created.\textsuperscript{131} This was verified in the rare instances when enslaved African Americans had the opportunity to conduct skilled labor. They proved to be just as adept as their white counterparts in hemp, tobacco, iron, chemical, and textile factories, and gas companies.\textsuperscript{132} As Eugene Genovese noted, when enslaved African Americans received such opportunities:

\ldots[they were awarded] a wide variety of privileges and approached an elite status. Planters generally appreciated the potentially subversive quality of these arrangements and looked askance at their extension.\textsuperscript{133}

It was a social complement to the legal constraints on the African American population, which was similarly applied to poor whites. The economic environment it created, wrote Genovese:

\ldotsprevented the growth of industrialism and urbanization; it retarded the division of labor, which might have spurred the creation of new techniques; it barred the labor force from that intelligent participation in production which has made possible the steady improvement of implements and machines; and it encouraged ways of thinking antithetical to the spirit of modern science.\textsuperscript{134}

The circumstances that faced the poor rural whites in the South had as much to do with this obstinate old system of labor as it did the structure of trade networks and the marketplace.


\textsuperscript{131} Genovese, The Political Economy of Slavery, 50, 58-59.


\textsuperscript{133} Genovese, The Political Economy of Slavery, 23.

\textsuperscript{134} Genovese, The Political Economy of Slavery, 50.
At the very heart of this system were enslaved African Americans, reminded of its existence every waking moment. Under a violent, watchful eye, they cultivated rice and sugar from the Atlantic Coast, harvested the hemp in Missouri, and chopped the timber from the forests in the Carolinas; all the subsequent value that these commodities generated in credit, in transit, and in production typically went to their owners. It was because they knew their role within it that they resisted so effectively. In fact, through resistance enslaved African Americans influenced an overhaul of the so-called “gang labor” system that was frequently used in the South in the era before the 1840s, precisely for the reason that the workers devised collective plans to resist or revolt. While this reduced their collective resistance, enslaved African Americans carried forward their practice from gang labor of negotiating their “hiring-out” contracts, when they could. Shared knowledge among the hired hands during the years of gang labor certainly helped some African Americans find ways to purchase freedom.

A common argument of the antebellum period was that slave labor was unproductive; both poor whites and abolitionists appear to have utilized the argument, the former to increase their labor opportunities, the latter to set the enslaved free. Both Genovese and Gavin Wright noted the prior arguments poorly measured productivity. Wright additionally suggested that property rights and the assets and credit of the wealthy planters made development, land ownership, and cultivation fairly rapid; slavery helped fill the labor void necessary to realize investment. Henry Clay Bruce, reflecting on his own railroad work while enslaved, noted the significantly reduced distances farmers needed to transport goods thanks to railroad

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development, which he felt demonstrated clearly “what railroads have done, not only for Virginia, Kentucky, and Tennessee [Author’s note: where Henry had been enslaved], but the whole country and especially the Southern portion of it.”\textsuperscript{138} On the other hand, as the technology and infrastructure of the Free states increased the efficiency of their production, the economy in the South still had difficulty matching the North’s productivity.\textsuperscript{139}

“\textit{Rail}” and Economic Transition Pre and Post-Civil War

Railroad construction created an opportunity for a critical economic transition for the American South in the antebellum period, as enslaved African Americans began to construct the means for increasing the movement of Southern commodities and eventually set the tracks of Southern proto-industrialization. That this was an important development for Southern agriculturists was clear; Southern roads began to go into disrepair for want of the resources going towards rail.\textsuperscript{140} Yet these developments, somewhat muted by the aegis of control by wealthy planters, would lay somewhat dormant in its opportunities for most Southerners, free or enslaved. Enslaved and later free African Americans, whose lives were intertwined with this construction, provide a different story of “rail,” which provides important insight to the utility and persistence of infrastructure pre and post-Civil War.

The presence of the word in African American “slave narratives” and post-Civil War accounts is unavoidable. “Splitting rails and making rail fences was all the go…”\textsuperscript{141} “We split

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\textsuperscript{138} Henry Clay Bruce, \textit{The New Man. Twenty-Nine Years a Slave. Twenty-Nine Years a Free Man} (York, PA: P. Anstadt & Sons, 1895), 43-44, 47.
\textsuperscript{139} Wright, \textit{Slavery and American Economic Development}, 122.
\textsuperscript{140} Mulcare, “Restricted Authority,” 681.
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rails and built fences...."142 "...he seized upon one of the heavy fence rails, and rushed at me..."143 "Cast down your bucket among these people who have, without strikes and labor wars, tilled your fields, cleared your forests, builded (sic) your railroads and cities..."144 Stories of the “rail” are pervasive in the stories African Americans told about their experiences, and they emerge organically, rarely solicited except as a way to describe their labors. Previous scholarship on African American history, both in slavery and after the Civil War, has focused on the plantation, and the preservation of history in the American South has done likewise – the latter in ways that create revisions overshadowing the experiences of the enslaved.145 The plantation is an important place, and it appears frequently in the same narratives, but the plantation was a point of focus for interviewers and historical revisionists and its prevalence diminishes in accounts after the Civil War. Rail, on the other hand, provides a more useful, pervasive focal point in understanding key portions of African American and United States history across the bulk of the 19th century and well into the 20th century. These kinds of infrastructural elements can also ground our history in socioeconomic structures that affect a broad population.

142 O.C. Hardy, told to Pernella Anderson, in WPA. Slave Narratives, Arkansas Narratives, Part 3, 162.
143 Henry Bleby, Josiah: The Maimed Fugitive. A True Tale (London: Sold At the Wesleyan Conference Office, 2, Castle-St., City; And At 66 Paternoster-Row, 1873), 47.
http://www.theroot.com/articles/culture/2015/07/plantation_tours_don_t_expect_to_hear_how_horrible_slavery_rea lly_was.html Accessed 20 October 2015.
“Rail” in Antebellum United States: Structure

The original “rail” in the United States was wooden, anywhere from six to twelve feet long, possessing the natural waves of the grains of a tree. This is because the rails are split off from a larger felled tree trunk, typically by the same axe, same laborer. The process was grueling, and in enslavement overseers used brutal coercion to increase production:

I recall an instance where [the overseer] whipped four of his men within calling or hearing distance of me. I went to the timber to make some rails. Our timber land which was four miles away, joined Mr. Cabel’s, and he sent four of his men to make rails, and we all went on Monday. With the aid of a brother about sixteen years old, I had cut and split four hundred rails by two o’clock, or thereabouts, on Wednesday, not quite three days. Mr. Cabel came to me and asked when I commenced, and on being told, proceeded to count my rails, and when through, went over to where his men were. I don’t think he found them at work; at any rate, in a short time, I heard the lash and the men begging for mercy. Pretty soon he came back to me, and said his men had made only two hundred and sixty rails…

The point for Henry Clay Bruce’s exhaustive labor was to create fences of these rails, by overlapping the ends at a shallow angle, then stacking another two atop the first in a likewise overlap, until a wall of horizontal lattice emerges. As the fence stretches across the field its boundary zigs and zags, punctuated by vertical Xs perpendicular to the wall, intended to ensure the shallow angles remain standing. It made for an ugly landscape; a bird’s eye view gives the impression of a freshly-stitched, jagged cut in the countryside.

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146 Bruce, The New Man, 88.
But these cuts were real, legal boundaries; plantations relied upon clear definitions of property, and rail fences were an important part of those distinctions. Like many agricultural societies, plots of fertile land provided the blueprint for infrastructure that was to follow. While Henry Clay Bruce’s reward was avoiding punitive damage, the real value in his work was securing the property of his owner. This is not to say enslaved African Americans did not recognize their value in the process. When Rachel Hankins recalled pointedly, “Wasn’t no wire fences. Nothing but rail fences,” she was asserting the totality of their (albeit coerced) involvement in this construction.

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With boundaries being created, and land being claimed by split rails, the American South began to display a clearer picture of territory that Southerners, particularly plantation owners, wanted to create. As we will see later, new structures would be guided by this initial creation, and confer even greater market power upon plantation owners.

“Rail” in Antebellum United States: Punishment

The same structural integrity that made wooden rails ideal for fences also made them a frequent tool in overseer violence against enslaved laborers. The victim’s hands and feet would either be bound to or held under the weight of the rails, rendering them indefensible against an overseer or owner’s blows. The horror was often carried in full view of other enslaved laborers to hammer home the point. In Israel Campbell’s case, he was pressed to carry out the punishment of another enslaved worker:

After tying Caleb he made him lay down across the barrel, and put a fence-rail across his arms and ankles (sic). Then he commanded me to get the bull-whip and hand saw. When I had so done, he told me he wanted me to whip Caleb until he could not stand. This I refused to do; so he said he would do it himself. He began with the bull-whip.149

Caleb’s transgression had been to run away “in the busiest time of cotton-picking,” but the punishment clearly left an indelible mark on Campbell, who regarded Caleb as “bad.”150

Punishment by rail became common enough to enter American lexicon; by the time Martha Griffith Browne observed disgraced persons being exiled by “ridin’ on a rail” or going

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150 Campbell, An Autobiography, 58.
on “a rail-ride” in the 1850s, the phrase had become ubiquitous, appearing most famously in a Louis Maurer 1860 sketch referring to Abraham Lincoln as “The Rail Candidate.” In this way, popular conception of the rail as an object for punishment transcended race and region, becoming a known symbol in the North as well as the South.

“Rail” in Antebellum United States: Gender “Equality”

As Angela Davis asserted in Women, Race, & Class, and Sojourner Truth much earlier in her speech “Ain’t I a Woman?” slavery imposed a brutal sort of gender equality among Black women and men. Women were pressed to do field work alongside men, even while pregnant. Among pre and post-emancipation narratives, Black women frequently used rail-splitting as an indicator of this equality. The aforementioned Ms. Hankins, Hattie Hill, Josephine Howell, and Anne Clark all noted their rail-splitting work, each detailing how it demonstrated they could do anything a man could. Solomon Northup’s tragic heroine, Patsey, is described thusly:

She stood erect as the human form is capable of standing. There was an air of loftiness in her movement, that neither labor, nor weariness, nor punishment could destroy. Truly, Patsey was a splendid animal, and were it not that bondage had enshrouded her intellect in utter and everlasting darkness, would have been chief among ten thousand of her people. She could leap the highest fences, and a fleet hound it was indeed, that could outstrip her in a race. No horse could fling her from his back. She was a skillful teamster. She turned as true a furrow as the best, and at splitting rails there were none who could excel her.

152 Hattie Hill, told to Bernice Bowden, in WPA, Slave Narratives, Arkansas Narratives, Part 3, 263.
155 Solomon Northup, Twelve Years a Slave: Narrative of Solomon Northup, a Citizen of New-York, Kidnapped in Washington City in 1841, and Rescued in 1853 (London: Sampson Low, Son & Company, 47 Ludgate Hill, 1853), 188.
The chronological span of the usage of rail in this way suggests its importance as a narrative device for African American men and women. Splitting rails is among the hardest work; African American women were rugged survivors in slavery; African American women demonstrated their rugged survival by splitting rails to the equal of African American men. It is not unlike the narrative of John Henry’s sledgehammer versus a machine in African American folklore, a touchstone of pride and strength for African American communities to share.

_The Transition between Rail and Rail_

In the American South, iron rails cut through the history of African Americans much the same way they cut through the countryside. The amount and variety of roles African Americans played in rail’s construction were immense; as William Thomas noted:

> …thousands of enslaved blacks worked on the railroads right up to and during the Civil War, grading lines, building bridges and blasting tunnels. They hauled timber, cut wood and shoveled dirt and stone. Skilled slaves, especially blacksmiths, stone masons and carpenters, worked on the railroads too.\(^{156}\)

By the 1850s, railroad companies became some of the larger slaveholders in the South, purchasing slaves in lots of fifty and keeping track of them in their books under the label “the negro account.”\(^{157}\) A number of enslaved African Americans recalled being hired-out by their masters to work for in rail construction: Friday Jones was hired to work for the North Carolina Railroad in 1854, telling his master’s hiring agent to “set his price for me a month.”\(^{158}\) Charles Thompson pleaded with his master to be spared from labor on a railroad in Mississippi, fearing

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\(^{158}\) Jones, _Days of Bondage_, 5.
“rough usage;” his master threatened Charles at gunpoint, “raving and swaring, and bade me mount one of two mules instanter (sic) or he would shoot me on the spot. I mounted the mule.”

Savvy companies engaged in leasing out laborers during lull periods, buying low and selling high on slave lots at auction.

As with the growth of cotton productivity, enslaved African Americans were pushed towards a grim efficiency in their railroad labor. During the 1850s, the South undertook a plan to drastically increase rail mileage, building at a rate that matched any other region of the country. The results were relatively widespread; between 1850 and 1860, though the Midwest had a higher peak, the South had the highest sustained construction of railroads in the entire nation. Total mileage nationwide more than tripled, the greatest increase in US history outside of the first recorded decade (1830-1839). Nationwide, nearly all major commodities saw a drastic price decrease due to falling transportation costs, greater supply, and reduced time to market. Northerners marveled at the quality of the tracks and depots; one observer said the South was exhibiting the “best engineering talent…in the world.”

When South Carolina embarked upon the task of bringing together the private state rail lines to create an integrative network, they hired engineers to map existing tracks and chart paths for new ones. The result was a direct route, containing “depots” with interesting names to an

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161 Thomas, “Been Workin’ on the Railroad.”
outside observer: surnames, frequently in the possessive, leading up to the well-known endpoints of Augusta, Georgia, and Charleston, South Carolina.\textsuperscript{166}

Bound by split-rail fences, valued by state government agencies and their surveyors, Southern plantations were the linchpins that made the railroad networks valuable in the South. And as James Ward noted, Southern governments heavily invested public money into pulling together an intricate river-rail network to maximize the efficiency of cotton from the earth to England.\textsuperscript{168} Much maligned because of its failures during the Civil War, and its meager mileage relative to the North, the South’s river-rail system was still capable of delivering massive cotton crops that grew remarkably in the years leading up to the War.\textsuperscript{169}

The conditions of the labor for African Americans were appalling; the United States determined long before that the white population could not be enslaved, in the process absolving them of the more grueling, dangerous tasks left for those who could not choose their occupation.

\textsuperscript{166} William Howard, \textit{Report on the Charleston and Hamburg Rail Road} (Charleston, SC: 1829), SCL.
\textsuperscript{167} William Howard, \textit{Report on the Charleston and Hamburg Rail Road} (Charleston, SC: 1829), via Published Materials Division, SCL; inset provided by this author.
\textsuperscript{168} Ward, “A New Look at Antebellum Southern Railroad Development,” 412-413.
The South boasted incredibly difficult terrain for the preparation of rail lines, including stifling heat, sub-tropical conditions, low swamp areas, high mountains, and dense forests.\textsuperscript{170} Mired in these oppressive conditions, enslaved African Americans nevertheless realized new paths for resistance. The opportunity to work so far from the city or plantation also meant the opportunity to escape, and oftentimes the quickest, safest route north was hidden in a railroad car.\textsuperscript{171} One of the more popular stories among white abolitionists and African Americans involved the formerly enslaved Henry Brown, thenceforward known as Henry “Box” Brown for shipping himself through overland, rail, and river transit in a wooden container.\textsuperscript{172}

There were also incredible acts of redemption and subterfuge involving railroads during the Civil War. Recently freed African Americans who had worked on the rail lines aided the Union Army in locating vital points, helping destroy the heart of the Confederate economy.\textsuperscript{173}

\begin{figure}[h]
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\includegraphics[width=\textwidth]{figure3}
\caption{African American workers mending tracks for the Union, c. 1863\textsuperscript{174}}
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\textsuperscript{170} Thomas, \textit{The Iron Way}, 25. \\
\textsuperscript{171} Thomas, \textit{The Iron Way}, 10. \\
\textsuperscript{172} Henry Box Brown, \textit{Narrative of the Life of Henry Box Brown} (Manchester: Lee and Glynn, 8, Cannon Street, 1851). \\
\textsuperscript{173} Thomas, “Been Workin’ on the Railroad.” \\
\textsuperscript{174} Andrew J. Russell, “African American Laborers on the US Military Railroad in Northern Virginia, c. 1862 or 1863,” Library of Congress Prints and Photographs Division, Lot 9209, No. 49a, from William G. Thomas,
\end{tabular}
\end{flushright}
Another icon of African American stories of the Civil War, Harriet Tubman, led and directed covert bands of raiders in the South, specifically targeting, then demolishing railways and bridges. By picking apart these rail connections, African Americans were recognizing the importance of the networks they had built, and destroying the South’s ability to continue holding them in bondage. It was an ultimate form of resistance.

What is important in this transitional period is not just the tangible and economic overlaps of the two types of rail, wooden and iron. Rather, the narratives make a marked switch between pre and post-emancipation, pivoting on the events around the War, where the splitting of rails largely disappears and the significance of rail and railroad rise. While the two chronologically overlap, it does not necessarily dictate the narratives; rail-splitting likely continued to be a form of work for African Americans, but it fades in occurrence in descriptions of the post-War years. I argue that the narratives are suggesting a change in African American societal importance, for reasons explained below.

“Rail” in Post-Civil War United States: Punishment

After the Civil War, the South had a deep problem. It had been ravaged by the war – its infrastructure deliberately so – and it had lost many of its young workers along with the ability to exploit absolutely its African American laborers. Reconstruction provided an opportunity for the South to embrace the iron rail, and while sharecropping essentially contained African Americans within some of the same constraints they experienced in slavery, wage earning and educated African Americans threatened the status quo for white Southerners. They also moved into


occupations that did not require the hard labor they had experienced in enslavement, which simultaneously affected the labor pool for the difficult rail work that lie ahead.

One response was creating drastic imprisonment disparities through unjust arrests and sentencing, which resulted in a large African American captive labor population. The conditions were brutal, and the pay meager or non-existent; when Abraham Lincoln signed the 13th Amendment, it had included the proviso that slavery and indentured servitude be abolished “except as a punishment for crime.”176 It became a key contributor to the persistence of this racialized labor beyond the Civil War, and this new captive labor source competed directly with prospective free African American wage laborers. The “chain gangs” would carry out the same kinds of menial labor that had been done by enslaved African Americans before and during the war.177 They seemed to be purposely fed by the Southern justice system, which saw increased incarceration rates among African American males when demands for more roads and rail lines increased;178 the journalist Edward King described this phenomenon in 1875:

The convict labor is contracted for, and is of great value in the building of the railways and the clearing of forests. As a rule, the men are worked from dawn to dark, and then conveyed to some near point, to be locked up in cars or barracks constructed especially for them. They are constantly watched, working or sleeping; and the records of the Penitentiary show many a name against which is written, “Killed while trying to escape.”

We frequently passed large gangs of the convicts chopping logs in the forest by the roadside; they were ranged in regular rows, and their axes rose and fell in unison….In the town where the Penitentiary is located, it is not unusual to see convicts moving about the streets, engaged in teaming, carpentry, or mason work; these are commonly negroes, sent to the Penitentiary for trivial offences, and denominated "trusties."179

176 Abraham Lincoln, “Joint Resolution Submitting 13th Amendment to the States; signed by Abraham Lincoln and Congress,” 1 February 1865, Series 3: General Correspondence, 1837-1897, ALP.
179 King, The Great South, 119-120.
Through the transition and perpetuation of a system of control, the power brokers in the South seemed content to press African Americans to build vital components of the Southern economy well beyond enslavement.

Punishment also became routine for African Americans as an indication of the developing lines of segregation. This was particularly true in the case of “Jim Crow Cars,” where they were not allowed into cars reserved for whites…unless they were a Pullman porter. Frederick Douglass recounted his purposeful ejection from a number of trains while challenging these rules.\(^{180}\) Sojourner Truth was successful in her civil disobedience, winning the end of segregation in the cars.\(^{181}\) Nevertheless, these were exceptional cases, and the more frequent experience was simply being tossed off the car physically, or even being imprisoned.

Yet there were worse punishments to endure. Whites eager to supersede the justice system and its harsh sentences took matters into their own hands, swarming holding cells where accused African Americans were being held. In numerous cases, the mob attacked prison gates with iron rails in hand;\(^{182}\) upon gaining entry, they would either hang or burn their victims. A newspaper article overview in the *Reading Eagle* in 1906 estimated, in roughly 4,000 lynchings, nearly as many victims died of “burning at the stake” as did from hanging.\(^{183}\) In some cases, like those of 16-year old John Porter in Colorado\(^{184}\) and Spanish-American War veteran Fred

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\(^{183}\) “4,000 Lynching,” *Reading Eagle*, Reading, PA, 4 November 1906.

Alexander in Kansas,\textsuperscript{185} the “stake” was identified as an iron rail, red-hot from the fire of railroad ties below. Lynch mobs were a terrifying display of white power in American towns; even with conservative re-appraisals of newspaper accounts, mobs numbering in the hundreds were common, and their actions bloodthirsty.\textsuperscript{186} Victims were shot as they felt the rope around their necks, and typically burned alive and dead – bodies were sometimes hung in schoolyards in Black communities as a threat to young and old.\textsuperscript{187} Authorities and politicians made futile, potentially half-hearted, gestures to stem the tide. In some cases, state governors refused to stand in the way of lynchings;\textsuperscript{188} Mississippi Governor Theodore Bilbo once even referred to the actions of a 1919 lynch mob as “orderly.”\textsuperscript{189} Governments and railways had become the unsettling background for a new manifestation of the twisted justice system in the American South, designed to continue the oppression of African American communities.

\textsuperscript{186} “A Texas Lynching Case. A Negro Burned to Death,” \textit{The Age}, Melbourne, Australia, 2 April 1892 ("The crowd which actually witnessed and assisted at the horrible scene could not have been less than 4000."); “Lynching in America. A Negro Burned at the Stake,” \textit{The Sydney Morning Herald}, Sydney, Australia, 1 November 1895 (“The horrible scene was witnessed by thousands of persons.”); “Lynching in Indiana. Negro Hanged and His Body Burned,” \textit{The Lewiston Daily Sun}, Lewiston, ME, 27 February 1901 (“…the crowd, reinforced by hundreds of recruits…”); “A Georgia Lynching. Another Negro Killed by Mob and Body Burned at Stake,” \textit{Nashua Telegraph}, Nashua, NH, 23 August 1904 (“a crowd of fully 500 persons…about 2000 persons witnessed the burning…”); “Lynching in America. Negroes Hanged and Burned,” \textit{The Age}, Melbourne, Australia, 18 April 1906 (“…in the presence of a crowd of 3000 people”); “Lynch Negro for Attacking Officer,” \textit{The Free Lance-Star}, Fredericksburg, VA, 16 September 1932 (“…a crowd estimated at 1,000…”).
“Rail” in Post-Civil War United States: Opportunity

Despite the fear of imprisonment, and the absolute terror of the lynch mob, African Americans were able to find opportunity through the new rails. Nearly as pervasive as splitting rails in antebellum narratives, a large number of post-Civil War African American narratives include some reference to working on railroads, or “railroadin.” Some remark with pride on their service; nearly all remember the exact number of years they spent in railyards; most common were experiences like Harrison Boyd’s:

…after surrender and [I] went to farmin' with my folks, for $10.00 a month. After a year or two I went to railroadin', helping cut the right-of-way for the T.& P. Railroad, from Marshall to Longview. They paid us $1.50 the day and three drinks of whiskey a day.

Newspaper stories and obituaries in the 20th century were reflective of this pride, telling stories of long service, occasionally belying the fact that some of the workers had never received a promotion. On other occasions, the articles were clearly the production of patronizing whites. More often than not, though, the opportunities on railways were for temporary work, while the cut was moving through town. Some African Americans followed the construction as it moved across the country, as Eli Coleman did, though the cost of travel and the distance from family was frequently prohibitive for most potential laborers.

192 WPA, Slave Narratives, Texas Narratives, Part 1, 113.
195 WPA, Slave Narratives, Texas Narratives, Part 1, 239.
Yet it was a better opportunity than sharecropping, and those African Americans that could hold onto their railroad work. When George Pullman decided he would hire African American men to tend to his railroad cars, many took the job. Unknowingly, they were partaking in an organization that would be the focal point of early Civil Rights movements for labor rights and desegregation. In the ensuing years, struggles related to their lack of representation in all-white railroad labor unions led to increasing their increasing politicization,\textsuperscript{196} manifested in the eventual power of African American labor leaders like A. Philip Randolph and Hosea Hudson.

\textit{“Rail” in Post-Civil War United States: Structure}

The natural wood rail of antebellum years gave way to a forged rail, in every sense of the word a creation of heat and stress. African Americans still split wood to fire the iron, until it gave way to better wage work mining the more efficient coal and coke.\textsuperscript{197} In fact, they worked on every side of the iron, and played a major role in rebuilding the South after the Civil War. What this meant for the South was something dramatically different from the antebellum years: an integrated rail network. This included matching up gauges, navigating business rivalries, and seeing projects to completion…through all of which the South was successful, even if the direct profits for railroad companies were marginal.\textsuperscript{198} It helped put into place a persistent economic network, responsible for Southern industrial growth in the first half of the 20\textsuperscript{th} century, which became essential in the face of a near-collapse of the cotton economy.

\textsuperscript{196} \textit{“Rail Union Recognizes Negro Freight Handler,” Reading Eagle}, Reading, PA, 24 November 1925; \textit{“Railroad Ends Ban on Negro. Aftermath of Suit,” The Milwaukee Journal}, Milwaukee, WI, 27 April 1949.
\textsuperscript{198} Klein and Yamamura, \textit{“The Growth Strategies of Southern Railroads,”} 370-371, 375.
With this persistent economic network there was the dual process of emboldening the older, established plantations and its capitalists, and creating new directions for the economy. Edward King noticed Texas towns booming overnight, as soon as the gleaming tracks ran through their hastily-built depots and warehouses.¹⁹⁹ He also observed:

> In this first day's journeying it was curious to note how the advent of the railway had caused whole towns and villages to change their location, and come tumbling miles across the prairie, to put themselves in direct communication with the outer world. Sometimes, at a little station, we were shown, far off on the horizon, a landmark of the village's former site, and told that the citizens one day set their houses upon wheels, and had them dragged by long trains of oxen to the railway line.²⁰⁰

Southerners were not foolish, and for towns off the map these kinds of opportunities did not come that often. It is no greater testament to the value and importance of these rail lines than the fact that all Southerners gravitated towards these new constructions, to such an extent that entire towns were willing to relocate and create new economic relationships.

African Americans expressed particular importance of tying family history to the “first railroad” in an area. Julia Brown of Atlanta fondly remembered her husband Jim’s work on “the Seaboard. He helped to grade the first railroad track for that line.”²⁰¹ Shang Harris of Toccoa, Georgia recalled his work on the railroad near Athens; it was “de fust one here.”²⁰² Anne Broome’s first memory in South Carolina was that “no stork bird never fetch me but de fust railroad train dat come up de railroad track, when they built de line, fetched me.”²⁰³ Charles Crawley and his family were brought to Petersburg, Virginia on the “first railroads” and their

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¹⁹⁹ King, *The Great South*, 179.
²⁰⁰ King, *The Great South*, 189.
passenger boxcars.\textsuperscript{204} In addition to recognizing the value of these new developments, many African Americans were, for the first time, able to place themselves as free actors in this emerging world.

For as much as these rail systems were integrating and creating, though, they also were contributing to the harsh lines of segregation. As thousands of African Americans flocked to railroad jobs, they laid rails that created new boundaries by which they would be defined.

\begin{figure}[h]
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\includegraphics[width=\textwidth]{fig4}
\caption{Railways and residential segregation in Atlanta, 2010\textsuperscript{205}}
\end{figure}

A new phrase, “the wrong side of the tracks,” entered American lexicon, and was oftentimes wielded by whites as racial code. Taxation measures in cities and countryside, levied along racial lines, helped create and maintain these structures, and the changing values brought

by railroad development became the focal point. A teacher with the Freedmen’s Aid Bureau, Elizabeth Hyde Botume, saw this strategy firsthand:

There were innumerable cases of this kind around us. The opening of a new railroad and a new town had greatly increased the value of the land. January, 1869, we received word that all the colored people who owned land must pay a back tax for 1866; they had already paid for 1867. The original tax was $1.10; but on account of delays and "charges," all of which were unintelligible to the negroes, the sum now amounted to $4.85. They were notified that if they delayed paying this tax their lands would be sold. They were in a panic, and so were we. They gathered together everything which could possibly be sold — corn, chickens, and pigs; indeed, they stripped their little farms. In this excitement we drove to and from town to see the officials, and wrote in every direction for advice. Finally, we were notified the tax collection was stopped; but the mischief was done. Most of the people had beggared themselves to raise what was to them a small fortune; but they settled back into contentment and quiet.

Then came a new order that the law must be enforced, and the back taxes paid. It was a cruel thing that these poor people should be obliged to pay so dearly for their ignorance. They had never been notified of this tax for 1866. Some of the lands were sold before the matter could be readjusted.206

While they had earned their freedom, it seemed that governments and businessmen in the American South had strategies at work to continue holding African Americans in particular regions, most certainly areas where value was limited and a new bondage, indebtedness, was virtually assured.

Conclusion: Structures and History

An important structure of King Cotton and the backbone of the proto-industrial American South, rail in pre and post-emancipation narratives of African Americans provides a fascinating,

206 Elizabeth Hyde Botume, First Days Amongst the Contrabands (Boston: Lee and Shepard Publishers, 1893), 278-279.
complex view of United States history. Rising organically from these accounts, the object and symbol of the rail provides us with broad themes and illuminating vignettes in its momentous shift from the rail fence to the rail track. The pervasiveness of rail suggests its importance for African Americans, in addition to its acknowledged importance economically.

This importance was tied to the American South’s engagement in the Atlantic World, both in its history of enslaved labor as well as the cotton crop’s place in trade. Reflective of John Thornton’s conception of the Atlantic World, the American South was the outer reach of the Atlantic World, culturally and historically tied through its inhabitants but also the economic outer reaches at a time where the United States still lacked entire control in the Great Plains. Even with the specter of slavery gone in the post-Civil War United States, the legacy ran deep, and the construction of rail lines reflected the persistence of structures designed to separate and limit the power of people of African descent in the reconstructed communities.

Rail also provides numerous demonstrations of construction in the American South, and how African Americans were involve or coerced to its creation. This includes important insight into the nature of the labor itself, the hiring practices, and ways that African Americans might have used rail for resistance. It also illuminates how the railroad related to the lives of African Americans. Their perspective grants us a view apart from the stated motivations of railroad barons and towards the realization of railways and their use. I would argue that iron rail becomes more important for African Americans describing their life histories after the Civil War because it was an occupation, an important part of identity, rather than one in many tasks for an enslaved person. The same could be said for the diminishing use of the wood rail; rail fences were ubiquitous structures in antebellum South, and splitting of rails was a demonstration of a person’s strength and hardship.
Regardless of their position as laborers, these same African Americans provide us with valuable stories of the structures that arose as a device of power within their societies, first in slavery, then in segregation. Rail is a focal point of struggle, whether it was a marauding band led by Harriet Tubman, tearing up rails, a defiant Sojourner Truth determined to sit in whichever railcar she pleased, or African American rail workers demanding recognition in all-white labor unions. Understandably, resistance to power in a society will tend to target areas of convenience and effectiveness, and rail satisfied both attributes.

Finally, the stories that emerge here demonstrate the value of focusing on connections of infrastructure that emerge from the accounts. By moving away from the plantation as the sole focus in African American narratives, we bring the story to the tangible construction of persistent networks, first with fences, then with iron rails. These contributions to infrastructure, though sometimes entirely through coercion, nevertheless comprised world-making forces in their contemporary era and ought to in our construction of the history.
Spurred by eager US investors and an enthusiastic President Theodore Roosevelt, surgeon and quarantine officer James C. Perry, who had previously researched a cholera epidemic in the Philippines, led his first report with a sobering comment: “Colón, and, in fact, that portion of the Isthmus of Panama embraced by the canal zone, has long enjoyed the reputation of being one of the most unhealthy localities on the globe…” He continued, composing three reports of Colón, Panama City, and the conditions along the Canal Zone, all painting daunting portraits of diseases in the regions. After painstakingly recording his epidemiology, after concluding that malaria was a primary concern and “the negro resident in Colón does not enjoy much immunity against malarial fever,” he levelled words of caution:

In further consideration of this subject the fact must be borne in mind that we are speaking of a resident population—one protected to a certain extent by previous attacks, the habit of taking quinine as a prophylactic, and by observing the rules that experience has taught them to be effective. Under such conditions we see how prevalent the disease is now. When fresh material is introduced, unless previous sanitary improvements have been made, what will be the result? It is easy to make a prediction: A much larger percentage of sufferers among the new arrivals, with increase in the virulence of the disease, unless men are under careful supervision, and have the benefits of improved sanitary conditions.

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Perry also noted that, though not a current threat, he believed that yellow fever “is present and only an influx of a nonimmune population is needed for the disease to assume epidemic proportions.”

While Perry’s frankness created a harrowing scenario for potential laborers, the preventative measures and best practices of the early 20th century with regards to these diseases brought him to end his report on a high note. “To what extent can the prevailing diseases be diminished or prevented by proper sanitary equipment and regulations?” he asked the readers. “I think a conservative estimate would be that 80 per cent or even more of these diseases could be prevented.” A practical physician fifty years earlier would have blanched at the heresy; malaria was ravaging European colonials in the tropics, and a British doctor, Alexander Bryson, had only recently released a comprehensive study that demonstrated the effectiveness of quinine. Acceptance of quinine as a regular prophylactic would be gradual; sailors on Panama Line steamers would use it daily or nearly so from 1855 onward, but a traveling surgeon in 1870 observed that Panama Railroad Company laborers were still using the outdated large, intermittent doses that compromised its preventive value. Regardless, when the first workers began clearing land in Colón in the spring of 1850, and they were enveloped in the swampy morass and its swarms of mosquitoes, they surrendered themselves to the grim calculus of chance and acquired immunity.

While the hazards in this era became cost prohibitive for many white laborers and financiers, contract workers from the West Indies, particularly Jamaica and Barbados, eventually

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comprised the bulk of the labor force in constructing the Panama Railroad. The motivations of these Jamaicans and Barbadians were often practical reactions to economic and public health issues at home, but their importance to the construction of the railroad, and later the Panama Canal, became a point of pride among West Indians.213 As we will see, these “Silver” (in reference to their method of payment) or “Colón Men” became an important identity in West Indian and Central American societies and folklore, and provide insights into the awareness West Indians had of the global impact of their labor.214

To fully understand the importance of laborers of African descent to the construction of the trans-isthmus railroad, it is important to weave in numerous contextual threads, including the political and economic history of the region, its challenging ecology, the existent and alternative labor forces for Central America at the time, the major push by entrepreneurs and governments to establish efficient trans-isthmus travel, and finally the story of building the railroad itself with an emphasis on West Indian laborers. By doing this, we can see how the laborers became vital, necessary contributors to a world-changing economic development, and observe how they conceptualized their achievements and their place in history.

“Panama”

Panama, for the purposes of this research, refers to present-day Panama, but its political definition in the 19th century was frequently in flux. What we think of as Panama today was part of a brief union of newly-independent former colonies from 1819 to 1831 called the Republic of

Colombia, though typically referred to as the “Republic of Gran Colombia” in contemporary scholarship to avoid confusion with the later polity. It eventually dissolved, leaving together present-day Panama and Nueva Granada (roughly comprising present-day Colombia) as the Republic of Nueva Granada. While the land under control changed little from 1831 to 1886, the region’s legislative underpinnings would lead to the country renaming itself the Granadine Confederation in 1858 and the United States of Colombia in 1863. Panama would not separate from Colombia (finally under its current designation, Republic of Colombia) until 1903, thanks to the combined efforts of upper-class Panamanians and the United States, the latter by then fully committed to building the Canal.

![Fig. 5 Panama’s changing political borders, 1717-1858](Images via Wikimedia Commons, altered by this author.)

*Global Economic Past, 19th Century Reality, and the Isthmus as the “Capital of the World”*

Understandably, Panama’s economy was inextricable from the rest of their polity in the mid-19th century. Geographically, the region was peripheral to the economic picture of Nueva

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215 Images via Wikimedia Commons, altered by this author.
Granada, but this did not preclude Panama’s importance to global markets; time and again the narrow isthmus drew prospective travelers and tradesmen wishing to move between the Pacific and Atlantic Oceans.

Beginning in the early 16th century, the kingdom of Spain determined Panama to be the most convenient route for goods, particularly gold, to be transported from the west coast of South America. To this end, they invested considerable resources and committed a multitude of enslaved laborers to lay the crushed rock for the Nombre de Dios and more famous Porto Bello and Las Cruces Trails. As it was known at the time, the relatively short overland trip afforded by the “Isthmus of Darien” would gain the attention of the Spanish and Dutch overseas empires.216 On the other hand, these trails were perpetually maligned for their poor conditions and the cumbersome mule trains they required to handle the changing elevations.217

![Fig. 6 Spanish colonial trails in Panama](image)

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218 Yellow and red lines indicate variations on the celebrated “Camino Real”; Green and blue lines indicate the overland and water routes of the Las Cruces Trail, respectively. Map via Wikimedia Commons, 2012, by author
Most native Panamanians suggested using the Chagres River for as much of the trip as possible, and Spanish traders lamented key stoppage points like Nombre de Dios for being *cueva da ladrones* – essentially, “harbors for thieves.” While troublesome, the problem of thievery paled in comparison to the pestilence and its impact on health; church records from 1519 to 1588 suggested that over 46,000 inhabitants died of disease, at a rate of nearly two people per day. By 1600 a much better built and better fortified Portobelo (in different texts referred to as “Porto Bello” or “Puertovelo”) provided a tidier endpoint for what would come to be referred to as Camino Real, or The Royal Road. An English observer in 1635, Thomas Gage, noted that Portobelo was so secure that merchants underwent few precautions to hide or guard precious silver loads, at times leaving “heaps of Silver Wedges lay like heaps of Stones in the Street.”

Las Cruces Trail was a frequent competitor to Camino Real, sufficiently enough that the village Las Cruces (where the trail transitioned from land to the Chagres River; see Fig. 6) was host to numerous large warehouses dating back to the 16th century. Its primary advantages included being paved with stones for nearly its entire length, eight feet wide and raised two to three feet, as well as its use of the Chagres River, which ultimately linked the route to the Atlantic Ocean. Though there were only twenty miles between Panama City and Las Cruces, the mule trains took approximately four days through taxing marshes and the elevations of the continental divide. The ensuing travel by water involved large, pole-propelled dugouts and barges carrying roughly 25 tons of materials, one pilot, and 20 enslaved African boatmen.

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221 Hussey, “Spanish Colonial Trails in Panama,” 55.


Comparatively easier than other options for the movement of Spanish goods from western South America to the Atlantic, these trails were the veins to the heart of distribution of Spanish colonial goods, and the Panamanian warehouses the stores of the Spanish Empire’s wealth. The largest market exchanges in the empire were held in month-long fairs in Portobelo to foster and streamline the movement of commodities from colonies to kingdom, and vice versa.224 In sum, an overwhelming majority of the commodities that drove Spain’s position in the global economy passed through the isthmus.225 Furthermore, though they were sometimes discouraged by Spanish authorities, merchants from the bulk of the seafaring European countries of the time – including the Portugal, the Netherlands, France, and England – found their way into the fair transactions.226 Eventually, the isthmus became so well-prized, as the notes of British Admiral Edward Vernon suggested in the 1730s, to be worthy of an orchestrated invasion by British forces – an act partially carried out with the capture of Portobelo by Vernon in 1739.227

Vernon’s notes belied a clear understanding of the valuable regions of the interior of Panama, suggesting the British Empire inherited the previously dominant Dutch and Spanish Empires’ keen interest in controlling the region. The British would launch an ill-advised attack against Cartagena, a mainland Colombian port, which ended in a major defeat. Among those lost to battle and disease were roughly three thousand American colonials, drawn by promises of riches;228 one of the survivors, Lawrence Washington, returned to his family’s plantation with few riches but elevated rank, a common experience among aspiring enlisted men in the British

Colonial Army of the time. He renamed the plantation “Mount Vernon” in honor of the admiral under which he served; Lawrence’s half-brother, George, would inherit Mount Vernon not long after Lawrence’s death in 1752.  

The failures of the British in taking key Spanish holdings in Central and South America did little to upset the British control of the seas. British strength, aided considerably by the concessions and power-sharing outlined in the Treaties of Utrecht in 1713, allowed Great Britain to pressure Spain into a monopolistic asiento, where Spain agreed to purchase enslaved Africans only from British fleets. The trade in enslaved Africans was eventually shifted to an asiento to purchase from the British-owned South Sea Company. All these agreements were essentially exploited both by the English companies and Great Britain itself as means to engage their ships in “contraband trade,” or exchanges of goods not previously allowed by the kingdom of Spain, including precious metals. By the mid-18th century, the purpose of the fairs had essentially been compromised as the British and French asserted themselves in the Caribbean, and had pulled apart official Spanish control of the trade at their imperial ports. The fairs themselves ceased as the Spanish took to shipping around Cape Horn and selling colonial commodities to British and French fleets. While Spain would be largely successful in securing their existing colonies from the British and French into the 19th century, the importance of the isthmus to the global economy was compromised so long as it remained a Spanish holding.

Drawing strength from the massive political and military efforts of Simon Bolivar and his liberating forces, including a considerable amount of formerly enslaved Africans, Haitians, and

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American Indians, as well as British mercenaries,\textsuperscript{233} Nueva Granada was one of the first South American colonies to gain its official independence in 1819. Soon thereafter, it recognized Bolivar as its nominal head of state, and became a part of the larger political entity Gran Colombia.\textsuperscript{234} Bolivar himself knew the history of the isthmus, had known its value in the exchange of the contraband of colonial conquest, and personally felt that Panama City could one day be “the capital of the world,” provided some infrastructural cultivation.\textsuperscript{235} To this end, Bolivar and the Gran Colombian government considered the building of a canal as well as a relatively new technological achievement emerging from North America and Europe: railroads.

As mentioned above, the government conscripted engineers to assess the routes for both projects as well as the costs in 1828, yet prospective foreign investors were not forthcoming. Presumably, they were deterred in part due to Bolivar’s ill-fated Congress of Panama in 1826. In addition to reaching few of the far-reaching international agreements Bolivar had hoped, the congress was halted prematurely due to the unsanitary conditions in Panama and, as one account noted, “yellow fever and black vomit have frightened every human being from the city.” The participating delegations reported four deaths.\textsuperscript{236} Ensuing political upheaval kept construction initiatives solely on paper for next two decades, including US Congressman Henry Clay’s proposal the United States might build, own, and operate a trans-isthmus railroad in 1835;\textsuperscript{237} the US went so far as to purchase a railroad company to begin construction in Panama. The French

were also increasingly interested, making a similar purchase in 1838\textsuperscript{238} and entertaining a French mining engineer’s proposal in 1845 to avoid elevation challenges on the isthmus by creating a massive shipping tunnel.\textsuperscript{239}

Yet, for all intents and purposes, the plans stayed as plans to the mid-1840s. While the French had difficulty bringing together the capital, investors in the US were made nervous by an economic panic in 1837 that settled into a seven-year recession. Though the potential value of a more-efficient connection across the isthmus remained on the minds of American and European speculators, crossing the isthmus remained an arduous navigation of boat and overland travel. That was soon to change.

\textit{Enslavement, Race, & Labor}

While global economic interest in the isthmus waxed and waned in the early 19\textsuperscript{th} century, the population of the isthmus was drastically influenced by the legacy of enslavement. Thousands of enslaved Africans were brought to the isthmus in the 16\textsuperscript{th} century, and hundreds successfully escaped their captivity, established maroon villages (called “palenques”), and carried out a series of attacks against the Spanish. These “Cimarrons” of Panama (Spanish for “maroons”) successfully fought for a life in the isthmus apart from enslavement, though their eventual compromise with the Spanish ensured they were absorbed into and served the Spanish colony. By 1578, the Spanish ceased the import of enslaved Africans to reduce the numerical strength of the Cimarrons; by 1600, the Cimarrons agreed to break with the British, who had sought to subvert the Spanish colony by supporting the Cimarrons, and surrendered to Spanish

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{238} Mercedes Chen Daley, “The Watermelon Riot: Cultural Encounters in Panama City, April 15, 1856,” \textit{The Hispanic American Historical Review} 70.1 (February 1990), 91.
\item \textsuperscript{239} Hill, \textit{A Succinct View of the Importance and Practicability of Forming a Ship Canal across the Isthmus of Panama}, 16.
\end{itemize}
\end{footnotesize}
authorities. In later years, the former Cimarrons and their villages were incorporated into the colony, to the point that “Cimarron” counts by the colonial administration excluded them, and former Cimarrons participated in the capture of subsequent escaped enslaved persons.240

The newer generations of Black Panamanians spread throughout the colony; the strongest concentrations were found along the costa arriba near Portobelo and along the costa abajo near present-day Colón. Their proliferation was such that large neighborhoods in Portobelo and Colón, along with many of the smaller villages, regularly performed and celebrated “congo” rituals – community dances and festivals commemorating their ancestry.241 These celebrations included the use of an Afro-Hispanic dialect, hablar en congo, which reflected the cultural cross-currents experienced by these Black Panamanians. The persistence of this dialect to the present-day is apparent, though its overall use has diminished significantly.242 After the great influx of West Indian laborers in the 19th century, this dialect became a point of distinction between what have been thenceforward distinguished as Afro-colonial and Afro-Antillean populations.243

By the 19th century, Panama’s legacy of slavery was fairly unique in the Americas, as its demography and efforts towards autonomous rule generated progressive attitudes about enslavement and its cessation. In its brief history, Gran Colombia enacted a “born-free” law, which established that native-born sons and daughters of the enslaved were not held in bondage. This law was grandfathered into Colombia after 1830, though Colombia would not abolish slavery entirely until 1851. This meant that compared to the United States legally-defined enslaved persons comprised a small proportion of the Panamanian labor force, around six

241 Lipski, “The Negros Congos of Panama,” 412-413.
percent, by the start of railway construction in 1850.244 As we will see, Panamanians asserted this freedom in their labor choices, and the demanding, dangerous tasks of railway construction were endeavors they understandably sought to avoid.

**Realizing a Railroad**

While American and European speculators sought numerous reasons to survey, travel to, and invest in the isthmus,245 the United States government began to see the potential in Panama of realizing the James Monroe’s 1823 State of the Union desire to assert US influence over the western hemisphere. In fact, what later became known as the Monroe Doctrine was declared precisely for the reason that the US government knew the historical economic value of Central and South American lands, and saw the potential for using regions like the Panamanian isthmus to become a major global economic power.246

Thus, in the 1830s the US had increasing interest in the Panama region and, spurred by Henry Clay, the government sent a contingent to Colombia to lobby the Colombian government on behalf of US investors. The small Panamanian upper class was more than happy to fête the Americans that came to lobby and survey – they knew the potential financial boon it could bring them.247 After several months, US lobbyists were successful in securing an agreement from the Colombia government in 1837 that stated foreign investors – including railroad companies – could purchase and build on lands in the isthmus.248 After a lull in speculation, due in part to a seven-year recession in the United States, the US government officially secured their right to the

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isthmus via the 1846 Mallarino-Bidlack Treaty with Colombia. For their part, the Colombian government managed to negotiate free transit on the rail line for Colombians. The path to establishing a trans-isthmus route thus opened, numerous American investors, engineers, and railroad companies maneuvered to become the beneficiaries.

It was not until William Aspinwall By 1847, the United States Postal Service had expanded by leaps and bounds thanks to the use of rail to transport mails and the standardization of rates and routes. Additionally, they were projected to make substantial money in the coming years thanks to the inaugural issuance of postage stamps. Realizing the postal service wanted to invest in transporting mail to the West, entrepreneur George Law created the US Mail Steamship Company to secure government contracts to ship US mail. Law was simply positioning himself in anticipation of the railway; transportation across the isthmus, roughly a fifty-mile journey, was largely done by traversing a system of lakes and rivers, in addition to a number of miles of portage. He likewise positioned himself within the company of a competitor, William H. Aspinwall. Aspinwall and a group of fellow investors, based in New York, created the Panama Railroad Company in 1847 and began to survey and hire engineers to plan construction. Aspinwall had also invested heavily in the Pacific Mail Steamship Company, the competitor to George Law on the opposite side of the isthmus. Law, eager to be economically invested in the railway itself, purchased land in the crucial areas for railroad development; soon, he was a board member of the Panama Railroad Company.\footnote{251 George Law, \textit{A Sketch of Events in the Life of George Law, Published in Advance of His Autobiography} (New York: J.C. Derby, 1855), 46, 72; Otis, \textit{Isthmus of Panama}, 16-17.}

\footnote{249 Daley, \textit{“The Watermelon Riot,”} 91.}
If the establishment of these steamship and railway companies was the gunpowder, the spark was in Sutter’s Mill, California. The California Gold Rush, though formally begun in 1848, reached a fever pitch in 1849, and the flood of fortune seekers to Panama seriously strained the traditional route across the isthmus. Wealthy elites in Panama, at first enthusiastic at the influx of foreign capital, soon began to grow nervous about the activities of stranded foreigners and their sometimes explosive interactions with Panamanians.\footnote{Aims McGuinness, \textit{Path of Empire: Panama and the California Gold Rush} (Ithaca, NY: Cornell University Press, 2008), 16-17.} They were also concerned about the influx of foreign currency in the hands of urban poor, which had already begun to elevate some out of the lower classes within the first few years after 1847.\footnote{McGuinness, \textit{Path of Empire}, 37.} In some cases, prospectors would be stranded for months on the isthmus, unable to pay their way through or back; in other cases, there was simply not enough room on the liners to accommodate everyone. Either way, the desire for a more efficient means of travel across the isthmus soon became desired by nearly everyone inside and outside Panama.

Meanwhile, surveyors for the Panama Railroad Company had made their assessments and found their route; the Company had secured an agreement with Nueva Granada to had complete control of the land corridor necessary for railroad construction. The Company then hired George M. Totten as the chief engineer; Totten, coincidentally, had recently completed the construction of a canal near Cartagena. As they pored over the plans, Totten and fellow engineer John Trautwine determined that Portobelo would not be a favorable Atlantic terminus; they instead decided to create a new town in the swampy Limon Bay region, near Manzanillo Island.\footnote{Otis, \textit{Isthmus of Panama}, 17-25.} Named “Aspinwall” by the engineers, Panamanians and West Indians never really took to the foreign name, and soon gave it their own: “Colón.”
With terms settled and plans all but undertaken, and with a considerable labor force mostly conscripted among native Panamanians, Totten camped his workers on Manzanilla Island in the spring of 1850 – on the cusp of the wet season. The company had pledged to complete construction within eight years.\textsuperscript{255}

\textit{The Angel of Death}

When John Stevens assessed the conditions for a United States Panama Canal project in 1905, his first observation was telling:

\ldots worse than all – over and above, in the diseased imagination of the disjointed force of white employees, hovered the angel of death in the shape of yellow fever, a number of cases of which were then prevailing, and from which several deaths had occurred.\ldots To provide housing for this army, to properly feed, to instil (sic) into them faith in the ultimate success of the work, to weed out the faint-hearted and incompetent, to create an organization fitted to undertake the tremendous work, and to fill its ranks with the proper material, was a task of heroic proportions.\textsuperscript{256}

The environment in Panama was a constant challenge for infrastructure projects on many levels, and the experience of laborers was no different. The projects in which foreign laborers were envisioning the “angel of death” by 1905 influenced one of the most rapid (if not ecologically problematic) campaigns against disease in the 20\textsuperscript{th} century – by late 1906 land reformations and chemicals used to disrupt mosquito hatches resulted in yellow fever being virtually eradicated in the Panama Canal Zone.\textsuperscript{257} On the other hand, the true angel of death, malaria, was never eradicated,\textsuperscript{258} and its most virulent mosquito species carriers were found to be most prevalent in

\textsuperscript{255} Otis, \textit{Isthmus of Panama}, 18.
\textsuperscript{257} Hector M. Guzman, Roberto Cipriani, and Jeremy B.C. Jackson, “Historical Decline in Coral Reef Growth after the Panama Canal,” \textit{Ambio} 37.5 (July 2008), 342-343.
\textsuperscript{258} A traveling doctor for the Panama Railroad, C.D. Griswold, noted about “four-fifths” of his sick patients had a “recurrent fever,” which he states is “essentially cause[d]” by “miasma,” the mid-19\textsuperscript{th} century approximation of
exactly the puddles and toiling human masses railway and canal construction created. Railroad laborers in the mid-19th century Panama were never the benefactors of either campaign; while yellow fever was not a common problem, malaria was a constant and recurring scourge.

Within two years of the start of railway construction, all was nearly lost. The first quarter of the plans ran through dense, humid forests and swamp, infested with mosquitoes. The conditions, the disease, and the work in the oppressive heat were brutal on workers; of the first forty laborers, all Black Panamanians familiar with the area, half were dead within a month. A replacement contingent of the same number of native Panamanians faced a similar fate a month later, as did a group of fifty Irish laborers brought in a month after that. It was considerably difficult to keep native workers from leaving the work site; shocked by the morbidity and enticed by equal or better pay as boatmen, many Panamanians simply deserted. By the end of the first year, and countless efforts to replace their sick and dying workers, the company was able to get up to 350 workers, mostly imported from Jamaica and the South American port of Cartagena de Indias. Both places had scores of formerly enslaved workers that were shipped for menial labor around the Americas – and in a few weeks half their number was ill or had been ill. Frustrated by the extreme morbidity and the fact that the first quarter of track had still not been laid, the company finally invested in a huge number of laborers, over six thousand Irish migrant laborers from New York. Half were sick or dead within months. A second


259 Paul S. Sutter, “Nature’s Agents or Agents of Empire? Entomological Workers and Environmental Change during the Construction of the Panama Canal,” *Isis* 98.4 (December 2007), 742-745.


262 Otis, *Isthmus of Panama*, 26;

attempt was made, bringing together what were viewed as the most capable rail workers from around the world; numbering once again in excess of six thousand, they comprised Chinese, Indian (Asian), French, and Irish laborers – and it did not matter. Stuck in a macabre attrition with nature, the rail line was moving little, and left thousands of dead in its wake.  

The company, nearly broke, turned back to the Jamaican, West Indian, and native Panamanian laborers, all primarily of African descent, perceived to be hardier in the face of disease. In one last push to several thousand laborers – the first time they had done so with laborers from these regions – the rails finally progressed beyond the first quarter of the proposed line and began to make quick work of the rest. While the first fifteen miles had taken two years to build, the laborers of African descent would complete the final thirty-five miles in three. In some ways, it was the Eric Williams thesis in microcosm: for want of a work force that could maintain their numbers in the face of disease and hard labor, entrepreneurs in Panama turned from European and Asian labor to African labor. This “fortitude” was not won easily; recalling Perry’s careful 1903 research from above, and reflecting his research among laborers on the French canal and people in Colón and Panama City at the turn of the century, it should be restated that laborers of African descent did not demonstrate significantly greater resistance to disease. 

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266 Williams, *Capitalism & Slavery*, 18-19.  
Colón Men and Panama Money

And what of these hard-bitten laborers? Perhaps no workers were more important than West Indians, particularly Jamaicans, in the construction of the trans-isthmus railroad. Not to be confused with Black Panamanians descendant from the Spanish colonial era, West Indians were a completely different population, including a different language, dialect, and likely African regional ancestry. In addition to the work they carried out in Panama, they also left an indelible impact on the Panamanian population and became a cultural phenomenon in their home islands.

To the middle of the 19th century, Jamaica had fallen on difficult times. Along with Haiti a powerful symbol of enslaved African resistance, Jamaicans had won their freedom from enslavement only to find themselves in desperately poor conditions as sharecroppers on sugar plantations. The British Sugar Duties Acts of 1846, which eliminated the West Indian monopoly on sugar imports to Great Britain, severely depressed a Jamaican economy heavily reliant on the crop. To make matters worse, a devastating cholera epidemic swept the island in the 1850s, with estimates of 40,000 deaths – approximately ten percent of the population. Needless to say, Jamaicans from every background were looking for opportunities outside the island, and when American and British hiring agents came to the Jamaican shores looking for laborers on a Panamanian railroad, thousands of Jamaicans eagerly stepped aboard.

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268 The Spanish enslaved Africans, included those acquired in the asiento period, would have been overwhelmingly of Central African origin, while the British enslaved Africans were equally as prevalent from West Africa. See Philip D. Curtin, The Atlantic Slave Trade: A Census (Madison, WI: University of Wisconsin Press, 1969), 111, 160.


Upon arrival, they would have been struck by the juxtaposition of their upcoming task and the marshy, thick jungle canopy standing in their way. In bustling Colón, where American and European gold prospectors rumbled through town with boisterous drinking, shooting, spitting, the Jamaicans might have sought some kind of common bond with Black Panamanians only to be called *chombo*, a racial slur used in reference to the newcomers. Though some of the Jamaicans would have been accustomed to the notoriously grueling sugar harvest, the work on the Panama Railroad was the worst of all worlds. Stifling humidity, a relentless wet season, and an audacious route would have put these workers in knee or waist-deep mud, pounding together railroad trestles (of imported American pine, typically) to raise the tracks above the muck. Mosquitoes and flies would have clouded their bodies; workers would teach themselves to ignore the perpetual stings and bites. At night, they settled into their segregated, dilapidated bunkhouses and tents, within view of the well-constructed American barracks and hotels usually located on the opposite side of a river or the tracks. Before bed, it was necessary for them to search their bodies for *garrapatas*, ticks, that would otherwise feed, swell, fester. An ever-present stench would settle into the background of their daily lives, as their work churned the dirt and fed the rot.

When they got sick, and they surely did, it was agonizing life or agonizing death. Malaria – called “Chagres fever” by workers – can be recurrent, particularly with continued exposure,

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273 Tomes, *Panama in 1855*, 82.
and each fever whittles away at a person’s stamina and creates pulsing, permanent aches in their joints. Dysentery and tuberculosis are worse, aggressively draining the body of its nutrients and oxygen, respectively. A lucky person’s body would learn and fight illness, reducing the symptoms and reversing the slow slide into a hospital bed or early grave. For the Jamaican worker, they would dread the roulette of disease, and grow depressed if the malarial symptoms settled in for another round. They would have friends die with the doom of knowing they could easily have the same fate. Returnees developed a common musical refrain that became popular in the Caribbean:

Fever and ague all day long,
At Panama, at Panama
Wish you were dead before very long,
At Panama, at Panama.\(^{278}\)

Mary Seacole, a Jamaican medicinal healer and shopkeeper who had escaped the cholera epidemic in her home country, painted the grim portrait: “Beneath leaky tents, damp huts, and even under broken railway wagons (\textit{sic}), I saw men dying from sheer exhaustion.”\(^{279}\)

The saving grace was the money, around a dollar a day. It did not go particularly far; American and European prospectors sweeping through on their way to California could afford to pay more and drove up the prices in the general stores and markets.\(^{280}\) Yet it was enough to save, and creative workers found alternative means to get food, including hunting for wild game and


\(^{280}\) Senior, “The Panama Railway,” 70.
squatting on railroad property and cultivating edible local staple crops. They could also settle for the food in the work camps of the railroad company; a Jamaican worker, Samuel Reid, recounted to a local newspaper a daily food ration consisting primarily of pork, biscuits, and tea or coffee. Robert Tomes recalled purchasing monkey meat from two Jamaican hunters, a meal he called “hashed duck” when asked by the American ambassador’s wife.

However they came across it, the Jamaicans remitted as much money as they could, or saved it for their valiant return. They were “Colón Men” spending their “Panama Money” in Jamaica and Barbados, worldly and prosperous relative to their peers. The proud returnees became symbols of opportunity or spending frivolity, admirable dandies who dressed in expensive clothes and dangled their watch chains. Colón Men were bold figures, sometimes at great expense:

Mas’ Charley say want kiss Matty,
Kiss with a willing mind,
Me ra-ra-bum why!
Colón money done.
Me ra-ra-bum why!
Colón money done.

A parallel current of folk music in Jamaica portrayed Colón as the place where lovers and men disappeared:

Isaac Park gone a Colón,
Isaac Park gone a Colón,
Isaac Park gone a Colón,
Colón boat a go kill them boy.

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281 Senior, “The Panama Railway,” 72.
283 Tomes, Panama in 1855, 199-200.
287 Jekyll, Jamaican Song and Story, 245-246.
Jamaicans at home and abroad were well aware of the risks and opportunities of traveling to Colón, as well as the potential for subsequent financial ruin. Rhonda Frederick noted the same symbolism for Colón Men existed in popular Jamaica literature of the time, which only intensified as thousands more Jamaicans left for Panama for the construction of the American canal.\(^{288}\)

This overlapping of laudatory and cautionary portrayals were likely influenced by the relative opportunity of Panama as compared to the difficulties in Jamaica. Per these cultural productions, going to Colón was okay provided you were careful, and becoming a Colón Man was commendable provided you did not flaunt or waste the wealth. This interpretation is further supported by the fact that Jamaicans, and West Indians generally, continued to emigrate in steadily increasing numbers for work in Panama from the mid-19\(^{th}\) century onward.\(^{289}\) An observer in 1878, predating the great influx of migrant from Jamaica for the construction of the French canal, estimated that “Jamaica negroes” accounted for twenty percent of the population on the isthmus, and “native full blooded Indians” ten percent, while 57 percent were “amalgamatinos.” The latter population, the observer continued, distinguished themselves apart from the former two, and “feel themselves as…superior…”\(^{290}\)

It is entirely possible that the observer, an American, would have been influenced by the path he had taken through the region; Jamaicans that remained in Panama squatted and otherwise cultivated and harvest crops along the path of the railroad.\(^{291}\) Tracy Robinson, who lived in Panama for four decades following the trans-isthmian rail construction, noted that these farmers

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\(^{288}\) Frederick, “’Colón Man a Come,’” 91-95.

\(^{289}\) Newton, The Silver Men, 88.

\(^{290}\) “Foreign Correspondence. Tropic Scenes Described by a former Citizen of Spartanburg,” Spartanburg Herald-Journal, Spartanburg, SC, 12 June 1878.

\(^{291}\) Robinson, Panama, 178; Senior, Dying to Better Themselves, 59-60.
did well to keep foliage back from the rail lines. Some contributed to a growing banana trade, harvesting the fruit to sell to four major international merchants who commanded the distribution networks connected to Colón. Clashes with other people of color on the isthmus, and the continued segregation and hierarchy maintained by American and European operators, ensured that there were distinct racial categories in Panama; West Indians coming to Panama in the late 19th and early 20th century came to be called “Silver Men” because they were paid in cheaper Panamanian silver rather than American gold, the currency paid to American laborers. When the Americans began construction on the Canal, these racialized categories – “silver” and “gold” workers – returned the strict lines of segregation, with separate living facilities, resources, and conditions for West Indian and American laborers. It was little wonder, then, that some of the strongest voices against racism and segregation in the early 20th century United States would come from the British West Indies, including Hubert Harrison, Claude McKay, and Marcus Garvey.

Dividends

The completed line turned out to be massively successful for the Panama Railroad Company; the company’s records from 1852 (when small sections of the line first became available) to 1903 indicated that, in 2010 US dollars, the company ran a net profit around 1 to 1.25 billion dollars, and were able to maintain assets anywhere from 90 million to 300 million

292 Robinson, Panama, 199.
293 “The Banana Trade of Aspinwall,” The Sydney Mail, Sydney, Australia, 2 March 1872; Robinson, Panama, 194-199.
295 Senior, Dying to Better Themselves, 106-107.
2010 US dollars. Stockholders saw regular dividends in the range of 7-15%, including brief periods where dividends reached the astonishing heights of 34 and 40%. Of course, this is simply a figure of direct benefit to the Panama Railway Company and its stockholders – recall, for instance that Colombians negotiated free transit on this rail line. Furthermore, conditions in the agreement stipulated that the ports of Colón and Panama City would be free to ships from all countries. International export companies saved considerable distance, time, and money thanks to the shorter route. Some examples of the mileage saved over the route around Cape Horn:

<table>
<thead>
<tr>
<th>Route</th>
<th>Nautical Mileage Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York to Sydney</td>
<td>2,720</td>
</tr>
<tr>
<td>New York to Honolulu</td>
<td>6,760</td>
</tr>
<tr>
<td>New York to Hong Kong</td>
<td>5,570</td>
</tr>
<tr>
<td>New York to Jeddo, Japan</td>
<td>6,490</td>
</tr>
<tr>
<td>England to Sydney</td>
<td>98</td>
</tr>
</tbody>
</table>

Table 1 Transport Mileage Saved by Isthmus Route

The distance saved from New York to San Francisco was around eight thousand nautical miles. All the mileage was money in the bank for companies who figured shipping costs into their expenses. In addition, the less mileage guaranteed fewer perished items upon arrival, lesser maritime wages per trip, more trips, and more produce making its way to market. The one billion dollars above is very tangible profit, but the wealth of these other benefits drew commerce to the isthmus and redirected global economy, with a caveat: this wealth was moving through Panama, in a rigidly controlled economic zone.

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299 Otis, *Isthmus of Panama*, 70.
Individual boatmen, long a self-employed staple of trans-isthmus traffic, were effectively cut out of this economic opportunity; indeed, it rumbled past them on an iron track. An observer in 1855 noted:

Many of the residents of Panama [City] anticipated an immediate improvement in trade, and fancied that all they had to do would be to reap the rich harvest which the Railroad would bring to this city. They did not calculate that from the day the railroad was completed the only resource on which the trade of the city depended for support would be cut off; that the one hundred and twenty-five to fifty thousand dollars imported and spent here monthly for the transportation of passengers, baggage, mails, specie, and merchandise, would hereafter be laid out on through tickets in New York and San Francisco, and that not a cent of that amount would ever be expended on this isthmus; they did not reckon that the passengers would invariably arrive here just in time to catch a tied suitable for landing, and that they would immediately be conveyed direct to Aspinwall [Colón] without chance of even spending a dollar here.

The few that had any success managed to capture the wealth as it passed their market stalls in the train depots, especially in Colón and Panama City; Jamaican and Black Panamanian women plied passersby with their fish, cassava, bananas, plantains, palm nuts, and coconuts. In addition to the aforementioned Jamaican squatting farmers, some enterprising “Spaniards” and people of color engaged in cattle raising along the unoccupied lands that followed rail line; they occasionally cultivated rice and sugar to bring to these same market locations. Yet these stalls seemed nowhere near efficient in establishing a cohesive market to supply the booming population in these towns; both Robert Tomes in 1855 and Tracy Robinson upon his arrival in

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300 Senior, Dying to Better Themselves, 55; McGuinness, Path of Empire, 81-83.
301 “The Policy of the Railroad Company,” Panama Star and Herald, Panama City, Panama, 29 May 1855.
302 Otis, Isthmus of Panama, 78-79; Tracy Robinson, Panama: A Personal Record of Forty-Six Years, 1861-1907 (New York: Star and Herald, 1907), 197; Tomes, Panama in 1855, 59.
303 Otis, Isthmus of Panama, 108.
1861 noted that Colón’s food supply was desperately meager.\textsuperscript{304} The financial colossus was clearly not created to benefit Panamanians, nor the newly transplanted West Indian laborers.

What is more astonishing is that this financial colossus predates a much-more celebrated colossus in the Panama Canal, along with the Suez among the two most important canals in global economic history. The Panama Railroad and Canal are inextricably tied; the trans-isthmus railroad was crucial in the movement of heavy equipment and material to the sites of construction. An important new innovation, steam-shovels, had to be anchored to railroad tracks to effectively leverage the earth and stone from the ground. The new canal followed the “rewards” of the old: new migrant populations in Panama, more “Panama Money” in the West Indies, a massively profitable route for American and European merchants and financiers, and an even-more efficient passage of capital through rather than into Panama.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Fig_7_Panoramic_picture_of_Panama_Canal_cut_1913.jpg}
\caption{Panoramic picture of Panama Canal cut, 1913.}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Fig_8_Map_of_Panama_Canal_1923.jpg}
\caption{Map of Panama Canal, 1923.}
\end{figure}

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\textsuperscript{304} Robinson, \textit{Panama}, 242; Tomes, \textit{Panama in 1855}, 66, 113.
\end{flushright}
Conclusion

The Panamanian trans-isthmus railroad was perhaps the first tangible realization of the Monroe Doctrine, a capitalist endeavor considerably aided by the US government. It set into motion new tracks of wealth and prosperity in the global economy, saving billions of dollars for Western merchants and investors. It structurally transformed Panama, first by solidifying a route that excluded Portobelo as a major point of trade, then by creating a passage that avoided nearly all opportunities for Panamanians to benefit. In this way, it had evolved into a perfect device of the Monroe Doctrine, solidifying the US in a powerful, profitable position in global commerce and being able to negotiate with a Latin American country on its own terms. The US would not build the canal for Panamanians, but despite them.

Additionally, the railway was a magnet for Atlantic World trade, creating a stream over the isthmus when, global markets allowing, goods flowed through in a torrent. The value of this thoroughfare drew more than international shipping; opportunities to escape dire lives in the Caribbean made Panama into a fabled land where people of African descent could go and return from as virtual royalty in their wealth. The truth and the hardship of becoming a Colón Man was relative to the struggles Jamaicans and Barbadians faced in their new colonial reality at home, and so the decision to travel to the western edge of the Atlantic World was made by thousands of Caribbean peoples. By the time the United States sought to finally complete the canal, labor migration was a part of life in the Caribbean, and another generation boarded the ship.307

Encouraged by stories and songs at home by the potential for prosperity in Panama, they were tossed into a cauldron of oppressive environments, challenged socially, financially, bodily. Workers like Norton Brownie saw their ordeal as a point of pride: “I was placed to work in Canal

to work with the steam shovel, I am glad to state that I were able to stick to that class of work until it was completed…I am very proud to say the living at that time wasn’t very pleasant…”

Samuel A. Smith called working on the Panama Canal “my greatest experience…” Yet even their direct involvement in the Canal would be fleeting; West Indians fortunate to receive or ascend to clerical work in the Canal by 1932 were deliberately replaced by whites in 1932 “to make these positions available for giving employment to young Americans on the Isthmus who have the ability to gain promotion in time into higher position.” In a global economy dictated by the Monroe Doctrine, white American workers, some displaced by the Depression, took priority over people of color.

By the end of the construction of the Panama Canal in 1914, the United States was firmly entrenched as the most powerful country in the Western Hemisphere, and its reach only increased through the 20th century. Thus, when Jamaican Marcus Garvey delivered his stirring speeches on American racism and Western imperialism to massive Black audiences in the United States, he was quickly imprisoned on trumped-up mail fraud charges, then deported. Still active in 1928, he continued to advocate for Black empowerment and found ready audiences across the Caribbean and Latin America. Panama, with its sizable West Indian population, was a favorite stop, and the Afro-Antilleans packed Garvey’s speaking venues. Yet when Garvey attempted to purchase a ticket to pass through on the Canal, the US government denied him passage. Still a

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308 Norton Brownie, in Isthmian Historical Society, Competition of the Best True Stories of Life and Work on the Isthmus of Panama During the Construction of the Panama Canal (Panama City, Panama: Isthmian Historical Society, 1963), PCMC, 71.
309 Samuel A. Smith, in Isthmian Historical Society, Competition of the Best True Stories of Life and Work on the Isthmus of Panama During the Construction of the Panama Canal, 237.
310 “Whites to Replace West Indian Clerks,” The Afro American, Baltimore, MD, 19 November 1932.
thorn in the side to the United States, the founder of the Universal Negro Improvement Association took the train across the isthmus.\footnote{Marcus Garvey, Letter to US Secretary of State Frank Billings Kellogg, 1928, in Robert A. Hill, Editor, Marcus Garvey and the Universal Negro Improvement Association Papers, Volume VII: November 1927-August 1940 (Berkeley, CA: University of California Press, 1990), 66.}
When Asantehene Prempeh I finally returned home to Kumase in 1924, after an exile of nearly three decades, he found the Asante capital in a state of simultaneous structural order and spiritual disrepair.

While the British had exiled Prempeh in 1896, the Asante were not defeated militarily till the destructive Yaa Asantewaa War of 1900, which saw much of Kumase and the surrounding

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From the ashes, the British had constructed a quintessential colonial city, complete with administrative buildings and railway stations, connected by road and rail to the valuable port at Sekondi-Takoradi and the major coastal town and administrative capital of Accra. Prempeh himself admitted “our own houses are improved,” but the burial locations and monuments to Asante royal ancestors were “unsuitable by reason of long years [of] neglect.” One burial grove, Hemanho, was even “encroached by the Court Building…”

Kumase was drastically reformed over Prempeh’s lengthy imprisonment; in the quarter-century since the Asante’s final major military rebellion, the Asante capital had become the vital, northernmost trade and commercial point in the burgeoning British colony. Now a colonial foothold to the West African interior, for two centuries Kumase had been as much a part of trans-Saharan trade as it was trade to the Atlantic coast. The Asante had maintained that role and all its implications: establishing a versatile, wealthy exchequer system (including gold and silver weights for currency exchange), enabling Asante merchants to purchase on credit by backing their transactions with the Great Chest of the Asantehene, and creating a bureau—the akwanmofuo—tasked with the construction and maintenance of a vast road system. They had also waged wars of conquest and control throughout much of the Gold Coast region, were a major source for the trade of enslaved Africans from the Sahel across the Atlantic Ocean, and delineated strict imperial construction that limited the influence and spread of Islam to north of the Volta River.

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present-day Ghana, in addition to the western quarter of the Ivory Coast and much of Togo; it was a large supplier of two of the major global trades of the 18th and early 19th century (gold, enslaved laborers), and the primary supplier of the important kola nut and a significant provider of salt to the trans-Saharan caravans.

In the villages and towns of the Asante Empire, extended families had clustered homes, encompassing a central courtyard for shared meals and familial gatherings; the clusters were organized to have access to and allow for larger community thoroughfares leading to water sources, shared gardening areas and workshops, and spiritual and chieftaincy housings. While familial clustered buildings were single-room, mudbrick stuccoes or tight branch-lattices, both with thatched roofs, spiritual and chieftaincy buildings were significantly taller – in excess of five to ten feet higher than the common structures – featuring prominent square columns, enormous and layered thatched roofs, and designs reflective of Akan kente cloth and Adinkra symbols.

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While paths were dirt and dust, keeping paths and roads “swept” or “clean” was a common expressed concern and a specific task of the akwanmofuo. The paths sewed together a wider fabric of Akan communities, connected them to their neighbors, and their cultivation reflected the importance of those connections.

Reflecting on the images above, the most obvious transformations Prempeh would have seen was the large number of multi-story buildings and the uniform rejection of using thatched roofs. Whereas trees had been common, useful sources of natural shade and congregation in villages and towns in the past (see Fig. 10), the dense arrangement of the buildings in Kumase, and their height, rendered trees like the one just barely visible on the left of Fig. 9 as more ornamental, tangential to the community. Wide thoroughfares, on the other hand, were similar, though they reflected the space and construction necessary to accommodate the lorries (the name given by the British to trucks transporting goods and materials) and other motor vehicles.

What Prempeh observed upon his return in 1924 was a small part of a colonial transformation, by British design. It was born from particular destruction of the Asante; as J.E. Casely Hayford, a Fante lawman and descendant of prominent coastal trading families, noted in 1903:

Let it be distinctly understood that the bulk of the trade done at the present moment is but the remnant of the great trade which sprang up in the [1830s], and was at its meridian in the [1860s], between Ashanti and the Gold Coast, the Gold Coast then being the source of supply, and the Ashantis the middlemen who distributed it among the most distant peoples of the Great Desert and elsewhere.

It was a trade based on good-will and mutual confidence between merchants on the Gold Coast and their friends, the middlemen, in Ashanti.

That confidence, by slow degrees, has been completely shattered by British diplomacy and aggrandisement….The fact is, that Downing Street policy has killed the goose—the Ashanti.

319 J.E. Casely Hayford, Gold Coast Native Institutions. With thoughts upon a health imperial policy for the Gold Coast and Ashanti (London: Sweet and Maxwell, 1903), 110; Wilks, Asante in the Nineteenth Century, 33-35.
middlemen, that is—which laid the golden egg; and the man at the helm has not even yet discovered the mistake.\textsuperscript{320}

In other words, the development in British holdings had the potential to result in profound economic upheaval, in addition to the spiritual and structural upheaval observed by Prempeh. The ensuing colony that Great Britain would construct in the Gold Coast, alongside remade city streets and buildings of trade and labor, created new directions and means for exchange. What makes the Gold Coast (and later Ghana) unique, though, is that these new networks lost some synchronicity and primacy among older networks of exchange, perhaps a failure of the British construction efforts to reflect and support the local economy in favor of connecting to export markets.

\textit{The Great Roads}

As with many other regions that were colonized, the Gold Coast had pre-existing networks of trade and exchange that had been established centuries prior to the arrival of Europeans in the 15\textsuperscript{th} century, the intensification of the trans-Atlantic trade in the 18\textsuperscript{th} century, and the turbulent imperial endeavors of the 19\textsuperscript{th} century.

The Gold Coast region, specifically the Akan peoples of the West African forest belt, had by the arrival of the Portuguese in the late 1400s already established a link with Wangara traders who regularly engaged the major markets of the West African empires. The Akan goldfields and connection to coastal Etsi salt farms were a known source of commodities to scribes and merchants composing records in Arabic in Timbuktu and Djenne, and the Wangara’s steady supply of gold to the prominent North African Maqqari trading family suggests a clear link to

\textsuperscript{320} Hayford, \textit{Gold Coast Native Institutions}, 98.
Mediterranean bullion demand dating at least as far back as the 13th century.\textsuperscript{321} While located on the periphery of the trans-Saharan networks that predominated before the increased presence of European merchants, the Akan were hardly peripheral in their importance, action, and supply. As mentioned above, they were a major producer of the most versatile item of currency of the time, but by the 17th century Akan groups including the Asante were also making concerted efforts to engage increasing demands for salt and the kola nut across West Africa.\textsuperscript{322} A central stop along the way for weary Hausa traders traveling between the kingdoms in present-day northern Nigeria and the many tributary sources of the River Gambra (Gambia River), Akan-controlled markets in Kafaba, Yendi, and Salaga became generous suppliers of the energy-rich, hunger-suppressing kola nut. A natural product from the Akan forests further south, the kola market grew as ample supply met a demand that had shifted from a gift among royals to a vital, spiritual force in 18th century long-distance trade.\textsuperscript{323} This growing trade relationship developed a well-worn corridor of exchange and travel through West Africa and along the Sahel towards Egypt. The arrival and influence of European merchants was not necessarily exploitative as this network strengthened, though it soon challenged African kingdoms and empires to establish an ethic concerning the slave trade which threatened their internal and external relationships in the continent.\textsuperscript{324}


Within this same period, among ethnic Akans the Asante had gradually emerged as a strong central state on the Gold Coast, capable of meeting trans-Saharan and trans-Atlantic demand without being politically subsumed by powerful states within either network. Akan oral tradition traces the origins of the Asante from hunting peoples in Gold Coast forests, who centered their homes at Kumase; Asantehene Osei Tutu and his army consolidated their rule in 1701 with the military defeat of the neighboring Denkyira state and the assumption of Denkyira’s tribute agreement with the coastal peoples of Elmina. The port of Elmina (near Cape Coast) would become a major bone of contention between the Asante and European traders in the late 19th century, but it nevertheless – for the time being – firmly grounded the ensuing Asante Empire between two major global trade networks. Through the combination of their growing military power and ability to build resources through trade, the Asante were able to

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wage campaigns to expand and consolidate control in both directions, resulting in total or tributary control of an area slightly larger than present-day Ghana by 1750. The progress of these campaigns were well-documented, both by wary European merchants and Arabic scripts in Gonja to the north.\textsuperscript{326}

Consolidation of smaller kingdoms or chieftaincies in this manner was not unusual nor unprecedented in West Africa; in fact, a number of empires that were historically connected in trade to the Gold Coast, including the Malian and Songhay Empires, had similar origins.\textsuperscript{327} Efforts in each of these cases involved incorporating existing trade routes within the umbrella of empire, and protecting and standardizing the operations of the trade network to the benefit of the central state.\textsuperscript{328} Unlike the more far-flung economic activities of Wangara traders (usually associated with Mali) and the Hausa (representing the Hausa kingdoms, later Sokoto Caliphate),\textsuperscript{329} the Asante were not heavily influenced by Islam, nor did they participate in the Sahelian caravans. Reflective of their unique position, they could access the coast or the caravans as they saw fit, and act as a conduit should traders from either network – though more typically from Sahel to the coast – desire to access the other.

To this end, the Asante committed considerable capital and labor to the construction of roads and maintenance, creating an extensive road system to take advantage of their trade position. All roads to the “northern territories” – roughly identified as those lands above the Black Volta River, though Salaga Market was often regarded as the primary point of contact between “north” and “south” – converged upon Kumase, then flayed outward to the vital ports along the Atlantic coast. To borrow a phrase, all roads led to Kumase.

\textsuperscript{326} Wilks, \textit{Asante in the Nineteenth Century}, 18-19.
\textsuperscript{327} Lovejoy, \textit{Ecology and Ethnography of Muslim Trade in West Africa}, 130-138.
\textsuperscript{328} Austen, \textit{Trans-Saharan Africa in World History}, 56-57.
Travel was measured in days; a trader would easily take a month to make his way from the coast to the north, staying overnight at what were referred to as “halting-places.” These halting-places, typically spaced roughly a days’ journey-by-foot apart, the Asante established overnight accommodations, storage for goods, and sometimes small markets or food supplies to purchase. Soon after their establishment, halting-places were populated and became villages and towns, some that still exist in present-day Ghana.\textsuperscript{331}

Whether growing from halting-places or pre-existing villages and towns, these sites had a mutual relationship with traveling merchants to and from Kumase and the Atlantic coast. Asked to provide an historical assessment of these networks by Kwame Daaku in the 1960s, many Akan

\textsuperscript{330} Wilks, \textit{Asante in the Nineteenth Century}, 11.
\textsuperscript{331} Wilks, \textit{Asante in the Nineteenth Century}, 2-3.
chiefs and elders noted the benefits of being located on these routes. “It derived money,” the elders in Fomena, south of Kumase, recalled, “Because there were always traders and travelers going through it. The people sold food to the travelers.”

Observing across the breadth of his interviews, Daaku noted, “The desire to derive maximum benefits from trade accounts for the fact that most of the townships moved their settlements as and when the trade route was diverted.”

This kind of flexible and reflexive sense of place suggests that the value of the connections to the roads had the ability to transcend the importance of maintaining sedentary locations for the villages and towns. Leaders in a village like Ayokowa recognized the necessity of placing themselves where they could capture some of the wealth passing through; when asked why they chose to relocate their site, an elder replied: “This was because the old township was quite removed from the trade route. So we moved to settle here by the road.”

In the case of the village Hweremoase, an ancestor to the village elders, Nana Kofi Fordjour, was on a hunting expedition when he found a site that include a clear stream and a close location to the “old trade route to Cape Coast.” The improved source for drinking water was enticing, but its importance was accompanied by the ability “to buy from and sell to the constant stream of traders.”

These shifting sites very likely contributed to some fragmentation and conflict among the Akan in the region; elders in a number of towns referred to the nkotowa nkotowa nature of the local Akan chieftaincies. “Nkotowa nkotowa” are little crabs, and the phrase suggests that the chieftaincies are like small crabs that create tiny holes for themselves in the mud, and occasionally pop out

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from the holes to grab things or defend themselves.\textsuperscript{336} The relocated chieftaincies were strengthened by the trade, collecting tribute from those who engaged in trade and sold goods to the traveling merchants. Additionally, sellers seeking a formal setting for exchange could pay for a stall in the local market, though in some cases this “tax” would be diverted to those who swept and maintained the market stalls.\textsuperscript{337}

Nearer the coast, the elders in Akrofuom recalled with detail the progression of the roads, tracing the path of a route from Gyaman through Kumasi to the coast via Fomena, and another “Denkyira to coast route” that passed through their town, on to Jukwa, and then to the shores of the Atlantic.\textsuperscript{338} Frequently, the elders would provide Daaku with town-by-town detail of the roads, often focusing on towns with prominent markets including Edubiase (well-known for their mastery of pottery), Atebubu, Nkoranza, Bondoukou in present-day Ivory Coast, Salaga (infamous for its role as a market for enslaved Africans from the Sahel), Yeji, and even distant northern market destinations like Tamale, Wa, Ouagadougou, and the celebrated West African markets in Djenne in present-day Mali.\textsuperscript{339} While there had been considerable upheaval over the centuries of imperialism and colonialism, the persistence of these markets is apparent for the elders, and suggest that a broad atlas of connections had developed, maintained, and sought over time. Yet, for as much of the roads’ persistence, there was another element to the elders’ recollections that lent to the historicity of the network that radiated out from Kumase.

\textsuperscript{336} Daaku, \textit{Oral Traditions of Adanse}, 41, 182.
\textsuperscript{337} Daaku, \textit{Oral Traditions of Adanse}, 45, 282.
\textsuperscript{338} Daaku, \textit{Oral Traditions of Adanse}, 70.
\textsuperscript{339} Daaku, \textit{Oral Traditions of Adanse}, 23, 173, 229, 280, 305; Kwame Yeboah Daaku, \textit{Oral Traditions of Assin-Twifo} (Legon, Ghana: Institute of African Studies, 1969), 3.11, 5.2, 7.6, 8.8, 9.6, 14.10, 18.5, 22.3, 36.5; in Daaku’s page numbering in this work, each chapter starts at page 1, thus the first number is the chapter number, and the second number is the page.
Rather than simply a reflection upon permanent, ancestral routes, often the leaders in the towns recalled “old” routes as distinct from “current” or “new” routes; elders in Nyankumasi, east of Fomena, identified the old routes as passing through the Kankam Forest (south of Kumase) to Prasu via Akrokerri and Obuasi, then stated that the new route was the same the old one. In Akonfudi, southeast of Obuasi, the elders added the new route from Denkyira (southwest of Obuasi) to Cape Coast, the same mentioned above, “followed the present one.” This differentiation is important in some cases; elders in Mampong noted one old trade route “passed through this modern road,” eventually to join a separate, older route. Other elders in

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340 Image via Wikimedia Commons, altered by author.
341 Kwame Yeboah Daaku, *Oral Traditions of Assin-Twifo* (Legon, Ghana: Institute of African Studies, 1969), 3.3, 3.14; in Daaku’s page numbering, each chapter starts at page 1, thus the first number is the chapter number, and the second number is the page.
the village of Kusa pointed out to Daaku trenches, called *epie* in Twi, that were remnants of – in their case – “the old road to Dompoase.”

**Interlude: A Question of Age**

What constitutes “old” for the elders Daaku interviewed in the 1960s was not entirely clear; some respondents spoke of the distant past in the context of the Yaa Asantewaa War of 1900, while a considerable amount told tales of Samori Ture and his prominence in Sahelian markets and slavery. Frequently called “Saamoono” by the elders, Ture was an accomplished trader in West Africa when he established his Wassoulou Empire in 1878, was captured in 1898 by the French after fifteen years of armed clashes with them, and died in 1900. Casely Hayford, reflecting around that period, offers another potential “new versus old” point of divergence:

Down to 1873 a constant stream of Ashanti traders might be seen daily wending their way to the coast and back again, yielding more certain wealth and prosperity to the merchants of the Gold Coast and Great Britain than may be expected for some time yet to come from the mining industry and railway development put together. The trade chiefs would, in due course, render a faithful account to the King’s stewards, being allowed to retain a faithful account of the profit. In the King’s household, too, he would have special men who directly traded for him. Important chiefs carried on the same system of trading with the coast as did the King. Thus every member of the state, from the King downwards, took an active interest in the promotion of trade and in the keeping open of the trade route into the interior.

Certainly Casely Hayford’s Fante coastal trading family would have a good sense of a profitable route, and what constituted a turning point in its history. In the British 1873-1874 “Ashanti Expedition,” despite messages from the Asante for peace to Gold Coast Administrator Garnet

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346 Casely Hayford, *Gold Coast Native Institutions*, 96.
Wolseley, colonial troops seized at least partial claim to nearly all holdings of the Asante south of Kumase and burned the capital itself. This effectively paralyzed trade to the coast, and would have had profound impact on any Fante who relied up the “stream of traders.” At the same time, some elders point to this period from 1873 to 1900 as one that involved deliberate reorganization of communities; one village was advised to promptly consolidate their family sites and give themselves one name by a British colonial official. Under pressure, they decided to simply name it after the man who led them to their sites, Kwame Atta. Elders in Nsuta noted they had a hospitable site in a land near two rivers – hence their name, *nsuo-ntam* meaning “land between two rivers” in Twi – but they had to move to avoid the conflicts between the Asante and British. This latter motivation was the most prevalent among elders; the villages and towns of Adiembra, Amoabeng, Mampong, Ekrfuom, Ayaase, and Apagy all traced their most recent location to movements to avoid war or the oppression of the British or Asante within the context of their wars.

Additionally, some elders provided indirect “old” designations related to cocoa cultivation and “destoolment,” or the removal of chiefs from their positions. The leaders in Fomena provided this explanation:

> In the old days, the whole land lay empty. A chief got nothing useful from it but only the venison supplied by the hunter and which were used for hospitality service to strangers….It was only with the arrival of the white man and after Yaa Asantewaa when cocoa came to be cultivated that land became important and valuable. People come from other areas for land to farm on. You see then that land was not valuable in the old days but became very valuable when cocoa came to be cultivated.

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Once again, they are placing the pivot between old and “modern” around the period of 1873 to 1900; the “arrival of the white man” alluding to the Ashanti Expeditions and the planting of cocoa and its growth arising at the turn of the century. Issues revolving around destoolment are more complex; many of the elders attributed destoolment to the influence of money that arose with cocoa cultivation that conferred hard currency and in-colony power among people without royal lineage. In his work on Asante chieftaincy in the 1950s, Kofi Busia traced the rise of destoolment to a number of British-appointed chiefs, whose lineage could be easily challenged through native courts. In either event, the rise of these phenomena place a “modern” era as beginning, at the latest, in the very early 1900s.

On the other hand, some elders recalled the past further back, often as a way to establish the origins of their village or town. The leaders in Nyankumasi told a story of their people fleeing Osei Tutu as he waged wars to consolidate the Asante Empire; they hid in the forest, only to have Dutch traders attempt to deceive them into boarding ships destined for the Americas. They were able to parry this trickery by negotiating an arms exchange that strengthened Nyankumasi’s ability to resist the Asante in return for the Dutch establishing a trading post. While it seems to mix chronology, all the core elements of the story would place it in the 18th century. The elders in Enyinabre had moved their location to avoid pressure and taxation from the Asante in their conflicts with the British in the 1820s. Many stories, some prompted by Daaku’s questions and others unsolicited, described the institution of slavery and trade of enslaved Africans towards the coast, which in regions south of Asante would have been

354 Daaku, Oral Traditions of Assin-Twifo, 3.16-17.
355 Daaku, Oral Traditions of Assin-Twifo, 34.1.
considerably disrupted and an unjustifiable market risk after 1873.\textsuperscript{356} The British Emancipation Ordinance of 1874 also played a role, granting freedom to any enslaved person in the Gold Coast colony. Many enslaved Africans in Asante began to find their freedom through escape southward.\textsuperscript{357}

In sum, what constituted “old” for the leaders consulted by Daaku across Ghana in the 1960s varied, with common divergence points for a “modern” era falling roughly in the latter quarter of the 19th century. As we will see, this is can easily be associated with the intensification of colonial conquest and their projects in the name of development beginning in the late 1890s. The variety of conceptualizations of this divergence by the elders belies the breadth of responses and attitudes about the era of British colonialism. Nevertheless, it certainly constituted the beginning of a distinct and memorable transformation.

\textit{The Great Roads, and Colonialism}

When the British moved to increase their colonial holdings, they were well aware of the Asante trade network they were usurping. A number of British colonial officials or missionaries had traveled into the Asante Empire and assessed their people, their customs, and the nature of their trades through the 19th century, and most had noted the centralized control and influence of the Asante over trade in the region.\textsuperscript{358}

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\textsuperscript{358} Examples include T.E. Bowditch’s \textit{Mission from Cape Coast Castle to Ashantee} (1819), Joseph Dupuis’s \textit{Journal of a Residence in Ashantee} (1824), and A.B. Ellis’s \textit{The Tshi-Speaking Peoples of the Gold Coast of West Africa} (1887).
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The establishment of the Asante region within formal colonial administration opened the area up to colonial reports and investigations into the rules and obligations of the Great Roads themselves. Soon, the British were building or re-constructing halting-stations to their own specifications, and collecting customs duties and caravan taxes. These initiatives, post-1895, were part of longer-term ambitions; Frederick Hodgson, governor of the Gold Coast who would later gain notoriety among the Asante for demanding possession of the Golden Stool of the Asante, noted in 1895:

In no other Colony of the Empire is the general population so lightly taxed, and the imposition of additional taxes should neither be difficult nor harassing when the time comes, as it will come in the near future, for raising additional revenue to defray the cost of opening up the country by means of roads and railways, of the provision of water supplies at the more important trade ports, of the erection of important and long required public buildings, and of such extensions of the administrative machinery as the opening up of the country will render necessary.\(^{359}\)

This concept of “opening up” the region could be taken literally when it came to the Great Roads. Under Asante control the Great Roads were, in ideal conditions, standardized to thirty to forty feet in width (sufficient to allow lorries and wagons to pass one another), and roots were removed down a few feet to counteract their regeneration. Response teams were conscripted among the local population where obstructions or degradation were reported; the laborers were paid by the akwanmofo for their “path sweeping” work.\(^{360}\) There was a plateau in the quality of these improvements, though, constrained by the materials available and their rate of degradation. Further complicated by unrest in the 1870s, there was still a relative consensus that travel from Cape Coast to Kumase was nearly impossible to accomplish in fewer than ten days.\(^{361}\) The

\(^{359}\) Colonial Reports – Annual: Gold Coast 1895, 4.
\(^{360}\) Wilks, Asante in the Nineteenth Century, 33-35.
\(^{361}\) Wilks, Asante in the Nineteenth Century, 39.
British, noting the poor condition of the roads in 1895, need to be understood in the context of their own creation: it had been two decades since they had severely disrupted regular travel and Asante administration of the roads. Nevertheless, Hodgson assessed the roads at face value and began to oversee construction of selected roads to meet the parameters of being sixteen feet in width and having the capability of passing “wheeled traffic.”

The destruction of Kumase and the exile of Prempeh in 1896 was a definitive turning point within the transformation expressed by Akan elders. The British razed Kumase with a purpose to rebuild it as a part of a colonial template, aimed towards the coastal ports that were soon to develop – but in addition to the British road plans there was one other prelude to the defeat. As Ivor Wilks noted, the British had co-opted plans Prempeh intended for improving communications and infrastructure in Asante; a powerful advisor, John Owusu Ansa, who had served in the Gold Coast Rifle Corps and knew well the machinations of the Gold Coast colony, was helping the Asante negotiate the use of European capital to develop railways, timber and gold industries in Asante. In 1892, Prempeh had agreed in principle to supply labor and draw royalties from a company overseen by a former French Wesleyan missionary, J.W. Herivel. Unfortunately for Prempeh and Herivel, the charter needed to be approved through British colonial government, and the High Court of the Gold Coast saw fit to lock up the agreement with legal challenges, with Herivel abandoning the agreement two years later. If there was going to be development and resources moving anywhere in the Gold Coast, it was going through British channels.

362 Colonial Reports – Annual: Gold Coast 1895, 18, 33.
363 Wilks, Asante in the Nineteenth Century, 632-637.
An Emphasis on Railways

At the same time that British colonial administrators were moving to neutralize Prempeh’s influence, they had already engaged in considerable dialogue with European mining companies who desired greater efficiency in the transportation of raw materials to the Atlantic coast. No fewer than 37 foreign mining companies had registered to do their work in the Gold Coast by 1895, though only a small fraction had begun to export from their concessions, anticipating much more palatable overheads upon the completion of a railway from the mining district to the Atlantic. In fact, by then there had been a number of schemes proposed by entrepreneurs and burgeoning colonial trade associations going back fifteen years, but their mostly-private motivations promised to be a logistical and financial nightmare for a colonial government that desired the projects to cooperate and create an efficient source of tax revenue.

Stability was also a major factor, and with Prempeh as a powerful, adversarial negotiator who commanded anti-colonial resistance and held influence over risk in the gold-producing regions, colonial railway to the affected areas was unfathomable.

Thus, by the end of 1896 the colonial government was prepared to embark on greater expansion into the gold-producing regions of the Gold Coast, and sought to increase the efficiency with which they arrived for export. These efforts culminated in virtual directives by 1898; quoting Acting Colonial Secretary G.B. Haddon Smith (who also observed the difficulties in labor):

"The one thing absolutely necessary to develop the country is railways; and, as stated above, until railway communication is established it will be impossible for the different mines to open up their works in a satisfactory manner. There are a large number of mines awaiting the opening of the Sekondi-Tarkwa railway so as to enable them to transport their necessary machinery for the

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successful working of the mines. At present, as materials can only be transported in loads on the heads of carriers, it is impossible to carry weights greater than 50 lbs. The impossibility of getting up sufficiently heavy machinery is a serious obstacle to the successful working of any mine, but this would disappear with the opening of the proposed railway lines. When it is considered that with the present cost of transport, ranging from £18 to £50 per ton, an average of 5,000 people cross the River Pra weekly and that out of that number quite 4,000 carry loads, some idea may be formed as to whether a railway from the coast to Kumasi should be a success or not.366

Smith went further to mention that “now that the Colony is in a tranquil state” after battles related to Samory Ture in the Sahel and “unrest in Ashanti,” “…the prospects of trade are most hopeful.”367

While discussion of rail’s importance had been sporadic and its progression aggravatingly slow, Smith’s statements were no longer made out of whole cloth; in the same report, Smith observed that surveys had been conducted and the first rails were laid at the port of Sekondi in December, 1898.368 Work was arduous and African laborers frequently expressed their attitudes towards the conditions by leaving the worksites. These decisions by the laborers were excoriated by the British, who used familiar racial stereotypes in the colonial reports to label such workers “unsuitable.”369 Colonial officials made shrewd, pseudo-scientific assessments of ethnic groups; while the Fante and “kindred tribes” (meaning, Asante and other Akans) were “unsuitable,” Yorubas will do surface mining but “will not work underground at all,” and the peoples in the Northern Territories “readily take to any form of labour excepting that of carrying loads. As the carrying industry must decline in competition with the railway,

366 Colonial Reports – Annual: Gold Coast 1898, 32-33.
367 Colonial Reports – Annual: Gold Coast 1898, 34.
368 Colonial Reports – Annual: Gold Coast 1898, 32.
369 Colonial Reports – Annual: Gold Coast 1903, 50.
these tribes will be obliged to take to other work, and, being strong men, may prove good material.”

It took three years to open fully-functional rail transport from Sekondi to Obuasi, the connection so coveted by Smith and the rest of the British for its direct line to the deep gold reefs of Obuasi, Tarkwa, and Wassaw. It is crucial to understand that, for as valuable as these gold mines were, the colonial government itself was merely preparing and maintaining a channel for private enterprise. The colonial government could skim a slight portion of the profit margin at the train station and customs, and colonial officials might share more-than-cordial relationships with the private companies, but the bulk of the profits went to entrepreneurs, refiners, and investors abroad. The government needed these companies to benefit greatly if they were going to generate substantial revenue, necessary for the expansion and maintenance of infrastructure.

To this end, colonial officials and privately-funded expeditions plied the Gold Coast countryside in the early 1900s, and the British kept meticulous record of crop endeavors and distributed seed to chiefs and individual Gold Coast farmers. For every crop success there were two failures; the success of rubber cultivation paired with the failure of ginger and copra, while the failures of maize and guinea grains gave way to the gargantuan success of cocoa.

Originally a Central American crop, cocoa beans were brought by a Ga farmer, Tetteh Quarshie, to the Gold Coast in 1879 from the offshore West African island of Fernando Po. So the legend goes, Quarshie established the first plantations in Akwapim, north of Accra, and increasing overseas demand in the late 1890s convinced many more Gold Coast farmers to switch to the cash crop. Railways north of Accra connected the farmers to a primary port by

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370 Colonial Reports – Annual: Gold Coast 1903, 50.
371 Colonial Reports – Annual: Gold Coast 1902, 31-32.
372 Colonial Reports – Annual: Gold Coast 1907, 22-23.
1909; the rapidly rising consumer behemoth of the United States took a particular liking to cocoa in its sweetest form, the milk chocolate bar. While gold would always be the most clearly lucrative product in the Gold Coast, cocoa was probably the most egalitarian path to individual wealth for Africans in the colony. Many thousands of men and women cultivated cocoa farms, and entrepreneurial African migrants in-country invested in stool lands (those under control of a chiefly lineage) for agricultural purposes. Sometimes, organized groups of such entrepreneurs would make a bulk land purchase and parcel the property among their numbers.\textsuperscript{373} Unlike the mining sector, Africans were for large part able to maintain control over land, lending them a considerable amount of power over the supply of cocoa. Thus, when disgruntled cocoa farmers in the 1930s and 1940s wanted to pressure the colonial government, they in their thousands simply choked off the supply – a protest called at the time the “cocoa hold-ups.”\textsuperscript{374}

As with gold, the British were quick to develop a channel for the increasingly successful market, primarily through a railway that extended north from Accra to the abundant cocoa-growing regions reputedly sown by Quarshie near Koforidua. When a blight called swollen-shoot disease greatly damaged crops in this region in the 1930s and 1940s, farmers shifted their attention to areas in the Ashanti and Brong-Ahafo regions westward, and could for large part utilize the then-completed railway from Kumase to Sekondi.\textsuperscript{375}

Thus, the railway development in the Gold Coast was greatly targeted towards the success and location of the natural and introduced resources that were abundant in the colony. Rail proved to be as necessary for cocoa as it was for gold; the high weight and perishable nature


\textsuperscript{375} Hill, \textit{Studies in Rural Capitalism in West Africa}, 22-23.
of cocoa could only be partially mitigated by extracting the beans from the pods and allowing them to dry.

The railway networks that emerged, then, from the colonial efforts were prepared to embolden a number of key exports.

Fig. 15 Gold Coast railways in 1922, with regional exports

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New Connections & Directions

While cocoa and gold markets were the obvious benefactors of colonial railway endeavors, the Gold Coast colony and protectorates (as Ashanti and the Northern Territories were referred to until virtual consolidation in 1935) generally saw a massive expansion in imports and exports and boosts in colonial revenue that allowed for expansion of colonial investments in infrastructure. With the exception of the global hiccup of World War I, the success of the colonial efforts were evident:

![Graph showing imports and exports in the Gold Coast & Protectorates from 1896 to 1924](image)

**Fig. 16** Imports and exports from Prempeh’s exile to return

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[377] Fig. 1 through 5 and Table 2 were derived from statistics in *Colonial Reports – Annual: Gold Coast 1896 through 1923-24*, table and graphs created by this author.
Fig. 17 Revenue from Prempeh’s exile to return (data for 1896 unavailable)

Fig. 18 Balance of Gold Coast Colony & Protectorates, 1896-1924
Proportion of Gold Coast Colony & Protectorates' Expenditure, 1896-1924

**Table 2** Top Areas of Gold Coast Colony Expenditure, Selected Years 1897-1924

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*378 “WAFF” refers to the West African Frontier Force, a fighting outfit primarily comprising African soldiers and European officers that later became the Gold Coast Regiment.*
The growing revenue stream also allowed the British to undertake a near-total transformation of Kumase over Prempeh’s exile, surprising the Asantehene upon his return in 1924. It must have seemed an alien place to Prempeh; roadways and gutter drainage, new colonial buildings looming higher than the old chiefly palace, “sanitized” marketplaces, rumbling lorries and hooting locomotives would have punctuated a markedly different scene from the familial home clusters, thatched roofs, and spiritual beacons of the encroached and decayed cemeteries. That the rules – and his rule – had changed drastically were written on the rendered walls.
Most distinctly, a new path had been charted for trade and commerce, concentrated on two corridors stretching from Kumase to Sekondi and Koforidua to Accra. The loop depicted in Fig. 15 belied the fact that what seemed a uniform circuit eventually fell into disrepair, outside of the two channels towards gold and cocoa.

This new path, constructed to foster mostly external demand, had profound impact on internal lives. Whole cities were formed with regulated markets set along the railways. Hundreds, then thousands of miles of roads were graded and widened to accommodate a growing

number of lorries transporting goods and materials. Infrastructure that had once been a starburst with Kumase as its locus point was now a U-shape with activity concentrated towards the ports of Sekondi and Accra.

Second to Kumase, Cape Coast experienced profound change in its relevance for the Gold Coast economy. Historically the seat of Fante control in its negotiations and trade with Europeans on the coast, over the course of Prempeh’s exile it had shifted from the Asante’s key linkage and buffer between themselves and European trade to a sleepy fish market. Akan elders reflecting on the past trade routes virtually never mentioned Sekondi – instead, as mentioned above, they drew distinct village-by-village routes to Cape Coast.\textsuperscript{380} This was the same immensely valuable route described by Hayford above, the “goose which laid the golden egg.” But from 1896 to 1910, when the primary railway corridors had been completed, Cape Coast greatly decreased in exports relative to Sekondi and Accra, the latter nominally selected as the seat of colonial government.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|c|}
\hline
\textbf{Rank in Trade} & \textbf{1896} & \textbf{1906} & \textbf{1913} & \textbf{1921} & \textbf{1924} \\
\hline
Cape Coast & 2\textsuperscript{nd} & 3\textsuperscript{rd} & 7\textsuperscript{th} & 4\textsuperscript{th} & 4\textsuperscript{th} \\
\hline
Sekondi & N/A & 1\textsuperscript{st} & 1\textsuperscript{st} & 1\textsuperscript{st} & 1\textsuperscript{st} \\
\hline
Accra & 1\textsuperscript{st} & 2\textsuperscript{nd} & 2\textsuperscript{nd} & 2\textsuperscript{nd} & 2\textsuperscript{nd} \\
\hline
\end{tabular}
\caption{Rank in Trade among Three Major Gold Coast Ports, Selected Years 1896-1924\textsuperscript{381}}
\end{table}


\textsuperscript{381} Table 3 and Fig. 6 were derived from statistics in \textit{Colonial Reports Annual: Gold Coast} 1896 through 1923-24, table and graph created by this author.
This development could very well have been deliberate; the British had long bemoaned their strength relative to the Fante in negotiations at Cape Coast,\textsuperscript{382} and the aforementioned, albeit contentious, connection between Cape Coast and Kumase was beneficial for both cities. At Sekondi and Accra the British were on the outer edges of Asante and Fante influence, and as the export markets grew Gold Coast Africans could either cooperate with the new economic thoroughfares, or head-load their goods to markets where they would have to compete with merchants who had purchased their goods from wholesalers at high volume railway and lorry stations dotted throughout the colony.\textsuperscript{383}

Upon Prempeh’s return, Cape Coast was considerably less important to Kumase than were Sekondi and Accra, so much so that the one large trade to the north, the kola nut, was

\textsuperscript{382} Rebecca Shumway, \textit{The Fante and the Transatlantic Slave Trade} (Rochester, NY: University of Rochester Press, 2011), 70, 75-81.

likewise diverted to the coast and out to its primary traders in Lagos by 1907.\textsuperscript{384} When Akan elders were asked to describe the primary trade routes in the 1960s, they invariably provided greatly detailed paths among their surrounding environs and onward to the Atlantic coast, but only very vague long-distance routes northward.\textsuperscript{385}

\textit{Change over Time, Change in Time}

In addition to the evolving structures of trade, travel, and exchange in the Gold Coast, there is also the matter of the speed and (what would be called) efficiency of transactions. Historically, Gold Coast Africans had head-loaded goods over great distances, particularly in the Akan forests, where livestock could not be used for fear of trypanosomiasis, or sleeping sickness. This meant the development of consistent travel through particular routes and villages, and the development of the constellation of the Asante Great Roads. Along these routes, travelers typically took a week or more to travel from Kumase to Cape Coast, and many more weeks should the traveler wish to bring coastal salt to the ever-present salt demand in the Sahel.\textsuperscript{386}

As mentioned above, Akan elders in the 1960s recalled well-worn paths and \textit{de facto} guidelines for travelers; families, including those of the chiefs, willing put traders up for the night, free of charge. Frequently, the traveler would show their gratitude in a small gift, either from their goods or the widely accepted items of tobacco and salt.\textsuperscript{387} Hospitable villages received reciprocal benefits: more frequently traversed paths and more frequently purchased local

\textsuperscript{384} Colonial Reports – Annual: Gold Coast 1907, 24; Colonial Reports – Annual: Gold Coast 1919, 26. This transition was also acknowledged by elders in “Assin Juaso” in Daaku, \textit{Oral Traditions of Assin-Twifo}, 15.5.


\textsuperscript{387} Daaku, \textit{Oral Traditions of Adanse}, 94, 110, 116, 137, 141,
foodstuffs, the latter saving travelers the added weight of their head-load or porterage. One village origin story – that of Asempanaye – recalled their formation stemming from a group leaving a different village because “the people there were wicked, refusing even to give food and accommodation to weary travelers.” Their new site was given a Twi proverb meaning “It is always better to do good.” Seven nights of travel meant seven villages’ income, and many communities actively sought the privilege.

Trains and lorries most certainly impacted these exchanges, as week-long supply routes for the markets were shortened to day-long trips. Wholesaling from railway and lorry stations concentrated exchange near fortunately (or deliberately) located villages. Akan elders recalled some communities picking up and moving in their entirety to access the lucrative corridors. These concentrated areas of opportunity likewise concentrated opportunities in education, generating a phenomenon of rural-to-urban migration that continues to challenge the distribution of wealth and opportunity and strains urban resources in contemporary Ghana. Furthermore, schools and colleges focused on technical labor demands befitting European-modeled cities, rather than reflecting trades more readily beneficial in rural areas or those having niche trade specialties, which depressed urban wages. For instance, in the 1960s Philip Foster observed a large majority of Ghanaian received education for artisan and “skilled” occupations like electricians, motor mechanics, plumbers, printers, and locomotive engineers, while very few received education in agriculture or fisheries. In and of themselves, the pursuits were towards

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388 Daaku, *Oral Traditions of Adanse*, v, 21, 58, 156.
390 Robertson, *Sharing the Same Bowl*, 89-90.
392 Robertson, *Sharing the Same Bowl*, 36-45.
394 Foster, *Education and Social Change in Ghana*, 208-209.
better paying employment, but the lack of labor demand outside the cities drew graduating trainees away from home and reduced labor on family farms. The colonial government recognized the risks of this movement, with large, disgruntled urban populations potentially generating powerful protests, and sought to diffuse education and encourage Africans in the Northern Territories to stay in the 1920s. Nevertheless, John Caldwell’s surveys around the mid-20th century found that an overwhelming majority (88%) of rural Ghanaian respondents said the reason Ghanaians were moving to the cities of Kumase, Sekondi, and Accra was “to obtain jobs, money, consumer goods.” The concentration, the culmination of those foreign machinations Prempeh had seen on his return to Kumase, reflected a normative understanding of communities and opportunities by the time of Ghana’s independence.

**Labor & Opportunity**

While the colonial government was transforming networks of exchange in the colony, a perpetual difficulty was the conscription of labor. Fundamentally, the British sought a simple exchange of wages-for-labor in the colony by the early 1900s – yet it was rarely so easy to accomplish. Projects on stool lands often had to include negotiations with local chiefs for laborers. All involved in these negotiations knew well the relationship between labor for infrastructure and labor for production of commodities; stool lands and families were losing labor in one area to embolden the other. As such, wages were frequently fairly strong in the early

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398 *Colonial Reports – Annual: Gold Coast 1905*, 48.
1900s (or, in British estimation, “exceptionally high”) on Africans’ behalf.\textsuperscript{399} In ensuing years, British and private foreign companies sought labor abroad for projects, particularly for grueling construction or mining labor where Gold Coast Africans were likely to desert the worksite. Lagos, Sierra Leone, and Liberia were common areas of conscription, with laborers signed to six and twelve-month contracts that included daily subsistence pay but withheld wages till the end of the contract.\textsuperscript{400}

The colonial government also found Africans from the Northern Territories willing to work further south; they were likely to parlay their wages into education opportunities and ways to stay in the urban centers down south.\textsuperscript{402}

With hard currency so limited – yet highly valuable – in the colonies in this period, Nigerian, Liberian, and Sierra Leonean laborers could return home and utilize their pay in opportunities there, not unlike the Jamaican and Barbadian laborers in Panama. Though nowhere

\textsuperscript{399} Colonial Reports – Annual: Gold Coast 1898, 34; Colonial Reports – Annual: Gold Coast 1901, 16-17; Colonial Reports – Annual: Gold Coast 1902, 56; Colonial Reports – Annual: Gold Coast 1905, 46, 50.
\textsuperscript{400} Colonial Reports – Annual: Gold Coast 1902, 58; Colonial Reports – Annual: Gold Coast 1908, 49, 51; Colonial Reports – Annual: Gold Coast 1920, 38.
\textsuperscript{402} Staniland, \textit{The Lions of Dagbon}, 186n.
near the celebrated cycle of that expressed in the Caribbean, migratory labor in the Gold Coast was a regular, seasonal occurrence, and exemplary of a passive resistance by Gold Coast Africans to undertake some of the tougher, low-wage labor in the colony.

The Matter of Persistence

The railway developments in the Gold Coast, along with other infrastructure initiatives in the colony, sought to create a highly efficient network of trade and exchange that would benefit the British Empire. While the colonial government was successful in creating its network, a loop with Kumase at its northernmost point (see Fig. 15), after the 1920s portions of the network saw diminishing maintenance and operation. This was in-part because colonial initiatives in road construction were expansive, covering an estimated 3,200 miles of “motorable roads” by 1923 – ten times the operational mileage of railways at the time.\textsuperscript{403} Motorable roads provided the reach necessary for smaller villages to avoid the expensive and taxing head-loading process. With chiefs willingly conscripting laborers to maintenance the roads, there was regular support in place to ensure the routes functioned properly.

The result was the limitation of railway’s presence in most Gold Coast Africans’ lives, particularly away from the Obuasi-Sekondi and Koforidua-Accra corridors mentioned above. The colonial report for 1922-23 maligned the development, both for its reduction of rail’s importance and for the wealth it bestowed on Gold Coast Africans:

\begin{quote}
Road transport gives employment to many, and the African lorry owner-driver is becoming a problem on account of his successful competition with the railway. The lorry owner can always rely on his family and his friends for shelter and sustenance, and his clothing needs can be reduced to a minute sum. He does not necessarily work every day; he is almost entirely without overhead charges, and except for the payment of the instalments on his
\end{quote}

\textsuperscript{403} Colonial Reports – Annual: Gold Coast 1922-23, 43, 50-51.

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lorries and of his running charges, he has no need for money. Consequently road transport on the Gold Coast is exceedingly cheap and is actually run on an uneconomic basis.404

The old Akan customs along the Great Roads had been remade to fit the new colonial road system. The colonial government repeated the above description verbatim in their report of 1934-35, then removed the remarks about railway’s losing competition with road transport for 1935-36, then removed the comment about the development’s “uneconomic basis” in 1936-37.405 In this latter report, they noted the considerable progress on a “new road development programme” enacted in 1936, noting “there can be no doubt that during the year road communications throughout the Gold Coast have greatly improved.”406 By 1939, the British recalled the road transport revolution as such:

The advent of motor transport has undoubtedly broadened the mind of the African. A few years ago it was the exception rather than the rule for a native to undertake a long journey which probably meant several days or even weeks on foot, whereas today villagers think little or nothing of boarding a lorry and going from one side of the Colony to the other. The African has certainly found in the internal combustion engine an outlet for his natural bent for anything mechanical…407

Gold Coast Africans, on the contrary, saw the accessibility of roads and motor vehicles as a way to reach areas that had rarely been so readily connected before. By converting their customs to these new methods of exchange, they were also applying their familiarity with the old Great Roads to cities made powerful under the aegis of colonial control (Sekondi, Accra). Roads that had been meant to feed the railways were now gradually overtaking it, despite the colonial government – yet also, in a way, in support of it.

404 Colonial Reports – Annual: Gold Coast 1932-33, 27.
405 Colonial Reports – Annual: Gold Coast 1934-35, 28; Colonial Reports – Annual: Gold Coast 1935-36, 26;
Colonial Reports – Annual: Gold Coast 1936-37, 26.
406 Colonial Reports – Annual: Gold Coast 1936-37, 71.
407 Colonial Reports – Annual: Gold Coast 1938-39, 86.
Fig. 24 Road and railway mileage in the Gold Coast, 1902-1935

The gradual decline in railways gave way to a flourishing economic sector in privately-owned lorries, in addition to a growing complement of taxis and a sort of miniature bus called the *tro tro*. By the mid-20th century the honk of the taxis and *tro tros* were a ubiquitous reminder of their predominance over Ghana’s roads; their sound was emulated in Ghanaian highlife music (observe the beginning of Desmond Ababio’s “Tsutsu Tsosemo,” for example), inspired a locally popular music comprised of honking horns called *Por Por*, and *tro tro* drivers would adorn their vehicles with Adinkra symbols and abbreviated versions of Ghanaian proverbs. The taxi and *tro tro* stations were hives of activity, and continue to be a major center of the movement of trade and exchange of goods in Ghana today.

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408 Fig. 7 was derived from statistics in *Colonial Reports Annual: Gold Coast 1902 through 1934-35*, graph created by this author.
Railways, once considered by the British as vital for the colonial economy, never really recovered from the challenges of road transportation, and rail infrastructure gravitated towards dual corridors to the coast. As Kwame Nkrumah noted in the early 1960s:

What Africa really requires is a fully integrated transport system for the continent…with an over-all plan for inter-African trade and progressive economic and social development…

Colonialism interrupted the interchange that existed before its incursion and subsequently all forms of communication – roads, railways, harbours – were pointed outwards…

When we talk about these communications looking outward, more is meant than that they point towards the coasts and overseas. Railways were deliberately constructed for taking goods to ports planned and equipped for on-board ship-loading rather than for both loading and unloading. Thus most of our existing railways still consist of single track routes with a few branch and connecting

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lines. They were designed by the colonial powers to link mining areas or to carry cash crops and raw materials from collection points to the ports for export.\(^{410}\)

Their efficacy limited, in Nkrumah’s short time in power he was unable to grow the rail networks to their previous breadth, nor importance for Ghanaians. Among the elders consulted by Daaku in the mid-1960s, very few made reference to railways at all, if only to reflect on a bygone economic activity related to it.\(^{411}\)

When Ghanaian author Ayi Kwei Armah was composing his novel on disillusionment and decay among artifacts of Ghana’s “modernity,” *The Beautiful Ones Are Not Yet Born*, his main character worked at a railway station. “He sat down facing the huge chart,” Armah wrote, his main character nameless:

…with all the lines and the millipede names of slow stations alongside them. Nothing much had happened. Nothing much would happen. The traffic of the afternoon was as usual very slow and very sparse. Perhaps from some side station near a mine, a quiet line of open wagons with cracked boards held together with rusty plates and rivets would slide along the hot rails to a languid stop some forgotten place, to wait for other slow days when it would get shunted back and down to the sea far away.

Once five hundred miles of gleaming iron, less than half of the tracks are operational today, from Kumase to Sekondi-Takoradi, and Nsawam to Accra. In more recent years, cities with expensive rents like Accra have seen squatters settle along the railways, one of the few areas of public land and little traffic.\(^{412}\)


Conclusion

In constructing the Gold Coast Colony and its protectorates, the British were well aware of at least one area of resource wealth, the gold fields that had long supplied both trans-Saharan and Transatlantic trades. In usurping the control and influence of the Asante, who had constructed a vast network of Great Roads with their capital, Kumase, at the center, the British sought to re-form the local economy to feed global markets through colonial channels. Their success there, not entirely deliberate, was through a fraction of their rail construction efforts – the dual corridors to the coast visible in Fig. 26 – and road networks that better fit the movements of Gold Coast Africans. The direction and the efficiency of the corridors upset a

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413 Map created by this author, via information from Ghana Railways Corporation, using QGIS.
slower, locally-focused and beneficial means of exchange that emboldened smaller, rural communities. It also likely contributed to greater urban concentration.

This sort of economic resistance is an important counterpoint in Atlantic World historiography, particularly in reference to experiences of the African Diaspora as well as experiences in the face of European influence over markets. Among Gold Coast peoples, the Asante were especially in an interesting position in the Atlantic World, with one foot in a far older Trans-Saharan network as well as a dynamic trade to the Atlantic coast. At this edge, for a time the Asante could engage both, though they soon learned that imperialism was especially about economic control. That Gold Coast peoples were able to avoid complete economic control is a testament to both the ill-fit of the railway to Gold Coast communities as well as the specificity of the colonial (and perhaps even, British) context. It also demonstrates the limited reach of European hegemony, even in cases where its construction is meticulously intended and planned.

That said, revisiting Prempeh’s observation when he walked the colonial streets of Kumase, we see someone with careful optimism, but longing for a piece of the past amid the reconstruction. That the colonial construction reflected some local economic activities is a fair characterization, but the purpose of colonization was never to preserve the central, beating heart of the Gold Coast. It was to divert the flow towards external economic centers, via artificial devices—a network of Kumases without the Asantehene.
Chapter Five: Connectivity in American South, Panama, and Gold Coast Rail-Building

When Amanda Smith first arrived at the Basim Faith Mission House in western India in 1879, she was struck by the amount of work the missionaries had to undertake to supply the mission:

If they needed a loaf of bread, or a pound of sugar or flour, or the most trivial article, if they didn't happen to have it in the house, they had to go, or send, fifty-one miles for it, which generally took about three days, with a slow-going ox cart, as we would say, but bullock wagon, as they say in India.\(^{414}\)

A woman of color, formerly enslaved in Maryland who had spent her childhood free in Pennsylvania, Smith spent most of her adult life a worldly missionary, traveling to Europe, southern Asia, and North and West Africa. In her autobiography, she details settings with exquisite artistry, including observations of infrastructure and public facilities for water and sanitation.\(^{415}\) To Smith, the problem in Basim revolved around the “fifty-one miles [to] the nearest railway station.”\(^{416}\) As she did with many of the challenges she encountered in life, for this she prayed.

\(^{415}\) While in Alexandria, Egypt, she noted: “There were large plots of ground laid out, as far as your eye could see. There were old-fashioned pumps, such as they had a hundred years ago, I suppose; then there were long, wooden troughs leading to the trenches, about five and ten feet apart; they would pump the water into these troughs, and it would run and fill up all the trenches, and then the women and children would stand on either side of the beds, and with their hands throw the water, and so water the beds. Oh, how hard and tedious! But then they never thought of doing any other way than the way their fathers did. That was all they cared to know.” Smith, An Autobiography, 299. She also noted the winding road and her childhood home’s view of its travelers while nestled in the hills of Pennsylvania (35), the broad, treed avenues of Paris with its “gypsy wagons” (287), the peculiarity of large congregations of priests using the railroad system in Rome (288-289), and the problematic lack of infrastructure in Cape Palmas, Liberia (431).
Oh, Lord, put it into somebody's heart to build a railroad through this part of the country, so it will not be so hard for those who are isolated to get the things they so often need."

I shall never forget how I felt as I prayed. And these words came to me: "Therefore I say unto you, all things whatsoever you ask in faith believing, ye shall receive." And I saw a railroad as really as I ever saw a railroad, by faith.

When I rose they laughed at me, and said, "You think we will have a railroad?"

"Yes," I said, "God will do it. You will see."

And it did come to pass in less than two years after, that the East Indian Railroad Company put a railroad right through that section of country and, I was told, a station within two miles of Bassim (sic) Faith Mission House.417

By the 1870s, railroads had a clear currency for Americans, clear enough for Smith to assume its value in the places that lacked rail; she would later have similar, unsuccessful prayers for Cape Palmas, Liberia.418

In fact, by extension rail had attained a much wider, global acceptance, particularly for European entrepreneurs, financiers, and imperialists. Where Smith saw a solution for a local problem, this group had seen the opportunity for an efficient, virtual pipeline to and from profitable resource sites. In regions like the American South, Panama, and the Gold Coast, the efficiency railways afforded was crucial, allowing them to bypass hot, virulent environments. By drawing comparisons across these regions, we can see that railway connections were part of a larger sphere of imperial and capitalist motivations, though the variety of historical and labor contexts created distinctly different outcomes. Nevertheless, these outcomes share a number of valuable contributions to the concept of, in historical research, drawing attention to connectivity in and outside a region.

Interlude: Imperialism

Above, I identified a group I referred to as “entrepreneurs, financiers, and imperialists;” as I continue below, subsequent references to them will use the term “imperialists.” The reason has as much to do with the way the capitalist global economy has operated historically as it does with how it operates today.

As they did during classical imperialism, colonialism, and post or neo-colonialism, entrepreneurs and financiers within the capitalist global economy have never operated outside of political and military or pseudo-military (read, “security”) spheres. Nor have they operated in a way to sustain the competition and exchange that is supposed to occur naturally, according to capitalist theory. Instead, entrepreneurs and financiers have always operated with an emphasis on control over areas of operation – above and below ground – and this control often is either in concordance with political and military or security support from local government, or with a combination of external political pressure on local government and private contractors to maintain security. Additionally, the ambition of entrepreneur and financier ventures is to command the greatest share of a market, if not many markets. The combination of expansion and control, in concordance with considerable political and military or security support, brings these ambitions squarely within the definition of imperialism. It is little wonder the assets and companies of renowned entrepreneurs of the past and present are referred to as comprising their “empire.”

There are distinct reasons why labels like “capitalists” or “colonialists” will not do in this instance. For capitalism, if one is in support of capitalism, they would support the concept itself by ensuring competition and supporting opportunities for individuals to succeed through their innovation and effort. Those who are referred to as capitalists in the endeavors above were
actually anti-capitalist, seeking to have singular control over markets and otherwise crush competition. Colonialism has a better applicability, though its suggestion includes a more specific feature: the administration of a region, above and beyond the local population and governance. The imperialists above have no desire to administer anything, except insofar as it can maintain their control. They would rule by force of arms alone, if necessary—and they have.

Colonialism also does not presume efforts of expansion, as do imperial ambitions. Furthermore, in the case of the United States, their attacks on American Indian groups and seizure of American Indian lands for the purposes of expanding their agriculture in the American South is fairly imperial at this time. While the reservation system had been established by the 1850s, its function in the American South was primarily to push American Indians out of fertile, productive territories and allow the pursuit of land for wealthy Southerners.

For all the reasons above, the term “imperialists” is the most accurate to refer to the entrepreneurs, financiers, and imperialists I have covered above.

Railways in the Global Economy

The dual purposes of local and global demands tended to tip in favor of the latter; development theory, even that of colonial development, was not beholden to concerns about local populations at the expense of imperialists. Additionally, the imperialists were cut from the same cloth as one another, a dynastic fraternity of industrial barons and banking families that searched the globe for paths to further prosperity. Railways had simply caught their fancy for a rough century from 1830 to 1930, providing an improvement over the limitations of roads and horse-drawn wagons in the decades before the automobile.
Just as importantly to imperialists, and perhaps to local detriment, railways were an inflexible network of exchange. When new markets and commodities surfaced in Asanteman or Panama, traders cut new footpaths. Regular routes would get more attention, potentially manifesting in roads, and in the case of Asanteman the local chief would be obligated to maintain the thoroughfare. A railway, on the other hand, necessitates careful survey, grading, and maintenance, to ensure an expensive, massive engine can steam on through. There is a reason the train has become a symbol of unstoppable force.

The markets made successful by the trains were entrenched for generations. Well-charted paths and efficient networks afforded by railways were world-changing things for the time. Across the American South, Panama, and the Gold Coast, people were willing to move entire towns and villages, to remake their homes in the image of these new networks. They were hoping to capture something that was otherwise passing through:

- Edward King noticed that entire towns relocated to move closer to railways in the American South.  
  King, *The Great South*, 189.

- The *Panama Star and Herald* writers observed Panamanians trying to move towards train stations to sell to passengers.  

- Elders recounted to Kwame Daaku that whole villages moved their location to get closer to trade routes at the turn of the 20th century.  
To hold an important depot was recognized by the local population as crucial inclusion in the next-generation market network. And once in place, the production targeted by the railways took off.

Fig. 27 Growth of railways and cotton production in the United States, 1790 to 1860


Graph created by this author using Acquah, *Accra Survey*, 18-20.
Dual Purpose, Dual Paths

These developments were always costly, in maintenance, in lives lost, in markets changed. For as obstinate as the locomotive appeared, it was no match for the environments it sought to dominate. In the humidity, rust was a formidable opponent to iron, eating away the stock as the forest crept towards the tracks. In similar ways, the irreverence for the local population, or attempting to bypass them entirely, undermined the longer-term utility of the device. It also ensured railway plans would never quite reflect the paths more regularly used in localities.

The simultaneous transformation of markets and failure to reach local paths meant that, in the three regions covered, railways would often operate in concordance with existing market networks, if not in competition with them. Within the century of railway development 1830 to 1930, roads and footpaths were treated as ancillary networks, sparking an important divergence in our comparison.

In the American South, the railways often coincided with larger-scale American imperialism of American Indian territories.\textsuperscript{426} Railways had few existing paths to reflect for the accompanying, “pioneering” population that followed, so the cuts were truly the course of a conquering nation. For African American populations that moved their homes to join the railway route, they were not uprooting, but rather making shrewd economic decisions about their long-term, newly free lives.\textsuperscript{427} The emphasis on rail can partly explain the terrible reputation earned by roads in the American South, left to swamp and fester as the iron rail signified

\textsuperscript{426} Thomas, \textit{The Iron Way}, 202-206.
“modernization” of infrastructure in the Southern states.\textsuperscript{428} Their ancillary importance to railways for a wealthy planting class built towards a structural representation of economic inequality. As mentioned above, this drew stark, tangible lines over the countryside that helped solidify both economic and racial segregations in the South.

Panama’s railway, simply put, usurped older paths, even if it somewhat sought to reflect them. A network of Panamanian boatmen who had long traversed the isthmus also revealed more accessible trans-isthmic routes primarily used water and water frontage.\textsuperscript{429} These old courses became vital cuts for the railway, in the process stitching together two oceans of trade under the eye of foreign operators. The local boatmen had a tidy, lucrative monopoly for less than a decade before a locomotive ran through it.

The Gold Coast, counter to Hegel’s assertions about Africa, had an influential history that put into place an extensive, regulated network of trade. It included normative customs and protective proverbs, river routes and common currency. Over-throwing the political head that helped maintain this network (namely, Asantehene Prempeh I) had not removed the routes themselves. That said, in a brief quarter-century window the British were successful in creating veins of access to valuable regions in the Gold Coast, and the increasing demand they fed portside had a significant impact on the Gold Coast interior. A celebrated port and destination on the older trade network, Cape Coast, greatly diminished in importance relative to the British-chosen ports of Accra and Sekondi-Takoradi.\textsuperscript{430}

\textsuperscript{428} Noe, \textit{Southwest Virginia’s Railroad}, 1-8; Thomas, \textit{The Iron Way}, 8-11; in Edward King’s \textit{The Great South}, written in the 1870s, roads muddied by rain and rivers were a perpetual occurrence, whether he was in Galveston, Texas (111), Natchez, Mississippi (303), Appalachia (475), or Asheville, North Carolina (569).
\textsuperscript{429} McGuinness, \textit{Path of Empire}, 32-38.
\textsuperscript{430} Hayford, \textit{Gold Coast Native Institutions}, 98.
In all these regions, railway development had a certain amount of structural persistence. The stark lines of the South continue to demonstrate old lines of segregation, particularly racial segregation. Panama has never stopped being a global economic corridor from the trans-isthmus railway’s completion in 1855. In fact, the railway’s efficiency became relatively insufficient as

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431 Map created by this author, via data from *Colonial Reports – Annual: Gold Coast 1895 through 1910*, using QGIS. Arrows are sized by proportion of volume of trade, estimated through customs and caravan tax receipts.
compared to the US-led canal initiative in the early 1900s—though said initiative was utterly reliant upon the railway to move the heavy steam equipment for the dig. Regardless, the railway in Panama continues to operate, interesting enough in an ancillary capacity to the Panama Canal. The railway’s decreased usage and depot closures in Ghana have come to reflect areas of persistent foreign influence: cocoa continues to be exported along the railway from the farms north of Accra, as does gold from the Obuasi, Tarkwa, and Wassaw fields. The remaining routes are out of operation (see Fig. 26). Cape Coast, though somewhat recovered from its lowest economic point, still lags behind the markets of Sekondi-Takoradi, Kumase, Accra, and even the old colonial capital of the Northern Territories, Tamale.

Thus, the impact and persistence in these three regions were felt differently, but nevertheless each area saw distinct transformation as a result of rail construction. Often a structural persistence, in the case of Panama and Gold Coast there were also market flow transformations. Ultimately, the persistence of rail’s influence is reflective of the areas in a community which it had the greatest impact, though its utility in all three regions decreased in the latter half of the 20th century.

Labor

While much of my analysis has focused on the structural and social implications of rails themselves, the labor necessary to bring the plans to fruition created new worlds in and of themselves.

In drawing comparisons between the three regions, it is readily apparent we are confronting different geographies and markets, but we also confront different demography. In each region, the very nature of railroad work was an oppressive condition, such that real and
virtual coercion helped generate the necessary labor force. In some cases, such as Jamaica, dire need and disease conditions at home made the risks necessary. Our chronology charts a progression in developing this labor force, where slave labor gave way to a variety of methods to contract and coerce labor from free individuals. Finally, a veneer of opportunity emerged in each of these regions, tempered by the immense health risks. Whether it was a rare wage for recently freed African Americans, the chance to be a Silver Man in Panama, or a means to gain hard colonial currency in a long queue, the labor in these areas began to reflect the labor opportunities in the rest of the world.

Distinctions like these mask a common thread behind railroad endeavors. As mentioned above, railroads were a shared pursuit of imperialists in a century of rail, under the aegis of “development” which, at this time, was akin to “development of capital production.” That the railways were later utilized by those who had been oppressed or upset by it overshadowed the context of the colonial moment: heavy investment was in pursuit of profit. Reduction of overhead was a worthy cause. Both local populations and laborers could not separate themselves from the resulting reformation.

An additional group of workers would be fruitful for future analysis: convict labor. In all three regions, railroad work was also used as punishment for a crime, though their employment was inconsistent and poorly documented – perhaps by design. Brutal quarry work was reserved for the hardest criminals; all other forms of labor, though, were undoubtedly menial and the conditions excruciating. The mutual misery among free and convict workers created a

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432 Senior, Dying to Better Themselves, 39–43, 70.
433 Thomas, The Iron Way, 196; McGuinness, Path of Empire, 59; the annual Gold Coast reports always included a brief on prison population and the use of prison labor, and example being Colonial Reports – Annual: Gold Coast 1903, 33.
common sight: gang labor, occasionally punctuated by chains and stripes, often accompanied by a song to coordinate and commiserate.

The use of railroad work as punishment was another testament to its difficulty and danger, as well as a vestige of the the economic exploitation of enslaved labor. Indeed, when abolition arrived in countries across the world in the 19th century, it often included the caveat of convict enslavement.

Finally, the influence of racism played a role in the conscription of labor for railway projects. In addition to the overlap of slavery and its racialized legal designation in regions like the American South, there was a broader wealth inequality along racial lines that was a primary component of imperialism. To wit, in order to conquer and administer foreign, inhabited lands, Americans and the British posited themselves as superior. For instance, in the Gold Coast, the British co-opted Prempeh’s plans to construct railways in Asanteman, and captured him, rather than allow the Asantehene and his government carry out the project themselves. To maintain this power dynamic, imperialists would concede some local control and concessions – rarely in profitable regions – but hold themselves in superior administrative control, politically and economically. Drawing on Prempeh’s example again, chiefs of smaller villages were elevated to higher positions in colonial government after Prempeh was removed. In an environment that supported imperialism, moves like this conferred power in ways that permeated political, economic, and social spheres of the local populations. The impoverished in these regions,

434 Ray, Crossing the Color Line, 70-74; Ann Laura Stoler & Frederick Cooper, “Between Metropole and Colony: Rethinking a Research Agenda,” in Ann Laura Stoler & Frederick Cooper, eds., Tensions of Empire: Colonial Cultures in a Bourgeois World (Berkeley, CA: University of California Press, 1997), 30-32; McGuinness, Path of Empire, 82.
435 Boahen, African Perspectives on Colonialism, 100-101.
overwhelmingly comprising of marginalized people of color, were pressed to take the labors of the powerless. And thus laid the rails of the powerful.

*Connectivity*

Conceptually, the networks of travel, trade, and exchange reflect the ebb and flow of markets in a region, whether stoked by imperialists or cut by an ambitious trader with a head-load. The constellation of places shift in complexity and intensity, sometimes removing or surpassing places entirely—certainly the experience of villages in all of the regions I have researched above. But connectivity is focused on the connections rather than the places, suggesting that the places evolve more radically than the means to reach them over the period I have covered. While there has been one primary way from Colón to Panama City over the last century, you would be hard pressed to argue either port has not changed over the same time frame. Likewise, Ghanaians continue to use the lorries to feed major markets, and frequently head-load the remaining miles from the wholesaler or *tro tro* station to the market stalls. The persistence of connections, and how they are constructed and used, put into place a superstructure around which smaller, local changes occur.

As such, persistence in structure does not mean persistence in manner nor frequency of use – nor of method, for that matter. In each region, by focusing on connectivity I have also observed how exchange along these connections has changed, particularly in terms of *speed* of transaction. Railways were born out of an innovative response to the plodding horse-drawn wagon, and they were successful in moving heavy material in greater volume and efficiency. But for a market constellation that change in speed can have profound impact on each of its places of

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exchange. Observe what it did for the American South for a time, especially with regards to the movement of cotton (see Fig. 27). Even more drastically, image a Panamanian isthmus that takes hours instead of days to cross; the markets and tradespeople that benefited from the slower trip now either have to absorb the hit, change trades, or move to Colón or Panama City. Magnify this potential impact from a 44-mile trans-isthmus route to 500 miles of track in the Gold Coast. It took weeks to travel from Kumase to Cape Coast over the old road network, each day meaning a village that knowingly opened its homes to travelers for economic benefit.437 The new connection moved Kumase apart from Cape Coast, pouring gold and cocoa out from Sekondi-Takoradi in less than a day (see Fig. 30). As with Panama, Ghanaians in the 20th century had to make the choice to cooperate with the new connections, and the new places it concentrated opportunity, or look elsewhere. Unlike Panama, an older set of connections, a descendant of the Asante Great Roads, diffused foreign control and fostered opportunities among Ghanaians. This did not necessarily offset the impact of speed on Ghanaian connections, nor did it break Ghanaians from imperialists entirely. The road from Kumase to Accra can still be driven in a day, powered by petrol that might have been harvested from Ghana’s Jubilee oilfields but nevertheless refined by foreign companies. But Ghanaians were able to wrest some overarching colonial control of the markets away from the British—much to British aggravation, then begrudging acceptance.

Connectivity also persists conceptually where ideas like Philip Curtin’s “trade diaspora” discourse fall in the wake of European global hegemony in the 19th century,438 in part because connections move within and without diaspora and hegemonies. In railway construction, a rigid trade discourse was constructed with arrival times and fares; it ran counter to any kind of

437 Daaku, Oral Traditions of Adanse, v.
negotiated space for exchange, or cross-cultural business ethic. It usurped, or competed with, existing connections and ultimately transformed trade and markets in the regions. In more recent decades networks like paved highway systems and communications infrastructure have created new connectivity, the latter now capable of almost entirely transcending older networks (in the form of Wi-Fi). Yet, for all this innovation and change, local populations can have influence over the proliferation of the new connections, just as they did with railways. The market for cell phones in Africa has grown considerably, in part for its true capacity for providing mobile communications in the continent. Had service, or connectivity, not improved, it is very likely industry giants like Nokia would not have been forced to recognize the potential for the African market.

**Conclusion**

In sum, connectivity is about movement and exchange, and the networks created in the process. Connections are at times state-driven and even stateless, from their most complex manifestations in the modern coding languages to the well-worn path home from the hunt. They evolved out of necessity, or were initiated with myriad intentions. Where they connected, how they connected, and how quickly they conveyed their communities have revealed unique comparisons among railway connections in the American South, Panama, and Gold Coast West Africa. An interesting narrative emerges, even in abbreviated versions of their stories.

In the American South, rail helped define the boundaries and connections of wealth for prosperous plantation owners, in an era where property definition was the crucial underpinning.

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of an institution of slavery. Enslaved African Americans, later African American laborers with few options outside sharecropping, were instrumental in the construction of these boundaries. While railroad work was a rare glimmer of employment opportunity for Reconstruction and Gilded Age African Americans, it contributed to an evolving South that transitioned from restrictions of slavery to restrictions of segregation. In the contemporary United States, these lines of segregation, often still following lines of infrastructure, continue to delineate wealth, opportunity, and racial segregation.

For many centuries an imperial focal point, the Panamanian isthmus was a convenient, narrow traverse between two major oceans of global trade. Close emerging neighbor United States, just beginning its imperial expansion in the 19th century, supported private interests in their endeavor to increase the efficiency across the Isthmus. The ensuing, immensely profitable Panama Railroad greatly upset existing networks of travel and local entrepreneurship, and established a thoroughfare for foreign trade. Most importantly for older world historiography, the Panama Railroad helped chart the path of the Panama Canal, providing a means for moving steam shovels, laborers, and material over difficult terrain. These immense projects drew massive labor forces, despite the terrible costs of hardship and disease successive generations encountered in the dense Panamanian jungles and swamps. Jamaican and Barbadian workers were the primary laborers, their colonized homes little safer and lacking in opportunities for wages. These celebrated Silver and Colón Men masked the desperation of their origins and their coercive contracts, carving two of the most lucrative imperial paths in world history.

The Gold Coast West Africa, much like Panama, had for many centuries been an intriguing point of interest for imperial endeavors. Disease and an efficient, powerful interior state of Asante were substantial impediments, though by the late 19th century the British
possessed the power to divert the most lucrative elements under Asante control. In the process, a
diverse and contracted labor force was drawn from within and without the Gold Coast, resulting
in a presumptive network of railways that soon became two routes to the sea for abundant gold
and cocoa yields. For Gold Coast West Africans, later Ghanaians, the railways did not reflect the
pre-existing networks of exchange, and in some cases seriously transformed them in direction
and travel time. More importantly, a growing number of Gold Coast entrepreneurs were
investing in motor vehicles to support the more diverse marketplace network in-country. The
result was a colonial government accepting and supporting the importance of road construction,
as the rail network slowly faded from Gold Coast and Ghanaian lives.

In all these cases, regions at the outer edges of what John Thornton referred to as the
Atlantic World were brought into a variety of relationships with the Atlantic World, in many
cases strengthening the efficiency with which they engaged it. That the African Diaspora was
often coerced or utilized in this efficiency reflects the fact that the Atlantic World was and is (per
Thornton’s assertion) primarily stitched together by the experiences and actions of people of
African descent.441 This is largely reflected in the narrative above, and it is worth reiterating that,
at least in the Gold Coast example, there were ways to resist the efforts of Europeans to
command the Atlantic World economy. That said, even in the Gold Coast case, re-structuring of
the selected Atlantic World societies was carried through.

Railway construction had profound immediate and long-term impacts on lives in the
regions they were implemented. The connections it established fundamentally changed the way
that communities formed and located themselves, and interacted with other communities.
Additionally, the communities had a variety of responses to the construction and implementation

of railway infrastructure, often in ways that were not entirely anticipated (nor possible cared for) by the institution or companies that were carrying out the construction. In this way, connectivity helps us observe what James Ferguson called the “anti-politics machine;” or, the interrelations in an area where such projects are implemented that coalesce in both intended and unintended outcomes for a project. In his book *The Anti-Politics Machine*, Ferguson argued that this machination does not necessarily need a project to be “successful;” rather, we need to observe the implementation *and* its reception.442 In the American South, Panama, and the Gold Coast, we have seen precisely how these varying levels of success nevertheless manifested themselves in persistent transformations within the regions.

Part II: Carrying Connectivity Forward
With connectivity emerging from the comparative history of rail construction in the American South, Panama, and the Gold Coast, it will be useful to place the concept against predominant currents of world history. This can help further clarify its contribution to historiography and produce potential future applications of the concept.

World history has run a strange course in its development within academia, catching ideological currents and transforming itself in the pursuit of better representation of global experiences. One of the more influential shifts, emerging from the Annales School, emphasized economic spheres of influence, linked primarily in trade, which gave rise to more nuanced concepts of world-systems and trade diaspora analysis. Connectivity does not necessarily run counter to these concepts – rather, it seeks to engage them. In this way, connectivity can provide clear avenues to present nuance while still emphasizing the sort of self or state-organizing activities the previous methodologies sought to articulate.

**Annales School**

With historian Fernand Braudel as its locus, the Annales School emphasized the overlap of an economic history of influential nation-states and cities with environmental history. Most importantly for Braudel was the tapestry of social customs and mores that arose as the cities and nation-states grew and retracted in their preeminence; it helped establish multiple spheres of economic exchange, at macro and micro geographic levels.\(^443\) Places, particularly those that

entered the purview of world history in Braudel’s rendering, were immensely important, both in their influence and the unique cultural snapshot of humanity it presented.

At the same time, Braudel was not bound to place, in the traditional sense of the word. Boundaries were relatively fluid and shifting, and locales like the Mediterranean were actually diverse, pointillist portraits of the place. In a way, the Annales School was a sharp rebuke to the nationalist currents that influence academia at large in the 1920s through 1940s, subverting the notion of rigidly delineated and defined nations with a shared identity. It likewise challenged history from this same nationalism that emphasized distinct series of events, end-to-end, leading to monumental outcomes like the establishment of independent states.

In doing so, the Annales School was suspending nationhood in favor of the relationships of exchange, recognizing the capacity for change outside of state influence. This was certainly crucial for understanding a post-colonial world, which was dismantling large political entities while still maintaining economic relationships.

World-Systems

Frequently credited to Immanuel Wallerstein, world-systems analysis drew heavily upon the Annales School’s brand of historical anathema, picking up the pieces and trying to stitch together the relationships among the tapestry of economic spheres Braudel had identified.

World-systems created a network of mostly economic relationships among countries, identifying countries on a scale of their power and influence within these relationships. The state has more firm identity here, as Wallerstein argues that powerful states assert and negotiate their

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sovereignty, in the process solidifying themselves as a distinct entity within a world-system. Core states in world-systems analysis house the most control in a world-system through their production and consumption, while semiperipheral states hold some – though not all – power and control autonomous from the core states. Peripheral states are, for large part, utterly beholden to core states, in some cases semiperipheral as well. Their production is voluminous, but their products are not immensely profitable, at least not in the form at which they are exchanged from peripheral states to the core and semiperiphery. Each of these states are part of a world-system, or integrated network of common encounter, trade, exchange, often in economic or political spheres. Wallerstein contends that all of these types of categorizations (economic, social, cultural, political) lend to the predominant world-system of the time; the system of focus for the regions I have discussed would be the modern capitalist world-system. As Wallerstein describes it:

The imperative of the endless accumulation of capital had generated a need for constant technological change, a constant expansion of frontiers—geographical, psychological, intellectual, scientific.

World history has comprised of a number of world-systems, and history is marked by the evolution, emergence, and dissolution of each.

**Big History**

A more recent trend in world history is the development of “Big” history, a sort of physics or biological approach to history with an emphasis on scientific theory, evidence, and

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change over time in global environments. Coined by its developer, historian David Christian, Big history takes a macrohistorical approach, placing human history and its subsequent developments (“foraging,” “agrarian,” and “modern” eras) as small endpoints on a much longer history of life on Earth.\(^{449}\)

Clearly, Big history is an appeal to the “harder sciences,” in the sense that it entertains questions of Earth formation and seeks to explain major shifts in environmental history. Whether the approach is entirely new or original is up to question; Christian’s periodization is not unlike William H. McNeill’s in *The Rise of the West*, only less reluctant to start his history with humanity. Additionally, Big history’s progression of world history hinges on the common endpoint of portraying human history as the most complex manifestation of millions of years of historical evolution.

On the other hand, Big history focuses this pinnacle of evolution on a combination of finer language construction, technological innovation, and what Big historians refer to as “Goldilocks circumstances”: wherein neither too much nor too little energy is present, and thus life can survive due to the stable environment this creates.\(^{450}\)

Big history, it its methodology, is not unlike Enlightenment philosophy, nor Greek nor Roman philosophy before it. It seeks to strip human life down to its base, repeatable, or testable elements, then build up a theory on what brought it to its present state. The potential for teleology is self-evident, and the risk of applying scientific or mathematic theory to human activities is palpable. In either case, the potential for losing finer details in the desire to fulfill a larger narrative is not unlike the projects in the regions I have covered!


\(^{450}\) Ian Hesketh, “The Story of Big History,” *History of the Present* 4.2 (Fall 2014), 176-178; one example is Christian, *This Fleeting World*, xxiv-xxv.
Nevertheless, what is appreciable about Big history is Christian’s attempt to historicize why technological innovations worked, or contemplate what makes humans unique in the course of world history. Big history also presses the historical discipline to ask questions about how wide-reaching it ought to be, and what its ultimate purposes might be for society.

Empire

There has been a revival of interest in empire in history, often to apply post-modern critiques to an era that had been largely heretofore been defined by imperialists. As a topic, empire is a convenient historical unit, larger than the state, clearly asserting control over other regions and peoples, and thus a real manifestation of concepts found in an historical approach like world-systems analysis. Its structure, or at least the proposed application of its structure, is explicit, and its results often recorded.

It is little surprise, then, that we see scholarship seeking to use empire in building a sort of world-systems analysis, resulting in works like Antonio Negri and Michael Hardt’s Empire, Jane Burbank and Frederick Cooper’s Empires in World History, and Kwasi Kwarteng’s Ghosts of Empire. Each of these texts provide demonstrable examples of the most current conceptualizations of empires in world history.

In Empire, Negri and Hardt take a brand of modern Marxism to examining the developments of empires. They identify new, supranational entities – organizations focused on the global economy or geopolitics like the United Nations – which they label the new empires.45¹ In other words, for Negri and Hardt the imperial endeavor has shifted from radiating outward from a nationalist bedrock to shapeshifting “internationalist” organizations with principles

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targeting a means to accumulate and protect capital, violently if necessary. The tendency towards imperialism has remade itself in the image of a new goal, globalization, which nevertheless aims to spread influence in some of the same ways of the older imperialist order.

The aforementioned organizations include financial institutions like the International Monetary Fund as well as political and economic alliances like The Group of Eight, which permeate economic, political, and social life in their regions of influence. They often overlap and influence each other as well, in the process truly shedding the occasionally contentious specificity that reigned in imperial border disputes. In keeping with Marxism, the globalization ultimately undermines any hegemonic efforts of the new empires as too many, too diverse populations are brought within the umbrella. Globalization becomes its own end by pushing to command too much of the globe.

Burbank and Cooper’s *Empires in World History* focuses on a number of “successful” – or at least far-reaching – empires in world history, in order to seek what made them successful. They determine that the key for such widespread power and influence was what they term “the politics of difference.” Derived at least in part from Cooper’s earlier work on “gatekeepers,”

Burbank and Cooper note the importance of intermediaries between imperialists and imperial populations that helped maintain the order. Whether they were local populations bestowed power, or existing political leaders coerced to recognizing the imperial power, imperial populations in these large empires were occasionally placated by an indication of fellow complicity or representation.

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This accommodating political approach had far-reaching implications, well after an empire’s demise. Emboldened local leadership, once their intermediary status had ended, could assert their control as they wished, provided a whole revolution did not occur.\textsuperscript{459} Furthermore, the intermediaries were also channels for cultural assimilation or integration; that which they might not achieve during the tenure of empire may still be accomplished with their leadership.\textsuperscript{460} These political machinations are interesting twists on the concept of change over time – by way of blurring the distinctions of “before” and “after” empire.

Kwasi Kwarteng’s book on the British Empire, \textit{Ghosts of Empire}, takes Burbank and Cooper’s critiques and focuses on examples within a finer point – and polity – in world history. Comparing Iraq, Nigeria, Sudan, Hong Kong, Kashmir, and Burma, Kwarteng observes the persistence of the power conferred to the intermediaries. He argues this power was especially damaging because the intermediaries were ill-chosen, or chosen as a way to divide opposition to colonial rule.\textsuperscript{461} This might be an ideal way to maintain empire, in fact, but as a strategy for long-term, independent nation-building, the results were dangerously instable.\textsuperscript{462}

In Kwarteng’s account lies a particularly damaging point, and legacy of imperial endeavors: security. Referring back to \textbf{Table 2} in the Gold Coast chapter as a point of reference, the colonial armed forces were a major area of expenditure, which was essentially diffused in later years among military and police forces in the colony. On the other hand, if I were to remake \textbf{Table 2}, a list of the top five areas of expenditure in the Gold Coast in selected years, and I

\textsuperscript{459} Burbank & Cooper, \textit{Empires in World History}, 427.
\textsuperscript{460} Burbank & Cooper, \textit{Empires in World History}, 213.
\textsuperscript{462} Kwarteng, \textit{Ghosts of Empire}, 303-304.
combined military, police, and prison expenditures into one category called “Security,” I would have a different result:

<table>
<thead>
<tr>
<th></th>
<th>1897</th>
<th>1905</th>
<th>1913</th>
<th>1919</th>
<th>1924</th>
</tr>
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<tbody>
<tr>
<td>Security</td>
<td>(50.2%)</td>
<td>Security</td>
<td>(20.7%)</td>
<td>Public Works</td>
<td>Misc Services</td>
</tr>
<tr>
<td>Public Works</td>
<td>(14.8%)</td>
<td>Railways</td>
<td>(13.3%)</td>
<td>Railways</td>
<td>Railways</td>
</tr>
<tr>
<td>Medical &amp; Sanitation</td>
<td>(4.9%)</td>
<td>Public Works</td>
<td>(10.8%)</td>
<td>Security</td>
<td>Security</td>
</tr>
<tr>
<td>Ashanti Colony</td>
<td>(3.4%)</td>
<td>Charges on Public Debt</td>
<td>(9.2%)</td>
<td>Expenditure on Loans</td>
<td>Public Works</td>
</tr>
<tr>
<td>Native Affairs</td>
<td>(3.4%)</td>
<td>Transport &amp; Travel</td>
<td>(6.6%)</td>
<td>Medical &amp; Sanitary</td>
<td>Charges on Public Debt</td>
</tr>
</tbody>
</table>

Table 4 Revised Top Areas of Gold Coast Colony Expenditure, Selected Years 1897-1924

Among the most heavily supported entities after public works and the railway (and its ensuing debt repayment) was security. Presumably then, the longest-serving intermediaries in the Gold Coast would be Africans who have served in some capacity to preserve and protect the colony. Should a Gold Coast African political leader wish to act subversively towards the colonial government, say in the years after World War II, the leader would have to either curry favor with these intermediaries or risk imprisonment. Thus, African political leaders in the mid-20th century ignored their compatriots who had served in a colonial security position at their own peril.

A Prior Emphasis on “Place” in Historiography

The general progression of world historiography emphasizes over-arching entities that control large swaths of the globe. Placing aside theories like Negri and Hardt’s modern Marxism, I think the overwhelming majority of scholarship will agree that place, however it is being defined, is the focal point of their analyses. Property or boundaries are defined, they are

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463 Colonial Reports – Annual: Gold Coast 1896 through 1923-24, table created by this author.
expanded, and they contract; empires over the course of world history are pulsing maps of the Earth.

For a similar majority of the analyses, place is not ignorant of the complexity within, e.g. culture, language, etc. In fact, if that complexity would undermine or limit control, it might no longer be considered a part of that place, especially in the event of secession. Whatever the case, place stays as a defining factor of the common historical unit, and its parameters are disputed and relationship to other places likewise constructed differently, whether in theory or in practice.

A couple important exceptions, though, have provided some opportunities to discuss ways that places might include areas between them where exchange is negotiated and elements of culture, language, and production are shared. Philip Curtin’s concept of the “trade diaspora” introduced the idea that trade between otherwise autonomous entities often involved “cross-cultural brokers” who could navigate language and cultural barriers, even intermarry to draw the two entities together economically and politically.464 The trade diaspora transcends the state, and pulls in areas of negotiation as indicators of a more bound, cooperative region. Curtin saw the expansion of imperialism as an era that upset the negotiations of trade diasporas; where trade diasporas emphasized the cross-cultural broker’s need to learn the host culture, imperialists wanted their hosts to “Westernize” themselves. This upheaval of negotiation ushered in a modern era of Western domination.465

Secondly, Richard White likewise found valuable an examination of these areas of negotiation in his The Middle Ground, an analysis of American Indian communities encountering traders and imperialists in the 17th to 19th centuries. For White, this “middle

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464 Curtin, Cross-Cultural Trade in World History, 11.
“ground” was the result of two sides that could not “gain their ends through force.”

Disagreements and conflict, whether in trade, violence, or sexual relationships, had to be resolved diplomatically; intermarriage was common and facilitated trade, while traders and community leaders both agreed violence would destroy their relationships. These agreements became the conduit for change in both European and American Indian communities, and formulated whole new regions of acceptance and exchange between allied groups from both cultural backgrounds.

**Connectivity as a Focal Point in History**

As mentioned above, connections and connectivity need not undermine concepts that revolve around place definition; rather, they can lend a different, important complexity. Place inherently relies on definition; whether this is accomplished through boundaries or self-identity, the emphasis is on determining the units of analysis. A focus on connectivity emphasizes analysis of movement, and exchange. It does not need to rely on places or groups—instead it assesses the movement by them and between them. Paths become less traveled, roads are widened, rivers are crossed, followed, floated...these movements tell us as much about what is happening within and around a place as does a sedentary analysis of the place itself.

For example, refer to **Fig. 30**, of the primary cities in the Gold Coast; say I visualized the trade flow by proportionally sizing the circles according to the trade moving through each location rather than, as opposed to changing the width of the arrows. The different sized circles imply the places with increased volume of trade; different width arrows recognize the movement

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467 White, *The Middle Ground*, 56, 60, 68-69.
468 White, *The Middle Ground*, 92-93.
involved in making that increased trade volume possible. Look at Fig. 30 again. Sekondi-Takoradi is *virtually nothing* to Gold Coast interior trade in 1895, and *virtually everything* to its trade in 1910. The arrows symbolize a major overhaul in movement, exchange, even the conceptualization of the routes in the memories of the Akan elders; the Cape Coast route is “an old route” to them.\(^{469}\)

Furthermore, to emphasize the point, Cape Coast was immensely important in the past, but per the comments of Hayford and Akan elders, has diminished in its importance. This is evident in the analysis of the connections, and provides us a more tangible history of the experiences of Gold Coast Africans by linking our research of movement to actual descriptions of those movements, and why they changed.

Another example of the advantage of connectivity is found through deriving evidence and source materials. In establishing boundaries and group identities, it is inevitable that there will be a wealth of both supportive and contrary evidence. Within my own regions of focus, what constituted “the American South,” “Panama,” and “Gold Coast” changed dramatically over the years of analysis and were sometimes a matter of violent dispute. Group identities, likewise, were debated; Fante and Asante, for instance, are Akan identities, but are distinguishable—they will be the first to tell you so. Identity in the American South, contrary to United States racial policy, was remarkably diverse, and African Americans did sometimes “pass” (or eschew Black identity by attempting to appear white European).\(^{470}\) Panamanian identity was very limited by 1850 – indeed, Panama was not truly independent at that time – but large recent immigration created a curious division among Black Panamanians that separated formerly enslaved Black Panamanians from Afro-Antillean Black Panamanians.

\(^{469}\) Daaku, *Oral Traditions of Adanse*, 201.

In observing connections, people tend to give frank descriptions, both about the quality of the connection and how it was used. The disputes are reserved for discrepancies in length of travel and “best routes,” but even among these there are strong consensuses. In short, there is little reason to hide a connection from an inquirer, with one exception: illicit trade.

Smuggling and so-called “black market” activities, as they do with the law and statistics, skirt outside the limits of observation. That they exist can be discovered, and some sense of the volume can be derived—but the majority of the evidence available would be anecdotal. By definition, though, smuggling operates in secret, and probably should not be used to represent “typical” lives without caution.

Additionally, an examination of connections will lose the strength of statistical evidence as researchers reach back beyond the mid-19th century. Nevertheless, individual accounts tend to provide reliable descriptions of connections, their time or type of travel, and the quality of their route going back centuries if not millennia. As with before, contemporary observers in these accounts have likely few reason to be duplicitous, though the colonial context might give one pause.

Conclusion

World historiography has long held that the discipline of history can offer a valuable, large-scale narrative of Earth that can deliver useful lessons to the contemporary world. In the pursuit of this narrative, political ideology has often influenced the creation and focus of the narratives, in ways that emphasized the importance of a sedentary place rather than recognize the movements necessary to create it. One way that more recent historical methodology, from the Annales School forward, tried to address this issue was by finding ways to draw attention to
internal diversity of polities, and presenting areas they overlapped or interacted with other polities over a larger geographical space. Subsequent methodology, presented in Curtin’s trade diasporas and White’s middle ground, have taken further steps to suggest that distinctly autonomous areas can still forge identity and exchange in the space between places, in some cases becoming new places in and of themselves.

Connectivity does not assume the above approaches are incorrect, but recognizes that movement more accurately captures the realities of people on the ground. Movement and exchange do not preclude the formation of a state, nor the continuity nor expansion of one; rather, they often persist in and of themselves, supported by an almost utilitarian purpose. Just as importantly, an analysis focused on connections and connectivity can bring a reflexive history, identifying changes in frequency and manner of exchange, and open lines of inquiry as to why those changes have occurred. Ultimately, as in the cases of the American South, Panama, and the Gold Coast, we have seen social history reflected in connectivity, in addition to economic and political history, with all three engaging and exhibiting global historical trends. In this way, connectivity represents a valuable complement to historical methodologies, providing a complexity that can stand on its own in analysis, or enrich the more common place-oriented analyses in world historiography.
Chapter Seven: Development and Connectivity in the 20th Century

In the chapters above, I have demonstrated that connectivity provides a unique perspective for historical narratives, one that can bring us closer to the experiences of people in the areas where railways were constructed. In observing the transforming manner of trade, travel, and exchange in the American South, Panama, and the Gold Coast, we have seen that the way that people found opportunity and utilized connections had a strong impact on the manner in which they engaged the newer construction introduced in their regions. We saw that reactions can be cultural, or at least tailored to a previous method of exchange, which is then challenged by new paths and efficiency. We have also seen that railways were part of larger structural changes in the regions, that established boundaries or laid thoroughfares that would persist long after the state had taken on new political forms or meanings. In the process, the construction itself became a reflection of old and new dynamics of political control and economic opportunity, as laborers of African descent in their limited wealth and power were pressed to the cut.

In sum, connectivity has revealed new historical perspectives on major events in the global economy, and added valuable complexity to world historiography. Now it is important to carry it forward, while still maintaining reference to the previous comparative history, and demonstrate its applicability outside of the bubble of history in which it was observed.

Connectivity also provides an opportunity to contribute to more contemporary research, particularly in the area of “development,” or the myriad approaches to stoking and supporting economies and nations emerging from colonialism. Though connections and exchange have changed drastically in their technology, the degree and manner in which communities are
connected still has considerable impact on the lives within. By examining the longer history of development, and the approaches to development that have primarily affected the regions covered above, we can see how things like railway construction and development overlap, and connectivity can better inform the approaches to either initiative.

Development

While “development” had long been used to describe natural growth, especially in reference to biological processes, it was rarely directly used to describe communities. At the turn of the 20th century, though, it was increasingly used to describe scientific concepts including those of Charles Darwin, as well as the grand schemes to develop productive, lucrative colonial economies. After the Second World War, scholars in the social sciences began to argue economies and societies had similar natural progression; Marxism in particular had already made this argument without applying “development” as a specific term. Building on work by Joseph Schumpeter, in 1944 fellow Austrian economist Paul Rosenstein-Rodan proposed an early treatise on development that would build into development programs later touted by the United Nations. He proposed that Southern European nations, which he referred to as “backwards areas,” had failed to mobilize its rural citizens to work in urban industrial sectors. According to Rosenstein-Rodan, development initiatives targeting education and technical training might benefit the economies of these nations. 471

World War II brought in a new era of development; colonialism was labeled exploitative by the rising Cold War powers United States and the Soviet Union, and its brand of development was coopted into worldwide applications for national economies. For many of the predominant

countries in the world, development was born from political and socioeconomic theories formed in their institutions, augmented by public and private dollars. These countries coalesced their theories in multi-national organizations like the United Nations that would support development initiatives worldwide. Members of these multi-national organizations envisioned a sort of global duty on their part to finance and even implement development in nations that, in their estimation, were “undeveloped.”

Using the regions of the American South, Panama, and the Gold Coast as points of reference, we can recognize historical antecedents and successive generations that emerged from the concept of development in its 20th century manifestation. By focusing on Great Britain, the United States, and United Nations-supported institutions, railway construction in our regions becomes part of an historical string where the distinction of a “development era” blurs, and the relation of these initiatives to the present become more apparent.

Great Britain

After their wars with the Asante Empire in the 19th century, and bolstered by the exile of the Prempeh I, we have followed as the British colonial government began to undertake a large-scale reconstruction and diversion of transportation infrastructure in the Gold Coast. While development as a global concept would not emerge until later, the term “development” would be utilized by the British colonial administration almost immediately after consolidating British rule, conceptually tied to improving the production of the colony.

The initial use of development in the British colonies dates back to the appointment of Joseph Chamberlain to the position of Secretary of State for the Colonies in 1895. Addressing the goals he hoped to accomplish in the colonies, Chamberlain stated:
I regard many of our Colonies as being in the condition of undeveloped estates...[B]y the judicious investment of British money, those estates which belong to the British Crown may be developed for the benefit of their population and for the benefit of the greater population which is outside.\textsuperscript{472}

Chamberlain’s statement was the beginning of a long discourse among British colonial officials, attempting to determine how best to develop the colonies in ways that benefited Great Britain.

Lord Frederick Lugard, governor-general of the Nigerian colony from 1914 to 1919, became a luminary among British colonials after the publication of his canon of colonial governance, 1922’s \textit{The Dual Mandate in British Tropical Africa}. In Lugard’s “dual mandate,” he outlined a series of edicts in the pursuit of what he called “indirect rule,” an approach soon copied throughout the British Empire. In theory, indirect rule meant that a colonial governor and his small group of British staff would handle administrative duties, leaving much of the local community leadership – including, in some cases, former traditional royalty – intact. All leadership, though, would have to swear loyalty to the Crown. Lugard contended:

\begin{quote}
[This would ensure] that all may feel that their interests and religion are safe under the British flag. Such liberty and self-development can be best secured to the native population by leaving them free to manage their own affairs through their own rulers, proportionately to their degree of advancement, under the guidance of the British staff, and subject to the laws and policy of the administration.\textsuperscript{473}
\end{quote}

Near the same time Lugard was concluding his governorship in Nigeria and penning his classic colonial work, Governor Frederick Gordon Guggisberg was accepting a similar appointment in the Gold Coast Colony. Upon entering office, he initiated what he called a “ten


\textsuperscript{473} Frederick Lugard, \textit{The Dual Mandate in British Tropical Africa} (Edinburgh, 1922); quoted in Bruce Fetter ed., \textit{Colonial Rule in Africa: Readings from Primary Sources} (Madison, WI: University of Wisconsin Press, 1979), 103-104.
year development plan,” including initiatives in infrastructure, education, health care, agriculture, and commerce. Guggisberg would oversee the construction of thousands of miles of road (his impact is clear on the maintained road mileage in Fig. 24), one of the best secondary schools available to Africans at the time in Achimota College, an equally prestigious hospital in Korle Bu, and an extensive port at Sekondi-Takoradi. In these ventures, Guggisberg saw his leadership as bringing the Gold Coast peoples “towards a higher state of civilization…”

In the end, Great Britain’s attempts at development were more concerned with the manner in which the colonies could benefit Great Britain itself, and their reliance upon Gold Coast peoples’ production and cooperation made them vulnerable. The British emphasis on cocoa in agriculture, for instance, was stimulated as it became a valuable commodity all over the Western world. Yet its predominance in the Gold Coast agricultural sector, and the low prices offered by merchants, created substantial conflict between Gold Coast farmers and the British.

Certainly part of the problem was couched in Lugard’s dual mandate itself, which portrayed colonial efforts as occurring “on behalf of the congested populations whose lives and industries depend on a share of the bounties with which nature has so abundantly endowed the tropics.”

Later colonial legislation by the British would reflect this dual vision of give-and-take, including the 1929 Colonial Development Act, which essentially sought to bulk up infrastructure, contribute machinery to the colonies, and decrease unemployment in the United Kingdom by bolstering exports to Britain from the colonies. Education, which had received some sizable

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474 Frederick Gordon Guggisberg, “Governor’s Address to the Legislative Council,” 1 March 1923, Gold Coast Gazette (17 March 1923); quoted in F.M. Bourret, Ghana: The Road to Independence (Stanford, CA: Stanford University Press, 1960), 27.
support in the Guggisberg years, was now receiving little attention again, as the focus returned to strengthening the British Empire.\textsuperscript{477}

To finance the projects undertaken during the 1929 Colonial Development Act, Great Britain established the Colonial Development Fund. This fund provided a money base from which loans could be requested and granted to the colonies. This model for financing development ultimately transcended colonial development, putting into place a device that would play a pivotal role in the ideological shifts in development’s meaning.

The drain of colonial spending on Britain’s economic well-being, paired with a growing concern over securing the loyalty of the colonies, influenced British development plans by World War II. In the Gold Coast, a series of “cocoa hold-ups” in the late 1930s and worker strikes in 1939 clearly demonstrated a growing unhappiness with the economic opportunities for Gold Coast peoples within colonial rule. In response, The Colonial Development and Welfare Act in 1940 shifted development projects from the expressed purpose of colonial ventures towards a scheme where indirectly ruled Gold Coast political representatives could undertake development projects using their own administrative coffers.\textsuperscript{478} The Act resulted in substantial improvements to health care, urban electrical infrastructure, housing, and education. Its application was focused on urban working populations; most of the improvements, delayed by the onset of World War II, would be carried out after the war.\textsuperscript{479}


In the thirty years leading to decolonization, elite Africans in the Gold Coast, including men who had graduated from Achimota College, sought to increase their political power within the colony. Many of these leaders had witnessed the independence movements in Egypt and India and realized that there were opportunities to negotiate for expanding local control. Their efforts intensified after the colonial government created the West African Produce Control Board in 1940, the sole purchaser from cocoa producers in the British West African colonies and a method to control prices. Though dissolved in 1946, its principles re-emerged in 1947 in the Cocoa Marketing Board (later Ghana Cocoa Board), and the surplus generated from sales led many elite Africans to suggest the revenue should be put towards development in the colony.\(^{480}\) Dissatisfied with the British response to their requests, the elites began to form political movements to gain independence. The United Gold Coast Convention (UGCC) would be the most prominent of these movements, bringing together influential Gold Coast politicians including Nana Afori-Atta I, J.B. Danquah, and a young Achimota alumnus named Kwame Nkrumah.

Urban rebellion in 1948 and the growing popularity of Nkrumah’s independence-focused Convention Peoples’ Party (CPP)\(^{481}\) led to concessions from the colonial government, primarily through for increased political control for Gold Coast Africans. The Coussey Constitution, signed in 1951, granted high-level positions to Africans in the colonial government, including many members of the CPP; Nkrumah was granted the post of “Leader of Government Business.”\(^{482}\) In less than a year, Nkrumah was named Prime Minister of the Gold Coast; in less than ten, the Gold Coast colony would become an independent Ghana.

\(^{480}\) Frederick Cooper, *Africa Since 1940*, 67; Frimpong-Ansah, *The Vampire State in Africa*, 34.
\(^{481}\) Nkrumah left the UGCC after frustrations with the more-moderate organization boiled over.
In the meantime, British plans for development would diverge from the goals of Nkrumah and the dominant CPP. While Nkrumah’s ambition called for the simultaneous, vigorous pursuit of agriculture and industrial development, the British Colonial Office preferred an approach proposed by the Saint Lucian economist Arthur Lewis. Lewis contended that agricultural development should precede industrial development; the colony would focus on providing staple foods for the population, while carefully financing, surveying, and planning the industrial sector with revenue from surplus agricultural production. Lewis’s approach suggested that the economic development in the colonies could be structured as a natural progression, an idea that frequently reemerged in British relations with Ghana during the Nkrumah regimes and beyond.

United Nations

Shaken by the destruction and loss of life after World War II, Western nations like Great Britain sought to reassess the previous League of Nations with the intention of avoiding war in the future. The new United Nations drafted a charter committed to peace and assistance to international social and economic problems. The organization would transform significantly in the context of the Cold War, and have a significant impact on development in sub-Saharan Africa – a legacy that continues to the present.

As many of the European colonies worldwide began to shift towards independence, the UN became increasingly aware of the future with numerous new African, Asian, and South American nations. As the Cold War intensified, the United States and Soviet became increasingly invested in the allegiances of the emerging nations; the American and Soviet’s

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483 Frimpong-Ansah, The Vampire State, 36.
positions within the UN (both were considered “permanent” members, along with France, Great Britain, and the Republic of China) ensured the organization would be host to tense, ideological battles blurring the borders of sovereignty and war.

A primary question for the UN in this time of change concerned the capacity to which they would incorporate and aid member nations. The new African nations rarely were rejected from UN membership; to address their aid, the UN developed a number of branches in the organization to analyze African nations’ needs and to propose or implement certain areas of development. Some of the most prominent organizations to this end were the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the World Health Organization (WHO).

UNESCO’s formation occurred not long after the founding of the UN in 1945. Believing that the keys to peace would include the cooperative development and understanding of education, science, and culture, UNESCO additionally felt these approaches would maintain “justice, the rule of law, human rights, and fundamental freedoms.” As its initiatives took shape, UNESCO increasingly came to focus on education and particularly literacy in UN’s member nations. This was certainly the case by the early 1960s, the period in which many of the African colonies became independent nations. This help absorbed a majority of UNESCO’s budget, so much so that by the mid-1960s the UN requested that the branch be sure that it would also research international law. In this same era, UNESCO began to show increasing interest in demographic research and “world population problems;” the notion soon became that the high

fertility rates (among other demographic problems) in developing countries were the paramount hindrances to development.487

The World Health Organization, formed in the spring of 1948, has been one of the more active international organizations in Africa’s 20th century history. Like UNESCO a branch of the UN, as the name suggests the WHO has focused primarily on public health, publishing reports on potential hazards and assessing health crises in every corner of the world. One of WHO’s more prominent efforts came in the successes and pitfalls of the World Food Programme during West Africa’s food shortages in the mid-1970s and into the desperate famines of the 1980s.488 When other branches of the UN pressured the WHO to focus its efforts on family planning as a means to improve the socioeconomic conditions of developing countries, the WHO resisted, insisting their initiatives would be explicitly concerned with the health of populations, not to promote socioeconomic theories.489

United States

While the British were slowly transferring their Empire to the influence of the United Nations in the 1940s, the United States – who had rarely portrayed itself as a colonial power – was actually no stranger to exerting its influence on foreign lands. Beginning in the early 19th century, US diplomacy had steadily negotiated, expanded, and seized control over numerous foreign nations, including American Indian tribes, Mexican territories in the Southwest, and a number of island nations in the Pacific and Caribbean. Dictated by the Monroe Doctrine, the US

had determined that it was their right to control and administer the nations so as to keep them from becoming possessions of European countries.

After the completion of the trans-isthmus railroad, Panama continued to be an area of interest for American entrepreneurs; when a grandiose French canal attempt ended in failure in the 1880s, the US government became reinvested in the area, gaining political control of what would become the Panama Canal corridor in 1903. Reflecting the prior construction efforts in Panama, the US utilized West Indian laborers and repaired the Panamanian trans-isthmus railroad to help deliver steam-shovels necessary to conduct perhaps the most celebrated 20th century engineering achievement of the Western hemisphere.

The US continued to invest in developing Latin American production for supplying US markets after the completion of the Panama Canal. The Inter-American Development Commission, an advisory body which first convened in Panama in 1939, determined US financial aid to the region; most of the focus was towards technical assistance and the production of materials to support the US war effort.490

World War II was a massive watershed for the US’s involvement in the Western discourse on development. One of the few Allied Powers to emerge from the war without economic difficulties or the need for extensive reconstruction, the United States positioned itself at the forefront of European recovery. The Marshall Plan, the US’s massive solution to rebuild Western Europe, would contribute to the large-scale economic success of the nations that received it. Furthermore, it strengthened the American economy by opening up European markets for American products.491 It also provided some of the seeds for the Cold War, as US-

supported European countries found themselves politically and ideologically opposed to the expanding Soviet bloc.

The Cold War provided a new context for the development concept, injected with a sense of urgency as the Soviet Union displayed an opposing approach to development in the countries drawn within the Soviet sphere of influence. With Western European countries on the United States’ side, the poorer, “undeveloped” nations became the new battleground for Cold War ideologies. It was in this atmosphere that, in his “Point Four” speech to the newly-formed United Nations in 1949, Harry Truman suggested that the United States had an important role:

…[W]e should make available to peace-loving peoples the benefits of our store of technical knowledge in order to help them realize their aspirations for a better life.

And, in cooperation with other nations, we should foster capital investment in areas needing development…With the cooperation of business, private capital, agriculture, and labor in this country, this program can greatly increase the industrial activity in other nations and can raise substantially their standards of living…The old imperialism – exploitation for foreign profit – has no place in our plans. What we envisage is a program of development based on the concepts of democratic fair-dealing.

The ambition expressed by Truman did not translate to a flood of international aid; most potential contributing nations were simply trying to stay afloat after a costly war. In fact, aid to the entire Third World would only total a few hundred million dollars in the five years after Truman’s speech. Comparatively, Western Europe received nearly $4 billion per year over five years of the Marshall Plan.

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492 In this, he is referring to non-Communist nations, which the United States would later identify as “The Free World.”


494 Escobar, Encountering Development, 33.
Kwame Nkrumah and Ghana were among the few early African benefactors of US’s new commitment to development; by 1959, two years after Ghana’s independence, the US had negotiated an aid agreement to ship substantial amounts of food crops to Ghana. In 1960, the country received 1,125 tons of rice and corn meal. This was exemplary of the bulk of US development aid during the early Cold War, including occasional administrative education, the fostering of infrastructure contract negotiations with American companies, and “trade missions” to open dialogue between American and Ghanaian businessmen for the purpose of soliciting American private investment. In other words, the US would provide enough aid to strengthen and maintain a relationship between the two nations, with an eye towards American enterprise where possible.

But even these contributions were not as substantial as they sounded, and the role the United States sought to assume in Africa was unclear at best. Certainly the US felt, as Senator Stuart Symington stated in a visit to Ghana in 1959, that “the future of Africa is important to us, especially from the standpoint of raw materials.” Yet this interest did little to affect overall US policy towards Africa; in fact, by 1970 Richard Nixon expressed agitation at the lack of unified US-African policy:

Over the last decade, America has not had a clear conception of its relationship with post-colonial Africa and its particular problems. Because of our traditional support of self-determination, and Africa's historic ties with so many of our own citizens, our sympathy and friendship for the new Africa were spontaneous. But without a coherent concept to structure our policies, we allowed ourselves to concentrate more on temporary crises than on their

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underlying causes. We expressed our support for Africa more by lofty phrases than by candid and constructive dialogue.\textsuperscript{498}

Despite Nixon’s concerns, the United States would continue to treat African countries indifferently relative to overall American foreign policy. Six years after the President’s speech, African nations were still using Nixon’s words while requesting a cogent statement on US foreign policy in Africa.\textsuperscript{499}

Unfortunately, the most frequent forms of American aid to African nations were military armaments and raw materials. The US had maintained a steady supply of arms to African nations since the early Cold War, as a means to deter Soviet expansion. By the early 1970s, it was the contention of prominent members of the US government that strengthening African militaries was a necessary first step to economic and social development.\textsuperscript{500} Alternative forms of United States aid continued to drop in the 1970s, likely a response to the perception of decreased Soviet and Chinese activity in Africa.\textsuperscript{501} The Vietnam War could have also limited the amount of funding available to projects and support in Africa. Furthermore, a number of aforementioned international organizations had emerged in the 1970s that devoted their attention to economic and health care development in Africa. Unfortunately, the loss of US support brought an end to many of the development initiatives that had been occasionally bolstered by US donations.


US Agency for International Development (USAID), for instance, ceased its extensive role in fighting malaria in Africa by the 1970s in favor of family planning programs.\(^{502}\)

While American views of development in Africa were molded by the state’s position in the Cold War and the fiscal constraints of waging war in areas like Vietnam, it is fair to say the United States did not consider African development as a major priority of the state. With aid often lent in the purview of the Cold War, the US – along with the United Nations and, by extension, Great Britain – instead deferred to a vast, powerful pair of multi-national lending bodies in which they had the freedom to direct development with fewer political encumbrances.

**Western Financial Institutions**

Formed during the momentous Bretton Woods conference in 1944, the World Bank and International Monetary Fund (IMF) had deeper historical roots. Western colonial powers had been implementing development initiatives within their own colonies and commonwealths for decades. Many of these ideas about constructing, enacting, and financing long-term development plans would be carried over to the recommendations and directives issued by the World Bank. The shift of this knowledge from colonial to global concepts of development came through a willingness of the institution’s member-countries to contribute towards financing plans and projects that may or may not help them. It was an important endeavor during the intense days of the Cold War, as aid could foster alliance against the Soviet bloc. On the other hand, when the Cold War began to calm in the 1970s the institutions shifted their policies and began to ask for more than loyalty from their benefactors.\(^{503}\)


The approach to development for these institutions would be expanded upon in the 1960s, refocusing on what they called the “human resource” and strengthening aid to this end by financing health care and technical training initiatives.\textsuperscript{504} Additionally, this “resource” required an environment to support healthy, trained peoples, and give them a home to begin families and raise generations that would grow up and do likewise. While the UN was creating education and health organizations in the 1960s and 1970s, the World Bank lent considerable support to large infrastructure projects to match the kind of public works projects that occurred in colonies and the United States before World War II.\textsuperscript{505} These projects including building dams, setting up power and telephone lines, providing clean water supply, and constructing roads and power stations. The human resource, in the estimation of World Bank, was gaining an environment where it could thrive.

After two decades of financing projects and evaluating the expenditure and outcomes, most Western financial institutions determined the projects were largely too risky as investments. Estimates of cost were too often low, as were estimates of the duration of construction. Many projects ran over their budgets. Furthermore, some projects were implemented without a clear idea of how the facility or structure would be used, and if it would be used at all. Maintenance and repairs were further complications, especially if the project was carried out without leaving a person in place that knew how to take care of it.\textsuperscript{506} In many ways, these failures were reminiscent of colonial failures, though ironically part of their failure was due to a belief that these were projects that were unilaterally good (rather than good colonial investment).

\textsuperscript{504} Rist, \textit{The History of Development}, 90-91.  
\textsuperscript{506} Harrigan, Mosley, \& Toye, \textit{Aid and Power}, 30-31.
By the late 1970s and early 1980s, many Western financial institutions shifted their focus to fiscal measures, placing policy in the hands of economists that placed emphasis on quantifying risk for the lender. As a result, they continued their drastic reduction of the number of physical projects, leaving developing countries with little recourse in their development than to adopt policies to reduce public expenditure, deregulate, and devalue their currency, the latter ostensibly to encourage foreign investment. This approach, broadly termed “neo-liberalism” and touted by IMF and the World Bank in the form of “structural adjustment programs” (or SAPs), have now been attributed to increasing debts and rising inequality by the IMF itself.507

Where Connectivity and Development Meet

The history of development, passed on from previous Western ideas about constructing an economy, was an inherited template for colonial, industrial, agricultural connections. There was good reason the word itself was carried forward into the post-colonial era; the drive for railway and road as a means to integrate productive rural regions to the larger economy traced to eras predating colonialism itself. That said, development is an anachronism to the eras before the abolition of slavery, and certainly any era before the 19th century. The initiatives in the American South, Panama, and the Gold Coast were largely conducted in similar periods of semi-coerced labor: those who needed the pay and were willing to take the risk paid a steep price in the terms of their labor. Additionally, convict labor in these regions conducted similar tasks, a practice that has never entirely disappeared.

While the American South expanded, it became a bastion of Jim Crow and residential segregation, with its stark rails and racism. The wealth disparities there – not only for African

Americans but poor whites as well – were devastating by design, particularly as King Cotton lost his crown in the early 1900s.\textsuperscript{508} In many ways, the American South was, along with the colonies, among the first regions to portend of Western development’s failures; bustling post-Depression industrial sectors in the South, designed to transition the economy away from Southern agriculture, faded significantly after the war in competition with Northern industry.\textsuperscript{509} African Americans, half the Southern population, were deliberately denied opportunities for wealth and employment, and millions migrated north.\textsuperscript{510} Even the railways rusted, as Eisenhower’s interstate highway initiative as the motor vehicle became the new driving force of American economy in the 1950s.

Panama, and its key ports of Colón and Panama City, saw perhaps the earliest colonial “developments” in the Americas, as the United States supported American companies building the trans-isthmus railway. As mentioned above, the railway corridor upset earlier economic connections there; an abortive French canal attempt gave way to renewed American interest in the 1890s. The US purchased and repaired the old railway, using it as a virtual path for the steam shovels prepared to dig the Canal.

Development, in strict terms, rarely moved beyond US maintenance of the primary ports of the Canal corridor through the 20\textsuperscript{th} century. Much of the countryside in the corridor, called the Panama Canal Zone by the US, was allowed to reclaim the land, leaving a green strip on either side of the Canal. While the forest lay dormant, the Canal was a global economic boon for foreign companies, so much so it was even a badge of pride for the Silver and Colón Men who were instrumental in its construction. Said Afro-Antillean Samuel A. Smith:

\begin{enumerate}
\item[509] Noe, \textit{Southwest Virginia’s Railroad}, 141; Baptist, \textit{The Half Has Never Been Told}, 410-411.
\item[510] Hart, “The Demise of King Cotton,” 308.
\end{enumerate}
My greatest experience was the construction of the Panama Canal, and I am more than proud to be among the many old timers who have helped so willingly in giving a hand in building this masterpiece. I am even more proud to be alive today, thank God, to enjoy the beautiful scenery and to witness its important participation in commerce to the world.\textsuperscript{511}

Rhonda Frederick, in her work on “mythographies” of Colón Men, also found that Canal work was a critical marker of Caribbean masculinity, in the shared suffering and ethnic multiplicity of the men.\textsuperscript{512}

But any benefit to laborers on the Canal, Panamanian or West Indian, was tangential to the primary purpose of the dig: reduced foreign shipping costs. Upon the expiration of the United States’ control of the Canal Zone in 1999, there continued to be very limited evidence of American development support in the remainder of Panama.

Unlike the American South and Panama, the concept of development has been a clear, dominant force in Gold Coast and Ghanaian history. The construction of railways in the Gold Coast was a primary focus of the early Gold Coast development plans by the 1880s. Eventually, development of the colony meant the establishment of a vast rail and road network, in part cognizant of Gold Coast peoples’ movements, but entirely devoted to the export of valuable mineral and agricultural commodities. With some exceptions in education after the arrival of Guggisberg in 1919, construction and maintenance of the primary railway veins and road networks were of utmost importance to Gold Coast development plans.

Upon independence, development was soon transformed by Nkrumah’s vision for a more autonomous country. While he was unsuccessful in achieving the kinds of unilateral African development and political cohesion he sought, Ghana was nevertheless bolstered by the technical

\textsuperscript{511} Samuel A. Smith in Isthmian Historical Society, Competition of the Best True Stories of Life and Work on the Isthmus of Panama During the Construction of the Panama Canal, 237.
\textsuperscript{512} Frederick, “Colón Man a Come”, 162-163.
expertise that emerged from his educational support. Unfortunately, it was Nkrumah’s
disagreement with the US and UN visions for development, as well as his criticism of their “neo-
colonial” influence,\textsuperscript{513} that contributed to his removal in 1966. Subsequent Ghanaian leadership
often reflected the thought that dominated US African policy in the late 1960s and 1970s;
military officials held firm control over the country while enacting austerity measures that
dismantled Nkrumah’s efforts towards autonomy. Development in Ghana, at the same time
foreign support for project-based or infrastructure-focused was diminishing, had ended.

In 1983, former Flight Lieutenant Jerry Rawlings, having seized control of the
government from President-elect Hilla Limann in 1981, agreed to a loan and new austerity
measures from the IMF, signing Ghana over to an SAP.

\textit{Conclusion}

As the American South, Panama, and the Gold Coast moved well into the 20\textsuperscript{th} century,
the concept of development emerged as a potential bolster – but more often counterpoint – to the
pursuit of railway construction. New connections were being made, and increasingly paths were
being cut to accommodate motor vehicles rather than locomotives. While development initiatives
were planned and executed on behalf of the West in the Americas and Africa, they generally
based their approach on universal ideas of how Western nations felt societies and economies
should function, rather than inquire into local ideas of how improvements might be implemented.
Even worse, there seemed to be little examination of how local markets and paths might be
changed; in fact, in some cases that might have been the whole point.

\textsuperscript{513} Nkrumah, \textit{Africa Must Unite}, 173-193.
In any event, I have suggested that the development initiatives that emerged in the 20th century hardly emerged at all; were rather a next-generation repackaging of older approaches to colonial and imperial efforts. That they evolved from project-based lending to fiscal policy could very well have reflected the response of lenders collecting on previous debts, in the same way that debt repayment commanded a significant portion of British colonial expenditure in the Gold Coast by the 1920s (see Table 2).

Connectivity through the 20th century changed in form as motor vehicles and petrol began its massive expansion over the global economy. Roads rose to predominance, decades after Gold Coast entrepreneurs had realized their great utility in regions where rail failed to reach. Indeed, the greatest road expansion in the Gold Coast predated the United States’ interstate highway initiative by three decades. Panama, meanwhile, transitioned from major railway to major waterway, again, dropping a massive engineering project on top of the swampy rivers and sweaty portages that had previously been commanded by Panamanian boatmen.

Despite these great changes, shifts in planning and ideology, implements and allocation, the connections of the past are still persistent, even if they are not entirely there anymore. The trans-isthmus railway still operates, as does a skeleton of the American Southern railroads; two locomotives still burn their way to the Gold Coast. Whole sections of all of these regions were dictated by rail construction. Numerous towns and cities in the American South still have lines of racial residential segregation, which Americans still wield considerable power and influence at the main transit terminals established by the trans-isthmian railway, and the vital sectors of Ghanaian economy still have rail lines operating directly to them. All far removed from the people and the era in which they were constructed, they nevertheless show how rail construction can continue to have an impact regardless of its use.
Conclusion

I came back from the culberts, when the steel rail were laying, all “this is still on the re-location,” the pullings were dropped, then the steel rail on top of them, we have to spike them up together, the boss’s name, we used to call him Old Joe, the colored foreman being a French man, his name was Morris, his second were named Victor all French. But we took the spiking of the rail, to the pulling, like a merry-go-round, this were a sight to watch us work along this line; as I said before, “the work was hard, but we did it cheerful; here is the play, when the rail had been spiked to the pulling, now it has got to be put in place. Every man with an iron-bar about five feet long, one would sing, and while he sings, you watch track line move, “the train goes, you bail.” The white bosses stands off and laugh, the Songster had a song, goes this way, he would sing part one, or first part, and we comes in with the second part, it goes:

1st: Nattie oh, Nattie oh
2nd: Gone to Colon
1st: Nattie oh, Nattie oh
2nd: Gone to Colon
1st: Nattie buy sweet powder
2nd: Powder her...you know
1st: Nattie buy sweet powder
2nd: Powder her...you know

- G.H. Martin, Panama City

There is one final connection in the stories of the American South, Panama, and the Gold Coast, and it is a thread. Winding through the Atlantic World, history draws the Americas and Africa tight, and closer around the common cultural expressions of people of African descent. In these three regions, areas of radical upheaval and rails running through them, connections still prevailed. Whether they were old constructs or new artifices, stories or manners of coping, work or ways and means, people and their movement had unique responses to the connections in their

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514 G.H. Martin in Isthmian Historical Society. *Competition of the Best True Stories of Life and Work on the Isthmus of Panama During the Construction of the Panama Canal*, 16.
midst. In the process, they lend us small and large-scale means to understand how communities interact and exchange goods, in a historical way. Connectivity might couch itself in common paths and structures, but it benefits the movement and change of humans by being reflexive. G.H. above might be laying tracks in Panama, and those tracks might be part of a world-changing thoroughfare, but we can also benefit by following him where he goes with that new silver in his pocket.

By tracking connectivity, and connecting it with historical and development concepts, we have seen how it can lend a new means to explore the history of a region, and the laborers that shape it. I have also demonstrated how connectivity can change with technology, taking on new meaning as people learn to connect and exchange in different ways. The internet, for instance, was revolutionary for information, but so long as it was grounded and gridded it followed much the same infrastructure as did electricity. Now, with Wi-Fi, the reception of signals are peaked triangles of sender, satellite, receiver, generating “hot spots” and creating a hyper-third dimension of infrastructure. As rail and road had in the past, these current Wi-Fi connections cooperate with the old networks, as long as physical items need to be transported. Regardless, connectivity and exchange are moving into intense, unexplored speeds and ability for interaction.

Yet, as I have shown above, connectivity is also about culture, local responses to these new technologies. An African Proverbs Twitter account has 162,000 followers; Black Lives Matter was considerably bolstered by Instagram and livestreams; cell phones have been used to reach even the most remote places in the world. None of these things had to happen, but they did, and by understanding why they happened we can learn more about how to foster connections in the future.
Furthermore, learning about connectivity can help us improve development initiatives, by taking the time to find applications and innovations of technology that fit local needs. As I have shown above, the speed of exchange matters as well. If a connection is made by a different route, or via fewer connection points, we should examine where there might be loss, and what the impact might be. Future research could lend complexity to these analyses, using heat maps to show areas of activity, not unlike a scan of the human brain. In connectivity, in capturing movement, we can shift away from a history that sits in place.

Additionally, one of the monumental gains of researching connectivity: we get to follow along as people reveal their everyday lives, a mix of the functional and cultural, without much need to obfuscate the information. We can learn about connections wholly, their conception, their planning, their execution, their laborers, their paths, their patrons, their people. They can give us snapshots of time: in the appendices I have provided, you can tell when the Union blockade solidified during the Civil War, the diminishing interest in the Panama Railroad till the French began their canal in earnest, and productive pause of World War I in the Gold Coast before a roaring 1920s. It is almost like having a finger to a pulse instead of holding an arm; history is aided in recognizing that people are alive.

By following how people build and react to connections, we also find that people put as much life into a connection as they do using the connection. More importantly, those two groups have not often been the same, and the inclusion or exclusion of the laborers in the use of connections can provide us even more valuable information about a society.

Finally, once again, there is the matter of persistence. The paths we clear are laid bare for a reason, and whether that reason is permanently intended or ephemeral we have subsequent actions related to it. Understandably, primary routes or connections in an area have much more
persistence, because they influence the formation of communities, or carry ethics and spark negotiations economic and political. They will appear again and again in people’s recollections as they remember the route. And perhaps that is why researching connectivity is so important: people will constantly re-affirm whether a path is worth remembering.
REFERENCES

Primary Sources – Collections Consulted & Notation Guide

ALP – Abraham Lincoln Papers, Library of Congress
AGSL – American Geographical Society Library, University of Wisconsin at Milwaukee
AAAS – African and Afro-American Studies Collection, Robert D. Farber University Archives & Special Collections Department, Brandeis University Library
BPFA – British Pathé Film Archive, YouTube, <https://www.youtube.com/channel/UCGp4u0WHLsK8OAxnvyiTyhA>.
DASA – Documenting the American South Archives, University Library of the University of North Carolina at Chapel Hill
HDL – Hathi Digital Library
HPNL – History, Philosophy, and Newspaper Library, University Library of the University of Illinois at Urbana-Champaign
PCMC – Panama and the Canal project, Panama Canal Museum Collection, University of Florida George A. Smathers Libraries
RMMA – Railroads and the Making of Modern America Archives, Digital History Project, University of Nebraska-Lincoln
SCL – South Caroliniana Library, University of South Carolina

Primary Sources – Geographic Information Systems Data & Software


Primary Sources – Individual Sources


Cugoano, Ottobah. Narrative of the Enslavement of Ottobah Cugoano, a Native of Africa; Published by Himself. London: Published by the Author, 1787.


Hope, G.W., Editor. “West Indies and British Guiana: Return to an Address of the Honourable The House of Commons dated 29 May 1845, for ‘Copies of the Last Census of the Population Taken in Each of the British West India Islands and in British Guiana.” London: Colonial Office, 1845.


Panama Rail-Road Company. *Capital $1,000,000, With Liberty to Increase to $5,000,000*. New York: Van Norden & Amerman, 1849.


Truth, Sojourner. *Narrative of Sojourner Truth; a Bondswoman of Olden Time, Emancipated by the New York Legislature in the Early Part of the Present Century; with a History of Her Labors and Correspondence, Drawn from Her "Book of Life."* Boston: Published for the Author, 1875.


---. *Slave Narratives: A Folk History of Slavery in the United States*

---. *Slave Narratives: A Folk History of Slavery in the United States*

**Newspaper Sources**

*The Age* (Melbourne, Australia)
*The Ashanti Pioneer* (Kumase, Ghana)
*The Crawfordsville Review* (Crawfordsville, Indiana)
*The Daily Argus News* (Crawfordsville, Indiana)
*The Daily Star* (Fredericksburg, Virginia)
*The Evening Independent* (St. Petersburg, Florida)
*The Glasgow Herald* (Glasgow, Scotland)
*Hartford Weekly Times* (Hartford, Connecticut)
*Kentucky New Era* (Hopkinsville, Kentucky)
*The Lewiston Daily Sun* (Lewiston, Maine)
*The Milwaukee Journal* (Milwaukee, Wisconsin)
*The Milwaukee Sentinel* (Milwaukee, Wisconsin)
*The Montreal Gazette* (Montreal, Quebec, Canada)
*Nashua Telegraph* (Nashua, New Hampshire)
*The Nevada Daily-Mail* (Nevada, Missouri)
*The Norwalk Hour* (Norwalk, Connecticut)
*Panama Star and Herald* (Panama City, Panama)
*Pittsburgh Commercial Gazette* (Pittsburgh, Pennsylvania)
*The Pittsfield Sun* (Pittsfield, Massachusetts)
*Reading Eagle* (Reading, Pennsylvania)
*Saint John Daily Evening News* (Saint John, New Brunswick, Canada)
*Spartanburg Herald-Journal* (Spartanburg, South Carolina)
*Spokane Daily Chronicle* (Spokane, Washington)
*St. Petersburg Daily Times* (St. Petersburg, Florida)
*St. Petersburg Times* (St. Petersburg, Florida)
*The Sunday Star* (Crawfordsville, Indiana)
*The Sydney Mail* (Sydney, Australia)
*The Sydney Morning Herald* (Sydney, Australia)
*The Tuscaloosa News* (Tuscaloosa, Alabama)
*The Victoria Advocate* (Victoria, Texas)
Secondary Sources


Charlton, Mark W. “Innovation and Inter-Organizational Politics: The Case of the World Food Programme.” International Journal 47.3 (Summer 1992): 630-665.


Curtin, Philip D. “Epidemiology and the Slave Trade.” *Political Science Quarterly* 83.2 (June 1968): 190-216.


Hull, Gloria T., Patricia Bell Scott, and Barbara Smith, Editors. *All the Women Are White, All the Men are Black, But Some of Us Are Brave: Black Women’s Studies*. Old Westbury, NY: The Feminist Press, 1982.


Reindorf, Carl Christian. *History of the Gold Coast and Asante, based on traditions and historical facts, comprising a period of more than three centuries from about 1500 to 1860*. Basel, Switzerland: Missionbuchhandlung, 1895.


Sutter, Paul S. “Nature’s Agents or Agents of Empire? Entomological Workers and Environmental Change during the Construction of the Panama Canal.” *Isis* 98.4 (December 2007): 724-754.


Appendix A:

United States Statistical Tables

United States Railroad Growth, 1830 to 1900\textsuperscript{15}

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United States Cotton Production, 1790 to 1900

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<td>1826</td>
<td>732</td>
<td>1863</td>
<td>449</td>
<td>1900</td>
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Appendix B:

Panama Statistical Tables

Panama Railroad Company Earnings, 1852 to 1880

<table>
<thead>
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<th>Year</th>
<th>Gross Annual Receipts (1880 US $)</th>
<th>Net Annual Earnings (1880 US $)</th>
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<td>234,710</td>
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<td>614,930</td>
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<td>1,455,993</td>
<td>906,964</td>
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<tr>
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<td>1,358,053</td>
<td>615,140</td>
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<td>---</td>
<td>793,009</td>
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<td>1875</td>
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<td>643,028</td>
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### Panama Railroad Company Freight & Passenger Receipts, 1857 to 1903

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<th>Freight Receipts (1903 US $)</th>
<th>Passenger Receipts (1903 US $)</th>
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<td>688,379</td>
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<td>1861</td>
<td>630,996</td>
<td>694,414</td>
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<td>1862-1876</td>
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518 Otis, Isthmus of Panama, 62-69; US Congress, Committee on Interstate and Foreign Commerce, Special Committee on the Investigation of the Panama Railway Company, 197-305.
Return on Panama Railroad Company Stock, 1853 to 1880

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<td>1880</td>
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Appendix C:

Panama Railroad Company Agreement with Nueva Granada, 1849

EXTRACT FROM TREATY WITH NEW-GRANADA.

ARTICLE xxxv.

The United States of America and the Republic of New-Granada, desiring to make as durable as possible the relations which are to be established between the two parties, by virtue of this treaty, have declared solemnly, and do agree to the following points:

1st. For the better understanding of the preceding articles, it is and has been stipulated between the high contracting parties, that the citizens, vessels and merchandise of the United States, shall enjoy in the ports of New Granada, including those of the part of the Granadian territory generally denominated Isthmus of Panama, from its southernmost extremity, until the boundary of Costa Rica, all the exemptions, privileges, and immunities concerning commerce and navigation, which are now, or may hereafter be enjoyed by Granadian citizens, their vessels and merchandise; and that this equality of favours shall be made to extend to the passengers, correspondence and merchandise of the United States, in their transit across the said territory, from one sea to the other. The government of New-Granada guaranties to the government of the United States, that the right of way or transit across the Isthmus of Panama, upon any modes of communication that now exist, or that may be hereafter constructed, shall be open and free to the government and citizens of the United States, and for the transportation of any articles of produce, manufactures or merchandise, of lawful commerce, belonging to the citizens of the United States; that no other tolls or charges shall be levied or collected upon the citizens of the United States, or their said merchandise thus passing over any road or canal that may be made by the government of New-Granada, or by the authority of the same, than is, under like circumstances, levied upon and collected from the Granadian citizens; that any lawful produce, manufactures or merchandise, belonging to citizens of the United States, thus passing from one sea to the other, in either direction, for the purpose of exportation to any other foreign country, shall not be liable to any import duties whatever; or, having paid such duties, they shall be entitled to drawback upon their exportation; nor shall the citizens of the United States be liable to any duties, tolls or charges of any kind, to which native citizens are not subjected, for thus passing the said Isthmus. And, in order to secure to themselves the tranquil and constant enjoyment of these advantages, and as an especial compensation for the said advantages, and for the favours they have acquired by the 4th, 5th, and 6th articles of this treaty, the United States guaranty, positively and efficaciously, to New-Granada, by the present stipulation, the perfect neutrality of the before mentioned Isthmus, with a view that the free transit from the one to the other sea may not be interrupted or embarrassed in any future time, while this treaty exists; and in consequence, the United States also guaranty, in the same manner, the rights of sovereignty and property which New-Granada has and possesses over the said territory.

520 Panama Rail-Road Company, Capital $1,000,000, With Liberty to Increase to $5,000,000 (New York: Van Norden & Amerman, 1849), 61-62.
## Appendix D:

### Gold Coast Statistical Tables

*Ivor Wilks’ Asante “Great Roads” Distances & Travel Times*[^521]

<table>
<thead>
<tr>
<th>Road</th>
<th>Ultimate Destination</th>
<th>Distance from Kumase (mi)</th>
<th>Travel Time (days)</th>
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<td>18</td>
</tr>
<tr>
<td>I(b)</td>
<td>Komoé River (Kingdom of Kong)</td>
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<td>19</td>
</tr>
<tr>
<td>II</td>
<td>Kingdom of Kong</td>
<td>250</td>
<td>20</td>
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<tr>
<td>III</td>
<td>Daboya</td>
<td>222</td>
<td>18</td>
</tr>
<tr>
<td>IV</td>
<td>Yendi</td>
<td>250</td>
<td>23</td>
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<td>IV(a)</td>
<td>Akposso (Togolan)</td>
<td>245</td>
<td>22</td>
</tr>
<tr>
<td>V</td>
<td>Accra</td>
<td>156</td>
<td>15</td>
</tr>
<tr>
<td>V(a)</td>
<td>Aného (Togolan)</td>
<td>250</td>
<td>20</td>
</tr>
<tr>
<td>V(b)</td>
<td>Asokore</td>
<td>23</td>
<td>3</td>
</tr>
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<td>VI</td>
<td>Anomabo</td>
<td>126</td>
<td>11</td>
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<td>VII</td>
<td>Elmina</td>
<td>134</td>
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<td>VIII</td>
<td>Bandama River (Ivory Coast)</td>
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[^521]: Wilks, *Asante in the Nineteenth Century*, 11, 60. Destinations revised by this author.
Ivor Wilks’ Estimated & Real Metropolitan Asante Population Figures, 1817 to 1960

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Imports & Exports in Gold Coast, 1896 to 1924

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<th>Exports (in 1000s, 1924 £)</th>
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<td>1899</td>
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<td>2,379.1</td>
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<td>1,894.9</td>
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522 Wilks, Asante in the Nineteenth Century, 90.
## Customs, Railway, and Total Revenues of Gold Coast, 1897 to 1924

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Gold Coast Balance of Revenue & Expenditures, 1896 to 1924

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Total Balance £ 2,279.5

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### Proportion of Gold Coast Expenditure, Railways & Public Works, 1896 to 1924

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Gold Coast Railway Revenues, Expenditures, & Net Returns, 1903 to 1924\textsuperscript{27}

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* Measured in thousands of 1924 £

\textsuperscript{27} Colonial Reports - Annual: Gold Coast 1896 through 1923-24.

231
Port Share of Gold Coast Trade, 1896 to 1910

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528 Colonial Reports - Annual: Gold Coast 1896 through 1910.
Gold Coast Road & Railway Expansion, 1902 to 1935

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*Figures estimated by this author

529 Colonial Reports - Annual: Gold Coast 1902 through 1934-35.
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<th>Cocoa (tons)</th>
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<th>Cocoa (tons)</th>
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\[530\] Acquah, *Accra Survey*, 18-20; *Colonial Reports - Annual: Gold Coast 1918 through 1919*. 234

EDUCATION

Doctorate (Africology), December 2016
University of Wisconsin-Milwaukee, Department of Africology, Milwaukee, WI
Dissertation Title: “Rail: African & African American Labor and the Ties That Bind in the Atlantic World”
Advisor: Jeffrey Sommers, Ph.D.

Master of Arts Degree (African History), May 2010
University of Wisconsin-Milwaukee, Department of History, Milwaukee, WI
Advisor: Aims McGuinness, Ph.D.

Foreign Language & Area Studies Fellowship (Akan Twi), Summer 2008
University of Illinois at Urbana-Champaign, Department of Linguistics, Urbana, IL.
Summer Cooperative African Language Institute

Bachelor of Arts Degrees (History & English), May 2007
University of Wisconsin-Green Bay, Departments of History and English, Green Bay, WI
Advisor: Andrew Kersten, Ph.D.

TEACHING EXPERIENCE

Assistant Professor – History – Quinsigamond Community College
Department of Public Health & Social Sciences, 8/2016 to present
  • Teaching courses in world history, African American history, and United States history

Lecturer – African and Afro-American Studies – Brandeis University
Department of African and Afro-American Studies, 8/2015 to 6/2016
  • Developed and taught the courses “Introduction to African History” and “Africa and the West”

Lecturer – Africology – University of Wisconsin-Milwaukee
Department of Africology, 9/2012 to 5/2014
  • Developed and taught courses for Africology 100, “Survey of African American Society”

Teaching Assistant – Africology – University of Wisconsin-Milwaukee
Department of Africology, 9/2010 to 5/2012
  • Organized discussion sections using readings, lectures, and notes for the “Survey of African American Society”
Teaching Assistant – History – University of Wisconsin-Milwaukee
Department of History, 9/2008 to 5/2010
- Organized discussion sections from readings, lectures, and notes for a course on American Indian History in present-day Wisconsin, Minnesota, Michigan, and Ontario

Tutor & Supplemental Instruction Leader – University of Wisconsin-Milwaukee
Panther Academic Support Services, 1/2008 to 5/2010
- Provided assistance with 2-3 students a week for courses in the university’s Africology & History Departments; topics covered included African and African American history, neo-African religions in the Americas, and race and race and historical and contemporary perspectives on racial issues in the United States

RESEARCH EXPERIENCE

Research Associate
- Conducted research on public policy, demography, and economy in the Greater Worcester area
- Published periodic reports and briefs on research topics

Dissertation: Defended 8/2016
- “Rail: African & African American Labor and the Ties That Bind in the Atlantic World”
  - Committee: Drs. Jeffrey Sommers, Patrick Bellegarde-Smith, Marcus Filippello, Anika Wilson
  - Project: The construction of rail lines in the Atlantic World had a transformative impact on the evolution of economies in the regions. Workers of African descent, both free and enslaved, played a vital, tangible role in these projects. Using a comparative history of Panama, the American South, and the Gold Coast colony in West Africa, I look at the overlapping contexts of labor relations, race, economy, and society in the building of these rail lines. In the process, I will demonstrate the major influence these developments had on constructing the modern economies in the Atlantic World. To this end, I have researched a wealth of primary source documents, including US government reports, British Colonial Reports, personal diaries, railroad company documentation, and observer or reporter’s accounts pertaining to rail construction in each of the regions.

Graduate Research Assistant – Advisor Dr. Erin Winkler
University of Wisconsin-Milwaukee, Department of Africology, 1/2010 to 5/2013
- Assisted Erin Winkler, Associate Professor of Africology, on a pedagogical study examining how and when students’ thinking about threshold concepts including racism changes during the course of a semester in a diversity requirement general education course
- Coordinated qualitative analysis and coding of written course assignments using NVivo qualitative data analysis software, analyzed survey data using SPSS, conducted literature searches

Master’s Thesis: Defended 5/2010
  - Committee: Drs. Aims McGuinness, Osei Mensah Aborampah, Bruce Fetter
  - Project: The emerging African nations of the mid-20th century found that development as a process engaged a complex geopolitical matrix globally. I researched the evolving strategies the Ghanaian government employed over the first two decades of independence to develop their economic, education, and social institutions. Research materials included personal accounts of Ghanaian government officials and citizens, U.S. State Department memos and correspondence with Ghanaian governments, observer reports, and economic and demographic statistics.
PUBLICATIONS

Book Chapters:


Peer-Reviewed Publications:


Publications in Preparation:


ORAL CONFERENCE PRESENTATIONS


HONORS & AWARDS

Finalist – Chancellor’s Golda Meir Library Scholar Award – 2013
• Presented a proposal to utilize the American Geographical Society Library for an article on the construction of infrastructure in the Gold Coast (later Ghana) from 1900 to 1978

George W. & Winston A. Van Horne Prize – 2011 – $1,250
• Awarded for the most outstanding graduate oral and written comprehensive examination in Africology

Foreign Language and Area Studies Summer Fellowship – 2008 – $2,500
• Fellowship to assist students in acquiring foreign language and either area or international studies competencies in intensive language programs
• Applied toward the intensive study Akan (Twi) language within the Summer Cooperative African Language Institute at the University of Illinois at Urbana-Champaign
Nominated – History Department Graduate Paper of the Year

- Fall 2007, “Is Ghana a Model to be Admired?: Demography and Economy in Ghana from 1970 to the Present”

OTHER EXPERIENCE


- Research and publish articles on hockey analytics, in print and online publications
- Published in 8 print publications over the hockey season

Editor-in-Chief, Maple Leaf Press: Winnipeg Jets Season Preview Magazine, Summer 2011

- Proofread and edited all articles and items in 117-page NHL season preview magazine
- Recruited and organized work of team of eight writers, including the work of interviewers, statisticians, graphic designers, and journalists
- Selected photos and wrote captions for entire magazine
- Authored two articles and compiled statistics for almanac section

Head Editor & Manager, Arctic Ice Hockey blog (Vox Media), 10/2010 to 8/2012

- Scheduled and edited all blog content, including selecting and captioning photographs and presentation of graphics and data
- Coordinated production of team of 5-7 writers
- Developed series and themes for blog content
- Learned basic HTML

Volunteer, Milwaukee County Historical Society, 6/2007 to 4/2008

- Used archiving software to digitize collections
- Constructed exhibits, including paneling on the Milwaukee Braves ‘57 Championship run, and artifacts from the history of the Milwaukee County Historical Society building and downtown Milwaukee

MEMBERSHIPS

African Studies Association – January 2008 to present
Ghana Studies Council – October 2008 to present
Phi Alpha Theta History Honor Society – April 2007 to present
Sigma Tau Delta English Honor Society – March 2007 to present