DELINEATING DOMINION: THE USE OF CARTOGRAPHY IN THE CREATION AND CONTROL OF GERMAN EAST AFRICA.

THESIS

Presented in Partial Fulfillment of the Requirements for the Degree Masters of the Arts in the Graduate School of The Ohio State University

By

Robert H Clemm, B.A.

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Thesis Committee:
Professor John F. Guilmartin, Adviser
Professor Jennifer Siegel
Professor Alan Beyerchen

Approved By:

___________________
Advisor
History Graduate Program
The goal of this study is to illustrate the role and power of the map and its connection to the exploration, conquest and colonization of German East Africa. Maps are generally considered a constant, a clear representation of reality, rather than a conceptual construct. Using a three tiered model of “gazes” (Dominion, Despot and Development) a series of maps were analyzed to show how the process of conceptual to actual control of the territory known as German East Africa was facilitated through the medium of cartography. After exploring and establishing a space intended for future use (Dominion) maps were used to solidify control through conquest (Despot), which then allowed for capitalist investment (Development). Of special highlight is the role of the Schutztruppe or German Protective Force in mapping the colony and creating the stability necessary for capital investment in the colony.
Dedicated to the Author of my own history
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VITA

2001.................................................................B.A. History and Political Science,
University of Rochester

2005-Present......................................................Graduate Teaching and Research
The Ohio State University

PUBLICATIONS


8. “Coalition Nations/Contributions to Iraq I” in Encyclopedia of the Middle East
Wars (ABC-CLIO: June 2007).

9. “Japan (Middle East War)” in Encyclopedia of the Middle East Wars (ABC-
CLIO: June 2007).
FIELDS OF STUDY

Major Field: History
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CHAPTER 1

INTRODUCTION

“Colonial knowledge both enabled conquest and was produced by it; in certain important ways, knowledge was what colonialism was all about.”¹

If the above quote is correct, and knowledge was the key to colonialism, the pithy rhyme should be changed to “Whatever happens we have got the map and they have not.”² Mapping has been an undervalued tool in the analysis and study of a host of issues, especially colonialism. This study will show the value of cartography as a tool of analysis within the context of German efforts in eastern Africa. The map was used first as a tool of conceptualization, creating a space in eastern Africa that the German colonizers could go after. Next, the map served to help solidify the creation of German East Africa and assure a place in the sun amongst the other European colonizers. Lastly, the map was the key tool used in the effort to develop the colony and create a stable cash-crop plantation agriculture economy.

¹ Nicholas Dick quoted in Francine Hirsch, Empire of Nations (Ithaca: Cornell University Press, 2005), 146.
² Referring to the famous rhyme: “Whatever happens we have got the Maxim Gun and they have not” reinforcing the conventional view of the real power behind colonialism.
Map 1-1: Reference Map of Tanzania.  *Map of Tanzania*
Both eastern Africa and German colonization efforts have largely been ignored by many scholars. In some ways this seems to make sense. With the new drive towards studying the Atlantic World, there is much more interest in the effect of European contact on West Africa. Eastern Africa, tied so uniquely to the “Scramble,” appears to be an aberration rather than a field worthy of study. Examining the German effort seems of even lesser value as its colonial experience can seemingly serve no applicable purpose to discussions of decolonization or Tanzanian history.³ It also appears of little value to German history apart from connection between the experience of colonialism and its effects on German actions in Europe.⁴ Hopefully, this study will rehabilitate both the region and the studies of German colonialism due to its unique position.

It would be natural to question why exactly a study of cartography would center on German East Africa. On the surface, a colony of roughly 363,000 square kilometers that was only under state control for twenty three years seems an unlikely candidate for illustrating any lessons about colonialism.⁵ It was the last of the German colonies acquired, and economically it was like most of the

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³ With Tanzania, post 1918, first having been placed under the Mandate System and then made an official British colony, it is hard to make any connections from the German colonial experience, so far removed from later Tanzanian history, to these more modern historiographical topics.
⁴ This is the point behind Isabel V. Hull’s Absolute Destruction as, when read closely, it becomes clear the book is less about Africa and more about providing a new way to discuss a particular German historiographical issue.
other German colonies in that it absorbed a good deal of public and private monies with little return on the investment.\textsuperscript{6} However, the short time period of German rule is one of its very benefits. Unlike studies that have to chart centuries of trade and evolving contact, Germany provided an extremely bounded environment for assessing the colonial experience.

Maps as a source are also uniquely tied to Germany in several respects. First, Germany possessed a flourishing cartographic culture at this time and contemporaries envied it for the map literacy of the general population.\textsuperscript{7} Second, conventional cartographic science had reached its apogee during the “Scramble.” Therefore, when Germany began the exploration and colonization of what would become German East Africa it was being done by skilled individuals at the height of their craft. Third, the special role played by the military, as seen in the \textit{Schutztruppe} or Protective Force, provides an opportunity to examine the role and use of force as it relates to the colonial endeavor. Thus, rather than being a historical back-water, German East Africa is the perfect environment to examine


\textsuperscript{7} In 1870, the Third Republic believed it had lost the Franco-Prussian War because of the better geographical knowledge imparted to the German population through the exceptional wall-maps featured in school classrooms. See Christian Jacob, \textit{The Sovereign Map: Theoretical Approaches in Cartography Throughout History}, trans. Tom Conley, ed. Edward H. Dahl (Chicago: The University of Chicago Press, 2006), 347.
the role of mapping in colonialism and a host of historiography that has not benefited from the interchange of an interdisciplinary study.

Considering the focus of this study, it should be no surprise that the first discipline addressed would be that of cartographic history. The cartographic historian is primarily concerned with the development of cartography as a craft and looks upon the map as an artifact in that process. In general, these scholars are more concerned with what the details of the map elucidate about the map itself, rather than what is being depicted. Works by Ralph Ehrenberg, David Woodward, Edward Lynam, Leo Bagrow, Nathaniel Harris, David Buisseret, and G.R. Crone, among others, are wedded to a narrative covering the development of the map itself. For example, *Five Centuries of Map Printing*, an edited collection by David Woodward, was written to chart the evolution of mapping technology and techniques. Narratives such as these are concerned with the “battle” over hachuring as opposed to contour lines or the general evolution of map reproduction technology. While they might discuss the historical reasons for the creation of a map, the narrative is narrowly focused on the growth of the

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map rather than the policies or social and economic forces that caused the map to be
produced. A tributary of this focus on the map itself is also a series of works covering
the rise of atlases and the role of map consumption. This is especially true in works
covering German cartography as it was the burgeoning home for many atlas companies
during the late 19th and early 20th Centuries. However, whether examining specific
mapping techniques or the growth of mapping periodicals, these works fixated on the
map. While aiding in a deeper understanding of the technocratic aspects of map
development, they tend to ignore the power of the map on a conceptual scale.

“Technical knowledge cannot be neutral,” declared Matthew Edney in his
discussion of mapping in colonial India, and those in the separate but related field of
historical cartography make this the implicit motto of their studies. For these scholars,
maps are important not for the technical details they illustrate, but in the conceptions of
power and the hidden meanings within the seemingly neat and tidy lines of the map. For
example, in reference to atlases, one author has noted how they were helped in “inviting

10 Lynam, British Maps and Map-Makers, 44.
armchair bibliophiles to conquer [a] province in a sentimental fashion.”

These studies penetrate beyond the surface of the map and add a whole new layer of analysis. Mark Monmonier describes historical cartography as a field which uses maps to explain “wars, colonial expansion, [and] cultural diffusion.” What he means is that maps are not, as Edney stridently notes, a neutral “observer” to these processes, but intimately involved in legitimizing a number of sins. Monmonier is a leading figure in the field with a series of books elucidating why there are more to maps than meets the eye. Historical cartography is an emerging field with a number of works concerned with power invested in a map. Consider the titles of an assortment of works that explore this relationship: The Power of Maps; Maps & Man; Geography and Empire; Mapping an Empire; The Sovereign Map; and Possessing the World. There is also a lively discussion within

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14 Ian Barrow, Making History, Drawing Territory (Oxford: Oxford University Press, 2003), 39. The province in this case being India.
15 Monmonier and Schnell, 292.
20 Edney, Mapping an Empire.
the pages of geographic and scientific journals about the meanings and power of cartography.\textsuperscript{23}

These works, unlike those of the cartographic historian, often try to move beyond the map itself to emphasize its conceptual power. For example, Zbigniew Bialas’s \textit{Mapping Wild Gardens: The Symbolic Case of South Africa}, looks at both maps and the diaries of explorers to show the conceptual vision behind mapping. In one section, the notes of John Barrow are referenced in marking the latitude and longitude of India, which is later analyzed for its conceptual power:

\begin{quote}
The geographical vocabulary is there (west-south-west), the activity of naming on behalf of Empire is highlighted (the mountain is given the name of King James), the possibility of expansion is retained (the road), the possibility of surveying the countryside is hinted at (the hill), and the wish for the stability of the White presence is also suggested (a memorial, a heap of stones).\textsuperscript{24}
\end{quote}

Yet, while these works are quite good at elaborating the connections between maps and larger forces, they are in some ways as wedded to the maps as the works of cartographic historians. Christian Jacob might write of how the map can use decorative aspects in order to prop up a specific ideology, but the point still remains that the map is the


\textsuperscript{24} Zbigniew Bialas, \textit{Mapping Wild Gardens: The Symbolic Conquest of South Africa} (Verlag die Blaue Eule, 1997), 42.
definitive focus of his work. Thus, while they might not be concerned with the development of contour lines as part of the evolution of cartography, they still fixate on these details. This would be akin to a literary criticism study of a novel which might delve into the structure of the story or sentences to expose deeper meaning and yet would be of little utility to an audience interested in the plot. Therefore, the connections made between mapping and power remain generally more ethereal than concrete. Sadly, this often limits the exposure and attention their works receive. This is by no means a stern critique as their work has been invaluable in illustrating the importance of mapping to a variety of other fields. Whether or not those other fields have chosen to take notice is another matter entirely.

One area that could most benefit from a discussion of the power of maps in conceptual control, and has largely ignored it, is the study of European colonialism. Several of the works listed above have illustrated that mapping went hand-in-hand with the control of the European colonies. Mapping justified ownership of colonial territory. Oftentimes, these maps did more than identify ownership, but legitimize the entire process of colonialism itself. In the *Historical and Modern Atlas of the British Empire*, imperial growth was shown, “with no suggestion that this was anything other than beneficial. Thus, the four maps of European colonies in Africa in 1800, 1850, 1865 and

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25 Jacob, 78.
26 Wood, 9.
1880 were entitled ‘Development of Africa’.”\textsuperscript{27} However, it has largely been left to these map specialists to make these connections between mapping and colonialism rather than those historians whose specialty is of imperialism in Africa.

In other areas of the world some works have started to draw attention to the relationship between mapping and European colonialism. One strong area of study is of the British efforts in India. The most famous of these studies is Matthew Edney’s \textit{Mapping an Empire}, which traced the development of the map in India while recognizing that “knowledge of the territory is determined by geographic representations…geography and empire are thus intimately and thoroughly interwoven.”\textsuperscript{28} Studying the Great Trigonometric Survey, he documented how its scientific methods and creation of a single “India” allowed for greater control by colonial officials. In this regard the map served as a tool of ideology and practicality. It was both a “potent symbol” of the imperial mission and created a “single, India-wide administration”.\textsuperscript{29} With a rational and scientific map in hand, administrators believed they could create rational and effective rule.\textsuperscript{30} Another author who examined the role of maps in India is Ian Barrow. Published after Edney’s work, his \textit{Making History, Drawing Territory} moves beyond the narrow limits of the Trigonometric Survey and assesses five different ways that maps legitimated the British

\textsuperscript{27} Jeremy Black, \textit{Maps and History} (New Haven: Yale University Press, 1997), 97.
\textsuperscript{28} Edney, 1.
\textsuperscript{29} Ibid., 322, 325.
\textsuperscript{30} Ibid., 323.
conquest. 31 His work pushed beyond the science of the map grappling instead with issues of conceptual power. He felt the greatest power of the map “lies in its seeming naturalness” which made it the best tool to legitimize British conquest.32

One last work, though not focused on India but ties into the theme of science as an aid to conquest, is Lewis Pyenson’s *Civilizing Mission*. Pyenson examines how imperial science, which included mapping, was harnessed for the purposes of imperialism. Primarily concerned with physicists and astronomers, he wanted to pick away at the presupposed neutrality of these researchers. Rather than labeling them as researchers he suggests that science was so linked to colonialism that they should instead be seen as functionaries within the imperial regime.33

Two other works have touched on the issue of mapping as it relates to the practical application of mapping and imperialism in non-western contexts. The first is *Siam Mapped: A History of the Geo-Body of a Nation*, by Thongchai Winichakul. *Siam Mapped* manages to expose not only the connection between mapping and colonialism, but also provincializes Europe in the process. Rather than focusing on European efforts

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31 Barrow, 19. He describes them as: 1) Associative History – suggesting India was owned by Britain; 2) Progressive History – similar to Edney that precision in mapping was equated with possession; 3) Reverential History – how possession was enshrined, in this case in the naming of Mount Everest, through honoring of an individual; 4) Romantic History – the use of Indian laborers in the process of mapping sanctified the imperial mission of “lifting up” the population; and finally 5) Nostalgic History – maps that traced the “natural” conquest of India.
32 Ibid., 2,5.
33 Lewis Pyenson, *Civilizing Mission* (Baltimore: Johns Hopkins University Press, 1993). 331. David Guilmartin makes the same point about India as scientists treated India more as a “great laboratory” in which the natural world was not only studied but manipulated to maximize profit. See Guilmartin, 1128.
in South East Asia, he examines how Western mapping was adopted by the indigenous elite of Siam to combat Western efforts of domination. 34 Prior to this adoption, the concepts of sovereignty and border were not coterminous in the minds of the leaders of “Siam,” which left their territory open to European encroachment.35 Once western cartography was adopted, the government of Siam was able to play the Europeans off of one another to preserve their sovereignty, which now possessed a definitive border in both the minds of the Siamese leaders and, more importantly, the Europeans.36 In the end, he illustrates that the ultimate “conqueror” of Siam was cartography since it was only after Western mapping methods were accepted that “Siam” was created.37 Another book that also tackles the issue of a created nationalism is Francine Hirsch’s Empire of Nations. She examines how the Soviet Union colonized the interior of Russia through the use of maps and censuses. To underscore the importance of these technologies, she quotes Walter Benjamin in his book Moscow that, “The map is almost as close to becoming the center of the new Russian iconic cult as Lenin’s portrait.”38 The reason for this idolization was that the map and census allowed officials to standardize the populations of Central Asia. While Winichakul showed how maps could be used to

34 Thongchai Winichakul, Siam Mapped (Honolulu: University of Hawaii Press, 1994), 111.
35 Ibid., 88.
36 In many ways the leaders recognized how cartography could be used for their own purposes. Once the borders of Siam were “created” the Europeans were faced with trying to occupy a defined area, rather than nibbling at the borders of a nebulous kingdom.
37 Winichakul, 129.
38 Hirsch, Empire of Nations, 145.
prevent outside encroachment, Hirsch shows how maps can be used to encroach within one’s own borders. Similar to what colonial officials achieved in India, once those populations became legible to central officials, the state was better able to impose nationalism. This was their attempt to break through “tribal” connections and force the people to recognize the Soviet nation.  

What is noticeably absent from any of these works is the continent of Africa. In many ways this seems quite odd as the “Scramble for Africa” is often held up as the best example of modern European colonialism. While Jeffrey Stone published *A Short History of the Cartography of Africa*, it remains sequestered in the field of Historical Cartography. In general, maps are only mentioned as a facet of the exploration of Africa. In 1970, the aptly titled *Discovery of Africa* documented the exploration of Africa but only tangentially related it to colonialism. This is a reoccurring theme in regard to Africa. Authors have tended to romanticize the conquest of Africa through maps and exploration, failing to see the inevitable next step of colonization. *Explorers: The Most Exciting Voyages of Discovery* likened the African expeditions to the Lunar Landing, a comparison that is quite heady with negative connotations. Consider the placement of books on African exploration at your local bookstore, where they often lumped with

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39 Ibid., 164.
41 Andrea Porti, *Explorers: The Most Exciting Voyages of Discovery – from the African Expeditions to the Lunar Landing* (Hove: Firefly Books, 2005). Signifying that Africa was not “discovered” until the Europeans arrived and that Africa was as barren and empty as the lunar surface.
expeditions to the Arctic, and in one case merged with works on pirates.\textsuperscript{42} Clare Pettitt in her work on the cultural legacy of the meeting between Morton Stanley and Dr. Livingstone notes how Livingston’s exploratory mission – and I would argue her point extends to African exploration in general – is subsumed behind a \textit{Boys Own} adventure narrative. She points out how one of the more recent works on this meeting, entitled \textit{Into Africa: The Epic Adventures of Stanley and Livingstone}, was written by a sports-journalist.\textsuperscript{43} Sadly, it is not only “popular” writers who have issues with romanticism, but academic writers as well.\textsuperscript{44}

Another problem with these works on exploration concerns their focus. The continent of Africa loses its fascination and relevance as soon as the explorers have successfully made Africa “known.” The continent then fades from view as the focus shifts to the next realm of exploration, which is why some books then transition to space or deep-sea exploration. Even cartographic historians tend to put on these chronological blinders. Many of their narratives on exploration and mapping spend a majority of their

\textsuperscript{42} I have personally seen this organization in Borders, Barnes and Noble, and Half-Price Books.
\textsuperscript{44} Felipe Fernandez-Armesto, having written a fine World History textbook that has been well received, has still engaged in some romanticism with his work Felipe Fernandez-Armesto, \textit{Pathfinders} (New York: W.W. Norton, 2006). In his description of the history of exploration he uses chapter titles such as “Reaching”, “Vaulting”, and “Deepening” providing the connotation of romantic progress.
time on the Early Modern period.\textsuperscript{45} Maps are not mentioned in the *Cambridge History of Africa* volume covering 1870-1905\textsuperscript{46} nor a further volume which documents German efforts to colonize East Africa.\textsuperscript{47}

General works on colonialism fail to mention the role maps played in the solidification of control by the colonizers as well.\textsuperscript{48} While Prosser Gifford and William Roger Louis’s massive edited collection of essays, *Britain and Germany in Africa: Imperial Rivalry and Colonial Rule*, did an admirable job of examining a host of issues regarding colonialism within these two nations, they also never mention maps. It is not only general works that miss this connection but specific works on German colonialism as well. The two scholars most associated with the study of German colonialism would be Lewis H. Gann and Peter Duignan. Their detailed examination of the German colonial

\textsuperscript{45} With the implicit meaning that mapping is only interesting prior to “scientific” methods. Usually narratives tend to jump from African exploration directly to the Arctic exploration or the use of aerial photography in another area of the world.

\textsuperscript{46} See A.E. Atmore, “Africa on the eve of partition,” in *The Cambridge History of Africa Vol 6*, ed. J.D. Fage and Roland Oliver, 10-95 (Cambridge: Cambridge University Press, 1985); G.N. Sanderson, “The European partition of Africa: Origins and dynamics,” in *The Cambridge History of Africa Vol 6*, ed. J.D. Fage and Roland Oliver, 96-158 (Cambridge: Cambridge University Press, 1985); Marcia Wright, “East Africa, 1870-1905,” in *The Cambridge History of Africa Vol 6*, ed. J.D. Fage and Roland Oliver, 539-591 (Cambridge: Cambridge University Press, 1985); Interestingly both Sanderson and Atmore mention that the European scramble was aided by conceiving of “Africa as a whole” (Atmore, 94) or as a “Prize worth competing for” (Sanderson, 99) However, neither author makes the leap of analysis to examine what allowed Europeans to view Africa in such a way.

\textsuperscript{47} Andrew Roberts’s article, while very detailed, makes no mention of mapping expeditions or the role maps might have played in all of the growth in settlement and investment he charts in the Usambara Mountains. Andrew Roberts, “East Africa,” in *The Cambridge History of Africa, Volume 7*, ed. J.D. Fage and Roland Oliver, 649-701 (Cambridge: Cambridge University Press, 1975).

venture, entitled *The Rulers of German Africa, 1884-1914*, was groundbreaking in its scope covering each German colony in detail.⁴⁹ Other works covering German imperialism have been published, but in general it remains the main work on German imperialism.⁵⁰ However, the Gann and Duignan book never once mentions mapping or cartographic efforts by the Germans as part of their colonizing efforts. Other German colonial works tend to be colony specific or interested in specific people or issues and thus do not address the issue.⁵¹ Even those that examine the German actions in Tanganyika in detail fail to connect the role that maps played in the conquest and colonization of the colony.⁵² The one exception to this blind spot in colonial literature in Africa, and exploring a German colony no less, is *Colonial Space: Spatiality in the Discourse of German South West Africa 1884-1915*. Written by John Noyes, a professor of German at the University of Toronto, the book explores in great detail the rhetorical power of boundary and map making in the creation of South West Africa. With his background he is interested in the power of language to delineate boundaries and the meanings associated with the creation of space. As he sees it, colonization requires writing, which he identifies with mapping that “captures space by establishing boundaries

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⁵⁰ Other works include: Helmuth Stoecker, *German Imperialism in Africa* (London: C. Hurst, 1986); Erick Mann, *Mikono Ya Damu* (Frankfurt: Lang, 2002); Juhani Koponen, *Development for Exploitation: German colonial Policies in Mainland Tanzania* (Münster: Lit verlag, 1995).
and limiting passage across them.”\(^\text{53}\) However, while his work comes closest to making a connection between mapping and colonialism, his work ignores the last school of historiography that will be important for this study.

Joseph Conrad called the modern period of exploration “Geography Militant” as “conquerors of truth” scaled and traveled the world in order to fill in the blank spaces on the map. It is this factor, the militancy of cartography or the role of the military in mapping, which allowed for what he wistfully termed “Geography Triumphant.”\(^\text{54}\) What he recognized, and is ignored by so many who have examined the role of mapping and colonialism, is the military and its role in solidifying control and ensuring the development of the colony. However, military historians have done little better in recognizing the importance of maps in their works. This represents a glaring omission in the historiography and an ironic one at that, considering how often the topography and the geography of the land matters for any number of battles. Within military literature the question of interest is often why a general was right or wrong to choose such-and-such a path, rather than asking, “when moving an Army…what do you think would determine the best route to be followed?”\(^\text{55}\) This missing question, which would open up


\(^{54}\) Joseph Conrad, “Geography and Some Explorers,” in *Last Essays*, ed. R. Curle (London: Dent, 1926), 12, quoted in Felix Driver, *Geography Militant* (Malden: Blackwell, 2001), 4. His melancholy was due to a feeling of loss once all the blanks were filled in. The rational solidification of rule and control being so different from his romantic belief in exploration.

questions on the role a map might play in the mind of a military leader, is jettisoned in order to make more strident judgments. The possession of a map, specifically a poor one, can bring ruin to any military operation. A good example would be the experience of Sir Redvers Buller in the Boer War. A decorated veteran he was attacked for his conduct at the Battle of Colenso near the Tugela River. His failure to achieve victory led to his sacking and a moniker of “Reverse Buller” by the troops. Yet, an examination of the maps available to Buller shows that they were misleading about the position of the hills and the fords of the river.\(^56\) In addition to this map his only other resources were “education maps or cadastral maps” which lacked topographical information.\(^57\) Needless to say, without a proper understanding of the terrain, it is unlikely that an officer could effectively lead his troops. Martin Evans, who brought this issue to light, was able to show that the key difference between defeat in 1881 and in victory in the same locale in 1900 was adequate knowledge of the terrain. The British were able to defeat the Boers in 1900, in terrain favorable to the defense, only after acquiring adequate knowledge of the ground.\(^58\) It is unfortunate for military history as a field that such an interesting analysis, which demolishes the conventional judgment of Buller, was left to a non-military historian.

\(^{56}\) Martin Marix Evans, “Maps and Decisions: Buller South and North of the Tugela, 1899-1900,” in *Fields of Battle*, ed. Peter Doyle and Matthew Bennett, (Dordrecht: Kluwer Academic, 2002), 137-148. The only military map Buller had available to him was a 1:63,360 scale map that was detailed along lines of communication but became vague the farther it moved away from the route.

\(^{57}\) Ibid., 138.

\(^{58}\) Ibid., 141.
Sadly, this one example is representative of a sin military historians generally commit, though in very good company, of accepting the map as an accurate representation of reality. The path chosen by the general is judged on the assumed reality of the ground rather than trying to inquire what representation of the ground they had access to. With this conceptual blind spot the importance or development of maps seems inconsequential. To their credit some military historians have recognized the importance of maps. Geoffrey Parker wrote an article on Spanish map-making in the edited volume *Monarch, Ministers, and Maps*. Jeremy Black has also tackled this topic, but only in writing the introduction to the compendium *100 Maps: The Science, Art and Politics of Cartography*. Concerning Germany, the only military history work to address mapping is Arden Bucholz’s *Moltke, Schlieffen and Prussian War Planning*. Yet, his work is not concerned with the maps themselves but with the cartographic department within the General Staff. It is an institutional history, touching on the Lithographic Institute within the General Staff system, rather than a work concerned with the role maps played in Prussian war planning.\(^{59}\) While Dennis Showalter mentions the importance of maps to the Prussian military, he also is unconcerned with the maps themselves.\(^{60}\)

The utility of maps for military purposes has been left to two Earth & Environmental Science professors, and their colleagues, interested in tying the work of

map specialists to military history. Peter Chasseaud and Peter Doyle, in *Grasping Gallipoli: Terrain, Maps and Failure at the Dardanelles, 1915*, expose the British failure to adequately utilize cartography sufficiently in the planning of the military expedition. Glaring strategic errors were made by their failure to adequately recognize, and spread, the information that was available to them with the maps they had.61 Similar to the work written to rehabilitate Buller, this work serves to demolish the myth that the British were ill-supplied with maps prior to the campaign. Conventional wisdom held that the British failed in their operation because, in keeping with previous military “planning” as in the Boer and Crimean War, they went into the operation without adequate maps.62 However, their research proved the operational planners had a great deal of cartographic information available to them; they just chose to ignore it.63 They also helped to organize the international Terrain in Military History conference. This conference resulted in a published book of papers showing a potential way forward for military historians.64 “Terrain and the Messines Ridge” used GIS data in conjunction with topographical maps to model the German trenches on this ridge. Understanding that the “most successful

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61 Peter Chasseaud and Peter Doyle, *Grasping Gallipoli: Terrains, Maps and Failure at the Dardanelles, 1915* (Spellmount, 2005), 45. One example they note is that while the Army and Navy agreed on the importance of Achi Baba for examining the defense of the narrows, “it was based on a misconception; the summit did not in fact give a direct view of the Narrows defenses, which were defiladed by intervening high ground…This suggests that key figure on the staff could not read [emphasis mine] the one-inch map, and did not understand the elementary concept of inter-visibility; the map gave perfectly good information on this point.”
62 Ibid., xv.
63 Ibid., 101.
campaigns draw upon the discriminating use of terrain by commanders,” the authors chose to examine the role terrain might have played in German trench development.\textsuperscript{65} They discovered the poor geology of the ridge, and the water-table in that area of Belgium, meant the soldiers were not able to achieve the head-cover demanded by a trench system. Faced with this tactical dilemma the Germans placed pillboxes and created a defense-in-depth system in order to rectify the situation.\textsuperscript{66} Their research led them to echo the critique of military history that all too often maps are treated passively as objects rather than recognizing their active role in the course of a battle or the development of a tactical system.\textsuperscript{67} There is some hope that this historiographical mode of analysis has spread as indicated by a second conference and publication edited by two members of the United States Army Topographic Engineering Center.\textsuperscript{68} All of these studies illustrate that a detailed analysis of the map, especially for the military historian, can result in insights not realized through another line of research. However, the role of the military did not end simply when the land was “conquered.” While military historians might take cartography as a false-constant, those historians who study development of colonial control take “peace” as theirs. Only

\textsuperscript{65} Chasseaud and Doyle, 2.
\textsuperscript{67} Ibid., 222.
\textsuperscript{68} \textit{Studies in Military Geography and Geology}, ed. Douglas R. Caldwell et al. (Dordrecht: Kluwer Academic, 2004). This conference was held at the United States Military Academy in June, 2003, so there is hope many future scholars at the institution were able to attend and observe the conference.
through the use of “boots on the ground” can the development of a colony occur. This is especially true in the case of the highly militarized colonies. While it was true that there was one white soldier for every 3,000-3,500 colonists, compared to 1:150-180 in Europe, the situation changes if indigenous troops are included. The western military presence in the colonies goes from 20 times smaller than in Europe to six times if colonial troops are included. The militarization of Tanganyika, as illustrated by the official history of the German Schutztruppe, was quite pronounced. More importantly the Schutztruppe were not only soldiers but also speculators, surveyors, doctors, diplomats, and policemen. Therefore these troops were not only important for the conquest but in the peace.

German East Africa is therefore the perfect locale to study all of these historiographical issues within a time-frame that can allow for connections between mapping, colonialism, and the use of force. German East Africa was described as “Germany’s India” and it makes little sense for a region valued so highly by contemporaries not to be accorded the same value in historical study. Maps are not just

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69 Etemad and Evenson, 47.
70 Ibid., 48.
objects but a medium of communication, and it is to the map that we will now turn to see what was communicated about the territory of Tanganyika.  

72 Jacob, x. I will use the term Tanganyika to delineate the territory that would eventually become German East Africa. Prior to the advance of the gaze of Despotism there was no such “thing” as German East Africa, and thus it makes more sense to define the territory, prior to that chapter, through a somewhat more neutral geographic term rather than by colonial or modern nomenclature. The territory thus includes the areas of modern-day Tanzania, Rwanda and Burundi while excluding Zanzibar and any suggestion that the mainland and island are linked. This term will be used unless replaced by German East Africa when specifically relating to the colonial effort.
CHAPTER 2

CONSTRUCTING THE MAP

“Now the road through Michael’s section, though it looked well on the map

For the use it was intended wasn’t really worth a rap.

And at night was not unlikely to occasion some mishap.

It was nicely planned on paper, and was ruled without remorse

Over cliffs, and spurs and gullies, with a straight and even course

Which precluded locomotion on part of man or horse.”73

“A map says to you, ‘Read me carefully, follow me closely, doubt me not…I am the earth in the palm of your hand.’”74 This quotation encapsulates the thoughts most of us have concerning a map. Whether to guide a family vacation or a military maneuver, maps are held to be a literal depiction of the world. In the age of the Global Positioning System this trust of maps has reached almost obscene levels. A case in point would be a German driver who “successfully” followed his GPS system straight into a pile of sand at a construction site.75 That two other British drivers drove into water and off a cliff respectively, while following GPS directions illustrate that maps can become privileged

over our own eyesight. Another humorous example, more related to the period under study, is the mountains of Kong which were supposed to have stretched along most of West Africa as indicated by James Rennell on two maps documenting Mungo Park’s journey to the Niger River. For almost a century, even with numerous expeditions along routes that should have brought them into contact with these mountains, maps continued to list this mythical mountain chain. Past bringing forth a chuckle, these stories underscore the reality and unreality of a map. A map is taken by its reader to accurately represent reality, yet, “like other visual images, communicate[s] influential impressions of reality, not reality itself.”

It is likely we would be far less trusting of the map if we were aware of how it was created. The very process of map making ensures that the readers will be lied to. Depending on the scale or purpose of the map, a variety of distortions can creep in. Sometimes these distortions are happenstance, but generally there are careful decisions made by a cartographer to ensure a map’s legibility. The legibility of a map is the result

78 Ibid., 395. Within the article he lists, taking up three pages entirely, a series of small boxes depicting the West African coast and illustrating the numerous ways in which the Kong mountains were depicted in map after map even though no one ever saw them - illustrating the conceptual power and hold a map can have over the human mind.
79 Wilford, 16.
80 Monmonier, 1. He suggests they are “white” lies, but as our mothers told us, a lie is still a lie.
81 Ibid., 6, 35.
of balancing an accurate depiction of the geography with the need for the map to be useful. In simple terms, these changes make maps more “user friendly” by making it easier to read the map. An example would be a river and road running parallel to one another. While in reality they might run side-by-side the map-maker might “fudge” the distance between the two in order for the user to delineate the road from the river. While these changes on the surface seem cosmetic, they fulfill the larger goal of the cartographer which is to, “avoid disequilibrium, voids, and blank spaces,” because having these in the map “would be so many ways to visually acknowledge his inability to contain the totality of the world in the web of knowledge and language.”82 Thus, despite the necessity of any correction, it is in the interest of the map-maker to claim complete and utter accuracy because maps are as much a representation of their author as they are a representation of the world. A series of choices, from color to scale, are always made to construct the most useful reality in accordance with the purpose of the map.83

82 Jacob, 264.
83 Monmonier, Maps, Distortion, and Meaning, 11; Winichakul, 52; Wood, 24.
This decision-making process can be seen in the debates regarding which projection is best to use for a general map of the world.\textsuperscript{84} The Mercator Projection is generally considered the best projection, especially in accurately depicting distances and direction for the purposes of navigation. However, the projection distorts the world in a way that enlarges land the farther it is from the equator.\textsuperscript{85} The most common complaint about the Mercator Projection is that it makes Greenland roughly the size of the African continent. Those who critique this projection suggest there is more than navigational interest behind the distortion. Cognizant of the realities of power, some have suggested that the projection is a way of expressing the dominance of the West over those they consider the “Third World”. The Peters Projection was created to rectify this problem by centering the map on the equator and giving the requisite space on the map to the amount of land occupied. However, the Peters Projection carries its own distortions that tend to flatten Russia and thus presents just as apparent misrepresentations as the Mercator. It is evident that there is fundamentally no “correct” projection past the criteria established by the map’s maker. Whatever the merits of the specific projections, they do highlight the implicit, and sometimes explicit, connection between maps and non-geographical interests. It is important to recognize that maps are not neutral artifacts but are invested with the same biases as any other source. Several modern examples should suffice.

\textsuperscript{84} Refer to Figure 2-1 for a comparison of the projections listed.  
\textsuperscript{85} Wilford, 98-99.
The Polar projection map centers its projection on the North Pole, providing a quite different view of the world than the typical Mercator Projection. Its growth as a projection was not tied to any real scientific purpose as it was to Cold War politics. By centering the map on the North Pole, Russia was positioned not only closer to the United States but appeared to be “enveloping” it. The United States Air Force used this projection to make a two-tiered argument about the nature of the threat the Soviet Union posed, and the superior capability of the USAF to defend the nation. First and foremost, the projection was used to convince the generally isolationist public that they could no longer trust the oceans to be effective moats against foreign enemies. Second, with the clear ability of the Soviet Union, as shown in the projection, to fly and hit either coast of the United States, it established the “fact” that in the age of nuclear weapons the only service capable of defending the United States against attack was the Air Force. There was also a more mercenary motive behind this effort. Having been created as a separate branch only in late-1947, the USAF needed to establish its raison d’être while competing with the Navy and Army for resources. Establishing a threat, which only the Air Force, through an extensive bomber force and fighter/radar defensive net, was capable of meeting would ensure its survival as a separate military branch. Another example

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86 See Map 2-2 for an example of this projection.
87 This also led to the militarization of northern Canada as it had been transformed from a relatively ignored section of the country into an “exposed flank.” P. Whitney Lackenbauer and Matthew Farish, “The Cold War on Canadian Soil: Militarizing A Northern Environment,” *Environmental History* 12, no. 4 (October 2007): 922.
comes from the Cold War in the official maps of Moscow made by the Soviet Union. These maps accurately laid out the streets of Moscow with one exception; they just so happened to eliminate the city block that contained the KGB headquarters. Yet, it does not need to be for such geopolitical reasons that choices such as these are made. Most modern maps carry with them a subtle, yet for those aware of the actual geography a glaring, mistake on each sheet. This is to ensure that if anyone were to copy the map, its makers would be able to point to this “mistake” as proof of plagiarism. Thus, the accuracy of the world can be manipulated for both the most highly political and most practical of ends.

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88 Jacob, *The Sovereign Map*, 274.
89 From a conversation with Dr. Geoffrey Parker in regards to the Bartholomew Map company, but the point applies to other map-makers as well. April 22, 2008.
Map 2-2: A Cold War View of the World. Polar Stereographic
As the forgoing discussion shows, maps are an intellectual and social construct. As John K. Wright presciently noted, “The trim, precise, and clean-cut appearance that a well drawn map presents lends it an air of scientific authenticity that may or may not be deserved.”90 A map is designed to mediate reality through the vision of the map-maker. Thus, mapping can be defined as a process where spatial reality is transformed through decisions by the cartographer to create a perception of reality.91 In the case of the United States Air Force the most useful perception of reality was constructed through the use of the Polar projection map. With this definition in mind, the importance of the map for conquest and control cannot be overstated. Maps are the perfect symbol of the state:

Simply take a sheet of paper, plot some cities, roads, and physical features, draw a heavy, distinct boundary around as much territory as you dare claim, color it in, add a name…and presto, you are now the leader of a new sovereign, autonomous country…it’s on a map, so it must be real.92

Tongue-in-cheek though the quotation might be Monmonier’s point on mapping is quite true. For many of us, “it’s on a map, so it must be real” encapsulates our understanding of cartography. Modern cartography presents nations “as if they were natural,” allowing people to believe nations possess a “natural” quality.93 Maps are presented as a physical trump to any suggestion that nations, “are constructed, carved, inscribed, fabricated.”94

90 Wright, from “Map Makers are Human” quoted in Monmonier, Maps, Distortion, and Meaning, 43.
91 Winichakul, 52.
92 Monmonier, How to Lie with Maps, 88.
93 Winichakul, 50.
94 Ibid., 129.
In sum, if the nation is imagined as Benedict Anderson argues, then the map is an artifact of that collective imagination.

Sovereignty does not merely delineate national borders, and in the same way maps do more than delineate the shell of a nation. The map has also been used as an effective tool for governance and internal control. One way in which the map aided the state was through making the nation, and its people, much more legible. The pre-Modern state was in a sense blind as it concerned its citizens and the land. The goal of any state was to take complex local practices and turn them into something simple and manageable. The map is a perfect tool for destroying local monopolies of knowledge, which allows for greater central, or state, control. This was also attractive for state officials as the map privileged those at the top who possessed a state-centric view of the world. Legibility goes hand in hand with power, as the level of manipulation a state can exert is constrained by the level of knowledge or “sight” that the state possesses. A minimal state goal requires minimal information, but increasing demands necessitate more detailed knowledge about an area and its people. The relationship between state

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95 John Torpey, *The Invention of the Passport: Surveillance, Citizenship and the State*, (Cambridge: Cambridge University Press, 2000), 121. While his book covers the creation and use of documentation for state control over movement, the map fits in well with his rubric of a “Crustacean Type” of nation; one which has the ability to not only define what is “in” but prove what is “out”.


97 Ibid., 77.

98 Ibid., 183.

99 Ibid., 184.
demands and information is why so much effort was put into the early cadastral maps which would make all propertied individuals legible to state control. Cadastral maps, which record individual land parcels, were a key instrument for the “extension and consolidation of power, not just of the propertied individual, but of the nation-state and the capitalist system which underlies it.”

A host of opportunities are created once this knowledge is in the hands of the state. Maps turn land and people into a “thing” that can be molded by the state. Consider the effect on the senses when you achieve enough height to look down on a section of town, whether from a tall building or an airplane. Not only does the world seem more understandable, especially in comparison to the chaotic hustle-and-bustle that would be seen at street-level, but by extension the world appears malleable. Multiply that feeling common to many of us, which itself illustrates the way we have been conditioned by maps, by the possession of the power to change what you see and it becomes evident why maps seemed to be an aphrodisiac to rulers. Maps were “not just maps” in the hands of the state since these maps, “when allied with state power, would enable much of the reality they depicted to be remade.”

While in reference to the High Modernist enterprises, James C. Scott’s verdict on maps

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100 Kain and Baigent, 8. This statement should be taken with the caveat that cadastral maps were not solely used within the capitalist framework, and were created and used heavily during pre-capitalist periods of history. However, within the context of this paper the cadastral map is critically related to the capitalist enterprise, especially in the Development stage of the colony.

101 This is part of the reason that strategic video games, such as the popular Civilization series, give the user this very view (referred to as the “God-view”); the world appears most controllable from this perspective.

102 Scott, 3.
holds no less true in the earliest periods of state formation or in the colonial ventures into Africa.

In addition to state purposes the map commoditizes the world. In the same way as politicians are able to use a map to level out the local knowledge and make the world manageable, the capitalist uses maps to make the world economically manageable. Rather than a confusing intersection of the realities on the ground, maps can be made to document solely the commodities within a given region separate from any sense of the people involved. Reducing the world to its component parts of commodities and infrastructure allows for an easy application of the capitalist mind to a given locale. Morton Stanley, the famous explorer of Africa, was well aware of this power, hoping “the manufacturer or merchant” would “study [maps] with the view of planning commercial campaigns” as “generals study them before planning campaigns.”

One issue that must be addressed is how these meanings have been imprinted on the map. Therefore, it is critical that the models inferring this study be explored in-depth. The first is Ian Barrow’s work on five types of maps used by Britain to create and possess India. Considering his focus, Barrow was pressed to illustrate why his work was distinct in comparison to Matthew Edney’s Mapping an Empire. Barrow wanted to address the “construction of territory” suggesting there was “more to the legitimating project than the

103 Stanley quoted in Driver, Geography Militant, 117.
trigonometrical surveyor’s claim that the use of accurate scientific methods would reveal knowledge about India.”\textsuperscript{104} His premise is accurate and as it relates to the construction of German East Africa the colony was not merely a mass of contour lines but a political and social construction as well. Barrow used five approaches, with five different maps, to illustrate how India was constructed in the minds of the British. These approaches have been mentioned previously, and two of them are applicable in German East Africa: Associative History and Progressive History.\textsuperscript{105} Associative maps implied ownership and Barrow noted how dedications and cartouches were used to signify control. This study will adopt his principle but apply it within the framework of modern German cartography. Almost none of the German maps of this period, specifically relating to Tanganyika, possess a dedication or cartouche. This is somewhat of a chronological issue as the Germans began their colonization process when cartouches had fallen out of favor with the increasing professionalism and scientific nature of cartography. Yet, in many other “scientific” ways, which will be expanded on below, this associative power

\textsuperscript{104} Barrow, 9.
\textsuperscript{105} Ibid., 17-19. I will not be using the latter three constructs he elaborates on. Reverential History, in which the possession is shown through honoring an individual, does not really apply in German East Africa. He takes as his example the naming of Everest after George Everest, and past a few cities, there is no attempt to do the same in Tanganyika. As for Romantic History, in which Barrow elaborates that the stories about using native Indians to do early-style surveying as an example of British rule “lifting up” the native population were also absent in Tanganyika. Lastly, Nostalgic History, which traced the conquest and “sought to display moments in which British control over territory originated,” does not apply at least to the maps I have been able to locate. It stands to reason there is a map documenting the progression of German control but I have not come across it as of yet. It also might be likely that absent any famous “battles” for control, similar to the Battle of Plessey in India, there is little to warrant an entire map to justify the conquest.
of ownership can still be recognized. Progressive maps show possession through the use of more accurate knowledge. Barrow suggests that one could rule, hence possess, a territory once it was constructed more accurately.\textsuperscript{106} This same principle is illustrated in the growing accuracy and detail of the maps of the Usambara area of German East Africa. As the German colony expanded, control was solidified through increased knowledge of the territory and its progressive inscription of this conquest via the medium of the map.

To adapt Barrow’s associative history for use in the 19\textsuperscript{th} Century involves the addition of the work of John Noyes. In \textit{Colonial Space: Spatiality in the discourse of German South West Africa}, he sees two “gazes” behind any cartographic work. The first is that of the Despot, defined as the gaze of the state, which seeks to bound and measure off the control of the government. The second gaze is that of the Developer who looks at the land not for what it is, or how it can be possessed, but how it can be turned into something productive.\textsuperscript{107} These two gazes especially apply to Germany as “the conflict between the social representation of the State…and the demand of capital is a constant one throughout the history of German colonialism.”\textsuperscript{108} However correct these two gazes might be, it does raise the question of how to prove the existence of either of these gazes on a map. Barrow used James Rennell’s \textit{A Bengal Atlas} as his case study for possession

\textsuperscript{106} Ibid., 18.  
\textsuperscript{107} Noyes, 116.  
\textsuperscript{108} Ibid., 119.
through associative history. The cartouches used in this atlas were “inscriptions or dedications…designed to make the province unthreatening and familiar.” These types of dedications had a long history of implied possession going back to cadastral surveys dedicated to the landlords who commissioned them. Thus, a cartouche that connected the British East India Company to British colonialism would allow the viewer to recognize Bengel and believe it was possessed. The company also had an additional purpose in making the British imagine they were involved in this act of possession.

Barrow points out that the Company was suffering from an image crisis and used this map as part of a public relations ploy to make the public see them as not the British East India Company but as the British East India Company. Given the paucity of cartouches, however, the only “dedication” that might parallel Barrow’s construct is an acknowledgement of who commissioned the map. In some cases this applies, as in the Sugar Company which commission a map of the Pangani River to assess what land was suitable for sugar cane production, but this is the exception. The only way to possess the tools to show these gazes is to turn to a final work.

Rather than look for dedications, Christian Jacob suggests that a map can help spread stereotypes, including ownership, that are “ready to be engraved in the

109 Barrow, 36.
110 Ibid., 47.
111 Ibid., 48. An additional example of this is a sketch of the Battle of Plessey included in the Atlas which identifies Company soldiers as British soldiers. (53)
imagination and in the memory of its readers,” in a variety of subtle ways. While he does not discuss Barrow’s book, it seems that he would contend that the map itself, from the smallest geographical mark to the title, is one large “cartouche” that involves the viewer in the possession of the territory depicted. For example, he suggests that the title of a map is “a symbolic sign that happens to sanction the congruence of the individual mental image with the socially validated one.” Thus, when one looks at a map entitled France we expect it to conform to the socially and politically validated entity we define as “France.” The very act of gridding and bordering a map invites the viewer “to look at what the image represents not as a part of the world…but as a statement about the world.” In these and other ways Jacob suggests every part of the map is heavily laden with meaning. He echoes the words of the philosopher-king of cartography, J.B. Harley, that “every map of the world contributes to codifying, legitimizing and promulgating the dominant vision in a given period and society.” Deconstructing the German maps, for example by seeing how color was used to delineate knowledge or ownership, will help show just what dominant vision, whether the gaze of the Despot or Developer, was guiding the cartographer.

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113 Jacob, 182.
114 Ibid., 195.
While incorporating and synthesizing these models from a variety of authors, I will also add my own term; that of Dominion. One of the missing elements in all of these studies is a full understanding of the meaning of blank space on a modern map. Some elements have been identified. In the first place, it is a sign of the increasing desire for scientific accuracy within the field of cartography. Prior to this modern period, any blank spaces would have been taken up with a cartouche or image. This was the critique behind the quip of Jonathan Swift in *On Poetry: A Rhapsody*: “so geographers in Afric-maps/With savage-pictures fill their gaps/And o’er uninhabitable downs/Place elephants for want of towns.”¹¹⁷ The appearance of blanks shows a privileging of Western scientific methods in the place of indigenous or amateur knowledge.¹¹⁸ No longer would a vague sketch be sufficient, but instead a scientifically based representation would be demanded. Second, once science was the driving force behind cartography, “white space” could no longer be a canvas. A canvas was transformed into a gap which was an “offense against logic”¹¹⁹ and an affront to a cartographer by exposing their, “inability to contain the totality of the world in the web of knowledge and language.”¹²⁰ While the meaning of these white spaces has been elaborated on, very few have made the jump to seeing these gaps as a motivating force for exploration and conquest. Winichakul, in

¹¹⁷ Jacob, 14.
¹²⁰ Jacob, 264.
Siam Mapped, noted that mapmaking created its own mission to “fill in the blank spaces” of the map but generally did not expand upon this point.\textsuperscript{121} While Thomas Bassett does draw out this argument a bit further, noting that “map readers interpreted blank spaces as areas open for exploration and ultimately colonization,” he fails to tie this idea to the conquest of the territory itself. In general, these gaps have only been viewed through the gaze of the Developer, never Dominion. Therefore, this work will synthesize and expand upon previous models in analyzing the growth of, and greater control over, Tanganyika.

The gaze of Dominion will be illustrated in three ways. First, the blanks on the map drove exploration. For many a romantic desire, or simply ego, to be the first to “color in” a section of the map propelled them into the interior of Africa.\textsuperscript{122} Initial exploration was left to “intrepid individuals,” and only after colonization had taken root did it shift “to the big bucks and the big battalions.”\textsuperscript{123} This is aptly illustrated in Winwood Reade’s Map of African Literature, published in his African Sketchbook. Published in 1873, this map shows the outline of the Continent of Africa, but in place of geographic or national details, the names of the explorers are placed on the part of the continent they “discovered”. For example, “Livingstone” is emblazoned in bright black letters across the continent from the Congo to Tanganyika. In addition, the author chose to enlarge the lettering of each explorer depending on the scope and importance of their

\textsuperscript{121} Winichakul, 114.
\textsuperscript{122} See Map 2-3 for a literal interpretation of this desire.
\textsuperscript{123} Fernadez-Armesto, 356.
discoveries. \footnote{Winwood Reade, “Map of African Literature” in \textit{African Sketchbook} (1873) reprinted in Driver, 105.} This is also an expansion on the power of naming as noted by several map specialists.\footnote{Jacob, 205; Bialas, 109; Barrow, 18.} While they localized the power of naming in nature, such as naming Mount Everest after George Everest, this study will suggest that the desire to “name” the map was just as strong. Through successive waves of explorers, the blanks provided a motive for exploration on a continental and then a local scale in Tanganyika.
Second, the act of exploration created a space suitable for conquest. By gridding the world according to the laws of cartography, the Europeans created a territory that was able to be conquered. Previously, Africa had been considered “terra nullius” but the act of exploration transformed the continent into a “tabula rasa” which was capable of being inscribed with claims of ownership. The blanks which had formerly driven exploration now drove conquest. To an imperialist the blanks on a map, “rather than interpreting them as the limits of knowledge of African geography… presumed that the empty spaces were vacant and awaiting colonists” These blanks were thus devoid of people and resistance, and needed only to be occupied and filled in cartographically. Thomas Basset relates a quote by Ferdinand Lesseps that illustrates this quite clearly. In discussing an expedition by Gustave Binger, Lesseps described how “one of the largest blank spaces remaining on the map of Africa is to find itself attacked by the lines of Captain Binger’s march.”

Third, and this is one area where the separation between discrete fields causes a problem; the role of the military in “filling in” the blanks goes unnoticed. In most narratives concerning exploration, the shift in narrative from exploration to colonization is short, with the role of the military either taken as a given, considered a constant, or only referenced when one is able to show indigenous resistance to it. This is in contrast

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126 Black, 202.
127 Basset, “Cartography and Empire Building,” 324.
128 Ibid., 325. Emphasis mine.
to the reality where violence was most often used “in the context of repression rather than conquest.”

The waves of exploration previously mentioned often found their end in the military wave of conquest that followed. As John Noyes has aptly put it:

> It is no chance matter that, in the 19th century, the armies of colonization are always preceded by the missionaries and scientists, the one infusing space with the desire of an omnipresent authority, the other subjecting it to an omniscient gaze intent upon a tabulation of knowledge. It is this principle which serves to ‘capture’ the spaces it invades.

After this final conquest of the contested ground, which was now inscribed through a map, the other two gazes, those of the Despot and Developer, were able to run free. One addition to the gaze of the Developer that this study will elaborate is the critical nature of the use and threat of force to the development of German East Africa. But, we will now turn to the exploration of Africa and the preparation of the ground that was to become Tanganyika.

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130 Noyes, 120.
CHAPTER 3

ESTABLISHING DOMINION

“I do not much wish well to discoveries, for I am always afraid they will end in conquest and robbery.”

Africa was for many the “Dark Continent” in a multitude of ways. In addition to serving as a racial epithet the continent also remained “dark” to the knowledge of the Europeans. Jonathan Swift’s pithy verse on placing “elephants for want of towns” summed up the use of the interior of Africa for most cartographers. A perfect example is Vincenzo Coronelli’s 1690 map where instead of describing the interior of Africa, he simply gave up and placed a cartouche instead. This was an improvement over the 1573 map suggesting the interior, from just below Egypt to the Cape, belonged to the empire of Praester John. The successive centuries did little to improve upon his “effort”. Herman Moll’s 1710 map of Africa implied that Ethiopia was in control of most of the unexplored interior. Yet even in making this claim he indicated his lack of knowledge

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132 Which in and of itself, as only white European knowledge seemingly was “knowledge,” speaks volumes about European racial attitudes.
133 Ibid., 14.
134 Black, 204. In place of details he chose to put a nice cartouche containing, ironically, a lion, a strange beaked “bird” with bat-like wings, and, yes, an elephant.
with the additional note, under Ethiopia, that this country was “Wholly Unknown to Europeans.” This was not just a European problem, as an 1803 Arabic map of Africa, *Iklim Africa*, left most of the interior of Africa blank. As late as 1836, an American atlas still suggested that a long mountain chain ran, just inside the coastal region of eastern Africa, from Mombasa south to Mozambique. On its face this seems like a small point, but the beginning of possession requires that Africa had to become a discrete entity. Before the gazes of the Despot and of the Developer could be used Africa itself had to be “discovered.” Fundamentally both gazes are “local” rather than global, being narrowly tailored to either the nation or the individuals involved in the capitalist enterprise. As such, it is critical to explain why only the outlines of the continent were necessary and the interior was left, figuratively and cartographically, blank for so long a period.

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135 Harris, 200.
136 Ehrenberg, 152.
137 See Map 3-2.
138 Sanderson, 130.
One theory, propagated by Donald Headrick in *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century*, is that Africa beckoned like a Siren to many, but not until certain technological breakthroughs occurred did the Europeans possess the gauze for their ears. He posits that three key technological inventions help explain the exploration and conquest of Africa during the 19th Century. Each of these technologies - the steamboat, the development of quinine and the breach-loading rifle - overcame a specific obstacle that up until that point was insurmountable.\(^\text{139}\) In addition, he makes a connection between methods and means that deserves to be spelled out. One of the issues that prompted him to write his book was that many historians wrote about the exploration of Africa with the implicit assumption that the Europeans always had the means to do so.\(^\text{140}\) Instead he argues that means and motives cannot be separated. While never giving a definitive answer for why the Europeans chose to engage in the “Scramble,” he feels that only three relationships between means and motives can explain it. One situation would be, which he seems to think most other historians assume, that the means were always available and the Europeans simply acquired a new motive. The remaining two relationships were that either that the Europeans possessed the motive for colonization but only during this period acquired the means, or that both the new means

\(^{140}\) Headrick, 5.
and new motives developed concurrently. In sum, Headrick suggests that only once certain preconditions, of both means and ends, were met could the “White Man’s Grave” be transformed into the “White Man’s Burden.”

A second theory, made by V.I. Lenin in the aptly titled *Imperialism: the Highest Stage of Capitalism*, uses Marxist theory to suggest that imperialism was the result of the needs of capitalism to export finance capital. His work provides a ready-made answer for the lack of knowledge of the interior, assuming one agrees with his thesis. If capitalism is the driving force of imperialism, only reaching continent-wide dissemination by the 1860s and 1870s, there would be no reason to engage in it prior to that point. Once capitalism became the engine for political decision-making, governments felt compelled to conquer territories to ensure the proper use of finance capital overseas and the efficient extraction of resources from other areas of the world. To place his theory in Headrick’s terms, without the motive power of capitalism the question of means is rendered inconsequential. Or to put it in the terms of this paper, while the continent was known for many centuries, it was only until the creation of the Developer that its covetous gaze could fall on the interior.

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141 Headrick, 10.
Two other theories suggest rationales in the domain of politics for the expansion of European power in the 19th Century. Douglas Porch, in *Wars of Empire*, suggests that the conquest of this period was uniquely tied to the flag. Unlike Lenin, Porch sees imperialism not as the highest stage of capitalism, but the highest form of nationalism.  

A good example is the “military imperialism” practiced by French military officers in order to force unwilling governments to back colonial operations. It required that the French officers either report that failing to conquer a particular territory would make them appear weak to the Africans, or that the British wanted it. Imperialism in this time frame is thus uniquely tied to the individual, and personal ambition tended to serve as the engine of imperial expansion. One of Porch’s points, that the political instability of Asia and Africa during this period opened the door for the Europeans, blends into the theory of Ross Hassig. In his book, *War and Society in Ancient Mesoamerica*, he documents the rise and fall of four successive expansionary powers. Struck by the cycle of expansion and contraction, he posited a theory of imperial dominance that hinges on the concept of asymmetry. Specifically, imperialism is a by-product of an asymmetrical political situation often related to the development of a specific military advantage over

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145 Porch, 19.
As each of the empires rose, whether Olmec, Teotihuacano, Toltec or Aztec, they were filling the void of the previous empire which had been the dominant force in the region. This cyclical theory of imperialism, though he does not suggest this, could be extrapolated to Africa. In sum, power abhors a vacuum. Many colonial scholars have suggested indigenous weakness as an explanation for European success. Prior to the asymmetrical dominance of the Europeans, which allowed such victories as the 1895, battle of Marracuene in Mozambique where 812 Portuguese and African troops were able to overcome 3,000 Tonga warriors, there was no vacuum to penetrate. The early history of colonial wars was often quite even-handed, with the Europeans at best giving as much as they got. As late as 1876, less than ten percent of the African continent was under the control of the Europeans, “and most of that was accounted for by France’s Algerian colony.” Thus, the technological changes of the 19th Century helped create the asymmetrical conditions necessary for the Europeans to overwhelm what had now, because of these developments, become a vacuum.

There also is a general narrative used to summarize the shift into the “Scramble” as a period of “New Imperialism.” The benefit of this narrative structure is that it allows many of the previous theories to piggy-back onto it, while also not precluding the term

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147 Vandervort, 40.
148 Ibid., 1.
imperialism from applying to earlier European conquests.\textsuperscript{149} As in most dichotomous relationships, what defines the new imperialism is often a refutation of old imperialism. Broadly defined, “Old Imperialism” was the period of European exploration and colonization, roughly from the early modern period to 1783, which was chiefly designed for trade purposes. The trade was designed to be mercantile, primarily extractive, and non-territorial with the Europeans content to create a node of trade along a coastline. Thus, with a minimal exertion of resources the European traders were able to place trading centers in a suitable location to latch onto a nexus of local trade networks. Drawing out trade to these centers, for example the Portuguese colony of Goa, enabled the Europeans to acquire raw materials and goods from the interior that would be extremely difficult to acquire otherwise. The shift to “New Imperialism” is seen to involve new nations, such as Germany and Italy, new means and most importantly new goals. Of great importance is the new means and how they interrelated to the new European goals. Specifically, Europeans were no longer content to sit on the coasts but wanted to penetrate the interior to extract resources more efficiently. Under this theory, the motive shift is most important, with capitalism seen as the lynchpin for this change.\textsuperscript{150}

In general, it is clear that both components are necessary as only with new means, such as

\textsuperscript{149} Imperialism was given its specific meaning in 1902, by J.A. Hobson and “from that time onward it has referred to a specific form of colonial exploitation, connected to a particular stage in the development of capitalism” See Wesseling, ix.

\textsuperscript{150} Terms such as “efficiency” matter only to a mind that is within a society that has undergone the Industrial Revolution.
those documented by Headrick, would the new goals, whether for Porch’s national glory, Hassig’s power-vacuum or Lenin’s highest stage, be attainable.

Maps are critical for documenting this shift, whatever thesis one decides as sufficient for explaining this period of colonization, as they provide the visual proof of new goals. Beyond the practical matters of logistics and transportation that can explain the lack of mapping of the interior, the fundamental principle of the map explains this lack of knowledge. The implicit assumption behind the creation of any map is its intention for future use. Prior to any plan, or need, for future engagement in a block of land, a map is not much more useful than word of mouth and/or the barest knowledge of the land. During the period of “Old Imperialism,” where nodes of trade rather than square miles were the barometer of success, it is self-evident why knowledge of the interior was neither pursued nor desired. The benefit of these trade nodes was that with European inducement the interior would come to them. It was not necessary to have accurate knowledge because it was not needed. A perfect example of this would be the Dutch who, though established on the Cape for 250 years, never bothered to map the interior. Indeed, from a cost-benefit standpoint a future use is a necessity before the effort and money expended to create a map becomes worthwhile. These points do not contradict previous theories of imperialism, but in fact strengthens them. If malaria

\[^{151}\text{Bialas, 69.}\]
\[^{152}\text{Ibid., 47.}\]
would kill an overwhelming percentage of any expedition into the interior, for
cartographic purposes or otherwise, there was little incentive to explore or to attempt
colonization of the interior. Aided by new methods of transportation and disease
prevention, and the desire to put these tools of empire to good use, Europeans now had
the perfect environment for the gaze of Dominion to fall on Africa.

It is no surprise that Dominion would be the first of the three gazes considering
the word itself. While dominion can be defined as control or rule, it also can be the
definition for a territory itself. Besides this the root of dominion is *modus* or Latin for
measure. Thus, the very nature of the gaze of Dominion requires that a territory must in
some way be measured prior to being turned into a territory able to be controlled.
Cartography is the language of dominion. Once an area is measured, whether by survey
or census, it becomes legible and thus malleable to those who are able to understand the
language. This is not to suggest the first gaze of Dominion is a passive process, rather it
involves the active creation of a space in which the state and other agents may operate.
Correcting the idea of passivity is important especially as terms such as bounding and
measuring appear neutral. However, there is nothing innocuous in the act of
measurement or exploration. In examining the role of French physicists and astronomers,
seemingly even more removed from the act of colonization, Lewis Pyenson suggested
that instead of being termed researchers they should instead be labeled as functionaries
since they served the imperial purpose. The connection between science and conquest was not tenuous, as “astronomy produced maps” while the wireless technology used by physicists to study the ionosphere “was a critical military technique,” and thus “for this reason [the military] acquiesced to scientific projects of little or no military significance.” For all subsequent analysis of the role of maps it is necessary to see that science, so clearly tied to the military-industrial complex in the present, was no less the hand-maiden of conquest and control in the 19th Century.

Exploration was not a neutral endeavor either being “freighted with multiple and contested meanings, associated variously with science, literature, religion, commerce and empire.” As in the peeling of an onion, there are even more layers to examine beneath the veneer of scientific neutrality. Returning to the example of the Map of African Literature, it is clear that one strong motive force for exploration was the ego of the explorers themselves. There was an intoxicating feeling that these explorers were “conquerors of truth” who served “as a missionary of science, extending the frontiers of (European) geographical knowledge.” Sir Thomas H. Holdich, writing a textbook on boundary mapping captures the essence of the romantic explorer:

It is for him to penetrate into the wildest recesses of mountain systems, to discover the trend and the conformation of snowbound ridges and dividing chasms; to seek out from

153 Pyenson, 331.
154 Ibid., 332.
155 Driver, 2.
156 Ibid., 4.
the depths of the forest the traces of primeval occupation, and the marking of farthest limits of civilization; to explore the sun baked desert wilderness, scraping casual acquaintance with wild-eyed and inquisitive nomads; to explore to their rocky sources some of the great rivers of the world, and withal, to keep the peace between hostile factions, and persuade them that all is working well for the best of all possible worlds.  

Only with the understanding of these romantic underpinnings can Joseph Conrad’s sad epitaph, written after the “filling in” of Africa, that the future explorer was, “condemned to make his discoveries on beaten tracks” be understood. Add to this the missionaries who explored in order to save souls and traders who explored for profit, and the neutrality of the act of exploration falls away.

If exploration was not a neutral scientific endeavor, then it should best be seen as a process by which knowledge is used to create a dominion capable of engaging the gaze of the Despot or Developer. The very process of exploration, which is best explained as a series of waves, also suggests the non-neutral nature of exploration. Similar to the effect of waves along the coast, groups of explorers progressively built upon the work of those who came before to penetrate more deeply into the interior. Additionally, like the effect

157 Col. Sir. Thomas H. Holdich, Political Frontiers and Boundary Making (London: Macmillan and Company, 1916), 211. This quote is eerily similar to a statement by Cassidorius in his book The Surveyor (written in 540 A.C.E.) suggesting the eternal romance between the surveyor and his craft: “But the land surveyor is like a judge; the deserted fields become his forum, crowded with eager spectators. You would fancy him a madman when you see him walking along the most devious paths. But in truth he is seeking for the traces of lost facts in rough woods and thickets. He walks not as other men walk. His path is the book from which he reads; he shows what he is saying; he proves what he hath learned; by his steps he divides the rights of hostile claimants; and like a mighty river he takes away the fields of one side to deposit them to the other” Quoted in Edmond Kiely, Surveying Instruments: Their History (Columbus: Carben Surveying Reprints, 1979), 43.

158 Conrad, 134 quoted in Driver, 4.
of waves upon the coastline, the explorers gradually eroded what existed, whether blanks
in geographic knowledge or the components of local knowledge, until all of Africa was
brought under the western gaze of scientific cartography. What mapping there was in
Africa was distinctly local, and “the bird’s eye view convention was wholly foreign to
them.” 159 Similar to the process which occurred in Siam, modern cartography demanded
the local knowledge, and local expressions of knowledge, be destroyed. 160 Rather than
preserving local knowledge of the sacredness of a certain grove of trees, the sacred forest
would be catalogued in relation to other geographic features in the environment losing its
distinctiveness and power. Thus, the knowledge that did exist was absorbed and
consequently absorbed into the dominant frame of vision of the scientific map. Consider
Map 3-3 on the following page which documents the “native routes” from the coast to
Lake Tanganyika. What routes existed were not being appropriated for the advancement
of European knowledge. Each subsequent trip along that path would mean a deeper
erasure of local knowledge as these native routes instead would become associated with
the previous European explorer rather than the indigenous population.

159 Bialas, 78.
160 Winichakul, 56. In the case of Siam local beliefs of sovereignty, which was not coterminous with the
border and was capable of being shared, were destroyed in order to present Siam as a properly bounded
“nation” to Europeans.
Map 3-3: Appropriating Local Knowledge. E.G. Ravenstein. *Native routes to the Masai country and to the Victoria Nyanza: from information obtained by the Venerable J.P. Farler* (London: Royal Geographic Society, 189-).
The make-up of these several waves is not concrete, nor without overlap, but in general the progression was: missionaries, explorers, and finally colonizers. One should note that in the above map it indicates, in the upper right hand corner, that a missionary provided the native routes to the Royal Geographic Society. While missionaries seem a bit out of place, John Noyes points out:

It is no chance matter that, in the 19th century, the armies of colonization are always preceded by the missionaries and scientists, the one infusing space with the desire of an omnipresent authority, the other subjecting it to an omniscient gaze intent upon a tabulation of knowledge. It is this principle which serves to ‘capture’ the spaces it invades.\textsuperscript{161}

An addition should be made to the above quote making note of the role traders served in the same process. While they did not infuse space with an omnipresent authority, they did graft onto the space an omnipresent profit motive. To take from a famous quotation, God and gold were the initial motives with glory, pursued by explorers and colonial soldiers, following thereafter. It was two German missionaries who first glimpsed Kilimanjaro and thus prompted the numerous expeditions to its summit. These same two, Johann Rebman and Lewis Krapf, were also the first to view Mount Kenya in 1851.\textsuperscript{162} Later missionaries helped create an early, subsequently false, map of the interior of Tanganyika showing a large lake connecting the actual lakes of Victoria, Tanganyika

\textsuperscript{161} Noyes, 126.
and Nyasa. In addition, the pioneering role played by missionaries did not end after the initial encroachment into the interior but formed a pattern in African exploration. Missionaries arriving in 1875, were the first to explore Nyasaland, proving that Lake Nyasa extended much further north than had been previously thought. As many of these missionaries made maps of their journeys they implicitly served as the first wave of colonization, as “to explore unknown country was in a sense to subdue it.” German missionaries in particular were committed to colonialism because, “they felt that the German sword should be thrown into the balance against slave traders and heathen warlords.”

However, the missionaries and traders need not be committed to colonialism, as the very process of these initial explorations compelled the other waves to follow. By increasing knowledge these missionaries created an incentive for future exploration. When the interior remained a nebulous unknown it was easy to graph onto it a vision of Praester John’s kingdom or an Ethiopian hegemony. These missionaries and traders succeeded in putting a crack in the dam of knowledge; leading to an inevitable flood of exploration. It needs to be remembered that the map is not only “the special embodiment

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163 Hall, 105.
164 J.N.L. Baker, *A History of Geographical Discovery and Exploration* (New York: Cooper Square Publishers, 1967), 338. The connection between missionaries and subsequent exploration/colonization is even more clear as these missionaries were accompanied by an engineer in the service of the British African Lakes Company.
165 Driver, 22.
166 Gann and Duignan, 28.
of knowledge” but also a “stimulus to further cognitive engagement.” Consider the foregoing examples. Glimpses of mountains drove numerous explorers to chart and traverse both Mount Kilimanjaro and Mount Kenya. Glimpses of water-routes and lakes drove most of the early exploration of eastern Africa in an attempt to trace the origin of the Nile River. Thus, partial knowledge provided by these missionaries created the desire for complete knowledge. These explorers created new blanks for those following to conquer.

The very process by which these missionaries, traders and explorers recorded their routes helped ease the way for subsequent travelers. Often the tool of the trade was the route sketch. These were hand drawn creations, often made in the field, which were “little more than route traverses…with sights to prominent features off the routes, sometimes supplemented by rapid sketches of the landscapes.” Often route sketches, such as the one suggesting a large singular lake in central Tanganyika, were incorrect. However, connected to the relationship between maps and use, these were all that were needed. These route sketches created pathways from the coastline to the interior and did not intend to show the user much else. These sketches were “descriptive and picturesque, and were ideal for identifying safe journeys and locating towns, fords, and impasses.”

Consider Speke’s facsimile map of 1858 noted below as Map 3-5. While certainly not

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167 Cosgrove, 2.
168 Crone, 113. For a good representation of a typical route sketch see Map 3-4.
169 Barrow, 68.
decorative, it succeeds in its purpose of practicality by listing what an explorer would need to know to retrace Speke’s route. Beyond indicating their own journey these sketches indicated routes of possible expansion for those that came after.\footnote{Bassett, “Cartography and Empire Building,” 320.} Speke, as noted in Map 3-6, followed his old route five years later when returning to map the same area in more detail. Consider also the previously mentioned map on indigenous routes. These routes would gradually be appropriated for European use as subsequent explorers would follow the path laid by those who came before. While it is true that the explorers might not want to finish their journeys on beaten tracks, they certainly were not averse to following the paths of others to reach a new unknown. Looking at the routes recorded in the massive Karte von Deutch-Ostafrika maps prepared in 1897, by R. Kiepert and M. Moisel illustrates this overlap perfectly.\footnote{See Map 3-7.} In almost every case, while indicating the route there is a tangled web of names and years in parentheses indicating the common paths of so many explorers.\footnote{R. Kiepert, M. Moisel and P. Sprigade, Karte von Deutsch-Ostafrika [map] 1:300,000, (Berlin: Dietrich Reimer, 1897). Showing an amusing facet of the modern desire to privilege the “new” many explorers have “faded into the background” as solid or dotted lines with only the most recent deserving a colorized route. Another humorous point is that in the entirety of this German map none of the famous non-German explorers, specifically Livingstone and Stanley, receive a colored route.} There are so many to document, the key has as many notations listed for explorers as it does the terrain these explorers are recording.\footnote{See Map 3-8.} The importance of these common routes and their effect on directing exploratory efforts can also be seen where these routes did not exist. As shown in Map 3-9 there is a massive
white gap of territory whose geographical details are as wholly unknown to the Europeans as they were in the 15th Century. However, bordering this space are the paths of the various explorers where topography, geography and the nature of the land are documented in great detail. It is clear that the routes served as conduits for future exploration, in some cases the routes dictating what might be avoided entirely.

174 The description almost echoes the older map with the words “South border of Unyamewsi still unknown.” (Südgrenze von Unyamwesi noch unbekannt)
And who were those who followed in these routes? The exploration of eastern Africa began in the late 1840s and 1850s as the Portuguese, the only Europeans with a colonial holding in the region, had, similar to the Dutch at the Cape, done little to no exploration or mapping of the interior.\(^{175}\) However, between 1849 and 1889 a “revolution in geography” occurred in this region as the “whole map was transformed” by the knowledge accumulated by explorers.\(^{176}\) Ironically, the first impetus for exploration concerned not the region itself but its relation to more valued territory.

Recognizing the growing importance of Egypt, the first major expeditions into the interior of East Africa were the travels of Richard Burton to locate the source of the Nile. Commissioned by the Royal Geographic Society, he was ordered to push into the interior to locate Lake Tanganyika and then “proceed northward toward the range of mountains marked upon our maps as containing the probable source of the Nile, which it will be your next great object to discover.”\(^{177}\) From 1857-1859, accompanied by his sole surveyor John Hanning Speke, the two worked inland until they reached Lake Tanganyika, with Speke even sighting Lake Victoria.\(^{178}\) During a later voyage, in 1860-1863, Speke was able to confirm his assertion that Lake Victoria, rather than Lake

\(^{175}\) Baker, 312.

\(^{176}\) Ibid., 325.

\(^{177}\) Ibid.


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Tanganyika, was the source of the Nile. Concurrently with Burton and Speke, David Livingstone, probably the most famous of the African explorers, was attempting to ascertain the source of the Nile as well as determine how Central Africa could be linked to the coast by a waterway. He was the first European to see Victoria Falls and Lake Nyasa. The long running debate over the source of the Nile was finally put to rest by Morton Stanley. Between 1874-1876, Stanley completed a circuit of Lake Victoria fully establishing it as the source of the Nile and then proceeded to circumnavigate Lake Tanganyika and traced the Congo River to its mouth. Following up on these successes, the Royal Geographic Society sent, from 1879-1884, Keith Johnston and Joseph Thompson in an attempt to achieve Livingstone’s goal and connect Dar es-Salaam via waterways to Lake Nyasa and the Congo. While failing to establish the existence of the long hoped-for waterway, they did discover Lake Rukwa and subjected a large area of previously unexplored land to scientific study.

179 Skelton, 288. The reason for this seeming discrepancy was that Speke travelled north on the return journey from their expedition, while Burton was rendered incapacitated due to illness, allowing him to make the discovery alone. This later caused a great deal of controversy leading to a planned debate between the, by now hostile, explorers at the British Association for the Advancement of Science on the source of the Nile which was postponed indefinitely when Speke died of a self-inflicted gunshot wound the day before the schedule debate.
180 Porti, 3.
181 Skelton, 286.
182 Porti, 5; Skelton, 291.
183 Fernandez-Armesto, 356.
184 Baker, 339.
While the British generally took the lead, there were also many German explorers. The first professional explorers, unlike the missionaries Krapf and Rebmann who prompted all of the foregoing exploration, were Doctors Heinrich Barth and Alfred Vogel, who explored the Western Sudan and Lake Chad.\textsuperscript{185} Another early explorer was Friedrich Gerhard Rohlfs whose knowledge of desert survival came from an earlier stint in the French Foreign Legion. He explored the Sahara and was funded by the German East African Society in 1878 to travel south from Tripoli to Lake Chad.\textsuperscript{186} For his later work in the exploration of Ethiopia Rohlfs was decorated by the Royal Geographic Society.\textsuperscript{187} At the same time as these expeditions, Gustav Nachtigal became the first to cross from Lake Chad to the Nile while George Schweinfurth explored the Upper Nile and Congo regions.\textsuperscript{188} In Tanganyika, it was Count von der Decken who scaled and charted the top of Mount Kilimanjaro in 1861.\textsuperscript{189} If there was a German equivalent to David Livingstone it would have to be Hermann von Wissmann. After crossing the continent from Angola to Zanzibar, one of two continental crossings, he explored the Kasai River system for King Leopold II and “revealed the Congo system as it is known today.”\textsuperscript{190}

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\textsuperscript{185} Hall, 96-97.
\textsuperscript{186} Porti, 4.
\textsuperscript{187} Hall, 98.
\textsuperscript{188} Ibid.,
\textsuperscript{190} Baker, 343.
The forgoing discussion of these explorations is important for three reasons. First, this establishes the role that personal motives and pride came into play in much of the early exploration. Much of the concurrent expeditions that occurred in Central Africa during this time period were attempts to be the first to locate a central water-route across the continent or the source of the Nile. In particular, the debate regarding the source of the Nile became quite acrimonious before it was able to be put to rest scientifically. Also, it highlights that the blanks that were most present in Africa at that time were a reason to explore. Prior to Burton and Speke’s first journey, as indicated above in Map 3-10, little else was known of the interior of Tanganyika past the rough placement of Mount Kenya and Mount Kilimanjaro. The borders of Lake Nyasa were not defined, with the 1856 map of Africa prior to Burton and Speke’s first journey indicating that some believed it was not a lake but a continuation of the Indian Ocean. Second, it must be emphasized that personal ego drove most of these explorers separate and distinct from any national pride. The gaze of Dominion, concerned primarily with the classification and codification of a space, allows for distinctly extra-national exploration. Many German and British explorers were traveling and cataloging land that would never become a national colony of the respective explorers. Hence detailed sketch maps of the River Rufiji, located in southern Tanzania, could be made by an Englishman and a German, Count Eduard Wickenburg, could travel from the Red Sea along the western
edge of modern-day Kenya to Mount-Kilimanjaro.\textsuperscript{191} It is important to recognize that while many of these explorers were facilitating an eventual colonial exercise, they themselves were often myopically scientific.\textsuperscript{192} Even with these scientific blinders these explorers were paving the way for colonization. Indeed, this is one of the components of the gaze of Dominion. This gaze was concerned with the creation of space, and it was only after the creation of such a space that it could be occupied. Third, these explorations illustrated the next coming wave of force that would be necessary for the gaze of the Despot and the Developer. Our conception of what these expeditions consisted of, with one brave adventurer facing nature alone, is so far from the truth as to be laughable. Explorations were extremely well organized large affairs, sometimes resulting in hundreds of porters in addition to men hired for protection. It was not unusual to see a large protective detail travelling with a small party of explorers to protect them from both human and animal.\textsuperscript{193} What is critical to note is that whatever the motives of those who first trod the interior of Africa, they had inadvertently created currents that would be followed by others who would flood the landscape of Africa.

\textsuperscript{191} W. Beardall, \textit{Sketch Map of the River Rufiji from a Survey by W. Beardall, Zanzibar; March, 1881 [map]} 1:558,195, (Royal Geographic Society, 1881); R. Dorkapil, \textit{Übersichtskarte der Reisen des Grafen Eduard Wickenburg in Ost-Afrika [map]}, 1:3,000,000 (Gotha: Justus Pertes, 1902).
\textsuperscript{192} Even so, sometimes the overlap between exploration and exploitation was far clearer. An 1893, Royal Geographic Society pamphlet entitled \textquote{Hints to Travelers} contained the directive to make the following observations in \textquote{uncivilized or semi-civilised countries}: \textquote{(1) What are the available resources of the country that may be turned to industrial or commercial account? (2) What commercial products can find an available market in the country? (3) What are the facilities for or hindrances to intercourse between the country and the rest of the world?” Quoted in Driver, 40-41.
Part of the reason for this flood was that the next wave of explorers was not content to stay within these currents and broke the banks of the narrow uses a route sketch afforded. This was necessary to meet the needs of the new motives these initial explorations had stimulated. After a certain point the act of exploring unknown territory was no longer of the highest importance and a shift towards accuracy and control became the priority of maps of the region. Through this process of creating increasingly accurate maps, “the earth was tamed, and progressively rendered nonmysterious, unwonderous, disenchanted.” This is important as it is a part of the process of making a territory legible. These route sketches often carried an air of adventure and mystery as they were the act of the intrepid explorer against the forces of nature and ignorance. However, in this process they exoticized what they were studying and thus made it impossible to entirely control the land. Even the very name of the future German colony, Tanganyika, suggests the vague knowledge and tenuous German hold over the colony. The name came from a German perspective as they ruled the coastal port of Tanga and by extension the nyika (lit. “bush” or “hinterland”) beyond it. While route sketches allowed one to see the bush, the motives were shifting so that Europeans no longer desired to be explorers but masters of their domain.

194 Barrow, 77.
195 Ibid., 65.
CHAPTER 4

VINDICATING THE MAP

“When has Europe marched a scientifically organized army into an unknown intertropical region, and urged it forward as we have done, for hundreds of miles over chain after chain of Alps amidst the grandest scenery? And all to punish a dark king...This truly is a fine moral lesson which we have read to the world; and...; in addition, we reap good scientific data”  

The subtle shift from “objective” science to colonialism was not pronounced as it took little for what was created under the gaze of Dominion to be desired by a despot. After Morton Stanley’s 1874-1877 exploration, exploration began to move away from the mere goals of geography and began to involve geopolitics. Explorations, where “national flags flew aloft above travelers’ camps,” became intertwined with the motives of political and economic leaders in Europe. As knowledge spread about the discoveries organizations grew up to support exploration at a national level. In 1868, the Central Society for Commercial Geography and German Interests Abroad was formed, already suggesting the extra-exploratory motives that began to supersede mere

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197 Quote by Sir Roderick Murchinson, President of the Royal Geographic Society, about the storming of Magdala, Ethiopia in 1868. Quoted in Driver, 44.
geographical interest. In 1873, the German Society for the Exploration of Equatorial Africa was founded, followed, a mere nine years later, by the German Colonial Association. This latter association was founded explicitly by commercial leaders in an effort to drum up support for colonial ventures involving a whole cacophony of public relations tools. Besides the realm of commerce, academia became associated with the push for colonization. While in 1871, the only chair of Geography was at Göttingen University, by 1825, there were 12 positions, and by 1910, 23. These positions had great prestige and the academics gladly lent their voices to the arguments for colonization. For example, in 1882, a group of academic geographers signed on to an appeal for the creation of a German Colonial Society. The linkages could also go even deeper, with academics actively involved in the process of exploration and colonization. Siegfried Passarge, who led a colonial expedition to Cameroon, returned to become the chair of Geography at the new Hamburg Colonial Institute. The pressure groups that pushed for colonization were often a melding of these disparate elites in an

201 Stoecker, 19; Gann and Duignan, 19;
202 Gann and Duignan, 30. This included the *Kolonial Monatsblätter* and Deutsche *Kolonialzeitung* as well as cinematographic performances, library work, expeditions and lectures.
204 Ibid., 119. This included Theobald Fischer, who held a chair of Geography at the Kiel and Marburg Universities, and Georg Gerland, who held a chair at Strasburg University.
205 Ibid., 120. In 1908, this was the only department in Germany dedicated exclusively to colonial geography, and would eventually become the University of Hamburg.
attempt to prevent Germany from being “shut out” of Africa. Europeans, having conceived of Africa as a discrete unit, had turned the continent into a “thing” which could be “lost.” Much of the shift in cartography, moving from exploration to a desire for colonies, was being reflected in the efforts of other nations. The African Lakes Company, first titled the Livingstonia Central Africa Company, was established in 1877 and began work on steamers to use on the Zambezi and Lake Nyasa; both waterways falling under the eventual borders of German East Africa. However, German explorers were also making these connections. Count von der Decken, who was the first to scale Mount Kilimanjaro, wrote in 1864 about the desirability of a colony and naval base in East Africa. This was occurring concurrently with a greater awareness, on the part of the citizenry of Germany, of Africa. Thus, just as Germans were becoming more aware of the opportunities afforded by colonialism there appeared to be growing threats to those opportunities.

Another important point in this discussion of colonial awareness is the nature of the colonial organizations themselves. Specifically, they were all grassroots

206 Wm. Roger Louis, “Great Britain and German Expansion in Africa, 1884-1919,” in Britain and Germany in Africa: Imperial Rivalry and Colonial Rule, ed. Gifford Proser and William Roger Lewis, (New Haven: Yale University Press, 1967), 51. German merchants believed that unless they were able to stake a stable claim, they would be “at the mercy” of other Europeans.

207 Sanderson, 130.

208 Henderson, 60.

209 Kaniki, 74.

210 Gann and Duignan, 28. “The combination of missionaries, geographers, and explorers helped to create an informed reading public with an interest in colonial expansion.”
organizations with the goals of convincing both the public and government of the desirability of colonies. The government, especially Chancellor Bismarck, was particularly unenthused with the prospect of wasting national resources on such an effort. In addition to suggesting that his “map of Africa was Europe,” Bismarck thought that the “colonial business for us would be similar to the silken pelts of Polish noble families who do not possess even shirts.”211 Prior to work in Eastern Africa he had separately rejected: French colonies in Cochin China in 1871, a protectorate over Zanzibar and land in Borneo in 1874, a plan by German merchants to settle in South Africa in 1876, a plan to settle New Guinea in 1880, and finally in 1882, a personal role in a German colonial society.212 One key feature to recognize in the German efforts to colonize eastern Africa was that the effort was undertaken without cooperation between the government and private-sector.213 Into this environment now stepped an individual whose “personal ambition” would shape all future German colonial efforts in East Africa – Carl Peters.

In 1878, Germany possessed no colonial possessions, but by 1886 had come to acquire a land of 362,688 sq. miles, an area almost the size of France, Germany and Belgium combined - largely because of the initial efforts of this one man.214 Germany had possessed a commercial influence in Eastern Africa as early as 1844 when Adolf

212 Ibid., 96.
213 Stoecker, 29.
214 Townsend, The Rise and Fall of Germany’s Colonial Empire, vi, and Moffett, Tanganyika: A Review of its resources and their development, 15.
Jacob Hertz, from Hamburg, sent a ship to Zanzibar for trade purposes. During the 1860s, two houses of trade, O’Swald and Hansing, developed linkages to the interior while remaining based in Zanzibar. These were not small investments as by 1871, these firms accounted for almost a quarter of Zanzibar’s foreign commerce. Yet, the government continued to demure on any suggestion of state involvement in the development of colonies. Carl Peters was the creator of the Society for German Colonialism, later the German East African Society (DOAG), but was not content to sit on the sidelines in an attempt to coerce the government into action. Carl Peters was an active individual who took it upon himself to embark on a determined effort “to forestall foreign rivals by an aggressive policy of rapid land-grabbing in East Africa.” In 1884, Peters travelled with three colleagues to the coast of Africa disguised as mechanics in order to penetrate the interior and stake a German claim to the region. Part of the reason for their disguise was that the German Foreign Office was unsupportive of their efforts as the government was still committed to leaving Africa alone. Leaving Zanzibar on November 4, they “travelled through Uzingua along the Wami River into Uluguru, making bogus treaties as they moved along.” Returning to Germany in 1885 with a

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215 Ibid., 13; Henderson, 46.
216 Mann, 25.
217 Henderson, 47. The exact figure is 22.2%.
218 Gann and Duignan, 11.
219 Henderson, 17.
220 Perras, 51.
dozen of these “treaties,” Peters acquired an Imperial charter for his now 140,000 sq. mile holdings.\textsuperscript{222}

Upon receipt of this charter, Peters proceeded to take two steps: first to change the German East African Society into the German East Africa Company, with him as its managing partner, and second to immediately start pushing for more explorations into the interior.\textsuperscript{223} Following the British model of colonization, and colonization efforts by Europeans in general, both the colonies of Southwest Africa and East Africa were established by chartered companies.\textsuperscript{224} Additionally, this illustrates the linkages between the gazes of the Despot and the Developer. As soon as German claims became solidified there was an immediate desire to develop what was now owned. Another distinctive feature of this early company rule was the desire for more territory and how they acquired it. While blanks had formerly stimulated individuals to explore, these blanks were now being pursued in order to claim territory for the company.\textsuperscript{225} Between 1884 and 1886, eighteen expeditions were sent out under reserve officers to establish stations

\textsuperscript{222} Ibid., 100; Perras, 1.
\textsuperscript{223} Gewassa, 101; Calvert, 2. One of the first pushes was towards the north in an attempt to acquire not only Mount Kilimanjaro but also Mount Kenya.
\textsuperscript{224} Fetter, 9.
\textsuperscript{225} Kaniki, 78.
and sign treaties with indigenous rulers to extend the German holdings.\textsuperscript{226} This push for expansion was so strong as to arouse the criticism of the British with Lord Salisbury suggesting this land-grab rested:

\begin{quote}
upon the doctrine of Hinterland which they have to a great extent invented and which appears to mean that if you have possession in an uncivilized country you have a right to extend those possessions to an unlimited distance from the sea, until you strike the frontier of another civilized country.\textsuperscript{227}
\end{quote}

Further territory was gained between 1889 and the turn of the century through the use of mercenaries.\textsuperscript{228} Thus, as the gaze of the Despot fell onto Africa the level of force used to acquire territory was raised. While it is true there was a component of force in the expeditions, as documented in the previous chapter, this was an exponential change. This use of force would only continue to grow, with many of those same reserve officers being given commands later in the \textit{Schutztruppe}.\textsuperscript{229} This force was also solidified in the creation of company stations in the “Uluguru Valley, one in Uzingua...two in Usagara, two in the Pangani Valley, one on the coast on the frontier with British territory and one at Bagamoyo”.\textsuperscript{230} In addition to solidifying German control over the territory these stations also had a deeper meaning. These structures sent a message to the indigenous

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{226} David Killingray, “Military power in German colonial policy,” in \textit{Guardians of Empire}, Ed. David Killingray and David Omissi, 91-113 (Manchester: Manchester University Press, 1999), 94.
\item \textsuperscript{227} Heinz Schneppen, \textit{Why Kilimanjaro is in Tanzania} (Dar es-Salaam: National Museums of Tanzania, 1996), 24.
\item \textsuperscript{228} Stoecker, 93.
\item \textsuperscript{229} Ibid.; Killingray, 94. For example von Zelewski, von Bülow, von Kleist and R. Schmidt later commanded military stations in the interior as part of the \textit{Schutztruppe} or official protective force for German East Africa.
\item \textsuperscript{230} Kaniki., 95.
\end{itemize}
\end{footnotesize}
population that the land acquired was now German and was to be populated by Germans.\textsuperscript{231} However, it was not just in the physical architecture of buildings that this message was being inscribed, it was also being written in through the architecture of the map.

The goals and make-up of maps designed under the gaze of a Despot differ significantly from those used by the explorer. Color is used not used to depict what is natural but what is unnatural; the nation.\textsuperscript{232} Rather than delineating terrain, color is now harnessed to delineate territory. This shift in use can only occur after a territory has been brought under the gaze of a Despot as it is used to suggest control and create boundaries.\textsuperscript{233} Boundaries are a function of modern geography, tied uniquely to the structures of the modern state which demands their creation.\textsuperscript{234} The creation of boundaries through color allows for a territory to be more legible, especially in areas of contested borders, as “what counts is the delusion of clarity.”\textsuperscript{235} However, this delusion is critical as without it only personal opinion would delineate where the lines of ownership would begin and end.\textsuperscript{236} Color allows one to make sense of the world, such as

\begin{footnotes}
\item[231] Daniel Walther, \textit{Creating Germans Abroad} (Athens: Ohio University Press, 2002), 88. While the citation is in reference to actions in Southwest Africa the point seems to easily apply to a different German colony as well.
\item[232] Holdich, 2. “Nature knows no boundary lines. Nature has her frontiers truly, but lines, especially straight lines, are abhorrent to her.”
\item[233] Akerman, 144.
\item[234] Winichakul, 56.
\item[235] Bassett, “Cartography and Empire Building,” 326; Bialas, 85; Noyes, 108.
\end{footnotes}
the identification of red with the British Empire so that if one saw that where they lived was colored red they knew they were a part of that entity. Color also serves as a catalytic agent to the process of pushing towards those blanks. When examining the red on the map above the “viewer could readily comprehend Britain’s economic, political, and military reach,” thus implying the extent or limit of British power. Color was a physical demarcation of the implicit fears of German colonialists when they looked at their map of Africa. Without the export of some of their own color onto the map of Africa, they rightly feared that any remaining territory would be gobbled up. Color could also facilitate conquest as illustrated in the French map of 1890, which used lightly-shaded areas of West Africa to imply what would “eventually” become part of the French colonial empire.

Beyond using color to bound, the borders of the map itself could be used to establish a sense of control. While viewers tend not to think of it, the map compartmentalizes the world. Short of examining a globe, where the wholeness of both the territory and its interrelatedness to the rest of the earth are apparent, maps are a myopic creation which localizes our gaze on a particular set of points that are bounded within the frame of the map. The viewer is thus invited to “look at what the image

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237 Bialas, 86.
238 Barrow, 185.
239 Bismarck’s successor, Caprivi, once poked fun at this budding enthusiasm for colonies: “They believe that, if we had colonies, and bought ourselves an atlas, and coloured Africa blue all over, then we would be respectable people.” See Wesseling, 45.
240 Basset, “Cartography and Empire Building,” 326.
represents not as a part of the world in which he or she lives, but as a statement about this world.”

If one examines a map of Franklin County, though the reader should be invited to imagine their own country or locale for the purposes of this example, by extension the viewer has been given license to ignore the rest of the surrounding counties and loses a sense of the wholeness of the state of Ohio. In the case of Africa, this loss of contiguity allowed Europeans to carve up the continent by segmenting off parts of Africa as separate colonies. An extreme example would be the Italian map of colonial Somalia where, in an effort to fixate the mind on this colonial possession, anything that was not part of the colony was left entirely blank.

Third, related to this process was the use of the title. While the bordering of the map might implicitly carve up a larger territory the title serves as “a symbolic sign that happens to sanction the congruence of the individual mental image with the socially validated one.”

Returning to our example of Franklin County, the viewer would face a distinct metal jolt if a map depicting the county did not possess a title or listed it as Licking County. This assumes, of course, that the viewer is well aware of the territorial outline of Franklin

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242 Franklin County encompasses the city of Columbus and The Ohio State University. As noted the reader should substitute their own locale for the purposes of the following examples.
243 Instituto geografico militare, *Somaliland Italiano* [map] 1:200,000, (Istituto geografico militare, 1910). In one particularly amusing case causing a table-sized map sheet to be left almost entirely blank, except for the one small corner segment that included Italian territory, even though it was bordered by known and mapped entities.
244 Christian, 195.
245 The reader is invited to make the same shift based on their own county or province and imagine a map of the region being given the “wrong” name as a way of illustrating the tacitly understood conceptual basis of maps.
County and would process the incongruence of title and depiction. However, if the viewer was unaware of the county before seeing the map it is just as likely they would accept the depiction as Licking County unless confronted. Through all these means the map serves to spread not depictions of reality, but stereotypes “ready to be engraved in the imagination and in the memory of its readers.”

246 Ibid., 182.
A map by Joachim Pfeil, one of the men who accompanied Peters on his 1884 journey to East Africa, helps to chart this shift. It might be best to view Pfeil’s map as the “missing link” between the maps we previously studied, whose purpose was for exploration, and those created for colonial control. On its face it seems to possess a number of the attributes we have suggested for the route sketches.247 There is a great level of detail along the route he took while also indicating a number of previous explorers’ routes in whose footsteps he followed. The profiles listed at the bottom and sides tracking elevation changes also suggest a desire for nothing more than geographic knowledge. However, in several ways this map illustrates the shift towards a Despotic gaze. First, color is used to indicate control over the land that is indicated. Red is used to demarcate the stations established by the German East Africa Society to legitimate and perpetuate the control that Peters had achieved with his treaties. It should be noted that each of these stations were set up along routes of numerous explorers that had come before and, as indicated on the key, old caravan routes; adding credence to the assertion that the actions of traders and explorers had a strong correlative effect on future colonial efforts. Blue is used to demarcate the land of particular tribes from whom Peters had extracted treaties.248 One other note about color is that the borders of the tribal kingdoms

247 See Map 4-1, 4-2 and 4-3 for the detailed images to accompany the following text.
248 It is distinctive on this map, unlike almost every other from this period, that defined borders are given to the tribal kingdoms. Almost always they were listed only as a name across the land without a discernable border suggesting both their rootlessness and the privileging of European borders. While it is unclear why these borders are listed, there is a likelihood that with such a tenuous hold on the land and dependent on
are permeable, specifically by the colonial red color as Pfeil journeyed across East Africa. As red also signified areas of control, specifically a red box around each of the colonial stations, this would suggest that the true power lay in the dominant red color that was able to establish itself anywhere it wanted to go in the region. In addition, because the key lists these colored stations and not the colored borders of the tribal regions, it suggests only German developments will possess true permanency. Second, the border of the map helps to establish the power of the German claim. Compared to the modern borders of Tanzania\textsuperscript{249}, this map localizes the view to the central region around Dar es Salaam. Considering this was where Peters travelled it initially makes perfect sense. However, there is another underlying reason for localizing the map. As this map does suggest connotations of control it was critically important to keep the Despotic gaze focused on the areas that the Germans had claimed prominence. Many other maps of exploration tended to involve journeys across long stretches of land with no thought as to ownership because ownership was not the goal. With the German desire to establish a legitimate claim to the region it made even more sense to localize the map and make the treaties that the Germans felt too weak to suggest dominance in their maps. On the other hand, these borders could also be used to help establish the limits of German authority in Eastern Africa as they were operating under the strictures of “effective occupation” as defined by the Berlin Conference of 1884. To meet the bar of effective occupation a European power had to possess the territory by agreement with local chiefs, that they flew their flag there, and had set up an administrative structure to keep order. Indicating both the borders, and the colonial stations, would document this control and solidify the German Colonial Society’s claim to effective occupation of the region. In this manner, even though borders are listed for these tribal kingdoms they only matter because of the needs of the colonizer. 

\textsuperscript{249} Tanzania defined as the modern term for the African mainland region (excluding Rwanda and Burundi) of the modern-day United Republic of Tanzania which includes Zanzibar.
viewer accept the stereotype of German control over this particular block of eastern Africa. It also privileged the German efforts by blocking out competing claims of control in the British efforts in Mombasa or Nyasaland. Lastly, the title solidifies this privileged claim by suggesting this small segment was East Africa. While not claiming that the area was German East Africa just yet, it did make the claim that this map accurately documented Joachim Graf Pfeil’s travel in what should be termed Ost-Afrika. By bordering the map in the way that it did, the title adds to the descriptive power of control that was the intention of its maker.

Once these claims had been made Peters and the new German East Africa Company made strident efforts to expand the holdings in Eastern Africa. Peters commissioned, under the imprimatur of the German East Africa Company, sixteen expeditions from the coast to as far inland as Rwanda in an effort to establish control over the region.\textsuperscript{250} Maps were created to signify this growing control as seen in the expansive German sphere of influence in Map 4-4, far greater than what had been documented by Joachim Pfeil, a mere year later.

Map 4-4: Spheres of Influence. *East Africa: showing the recently-arranged political boundaries*, map, (London: Royal Geographic Society, 1887).
Additionally, this map shows the shift away from documenting, as Pfeil’s map had done, any borders for the indigenous population. Now that European control was the goal the borders of the indigenous population became superfluous. However, this solidification of control, rather than lessening the push for more territory, heightened it all the more. As indicated the German sphere of influence was not held over the totality of what would become German East Africa. It became critical, in the mind of Peters, to solidify control over these areas and thus extend his territorial claim. Disregarding entirely the control held by the population there, the goal now became to fill in German control over areas which now seemed “natural” to expand into. These “blanks” of control now were, in the opinion of the company, “calling” to be filled in with company stations. Each encroachment into the interior, rather than satiating the colonial desire merely heightened the desire to acquire more. This was especially true during the first years of colonization due to competition from the British, as the explorer Sir Harry Johnsons secured land concessions in 1884, to the southern slope of Mount Kilimanjaro.\(^{251}\) Eventually, agreements with Great Britain and Portugal were signed in 1886, delineating the contours of the eventual colony, thus making these blanks all the greater to pursue in order to reach the “natural” border of German East Africa.\(^{252}\)

\(^{251}\) Henderson, 61.
\(^{252}\) Stoecker, 95. This date is fraught with historiographical issues. While Stoecker establishes 1886 as the date, Kaniki suggests it wasn’t until 1890 which is in line with the Anglo-German negotiations over Heligoland. However, there are maps from 1885 listing a defined border, while the official Anglo-German
This solidification of the border is another key part of the shift towards colonization and the Despotic map characterized by a common agreement among the colonizers to recognize them. Thus, all sorts of conquest could be made official and easy as “there was no conflict of interests between two practicing sides if one of those sides was the colonialist and the other – his own map.”\footnote{Bialas, 172. A good example would be the decision, made by the “stroke of a pencil,” to place Kilimanjaro within the German sphere of influence. See Schneppen, 18.} In addition to making inter-European diplomacy simpler it also had the larger goal of making colonial boundaries more essential than those of the colonized.\footnote{Noyes, 203.} The power of the border, especially as written on the map, can be seen in the German disagreements over the borders of the colony of German Southwest Africa. Two maps, each showing a separate boundary, caused the dispute with the British as one seemed to suggest German claims to British territory. Tempers eventually cooled as it became clear the cause of the disagreement was scientific inaccuracy.\footnote{Matthew S. Seligmann, “Maps as the Progenitors of Territorial Disputes: Two Examples from Nineteenth-Century Southern Africa,” \textit{Imago Mundi}, 47 (1995), 174-175. The root of the dispute undermines the claims to scientific accuracy that European cartographers based their privileged position of European maps. While the initial agreement on the border had said it would follow the 20\textdegree West Meridian, “no mention made of either precisely where this meridian ran or how it was to be determined on the ground.”} This incident led to a decrease in secrecy between the two nations and the creation of an open dialogue on colonial problem. Both countries border maps, with triangulated data taken by joint-nation survey teams, I have located for the southern and northern boundaries are from 1905 and 1906 respectively. Another map lists the border as being defined by an 1892 expedition by “C.S. & G.E. Smith 1892.” It is likely this border, while being agreed to in principle in 1886, was subsequently refined and re-refined in the following years. This is akin to the agreement between Ohio and Michigan regarding their common border, where disagreements over the meridian line used for demarcation not only nearly led to a shooting war between the states, but a 20 year delay in the final adjudication of the border. See Sherman, C.E, \textit{Original Ohio Land Subdivision}, 154.
recognizing that the goal of successful colonization required cooperation in establishing borders. During a later incident at Olifants Kloof, German troops withdrew in the face of “correct” cartographic evidence. Agreements such as these were critical as:

> Official maps were potentially important statements of a government’s territorial claims and could not, therefore, be easily ignored by other powers. As a result, even the most innocuous of maps, exchanged in the friendliest of circumstances for the most marginal of reasons, was capable of engendering a dispute if, in the portrayal of territorial boundaries, it presented a view that differed even slightly from that of another interested power.

There was even the amusing case in 1903, when a joint German-British surveying team reassessed the border of the Southwest African Colony and “properly placed” the existing towns of Stolzenfels and Reitfontein. Violations of these borders, enshrined with almost mythical power as seen in the above examples, demanded apologies in order to keep up the façade of the reality of these territorial limits.

With the threat of overt competition thus muted, depending on when one believes the border was settled, the German East Africa Company attempted to expand and solidify their gains. Peters was active in granting rights to sub-companies, such as the East African Plantation Company and the German Planters Company, and by 1888 thirty

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256 Ibid., 177-178.
257 Ibid., 178.
258 Ibid., 182.
259 Noyes, 284. One wonders how a town can be “placed” considering it is rooted in the ground – but this suggests the conceptual power that the map has, especially with the desire of the despot to solidify the “reality” of the territory under their control.
260 Ibid., 152.
sub-companies had established themselves in German East Africa.\textsuperscript{261} The company was free to do this as the German government placed neither restrictions on the company nor any protections for the Africans under their control.\textsuperscript{262} The government desired a limited investment in Africa, defined as no governmental administrative apparatus or military presence, and considered the company a proper guardian of German East Africa.\textsuperscript{263} Peter’s efforts are to be admired if only for the “swiftness with which Germany, guided by Peters, assumed her sovereignty over this new colony of which she had never heard.”\textsuperscript{264} However, Peter’s rapacious desire to extract as much as possible from the colony carried the seeds of his company’s own destruction. Peter’s statement that, “the one thing which would make an impression on these wild sons of the steppe was a bullet from the repeater or the double-barreled rifle, and then only when employed in emphatic relation to their own bodies,” suggests as much about the company’s business practices.\textsuperscript{265} Emil von Zelewski, one of the reserve officers who had conducted treaty gathering operations for the company, helped spark a rebellion when he stormed a mosque full of worshipers on the Islamic holiday of Eid al-Hajj in the Pangani region.\textsuperscript{266} The revolt against the lash of the German East African Company led to its collapse in

\begin{footnotesize}
\begin{enumerate}
\item Kimambo and Temu, 101.
\item Gann and Duignan, 11.
\item Townsend, 125.
\item Peters, Carl, \textit{New Light on Dark Africa}, (London, 1891, 222) quoted in Driver, 137.
\item Askew, 42.
\end{enumerate}
\end{footnotesize}
1888, as it proved unable to quell the rebellion in the colony. While Peters had been the driving force being the colonization of German East Africa, his colony was now left in the hands of an uncommitted government and the leadership of Chancellor Bismarck who as late as 1889 confessed, “From the start I have not been a colonial person.”

With this rebellion, the German government was left in the unenviable position of trying to quell a rebellion in a colony it had not wanted and had little desire to keep. If Bismarck, who had objected to the granting of a charter to the company in the first place, had been given freedom of action it is likely that “Germany’s India” would have “gone the way of the Dodo.” In response to this “opportunity” he said, “I would rather give up the whole East African colonial venture than agree to a military campaign to the interior.” That such a campaign was eventually agreed upon showed the changes in public consciousness that had occurred in a mere four years. The reasons for these changes are several. First, Peters was adamantly committed to the colonial venture and, even if failing personally, desired that his legacy be preserved in the continuation of the colony. He was also adept at public relations, using the threat of losing all German colonies if the government failed to act. Aided by the now 35,000 members of the German Colonial Society he was able to broadcast his message quite strongly. He was

267 Killingray, 94.
268 Herwig, 96.
269 Townsend, 59.
270 Killingray, 95.
also not hindered with the knowledge that the new Kaiser had “a direct financial interest in the company.”²⁷¹ Second, while the government, enshrined in the person of Bismarck, objected to colonies, the Reichstag was not as opposed. In an act of loophole mismanagement in the creation of the German constitution, Bismarck had managed to ensure that the colonies would be one of the few areas over which the Reichstag could possess full budgetary power.²⁷² Lastly, it seems clear that the idea of the colonies had penetrated into the public mind as something Germany needed. It is impossible to prove if the dissemination of the colonial maps helped solidify this consciousness, but it likely it played a role. Maps serve to codify, legitimate and promulgate the dominant vision of a society, and by extension solidify that vision in the mind of its viewer.²⁷³ Additionally, by distributing large numbers of the “correct” map the space is standardized while “representations that differ from the model are quickly denounced as aberrant.”²⁷⁴ The strong atlas publishing community within Germany suggests that this was a booming market and many customers would have become familiar with the colonial efforts.²⁷⁵

With these constraints in place, Bismarck recognized the need to commit forces to quell the rebellion in what would now become a state colony. Illustrating more clearly than

²⁷¹ Ibid.
²⁷³ Harley, 6.
²⁷⁴ Christian, 315.
²⁷⁵ A good example of this dominance is related by Crone: “The commercial ascendency of German cartographical publishers continued to the end of the century. Thus, all the maps in the large Universal Atlas, published by Cassel and Co. (a British publishing house) in 1893 for the Atlas Publish Company, London, bear the imprint ‘Printed in Leipzig.’” See Crone, 129.
most examples the connection between exploration and conquest, Bismarck turned the operation over to one of the chief explorers of equatorial Africa – Hermann von Wissman.

It was reported that Bismarck’s instructions to Captain Wissmann were as follows: “I am not the Imperial Court War Council in Vienna… I repeat, you have just one order: Conquer,” which is exactly what he did.276 Building off the example of other colonial powers, Wissmann created an Africanized force led by white officers and NCOs.277 Arriving in May of 1889, Wissmann faced a dire situation. With the help of the Navy, the German East Africa Company had managed to fortify and hold their two coastal stations in Bagamoyo and Dar es-Salaam. Otherwise, the entire 700 km coast north to British East Africa was in rebel hands.278 After taking the rebel fort outside of Dar es-Salaam, Wissmann proceeded to clear out rebel areas at Pangani, Kilwa, Sadani and Bagamoyo so that by July the coastal region was retaken.279 Rather than recounting the successive waves of battles it is important to note how much violence was undertaken once the gaze of the Despot had taken over. This is often forgotten in the effort to create neat historical narratives in the exploration and colonization of German East Africa. In general, the narratives follow a similar pattern whereby after the fall of the German East

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276 Nigmann, 1.
277 Ibid., 2.
278 Ibid., 7
279 Ibid., 14.
Africa Company, the colony is taken over by the government until resistance breaks out again during the Maji-Maji revolt. However, as made clear through the pages of the official history of the *Schutztruppe*, it was involved in near constant fighting from 1889-1902. It is clear that force escalated as the gaze shifted from Dominion to Despotism, and even more so as the state attempted to solidify control. In the case of German East Africa, most of the colonial warfare occurred in the context of repression rather than conquest. The problem for many of the indigenous populations was that they did not believe they had been conquered, and in actual fact many had not. However, under the gaze of the Despot the borders of German East Africa had been established and what opposition Wissman faced was not seen as a fight between autonomous political entities, but a rebellion against the ordered rule enshrined in the map. As in Europe, Africa had been partitioned and Wissman was attempting to control what was German:

> But there was one great difference: in European history, annexations and wars were followed by peace treaties, boundaries, and maps. In Africa, they started with maps and treaties and war came later, if at all.\(^{281}\)

During the period of 1891-1897 alone the *Schutztruppe* officially fought sixty campaigns, “even though local commanders reported only the more serious expeditions.”\(^{282}\) It is more than likely that the German Protective Force, remade as an Imperial Protective Force in 1891, were involved in near constant skirmishes well before the major rebellion

\(^{280}\) Oliver, 199.
\(^{281}\) Wesseling, 98.
\(^{282}\) Killingray, 97.
in 1905. This does not include a number of pacification activities that involved violence. As an almost autonomous force, with their own separate military authority, the High Command of the Protective Force, the *Schutztruppe* took many latitudes in bringing the indigenous population to heel. Wissman was known for demonstrating the power of the machine-gun in order to show dominance over a region, and distributed rewards or punishments depending on what the communities did.\textsuperscript{283} In the case of actual resistance the harshest measures were used, including taking women and children as hostages or divvying up cattle amongst the troops and loyal Africans to economically devastate the rebellious party.\textsuperscript{284}

This resistance had a large effect on the ability of the German colonists to explore and control large areas of what was termed “theirs” under the map. A good example would be the region of Kilimanjaro. While successfully scaled in 1861, in 1895, Carl Peters was only able to “recommend” it as an area of future settlement.\textsuperscript{285} During the 1880s, the two indigenous tribes around Kilimanjaro, the Rindi and Sina, competed for control by hiring mercenaries to fight their rival. Not until 1889, were the explorers Baumann and Meyers able to arrive in Moshi on the south slope of the mountain.\textsuperscript{286} While the region was explored it was not until 1893, that troops were able to fight a battle

\textsuperscript{283} Koponen, 131.  
\textsuperscript{284} Ibid.  
\textsuperscript{285} Perras, 191.  
\textsuperscript{286} Mann, 109-110.
for control of the area.\textsuperscript{287} Even after this conquest there were periodic rebellions, up to February of 1900, until the \textit{Schutztruppe} established a post in Arusha to keep the region under control. Fighting such as this, which permeated the entirety of the colony almost non-stop from 1884-1907, has largely been ignored hindering a proper understanding of their role in quelling discontent. Without the actions of the \textit{Schutztruppe} it is likely the gaze of the Despot would have been strangled in the cradle. Without the military force to back-up what was written on the map, it would be impossible for the government to claim the power granted to it on the map. While a map possesses strong conceptual power, that conception needs to be projected into the world. The \textit{Schutztruppe} literally were the “teacher of the nation” as they used their military power to instruct the population of East Africa about this new colony.

As the \textit{Schutztruppe} quelled these successive rebellions, out of the ashes of those conflicts arose a whole military apparatus of civil control designed to assure German hegemony. Administrative centers were set up in one of four types of locations; along trade routes, locations of large labor forces, areas of high economic and migratory potential, and areas of high resistance.\textsuperscript{288} After the defeat of an uprising in the northern section of the colony, for example, garrisons were set up in the Pare Mountains at

\textsuperscript{287} Ibid., 114.
\textsuperscript{288} Kimambo and Temu, 103. This is not to suggest these are four distinct locations as an overlap between these types of locations was the norm.
Kisiwani and Makanya to collect taxes.\textsuperscript{289} There was a strong military presence as the civil authorities had largely ceded their power to the military, understanding that it was only through force that any governance was possible.\textsuperscript{290} Districts in German East Africa were modeled after Military Districts in Germany with the officers controlling the local police and authorized to detain any individual deemed to have “obstructed the maintenance of law and order.”\textsuperscript{291} Part of the attraction of service in the colonies, despite all the risks of death and disease, was that the colony served as a “private reserve” where they could escape the routines of garrison duties and seek promotion. One \textit{Schutztruppe} officer described his duties as similar to those of:

\begin{quote}
a Roman procurator with his legion in some distant province: exciting, independent, manly, and instructive...responsible for the well-being of thousands of people in an area where quick decision making was often impaired by the long distances that separated the government's representatives...Relying often on pure military might, we entered unknown regions and from the bomas, spread German influence in all directions to acclimatize the population to the New Order.\textsuperscript{292}
\end{quote}

As the Africans under their control were not considered citizens

\textit{(Reichsangehörige)} but subjects \textit{(Untertanen)} it was easy these officers to see their duties in such a romantic light.\textsuperscript{293} The training of the officers destined for colonial duty suggested that the government was well aware of the plethora of

\begin{itemize}
\item \textsuperscript{289} Ibid., 106.
\item \textsuperscript{290} Nigmann, 104; Mann, 22. Colonial policies in the main were implemented by the \textit{Schutztruppe} almost exclusively between 1889 and 1907 without civilian oversight.
\item \textsuperscript{291} Mann, 202.
\item \textsuperscript{292} Ibid., 203. \textit{Bomas} defined as a unit of 6-7 officers and N.C.Os and anywhere from a few dozen to a hundred African troops. See Koponen, 138.
\item \textsuperscript{293} Gann and Duignan, 73.
\end{itemize}
duties they would face including courses in tropical hygiene, Islamic law and African studies.\textsuperscript{294} In addition, while German was not compulsory in the colonial schools established in German East Africa, it was mandated for every \textit{Schutztruppe} officer to learn Swahili.\textsuperscript{295}

\textsuperscript{294} Ibid., 43. These were courses that were part of the mandatory \textit{Seminar für Orientalische Sprachen} at the Berlin University for all future officers. They often would spend 3-6 hours daily at the Colonial Office studying. See Gann and Duignan, 55.

\textsuperscript{295} Koponen, 569.
Map 4-5: Details of the Despotic Gaze. P. Sprigade and M. Moisel, Kilimandscharo (BS), in Karte von Deutsch Ostafrika, (Berlin: Dietrich Reimer, 1911).
While acting as rulers in a number of outposts the Schutztruppe served to bring the gaze of the Despot into the deepest reaches of the colony. Four border survey expeditions were taken under the command of a Major Schlobach, and much of the detail in the Karte von Deutsch Ost-Afrika, as seen in Map 4-5 and 4-6, was due to their collected work. Colonel Nigmann praises these efforts in particular noting that

Today’s map of German East Africa exists almost entirely thanks to the industrious and voluntary exertions of their Force officers, who, with watch and compass, took every opportunity to make cartographic observations of the countryside along their lines of march. The map also indicates the effect of the Schutztruppe on German control in the region of Usambara. Red lines, seen to the right side in the Usambara map, which had previously been used to show divisions between colonial powers, were now used to divide the colony into administrative sections. The red which had once been confined to lines of advancement had then been solidified in the small squares of the German East Africa Company. After colored lines came to differentiate the borders between colonies, the power of the Schutztruppe helped

\[\text{296 Nigmann, 113.}\]
\[\text{297 Ibid. He went on to describe the following as the “status of cartography today”: “1. On the borders, 36,000 km2 have been trigonometrically measured and mapped. 2. The mapping of the colony at 1:300,000 in 29 sheets with 6 attachments, have all appeared in print, except for 2 sheets, 3. The mapping (great German Colonial Atlas) at 1:1,000,000 in 9 sheets has 8 of the 9 sheets completed. 4. A military operations map for the colony – overviews of roads, provisions, water supplies, population densities, etc., at 1:1,000,000 has also appeared in 8 sheets. 5. A considerable number of specialized maps of the different regions are available at large scale.” In addition he later notes that a Military Orientation Notebook includes a “military route map of the colony in 8 sheets” which provided exhaustive knowledge of all possible theaters of war within the colony. See page 174.}\]
control the colony so that it could be divided and become better administrated.

The spread of the *Schutztruppe* was directly proportional to the control the
Germans had over the region. Therefore, the *Schutztruppe* were critical agents in
not only documenting the entirety of the colony but also bringing it under control.
It is clear that before the gaze of the Developer could settle on Africa the boot of
the Despot needed to be firmly rooted so as to provide the stability and
predictability so needed for capitalism to flourish.
CHAPTER 5

DEVELOPING A DEUTSCH OSTAFRIKA

“A topographical survey, far from being a luxury, is an essential preliminary to sound development, and therefore an economy in the long run.”\textsuperscript{298}

As the gaze of the Despot called for a new type of map, so did the gaze of the Developer, as this new motive called for new results in cartography. First, the maps of the Developer “shifted from the surface to the subterranean.”\textsuperscript{299} While the map of Dominion created terrain and the map of the Despot territory, the map of the Developer created resources. Geology became just as important as geography as the gaze of the Developer required both to properly exploit the colony. Second, the level of detail called for was raised by a considerable degree. While maps to show ownership could be broad and expansive, the map of the developer called for the cartographer to focus on the specificity of the land in order to negate its universality and prepare it for development.\textsuperscript{300} Third, the concern with ownership was downgraded by a degree. Unlike the map of the Despot, the map of the Developer was primarily cadastral. The interest of

\textsuperscript{298} Crone, 120.
\textsuperscript{299} Carruthers, 971. While applying to the Transvall the same process occurred in Tanganyika, the process made especially easy as German cartography had a long history of interest in geology as a science linked to cartography. See Crone, 126.
\textsuperscript{300} Noyes, 215.
ownership was no longer a question of nations but of individuals in a relationship to a market economy. Ownership of property and land became questions that any map needed to provide to serve the needs of capitalism.
Map 5-1: A Developer’s View of the Pangani. Dr. B. Hassenstein, Der Unterlauf des Pangani Flusses für das Zuckersyndikat für Deutsch-Ostafrika, (Gotha: Justus Perthes, 1896).
Map 5-2: Arab Plantations. Dr. B. Hassenstein, Der Unterlauf des Pangani Flusses für das Zuckersyndikat für Deutsch-Ostafrika, (Gotha: Justus Perthes, 1896).
Map 5-3: Equality in Ownership. Dr. B. Hassenstein, Der Unterlauf des Pangani Flusses für das Zuckersyndikat für Deutsch-Ostafrika, (Gotha: Justus Perthes, 1896).
A perfect example of this type of map was made by the Sugar Syndicate for German East Africa of the Pangani River. The effects of the new gaze are noticeable in several respects. First, the control of the territory is taken as a given through the title. As illustrated by the discussion of the Schutztruppe, control needs to be established by the military or police before any development is possible. The Pangani River was a well controlled region of German East Africa and so the syndicate that sponsored the map believed that it was not only German, and they had the right to develop it, but also that the stability required for future planning was assured. Second, the specificity of the map is narrowly tailored for its purpose. By this time, 1896, the surrounding territory was well known and thus a conscious decision was made to leave it blank. The universality of rivers, or of the surrounding territory, is eliminated in order to fixate the viewer on the suitability of the river for capitalist enterprise. Unlike the route sketches of explorers, which were narrowly tailored to what they had observed, this was narrowly tailored in order to assure the viewer would only observe what they were directed to see. Lastly, the map illustrates the ascendancy of the cadastral map over that of the topographic. Topography was an extremely important skill for many of the explorers as the changes in elevation were critical in establishing the outlines of the terrain. It also was vitally important to the Despot as a proper

301 See Map 5-1.
topographical understanding was necessary for any projection of military force.\textsuperscript{302} The cadastral map, in contrast, takes topography as a given preferring instead to privilege the changes in ownership which overlay the terrain. While the map of the Despot would attempt to eliminate competing claims to ownership, especially by the indigenous population, the gaze of the Developer wanted these claims documented above all else.\textsuperscript{303} “Nationalistic parochialism” served no purpose to the capitalist as artificially blurring the lines of ownership would only hinder the progress of capitalism.\textsuperscript{304} As seen in the map ownership of the territory by Arab traders was acceptable to the viewer. At the mouth of the river there is a plantation marked as being owned by the German East Africa Company which is given just as equal weight as the claims of ownership by individual Arabs.\textsuperscript{305} In addition the map suggests that the plateau surrounding the river was fertile (\textit{Fruchtbares}) something that the gaze of the Developer, and future investors, would be interested in. The intersection of these needs with map representation is best evidenced in the Usambara highlands, a region to which we shall now turn.

From the arrival of Carl Peters to the very first battles of the First World War in the region, the Usambara highlands served as the key area of colonial

\textsuperscript{302} Gregory, 162. “A knowledge of the topographic features of a battle zone is a fundamental part of the officer’s equipment.”


\textsuperscript{304} Ibid., 61.

\textsuperscript{305} See Map 5-2 and Map 5-3.
development and settlement. The northeastern highlands encircle the Masai Steppe, an area of some 20,000 square miles, running in a northwesterly direction from the coast to Kilimanjaro.\textsuperscript{306} The land, stretching from Usambara through the Pare Mountains to Kilimanjaro, contains fertile soils which can support a high population density.\textsuperscript{307} It possesses a “pleasant and healthy climate” suitable to both agriculture and settlement.\textsuperscript{308} The initial impetus for exploring and exploiting the region, recognized by Carl Peters, was the well developed local commerce system which he sought to bring under German control.\textsuperscript{309} It was also in this region, in the temperate northeastern highlands, that the first farms were established. Development cannot stop halfway, however, and the beginning of the commercial economy demanded an expansion of the transportation facilities to better facilitate the exploitation of land and labor.\textsuperscript{310} By 1891, these local trade routes had been appropriated with the development of a colonial road network and the start of a railway line from the port town of Tanga.\textsuperscript{311} Along the trade routes German centers grew up in order to solidify this encroachment and ensure the

\textsuperscript{306} J.P. Moffett, \textit{Tanganyika: A Review of its Resources and Their Development}, (Norwich: Jarrold and Sons LTD, 1955), 16.
\textsuperscript{307} Kaniki, 22. Especially the volcanic soil around Kilimanjaro.
\textsuperscript{308} Frank R. Cana, “Frontiers of German East Africa” \textit{The Geographical Journal} 47, no 4 (April 1916), 297.
\textsuperscript{309} Mann, 100.
\textsuperscript{311} Similar to the appropriation of native routes by the explorers who had arrived previously.
successful development of the land. This expansion of the European trade bound the region together so that by the outbreak of World War One all trade in the Kilimanjaro and Usambara districts passed almost exclusively along the route to Tanga. The increasing trade presence of the Europeans invited greater control as:

trade reached down to the villages, the masses serving as points of contact with the traders. Thus for the first time the African masses in the region were drawn into this system of ruthless economic exploitation with the resulting social disruption that the system itself engendered.

The greatest disruptive effect on the region was its settlement by Europeans, and their interest in the region for that purpose can be seen in several maps. The first map showing the signs of the developer’s gaze is the 1897, map *Die Schambalai oder West-Usambara.*

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312 Kimambo and Temu, 103.
313 Calvert, 28.
314 Kaniki, 117.
315 See Map 5-4, 5-5 and 5-6.
Map 5-4: The Beginning of Usambara Development. Dr. B. Hassenstein and C. Schmidt, *Die Schambalai oder West-Usambara*, (Gotha: Justus Perthes, 1897).
Map 5-5: A Military Station. Dr. B. Hassenstein and C. Schmidt, *Die Schambalai oder West-Usambara*, (Gotha: Justus Perthes, 1897).
It carries several of the markings of a developmental map. The detail is much greater listed at 1:200,000 scale, while most Despotic maps had been in the hundreds of thousands or millions scale.\textsuperscript{316} As this was a stable region that did not pose a problem for colonial occupation the progression of control is evident in the region. There are mission stations scattered around the region, as well as a military station positioned in the west at Masinde to protect the region from the more unstable regions to the North West.\textsuperscript{317} This map has also normalized German settlement by indicating on its key a symbol for D.F. or German Farm. This area of the Usambara had also been well settled enough that the Germans had sited a recovery station (\textit{Erholungsstation}) close enough to the Pangani river as to allow access back to the port of Tanga. In many ways this map was the precursor to greater development. While indicating what advancements had been made, it also indicated what more needed to be done. While there was a network of trails, they were only labeled as Ways (\textit{Wege}) as it is clear a more extensive road network needed to be built to facilitate settlement. To help induce

\textsuperscript{316} A good definition of scale is provided by a contemporary (1918) textbook: “The representative fraction scale 1/1,000,000 means that 1 inch, centimeter, foot, etc., on the map represents 1,000,000 inches, centimeters, feet, etc., in nature...The smaller the representative fraction the smaller is the scale of the map. Thus a map on a scale of 1/1,000,000 is on a larger scale than one on a scale of 1/100,000...Maps with scales smaller than 1/200,000 are generally regarded as on a small scale.” See Gregory, 210.

\textsuperscript{317} The mission stations being the precursors to later expansion by explorers and colonists, dependent on the protection of the military as shown in the military station.
investment the map moves beyond mere topography to shade in forest to indicate potential areas of settlement.

By 1899, the Germans had advanced further as shown in another map of the region the *Provisorische Kartenskizze von Usambara*. First, the advance is shown by how what was labeled West Usambara in the previous map, and which was the extent of the German expansion at that point, had now become the center of this map as German development had pushed towards the Pare Mountains.318 The map also highlights several other features of a map geared for development. While listing the border between the British and German possessions it is described in the key as the “North Border of the German Sphere of Influence.” This boundary is listed in order to fixate on the region below for the purposes of German development, rather than solely demarcating German territorial control. Additionally, whereas the last map had only listed forests in the region, Map 5-8 illustrates how this new map of Usambara provides a distribution of vegetation which is then further divided into fertile and non-fertile areas.319 This has the additional benefit of localizing the gaze of the viewer even more. By privileging,

318 See Map 5-7.
319 The fertile area being listed as Tropical Wood (*Tropischer Wald*), Mountain Wood (*Bergwald*), High pastures (*Hochweiden*) and the Coastal Zone (*Küstenzone*). Also listed as fertile is *Galleriewald* which I have only been able to “translate” as Gallery Wood. The unfertile areas listed are the Nyika Steppe and in the mountains *Campinenland*. 
through the use of color, an area of development the viewer is drawn into the Usambara highlands as a suggested area of development and growth. Other areas of the region, presented in the unfertile cream color, blend into the background and succeed in forcing the eye to refocus on potential areas of settlement.
Map 5-7: The March of "Progress." C. Barich, Provisorische Kartenskizze von Usambara, (Gotha: Justus Perthes, 1889).
Another map from the same year continues this process and shows the solidification of the gaze of the Developer. First, one will note the lack of any mention of governmental ownership. While in the past it was deemed a necessity to indicate German ownership, to inscribe that meaning into the ground, this map forgoes it entirely. Instead this map accomplishes the aim of the developmental map by drawing out the specificity of the land in order to prompt greater private investment. Several mission stations are shown on the map, though not in the key, and the roads pass into the background as the viewer is drawn to the division of vegetation along the region. Unlike the previous map, the key lists more divisions and adds greater specificity for each section. For example, while the coastal zone is listed, as it was in the previous map, there is the additional description of “many Cocos and Mangos.” As coconuts were the second most valuable commercial crop this would have been valuable information for an entrepreneurial agriculturalist.\textsuperscript{320} There is an additional reason for providing such specificity as it invites the viewer to divide up the land into different zones of development for different crops. In contrast to this fertile ground, the Nyika Steppe, listed as unfertile in the previous map, is listed to be dry and possessing spined bushes and mimosas. The region is sectioned off by the map both in terms of development and profitability. An enterprising settler or developer could easily

\textsuperscript{320} Askew, 44.
use this map to chart where best to develop a plantation and what a suitable cash crop might be. That the key, rather than being off the map as in most instances, takes up almost one-quarter of the map area also indicates how keenly this region was being focused on for development.
Map 5-9: Division of Vegetation. Dr. B. Hassenstein and C. Schmidt, *Die Schambalai oder West-Usambara*, (Gotha: Justus Perthes, 1897).
Vegetations-Zonen:

- Küstenzone (vieler Kokos und Mangos)
- Tropischer Wald (hochstämig, wenig Unterholz), Kor und Galleriewälder.
- Kampinenland (hohes Gras, einzelne Räucher, Euphorbiaceen und Baumbakteen häufig)
- Bergwald (lichter Wald, viel Unterholz, Baumsäuren) und Weideland (weiches Gras, viele Erica- u. Farren-Arten).

Map 5-10: Vegetation Key. Dr. B. Hassenstein and C. Schmidt, *Die Schambalai oder West-Usambara*, (Gotha: Justus Perthes, 1897).
Usambara became the center of development in German East Africa illustrating several points of connection between colonial control and the ability of capitalism to function. In 1891, the construction of the Usambara railway began and followed along what once was a caravan route to access areas designated for plantation agriculture.\textsuperscript{321} As the previous maps indicate, however, the railway had not yet, even after eight years, managed to reach into the highlands noted for this potential agricultural growth. Part of the problem was undercapitalization. Both the \textit{Reichstag} and banks were unwilling to provide the financial backing to open up the hinterland with railways. This should be contrasted with Britain who managed to complete the Uganda Railway, started in 1896 and complete by 1903, using public funds.\textsuperscript{322} The Tanga Railroad, which began in 1891, was not completed until 1912, when it finally reached Kilimanjaro at the town of Moshi.\textsuperscript{323} Historiographically, this general failure to capitalize on potential routes of development is attributed to the German failure to practice “scientific colonialism” prior to the tenure of Bernhard Dernburg as State Secretary for the Colonies. Appointed in 1906, Dernburg is often presented as a visionary who recognized that “the most valuable asset of the colonies” was the natives, and his policies were centered on reforming the colonial system so as to

\textsuperscript{321} Ibid.  
\textsuperscript{322} Henderson, 58-59.  
\textsuperscript{323} Yeager, 10.
take this into account.  

It was only after his ascension that growth and investment, not only throughout the entire colony but specifically in Usambara, started to take-off. While fitting with the conventional wisdom that political change can foster economic growth, this thesis ignores the reality of the military. As presented previously, the *Schutztruppe* were fighting in Moshi, the last stop along the Tanga railway, as late as 1893, and were not able to quell tribal discontent until the turn of the century. It was only after the military had successfully pacified the region that it made sense for any development of the railroad. This point is strengthened by the fact that the military station at Arusha, due west of Moshi, was suggested as the next stop in a proposed expansion of the Tanga railroad.  

Dernburg’s ascension also occurred the year after the Maji-Maji revolt of 1905, which the *Schutztruppe* brutally put down. In fact, the very brutality of the *Schutztruppe* most likely ensured the peaceful years of development from 1907-1914. The official history of the *Schutztruppe* states that “the years after the great rebellion present no military events of special interest.”

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324 Townsend, 248. This included such actions as revising the law so as to incorporate tribal law into German law and promoting native rights.
325 Cana, 299.
326 Nigmann, 177.
Once the military had successful conquered the region, the Usambara highlands were able to be developed into a region of strong economic growth. As the railroad made headway into the Usambara region so did the telegraph lines, enabling greater civil and military control over the region and subsequent comfort on the part of capitalists and settlers to develop the land.\footnote{Moffett, 197. As almost all of the military stations were connected by telegraph it allowed for the quick response by the \textit{Schutztruppe} to any colonial disturbance.} German planters “clustered around the hills of Uluguru and Usambara” and through the introduction of sisal crops created its chief export.\footnote{Roberts, “East Africa,” 649, 656.} By 1912, 16,000 tons of sisal hemp was being exported from the plantations in the regions along the Tanga railway to the coastal port.\footnote{Henderson, 38.} In addition to sisal, the German plantations also produced other cash crops including coffee, rubber, coconuts and cotton.\footnote{Kaniki, 132.} The emphasis on agriculture in this region was solidified by the establishment of the Biological Agricultural Institute at Amani in 1902, and the Kibongoto Agricultural Experiment Station at Kilimanjaro in 1911.\footnote{Calvert, 78-79. This same author, who wrote this book in 1917, stated the Amani institute was “reputed to be the best equipped in Africa.”} Further railway development was also planned along the Tanga line, in addition to the extension to Arusha, through a series of small northward lines to help develop more of the region.\footnote{Ibid., 117. In 1914, the \textit{Reichstag} had budgeted £270,000 to improve and expand the Tanga Railway.} Another reason for this economic boom in the region was indicated in
the previous maps, which is easily seen if one possesses the Developer’s gaze. In the 1897 map, while indicating a symbol for German Farms, the mass of villages listed were African. These varied in size, listed on the key, from “over 10 huts” to “over 100 huts.” The location of these villages was critical for development because the German farmers needed that labor for plantation agriculture. Thus, the map listed these huts not only for the illustrative purpose but also for the practical ends this information could serve. Another reason for the placement of the military station listed on the same map was that stations were sited in areas of large population density to ensure a ready labor force. As illustrated by the 1908, map of German East Africa the development of the Usambara highlands was pronounced and the greatest area of development in the colony.

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333 Kimambo and Temu, 103.
Map 5-11: Solidifying Control over Usambara. Paul Sprigade and Max Moisel, Daressalam (6), in Deutsch-Ostafrika, (Berlin, Dietrich Reimer), 1908.
Map 5-12: Comparison to Daressalam region. Paul Sprigade and Max Moisel, Daressalam (6), in Deutsch-Ostafrika, (Berlin, Dietrich Reimer), 1908.
This contrast is clear in comparing the development of the interior, by the encroachment of Post and Telegraph stations and the existence of a customs office in Wilhelmstahl, in Usambara with the utter lack of any similar development in the region around Dar es-Salaam.\(^{334}\) Considering Dar es-Salaam was considered a showcase city of the tropics, this does not suggest an apples-and-oranges comparison between regions.\(^{335}\) By 1913, the wage-earning African labor force in German East Africa was 172,000 or 1/5\(^{th}\) of able-bodied males. Most of these wage-earners were involved in plantation agriculture.\(^{336}\) With the ready access to land and labor, and a suitable climate for cash-crop development, a large number of the 5,336 European inhabitants of German East Africa lived in the Usambara highlands.\(^{337}\)

The extent of this growth, and the desire for future development, is illustrated by the last map series this study will cover. The four sheets of this

\(^{334}\) While it is difficult to interpret a light-red line, indicating a District office (\textit{Bezirksamts}), from a dark red line, indicating a military station (\textit{Militärstation}), it seems clear the towns of Tanga, Pangani, and Wilhelmstahl formed a strong triangle of German power around this critical region. On another map from this series the town of Moshi, the last stop on the Tanga Railroad, also possesses a dark red line underneath its name as well as a PTZ. Thus, along the entire length of these highlands the German presence was quite strong.

\(^{335}\) Charles Miller, \textit{Battle for the Bundu} (New York: Macmillan, 1974), 22. Indeed, a second railroad was begun to connect Dar es-Salem to the central interior of Africa ending at the town of Ujiji on the shore of Lake Victoria. See Kaniki, 115.

\(^{336}\) Kaniki, 137; See also Jan-Georg Deutsch, “Absence of evidence is no proof: Slave resistance under German colonial rule in East Africa,” \textit{Rethinking Resistance: Revolt and Violence in African History}, ed. Jon Abbink, Mirjam de Bruijn and Klaas van Walraven, 170-187 (Boston: Brill, 2003), 179. This more recent scholarship puts the number engaged in plantation agriculture at 92,000 by 1913.

\(^{337}\) Henderson, 87. In 1913, this author lists 1,971 European in the Usambara highlands.
German East Africa map are extremely important in several respects. First, it is the most highly detailed of all German developmental maps, at a 1:100,000 scale, and is distinctive for the cadastral purpose for which it was made. The key is incredibly detailed, showing all manner of vegetative and transportation information that would be important for any further development. Second, it suggests the key importance of the Usambara region to development. Maps, especially ones that are on such a small scale, are an extremely labor-intensive product to produce. An investment of significant resources, in money, expertise and time, would be required to produce a map of this caliber. Therefore, this effort would only be made in a region deemed vitally important for such a treatment.

[^338]: In addition to dividing vegetation into six possible symbols the key also makes allowances for three types of roads, not including the railroad. See Map 5-14.
There are two ways in which these maps illustrate the importance of the region. Below the key a small map, which serves as an index for the map series, indicates that this scale was only applied to the Tanga and Usambara regions north of the Pangani. This localized importance is made even more apparent when examining Sheet A entitled Korogwe. As did the previous developmental maps, this map is designed in such a way to focus all of the attention of the viewer on the Usambara region. South of the Pangani river, which on sheet A is approximately half of the map, the map is left entirely blank.\textsuperscript{339} The fact that north of this river is rife with incredible detail makes this division all the more striking. The other end of the map is no different. While indicating the demarcation line between the British and German colonies, the British holdings are left entirely blank apart from rivers and topographic markings that “bleed over” the line. Thus, the goal of this map was to illustrate the incredible developmental opportunities afforded in this region and this region \textit{only}. Third, the cadastral purposes of the map could not be clearer. As an undercurrent of many of the previous maps, the color red was used to demarcate control and possession. These four sheets are used to demarcate as strongly as possible not only ownership of property, but also a privileging of European ownership. German plantations are shown by shading in a tract of land in red which serves to

\textsuperscript{339} See Map 5-15.
remove these areas from the viewer’s vision by making them opaque. While the cartographer was at pains to show the slightest variation in vegetation elsewhere, the capitalist gaze ensured the map would not be allowed to violate the space of private property. Red also makes these properties stand out in relation to the rest of the map, suggesting that these areas of the map were to be regarded as holding the dominant position in the region. As these plantations are connected with bright black or bright red lines it is easy, as was the intention of the cartographer, to look at such a map and ignore the terrain in order to fixate on German property. The obverse of this privileging was a de-legitimating of the holdings of the indigenous population. Examining the key, native plantations are represented by small green v-shaped symbols, which in no way are distinctive from the other symbols used to show types of vegetation. Unless examined very closely it is easy for “native plantations” to be conflated with the rest of the natural, and hence un-owned, vegetation. However, rather than being seen as a poor decision on the part of the cartographer, this should be recognized as the reason behind such a choice. As the maps of the Despot delegitimized the indigenous claims to territory by failing to provide borders, the Developer delegitimized indigenous claims to property by obscuring clear ownership lines as much as possible. Any future developer could look across the fertile Usambara

340 See Map 5-13.
341 See Map 5-16.
region and still see plenty of areas ready to be exploited, regardless of the reality of ownership on the ground. Even if the viewer was in error, and the land was in fact owned by the native population, there was always the fallback that colonial power could be used to remake the world to conform with the viewer’s expectations.

These last map sheets do have one final story to tell. While incredibly detailed, the reader might have noted that for a German map it was quite legible to the non-native speaker. The reason for this is indicated in the lower right hand corner where the British cartographers, having made the map in 1915, noted that they were copying off of a German map made in 1913. That German map, a physical representation of all the efforts since 1884 at colonial and economic development, was conceivably captured and then destroyed by the British as their troops conquered German East Africa during the First World War.
CHAPTER 6

CONCLUSION: A BIRD’S EYE VIEW

“British Explorer: I claim India for Britain

India: You can’t claim us, we live here. There’s 500 million of us

British Explorer: Do you have a flag?

India: We don’t need a flag, this is our country

British Explorer: No flag no country, you can’t have one.”

The goal underlying this study has been to elucidate the power of the map and its connection to the colonization efforts in German East Africa. Using the theoretical model of three successive gazes the map has been exposed as a critical tool in serving several needs of a colonial venture. First, the gaze of Dominion helped to create a space suitable for colonization. While explorers crawled all over the continent their maps served to prepare Africa for the gazes that were to come afterwards. Modern geography is a skill which defines a territory not only in terms of what it is, but how it relates to the outside world. The act of creating a map of Africa was not a situation where new data was added to indigenous conceptions. Through their mapping efforts, the Europeans were

343 Winichakul, 31.
creating “another kind of knowledge of space with its own classificatory systems, concepts, and mediating signs.”\textsuperscript{344} The longitude and latitude lines that were laid across the continent helped create a “placelessness” which destroyed the history of the space and made it suitable to occupy.\textsuperscript{345}

Next, the gaze of the Despot fell across this now blank space and saw that “it was good.” Viewing nothing more than a void, created under the measured gaze of Dominion, it was easy for a colonizing power to impose their will on the land. Mapping the conquest of the continent allowed the colonizers to create a “projection of [their] wish-fulfillment” in an attempt to achieve the goals they had set their hearts on.\textsuperscript{346} Nations are no more real than ink-blots but the medium of the map allows for a reproducibility and permanency to this fantasy that convinces the viewer of the reality.\textsuperscript{347} In the case of German efforts the “plainest result” of all these efforts was creating a colony or, “a geographical region bounded by arbitrary imperialist borders.”\textsuperscript{348} The declaration of German East Africa as a colony, no matter how welcome by Carl Peters, was not the difficult part. The declaration was the result of a “long and gradual inscription of the

\begin{itemize}
\item \textsuperscript{344} Ibid., 31.
\item \textsuperscript{345} Noyes, 128.
\item \textsuperscript{346} Bialas, 13.
\item \textsuperscript{347} Christian, 315.
\item \textsuperscript{348} Koponen, 559.
\end{itemize}
“earth” whereby the presence of the colony was written down in a way to interpret this presence as possession.\textsuperscript{349}

Lastly, the gaze of the Developer looked at German East Africa in an attempt to make something productive out of it. Developers had no qualms with their extractive economies as the previous gazes had destroyed all conceptions other than those of the European. Morton Stanley once suggested that the continent of Africa was, through the use of geographic knowledge, “being fettered to civilization through by rigid bars of metal which form the all-conquering railway.”\textsuperscript{350} Having been turned into a space, and then conquered, all the remained was for something to be done with it.

Beyond these three gazes there was the enforcement of these gazes through the use of violence. Even the penetrating act of exploration, the gaze of Dominion, was a forceful act. These initial travels, often by missionaries or explorers, do not appear to possess much force potential. However, they did possess force in two ways. The act of exploration did violence to the indigenous populations’ sense of self and the relationship they had to the rest of the world. They were being forced into adopting a new “world view” by European cartography.\textsuperscript{351} Fundamentally, the land was being made

\textsuperscript{349} Noyes, 225.
\textsuperscript{350} From a speech by Stanley to the Manchester Geographical Society in 1885 quoted in Driver, 126.
\textsuperscript{351} Winichakul, x.
unintelligible through the language of cartography. Also, these expeditions were forceful in their own make-up. While the mythos exists of lone adventurers, the act of exploration was a huge production involving porters, transportation, and manpower for protection. As the designs for the colonial project grew the level of force demanded grew as well. While there is extensive literature on colonial warfare, it is often ignored within the context of the gaze of the Despot for a variety of reasons. First, the initial historiography by European scholars was invested in suggesting the normalcy of colonial occupation as part of the “White Man’s Burden.” Documenting uprisings such as these, apart from the large scale revolt in 1905, which could not be ignored, would undermine their claim. This is one reason why there is no “Nostalgic History” map, as classified by Ian Barrow, in the case of the German colonial conquest. While it was in the British East India Company’s interests to produce maps documenting the take-over of India, for Germany, whose despotic gaze was larger than its stomach for most of its colonial existence, would have jarred the reader of the map. Rather than needing to reassert a conquest, the goal of the German maps was to suggest that the conquest was accomplished and not in any danger of being undone. Second, later historiography did

352 Zbigniew Bialas, extrapolating from Foucault’s ideas on truth and discourse, suggests that, “In order to impose the ‘contours’ track ‘elevations’ ‘delineations’ etc. a whole set of minor, related ‘grammatical’ rules has to be accepted if the representation of the land is to be all readable.” Bialas, 179.
353 Fabian, 29-30.
354 Barrow, 19. In these maps the conquest of India was traced as natural progression, inviting the viewer to engage in conquering India “again” by tracing the successive encroachments listed on the map into the sub-continent. Additionally, this was tied to a propaganda effort on the part of the Company to associate
not want to examine these conflicts for different reasons. After decolonization much of the early Africanist literature was centered on passing judgment under the dichotomous rubric of “collaboration” or “resistance.” This entire period, where efforts of resistance and collaboration ebbed and flowed even within districts, would muddy the waters of those striving to free Africa from European dominated history. Only recently has the historiography advanced to the point at which nuanced responses to colonialism, providing a range of choices rather than a dichotomy to the colonized, might open doors to a reexamination of this type of conflict.\footnote{This permanent projection of force, in order to induce the indigenous populations to accept the European “world view”, has been ignored by a number of different disciplines. However, it was the gaze of the Developer where force has been most neglected. Economic development within the colonies is generally taken as a given, with the application of force pushed the background or only seen in distinct forms.}

German East Africa served as a perfect case-study for an examination of these gazes. First, the timescale of German colonization lent itself to a study such as this. Unlike the experience of other regions in Africa, the colonial effort in Eastern/Central Africa in many ways was the “Scramble for Africa.” Rather than
trying to trace these gazes over the course of many centuries of contact, these
gazes could be sequentially established over the course of decades in German East
Africa. Second, this time period of colonization was important for a study like
this as the colonization of German East Africa occurred when cartography was at
the zenith of its original art. Fundamentally, cartography had not changed much
since the times of the Egyptians. While there were some technological advances,
they were more in line with increasing accuracy or ease rather than a change in
kind.\footnote{A clear evolutionary line, without a change in kind, can be traced from the Egyptian Groma to
the Roman Groma to the modern Theodolite. A true sea-change in cartographic technology would be the use
of the airplane and satellite imagery which was something I wanted to avoid.}  As so much of the exploratory and colonial literature is connected to
individual experience on the ground it was important to confine this study to
mapping that was conducted in the same manner. Additionally, as Germany
possessed a strong geographic and cartographic tradition, the mapping efforts in
the colony would represent the height of the tradition. Third, while it is a
mercenary instinct the colonization in Eastern Africa has largely been ignored
specifically in the case of Germany.

While this study has reached many of its goals, there are areas for
improvement. First, many of the surveys, especially those done by the
Schutztruppe, were lost during the First World War.\footnote{Stone, 96.} It was only by a sheer
A stroke of luck that the British had copied the most detailed of German cadastral maps and it resided in the map library of the University of Chicago. These surveys might have provided additional insight into the cartographic process and its relationship to colonialism. Second, related to this is the failure to show a “Smoking Gun.” One of the issues in a theoretical and deconstructionist work such as this is the inability to point at one artifact to show a definitive connection between mapping and colonialism. While many of the other cartographic scholars have relied on similar evidence to make their points it is unfulfilling to rely on inferences based on a deconstructive analysis of the map. Or to carry over from the term, while not possessing a “Smoking Gun,” it is hoped that this study has managed to point out the body, the gun and the bullet-hole. Thus, in all instances I have attempted to surround each map with enough context so as to root my analysis and make it palatable to the reader. Lastly, I recognize that I have operated under the constraint of a lack of access to European or African archives. This point is related to the first two as it is more than likely that there are other maps which might either strengthen, or hinder, this study that have remained unavailable.

Problems aside, this project has numerous applications both generally to history as a field and to particular historical issues. First, this study should help in restoring some interest in eastern Africa. Failing to be touched by the Islamic
pressure from North Africa, and largely ignored by Europeans until the mid 19th Century, this area of Africa has languished as it relates to studies of its pre-colonial or early colonial history. East Africa affords a great opportunity to see the applicability of colonial theories. The quickened pace of exploration and colonial hegemony in this region ensures that the colonial process can be studied within a manageable time-frame and context especially by pre-tenured scholars. Second, while making this case strongly in the introduction, it is hard not to emphasize the need for bridges between the discipline of history and cartography. Considering how this attitude permeates down, as seen by undergraduates who view maps in textbooks as the gift of a text-less page from the editor, this is something we should arrest as a discipline. Cartography provides an interesting case whereby historians can come to use theories and models effectively, a failing that our field is often critiqued for, within a context that is familiar. Additionally, the conceptual power of the map is unchanging and has a multitude of applications across the entirety of history, and the topic of this work should not constrain its effects. Hopefully this work can permeate the discipline more broadly and help show the way to new avenues of analysis using maps. Third, this study can aid in the understanding of the role of the military in state functions. While the “Military Revolution” is still hotly debated among military historians, it has atrophied in terms of its effects on other fields. In general, after
the initial burst of interest the potential for the military to provide a unique insight into the state functions has been forgotten. While it is true that military historians have tended to ignore new disciplines and new theories to our detriment, it is no less true that other fields have suffered by their allegiance to ignorance of all things military. As this study has shown the effect of colonial dominance and development was proportional to the effectiveness of the colonial Schutztruppe. This suggests that the military, or force in general, can have a large influence on the projected power of the state. While readily acknowledged during times of war this power nonetheless is readily available during times of peace. There is ready applicability of this insight to all manner of colonial studies, but this power should also be recognized in the realms of politics and economics. While the extraction of resources was especially prevalent in the European colonies it is a process that has occurred throughout European history on every continent. Our studies of these efforts would be greatly enhanced if only by an acknowledgement of the effect, whether by threat or actual use, of the mailed fist.

Lastly, this study will hopefully open up new avenues for German colonial research. For example, one of the problems regarding the debates about the rationales for German colonial development is the lack of proof for many of the claims. The issue of proving a “why” is often never solved through empirical means and in the end will always be speculative. However, it seemed a settled
issue that the once popular theory of capitalist pressure groups being the lynchpin for colonialism was dead. Pointing to the pitifully small investment in the colonies, many suggested there was no proof of any interest on the part of industrialists or bankers in colonialism and declared the case closed. However, through the detailed examination of the maps of the developer, it is clear that there was a desire for capitalist development in German East Africa. The one continuing obstacle that was not solved for most of the history of German East Africa was the threat of disruption. As investors, almost entirely coming from the ranks of the middle class, depend on reliability and predictability as barometers of success it is clear why the colony would not be an attractive outlet for funds before the end of the Maji-Maji revolt. As documented in chapter three, the Usambara region was becoming more developed and the government was starting to commit greater resources to its success. Only the outbreak of war muted these efforts. As shown by the map of the Pangani River or the cadastral map copied by the British, the Germans did have an interest in developing the land. Whether or not capital had found a suitable home prior to 1914, does not mean they were not interested nor does it mean they were not active in the pressure groups. Fundamentally, maps provide an alternative source for evidence to address a number of colonial issues.

358 See Appendix E in Gann and Duignan for signs of the small investment in German East Africa and their colonies overall.
While this thesis might be a small drop in the pond, my hope is that the rippling effect of its methodology and use of sources might blend into a number of other studies and enhance the historical discipline as a whole.
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