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Marking Territory: demarcation of the DRC-Zambia boundary from 1894 to the present day

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Thesis for the degree of Doctor of Philosophy (PhD)

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June 2010

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Abstract

From 1911 to 1914 an Anglo-Belgian boundary commission demarcated some 800 km of the boundary between the Congo Free State and Northern Rhodesia with 46 boundary markers. As was common practice across most British colonial boundaries in Africa prior to 1914, the process of demarcation was an exercise focused more on mapping and exploration than on clearly defining boundaries at the local scale. The division of territorial sovereignty through boundaries was known only at a small geographic scale. However, in 1927 a second Anglo-Belgian boundary commission was sent to demarcate what was by that time the Belgian Congo-Northern Rhodesia boundary. Working for six years at a cost that exceeded preceding boundary commissions throughout colonial Africa, the 1927-33 boundary commission erected boundary marks every 500 metres and literally carved the boundary line onto the local landscape.

This research is framed by a 'traditional' understanding of a boundary as a fixed, bilateral and linear entity, taking an approach from international law. It is shown how boundaries developed as an essential component of the modern state territorial sovereignty that was imposed on the African continent through European imperialism. In making a boundary 'known,' demarcation is then isolated as a distinct process and recovered as a narrative in the study of the DRC-Zambia boundary from the colonial through the post-independence periods. Examining the disparity in demarcation methodology within in this narrative provides a unique lens through which to examine the relationship between state and territory throughout this narrative. It will be shown how economic aspects of land continue to affect demarcation methodology, reflecting some of the very foundational tenets of territorial sovereignty.

Acknowledgements:

First and foremost, special thanks are owed to Stuart Elden and Cheryl McEwan for their patience and perseverance.

For their comments, critiques, sympathetic ears and motivational chats, thanks are owed to: the International Boundaries Research Unit especially Martin Pratt, Alison Williams, Wafula Okumu, Anthony Asiwaju, Tim Daniel, Diana Martin, Alistair MacDonald, Philip Knowles and Jo Patterson.

For their assistance in UK-based archive research, thanks are owed to the staff of The National Archives (Kew), especially Geraldine Beech and Rose Hilton; and the staff of the archives of the Royal Geographical Society with the Institute of British Geographers (RGS-IBG).

For their invaluable assistance conducting archive research in Zambia, thanks are owed to: Giacomo Macola, Marja Hinfelaar and the staff of the National Archives of Zambia (Lusaka).

For their valuable insights and essential support, thanks are owed to the Zambian Survey Department, Ministry of Lands, especially: Ed Kateka, Danny Mubanga, John Mwanakasale and members of the Ndola Office of the Survey Department.

For supporting fieldwork in Zambia, special thanks are owed to: Karen and Sandy Donaldson, Historical Geography Research Group, Royal Geographical Society (Dudley Stamp Award), Jill Stewart, Anne and Kevin Nichol and University of Zambia.

Finally, for not kicking me out of the house over the course of this research and providing me with persistent motivation, very special thanks to Selena, Stella and Isla.

Abbreviations:

AU – African Union

AUBP – African Union Border Programme

BSAC – British South Africa Company

CO – Colonial Office

CFS – Congo Free State

DO – Dominions Office

DRC – Democratic Republic of the Congo (formerly Zaire)

FO – Foreign Office

NAZ – National Archives of Zambia

NRA – Northern Rhodesia Administration

T – Treasury

WO – War Office

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1. Introduction: you are approaching a 'boundary'

“Upon what basis then can we divide the intrinsically complex and indivisible world? One thing is clear; we can distrust from the start any simple solution. We are not looking for the one true method of division since there can be none; we are looking for a more or less suitable method.”

Richard Hartshorne 1949¹

¹ R. Hartshorne *On the Nature of Geography: A Critical Survey of Current Thought in Light of the Past* (Lancaster PA: Association of American Geographers, 1949/1961), 290.

Prologue

In August 2007, after consulting with the surveyor general and deputy surveyor general of Zambia in Lusaka, I travelled to the Zambian city of Ndola located in the heart of the Copperbelt region near the international boundary with neighbouring Democratic Republic of the Congo (DRC). Accompanied by two officials from the Ndola office of the Survey Department and travelling in a government vehicle, we drove approximately 10 km north of Ndola to the Sakania crossing point. This is a main, if not the busiest, crossing point from Zambia into DRC used largely by non-commercial traffic, with only a handful of private cars crossing per day along the unsealed but well-maintained dirt road. It is located within a populated area on the Zambian side, where most of the local population live between the boundary and the parallel Copperbelt highway, commuting to jobs in Ndola. On the Zambian side, the Sakania crossing point itself is a collection of several buildings including a police check point and customs/immigration offices as well as a café/bar and restaurant.

After lengthy discussions with both police and customs officials, the three of us passed under the raised black and white striped gate-arm and continued about a kilometre to the objective of our journey. Extending some 1.5 metres above ground level just on the right (east) side of the dirt road was boundary pillar (BP) 16, originally built by an Anglo-Belgian boundary commission in 1927. The concrete pillar had obviously fallen into extreme disrepair, and appeared to have been recently rebuilt, with pieces of the original pillar cemented back together. A second pillar constructed of brick had been built next to BP 16, likely an effort to replace the original pillar after it crumbled. Of itself as a symbol of an international boundary, BP 16 remains visually unmistakable, a heavy pale-grey obelisk still inscribed with its number '16' and the letters 'C' for Congo and 'R' for Rhodesia. However, surrounded by dense forest, BP 16 and its duplicate are all that inform an individual that he/she is passing from the territory of the Republic of Zambia into the DRC. No other markers or symbols exist and without consulting a map, it would be impossible to know exactly where the boundary ran on the ground. Indeed the boundary could easily be interpreted as running parallel to the road rather than its legal definition along the Congo-Zambezi watershed running perpendicular to the road.



Figure 1: BP 16 (2 August 2007)

The Congolese border checkpoint is located on the road a further 500-600 metres beyond BP 16. Given that the Zambian checkpoint is positioned approximately a kilometre away from BP 16, a wide zone exists between what can be visually perceived as the division of Zambian and Congolese territory. This zone, particularly the area between the Zambian customs/immigration office and BP 16, includes a variety of local infrastructure including private dwellings, gardens, a playing field and a railway line. While the survey officials confirmed that this area was under Zambian jurisdiction and in Zambian territory, all of this local infrastructure and resultant activity exist within what might be described by a traveller as a ‘stateless’ space, a frontier zone between official checkpoints where the division of authority is ambiguous.

Returning to the Zambian side of the Sakania crossing point, we continued 10 to 15 km north along the main Copperbelt highway in search of another boundary pillar. We consulted two local residents who guided us along a rough track towards what they referred to as a boundary pillar. There in the midst of uninhabited bush, we came across a two metre high, chain link fence, topped by three strings of barbed wire

Chapter 1 – Approaching a boundary

and flanked by cleared dirt roads on either side. There was a large break in the fence at this point presumably created to allow vehicles through. However, the fencing and flanking roads continued as a distinct line through the bush to the northwest and southeast, roughly following the direction of the DRC-Zambia boundary. The local residents indicated that the fence was the boundary and pointed to a large piece of broken concrete lying at the base of one fence post suggesting it was a boundary pillar. On closer inspection, this concrete block appeared to be part of the fence construction and not an official boundary pillar. Undaunted we followed the fence-line on the Zambian side for 2 to 3 kilometres before coming to another fence that ran perpendicular to the ‘boundary fence’ and enclosed the Frontier copper mine operated by Quantum Minerals Ltd. At this junction of the two perpendicular fences stands BP 18. In much better condition than BP 16 although built at the same time by the Anglo-Belgian boundary commission, BP 18 is also unmistakable with its inscribed number and letters ‘C’ and ‘R’. However, in the shadow of the taller and more ominous fencing, BP 18 appeared almost intimidated, irrelevant, surplus to its original purpose of marking a territorial boundary.



Figure 2: BP 18 at southeast corner of the Frontier Copper Mine

The DRC-Zambia boundary was originally delimited as the boundary between the Congo Free State (later Belgian Congo) and the British protectorate of Northern Rhodesia in 1894 and stretches over 1900 km from Lake Tanganyika in the east to the tripoint with Angola in the west. From 1911 to 1914, an Anglo-Belgian boundary commission was dispatched to survey and demarcate the boundary on the ground. During its time in the field, this commission marked the 800 km watershed section of the boundary with just 46 pillars, sited an average of 15 km apart, using a methodology that was fairly common for the demarcation of British colonial boundaries in Africa at the time. As with the current situation of BP 16, this method of demarcation left the boundary indistinguishable on the ground. However, in 1927 a second Anglo-Belgian boundary commission was sent to re-demarcate this same boundary section along the watershed. Working for six years with a budget greater than any previous British boundary commission in colonial Africa, the Anglo-Belgian boundary commission marked the watershed boundary with pillars no less than 500 metres apart and dug a half metre wide trench between each pillar, quite literally etching the boundary onto the physical landscape.

What prompted such a change in demarcation methodology provides critical insight into the way in which African territory was perceived by the British imperial government, and how that perception echoes through post-independent Zambian government policy.

What happened to boundary studies?

The current situation of BP 16 in relation to the respective Congolese and Zambian checkpoints is especially illustrative of the conceptual difference between two of the most widely used but problematic English terms in contemporary political geography that are often used synonymously: ‘border’ and ‘boundary’. In this specific context they can be used to describe two different geographic sites that are distinguished by different practices and symbols. The former term ‘border’ can be used to describe the actual site of asserted state control: the Sakania check point. The later term ‘boundary’ can be used to describe the actual limit of state territory: the pillar itself. The common thread between the two is that they act as the points of contact and division between political spaces. In that regard there are two elements operating, both the practice that is undertaken and the nature of the spaces that are being divided

which is why research into international borders and boundaries leads rapidly into discourses about the nature state territorial sovereignty.

A significant amount of scholarship continues to address international borders and boundaries. Much of this approaches them from a regional perspective, looking at a wide variety of activities within the areas flanking an international boundary. Some literatures expose the influence of borders as social and cultural practices,² while others take a distinct ethnographic approach to the study of borderland areas.³ There are studies of borderland interaction⁴, more generalised studies of border landscapes,⁵ research into the micro-economies of local borderland communities⁶ and the division of cultural identities, most appropriately for this research in African borderlands.⁷ The element of the ‘boundary’ is certainly present in these all discourses, but it is generally treated as a static, pre-defined constant whose presence “creates its own distinctive region, making an element of division also the vehicle for regional definition.”⁸ For example, take John House’s and Oscar Martinez’s similar models of borderland interaction. Both depict the penetration of cross-border flows and interaction as a regional zone or band on either side of the boundary, but they depict the boundary itself as a pre-existent line.⁹ With more of a regional focus, borderland studies encompass a wide range of social practices within a defined space.

Within recent discourses in political geography, particularly from the late twentieth century, the dominant approach to the study ‘borders’ has emphasised the link with practices of state control. As at the Sakania check point, borders can be understood as the limits of control whereby an individual must pass between different

² H. Van Houtum, O. Kramsch and W. Zierhofer eds., *B/ordering Space* (Aldershot: Ashgate Publishing, 2005).

³ N.S. Megoran, ‘For ethnography in political geography: experiencing and re-imagining Ferghana Valley boundary closures’ *Political Geography* 25, no. 6 (2006): 622-640.

⁴ J. House, ‘Frontier studies: an applied approach’ in *Political Studies from Spatial Perspectives: Anglo-American Essays on Political Geography*, ed. A.D. Burnett and P.J. Taylor (New York: Wiley, 1981), 291-312; O. Martinez, ‘The dynamics of border interaction: new approaches to border analysis’ in *World Boundaries. Vol. I: Global Boundaries*, ed. C.H. Schofield (London: Routledge, 1994), 1-15.

⁵ D. Rumley and J. Minghi, eds., *The Geography of Border Landscapes*, (London: Routledge, 1991); G. Smith et al., eds., *Nation-building in the Post-Soviet Borderlands: The Politics of National Identities* (Cambridge: Cambridge University Press, 1998).

⁶ W. Zeller, ‘Danger and opportunity in Katima Mulilo: A Namibian border boomtown at transnational crossroads’ *Journal of Southern African Studies* 35, no. 1 (2009). 133-154.

⁷ A.I. Asiwaju, ed., *Partitioned Africans: ethnic relations across Africa’s international boundaries 1884-1984* (Lagos: University of Lagos Press, 1994); W.F.S. Miles *Hausaland Divided: Colonialism and Independence in Nigeria and Niger* (Ithaca: Cornell University Press, 1994).

⁸ J. Minghi, ‘From conflict to harmony in border landscapes’ in Rumley and Minghi, *The Geography of Border Landscapes*, 15.

⁹ House, ‘Frontier studies: an applied approach,’ 296-297; Martinez, ‘The dynamics of border interaction.’

spaces where force is able to be applied in the enforcement of some kind of regulatory arrangement. When addressed in the inter-state context, an international border can therefore be observed at a multitude of geographical sites: a border crossing point, a border fence, an airport check point, an embassy and conceptually through to the fences defining camps described by Agamben as spaces of exception.¹⁰

This emphasis on borders as the actual practices of state control in much of the political geography scholarship on state and territory in recent decades has been influenced by what John Agnew has famously labelled the ‘territorial trap’. Agnew originally coined the term in 1994 to critique the tendency of mainstream international relations theory to make “geographical assumptions” suggesting that “even when rule is territorial and fixed, territory does not necessarily entail the practices of total mutual exclusion which the dominant understanding of the territorial state attributes to it.”¹¹ In other words, Agnew understands that the territorial state model implies the sense that states have exclusive control over the full extent of their territory even though states are subject (and have historically been subject) to numerous external forces that affect the exclusivity of that control.

The ‘territorial trap’ is a warning to avoid the tendency towards treating states as regular, undifferentiated units, implying homogenous application of state control over territory, or at least illustrating no discrepancies between the extent of territory and the extent of state control. The suggestion being that studies of the state should be historically and socially contextualised so as to avoid conveying a unitised understanding of state sovereignty. Addressing the assumptions about state territorial sovereignty, Agnew continues the argument to indicate: “In the first place, sovereignty as construed by mainstream approaches implies a relation of similarity among all states in which differences in political and economic practices are defined and demarcated by state-territorial boundaries.”¹² There is tension here in that boundaries, as the limits of state territory, seem to be characteristics of the de-

¹⁰ In reference to the Nazi legal ‘justifications’ for the establishment of concentration camps, Agamben describes: “The camp is a piece of land placed outside the normal juridical order” G. Agamben, *Homo Sacer: Sovereign Power and Bare Life*, trans. D. Heller-Roazen (Stanford, CA: Stanford University Press, 1995/1998), 169-170. The significance in this context is that the definition of a camp as a space of exception is through unilateral state action that creates a fence or gate through which one would pass from an area of normal legal jurisdiction to an area where it is suspended.

¹¹ J. Agnew, ‘The territorial trap: geographical assumptions of international relations theory’ *Review of International Political Economy*, 1:1 (1994): 53-80. 54. See also: J. Agnew and S. Corbridge, *Mastering Space: Hegemony, Territory and International Political Economy* (London: Routledge, 1995), 79.

¹² Agnew, ‘The territorial trap,’ 71. See also: Agnew and Corbridge, *Mastering Space*. 95.

contextualised notion of a state's territory, whereas borders, approached as the actual practices of state control, can be contextualised and therefore avoid the territorial trap.

Michel Foucault's discourse on state power focuses on governing in relation to state sovereignty and can be seen to have influenced these contemporary human and political geography approaches to the study of international borders. In his famed lecture 'Security, Territory and Population,' Foucault critiques Machiavelli's works on the art of government suggesting that Machiavelli's understanding of state sovereignty was based on "a juridical principle that from the Middle Ages to the sixteenth century defined sovereignty in public law; sovereignty is exercised not on things, but, above all, on a territory and the subjects who inhabit it."¹³ Drawing a parallel between governing a state and managing a household, Foucault believes "the question of landed property for the family, and the question of the acquisition of sovereignty over territory for a prince, are only relatively secondary matters. What counts essentially is this complex of men and things; property and territory are merely one of its variables."¹⁴

Foucault's concern here is very much on the operative acts of governing over things/men through sovereign power, that Elden unpacks as both disciplinary power over people within the state and security from external threats.¹⁵ Foucault admits that sovereignty is most important at the moment governing begins, but from this point assessment of sovereignty's influence is retrospective. The more important element for governance is the population over which authority and security is exercised "with territory that it covers, to be sure, but only in a sense as one of its components."¹⁶ Elden provides much better context to this and other of Foucault's lectures in the understanding of territory, but the key notion is the focus on what the state 'does', rather than what a state 'is'.

Robert Sack's work on *Human Territoriality* is a good example of how recent human geography has focused on state control as practice, and its tension with territory as a concept. Sack describes territoriality as "the attempt by an individual or group to affect, influence or control people, phenomena, and relationships, by

¹³ M. Foucault, *Power: Essential Works of Foucault Vol. 3*, ed. J. D. Faubian, trans. R. Harley et al., (London: Penguin, 2002), 208.

¹⁴ Foucault, *Power*, 209.

¹⁵ S. Elden, 'Governmentality, Calculation, Territory' *Environment and Planning D* 25 (2007): 562-580. 565.

¹⁶ Foucault, *Power*, 221.

delimiting and asserting control over a geographic area. This area will be called territory.”¹⁷ He then suggests “this delimitation becomes a territory only when its boundaries are used to affect behaviour by controlling access.”¹⁸ Problematically, Sack combines two processes in this definition: delimiting and controlling access over territory are not distinguished as separate.¹⁹ This becomes even clearer in his assertion that “Territories can occur in degrees” so the greater control asserted at boundaries, the greater the degree of territoriality.²⁰ Again, the concepts of territory as an area and territoriality as a practice are used interchangeably. Applying this understanding to the above example of BP 16, it could be argued that the territory of the Zambian state ended at the Sakania check point and the territory of the DRC only began some 1.5 km away at its border crossing point. More importantly for this work, Sack’s assertions suggest that as sites of control, boundaries are constitutive of territory, a concept that can come into tension with international law’s understanding of territorial sovereignty and be problematic when applied to Africa’s imperial context. However, the notion that boundaries can exist in varying degrees (in terms of control) can also be seen in the practices related to their physical definition.

Associating a ‘border’ with the practices and sites of state control has broadened the intellectual scope of border studies to encompass a wide range of interdisciplinary scholarship that embraces their multiplicity (territorial sites of control, as well as sites of control in cyberspace, personal identity as a site of control, and so on).²¹ Avoiding the ‘territorial trap’ has led to this increased focus on practices of state control that can be directly contextualised. For example, Donnan and Wilson take a distinctly anthropological approach to border studies, and are mainly concerned with the effects of state power on border cultures and identities.²² However, there has been admission that the ‘boundary’ as a de-contextualised element of the territorial

¹⁷ R.D. Sack, *Human Territoriality: Its theory and history* (Cambridge: Cambridge University Press, 1986), 19.

¹⁸ Sack, *Human Territoriality*, 19.

¹⁹ The term ‘delimitation’ used by Sack will be examined in greater depth later as one of the boundary-making processes in Chapter 2.

²⁰ Sack, *Human Territoriality*, 20.

²¹ See especially D. Newman and A. Paasi, ‘Fences and neighbours in the postmodern world: boundary narratives in political geography’ *Progress in Human Geography* 22, no. 2 (1998): 186-207. 191.

²² H. Donnan and T.M. Wilson, *Borders: Frontiers of Identity, Nation and State* (Oxford: Berg, 1999), 4.

trap and the notion of a border as contextualised practice may not be separate concepts, but instead may exist on some kind of spectrum.

In their introduction to *B/ordering Space*, Van Houtum, Kramsch and Zierhofer state: “The border of a province or nation-state is first and foremost a legal fact, one that is reproduced...ranging from printed bodies of law and maps to corporeal inscriptions and the surveillance of boundaries on the landscape.”²³ Here the border is treated both as a ‘legal fact’, with its distinctly modernist elements making it able to be reproduced, and as the site of surveillance or the application of state control. Newman more explicitly places boundaries and borders on what he describes as a continuum, reflecting Sack’s scalar understanding of territoriality:

Thus the focus for the study of boundaries is the bounding or bordering process; namely the functional impact of the boundary rather than its descriptive and static locational characteristics. A deeper understanding of the boundary phenomenon places all types of boundaries on a single functional continuum. The precise location of any boundary along this continuum will be dependant on the extent to which the boundary is permeable to a greater or lesser degree, allowing the movement of people, goods, information or other sorts of transboundary interaction, from one side to the other.²⁴

He goes so far as to suggest that “Any attempt, therefore, to create a methodological and conceptual framework for the understanding of boundaries must be concerned with the process of ‘bordering’, rather than simply with the means through which physical lines of separation are delimited and demarcated.”²⁵

In avoiding the ‘territorial trap’, contextualising aspects of state control correctly avoids the simplified unitisation of the territorial state, but it makes it difficult to analyse the boundary as a constituent element of the territorial state model. The point of departure for contemporary border research is often the actual practice of control (the border) with a tendency not to address the model itself (the boundary) which is why the lack of distinction between the terms can be problematic. In other words, if a ‘boundary’ is determined by some degree of state control (Newman’s “functional continuum”) then what was the original concept that directed the actual

²³ Van Houtum, Kramsch and Zierhofer, *B/ordering Space*, 3.

²⁴ D. Newman, ‘From the International to the Local in the Study and Representation of Boundaries: Theoretical and Methodological Comments’ in *Holding the Line: Border in a Globalized World* eds. H. Nicol and I. Townsend-Gault (Vancouver: University of British Columbia Press, 2005), 400.

²⁵ Newman, ‘From the International to the Local,’ 400.

geographic assertion of state control in one area and not others? As with Sack's effective fusion of territoriality and territory, Newman's combining of bordering as a process and boundaries as a geographical site has broadened the scope of border studies to embrace any application of state control and social practice across a wide range of spatial fields. However, this has made it difficult to critically engage with what the theoretical concept of 'boundaries' and the distinct practices that are associated with them.

In his expansive work *The Nation-State and Violence*, Anthony Giddens described the modern state as "the pre-eminent form of power container, as a territorially bounded (although internally highly regionalized) administrative unity."²⁶ However, when addressing the boundaries (or borders to use his term) of modern states, Giddens states:

Modern state borders may coincide with natural defensive boundaries (e.g. imperial frontiers - Great Wall of China, Roman walls), but while this may be important to the fortunes of a state in war, it is irrelevant to the character of borders. Borders are nothing other than lines drawn to demarcate states' sovereignty. As such, it is irrelevant to their nature what types of terrain (or sea) they pass over.²⁷

Although his comments do not necessarily reflect the current complexities of state maritime jurisdiction, Giddens' implies that the division of two state sovereignties can be considered separate from the sites of control. More importantly, his comment that boundaries are simply the lines that separate sovereignties implies that sovereignty itself is a de-contextualised concept, something that is applied uniformly, irrespective of geographic conditions.

If a concept is considered to be 'de-contextualised' it is a theoretical model or system that is examined outside of actual practices. As the dividing line between two 'sovereignties' it is easy to see how boundaries can be assumed to be 'de-contextualised' characteristics. The logical implication is that, as the mathematical lines between abstract sovereign entities, boundaries do not have actual practices and are therefore unable to be contextualised. Simply because they are the division between states' territorial sovereignties does not mean that boundaries are devoid of

²⁶ A. Giddens, *The Nation-State and Violence: Volume Two of A Contemporary Critique of Historical Materialism* (Berkeley and Los Angeles: University of California Press, 1997), 13.

²⁷ Giddens, *The Nation-State and Violence*, 51.

actual practices. Nor should this imply that these practices do not make them physical realities rather than ‘simply’ legal or mathematical abstractions. Boundaries do have distinct practices related to them that states have performed and continue to perform, and that are quite unique from those practices performed at borders.

Newman’s comments hint at these practices (delimitation and demarcation) but they do not convey their complexity and how they can be contextualised. There is more to be discerned from the “descriptive and static locational characteristics” to understand more clearly the distinctive conceptual characteristics of a boundary that have influenced its “functional impact.” Indeed, studying these practices can be recognised as the very nexus where the conceptual idea of the ‘boundary’ is actuated into Newman’s functional continuum of bordering. However, for many scholars, the boundary concept is incompatible with the more recent border and bordering discourses.

Nick Megoran’s critique of Stephen Davis and Victor Prescott’s chapter on the history of the Burma-Thailand boundary in *The Razor’s Edge*²⁸ is generally representative of the current view in political geography of boundary studies as “staunchly empirical, and bereft of any serious engagement with politically-informed theory.”²⁹ Megoran goes so far as to suggest that Davis and Prescott’s work has hardly moved on from Lord Curzon’s 1907 *Frontiers* lectures and suggests it would have been improved by an engagement with more recent political geographical discourses on “power, identity and territoriality” as well as critical geopolitics.³⁰ Van Houtum echoes this and recognises that the study of boundaries and borders have drifted apart “to become separate subfields.”³¹

In their pivotal review of the disparity in border and boundary literature, Newman and Paasi write “Boundary studies have had a long, descriptive and relatively non-theoretical history in geography. This is partly due to the fact that boundaries have constituted a very practical, and in some cases technical, question in international relations.”³² The suggestion here is that studies of the practices related to

²⁸ S. Davis et al., eds., *The Razor’s Edge: International Boundaries and Political Geography - Essays in Honour of Professor Gerald Blake* (London: Kluwer Law International, 2002).

²⁹ N. Megoran, ‘Review Essay: International boundaries and geopolitics: two different lectures, two different worlds?’ *Political Geography* 22, no. 7 (2003): 789-796. 794.

³⁰ Megoran, ‘Review Essay: International boundaries and geopolitics,’ 794.

³¹ H. Van Houtum, ‘The geopolitics of borders and boundaries’ *Geopolitics* 10, no. 4 (2005): 672-679. 674.

³² Newman and Paasi, ‘Fences and neighbours in the postmodern world,’ 189.

boundaries, as opposed to borders, succumb to the territorial trap; they are de-contextualised, technical issues or systematic processes that have been given “relatively untheoretical” analysis. With a growing division between the two approaches, this is contemporary political geography’s view of boundary studies; still mired in modernity’s fixation on lines, focused on de-contextualised technical processes, out of touch with theoretical discourse and gradually being shouldered out of the political geography conversation.³³

Approach to boundaries through international law

Faced with this situation, boundary scholars have moved to engage more with international law where their understanding of territorial boundaries remains firmly rooted and influential in state policies and practice. Is it any wonder that the latest edition of Victor Prescott’s seminal work *Political Frontiers and Boundaries* was co-authored by an international law scholar, Gillian Triggs?³⁴ As Minghi points out, the tendency for ‘traditional’ boundary studies was to gravitate towards inter-state conflict and the prevention thereof.³⁵ Due to its intended purpose as the mediator of disputes between states, it is easy to see how the empiricism of boundary studies in specific contexts continues to be applicable in the settlement of international boundary disputes.

However, there is a deeper reasoning behind why boundary studies now relate more closely to international law, and this goes back to the ‘territorial trap.’ Boundaries are inextricably linked to the territorial state ‘model’ that Agnew and Corbridge warned can lead to de-contextualised treatment of states as equal, individual actors. They are the bounds of territory sovereignty that do not necessarily coincide with the effective limits of state control. International law is founded on the territorial state model, with sovereignty, and its resultant territory, considered constants rather than variables dependent on the exercise of state control. This gives equal legal personality to every state that provides international law with its jurisdictional basis.

³³ Van Houtum et al suggest that contemporary border study “embraces the theoretical away from the empirical” (Van Houtum, Kramsch and Zierhofer, *B/ordering Space*, 4). See also Newman and Paasi, ‘Fences and neighbours in the postmodern world.’

³⁴ J.R.V. Prescott and G. Triggs *International Frontiers and Boundaries: Law, Politics and Geography* (Leiden: Koninklijke Brill NV, 2008).

³⁵ Minghi, ‘From conflict to harmony in border landscapes,’ 17.

To put some initial distance between the concept of the ‘boundary’ from a ‘border’, it is necessary first to decouple it from notions of control; to understand where a state ‘can’ assert control, rather than where it ‘does’ assert control. This issue is far more complex than understanding the distinction between geographic areas that are recognised as *de jure* or *de facto* and relates to the very substantive nature of what a boundary is dividing. Giddens’ comments suggest that it is the very nature of territorial sovereignty itself that distinguishes the boundary from conventionally understood practices of state control (such as checkpoints, fencing and barriers). This indicates that there must be clues to the practices related to boundaries within the nature of state sovereignty. Likewise, instead of avoiding the ‘territorial trap’ by concentrating on borders as determined along Newman’s functional continuum, the conceptual basis of this work will jump directly into the trap and examine where the boundary concept emerged within territorial sovereignty. This will draw out notions of territory that were active in the context of the DRC-Zambia boundary and assess its performative value in the imposition of the territorial state model on the African continent during the late nineteenth and early twentieth century through British imperial practice.

International law has a very distinct definition of territory that purposely ignores the element of unilateral state control and could be seen as being predicated on the territorial trap. Malcolm Shaw explains that international law is based on the classical notion of the state, founded on the concept of sovereignty and sovereign equality.³⁶ Sovereignty is in turn founded on what he calls the “fact of territory.”³⁷ This phrase “fact of territory” can better be understood as a geographic area of land, which becomes ‘territory’ when sovereignty is held over it. Ian Brownlie makes the distinction between the term ‘sovereignty’ as “legal shorthand for legal personality of a certain kind, that of statehood” and ‘jurisdiction’ which “refers to particular aspects of the substance, especially rights (or claims), liberties and powers.”³⁸ This is crucial in understanding the disparity between border, the edge of the application of state power and influence, and boundary, the edge of its legal personality; between what a state ‘does’ and what a state ‘is’. What a state ‘is’, within international law, depends

³⁶ M.N. Shaw, *International Law Fourth Edition* (Cambridge: Cambridge University Press, 1997), 331.

³⁷ Shaw, *International Law Fourth Edition*, 331.

³⁸ I. Brownlie, *Principles of Public International Law Fifth Edition* (Oxford: Oxford University Press, 1998), 106.

on its sovereignty which, as Brownlie explains, is a consequence of its title to territory that can only be assessed against other states' title claims:

The materials of international law employ the term sovereignty to describe both the concept of title and the legal competence which flows from it. In the former sense the term 'sovereignty' explains (1) why the competence exists and what its fullest possible extent might be; (2) whether claims may be enforced in respect of interference with the territorial aspects of that competence against a particular state.

The second aspect mentioned is the essence of title: the validity of claims to territorial sovereignty against other states.³⁹

International law views sovereignty as the legitimacy (title) held by the state to undertake governance. Sovereign title is not a variable dependant on the actual acts of governance, rather it is a constant that is either held/recognised or not; imbuing the acts of governance with legitimacy.

If territory is actuated by the application of sovereign title over an area of land, then it must also be viewed as a constant within international law. Land either has title (making it territory) or it does not; just as a state is defined by possessing sovereignty or it is not a 'state' within international law. Eschewing a deterministic approach of categorising distinct modes of a state acquiring title over territory, Brownlie suggests that the acquisition of "territorial sovereignty, or title" cannot be ascribed to distinct modes, but is best understood when adjudging the relevant validity of competing territorial claims.⁴⁰ Since the essence of law is that it cannot exist within a vacuum, international law's predilection for title over territory versus control over territory therefore can be seen in the adjudicated settlement of boundary disputes, in particular by the International Court of Justice (ICJ).

In one of its most oft-cited and important decisions in the post-colonial context, the ICJ stipulated in its 1986 decision in the Burkina Faso-Mali Frontier dispute⁴¹ that administrative acts of control are pertinent largely in the perfection of an already established title.

It (the Court) must state forthwith, in general terms, what legal relationship exists between such acts (of administration) and the titles on which the

³⁹ Brownlie, *Principles of Public International Law Fifth Edition*, 121.

⁴⁰ Brownlie, *Principles of Public International Law Fifth Edition*, 129-130.

⁴¹ S. Lalonde, *Determining Boundaries in a Conflicted World: The Role of Uti Possidetis* (Montreal and Kingston: McGill and Queen's University Press, 2002), 127-132.

implementation of the principle of *uti possidetis* is grounded. For this purpose, a distinction must be drawn among several eventualities. Where the act corresponds exactly to law, where effective administration is additional to the *uti possidetis juris*, the only role of effectivities⁴² is to confirm the exercise of the right derived from a legal title. Where the act does not conform to the law, where the territory which is the subject of the dispute is effectively administered by a State other than the one possessing the legal title, preference should be given to the holder of the title. In the event that the effectivité does not coexist with any legal title, it must invariably be taken into consideration. Finally there are cases where the legal title is not capable of showing exactly the territorial expanse to which it relates. The effectivities can then play an essential role in showing how the title is interpreted in practice.⁴³

This passage has been cited in several boundary decisions since 1986, including the 2002 Cameroon-Nigeria case. In that case, one of Nigeria's central arguments concerning the disputed Bakassi peninsula was that its administrative acts of control (e.g. tax collection, operation of health centres, use of Nigerian currency and passports) over several decades after independence had generated a transfer of title to that particular piece of territory.⁴⁴ But the ICJ ruled instead that title to the territory in question had been determined by a 1913 Anglo-German boundary agreement (subsequently placing Bakassi within the territory of Cameroon), and that Nigerian administrative acts of control failed to displace that pre-existent title.⁴⁵ This reaffirmed the Court's preference, at least in this important case, for legal title over administrative control. In his analysis of the ICJ decision in the 1999 Botswana-Namibia case over Kasikili/Sedudu island, James Theo Gathii explained how that decision expressed a 'geographical Hegelianism' due to 1) the probative value given to scientific, physical geographical and economic evidence at the expense of

⁴² Effectivities has been used by the ICJ and other international tribunals as short-hand for acts of effective administrative control (taxation, policing, currency, funding of infrastructure such as schools, etc).

⁴³ International Court of Justice (ICJ), 'Frontier Dispute (Burkina Faso/Mali) Judgment' *I.C.J. Reports* (1986): 554-651. para. 63.

⁴⁴ International Court of Justice (ICJ), 'Land and Maritime Boundary Between Cameroon and Nigeria (Cameroon v. Nigeria with Equatorial Guinea intervening, Judgment' *I.C.J. Reports* (2002): 301-458. paras. 218-224.

⁴⁵ ICJ, Cameroon and Nigeria, para. 223.

occupational evidence, and 2) the emphasis on “the subject requirement of intent to own territory” as being superior to effective control and the displays of sovereignty.⁴⁶

This is not to say that unilateral expressions of state control play no role in its relationship with title over territory under international law. International courts and tribunals have often reiterated that they must apply inter-temporality when assessing boundary and territorial disputes, meaning that, for example, valid title can be recognised today if earned through conquest at a time when that was a legally valid method of appropriation.⁴⁷ International law also currently observes a valid transfer of territorial title through the process of prescription whereby administrative control creates a transfer of legal title.⁴⁸ However, this can only be validated if the losing sovereign has implied its consent that it no longer holds title over an area being controlled by another state, making it extremely difficult to apply in actual cases.⁴⁹ The above citation from the ICJ’s 1986 Burkina-Faso judgment indicates that administrative acts can assist in ‘perfecting’ title but they must be assessed against the administrative acts of another state claiming title over the same area of land. Yet again, title over territory is treated as somehow pre-existent, not created by state administration but perfected by it. The ICJ recently reiterated this premise in its 2004 advisory opinion on the Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory and cited the UN General Assembly’s ‘Declaration on Principles of International law concerning the Friendly relations and Co-operation between states’ “No territorial acquisition resulting from the threat or use of force shall be recognised as legal.”⁵⁰

The ICJ and international arbitral tribunals have been very reluctant to ascribe parameters for prescriptive value of administrative acts particularly in boundary and territorial disputes because it would derogate from the concept of sovereignty being a constant, held by all recognised states regardless of state power. The resultant notion

⁴⁶ J.T. Gathii, ‘Geographical Hegelianism in territorial disputes involving non-European land relations: an analysis of the case concerning Kasikili/Sedudu’ *Leiden Journal of International Law* 15 (2002): 581-622. 582.

⁴⁷ Brownlie, *Principles of Public International Law Fifth Edition*, 126-128.

⁴⁸ Shaw makes the distinction between ‘occupation’ as a valid method for acquiring title over *res nullius*, or land without sovereignty, and ‘prescription’ with involves acquiring title over territory, or land already subject to sovereign claim. Shaw, *International Law Fourth Edition*, 342-346.

⁴⁹ Brownlie provides a simple imagined scenario illustrating this point more clearly. Brownlie, *Principles of Public International Law Fifth Edition*, 106.

⁵⁰ United Nations (UN) General Assembly (GA) Res. 2625 (XXV). See also International Court of Justice (ICJ) ‘Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion 9 July 2004’ *ICJ Reports* (2004). paras. 87-88.

of sovereign equality provides international law with its foundation as a dispute mediator between what it must consider to be equal legal personalities. If one state could generate legal title through control over territory contrary to another recognised title, the very fabric of the international legal system would be compromised. The system itself developed largely in response to the outlawing of conquest as a valid method of acquiring territorial title after the territorial expansionism of the two World Wars.

The territorial state model exposed by imperial practice in Africa

It is important to note that these decisions mentioned above largely relate to the legal mechanism of *uti possidetis juris* or the transfer of legal title at de-colonisation/independence⁵¹ which makes this approach applicable in the DRC-Zambia context. Territorial title has been the mechanism through which international law gets around the problematic issue of having the two concepts of sovereignty and territory be mutually constructive. In criticising the static understanding of sovereignty in relation to the concept of title within law, R.B.J. Walker said that “the very attempt to treat sovereignty as a matter of definition and legal principle encourages a certain amnesia about its historical and culturally specific character.”⁵² Similarly, Cynthia Weber holds that “state sovereignty as a settled question in international relations is problematic due to blindness to the historicity of sovereignty.”⁵³ This is particularly important to bear in mind when addressing African boundaries since the role of title derived from imperial practice, as evidenced in the judgments cited above, has been particularly influential in the resolution of boundary and territorial disputes in post-independence Africa. Claiming title without actual administrative control was a hallmark of European imperialism in Africa and a practice that exposes the territorial state model in its rawest form.

⁵¹ The concept of *uti possidetis juris* relates to the transfer of territorial title applied at the moment of de-colonisation/independence; e.g. when a state or empire fractures into subsequent independent states. See especially Lalonde, 2002 and Brownlie, 1998. 132-133. This will be examined in more depth with regard to the African context in Chapter 6.

⁵² R.B.J. Walker, *Inside/Outside: International Relations as Political Theory* (Cambridge: Cambridge University Press, 1993), 166.

⁵³ C. Weber, *Simulating Sovereignty. Intervention, the State and Symbolic Exchange* (Cambridge: Cambridge University Press, 1995), 2.

Shaw asserts that the imperial division of the African continent occurred at “the high point of the exclusivity concept of the State in international law as fostered by nineteenth century positivism.”⁵⁴ This was dominated by:

the view that the organised tribes of peoples of non-European lands had no sovereign right over their territories and thus no sovereign title by means of effective occupation. The inhabitants, therefore, were merely factually and not legally in occupation of the territory, which could be treated as *terra nullius* and acquired by any State in accordance with the requirements of international law.⁵⁵

However, Shaw challenges the notion that the European imperial powers considered the African continent *terra nullius* (land without sovereign) since occupation was not the recognised mode of acquiring title to territory.⁵⁶ He explains that although the term ‘effective occupation’ was used throughout the 1884-85 Berlin Conference, where the European powers agreed on the rules for the partition of the African continent, the term was used “as a general expression comprising all modes of acquisition, to be interpreted synonymously with acquisition or appropriation.”⁵⁷ Based on the pleadings and decision of the ICJ in the Western Sahara case, Shaw concludes that the imperial powers gained title to African territory largely through acquisition agreements made with local rulers.⁵⁸ This suggests that the European powers must have recognised some degree of sovereignty held by indigenous political leaders.

Shaw’s perspective is obviously influenced by Judge Max Huber’s famed 1928 decision in the *Island of Palmas* case where he found, commenting on the legal validity of purported treaties agreed between the imperial powers and local political leaders, that such agreements:

are not, in the international law sense, treaties or conventions capable of creating rights and obligations such as may, in international law, arise out of treaties. But, on the other hand, contracts of this nature are not wholly void of indirect effects on situations governed by international law; if they do not

⁵⁴ M.N. Shaw, *Title to Territory in Africa: International Legal Issues* (Oxford: Oxford University Press, 1986), 32.

⁵⁵ Shaw, *Title to Territory in Africa*, 32.

⁵⁶ Shaw, *Title to Territory in Africa*, 33.

⁵⁷ Shaw, *Title to Territory in Africa*, 34.

⁵⁸ Shaw, *Title to Territory in Africa*, 36-38.

constitute titles in international law, they are none the less facts of which that law must in certain circumstances take into account.⁵⁹

Huber may not have viewed these agreements as international treaties, but Sir Edward Hertslet's widely consulted series *Map of Africa by Treaty*⁶⁰ included both inter-imperial agreements and agreements between imperial and local political leaders that allocated and delimited territory across the continent.⁶¹

In the cases of African territory acquired by European imperial powers through 'treaties' with indigenous political leaders, it is overly simplistic to assert that all of those African leaders had no concept of what their agreements with the imperial powers implied. Many saw it as an opportunity to increase their own power over neighbouring groups, securing political allegiance to a powerful ally or beneficial commercial arrangement.⁶² However, the large majority of pre-imperial African leaders would have had little idea what the treaties they agreed with European representatives would eventually mean in the longer term. This is not to mention the serious legal questions that may be raised concerning the validity of those agreements, considering: the capacity of European officials presenting the agreements, any coercive activity, ambivalent wording of documents and inherent prejudice towards written documentation, all of which are exposed by McEwen.⁶³ Even Lord Curzon, when reviewing application of the hinterland doctrine for imperial territorial acquisition across Africa, hinted that while perhaps "imparting some measure of propriety to proceedings (it was) not everywhere over-imbued with scruple."⁶⁴ This makes it difficult to suggest that pre-colonial African political entities were treated en par with the European imperial states in those treaty relationships; that they held the same 'amount' of sovereignty, or held the same understanding of the territorial sovereignty model.

⁵⁹ *Island of Palmas Case*, 2 RIAA 829. 858; also cited in McEwan, 1971. 13-14.

⁶⁰ E. Hertslet, *The Map of Africa by Treaty Vols. I and II* (London: H.M. Stationery Office, 1894).

⁶¹ For numerous British imperial examples especially the sections for British East Africa Company (pp. 107-173), British South Africa Company (pp. 173-191) and Great Britain (pp. 327-771) in Hertslet, *The Map of Africa by Treaty*.

⁶² G.N. Uzoigwe, 'European partition and conquest in Africa: and overview' in *General History of Africa VII: Africa under Colonial Domination 1880-1935* ed. A.A. Boahen (Heinemann, CA: UNESCO, 1985), 31-33.

⁶³ A.C. McEwen, *International Boundaries of East Africa* (Oxford: Clarendon Press, 1971), 12-16. See also A. Allott, 'Boundaries and the Law in Africa' in *African Boundary Problems* ed. C.G. Widstrand ed. (Uppsala: Scandinavian Institute of African Studies, 1969).

⁶⁴ G.N. Curzon, *Frontiers The Romanes Lecture 1907* (Oxford: Clarendon Press, 1908), 45.

Most importantly for this research, the treaties agreed with local African political leaders were (perhaps deliberately) vague on the geographic extent of those political entities.⁶⁵ This provided the European powers with *carte blanche* (quite literally) to interpret the geographic extent of territory ceded by local political leaders as they saw fit. In some cases, the extent of territory controlled by local leaders was left vague or was simply dictated by the European agent concluding the agreement. The extent of Chief Kawinga's territory in part of what is now Malawi was defined in a 15 June 1891 agreement by John Buchanan of the British South Africa Company, acting as vice consul of Nyassaland.⁶⁶ One example drawn from an area of eastern Zambia is the 30 September 1890 definition of Kasembe's territory in an agreement with a representative of the British South Africa Company:

Boundaries thus defined: 'Bounded on the west by Lake Moero and the Luapula River; on the south by latitude 10° 30' (or thereabouts); on the north by the Kalongwizi River and by latitude 9° 20' (or thereabouts); on the east by east longitude 30° (or thereabouts).'

Left deliberately vague, with terms such as 'thereabouts' or using geographical terms unlikely to have been familiar to African leaders, the imperial European powers gave themselves the privilege of interpreting the territorial extent of these political entities as they saw fit. Take this remarkable statement opening the 3 December 1886 agreement between Great Britain and Zanzibar defining the limits of the Sultan's Dominions:

I am instructed by Her Majesty's Government to communicate to your Highness the particulars of an Agreement which has been entered into between the Governments of Great Britain and Germany for the purposes of delimitating the extent of the territory which they are prepared to recognise as under your Highness' sovereignty.⁶⁸

Another egregious example of this can be found in the Barotseland arbitration whereby the King of Italy was requested to define the disputed boundary between the British claimed territory of North West Rhodesia (Zambia) and Portuguese West Africa (Angola). The boundary was originally defined in an 1891 Anglo-Portuguese treaty as the western limit of the Barotse kingdom, since the Barotse king Lewanika

⁶⁵ McEwen, *International Boundaries of East Africa*, 16.

⁶⁶ Hertslet, *The Map of Africa by Treaty*, 189.

⁶⁷ Hertslet, *The Map of Africa by Treaty*. 189.

⁶⁸ Hertslet, *The Map of Africa by Treaty*. 754.

had agreed to be under the British sphere of influence.⁶⁹ Much evidence was taken up by British officials in the areas west of the upper Zambezi river of local chiefs who paid tribute to the King Lewanika or recognised him as their paramount chief. In the end, the arbitrator (King Victor-Emmanuel III of Italy) simply placed the boundary along three lines of latitude and longitude, admitting:

Concerning delimitation of the territory over which King Lewanika reigned as paramount chief, all precise delimitation is impossible due to the lack of separating geographic features, the imperfect knowledge of the area, because of the notorious instability of tribes and their frequent intermingling (circumstances that were admitted also by the Marquis of Salisbury and the Marquis of Lansdowne), it is necessary, where natural lines are lacking, to have recourse to lines of geographic convention;⁷⁰

These examples illustrate that the European imperial powers understood the pre-colonial African political leaders to have ‘sovereignty’, which is what provided the supposed legal-validity to their agreements. However, what the local African political entities failed to possess was the definition of territory by boundaries, which by the end of the nineteenth century had become a hallmark of modern European state sovereignty.

Exposing boundary empiricism to contemporary critique

This research will focus on the DRC-Zambia boundary and seeks to illustrate how boundaries themselves can be contextualised and exposed to theoretical critiques that have been more aligned with more recent border studies. The thesis will begin in Chapter 2 by exploring that relationship between boundaries and the territorial state model itself, clearly distilling the theoretical concept of boundaries as constituent elements of state development within the European notion of territorial sovereignty.

⁶⁹ For overview of the case, see Royal Geographical Society (no author), ‘The Barotse Boundary Award’ *The Geographical Journal* 26, no. 2 (1905): 201-204.

⁷⁰ Translation by the author “concerne la délimitation du territoire sur lequel le Roi Lewanika régnait comme Chef Suprême, toute délimitation précise est impossible, soit à cause du manque d’éléments géographiques séparatifs, soit à cause de la connaissance imparfaite qu’on a des lieux, soit à cause de l’instabilité notoire des tribus et de leurs fréquents entrelacements (circonstances qui ont été admises aussi par le Marquis de Salisbury et le Marquis de Lansdowne), de sorte que, il est indispensable, où les lignes naturelles font défaut, d’avoir recours aux lignes de convention géographiques” in ‘Award of 30 May 1905: The Barotseland Boundary Case (Great Britain, Portugal)’ United Nations *Reports of International Arbitral Awards* Vol. XI (1905): 59-69. 69.

Some key historical signposts of state development in relation to boundaries will be highlighted, including the influence of advances in cartography⁷¹ and how the model reached its zenith in the imperial expansion across Africa at the end of the nineteenth and early twentieth centuries. To achieve this, and to differentiate the notion of boundaries from borders, Chapter 2 will focus on three distinct characteristics of boundaries; they are inherently: static, bilateral and linear.

These three characteristics are essential for understanding those ‘technical’ practices that are being distanced from contemporary border discourses focusing on aspects of state control. These practices are better-known as boundary-making, a rubric that was elucidated perhaps most clearly by Stephen Jones in 1945 but was influenced heavily by British imperial boundary practice of the early twentieth century.⁷² As will be examined in more detail in Chapter 2, the unique practices of boundary-making were once a core subject of early twentieth-century political geography. Yet in spite of the fact that they continue to occupy state policy around the world (as will be examined in Chapter 6) it is these practices that have been separated from contemporary political geography. The above comments by Agnew and Corbridge, Newman and Giddens suggest that contemporary discourses are tending to conflate these practices, or as Newman and Paasi indicate, dismiss what can be inferred as the process of demarcation as “very practical” or “technical” issues. Taking the ‘territorial trap’ warning, this conflation or over-simplification of boundary processes appears to discount them as a de-contextualised ‘system,’ a mechanism of the trap to be avoided and not subject to theoretical critique.

Rather than providing what might be described as a ‘traditional’ analysis of the DRC-Zambia boundary that might focus exclusively on its diplomatic history, this research will concentrate on just one of the practices within the boundary-making rubric, demarcation. The concern here is not with the ‘high-political’ machinations that initially determined where the DRC-Zambia boundary was located. Instead the focus is on the practices that made the boundary a material reality on the local landscape. In spite of its seeming political importance, demarcation has largely

⁷¹ See especially M. Escolar, ‘Exploration, Cartography and Modernization’ in *State/Space: A Reader* N. Brenner et al. eds. (Malden, MA: Blackwell, 2003).

⁷² See S.B. Jones, *Boundary-Making: A Handbook for statesmen, treaty editors and boundary commissioners* (Washington D.C.: Carnegie Endowment for International Peace, 1945); T.H. Holdich, *Political Frontiers and Boundary Making* (London: MacMillan and Co. Ltd, 1916); and J.W. Donaldson and A. Williams, ‘Delimitation and demarcation: analysing the legacy of Stephen B. Jones’ *Boundary-Making* *Geopolitics* 13, no. 4 (2008): 676-701.

escaped critical assessment within contemporary political geography and is too often written off as simply one of those “technical issues” within a single boundary-making system rather than as a distinct process of its own.⁷³

Throughout this thesis, there are three key concepts that will resonate:

- First, prefaced on the conceptual characteristics of a boundary, the differences in how sections of the DRC-Zambia boundary have been demarcated on the ground indicate that physical representation of international boundaries has not been undertaken uniformly, through a finite, systematic methodology. Instead it is composed of several methodologies that must be historically, geographically and economically contextualised. Likewise, this concept of boundaries that seems *prima facie* as a key mechanism of the territorial trap is effectively diffused.
- Second, and consequently, by concentrating on the process of demarcation that contextualisation can yield insight into the differing geographic scales through which territory (in the modern state model) has been perceived by the authority claiming ‘sovereignty.’ This will emerge throughout the historical narrative of the DRC-Zambia boundary. In particular, the differentiation of geographic scales will illuminate how specific features of territory (economic, administrative etc.) influenced demarcation practice. In this regard, territory was not the inert canvas on which demarcation was undertaken, but an active participant.
- Third and finally, the perceptions of territory that influence boundary demarcation methodology will expose some of the contradictions and prejudices that marked British imposition of the territorial state model in Africa and how it has been negotiated through post-independent Zambian policy.

The overall aim of this thesis is to dispel the notion that this ‘technical’ practice of boundary demarcation is a de-contextualised or systematic operation that cannot be subject to critical analysis. Although this research does not seek to completely repair the growing gulf between what has been referred to here as ‘contemporary’ border discourses in political geography and ‘traditional’ boundary studies, it will hopefully provide more insight into the latter’s approach and provide

⁷³ See again Minghi, ‘From conflict to harmony in border landscapes,’ 17; Newman, ‘From the International to the Local,’ 400.

some links between the two.⁷⁴ Even more so, it is hoped that Megoran's criticisms are avoided here as the 'technical' demarcation process in the empirical narrative of the DRC-Zambia boundary will be examined in light of this contemporary political geography scholarship and shown how boundary practices have indeed been contextualised. The two approaches will work in tandem to critically assess the empiricism of the historical narrative and the modernist concepts of territory and state that were (and still are) at play.

The DRC-Zambia boundary was chosen as the case study for this research because the richness of its historical narrative offers intriguing insight into the differing methodologies used for demarcation in Africa, particularly during the colonial period. Throughout most historical and geographical contexts around the world, boundary demarcation has been undertaken by commissions acting on behalf of the neighbouring sovereigns. Recovering the work of boundary commissions as narratives using archival sources will be explained in Chapter 3 while Chapters 4 and 5 will be dedicated to the historical narrative of the 1911-14 and 1927-33 Anglo-Belgian boundary commissions respectively.

Uncovering boundary demarcation as a historical narrative, rather than simply as a technical process producing an abstract, surveyed line, allows my research to expose the work of colonial boundary commissions in Africa to further analysis. As will be addressed in Chapter 4, the records of early colonial boundary commissions in Africa, such as the 1911-14 Anglo-Belgian boundary commission, reveal an explicit focus on the small scale mapping of landscapes, similar to Matthew Edney's study of the Great Trigonometric Survey of India in the mid-nineteenth century. The small scale mapping emphasis of early boundary commissions contributed to the imperial geographic perspective that has been subject to critical geopolitical analysis, such as the works of Gearóid Ó Tuathail and Derek Gregory. The 'exploratory' nature of colonial boundary commissions in Africa also calls to mind the historical geographical discourses of Timothy Mitchell and Felix Driver, as well as the critiques of Victorian travel writers throughout the British Empire such as those of Mary Louise Pratt.

The narrative of the 1927-33 Anglo-Belgian boundary commission in Chapter 5 tells a very different story, as demarcation methodology shifted the geographic scale

⁷⁴ An overview of 'traditional' vs. 'contemporary' boundary and border literature is given in Newman and Paasi, 'Fences and neighbours in the postmodern world.'

Chapter 1 – Approaching a boundary

to more localised boundary definition along the watershed section of the Belgian Congo-Northern Rhodesia boundary. This shift in methodology was not indicative of a general trend around colonial Africa at the time; rather it was a result of local economic and commercial forces. This change in methodology suggests that territory in British colonial Africa was itself no longer the small scale, inert cartographic canvas. Instead, it became an active participant in the boundary-making practices, indicating that these practices can be contextualised, specifically in relation to natural resources. This contextualisation of territory can be read against the contextualisation of colonial governance throughout Africa in general that is revealed in the post-colonial critiques of Mahmood Mamdani and Achille Mbembe.

Bringing the narrative through to the present day, Chapter 6 explains how the demarcation practices along the DRC-Zambia boundary conducted by post-independence governments have perpetuated that contextualisation of territory based on economic factors. In doing so, it raises questions about more popularised criticisms of African boundaries in general, such as those of Anthony Asiwaju, Basil Davidson and Antony Allott. This returns the analysis back to the relationship between boundaries and the model of state territorial sovereignty that was purportedly exported to Africa through colonialism.

Boundary demarcation remains an important practice for African states as is clearly conveyed in the recent initiatives of the African Union Border Programme, reflecting the continued reinforcement of the model used by international law in an effort to exclude those very aspects of control and power from inter-state relationships. Assessing the supposed ‘technical’ practice of boundary demarcation will uncover where those aspects of control and power are imbued in the territorial state model, but more importantly it will expose contradictions in the way the model was exported to Africa through colonialism. In essence, the contextualised nature of boundary demarcation across Africa relates more to the imposition of the territorial state model than to the appropriateness of the model itself in the postcolonial context.

2. Boundary as theoretical construct: its characteristics and practices

“How is it possible, for instance, for the modern mind to conceive distinctly a *travelling* (sic) political organization, a State without territorial boundaries or the need of them, composed of persons, but associated with no fixed or certain habitat?”
Woodrow Wilson, 1919¹

¹ W. Wilson, *The State: Elements of Historical and Practical Politics* (London: D.C. Heath and Company, 1919), 7.

Introduction

As the division between neighbouring sovereign territories, a boundary can be distinguished from the practices relating to a ‘border’ through three distinct characteristics that relate directly to the nature of state sovereignty itself. Boundaries are:

1. Static
2. Bilateral
3. Linear

This chapter will first examine some of the important issues in the European development of state territorial sovereignty that required territory, and its constitutive boundaries, to be static. The static nature of the territorial state sovereignty model also led to the characteristic of boundaries being strictly bilateral, and the responsibility of states (legal persons), who were recognised to understand this more ‘developed’ model of political organisation. Participating within these two discourses is the underlying subtext that boundaries between territorial states must be linear. This is most apparent in the gradual linguistic distinction between ‘boundaries’ and ‘frontiers’, particularly within the Anglo-American and French historical traditions. Of recurring importance throughout the analysis of these three characteristics is the influence of private property, from Roman legal practice, through Lockean principles of land use and modern state development, to imperial boundary-making in Africa.

The aim here is to not provide a comprehensive, inter-disciplinary analysis of state development through multiple historical and regional contexts. Nor are these three characteristics of boundaries by any means mutually exclusive, but distilling each in turn uncovers clues as to how the concept of the boundary relates to the normative principles of territorial state sovereignty that underpinned British boundary practice in colonial Africa. Given the chronological breadth and wealth of literature dedicated to the subject of state development and territorial sovereignty, this chapter will concentrate on just a few key concepts of the territorial state model. Using international law as the doorway into the territorial state model, some of the model’s generalisations will be further informed and critiqued by political geography and political theory.

Prefaced by these three characteristics of territorial boundaries, this chapter will then look at the actual practices related to boundaries, or boundary-making to use a term introduced by Thomas Holdich in 1916.² Of greatest interest is how and to whom a boundary, as a static, bilateral and linear entity, becomes ‘known’ within these inter-linked practices. Taking this unique approach of questioning how a boundary is known will: first help distil the process of demarcation; second, better understand its implication in the actual construction of boundaries; and third, complete the conceptual lens through which the historical narrative of the DRC-Zambia boundary demarcation was analysed during this research.

Boundaries as static: state territory and sovereignty

At the beginning of his 1919 book *The State: Elements of Historic and Practical Politics*,³ Woodrow Wilson posited that the modern notion of static territory was so obvious to the modern mind that it hardly required belabouring: “How is it possible, for instance, for the modern mind to conceive distinctly a *travelling* (sic) political organization, a State without territorial boundaries or the need of them, composed of persons, but associated with no fixed or certain habitat?”⁴ Wilson suggested that “early tribal states” were never “identified with any definite territory.”⁵ His inference that fixed territory was the very height of acceptable, modern political organisation, may have been an unsubtle jibe at German policy of the period that had advocated flexible state boundaries based on criteria other than respect for fixed state territory and were viewed as an ideological contribution to the causes of the First World War. This policy had been heavily influenced by theories of German national identity, linked closely to language, and by natural law theories. Certainly the most well known geographical theory was Friedrich Ratzel’s concept of the organic state that grows and retracts in accordance with its power respective to neighbouring states.⁶ Permanent identification of a static boundary was contrary to Ratzel’s thinking as such boundaries would inhibit the territorial expression of state power. Even in the wake of territorial expansionism in the Second World War, and in stark contrast to

² T.H. Holdich, *Political Frontiers and Boundary Making* (London: MacMillan and Co. Ltd, 1916).

³ Wilson, *The State*.

⁴ Wilson, *The State*, 7.

⁵ Wilson, *The State*, 7.

⁶ A. Giddens, *The Nation-State and Violence: Volume Two of A Contemporary Critique of Historical Materialism* (Berkeley and Los Angeles: University of California Press, 1987), 49.

Jones' 1945 contractual concept of boundaries⁷, Spykman drew on Ratzel's thinking by arguing that post-war boundaries should be drawn at the equilibrium of state power, suggesting that international conflict was created when there was an imbalance of power between neighbouring political entities.⁸

As Wilson's comments in 1919 suggest, there was a distinct crystallisation of the way states (the victorious states more specifically) came to view territory in the wake of the First World War, in contrast to the fluidity of organic boundaries and in support of the stability of fixed boundaries and resultant fixed territory. The codification of international law as a legal mechanism for resolving what were usually territorial or boundary disputes between states had strengthened at the turn of the twentieth century, perhaps best illustrated by the establishment of what is now the Permanent Court of Arbitration in 1899.⁹ It gained momentum following the First World War with Wilson's 1918 Fourteen Points of Peace and the establishment of the League of Nations in 1920. Although the concept of territorial state sovereignty had a long heritage within Europe prior to this time, this was a particularly crucial period for understanding how this concept crystallised in relation to inter-state dispute settlement; even more significant in light of Brownlie's comment noted in Chapter 1 that title to territorial sovereignty is best understood through how respective claims have been adjudged.

In the landmark 1928 arbitration between the Netherlands and the United States over the (now Philippine) island of Palmas, and perhaps one of the most cited cases in modern international law, Judge Max Huber outlined the core principles of territorial sovereignty, clearly stating that it existed within "fixed boundaries."¹⁰ Shaw later notes that the notion of a boundary was closely connected with "the concepts of territory and territorial sovereignty"¹¹ and indicates that, within modern international law, states have given pre-eminence to the "stability and finality" of territorial

⁷ S.B. Jones, 'Boundary concepts in the setting of place and time' *Annals of the Association of American Geographers* 49, no. 3 (1959): 241-255. 251-252.

⁸ N.J. Spykman, 'Frontiers, security and international organisation' *Geographical Review* 32, no. 3 (1942): 436-447.

⁹ Lord Curzon highlighted the constitution of the Permanent Court of Arbitration in 1899 as one of the key 'evidences of progress' in boundary dispute resolution (G.N. Curzon, *Frontiers The Romanes Lecture 1907* (Oxford: Clarendon Press, 1908), 53).

¹⁰ M. Huber and M. van Verduynen, 'Judgement Rendered in Conformity with the Special Agreement Concluded on January 23, 1925 between the United States of America and the Netherlands Relating to the Arbitration of Differences Respecting Sovereignty over the Island of Palmas (or Miangas)' *American Journal of International Law* 22, no. 4 (1928): 867-912. 875.

¹¹ M.N. Shaw, *Title to Territory in Africa: International Legal Issues* (Oxford: Oxford University Press, 1986), 221.

boundaries: “the element of stability in the determination and maintenance of boundaries has been consistently emphasised.”¹² In essence, the nature of boundaries being ‘fixed’ is inextricably linked to the state model based on territorial sovereignty that international law sought to codify against other state models in order to prevent territorial expansionism, particularly in the wake of the First World War.

Although the crystallisation of this model for the institutionalisation of international law hoped to separate disparities in state power from their respective (recognised) territories, this model was not new to Europe in 1919 nor did it develop in isolation from the exercise of state power; in fact within its historical context quite the opposite is true. This is certainly a long and complex story well beyond the scope of this work, but elements of its evolution will be important in distinguishing the characteristic of boundaries being fixed; a characteristic that continues to inform demarcation practices along the DRC-Zambia boundary.

Max Weber famously defined the ‘state’ as: “a human community which within a defined territory successfully claims for itself the monopoly of legitimate physical force; and ‘territory’ it should be noted is a characteristic of the state.”¹³ The three attributes of the modern state including structure, legitimacy and spatiality can be discerned from this general definition of the European state model. A state must possess the structure by which to wield a monopoly of force (government), the legitimacy to use that force (sovereignty) and the spatial field on which to use force (territory).¹⁴ How these features of the modern state model came into being is complex, and although it is problematic to take such a de-contextualised approach, the interest here is to understand if and how territory gained predominance among those features; how it became constitutive of a state, rather than simply a ‘characteristic’.

In his oft-cited discourse, Weber examined the history of state development based on ‘three pure types of legitimate rule’: legal rule, traditional rule and

¹² Shaw, *Title to Territory in Africa*, 222.

¹³ M. Weber, *The Essential Weber: A reader*, ed. S. Whimster (London: Routledge, 2004), 131.

¹⁴ Michael Mann’s review of what he refers to as Weber’s institution view of the modern state includes four elements: 1) differentiated set of institutions, 2) centrality, whereby political influence radiates from the centre outwards, 3) “a territorially demarcated area over which it exercises” and 4) a monopoly of authoritative binding rule-making, backed up by a monopoly of the means of physical violence (M. Mann, ‘The autonomous power of the state: Its origins, mechanisms and results’ in *State/Space: A Reader*, eds. N. Brenner et al. (Malden, MA: Blackwell, 2003), 53). My view essentially follows these elements but eliminates the notion of radiating political influence since any notion of centrality must follow *a posteriori* from a designated territory. In other words, to understand influence radiating out towards the periphery, there must be a pre-existent distance from the centre, a defined territory.

charismatic rule.¹⁵ Legal rule is the modern concept of state government, as a bureaucratic body which can create, enact and enforce laws through an administrative apparatus marked by defined roles. Traditional rule is rooted in what Weber described as “the sanctity of orders”¹⁶ whereby command is fixed by tradition. Here a lord is endowed with power through the rules of tradition, which can be amended by his rule but cannot stray far from that tradition. Application of rule is through direction of the lord, and administration is not based on defined bureaucracy as in legal rule. Charismatic rule is based effectively on the obedience to a leader chosen by distinct charismatic traits (e.g. great warrior, religious figure or other). Administration of charismatic rule is largely through the obedience of the followers, where application is based on the level of devotion and again there is no regimented bureaucratic structure. The ascendancy of ‘legal rule’, with its trappings of bureaucratic administration, gained legitimacy based on law, rather than legitimacy based on custom (traditional rule) or prestige (charismatic rule),¹⁷ and can be traced through the history of European political development.

Some political geographers have emphasised the role of the European secular monarchs increasing their capacity for war as a key development to more complex state institutions.¹⁸ In the early French context, an effective administrative bureaucracy had better capacity to raise the funds necessary to equip large military forces. Charles Tilly places emphasis on the role of “coercion and capital” in the development of the state as a war-making institution. Prefacing what he describes as Weber’s “historically contestable definition the state,” Tilly established that as ‘state’ military weapons/force gradually replaced reliance on other forms of domestic militia or external mercenaries in Europe, “The distinction between ‘internal’ and ‘external’ politics, once quite unclear, became sharp and fateful. The link between war-making and state structure strengthened.”¹⁹

Revenue collection was essential to maintain coercive means, and European states required a monetized economy and capitalist credit to finance such means.²⁰ Tilly observes that state revenues were broadly generated in five categories: tribute,

¹⁵ Weber, *The Essential Weber*, 133.

¹⁶ Weber, *The Essential Weber*, 135.

¹⁷ Weber, *The Essential Weber*, 141.

¹⁸ J. Painter, *Politics, Geography and ‘Political Geography’* (London: Arnold, 1995), 43.

¹⁹ C. Tilly, *Coercion, Capital and European States AD 990-1992* (Cambridge, MA: Blackwell Publishers, 1995), 69-70.

²⁰ Tilly, *Coercion, Capital and European States*, 85-86.

rent, payments of flows (e.g. customs, excise, tolls), payment on stocks (e.g. land, property) and taxes (e.g. income tax).²¹ Certainly revenue generated by flows such as customs required defined and fixed territorial boundaries: “customs revenues depend on the existence of well-defined and well-defended borders; smuggling – the evasion of internal or external customs duties – became a crime precisely to the extent that European states attempted to define and defend their boundaries.”²² Boundaries (or “borders” to use Tilly’s term) may seem at first glance to be associated only with the determination of where customs houses would be located to generate revenue from flows across it. However, on closer inspection, the concept of boundaries can be seen to play a role in Tilly’s other forms of state revenue since they determined the limits of property in borderland areas. This might have generated rent and determined who was responsible to pay taxes to which sovereign.

In contrast, Marxist theories trace the origins of modern state territorial sovereignty to the overall economic conditions in Europe during the decline of feudalism. The absolutist state emerged to mediate the tension between the landed aristocracy and the growing influence of the urban middle class.²³ European absolute monarchs created the institutional characteristics of the state (standing armies, taxation and codified law), not to defend against competing monarchs, but to assist in mediating this domestic class tension. Marxist theories recognise that the central component in feudalism (aristocratic land ownership) was inhibiting the ascendant free market and labour mobility.²⁴ For Anderson, as the power of the absolute monarch increased, it freed the aristocracy to dispose of property, essentially exchanging political power for economic power.²⁵ Roman law gradually re-emerged around the absolute monarchies of Europe to address this new trade in property and the growth of free capital. According to Anderson, Roman law was more appropriate to address the economic conditions of urban mercantilism than feudal law, due to four aspects:

1. Notion of absolute property rights
2. Tradition of equity
3. Canons of evidence

²¹ Tilly, *Coercion, Capital and European States*, 87.

²² Tilly, *Coercion, Capital and European States*, 88.

²³ P. Anderson, *Lineages of the Absolutist State* (London: Verso, 1974), 14.

²⁴ Anderson, *Lineages of the Absolutist State*, 17.

²⁵ Anderson, *Lineages of the Absolutist State*, 20.

4. Emphasis on professional judiciary²⁶

The post-feudal growth of private property demanded the re-imposition of Roman legal tenets to do away with the multiplicity of property rights and bring forward the equitable nature of contracts.

Private property was also a theme that influenced political theorists who were both reflective and contributory to burgeoning notions of state sovereignty in post-feudal Europe. In his influential work “Les Six Livres de la République” of 1576, Jean Bodin defined “La souveraineté” as “the absolute power of a state held in perpetuity.”²⁷ For Bodin, sovereignty was best exercised with a clear distinction between the ruler and subjects. This power was best invested in the figure of the absolute monarch since any sharing of power with the subjects would erode the ruler’s possession of sovereignty. Absolute monarchs could not even be bound by previous laws or customs, which Bodin also saw as restrictions on absolute sovereignty. However, Bodin crucially added several restrictions to the absolute power of the sovereign. According to Beaulac, Bodin saw the sovereign as still subject to a number of higher laws which he categorised as the laws of God, laws of nature and “even to certain human laws common to all nations.”²⁸ A sovereign still had to honour contracts, respect private property and could not derogate from the primacy of male succession and the “inalienability of the public domain.”²⁹

Bodin’s theory appears to stand at the threshold between Weber’s pure forms of traditional rule and legal rule. While stating that the sovereign was not subject to custom, in retaining the primacy of male succession Bodin reflected an important aspect of Weber’s traditional rule. However, in outlining the restrictions on a sovereign’s absolute power, Bodin was also leading towards a system of legal rule. This is particularly evident in the transcendent nature of Bodin’s restrictions on absolute sovereign power. Note especially how the ‘certain laws common to all nations’ include the legal concepts of contracts and private property that are mentioned in the same breath as the laws of God.

Within his famous 1651 work *Leviathan*, Thomas Hobbes shared Bodin’s belief that an absolute monarch was the most effective form of government since

²⁶ Anderson, *Lineages of the Absolutist State*, 26.

²⁷ Translation by the author “la puissance absolue et perpétuelle d’une République.” cited in S. Beaulac, *The Power of Language in the Making of International Law: The word sovereignty in Bodin and Vattel and the myth of Westphalia* (Leiden/Boston: Martinus Nijhof, 2004), 107.

²⁸ Beaulac, *The Power of Language in the Making of International Law*, 110.

²⁹ Beaulac, *The Power of Language in the Making of International Law*, 110.

there was no division of sovereign power. However, Hobbes believed that the individuals of a society had to enter into a pact which would endow the sovereign with that right of absolute power.³⁰ Hobbes recognised that the ‘covenant’ “being but words, and breath, have no force to oblige, contain, constrain or protect any man,” therefore enforcement was the necessary alter ego of the covenant.³¹ But the covenant itself, as described by Hobbes, still had a distinctly legalistic tone:

This is more than Consent or Concord; it is a reall Unitie of them all, in one and the same Person, made by Covenant of every man with every man, in such a manner, as if every man should say to every man, *I Authorise and give up my right of Governing my selfe, to this Man, or to this Assembly of men, on this condition, that thou give up thy Right to him, and Authorise all his Actions in like manner.*³²

Although the term ‘men’ referred to a very distinct section of society, what is interesting about Hobbes’ covenant are the echoes of legal contract whereby each ‘man’ is recognised as an equal. It reflects how construction of the multitude was idealised by Hobbes as a bilateral arrangement; an oath sworn “every man with every man.”

The basis of legal equity at the micro-territorial scale, in the sense of private property being ‘mine’ as opposed to ‘yours’ established through title (e.g. contract), can be seen to have influenced the macro-territorial scale with the resultant influence of Roman legal principles. While not using the term ‘sovereignty’ specifically, Scott believes that John Locke effectively did address the issue in his discourse on power. For Locke, individuals in the “politic society” have supreme power which is then granted by their consent to a legitimate government.³³ So while a legitimate government may have supreme power, when it is dissolved that power reverts back to the people. “The right of the individual to judge the ‘supreme power’ of government ensures that the individual remains ‘sovereign.’”³⁴ Locke may have espoused that every individual was ‘sovereign’, but there had to be a spatial dimension to the group of individuals who formed the ‘body politic’ and would then consent to yielding that power to a legitimate government. In other words, from a Hobbesian perspective,

³⁰ T. Hobbes, *Leviathan*, ed. R. Tuck (Cambridge: Cambridge University Press, 1991), 121.

³¹ Hobbes, *Leviathan*, 123.

³² Hobbes, *Leviathan*, 120.

³³ J.T. Scott, ‘Sovereignless state and Locke’s language of obligation’ *The American Political Science Review* 94, no. 3 (2000): 547-561. 550.

³⁴ Scott, ‘Sovereignless state and Locke’s language of obligation,’ 551.

there had to be a defined corpus to the ‘multitude’ who acted as the other individual in the bilateral contract with the absolutist government.

Within his *Second Treatise on Government*, Locke effectively skirted around the territorial definition of the state when addressing this contract or ‘consent’ between subject and government. Locke considered all men to be naturally free but each placed himself under the laws of a government either through direct or tacit consent.³⁵ Direct consent was a straight-forward declaration to become a subject of a government, but Locke found tacit consent more difficult to explain:

I say that every man that hath any possessions or enjoyment of any part of the dominions of the government, doth thereby give his tacit consent, and is as far forth obliged to obedience to the laws of that government during such enjoyment as any one under it... (that consent) in effect reaches as far as the very being of anyone within the territories of that government.³⁶

In effect, the spatial extent of the state is pre-existent; so for Locke while a man might be born naturally free, the geographic placement of that birth already implies tacit consent to a government. Locke does suggest that if someone (who has given only tacit consent) decides to sell or quit his land, he can “go and incorporate himself into another commonwealth, or to agree with others to begin a new one, *in vacinis locis*, in any part of the world they can find free and unpossessed.”³⁷

Intriguingly, Locke’s suggestion here is that those individuals who seek to establish another commonwealth, must find an area that is ‘free and unpossessed’. Clues about Locke’s understanding of what areas are ‘free and unpossessed’ can be found in his ideas related to property. Locke held that “every man has property in his own person” and that by applying one’s labour to land left in what Locke calls “the state of nature” becomes his property.³⁸ “Land left wholly to nature, that hath no improvement of pasturage, tillage or planting, is called, as indeed it is, ‘Waste’...”³⁹ Locke argued that land scarcity caused by population increase added value to territory and required communities to settle the boundaries of their territories through legal “compact and agreement.”⁴⁰ Locke’s concepts clearly prejudiced settled, agrarian use

³⁵ J. Locke, *Second Treatise of Civil Government and A Letter Concerning Toleration Third Edition*, ed. J.W. Gough (Oxford: Basil Blackwell, 1966), 60.

³⁶ Locke, *Second Treatise of Civil Government*, 60.

³⁷ Locke, *Second Treatise of Civil Government*, 62.

³⁸ Locke, *Second Treatise of Civil Government*, 15.

³⁹ Locke, *Second Treatise of Civil Government*, 22-23.

⁴⁰ Locke, *Second Treatise of Civil Government*, 24.

of land over movable, nomadic activities;⁴¹ the former required fixed and settled areas of land while the later did not.

Cara Nine explains that there are two approaches towards applying Lockean principles of land and property to the concept of state's territorial rights.⁴² The individualistic approach suggests that individuals who gained property over land through the application of their labour, contracted together to establish a state with territorial jurisdiction over their individual properties.⁴³ The collectivist approach suggests that a group (such as a state) creates title to territory by their collective labour over certain areas of land. As Tamar Meisels describes this application of Locke's argument: "The fact that national members have toiled on a parcel of territory, thus altering it significantly from its previous form, may supply us with substantial (though not necessarily conclusive) moral reasons to favour their ownership of the territory in question over that of others."⁴⁴ Nine explains that there must be a distinction between Locke's property rights, where an owner has rights to use and control the land, as long as it doesn't violate "laws of nature or civil laws."⁴⁵ This then implies that there is a jurisdiction (civil laws) or territorial rights that pre-exist in order to mediate those property rights. Buchanan challenges the individualistic approach and explains that a jurisdictional authority must exist to "create and define property rights."⁴⁶

Providing further critique, Nine believes that the only way for the individualistic approach to work is if property rights can be created without state jurisdiction. In other words, can individuals have 'meta-jurisdictional' rights? If so, then it would effectively extinguish state's territorial rights since any property holder could leave a state with his/her property at any time.⁴⁷ Therefore, "if individuals do not retain meta-jurisdictional authority, then social contract theory cannot explain territorial rights."⁴⁸ Nine believes that the collectivist approach can be applied as an analogy between Locke's property rights and state territorial rights because a state as

⁴¹ See especially Locke, *Second Treatise of Civil Government*, 20. para 37.

⁴² C. Nine, 'A Lockean theory of territory' *Political Studies* 56 (2008): 148-156. 148-149.

⁴³ Nine, 'A Lockean theory of territory,' 148.

⁴⁴ T. Meisels, 'Liberal Nationalism and Territorial Rights' *Journal of Applied Philosophy*, 20, no. 1 (2003): 31-43. 35.

⁴⁵ Nine, 'A Lockean theory of territory,' 149.

⁴⁶ A. Buchanan, 'Boundaries: What Liberalism Has to Say' in *States, Nations, and Borders: The Ethics of Making Boundaries*, eds. A. Buchanan and M. Moore (Cambridge: Cambridge University Press, 2003): 231-61. Cited in Nine, 2008. 150.

⁴⁷ Nine, 'A Lockean theory of territory,' 152.

⁴⁸ Nine, 'A Lockean theory of territory,' 153.

a ‘collective’ can acquire rights over land “without prior reference to property rights or to individual consent.”⁴⁹ This approach is perhaps more appropriate for imperial contexts. Most importantly, Nine sees Locke’s principles used to define territorial rights since states can act as “agents capable of changing the land” and the relationship between owner (state) and land “must be morally valuable” applying Locke’s values of liberty, desert and efficiency.⁵⁰ For states, territorial rights determine jurisdiction which helps realise the same values even though the state does not perform the exact same acts of the land as individuals.⁵¹

It is also possible to discern Locke’s theory of property in Robert Sack’s understanding of territoriality explained in Chapter 1. Locke states: “it is very easy to conceive without any difficulty how labour could at first begin a title of property in the common things of nature and how spending it upon our uses bounded it.”⁵² Locke goes on to suggest that this leads to no quarrelling over the extent of property because an individual only holds the property which he (she) can use. This can be related to Sack’s understanding that territory is only created through control, but it is insufficient to explain how states have historically possessed territory without exercising effective control over claimed land.

This was the case with territorial imperialism in the Americas that, in turn, came to influence African imperialism. For example, the Louisiana Purchase set a fixed limit to the territorial title of the United States in 1803, (based on the extent of Spanish lands transferred to France in the 1800 Franco-Spanish treaty of St. Ildefonso and re-stated in Article 1 of the 30 April 1803 Treaty of Cession between France and the U.S.) long before any labour or state administration came to be applied with any consistency across its full geographic breadth. Nevertheless, clarifying the legal title over territory provided the over-riding jurisdiction to facilitate the creation of property from ‘waste’ and to mediate the conflicts between land claimants. This created the ‘free land’ that Frederick Jackson Turner persistently referred to as the basis for the American frontier which was the advancing edge of settlement.⁵³ “The purchase of Louisiana was perhaps the constitutional turning point in the history of the (American) Republic, inasmuch as it afforded both a new area for national legislation

⁴⁹ Nine, ‘A Lockean theory of territory,’ 155.

⁵⁰ Nine, ‘A Lockean theory of territory,’ 155.

⁵¹ Nine, ‘A Lockean theory of territory,’ 156.

⁵² Locke, *Second Treatise of Civil Government*, 26. para 51.

⁵³ Settlement here refers to the westward movement of the largely white, European settlement.

and the occasion of the downfall of the policy of strict constriction.”⁵⁴ Removing any question of disputed sovereignty or title over this vast area, the boundary of legal jurisdiction far preceded the application of recognised ‘labour’ and state administration; boundary preceded frontier.⁵⁵

This is not dissimilar to imperial practice in Africa where in essence title over territory was generated by the perceived future use of territory and only those states recognised as familiar with the notion of fixed territorial sovereignty (e.g. recognised by European imperial powers themselves) could engage in the boundary-making processes to define territory.⁵⁶ While there were many examples of defined political space in pre-colonial Africa, Achille Mbembe suggests that a “multiplicity of allegiances and jurisdictions itself corresponded to the plurality of the forms of territoriality” with political entities more or less defined by “boundaries capable of infinite extension and abrupt contraction.”⁵⁷ Locke’s advocacy of agrarian economic production required individual private property rights over a fixed area of land (fixed through one’s labour) would have been in tension with these observed divisions of pre-imperial political entities in Africa. Likewise boundaries could only be defined by neighbouring political entities with the same conception of territorial sovereignty; read the European imperial powers.

Boundaries as bilateral: exclusive to neighbouring sovereigns

The notion that state sovereignty is fixed to static territory does not explain the second key characteristic of boundaries, that they are bilateral. However, the inherent bilateral nature of boundaries is again rooted in that development of territorial sovereignty. Although he uses the term ‘border’ in place of boundary, Giddens

⁵⁴ F.J. Turner, *The Turner Thesis Concerning the Role of the Frontier in American History: Third Edition*, ed. G.R. Taylor (Lexington, MA: D.C. Heath and Company, 1972), 19.

⁵⁵ “Evidence for thinking of territory as emptiable space is indicated early on in North American charters and grants which delimited their claims by using the abstract metrical lines of latitude and by their provision for a hierarchy of administrative sub-territories long before the land was surveyed and settled.” R.D. Sack, *Human Territoriality: Its theory and history* (Cambridge: Cambridge University Press, 1986), 88.

⁵⁶ This will be developed in greater depth in later in this chapter and in Chapters 5 and 6, but an excellent review of the literature related to this subject in the African context can be found in A.I. Asiwaju, ‘The conceptual framework’ in *Partitioned Africans: ethnic relations across Africa’s international boundaries 1884-1984*, ed. A.I. Asiwaju (Lagos: University of Lagos Press, 1985).

⁵⁷ A. Mbembe, A. ‘At the edge of the world: boundaries, territoriality and sovereignty in Africa’ trans. S. Rendall *Public Culture* 12, no.1 (2000): 259-284. 263-264.

concludes “As demarcations of sovereignty, they have to be agreed upon by each of the states whose borders they are.”⁵⁸ Here the distinction can be made with borders, taken to be associated with acts of state control, that are the limits of unilateral state enforcement.

Recalling early imperial practice, the territorial extent of the Roman Empire itself was defined by its *limes*, (e.g. Hadrian’s Wall, the Rhine and Danube rivers). These military-based *limes* were not agreed with neighbouring political entities of equally recognised political status but marked the limits of Roman administration.⁵⁹ Beyond the *limes* was simply territory that had not yet been brought fully under Roman control. Similar imperial examples of unilaterally claimed territory can be seen in the early claims to ‘spheres of influence’ in Africa by the European colonial powers during the last decades of the nineteenth century. To use an example that will be examined more closely in Chapter 4, the Congo Free State effectively claimed all of the territory of the Congo river basin in Article 1 of the 1885 Berlin Act.⁶⁰ This declaration claimed the limits of Congolese territory but it did not establish the boundaries of the Congo Free State made with neighbouring imperial claimants. These would emerge later in bilateral agreements.

Within the Roman tradition, boundaries only “existed in private legal matters, where they governed property rights.”⁶¹ Brownlie admits that, with certain reservations, territorial sovereignty as conceived within modern international law, is analogous to private property ownership.⁶² Shaw also draws parallels between the legal ownership of territory in international law and municipal law, but indicates that the transfer of sovereignty entails a change in the whole legal system under which the territory is controlled, whereas a transfer of property in municipal law does not change the legal system under which ownership is held.⁶³ Indeed, Shaw confirms that: “The international rules regarding territorial sovereignty are rooted in Roman law provisions governing ownership and possession, and the classification of the different methods of acquiring territory is a direct descendant of the Roman rules dealing with

⁵⁸ Giddens, *The Nation-State and Violence*, 51.

⁵⁹ Giddens, *The Nation-State and Violence*, 50-51; F. Kratochwil, ‘Of Systems, Boundaries, and Territoriality: An Inquiry into the Formation of the State System’ *World Politics* 39, no. 1 (1986): 27-52. 35-36.

⁶⁰ E. Hertslet, *The Map of Africa by Treaty Vols. I and II* (London: H.M. Stationery Office, 1894), 24.

⁶¹ Kratochwil, ‘Of Systems, Boundaries, and Territoriality,’ 36.

⁶² I. Brownlie, *Principles of Public International Law Fifth Edition* (Oxford: Oxford University Press, 1998), 106.

⁶³ M.N. Shaw, *International Law Fourth Edition* (Cambridge: Cambridge University Press, 1997), 333.

property.”⁶⁴ As with the application of Locke’s theories of property to state sovereignty, the presence of over-arching Roman legal jurisdiction that mediated property ownership makes it difficult to draw analogies with modern international law that is based on state consent and state practice. However, recalling Anderson’s view that Roman law emerged as a better mechanism for dealing with exclusive private property rights in post-feudal Europe, what is important is that property holders were viewed as equal legal personalities.

As a ‘contract’ within international law, treaties that define boundaries are agreed between entities with equal legal personality. To recall a partial quote by Shaw noted in Chapter 1:

The state in its turn lies upon the foundation of sovereignty, which expresses internally the supremacy of the government institutions and externally the supremacy of the state as a legal person. But sovereignty itself, with its retinue of legal rights and duties, is founded upon the fact of territory. Without territory a legal person cannot be a state.⁶⁵

Shaw’s definition makes it clear that within international law a state’s ‘personality’ is based exclusively on territory rather than on any distinctive social characteristic. This provides for the exercise of sovereign equality that is essential for resolving bilateral disputes through a formal (and peaceful) adjudicated settlement. Brownlie echoes Shaw’s definition, concluding that:

The state territory and its appurtenances (airspace and territorial sea), together with the government and population within its frontiers, comprise the physical and social manifestations of the primary type of international legal person, the state. The legal competence of states and the rules for their protection depend on and assume the existence of a stable, physically delimited, homeland.⁶⁶

In stark contrast to Foucault’s understanding that territory is simply one of the “components” of governance,⁶⁷ international law views the other characteristics of statehood, including governance and population, as being situated within the *a priori* fixed territorial boundaries. Therefore, territory is seen in international law as the constitutive requirement of statehood.

⁶⁴ Shaw, *International Law Fourth Edition*, 333; M.N. Shaw, ‘Territory in international law’ *Netherlands Yearbook of International Law*, 13 (1982): 74.

⁶⁵ Shaw, *International Law Fourth Edition*, 331.

⁶⁶ Brownlie, *Principles of Public International Law Fifth Edition*, 106.

⁶⁷ M. Foucault, *Power: Essential Works of Foucault Vol. 3*, ed. J.D. Faubian and trans. R. Harley et al (London: Penguin, 2002), 221.

Foucault's distinction between the exercise of disciplinary power inside and security from external threats can of course be seen as a consequence of the staticity of state legal personality; the classic, absolutist view of the Janus-faced domestic and external nature of a state's legal personality. Emerich de Vattel's 1758 work *Le Droit des Gens* effectively personified the figure of the state by externalising the internal governing authority.⁶⁸ According to Beaulac, personification of the state again had its roots in Roman civil law in terms of the "fictitious judicial person"⁶⁹ that re-emerged in post-feudal Europe to address the emerging free market economies (private property). For Vattel, sovereignty also entailed independence of power whereby the moral personality of a state had to be respected by other states. "The natural society of nations cannot subsist, unless the natural rights of each be duly respected."⁷⁰ Within ideological traditions of humanism in the nineteenth century, Georg Hegel's 1821 *Philosophy of Right* suggested that the state gained a moral personality beyond its legal personality, drawing on the moral will of the multitude.⁷¹

In the wake of the religious wars of the Middle Ages with conflicting ideas about the "supremacy of the universal imperium (or sacretorium)" and the nationalist expansionism during the nineteenth century and the first half of the twentieth century, modern international law "favoured the emergence of national states with sovereign territory bound by an internationally-recognized and inviolable boundary."⁷² Of course such a sweeping historical overview covers a broad chronological period, specific to the European context, which is better addressed by Agnew and Corbridge.⁷³ In reviewing Bull's (1977) work on the contrast between geopolitical 'systems' and 'societies', Agnew and Corbridge explain that after 1815 Europe sees the rise of the society "of territorial states based around the modern conventions of state recognition and diplomacy, balance of power, and war prosecuted to enforce 'community norms.'"⁷⁴ They suggest that while the notion of a 'society' of states after 1815 did not prevent conflict even within that society, after this period "there were

⁶⁸ Beaulac, *The Power of Language in the Making of International Law*, 133.

⁶⁹ Beaulac, *The Power of Language in the Making of International Law*, 137.

⁷⁰ Beaulac, *The Power of Language in the Making of International Law*, 150.

⁷¹ See especially G.W.F. Hegel, *Philosophy of Right*, trans. T.M. Knox (Oxford: Oxford University Press, 1967), 181 and 212.

⁷² L.K.D. Kristof, 'The Nature of Frontiers and Boundaries' *Annals of the Association of American Geographers* 49, no. 3-1 (1959): 269-282. 278.

⁷³ J. Agnew and S. Corbridge, *Mastering Space: hegemony, territory and international political economy* (London: Routledge, 1995): 49-56.

⁷⁴ Agnew and Corbridge, *Mastering Space*, 18.

now ‘entrance requirements’ for statehood not found in the older ‘system’ of states” where interaction, according to Bull, was marked by war.⁷⁵ As Wilson pointed out in 1919, by the first decades of the twentieth century one of those ‘entrance requirements’ for statehood was static bounded territory agreed with neighbouring territorial sovereigns. This was important since the expansion and contraction of territorial limits was by that time considered unstable and *casus belli*.

Agnew and Corbridge make the connection that within this understanding of state development a state could provide the security (through legal structure) for the ‘self fulfilment’ of its subjects only on the basis of defined territory:

Security is only possible for a tightly defined spatial unit endowed with sovereignty. Hence, politics, in the sense of the pursuit of justice and virtue, could exist only within territorial boundaries. Outside is danger, *realpolitik* and the use of force. Security is then, by definition, the defence of a particular spatial sovereignty and the politics within it.⁷⁶

Within the emerging ‘society’ of states of the nineteenth century, and premised on the responsibility for security, it is logical that states would want neighbours who were equal members in this society, respectful of their respective sovereign territories. Political entities that did not possess legal personality or respect the ‘natural rights’ of other states were potentially dangerous and could not engage with other states on an equitable basis.

This was a major justification for the European imperial appropriation of territory around the world; that primitive political entities were marked by constant conflict and had not advanced to this stage of territorial sovereignty. Locke suggested that while the “kings of Indians in America” held absolute authority in wartime, “in peace they exercise very little dominion, and have but a very moderate sovereignty.”⁷⁷ With no subtle hint of racism, Lord Curzon drew on his experiences in south Asia to conclude: “In Asia, the oldest inhabited continent, there has always been a strong instinctive aversion to the acceptance of fixed boundaries, arising partly from the nomadic habits of the people, partly from the dislike of precise arrangements that is typical of the oriental mind, but more still from the idea that in the vicissitudes of

⁷⁵ Agnew and Corbridge, *Mastering Space*, 18.

⁷⁶ Agnew and Corbridge, *Mastering Space*, 86.

⁷⁷ Locke, *Second Treatise of Civil Government*, 55. para. 108.

fortune more is to be expected from an unsettled than from a settled Frontier.”⁷⁸ He concluded that “the more scientific character of which (the frontier or boundary), particularly where it rests upon treaty stipulations, and is sanctified by International Law, is undoubtedly a preventive of misunderstanding, a check to territorial cupidity, and an agency of peace.”⁷⁹

Of course the subtext to Curzon’s comment is that only sovereign states, equally recognised under international law, could enter into ‘treaty stipulations’. The key point is that a boundary⁸⁰, as the division of territory, had to be undertaken through agreement by two ‘states’ with mutually respected legal personality; what Jones later referred to as the contractual concept of boundaries: “The essence of the contractual concept of boundaries is that two countries should agree on a line and stick to it.”⁸¹ Within the world-systems view and drawing on Jones’ 1959 piece, Taylor and Flint argue that because of what they refer to as its ‘peripheral’ position within the world economy at the time: “The most competitive arena of all, Africa in the late nineteenth century, has the most ‘contractual international boundaries.’”⁸²

Those ‘true international subjects’ have enshrined their respect for states’ dualistic personality through the concept of “territorial integrity” that is codified in Article 10 of the 1919 Covenant of the League of Nations, Article 2 in the 1945 Charter of the United Nations, and outlined in detail in the 1970 UN *Declaration on the Principles of International Law concerning the friendly relations and co-operation among states in accordance with the Charter of the United Nations* (it has also been cited in numerous bilateral and multilateral treaties as well as resolutions of the UN since 1945.) From a more realist international relations perspective, it is clear

⁷⁸ Curzon, *Frontiers*, 49.

⁷⁹ Curzon, *Frontiers*, 48.

⁸⁰ It is interesting to note that Curzon uses the term ‘boundary’ quite distinctly in the above quote, while the terms ‘frontier’ is used more widely throughout the lectures.

⁸¹ Jones, ‘Boundary concepts in the setting of place and time,’ 251. Stephen Jones admits in 1959 that his 1945 guidelines on boundary-making processes that will be examined in greater depth below, were based on what he called the “contractual concept.” Jones notes that the contractual concept certainly did not imply equilibrium of power between the parties, and could often be used as a façade for power politics, but that it was the most pragmatic way to achieve agreement between neighbouring states and prevent conflict. Jones himself later criticised his own thinking as being somewhat naïve (Jones, ‘Boundary concepts in the setting of place and time,’ 252) and Minghi suggests that Jones’ advocacy of the contractual concept was expectant of a change in the very concept of sovereignty and a stronger super-state governance post-1945 (J. Minghi, ‘Boundary studies in political geography’ *Annals of the Association of American Geographers* 53, no. 3 (1963): 407-428. 413; see also J.W. Donaldson and A. Williams, ‘Delimitation and demarcation: analysing the legacy of Stephen B. Jones’ *Boundary-Making’ Geopolitics* 13, no. 4 (2008): 676-701.)

⁸² P. Taylor and C. Flint *Political Geography: World Economy, Nation-State and Locality, Fourth Edition* (Harlow, Essex: Pearson Education Ltd., 2000), 163.

that the notion of sovereign equality and territorial integrity have not prevented states from interfering in the domestic personality of other states. Indeed, the absolutism of sovereignty has never really been reflected in the exercise of state power. State actions have always been curtailed by some external force such as hegemonic coercion, alliances, bilateral agreements or multi-lateral conventions.⁸³ However, for international law, that absolutism continues to be reflected in the concentration (not exclusive) of jurisdictional rights over two-dimensional land territory and reflects what Taylor calls, “the conservatism of the inter-state system succeeding in blocking change in the pattern of the world political map.”⁸⁴

Any extension of states’ rights into spatial dimensions beyond two-dimensional territory is restricted by other states’ rights. Air space jurisdiction is legislated by rights and responsibilities dictated by bilateral and multilateral agreements such as the 1971 Montreal Convention. Although Article 2, Part II of the 1982 United Nations Convention on the Law of the Sea (UNCLOS) indicates that a coastal or island state’s “sovereignty” extends into the 12 nm territorial sea, Section 3 of Part II provides the important restriction that coastal states cannot inhibit the right of innocent passage. In both geographic spaces, the exercise of state power and control is derogated by overlapping rights and jurisdictions of other states. These restrictive mechanisms might be eroding due to state practice (the concept of creeping jurisdiction in maritime space especially), but more fundamentally, states rights to air and maritime space under international law are entirely dependant, and generated by, their sovereignty over land. Brownlie hints at this above, when stating that international law views multi-dimensional extensions of state jurisdiction over air and maritime space as “appurtenances” to territory.

While analogous to property title, a state’s territorial sovereignty is contingent on having its ‘title’ to territory recognised as valid by other sovereign states. Brownlie points out that recognition has generated much debate among international legal theorists who have argued either that recognition is simply a declaratory act with little legal weight, or a constitutive act that is a “pre-condition of the existence of legal rights.”⁸⁵ This presents something of a logical, chicken-and-the-egg dilemma in

⁸³ S.D. Krasner, ‘Compromising Westphalia’ *International Security* 20, no. 3 (1995-96): 115-151. See especially 117.

⁸⁴ P. Taylor, *Political Geography: World-Economy, Nation-State and Locality, Third Edition* (Harlow, Essex: Longman Scientific & Technical, 1993), 161.

⁸⁵ Brownlie, *Principles of Public International Law Fifth Edition*, 87-88.

relation to boundary treaties in that if the existence of a state is predicated on sovereignty held over defined territory, how can it agree a boundary treaty prior to its existence?

Imperial practice eased this logical dilemma through its use of terms such as ‘spheres of influence’ or ‘protectorates’ which Curzon saw as the powerful states protecting weaker local rulers; although he admitted “that the uniform tendency is for the weaker (forms of protectorates) to crystallize into the harder shape (territorial incorporation).”⁸⁶ Yet in an almost apologetic tone, Curzon stated:

The process is not so immoral as it might at first sight appear; it is in reality an endeavour, sanctioned by general usage, to introduce formality and decorum into proceedings which, unless thus regulated and diffused, might endanger the peace of nations or too violently shock the conscience of the world.⁸⁷

As explained in Chapter 1, the agreements made between the imperial powers and local political rulers in Africa may have determined commercial rights and/or political allegiance (dependant on the imperial power’s interpretation of the agreement), but the agreements were certainly not treated by European imperial powers as being concluded between political equals, both with knowledge of the concept of fixed territorial sovereignty. In this context, the contracts recognising the extent of fixed territorial title (boundary treaties) were not negotiated between state and subject, but between states who claimed, and were recognised to have, exclusive understanding of that very concept of a fixed and static territorial sovereignty: “The legal status of African communities, as traditionally defined in the writings of classical jurists, has been that of mere *objects* of international law whose disposition was controllable only by recognized states that alone constituted true international *subjects*.”⁸⁸

Boundaries as linear: from frontiers to boundaries

In *The Production of Space*, Henri Lefebvre notes that one of the key architectural expressions of modernity was the reduction of exterior walls from the practical “massiveness” of supportive walls to “mere membranes barely managing to

⁸⁶ Curzon, *Frontiers*, 47.

⁸⁷ Curzon, *Frontiers*, 47.

⁸⁸ A.C. McEwen, *International Boundaries of East Africa* (Oxford: Clarendon Press, 1971), 16.

concretize the division between inside and outside.”⁸⁹ Instead of reducing the inside-outside distinction, Lefebvre suggested that just the opposite happened.⁹⁰ In the context of state-defined space, the similar distillation of boundaries into ever-narrowing linear constructs was also a derivative of the increased distinction in territorial personality of neighbouring states.

Numerous boundary scholars, international lawyers and political geographers throughout the twentieth century have made the clear distinction between the zonal ‘frontier’ and the linear ‘boundary.’⁹¹ In his 1959 article ‘Boundary concepts in space and time’, Stephen Jones outlined the distillation of the modern territorial boundary, as a linear entity, from the zonal entity of the frontier through a number of historical contexts.⁹² Kristof sees the etymology of the terms indicating a relationship between the frontier as outer oriented and the boundary as inner oriented.⁹³ Prescott notes that boundaries were distilled from frontiers as the width of separation between neighbouring political entities decreased and the amount of contact increased.⁹⁴ Ruggie concludes that in Europe “The notion of firm boundary lines between major territorial formations did not take hold until the thirteenth century; prior to that date there were only ‘frontiers’ or large zones of transition.”⁹⁵ The consensus throughout these studies has been that zonal separations of political entities, referred to as frontiers, are aspects of pre-modern political structures, while linear boundaries are relatively recent political constructs that developed alongside the modern territorial state model. Although this distinction has been examined by these and other scholars, it is still worth tracing the heredity of the term ‘boundary’ particularly within the Anglo-American and French historical traditions, to identify key signposts for understanding why boundaries must be linear.

⁸⁹ H. Lefebvre, *The Production of Space* trans. D. Nicholson-Smith (Oxford: Blackwell, 1991): 146-147.

⁹⁰ Lefebvre, *The Production of Space*, 147.

⁹¹ C.B. Fawcett, *Frontiers: A Study in Political Geography* (Oxford: Clarendon Press, 1918); Jones, ‘Boundary concepts in the setting of place and time’; Kristof, ‘The Nature of Frontiers and Boundaries’; Taylor and Flint, *Political Geography*, 162; K.J. Rankin and R. Schofield 2004 ‘The troubled historiography of classical boundary terminology’ *Mapping Frontiers, Plotting Pathways, Ancillary Paper No. 2, Institute for British-Irish Studies Working Paper No. 4* (Belfast: Queen’s University, 2004); Shaw, *Title to Territory in Africa*, 223-224; B.L. Thomas, ‘International boundaries: Lines in the sand (and the sea)’ in *Reordering the World: Geopolitical Perspectives on the Twenty-First Century* eds. G. Demko and W.B. Wood (Boulder, CO and Oxford: Westview, 1994).

⁹² Jones, ‘Boundary concepts in the setting of place and time.’

⁹³ Kristof, ‘The Nature of Frontiers and Boundaries,’ 271-272.

⁹⁴ J.R.V. Prescott, *Political Frontiers and Boundaries* (London: Allen & Unwin, 1987), 46.

⁹⁵ J.G. Ruggie, ‘Territoriality and beyond: problematizing modernity in international relations’ *International Organization* 47, no. 1 (1993): 139-174. 150.

Anglo-American tradition

‘Boundary’ and ‘frontier’ concepts within British imperial practice are particularly important since they both informed and were informed by the historical context of the DRC-Zambia case study. Discussions on boundaries and boundary-making within British academic and government circles reached its zenith in the first decades of the twentieth century, influenced by practical boundary-making throughout the Empire. They emerged as a core subject in the burgeoning academic field of political geography.⁹⁶ When commenting on a presentation made by Thomas Holdich in 1899 concerning the role of geographic knowledge in boundary-making, Halford Mackinder explained that the growing academic field of geography in Britain was necessarily influenced by the pragmatics of imperial rule.⁹⁷ From this practical (and imperial) perspective, British boundary scholarship clearly elucidated how boundaries must be linear, but the linguistic distinction between frontiers and boundaries remained somewhat blurred.

As early as 1891, the influential work of the soldier-surveyor Thomas Holdich saw boundaries as defined lines that could be defended; like a fence that must not have ill-defined or ‘weak’ links.⁹⁸ Holdich was steadfast throughout his works on practical boundary making in his advocacy of linear topographical features such as mountain watersheds or stable rivers as the ‘best’ forms of boundaries, both for their defensive capabilities and their cartographic distinctiveness. In the introduction to his 1916 *Political Frontiers and Boundary Making*, Holdich outlined his belief “that the first and greatest objective of a national frontier is to ensure peace and goodwill between contiguous peoples by putting a definite edge to the national political horizon, so as to limit unauthorised expansion and trespass.”⁹⁹ Although he uses the term frontier, Holdich clearly indicated that the limits of state territory must be a “definite edge” rather than an indeterminate zone that was difficult to defend. Another British soldier-surveyor E.H. Hills began his 1906 presentation on ‘The geography of

⁹⁶ The participation of boundary commissions as both “soldiers” and “geographers” in the imperial project will be explored in greater depth in Chapter 4. Here the emphasis is on the linguistic determination of the boundary concept.

⁹⁷ P. Lumsden, H. Leveson and H.J. Mackinder 1899 ‘The use of practical geography illustrated by recent frontier operations: discussion’ *The Geographical Journal* 13, no. 5 (1899): 477-480. 479.

⁹⁸ T.H. Holdich, ‘African boundaries, and the application of Indian systems of geographical survey to Africa’ *Proceedings of the Royal Geographical Society and the Monthly Record of Geography* 13, no. 10 (1891): 596-607. 597.

⁹⁹ Holdich, *Political Frontiers and Boundary Making*, x.

international frontiers’: “The importance of clearly defined boundary-lines between the territorial possessions of rival nations is too obvious to require any labouring.”¹⁰⁰

The objective to ensure peace and goodwill reflected how linear frontiers or boundaries were a key element to the Pax Britannia of late nineteenth and early twentieth century imperial expansion. In his famous lectures on ‘Frontiers’, Lord Curzon drew on his experience in India and believed that imprecise ‘frontiers’¹⁰¹ were the cause of conflict and that by clearly defining frontiers, they would be “capable of being converted into instruments of peace.”¹⁰² Curzon dismissed the use of buffer zones as temporary or expedient separations of political entities, and believed their use in Asia was “apt to foster intrigue outside, apathy and often anarchy within.”¹⁰³ As Jones points out, Curzon’s belief espoused British imperial intentions, in that Britain was capable of creating stable ‘frontiers’ around its empire through precise definition, even if such exercises were imposed unilaterally.¹⁰⁴

British academic geographers gave further support to the supremacy of linear boundaries over zonal separations, particularly in the role of conflict prevention after the First World War. Writing in the same year as Wilson (1919), Brigham described three stages of boundary development. At the most primitive stage was ‘tribal’ boundaries that were not defined in any document and had a zonal quality.¹⁰⁵ Brigham noted that in “hunter-nomadic” world economy, there was plenty of territorial fluctuation between groups and “the limits of ownership were vague.”¹⁰⁶ The second stage of development was ‘transitional’ boundaries occurring when developed, urban civilisations existed in large areas alongside primitive civilisations.¹⁰⁷ Brigham believed the world in 1919 was in the transitional stage, where both ‘frontiers’ and ‘boundaries’ still existed. “Frontiers of the modern and definite kind abound in more

¹⁰⁰ E.H. Hills, ‘The geography of international frontier’ *The Geographical Journal* 28, no. 2 (1906): 145-155. 145.

¹⁰¹ Colonial and Foreign Office officials in the British government involved in imperial boundary-making during the late nineteenth and early twentieth centuries often used terms such as ‘boundary’ and ‘frontier’, and ‘delimitation’ and ‘demarcation’ simultaneously even though their distinction had been already made by boundary scholars and experts, most notably by Thomas Holdich in 1916 (as noted in chapter 1). (See also Curzon, *Frontiers*, 51 and J.W. Donaldson, ‘Pillars and perspective: demarcation of the Belgian Congo-Northern Rhodesia boundary’ *Journal of Historical Geography* 34, no. 3 (2008): 471-493. 478.

¹⁰² Jones, ‘Boundary concepts in the setting of place and time,’ 250.

¹⁰³ Curzon, *Frontiers*, 32-33.

¹⁰⁴ Jones, ‘Boundary concepts in the setting of place and time,’ 250.

¹⁰⁵ A.P. Brigham, ‘Principles in the Determination of Boundaries’ *Geographical Review* 7, no. 4 (1919): 201-219.

¹⁰⁶ Brigham, ‘Principles in the Determination of Boundaries,’ 201.

¹⁰⁷ Brigham, ‘Principles in the Determination of Boundaries,’ 202.

advanced regions, which shade off into penumbras of spheres of interest, spheres of influence, protectorates and buffer states.”¹⁰⁸

Although the terms ‘frontiers’ and ‘boundaries’ were used interchangeably, Brigham was quite clear that the concept of linear ‘boundaries’ was already well-established: “Boundaries as we know them, as the schoolboy learns them, strict lines of separation are therefore features of maturing civilisation, with growing densities and increasing pressures on natural resources.”¹⁰⁹ The last stage of development was the ‘ideal’ boundary which is permanently fixed and “at the same time of diminished importance save for the convenience of administration.”¹¹⁰ Writing in 1919, Brigham’s ‘ideal’ boundaries as permanently fixed was self-admittedly a product of the post-war environment: “If victory had rested with the enemy, we well know on what principles boundaries would have been drawn. Victory being where it is, just and rational boundaries, we may safely hope, will safeguard peace in our time.”¹¹¹ For British imperial interests in the late nineteenth and early twentieth centuries, the terminology ‘boundaries’ or ‘frontiers’ was less important than their characteristic of being a complete and definite line, clearly dividing what was British from what was not. Zonal forms of political separation were less civilised, unclear and indefensible, leaving room for multiple claims and prone to territorial conflict.¹¹²

Within the American vocabulary during the same period, the terminological distinction between boundary and frontier was much more pronounced.¹¹³ In his influential 1928 work *The New World*, the American political geographer Isaiah Bowman related to Holdich’s notion of a boundary as a line of defence:

¹⁰⁸ Brigham, ‘Principles in the Determination of Boundaries,’ 202.

¹⁰⁹ Brigham, ‘Principles in the Determination of Boundaries,’ 202.

¹¹⁰ Brigham, ‘Principles in the Determination of Boundaries,’ 201.

¹¹¹ Brigham, ‘Principles in the Determination of Boundaries,’ 203.

¹¹² Perhaps contrary to popular perception, colonial boundaries in Africa had a pacifying affect in some local areas, as was the case with the Hausa along the Niger-Nigeria boundary. In his work on the division of Hausaland, William Miles quoted a Yekuwa farmer who said: “When the Europeans came, they split the country, but pacified it. There was no more war, no more slavery. Just peace.” W.F.S. Miles *Hausaland Divided: Colonialism and Independence in Nigeria and Niger* (Ithaca: Cornell University Press, 1994), 75. This sentiment may not have been shared across the whole of Africa but provides a relevant local context in contrast to some of the more generalised notions about African boundaries that will be examined in more depth in Chapter 6.

¹¹³ J. Reeves, ‘International Boundaries’ *American Journal of International Law* 38, no. 4 (1944): 533-545. 533.

Vague general frontier zones are now the exception rather than the rule. A line of defense must be defined exactly and of course it must be reasonably regular.¹¹⁴

Yet Bowman brought a touch of realism to his discussion of boundaries. While recognising that there was a range of human geographical factors that influenced boundary positioning and that would overlap boundaries, Bowman felt these factors should not affect the linear and stable nature of the boundary as a line.

But when a line is to be run it must run upon the ground; that is it must be definite and continuous. It cannot alter its position with every minor circumstance. It must have the advantages, even while recognizing the defects, of the broad and the general.¹¹⁵

Bowman associates the term ‘frontier’ with a vague zone, but the term ‘frontier’ itself had a much more pronounced meaning in the North American historical narrative. Not only did it differ from the legal understanding of linear boundaries agreed through bilateral treaties, the ‘frontier’ was not static and came to be seen as a shifting region or area that was unsettled, undeveloped and ‘destined’ to be integrated into the American nation. In his well-known 1893 *Frontier Thesis*, Frederick Jackson Turner defined the frontier as the progressing edge of settlement or “the hither edge of free land.”¹¹⁶ Turner saw the frontier as an “organic perimeter in a constant state of motion, leaving behind in its wake a succession of marginal zones demarcated by particular modes of social occupance and economic activity.”¹¹⁷ It was the historical experience of the “primitive conditions on the continually advancing frontier line” that Turner linked with what he saw as the development of America’s unique brand of democracy.¹¹⁸

With such a distinct understanding of the ‘frontier’, it is in the American context that Jones believed the separation between the terms ‘boundary’ and ‘frontier’ became pronounced in their English usage.¹¹⁹ As Turner suggested: “The American frontier is sharply distinguished from the European frontier – a fortified boundary line

¹¹⁴ I. Bowman, *The New World: Problems in Political Geography* (London: George G. Harrap & Co Ltd., 1928), 31.

¹¹⁵ Bowman, *The New World*, 32.

¹¹⁶ Turner, *The Turner Thesis Concerning the Role of the Frontier in American History*, 4.

¹¹⁷ R.H. Block, ‘Frederick Jackson Turner and American Geography’ *Annals of the Association of American Geographers* 70, no. 1 (1980): 31-42. 31.

¹¹⁸ Turner, *The Turner Thesis Concerning the Role of the Frontier in American History*, 4 and 32-33.

¹¹⁹ Jones, ‘Boundary concepts in the setting of place and time,’ 251.

running through dense populations... The term is an elastic one, and for our purposes does not need sharp definition.”¹²⁰ As noted in Chapter 1, the Louisiana Purchase may have set a linear territorial limit or ‘boundary’ that provided the necessary title to U.S. territory in 1803, but the American ‘frontier’ came to be determined by settlement and enshrined in the collective American cultural imagination as an advancing area where the individual (or ‘frontiersman’) could not yet rely on the trappings of fixed state administration.

French tradition

Sahlins argues that the French linguistic distinction between boundaries (*limites*) and frontiers (*frontières*) dates from the late thirteenth century with the frontiers of the kingdom becoming distinct from jurisdictional boundaries.¹²¹ Territorial expansion in the following three centuries meant that France needed new arguments to justify its claims. By the early modern period, some French boundaries were well marked, but most of the French borderlands constituted a jumbled of “incoherent provinces” with disputed jurisdictions.¹²² As a result of this confused set of French frontiers, the concept of ‘natural frontiers’ emerged in the seventeenth century. Lucien Febvre noted that “the limit or demarcation line between lands recognizing separate authorities tend to become more precise at the same time as it becomes more simplified through the elimination of the many ‘enclaves’ and ‘exclaves’ which make it irregular, the *frontière* is organised according one or more lines which refer to it alone...”¹²³

While Cardinal Richelieu is credited with famously proclaiming that nature had traced the limits of the French state (bounded by the Atlantic, the Rhine, the Alps and the Pyrenees), Zeller believed that this rhetoric may have been more propaganda to give Richelieu’s policy a public goal than the actual driving concept of French foreign policy.¹²⁴ Sahlins reviews Zeller’s arguments that the ‘natural frontiers’ concept was the “offspring of cartography” of the time which stylised mountains and rivers respectively as distinct chains and lines.¹²⁵ With ‘natural frontiers’ the

¹²⁰ Turner, *The Turner Thesis Concerning the Role of the Frontier in American History*, 4.

¹²¹ P. Sahlins, ‘Natural Frontiers Revisited: France’s Boundaries since the Seventeenth Century’ *The American Historical Review* 95, no. 5 (1990): 1423-1451. 1425-1426.

¹²² Sahlins, ‘Natural Frontiers Revisited,’ 1427.

¹²³ L. Febvre, *A New Kind of History from the Writings of Febvre* ed. P. Burke, trans. K. Folca (London: Routledge and Kegan Paul Ltd., 1973), 212.

¹²⁴ Sahlins, ‘Natural Frontiers Revisited,’ 1430 and 1494.

¹²⁵ Sahlins, ‘Natural Frontiers Revisited,’ 1428.

purported goal of French policy in the seventeenth century, France was negotiating jurisdictional settlements that were beginning to draw distinct boundaries on the ground.¹²⁶ Most notably was Article 42 of 1659 Peace of the Pyrenees between France and Spain which called for the Pyrenees to form the “division of the two kingdoms”. At face value this description of the Pyrenees may not appear to be linear, but when understood in reference to the hyper-stylised depiction of mountain ranges in contemporary cartography of the time, it is likely that the diplomatic understanding was to have essentially a linear boundary between the respective territories along a line of watershed.¹²⁷

While some of these agreements in the seventeenth century called for demarcation of boundaries, Sahlins argues that the complete shift from ‘natural frontiers’ to ‘natural boundaries’ did not appear until the eighteenth century.¹²⁸ This may have been a linguistic shift, but in practical application it was understood by the eighteenth century that boundary lines on the ground were necessary for efficient administration. Specifically, the French government believed that clear boundaries were essential for state administration and especially to settle local jurisdictional disputes.¹²⁹ Sahlins cites the actions of the French foreign minister Bonneval in 1772 who sent commissioners out to “purge the kingdom of foreign enclaves” and outlined that delimitation of territorial boundaries (*limites*) was essential to “suppress enclaves”, facilitate communication, end disputes among frontier inhabitants and give the French government the ability to combat “desertion and smuggling.”¹³⁰ For the French, there could be no clearer (and easily defensible) linear boundary than one following a river or along a mountain range, and this was reflective in the practice of negotiating and delimiting ‘les limites naturelles’.

By the time of the French revolution in 1789, *les limites naturelles* had gained further intellectual support by French natural law theorists, most notably Rousseau and Carnot, in relation to self defence. Pounds believes that natural law theorists rejected the notion of expanding state territory through conquest as Montesquieu

¹²⁶ Sahlins, ‘Natural Frontiers Revisited,’ 1435.

¹²⁷ Curzon remarked that save any discrepancy between the two, a mountain “crest or water-divide is the best and fairest line of division; for it is not exposed to physical change, it is always capable of identification, and no instruments are required to fix it” Curzon, *Frontiers*, 19.

¹²⁸ Sahlins, ‘Natural Frontiers Revisited,’ 1435.

¹²⁹ Sahlins, ‘Natural Frontiers Revisited,’ 1440.

¹³⁰ P. Sahlins, *Boundaries: The Making of France and Spain in the Pyrenees* (Berkeley: University of California Press, 1989), 95-96.

argued in 1748 that each state had ‘limites naturelles’ for the purpose of defence and states could only expand out to these limites.¹³¹ After the French revolution, Carnot advocated that changes to a state’s frontiers by force were only justified by security concerns (and by the acquiescence of inhabitants), since he felt that natural law directed a state to defend itself.¹³² Carnot believed that France was allowed to expand to her “limites anciennes et naturelles...le Rhin, Les Alpes et les Pyrénées,”¹³³ but the growth of French imperial power in the early eighteenth century meant that the defensive characteristics of these limites became less important, superseded by territorial expansion.

Lucien Febvre also believed that the evolution from zonal to linear divisions between political entities must be viewed in association with the defence of the state along a line.¹³⁴ However, Febvre noted that after the French Revolution “the various countries are [*sic*] tending to unite within limits that are increasingly strictly defined.”¹³⁵ Even prior to the French Revolution, that link between boundaries and defence in the French tradition was beginning to wane. As Sahlins points out, by 1775 the French Ministry of Foreign Affairs had assumed responsibility for boundary issues from the war ministry and created departments to negotiate and demarcate boundaries.¹³⁶ Defining boundaries through negotiation rather than brute force may have been partly the result of weakening French power, but placing responsibility for boundary definition within the realm of diplomacy rather than war-making reveals a paradigm shift towards respecting the territorial sovereignty (and legal personality) of neighbouring states.

Within contemporary French scholarship, the term ‘frontière’ is now treated as functionally equivalent to the English terms ‘boundary’ and ‘border’, which Foucher believes provides a less restrictive scope for studying other political aspects of borderland regions.¹³⁷ However, the historic Anglo-American and French traditions both convey that, whatever the term used (and in English both Prescott and House

¹³¹ N.J.G. Pounds, ‘France and “Les Limites Naturelles” from the Seventeenth to the Twentieth Centuries’ *Annals of the Association of American Geographers* 44, no. 1 (1954): 51-62. 52.

¹³² Pounds, ‘France and “Les Limites Naturelles,”’ 55.

¹³³ Pounds, ‘France and “Les Limites Naturelles,”’ 55.

¹³⁴ Febvre, *A New Kind of History*. 213.

¹³⁵ Febvre, *A New Kind of History*. 212.

¹³⁶ Sahlins, ‘Natural Frontiers Revisited,’ 1438; Sahlins, *Boundaries*, 94.

¹³⁷ M. Foucher, *Fronts et Frontières: Un tour du monde géopolitique* (Paris: Faynard, 1988), 13-14.

among others make it clear that the term is ‘boundary’)¹³⁸, the division between modernity’s territorial states is a linear construct.

Alongside the position of linear boundaries as the narrowing division of territorial states within European political developments through modernity was the significance of technological advancements in the field of cartography. Linear boundaries were part of modern cartography that Raffestin argues gave expression to the compositions of political space: “Cette cartographie a privilégié une ‘syntaxe’ euclidienne qui n’a certainement pas peu contribué à modeller les comportements du pouvoir.”¹³⁹ This syntax included three foundational elements, the plane, the line and the point, allowing state actions to be planned and coordinated.¹⁴⁰ Over a century earlier, Ratzel had observed that “the mathematical precision of boundaries is a special characteristic of higher civilisation; the progress of geodesy and cartography have permitted the making in Europe of political boundaries as well as geographical abstractions.”¹⁴¹

In fact, beyond just being part of the Euclidean syntax of modern cartography, Thomas Holdich remarked at the height of imperial boundary-making in 1916 that the survey of boundaries formed the very “basis for future map making on either side (of the boundary).”¹⁴² One of the first and most popularised example of this was the 1763-1782 Mason-Dixon survey of the boundary between the colonies of Maryland and Pennsylvania that served as the geodetic basis for later mapping.¹⁴³ So not only was the linear definition of territory politically and economically expedient on the ground, it also coincided with technological advances in the perceptions of space that privileged the two-dimensional understanding of territory.¹⁴⁴ This will prove to be a

¹³⁸ See especially J.R.V. Prescott, *The Geography of Frontiers and Boundaries* (London: Hutchinson University Library, 1965), 33-34; J. House, ‘Frontier studies: an applied approach’ in *Political Studies from Spatial Perspectives: Anglo-American Essays on Political Geography* eds. A.D. Burnett and P.J. Taylor (New York: Wiley, 1981), 291-312.

¹³⁹ Translation by author “This cartography privileged a Euclidean ‘syntax’ that contributed no small amount to modelling the containers of power” C. Raffestin, *Pour une géographie du pouvoir* (Paris: Librairies Techniques (LITEC), 1980), 131.

¹⁴⁰ Raffestin, *Pour une géographie du pouvoir*, 131.

¹⁴¹ Cited in J. Reeves, ‘International Boundaries’ *The American Journal of International Law* 38, no. 4 (1944): 533-545. 533. Similarly, Foucher writes: “En ce sens, technique, la frontière lineaire est une invention, élégante, de cartographe” Foucher, *Fronts et Frontières*, 16. (Translation by author “In this sense, the linear frontier is an elegant invention of cartography”).

¹⁴² Holdich, *Political Frontiers and Boundary Making*, 220.

¹⁴³ See E. Danson, *Drawing the Line: How Mason and Dixon Surveyed the Most Famous Border in America* (New York: John Wiley & Sons, 2001).

¹⁴⁴ See especially M. Escolar, ‘Exploration, Cartography and Modernization’ in *State/Space: A Reader* eds. N. Brenner et al (Malden, MA: Blackwell, 2003).

critical element when comparing the two demarcation practices in the historical narrative of the DRC-Zambia boundary and will be examined in greater detail within chapters 4 and 5.

Boundary-making processes or practices?

Having distinguished the three characteristics of a boundary as it became cemented in the lexicon of the territorial state model of the late nineteenth and early twentieth centuries, it is necessary to identify those practices related directly to boundary-making. To use an appropriately modernist analogy, if boundary was held to be the conceptual product, what processes were put in place to ‘make’ that product? This takes a warning from Lefebvre who argues in *The Production of Space* that analysis of a product should entail examination of both the raw materials and labour used in its production. While the product may be completely different from its constituent parts, analysis of the product itself yields traces of the original raw materials.¹⁴⁵ However, Lefebvre warns that the labour used in the production process is often forgotten, leading to the product being “fetishised” and implications drawn based only on the constituent materials.¹⁴⁶ Lefebvre recommends that to understand the true nature of an object, it is necessary to return to its “genesis and the development of its meaning.”¹⁴⁷

At the core of his thinking on the production of space, Lefebvre applies this thinking to the analogy of a civic monument which has an inherent “creative capacity” that cannot be attributed simply to the specific dates that the monument was commissioned or built (aspects of command aspect), or to the moment when an organisation requested the monument (aspects of demand).¹⁴⁸ While these aspects of command and demand may involve anthropological factors, Lefebvre concludes that no specific individual or group can be pinpointed as being “culturally responsible for production itself: such responsibility may be attributed only to a social reality capable of investing a space – capable given the resources (productive forces, technology and knowledge, means of labour etc.) of producing that space.”¹⁴⁹

¹⁴⁵ Lefebvre, *The Production of Space*, 113.

¹⁴⁶ Lefebvre, *The Production of Space*, 113.

¹⁴⁷ Lefebvre, *The Production of Space*, 113.

¹⁴⁸ Lefebvre, *The Production of Space*, 115.

¹⁴⁹ Lefebvre, *The Production of Space*, 115.

For Lefebvre, the production of space, as a social reality, should not be approached as an inventory of things in space, but as a discourse about space.¹⁵⁰ The symbolism that often imbues things makes this difficult. Lefebvre states that at the primitive level in the history of space, early “demarcations” and markers of hunters and nomads would become “memorized, designated and invested with symbolism” and “Thus mental and social activity impose their own meshwork upon nature’s space, upon the Heraclitean flux of spontaneous phenomena, upon the chaos that precedes the advent of the body.”¹⁵¹ Given the above discourse, the territorial state model being exported to Africa in the late nineteenth and early twentieth centuries by the European powers was conceived as a legal person with a defined territorial ‘body’ based on boundaries that were fixed, bilateral and linear. This might be seen as illustrative of Lefebvre’s point in the history of space when “the production of space which is expressly industrial in nature – a space in which reproducibility, repetition and the reproduction of social relationships are deliberately given precedence over works, over natural reproduction, over nature itself, over natural time.”¹⁵²

It is this point in Lefebvre’s history of space where my research seeks to engage in the reproducibility of boundaries. As distinct ‘products’ of modernity, boundaries required a system or process through which they could be reproduced. The two best known and most cited works on boundary-making processes are Paul de la Pradelle’s 1928 work *La Frontière*¹⁵³ and Stephen Jones 1945 *Boundary-Making*¹⁵⁴, both produced rather late in modernity but reflected prior practices. Taking a distinctly legalistic approach, Foucher argues that De la Pradelle viewed the boundary as essential for the stability of legal jurisdiction: “(it is) the objective and static reality of the boundary that permits the jurisdictional discipline.”¹⁵⁵ Likewise, De la Pradelle’s work provided a reductive look at the system through which a boundary was produced, through the stages of preparation, decision and execution.¹⁵⁶ Jones’ systematic boundary-making process from his 1945 work *Boundary-Making* was heavily influenced by De la Pradelle’s work, but his terminology has been more

¹⁵⁰ Lefebvre, *The Production of Space*, 116.

¹⁵¹ Lefebvre, *The Production of Space*, 117.

¹⁵² Lefebvre, *The Production of Space*, 120.

¹⁵³ P.G. de la Pradelle, *La frontière: étude de droit international* (Paris: Éditions Internationales, 1928).

¹⁵⁴ S.B. Jones, *Boundary-Making: A Handbook for statesmen, treaty editors and boundary commissioners* (Washington D.C.: Carnegie Endowment for International Peace, 1945).

¹⁵⁵ Translation by the author “la réalité objective et statique de la frontière ce que permet la discipline juridique” Foucher, *Fronts et Frontières*, 14.

¹⁵⁶ De la Pradelle *La frontière*.

influential throughout subsequent scholarship and state practice so the focus will be more on his understanding of boundary-making.¹⁵⁷ Jones established four stages of boundary-making including the allocation of territory where sovereignty over the territory is determined, delimitation of a boundary through a legal text or map, demarcation as the marking of the boundary on the physical landscape and administration of the boundary.

Kristof criticised the systematic boundary-making advocated by de la Pradelle as pursuing boundaries in an objective sense and advocated instead that boundaries should be addressed as subjective.¹⁵⁸ The impact of Kristof's warning to avoid a technical or mechanistic approach to boundary practices without critique of those actual practices, can be seen in the first of two tendencies of more contemporary political geography discourses when approaching boundary-making. First, given the emphasis in early boundary scholarship towards categorisation, the vocabulary of boundary-making practices has tended to be used retrospectively, as an analytical gauge; measuring the 'development' of boundaries as distinct products, rather than examining the practices themselves. Second, if not cast as an analytical gauge, the objective approach at the other end of the spectrum has tended to fuse the two most important boundary-making practices, delimitation and demarcation, into a single systematic production. This makes it difficult to isolate demarcation as a practice itself, rather than simply as a stage within a single technical production.

Rumley and Minghi explain that "One of the limitations of previous research is that it has tended to be overly descriptive and classificatory, preferring to pursue a conceptually narrow approach which has been primarily concerned with physical artefacts (for example, boundary markers)."¹⁵⁹ This is perhaps a residual practice of early British boundary scholars who debated the respective merits of specific boundary types, such as the functionality of rivers as boundaries¹⁶⁰ or Curzon's advocacy of mountain crests as boundaries.¹⁶¹ Classification of boundaries was a

¹⁵⁷ Donaldson and A. Williams, 'Delimitation and demarcation,' 688.

¹⁵⁸ Kristof 'The Nature of Frontiers and Boundaries,' p. 276.

¹⁵⁹ D. Rumley and J. Minghi eds., introduction to *The Geography of Border Landscapes* (London: Routledge, 1991), 3.

¹⁶⁰ See especially the contrast between L.W. Lyde's understanding of river boundaries as an integrating force (L.W. Lyde, 'Types of political frontiers in Europe' *The Geographical Journal* 45, no. 2 (1915), 126-139.) and Holdich's view on barrier function of rivers as boundaries (Holdich, *Political Frontiers and Boundary Making*).

¹⁶¹ Curzon, *Frontiers*.

hallmark of Whittemore Boggs' 1940 work *International Boundaries*¹⁶², and, although more sympathetic to historical contexts, so were the categories outlined by Richard Hartshorne.¹⁶³ Even contemporary political geography tends to place boundary-making into this retrospective restriction. For example, Taylor and Flint hold that as divisions of sovereign states:

Boundaries are therefore an essential element of the modern world economy. But the process of boundary making is different in various sections of the world economy.¹⁶⁴

Problematically, they outline the “process of boundary making” by using Jones' 1959 five concepts of boundary: natural, national, contractual, geometrical and power-political.¹⁶⁵ Jones does not explicitly refer to these five concepts as distinct categories but he does use them to differentiate individual political and geographical contexts of boundaries. Why Taylor and Flint did not describe ‘boundary-making’ using the terms and concepts in Jones' 1945 work of the very same title is not clear. However, their choice to describe the active “process of boundary-making” with those five descriptive concepts of boundaries again reflects the tendency to approach boundaries retrospectively, with language that is descriptive and exclusive (for example: a specific boundary is either geometrical or natural), rather than looking at the actual practices of boundary-making.

Similarly, when the boundary-making terms ‘delimitation’ and ‘demarcation’ are cited, they are used descriptively: a boundary is delimited by treaty x or was demarcated in year x. This can be seen especially in the more encyclopaedic boundary works such as the works by Brownlie and Biger.¹⁶⁶ Given the political, cultural and geographical uniqueness and diverse history of each boundary, it is understandable that this approach provides a useful tool for analysing historical empiricism across a number of specific contexts. However, using the terms of boundary-making simply as

¹⁶² S.W. Boggs, *International Boundaries: a Study of Boundary Functions and Problems* (New York: Columbia University Press, 1940).

¹⁶³ R. Hartshorne, 1936 ‘Titles and abstracts of papers St. Louis 1935: Suggestions on the terminology of international boundaries’ *Annals of the Association of American Geographers* 26, no. 1 (1936): 56-57.

¹⁶⁴ Taylor and Flint, *Political Geography*, 162.

¹⁶⁵ Jones, ‘Boundary concepts in the setting of place and time.’

¹⁶⁶ Such as Hertslet, *The Map of Africa by Treaty*; I. Brownlie, *African Boundaries: A legal and diplomatic encyclopaedia* (London: C. Hurst, 1979); G. Biger, ed., *The Encyclopaedia of International Boundaries* (New York: Facts on File, 1995).

analytical tools is reactive to the practices that actually occurred during boundary-making and makes it difficult to address them within specific contexts.

The tendency is to succumb to Lefebvre's warning about looking at the production of space simply as an inventory of things (boundary treaties and demarcation pillars). Kristof's warning does not reflect the inter-temporality of both De la Pradelle and Jones' works which were both intended to be distinctly objective as describing the 'ideal' systems of boundary-making. Taken as 'ideal' objective systems, the constituent raw materials of a boundary appear to be easily discerned within the individual stages: allocation – sovereignty, delimitation – legal texts such as treaties or exchange of notes, and demarcation – boundary pillars, marks, fencing or vistas.¹⁶⁷ This is the popularised view of the ideal sequence of boundary-making; that the combination of these raw materials, usually in that order, yields a boundary as a discrete product.¹⁶⁸ However, even Jones was quick to point out that his 1945 work was intended to provide guidelines, and that the practices, particularly of delimitation and demarcation, did not always follow in discrete succession.¹⁶⁹

Perhaps in response to what appears to be a de-contextualised system of boundary-making, more contemporary political geography has given short shrift to these processes by often conflating the terms. Within their warning about containerisation of the territorial trap as introduced in Chapter 1, Agnew and Corbridge describe boundaries as being "defined and demarcated."¹⁷⁰ More tellingly is the quote from Newman also cited in Chapter 1 concerning the recent shift towards 'bordering': "Any attempt, therefore, to create a methodological and conceptual framework for the understanding of boundaries must be concerned with the process of 'bordering', rather than simply with the means through which physical lines of separation are delimited and demarcated."¹⁷¹ From this continual compressing of 'delimitation and demarcation' into an almost inextricable relationship, it might be

¹⁶⁷ Jones briefly indicates that demarcation be followed by maintenance, which entails the maintenance of the physical boundary marks or tracks. From Jones' methodology this can be seen as a separate process within boundary-making, but from the theoretical lens used in this work it can be conceived as a continuation of demarcation since it entails keeping the boundary visibly known on the physical landscape.

¹⁶⁸ Curzon, *Frontiers*. 51; M.I. Glassner and H.J. de Blij *Systematic Political Geography* (New York: Wiley, 1989), 80; R. Muir, *Modern Political Geography, Second edition* (London: MacMillan, 1981), 130; Thomas, 1994. 94.

¹⁶⁹ Jones, *Boundary-Making*, 5 and 165.

¹⁷⁰ Agnew and Corbridge, *Mastering Space*, 95.

¹⁷¹ D. Newman, 'From the International to the Local in the Study and Representation of Boundaries: Theoretical and Methodological Comments' in *Holding the Line: Borders in a Globalized World* eds. H. Nicol and I. Townsend-Gault (Vancouver: University of British Columbia Press, 2005), 400.

inferred that boundary-making is a single production system. This is highly problematic in that it conflates the small scale, ‘high’ political/strategic practices related to delimitation with the large scale and localised practices related to demarcation. It is possible to see how boundary studies has been associated with the territorial trap and how demarcation practices have been masked by the shadow of the high political relationship between abutting sovereign territorial ‘persons.’

Jones’ boundary-making must not be considered simply as a single production system with compartmentalised raw materials, but as distinct practices of their own. What are outlined above as the ‘raw materials’ of a single boundary-making process (e.g. treaties, boundary pillars), are in fact elements created through their own practices. These practices are often intertwined and certainly influence one another, to a greater or lesser extent depending on their historical contexts. However, reducing them to the role of stages within a single boundary-making system overlooks distinctive aspects of the ‘labour’ involved in the ‘production’ cycle. Victor Prescott tries to get around this deterministic view of boundary-making by breaking it into what he calls three notions of boundary ‘evolution.’ This includes evolution of definition, evolution in position and evolution in functions applied at the boundary,¹⁷² which effectively integrates Jones’ processes of demarcation and delimitation. Prescott’s use of the term ‘evolution’ can be inferred somewhat problematically as a developmental advancement, but my approach takes a cue from this approach since it suggests that boundary-making includes performed practices, rather than categorical descriptions.

Delimitation and demarcation

In order to avoid using boundary-making simply as an analytical tool, and to see how it is not a single system made up of finite stages but a collection of overlapping but distinct practices, my approach to boundary-making concentrates on how the boundary becomes known through geographic scales. As mentioned above, the process of boundary delimitation according to Jones is the choice of a boundary site and the legal definition of the boundary, usually in verbal terms within a treaty text or as depicted on a map.¹⁷³ In some cases, delimitation of a boundary may emerge

¹⁷² Prescott, *Political Frontiers and Boundaries*, 63-68.

¹⁷³ Jones, *Boundary-Making*, 57; Shaw, *Title to Territory in Africa*, 228; B.L. Thomas, ‘International boundaries: Lines in the sand (and the sea)’ in *Reordering the World: Geopolitical Perspectives on the*

through a gradual process of mutual recognition or prescription, but Shaw indicates that this was not the case with African boundaries that were delimited largely by European treaties.¹⁷⁴

Boundaries produced through the practice of delimitation by treaty alone are made known only to the two neighbouring sovereigns as legally-binding, textual or cartographic abstractions. Knowledge of the boundary produced through delimitation alone is privileged on numerous levels and may only be communicated to borderland populations through unilateral exercises of state control. Only those who could access the treaty documents (e.g. government officials), read the language of the treaty text and/or understand the cartographic representation are able to ‘know’ the boundary and actuate it on Newman’s “functional continuum” through acts of control.¹⁷⁵ Sack’s understanding of territory can be discerned in social practices on the land (economic and political) that flow from delimitation since knowledge of a boundary location becomes more certain depending on the level of state activity (e.g. direct control). But these do not always conform to the three characteristics of boundaries and do not necessarily coincide with the geographic area where a state is ‘entitled’ to assert direct control. Boundaries have another unique practice that can best be understood as the link between delimitation and the practices of direct control; a practice that physically defines the boundary at the lived geographic scale (on the ground) and helps facilitate the resultant state activity.

Based on a term originally elucidated in 1897 by Henry McMahon, Jones described demarcation as the physical marking of a boundary on the ground, usually – but not always – prefaced by delimitation.¹⁷⁶ The boundary produced through the practice of demarcation is made known very differently, along the physical landscape through the establishment of visible markers or visible geographic features. This remains privileged knowledge (being visible and requiring an understanding of the consequences of crossing), but less so than in delimitation. In spite of Holdich’s determination in 1916 that demarcation was “the crux of all boundary-making,”¹⁷⁷ most boundary scholarship has endorsed the notion that delimitation precedes

Twenty-First Century eds. G. Demko and W.B. Wood (Boulder, CO and Oxford: Westview, 1994), 94; Brownlie, *Principles of Public International Law Fifth Edition*, 122.

¹⁷⁴ Shaw, *Title to Territory in Africa*, 230.

¹⁷⁵ Newman, ‘From the International to the Local in the Study and Representation of Boundaries,’ 400.

¹⁷⁶ Jones, *Boundary-Making*, 165; Donaldson and Williams, 2008. 684.

¹⁷⁷ Holdich, *Political Frontiers and Boundary Making*, 179.

delimitation.¹⁷⁸ However, they have also been keen to stress, as did Jones himself, that when using the terms to assess the historical context of a specific boundary, they may not have occurred in systematic order.¹⁷⁹ Most importantly, I have examined the terms used by Jones in greater detail with Alison Williams and we conclude that as a self-titled ‘guidebook,’ his 1945 work *Boundary-Making* was intended as “an ideal guide for making and adjusting future boundaries, not simply as a framework on which existing boundaries could be analysed.”¹⁸⁰

The conflation of ‘delimitation and demarcation’ by some in political geography makes it difficult to isolate demarcation as the act of making a boundary ‘known’ locally, from the high political and diplomatic performances of delimitation. This makes it difficult to discern the actual practices of boundary-making from the small scale understanding of territorial state model (the territorial trap). Although visibly known, demarcation of a boundary predicated on legally binding delimitation takes a very different form from the visible, defensive barriers of early imperial practice such as the Great Wall of China or Hadrian’s Wall. Imperial Rome may not have seen its external, territorial limits as boundaries with neighbouring socio-political entities, but modern demarcation does have roots in Roman internal administrative practice with legal title preceding property marking: “taking the idea from private property and the exact knowledge necessary of the confines of a private holding of land.”¹⁸¹ Reeves points out that Roman worship of the god Terminus developed from the understanding that tampering with the boundary stones of someone else’s private property would incur supernatural penalty.¹⁸²

Today, the fencing and barriers that have been built along many international boundaries¹⁸³ may appear as ‘demarcation’, but they are usually unilateral methods of administration erected within sovereign territory. These may influence activity along and across a boundary, but they usually do not mark precisely where the territorial

¹⁷⁸ Glassner and de Blij, *Systematic Political Geography*, 80; McEwen, *International Boundaries of East Africa*, 42-43; J.R.V. Prescott, *The Geography of Frontiers and Boundaries* (London: Hutchinson & Co, 1965), 70; Prescott, *Political Frontiers and Boundaries*; Shaw, *Title to Territory in Africa*, 248

¹⁷⁹ Jones, *Boundary-Making*, 5; I. Brownlie, *African Boundaries: A Legal and Diplomatic Encyclopaedia* (London: C. Hurst and Co. 1979), 4; Donaldson and Williams, ‘Delimitation and demarcation,’ 688.

¹⁸⁰ Donaldson and Williams, ‘Delimitation and demarcation,’ 688.

¹⁸¹ Reeves, ‘International boundaries,’ 534.

¹⁸² Reeves, ‘International boundaries,’ 534.

¹⁸³ See especially J.W. Donaldson, ‘Fencing the line: analysis of the recent rise in security measures along disputed and undisputed boundaries’ *Global Surveillance and Policing: Borders, Security, Identity* eds. E. Zureik and M.B. Salter (Cullompton: Willan Publishing, 2005).

sovereignty of a state ends; the division to two legal persons.¹⁸⁴ Nevertheless, control is certainly not absent from any discussion of boundary demarcation, since boundary pillars are visual symbols of where a state can assert its control and in turn may influence (indirectly) social activity along the boundary. The residual effects of the boundary on the landscape in terms of both direct and indirect control enters into the ‘borders’ and bordering discourse which will emerge later in this work. However, at this point it detracts from focusing the conceptual lens here on those practices that are unique to the boundary.

These concepts of how a boundary is known will re-emerge throughout the historical narrative of demarcation along the DRC-Zambia boundary in understanding what issues influenced knowledge of the boundary becoming less privileged. Moving beyond the process of delimitation, whereby the legal abstraction of the boundary is known to respective ‘sovereigns’, the focus of this work is on how the knowledge of the boundary exposed through demarcation was illustrative of a very strict vision of two dimensional territory; of sovereignty fused to land. In the preliminary remarks to his review of the boundaries in East Africa, A.C. McEwen noted: “Human importance attached to territorial ownership needs little demonstration and, as the value of land increases, the need for greater precision in determining the extent of territory becomes more apparent.”¹⁸⁵ Similarly, in one of Prescott’s early assertions, he said that it is “meaningless to consider the boundary outside the context of the flanking state areas.”¹⁸⁶ More importantly, he suggested “it is possible to draw from the nature of demarcation certain inferences about the nature of state functions and the relations between separated states.”¹⁸⁷ If a boundary is or was not demarcated, Prescott offers three suggestions:

1. the states may not feel it necessary, or “of high financial priority” as was the case in some colonial contexts

¹⁸⁴ There are a few exceptions in current international practice. Malaysia and Thailand have bilaterally erected a security fence along their land boundary across the Malay Peninsula that also marks the boundary. Previously both states had erected two separate fences/walls and it was discovered that the area between the two (a ‘stateless space’) became a corridor for smuggling. The boundary fence along the Botswana-Namibia boundary also marks the land boundary in some sections. This fence was erected as a veterinary barrier to prevent the spread of livestock diseases (foot-and-mouth especially) from one state to the other.

¹⁸⁵ McEwen, *International Boundaries of East Africa*, 4.

¹⁸⁶ Prescott, *The Geography of Frontiers and Boundaries*, 90.

¹⁸⁷ Prescott, *The Geography of Frontiers and Boundaries*, 92.

2. the exact boundary position may be in dispute, or there may be military positions in the border landscape
3. the difficult physical environment dissuades demarcation which may be regarded as unnecessary for security or not financially viable.¹⁸⁸

It is the influence of the ‘value of land’ in the process of demarcation that will be exposed most clearly in the context of the DRC-Zambia boundary, through both the colonial and post-independent periods. It will reveal how land is not simply an inert canvas on which lines are drawn, but an active participant in demarcation practices. The goal of this research is to examine how some social contexts influenced demarcation methodology along the DRC-Zambia boundary, while others did not. The progression from legal abstraction to visually demarcated line will expose some of the prejudices of the territorial state model imposed through colonial practice, especially the influence of economic resources. To achieve this, it was necessary to understand the DRC-Zambia boundary demarcation not as part of a systematic production, but as a historical narrative that can be exposed to contemporary critique.

At the very outset of their work on regional border landscapes, Rumley and Minghi suggest that the study of international boundaries has “traditionally tended to be more concerned with the international scale,” remarking that “as a *de jure* expression of the spatial ‘limits of state power, the location of international political boundaries has been subject to changes in that power with resultant conflict between and within states.”¹⁸⁹ This is a key criticism of ‘traditional’ boundary studies and international law’s approach to boundaries, that not only is the boundary viewed from a technically objective sense but that it is only seen as the product of a single, specific level of political interaction (inter-state). Within this approach, the demarcation practice can be cast as a technical exercise unworthy of greater analysis since the central decisions on boundary definition (the object) were completed at delimitation, between the most immediately apparent power players.

Alternatively, more contemporary theoretical studies on bordering practices have taken a more ‘bottom-up’ approach, beginning with the large-scale narratives on the ground and critiquing the real or imagined exercises of power at a variety of

¹⁸⁸ Prescott, *The Geography of Frontiers and Boundaries*, 92-93.

¹⁸⁹ D. Rumley and J. Minghi, eds., *The Geography of Border Landscapes* (London: Routledge, 1991), 2.

geographic, political and social scales. As explained in Chapter 1, a deficiency of the contemporary theoretical approach is that the boundary itself (as a fixed, linear and bilateral construct) is often treated as a preconceived idea and associated exclusively with that single level of political power interaction. Here the tendency has been to cast all boundary-making practices in the high-political or diplomatic narratives and dismiss demarcation as simply a technical practice.

Methodologically, my research sought to combine strategies from the ‘traditional’ legal/technical approaches to boundaries with the contemporary theoretical approaches to bordering and borderland studies by focusing on demarcation. Demarcation effectively brings the two approaches together, initiating with the abstraction of a diplomatically defined line but then materially constructing that line through large scale practices on the ground. The objectiveness of a legal/technical approach provides the object of the practice, while the subjectiveness of theoretical border discourses indicates that the practice can be read and critiqued as a narrative. Combining the two approaches avoids the tendency of both to limit analysis of boundary practices to a single level of political power relations and to discount the narratives of so-called ‘technical’ practices as unworthy of more theoretical critique. As the DRC-Zambia narrative will illustrate, demarcation involves far more expressions and operations of power with a much broader cast of characters through the narrative than the simplified image of diplomats sitting over a map with pencil and rulers in hand might convey.

3. Recovering narratives of boundary demarcation

“Memory of the Nation.”
Sign outside the National Archives of Zambia

Introduction

As a distinct practice, I wanted to address demarcation of the DRC-Zambia boundary as a historical narrative. Rather than taking an objective course that would be content with assembling the ingredients of a single boundary production system, my research focuses on the practice itself. The aim is to understand how demarcation actually took place in various time periods, and what elements motivated the authorities involved to utilise that practice of materially constructing (or not) a boundary on the physical landscape; a practice so elemental to territorial governance. In this regard, the DRC-Zambia boundary demarcation narrative reveals exercises of power from a much wider cast of actors than just the relevant diplomats whose names adorn the ratified treaties. Who were those actors? What techniques for materially constructing the boundary on the physical landscape did they use and why? What influenced their particular practice of defining boundaries?

To achieve this, my research involved two elements. First, in order to recover the historical narrative of demarcation the primary material for this study was uncovered in four government archives: The National Archives (Kew), Archives of the Royal Geographical Society (London), the African Archives of the Belgian Ministry of Foreign Affairs (Brussels) and the National Archives of Zambia (Lusaka). Second, due to the limitations of material post-1967 in the National Archives of Zambia and in order to complete the narrative up to the present day, field work in Zambia included interviews with officials responsible for boundary issues and a site visit to two boundary pillars. This chapter explains why this methodology was appropriate and details the specific methods used in examining the empirical material and constructing the historical narrative of demarcation along the DRC-Zambia boundary.

Previous use of government archives for boundary research

Approaching archive research from a post-colonial perspective

Just off Independence Avenue a few blocks away from the central bus station in the heart of Lusaka stands a massive, angular statue of a man tearing apart a chain that

binds his torso. The Freedom Statue symbolises Zambia's breaking of the yoke of British colonialism and commemorates those who lost their lives during the struggle for independence. Less than a mile away, the sign outside the National Archives of Zambia on Government Road reads "The Memory of the Nation", while inside the vast majority of material held in the archives is from the eight decades of British administrative rule (1884-1964) rather than the forty years since Zambian independence. These symbols reflect the tension in many post-independence African states between the desire for statehood identity and the administrative heredity of colonialism. In few areas is this subject more abrasive than in the relationship between post independent African states and the colonial boundaries that still define their territorial extent.

The concept of 'memory' in relation to government archives has been the subject of intense debate in recent years. As the sign outside the Zambian National Archives indicates, government archives are intended to preserve the administrative 'memory' of a defined political entity, but whose 'memory' is being retained in the archive material? What stories are retained as constituting 'memory' and what stories are discounted? Until relatively recently, government archives have been seen as the neutral venue for the retention of administrative record, as "archivists and their materials seem to be the very antithesis of power."¹ However, this perspective changed dramatically in the last two decades of the twentieth century as the archives have come to be seen inherently as a site of power. In his etymology of the term 'archive' from the Greek 'arkheion', Derrida reflects on the concept of archive within the codification of political power into law² and on the concept of archives as providing presupposed assurances of "a closed heritage."³

Schwartz and Cook encapsulate this new perception of power within the archive by stating that:

Archives – as records – wield power over the shape and direction of historical scholarship, collective memory, and national identity, over how we know ourselves as individuals, groups and societies.⁴

¹ J.M. Schwartz and T. Cook, 'Archives, records and power: The making of modern memory' *Archival Science* 2, no. 1-2 (2002): 1-19. 1-2.

² J. Derrida, *Archive Fever: A Freudian Impression* (Chicago: University of Chicago Press, 1996), 1-2.

³ Derrida, *Archive Fever*, 33.

⁴ Schwartz and Cook, 'Archives, records and power: The making of modern memory,' 2.

This has been of particular concern in the post-colonial African context, where the power of the colonial archivist has been able to fashion a very specific ‘memory,’ preserving some narratives of specific social groups while excluding (in many cases deliberately) the narratives of other social groups.⁵ Ann Laura Stoler argues that: “Colonial archives were both sites of the imaginary and institutions that fashioned histories as they concealed, revealed, and reproduced the power of the state.”⁶ In attempting to administer one of the largest and geographically disparate empires in history, Thomas Richards views archives as the essential administrative technology of the British Empire “it was much easier to unify an archive composed of texts than to unify an empire made of territory.”⁷ Recording comprehensive knowledge of far-flung imperial ‘territories’ was the ultimate expression of nineteenth-century Victorian power, and Richards explains how the very idea of the archive fulfilled an imagined utopia of imperial organisation:

This operational field of projected total knowledge was the archive. The archive was not a building, nor even a collection of texts, but the collectively imagined junction of all that was known or knowable, a fantastic representation of an epistemological master pattern, a virtual focal point for the heterogeneous local knowledge of metropolis and empire.⁸

Government archives are essential when assembling as complete a narrative as possible of boundary practices, because these practices are (and have been) monopolised by the ‘sovereign’ power within the territorial state model. In recovering a narrative of boundary demarcation practices there are many actors, such as the local carriers involved in colonial boundary commissions, whose individual stories have been excluded from the written record. These perspectives would form their own insightful narratives, but as the focus here is to use demarcation practice as a lens to view the relationship between state and territory. Therefore, it is those operations of power captured by the colonial archives that are of greatest interest. It is precisely because government archives provide the ‘memory’ of the ‘state’ (probably a more

⁵ Cheryl McEwan has examined this especially in relation to the exclusion of female narratives in South African archival records. C. McEwan, ‘Building a post-colonial archive? Gender, collective memory and citizenship in post-apartheid South Africa’ *Journal of Southern African Studies* 29, no. 3 (2003): 741-759.

⁶ A.L. Stoler, ‘Colonial archives and the arts of governance’ *Archival Science* 2, no. 1-2 (2002): 87-109. 97.

⁷ T. Richards, *The Imperial Archive: Knowledge and the Fantasy of Empire* (London: Verso, 1993), 4.

⁸ Richards, *The Imperial Archive*, 11.

appropriate term than ‘nation’ in the Zambian context) that they are the appropriate place to uncover a narrative of boundary demarcation, to reveal the various operations of power, assessing the knowledge that was considered worthy of retention and how it was acted upon. As Premesh Lalu states in the preface to his investigation into the killing of the Xhosa chief Hinsta by British forces in 1835: “the dismissal of colonial records as biased limits the possibilities of understanding the interior logic and effects of domination and unnecessarily suggests the possibility of an objective history of the event.”⁹ In addition, this research discovered that there are an extraordinary number of often over-looked ‘micro-narratives’ captured within the colonial archive that contribute to the overall ‘macro-narrative’ of demarcation practice.

Certainly government archives cannot provide an absolutely complete historical narrative of policy decisions made, exact rationales behind those decisions and the precise ways in which they were implemented. They are limited by prejudicial issues related to the expression of power by the ‘archons’ or those who decided what documentation should be retained. They are also limited by practical issues that have affected the materiality of the files, from water damage and wood lice (as at the NAZ) to aerial bombardment (as was the case at the National Archives/Public Record Office during the Second World War). My research discovered that archival material related to boundaries is actually well-placed to avoid issues of relative completeness precisely because the perceived ‘sovereign’ character of the subject has made documentation related to its practices less likely to be culled or limited by the ‘archons.’

In general, the perceived ‘sovereign’ character of boundaries means that all correspondence and reports from a wide range of administrative levels were retained. Information related to a boundary issue derived from non-government entities such as companies, private individuals and even ‘statements’ from local populations were usually retained by government archivists. This was found to be the case particularly in relation to the nineteenth-century British imperial obsession with archival documentation¹⁰ and its later devolved colonial administrations in Africa. The importance of geographic survey and its engagement with boundary practices was a critical component of the epistemological construct of the British Empire, making the

⁹ P. Lalu, ‘The grammar of domination and the subjection of agency: Colonial texts and modes of evidence’ *History and Theory* 9, no. 4 (2000): 45-68. 48.

¹⁰ Richards, *The Imperial Archive*.

archiving of geographic knowledge of the Empire's remote landscapes an essential exercise.¹¹ From formal inter-state diplomatic correspondence to seemingly minor local incidents, documentary material was conveyed to government departments precisely because boundaries are, and historically have been, considered of high political importance. This has led to huge volumes of retained documentation, much of which is duplicated several times at different archives thus providing better chance of its relative completeness in the face of material threats.

However, as noted in Chapter 2, 'traditional' boundary research into archive material has often focused on the end results of boundary-making as a finite system rather than as separate discursive practices, and has tended to limit investigation into a very specific level of power relationships. My research went beyond the products of the demarcation practice to uncover the narrative of that practice. The narrative could then be read from a critical perspective, taking one of Jonathan Crush's four suggested elements of writing geography from a post-colonial perspective, that of exposing "the character of geographical representation in colonial discourse."¹² The perception of territory by different political actors and through different geographical scales is exposed as a key element that both determined and was represented by colonial demarcation practices in the historical narrative of the DRC-Zambia boundary. It was found that this continues to be reflected in present-day practices.

International law

With its focus on inter-state relations, the use of archival material has been a core method of research in international boundary studies, particularly within international law and political geography.¹³ Archival research has been used in the formal (legal) or informal (diplomatic) settlement of boundary disputes. In many cases, land boundary disputes arise when an existing boundary that was defined in the past has disappeared from the landscape or has multiple interpretations derived from early, ambiguous definition. This is often the case with former European colonies or protectorates where the international boundaries of the independent states gained recognised

¹¹ When examining Edwin Abbott's 1884 novel *Flatland*, Richards explains: "In Flatland, geography, unquestionably the queen of all imperial sciences in the nineteenth century, is especially inseparable from the domain of official and unofficial state knowledge (in fact, in Flatland as in England all applied geography was state policy)." Richards, *The Imperial Archive*, 14.

¹² J. Crush, 'Post-colonialism, De-colonization and Geography' In A. Godlewska and N. Smith, eds., *Geography and Empire* (Oxford: Blackwell Publishing, 1994), 36-38.

¹³ See especially J.R.V. Prescott, *The Geography of Frontiers and Boundaries* (London: Hutchinson University Library, 1965), 59-62.

definition during the colonial period. In such disputes, the disputant states often seek to ‘recover’ the boundary as it was defined at a specific date. This technique involves using archive material to gain an understanding of the boundary as it existed at a specific moment in time, often referred to as the ‘critical date’ in international jurisprudence, or what the International Court of Justice recently called a “photograph of the territory.”¹⁴ Effectively, the critical date is the occasion when a boundary gains legal validity, whether by delimitation treaty, physical demarcation or administrative act.

The settlement of many recent boundary disputes in Africa has involved research in the archives of the former colonial powers in an attempt to ‘recover’ the boundary at a critical date, since this often occurred during the colonial period. This has been the case in both adjudicated/arbitrated boundary settlements such as Benin-Niger (2005), Botswana-Namibia (1999), Chad-Libya (1994) and Eritrea-Ethiopia (2002). In all of these cases, the disputant states asked the respective court or tribunal to decide the position of the boundary at a specific date, or based on specific treaties or maps. For example, Benin and Niger requested the ICJ to define their boundary as it existed on their respective dates of independence 1 and 3 August 1960.¹⁵ Botswana and Namibia requested the International Court of Justice (ICJ) to define their disputed boundary in the Chobe river based on the 1 July 1890 Anglo-German treaty and relevant international law.¹⁶ Article 4 of the 12 December 2000 agreement between Eritrea and Ethiopia constituting the boundary commission (as arbitral tribunal) requested that the commission be “established with a mandate to delimit and demarcate the colonial treaty border based on pertinent colonial treaties (1900, 1902 and 1908) and applicable international law.”¹⁷ Even boundary cases not involving post-colonial states have centred on archival materials, such as the 1957 case between Belgium and the Netherlands when the two states asked the ICJ to determine

¹⁴ International Court of Justice (ICJ) 2005 *Frontier Dispute (Benin/Niger) Judgment*, ICJ Reports 2005. para. 26.

¹⁵ International Court of Justice (ICJ) 2005 *Frontier Dispute (Benin/Niger) Judgment*, ICJ Reports 2005. para. 24.

¹⁶ International Court of Justice (ICJ) 1996 *Special Agreement between the government of the Republic of Botswana and the government of the Republic of Namibia to submit to the International Court of Justice the dispute existing between the two states concerning the boundary around Kasikili/Sedudu island and the legal status of the island of 29 May 1996*. ICJ General List No. 98. Article 1.

¹⁷ Eritrea-Ethiopia Boundary Commission (EEBC) 2000 *Agreement between the Government of the Federal Democratic Republic of Ethiopia and the Government of the State of Eritrea*. <http://www.pca-cpa.org/upload/files/E-E%20Agreement.html>. Article 4. (1 December 2009)

sovereignty over parcels of land along their boundary that had been surveyed from 1836 to 1843.¹⁸

Within formal arbitration/adjudication settlement of boundary disputes, archive material for boundary recovery usually forms the majority of written pleadings presented by the two parties because it contributes a corpus of primary, written, documentary evidence. The primacy of the territorial integrity concept and the legal mechanism of *uti possidetis* in the de-colonisation context, reinforced in many judgments of the ICJ, instils archival material with a high degree of evidentiary value when proving valid title to territory, whether that be examples of actual boundary treaties, pillars on the ground or evidence of administrative control (sovereign acts). In its now oft-cited decision in the *Frontier* case between Burkina Faso and Mali, the ICJ elucidated succinctly the influence of colonial boundary-making on post-independent states, stating that:

By becoming independent, a new State acquires sovereignty with the territorial base and boundaries left to it by the colonial power. This is part of the ordinary operation of the machinery of State succession. International law and consequently the principle of *uti possidetis* applies to the new State (as a State) not with retroactive effect, but immediately and from that moment onwards.¹⁹

The ICJ's comment recognises that from an international legal perspective, archival material related to boundary delimitation and demarcation has an extra-temporal influence. It is of perennial relevance until such time as the two states agree to change boundary definition.

Archival material has been widely consulted in settlement negotiations for ongoing boundary disputes throughout Africa outside of adjudication/arbitration, such as those currently between Angola-DRC, Sierra Leone-Guinea and DRC-Uganda. In March 2007, the DRC accused Angola's armed forces of occupying eleven Congolese villages along their boundary in the Kahemba region. In October 2007, officials from both states met with mapping experts from the former colonial powers (Belgium and Portugal respectively) in Brussels and resolved the status of ten villages based on

¹⁸ International Court of Justice (ICJ) 1957 *Case concerning sovereignty over certain Frontier Land (Belgium/Netherlands) 'Special Agreement' of 7 March 1957*, ICJ General List No. 236. 8. Article 1.

¹⁹ International Court of Justice (ICJ) 1986 *Frontier Dispute (Burkina Faso/Mali) Judgment, I.C.J. Reports 1986*. 568.

colonial records.²⁰ Similarly, in February 2006 Guinea and Sierra Leone called on advisors from their former colonial powers (France and the UK) to review the 1912 Anglo-French protocol and map of their disputed boundary on the Sierra Leonean bank of the Makona river.²¹ In the 8 September 2007 Arusha Agreement signed by the presidents of DRC and Uganda to address their boundary dispute in the Lake Albert area, the two states agreed to re-mark the boundary based on the 1915 Anglo-Belgian boundary agreement and annexed maps.²²

Further discourse on the evidentiary value of archival material in adjudicated international boundary dispute settlement is well beyond the scope of this thesis, but the state-centric bias favouring written and cartographic (in many cases colonial) records is clear. This tends to reinforce a perception that boundaries are only related to the diplomatic level of inter-state interaction, as in the legal resolution of a dispute both states must be considered homogenous legal persons. Archive material presented within boundary negotiations or arbitration by one party is under the collective label of the ‘state,’ usually without analysing the context of the narrative and the varying political and social scales of discourses involved. More importantly, the significance of the ‘critical date’ within adjudicated settlement reinforces a systematic approach to boundary-making within international law; that there is a finite ‘end’ to a single production process, with each stage contributing discreet ingredients into the end product. In other words, documentary evidence is used in these contexts to recover ‘what’ was produced by the critical date rather than how and why it was produced.

Political geography

This systematic approach to the historical, legal and political lineage of boundaries is evident in the well-known encyclopaedic works on boundaries such as: Hertslett’s *Map of Africa by Treaty*²³ and *Map of Europe by Treaty*²⁴ and Brownlie’s *African Boundaries*.²⁵ Similar regional boundary works within political geography such as

²⁰ G. Selassie, ‘Angola and DR Congo Edge Closer towards Resolving Border Dispute’ *Global Insight Daily Analysis*, 12 October 2007; ‘DR Congo and Angola narrow down border dispute’ *Agence France Presse*, 11 October 2007.

²¹ I. Seibure, ‘The fate of Yenga still indecisive’ *Concord Times (Sierra Leone)/AllAfrica Global Media* 6 February 2006.

²² Arusha Agreement on Bilateral Cooperation *New Vision/All Africa Global Media via COMTEX*, text published on-line 13 September 2007. Article 3.

²³ E. Hertslett, *The Map of Africa by Treaty Vols. I and II* (London: H.M. Stationery Office, 1894).

²⁴ E. Hertslett, *The Map of Europe by Treaty* (London: H.M. Stationery Office, 1891).

²⁵ I. Brownlie, *African Boundaries: A Legal and Diplomatic Encyclopaedia* (London: C. Hurst & Co., 1979).

McEwen's *International Boundaries of East Africa*²⁶ and Prescott's *Map of Mainland Asia by Treaty*²⁷ provide more historical context for each boundary, although their regional scope limits the scope for each individual case. In addition, there is a distinct legal emphasis on tracing the historical narratives, in particular highlighting deficiencies that create dispute.²⁸ These works are good examples of what more recent 'border' scholarship in political geography refers to as 'traditional' boundary studies, the distinction made clear in Chapter 1.

Anthony Asiwaju reinforces this criticism in the context of African boundary studies, arguing that until the more recent ethnographic and anthropological studies of borderland populations "scholars engaged in African boundary studies invariably confined themselves to diplomatic archives either of the former colonial powers or of the African successor-states and to the documentation centres of relevant international organisations."²⁹ He prefaced this criticism by saying that "International law, international relations, political geography and diplomatic history are all, by definition, studies of states and not of ethnicities or peoples."³⁰ In his early 1965 work *The Geography of Frontiers and Boundaries*, Prescott surmised that research into the relationship between boundaries and border landscapes could not be taken in isolation from the relationship between the boundary and the state, stating it is "not easy or profitable to distinguish the influences of the boundary from the influence of the state with which the boundary is drawn."³¹ To analyse this relationship in more depth, beyond using inferences from secondary resources and particularly in the context of inter-state and inter-colonial boundaries, Prescott suggested: "it seems likely that more concrete examples will have to be derived from historical studies in political geography using first hand material in archives."³²

More recent border studies have moved away from the systematic approach to the boundary-making processes. Although his synonymous use of the terms border

²⁶ A.C. McEwen, *International Boundaries of East Africa* (Oxford: Clarendon Press, 1971).

²⁷ J.R.V. Prescott, *Map of Mainland Asia by Treaty* (Carlton, Victoria: Melbourne University Press, 1975).

²⁸ McEwen makes this explicit in his 'Preliminary Remarks' when introducing the main body of his work: "It undertakes to show the historical background, legal origin, and present legal status of each of the fifteen international East African boundaries, and to discuss in detail any disputed or problems areas." McEwen, *International Boundaries of East Africa*, 6.

²⁹ A.I. Asiwaju, *Partitioned Africans: ethnic relations across Africa's international boundaries 1884-1984* (Lagos: University of Lagos Press, 1985), 10.

³⁰ Asiwaju, *Partitioned Africans*, 10.

³¹ Prescott, *The Geography of Frontiers and Boundaries*, 103.

³² Prescott, *The Geography of Frontiers and Boundaries*, 103.

and boundary provides (perhaps deliberately) an overly broad space for interpretation, Anssi Paasi's approach to the Finnish-Russian boundary rightly suggests that "The production of territories, boundaries and their symbolic representations are always spatially and historically contingent processes" and emphasises that the "study of boundaries should be contextual."³³ Paasi's approach places this 'context' within the greater process of nation building, especially in terms of national identity, which makes it difficult to translate in the colonial context where issues of 'national identity' played far less of a role in boundary-making than in Europe. Nevertheless, his emphasis on understanding the production of boundaries as contextualised processes is instructive in moving away from the systematic view of boundary production.

The use of archival material within a systematic or legal/technical understanding of boundary 'production' does not allow it to be examined as a contextual narrative. Instead, the focus is usually on identifying the legally-definitive constituent parts of the boundary product such as the wording of delimitation treaties, the lines on boundary maps and the agreed results of demarcation. This provides only limited insight into the motivations and influences behind boundary-making, and in the case of demarcation, those motivations, influences and practice of materially marking a boundary on the ground.

By isolating demarcation as a practice rather than a constituent part of a single boundary production system, my research used archival material to construct the narrative of demarcation rather than simply to provide the inter-colonial agreements or exchanges of notes that were the abstract parts of a single boundary-making system. This perpetuates the notion that boundary practices must be approached in the context of inter-state power relations, recalling Curzon's most famous assertion that boundaries "are indeed the razor's edge on which hang suspended the modern issues of war or peace, of life or death to nations,"³⁴ as opposed to approaching boundary practices as administrative responsibilities involving many other layers of government engagement. My concern was not with finding the results of demarcation, lists of pillars and documenting map series, but with assembling the story of demarcation:

³³ A. Paasi, *Boundaries, Territories and Consciousness: The Changing Geographies of the Finnish-Russian Border* (Chichester: J. Wiley and Sons, 1996), 28.

³⁴ G.N. Curzon, *Frontiers: The Romanes Lecture 1907* (Oxford: Clarendon Press, 1908), 7.

why it was undertaken? How it was undertaken and by whom? What influences the actual practice of marking a boundary?

Although the archival material is still drawn largely from colonial government records, the narrative of the DRC-Zambia boundary demarcation requires material far beyond the inter-colonial “diplomatic” discourse highlighted by Asiwaju. Instead, the narrative extends deep within the administrative hierarchy of the state (and empire), viewing demarcation as an administrative practice with numerous actors and influences functioning at various geographic and political scales. Archive material provides evidence of the reasoning behind, and the experience of, the material production of boundaries as limits of sovereign (or imperial) territory; the moment when the abstract boundary definition becomes ‘known’ on the physical and human landscape.

Archive research for boundary research as narrative

Archives consulted and access

The majority of the empirical research concentrated on document and map material found in the following archives: The National Archives (Kew), Archives of the Royal Geographical Society (London), the African Archives of the Belgian Ministry of Foreign Affairs (Brussels) and the National Archives of Zambia (Lusaka). While the core case study of this work is the boundary between DRC and Zambia, archival material relating to several other boundaries of former British colonial territories in southern Africa (particularly the former inter-colonial boundaries of Northern Rhodesia) was also examined in the National Archives (Kew), the Archives of the Royal Geographical Society and the National Archives of Zambia in order to place the case study in a regional and temporal context. Research at the African Archives at the Belgian Ministry of Foreign Affairs focused exclusively on the 1911-14 and 1927-33 Anglo-Belgian boundary commissions.

The National Archives at Kew is the repository for all British government documents with material being organised by department. Of particular interest for this research was documentation pertaining to inter-colonial boundary commissions, especially the two Anglo-Belgian boundary commissions. The departments with files that were of interest included: the records of the Foreign Office (FO) the Colonial

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Office (CO) and records from other departments dealing with boundary commissions such as the War Office (WO) and Treasury (T). The National Archives at Kew is accessible to anyone who has registered as a reader. Research was undertaken in the National Archives on various occasions including September-October 2005, February 2006 and May 2007.

The Archives of the Royal Geographical Society with the Institute of British Geographers (RGS-IBG) contain a range of map and document material related to many British colonial boundary commissions including the relevant Anglo-Belgian boundary commissions. Many British boundary commissioners were members of the RGS and published articles in the *Geographical Journal*. Research in the Archives of the RGS was undertaken on various occasions in November 2006 and May 2007. The African Archives of the Belgian Ministry of Foreign Affairs (Brussels) contains material relating to the administration of the Independent State of Congo and the colonial administration of the Belgian Congo, 1885-1962. Research in the African Archives was undertaken in October 2006.

The National Archives of Zambia holds the records of the colonial administration of Northern Rhodesia, including its administration by the British South Africa Company (1891-1924), as Northern Rhodesia under the Colonial Office (1924-1953), and as part of the Federation of Rhodesia and Nyasaland (1953-1963), as well as the records of the Zambian government post-1964. Although the National Archives of Zambia have a 20 year closure rule, there are very few Zambian government files dated after 1973. It is unclear exactly why files have not been transferred to the National Archives since that time, although many documents may have been retained by government departments. Research was undertaken at the National Archives of Zambia during July and August 2007.

The private archives of the late Sir Stewart Gore-Browne, a member of the 1911-14 Anglo-Belgian boundary commission on the Belgian Congo-Northern Rhodesia boundary, are located in northern Zambia at Sir Stewart Gore-Browne's estate 'Shiwa N'gandu'. This private archive includes Sir Gore-Browne's private diaries covering his period with the boundary commission, and a number of photographs taken during the boundary commission's time in the field. Sir Gore-Browne also authored a journal article in 1964 recalling his time with the boundary

commission, which proved a valuable secondary source.³⁵ The diaries and photographs of his time with the commission may yield a more personalised narrative of the boundary commission's work and perception of their responsibilities. However, this material was not considered essential in addressing the research questions since Sir Gore-Browne was not the chief British commissioner and therefore did not act as the liaison between 'sovereign' and 'boundary'. In addition, with a self-effacing manner, Sir Gore-Browne said of his archive material related to the Anglo-Belgian boundary commission "I have got diaries I used to keep in Boundary Commission days, and a few extracts may be of interest, though the sameness of the entries makes them monotonous reading *en masse*, to anyone but the nostalgic reader."³⁶

As noted above, contemporary discourses no longer view government archives as simply inert spaces. Access to those archives consulted in this research was not open to anyone and the restrictions illustrate that clearly archives are still privileged spaces with entry requirements. Application for a reader's pass at both the National Archives (Kew) and the British Library includes a formal interview procedure, with a battery of questions and stringent identification check. The Archives of the RGS-IBG, located in the Foyle Reading Room at its facility in central London, is open to the general public (over the age of 16). Registration for non-members of the RGS-IBG does require formal identification as well as a recent utility bill (presumably to confirm address). Registration is free to all members and fellows of the RGS-IBG, and any researchers formally affiliated with an academic institution, but for non-members the current daily fee for access is £10. Researchers at the African Archives of the Belgian Ministry of Foreign Affairs are asked to complete a registration card including personal details, institutional affiliation and research aim (<http://www.diplomatie.be/en/archives/archivesdetail.asp?TEXTID=2295>). Visits to the archive need to be pre-booked, specifying the research question.

Research access to the National Archives of Zambia for non-Zambian citizens requires sponsorship from a Zambian institution and payment of a research fee to the National Archives. My research was sponsored by the University of Zambia under its research affiliation scheme which required a written application outlining the proposed research. This application was forwarded by the University's Department of

³⁵ S. Gore-Browne, 'The Anglo-Belgian Boundary Commission: 1911-14' *The Northern Rhodesia Journal* 5, no. 4 (1964): 315-329.

³⁶ Gore-Browne, 'The Anglo-Belgian Boundary Commission,' 321.

Research and Postgraduate Studies to a relevant department (in this case the Department of Geography) which endorsed the research and approved the application. A separate fee is charged by the University of Zambia for research affiliation for external applicants, dependent on the duration of research in Zambia. As required under the research affiliation scheme, a copy of this thesis will be forwarded to the University of Zambia for inclusion in their library.

In spite of what the seemingly inviting sign “memory of the nation” may suggest, the registration procedures at these archives reinforce the notion that the archives themselves are highly restrictive spaces. Certainly protection of the substantive nature of the documents requires some form of exit controls at least, but the identification checks and complex restrictions on access tend to reinforce the notion that archives contain ‘confidential’ information that is potentially politically explosive. This is particularly the case with colonial archives where restrictions on access, including institutional affiliation and ability to pay the appropriate fees, could be inferred as keeping the methodologies of colonial domination ‘top secret.’ Stoler remarks that “there remains the shared conviction that such guarded treasures are the sites where the secrets of the colonial state are really stored.”³⁷ This is also especially true of research into boundary practices because of their association with high level political relations rather than being seen as banal administrative responsibilities.

Organisation of archive material

Even once inside the archive space the acts of actually searching and requesting material are heavily influenced the archivist. While catalogues may be available either inside the archives or openly outside via the internet, research is reliant on the description of each document or piece. In some archives, such as the African Archives at the Belgian Foreign Ministry, the researcher may not have access to the catalogue and is therefore totally dependent on the archivist to retrieve material appropriate to the subject. The bound catalogues at the National Archives of Zambia are kept at the desk of a staff member. These could only be consulted, and documents requested, at that staff member’s discretion.

Boundary-related material appears to have been considered subject-specific by government departments and archivists because it was often concentrated in distinct

³⁷ A.L. Stoler, ‘Colonial archives and the arts of governance,’ 90.

files within the consulted archives. It is likely this was an effort to make boundary material more easily consulted by government officials. Within some British government files, all correspondence or information relating to a specific boundary from a variety of administrative levels across a defined period of time was collected and re-published in a distinct collection, referred to as a ‘Confidential Print’ series. For British inter-colonial boundaries in southern Africa, these series tended to coincide with a specific boundary dispute or arbitration such as the 1905 Barotseland arbitration (FO 881/7552) and the 1898 Marue arbitration (FO 63/1435). However, they sometimes related to a particular boundary commission such as the 1899 Anglo-German boundary commission between Lakes Nyassa and Tanganyika (FO 64/1549).

Even for boundaries that did not garner a Confidential Print series, the subject-specific concentration of documents was consistent across the different archives. This made it relatively straight-forward to identify relevant files in the various catalogues. However, while boundary files were distinct in various catalogues, the geographic names used in file titles were very inconsistent. Some files were identified by a regional, provincial or local name, rather than by the names of the neighbouring colonial territories. For example, files in the National Archives of Zambia relating to the Belgian Congo-Northern Rhodesia boundary had various headings including: ‘Anglo-Belgian’ boundary (such as RC/33 and RC/34), ‘Northern Rhodesia-Belgian Congo’ boundary (such as RC/609, RC/821 and RC/341), local geographic names such as ‘Mokambo’ (NR 11/93) and specific agreements related to the boundary such as the ‘Pedicule Road’ agreement (550 FA 1/1/90). This was also the case in the National Archives at Kew where files related to the Angola-Northern Rhodesia boundary were also found under the names of specific sections such as ‘Barotseland’ (FO 881/7552) and ‘Kwando’ river (FO 179/581). Inconsistent spellings of geographic names were also problematic in all the archives, so a range of spellings was used to search catalogues and indices.

The catalogues of both the National Archives (Kew) and the Archives of the Royal Geographical Society are held as searchable on-line databases, providing a remotely accessible method of identifying relevant files. This allowed relevant file numbers to be identified prior to visiting the archives. However, the on-line catalogues were not relied upon exclusively and the hard copy catalogues in both archives were also consulted *in situ*.

When researching material at the African Archives at the Belgian Ministry of Foreign Affairs, an approach was first made to the archivist by email before visiting. The relevant files based on the supplied criteria were then retrieved on arrival. The card catalogues at the African Archives were not consulted due to the vast amount of relevant material that had already been retrieved by the archivist. The material researched at the African Archives related exclusively to the 1911-14 and 1927-33 Anglo-Belgian boundary commissions and did not encompass Belgian participation in other colonial boundary commissions.

The catalogues at the National Archives of Zambia are divided into bound volumes based on colonial/central government departments and provincial governments. The files are organised within the volumes based on subject and then chronologically within the subject index.³⁸ Files related to boundary issues were generally confined to governmental records and finding relevant files was a process of working through all of the potentially relevant catalogues. Those catalogues consulted include:

Department of Lands

Department of Foreign Affairs (1935 – c. 1971)

Office of the President (post-1964)

Northern Rhodesia Administrator (including the British South Africa Company)

Records of the Crown Colony (1924-1933)

Secretariat Series Section 2 and 3 (1925-1965)

Cabinet Office

Northern Province

Luapula Province

Copperbelt Province

The catalogue of the United National Independence Party (UNIP) archives in Lusaka was also consulted but no relevant files were identified.

Archive research questions

The archive material researched in this study provides narratives into how the boundary-territory relationship has been conceived at a variety of geographic scales, by a broad cross-section of people, at various levels of administration, and across a defined period of time including both the colonial and post-independence periods. But the focus of the thesis is very much on the practice of boundary demarcation. In order

³⁸ An excellent guidebook to the non-governmental records held in the National Archives of Zambia was compiled by Marja Hinfelaar and Giacomo Macola in 2004. M. Hinfelaar and G. Macola *National Archives of Zambia: A First Guide to Non-Governmental Archives in Zambia* (Lusaka: National Archives of Zambia, 2004).

to maintain this focus, precise research questions were kept in mind when reviewing the vast amount of archival material.

Question 1: What motivated or influenced governments involved to advance the boundary-making process into the demarcation phase?

As already discussed, demarcation is considered a later stage within the boundary-making practices, presupposing some kind of *a priori* territorial allocation or boundary delimitation. However, archival material related exclusively to the initial diplomatic allocation or delimitation of colonial boundaries in Africa was not part of this research.³⁹ Instead, this research analysed the conditions that motivated colonial governments in Africa to advance the progression from that initial boundary definition (representation of space) through the practice of demarcation (production of place) along the DRC-Zambia boundary and other boundary sections in southern Africa. Archival documents and correspondence were reviewed to understand what characteristics of the human and physical border landscapes drew administrative attention to a specific boundary section. At issue was how some aspects of the landscape required physical demarcation of the boundary on the ground while others did not. Important in this regard was the duration between the time territory was originally allocated or a specific boundary delimited, and the time of actual demarcation.

Oftentimes, demarcation was motivated by local administrative problems arising from poor boundary identification on the ground, such as confusion over which colonial administration taxed which villages in the borderland area. In the case study of the DRC-Zambia boundary, correspondence from Native and Provincial Commissioners located in the National Archives of Zambia was particularly useful to understand local borderland administration. In other cases, the lack of boundary demarcation proved problematic during the construction of physical infrastructure such as the Stephenson Road located along the Anglo-German boundary between Lakes Nyassa and Tanganyika. In these cases, documents from private companies such as the African Lakes Company, the British South African Company, and various mining companies were found to be useful to understand how the private sector influenced boundary demarcation.

³⁹ Much of this material can be found in Hertslet, *The Map of Africa by Treaty* (and later editions) and Brownlie, *African Boundaries*.

Question 2: What emphasis did the government administration give to the demarcation process?

The colonial demarcation of boundaries throughout Africa was found to be widely inconsistent, particularly from the British perspective, and another key research question was how to measure the relative importance of demarcation in specific boundary contexts. This was achieved by examining a number of variables.

First, using correspondence and reports to gauge the levels of administration that became responsible for boundary demarcation revealed how far up the political framework a certain boundary section rose. This was particularly acute within the more devolved structure of British colonial administration in Africa where correspondence and reports could be positioned within the administrative hierarchy.

Second, the relative volume of correspondence concerning a specific boundary section that was generated within intra-imperial government departments and between the neighbouring colonial power/state was another good measure of a boundary's respective political importance.

Third, the most important gauge of a specific boundary section's political importance was the amount of resources (funding, personnel, duration in the field, and so forth) that were allocated to demarcation activities. This research concentrated on both the inter-colonial boundary commissions in southern Africa that varied in number of personnel and respective budgets, as well as the resources dedicated to British intra-colonial boundaries in southern Africa. Archival documents outlining the specific allocation of resources towards boundary demarcation were often the most difficult to uncover. However, Treasury Office files occasionally included this information for specific boundary commissions (such as National Archive files T 161/1017 and T 161/1018 for the 1927-33 Anglo-Belgian boundary commission).

Question 3: What did the demarcation practice actually entail?

To address this key research question, the instructions given to boundary commissions by their governments were analysed to reveal the forces that influenced those instructions and how the commissions undertook their work in the field. Of greatest

interest was the relative energy/priority given to the three main activities undertaken by boundary commissions:

- a. geodetic and topographic survey
- b. geographical ‘exploration’ (see especially Chapter 4)
- c. physical boundary demarcation

Research then focused on the role played by inter-colonial boundary commissions, as well as local government surveyors in demarcating boundaries around Northern Rhodesia in particular.

Question 4: What were the perceptions of borderland territory during demarcation and how did this influence the materialisation of the boundary on the landscape?

Rarely have the records and correspondence from boundary commissioners or surveyors in the field been examined as narratives and used to obtain a more personalised understanding of how the territory being demarcated was being perceived.⁴⁰ However, this was crucial in understanding how the instructions issued by the ‘sovereigns’ were applied in the field.

Archive material related to boundary commissions

The records of colonial boundary commissions are of particular interest to this research because they represent the first collision between the legally-defined, linear division of imperial/colonial territory with the human and physical border landscape. Again, material related to boundary commissions was found to be concentrated largely in distinct files at the National Archives (Kew), the National Archives of Zambia and the African Archive of the Belgian Ministry of Foreign Affairs. While this made it relatively simple to identify relevant files, it also resulted in extremely large files with a vast amount of information related to a variety of issues, often including: the appointment and pay of members of the boundary commission, logistical information regarding travel and supply, geodetic and topographic survey data, as well as the correspondence and reports from the chief boundary commissioners in the field. The archive material was supported by the secondary texts written by the boundary commissioners, such as articles in the *Geographical Journal*.

⁴⁰ One notable exception is H.H. Kelly *Imperial Boundary-Making: The Diary of Captain Kelly and the 1913 Sudan-Uganda Boundary Commission of 1913* edited by G. Blake (Oxford: Oxford University Press, 1997).

The specific archive research questions were used to extract the relevant information and understand exactly how a boundary was materially constructed on the physical landscape and how these imperially-mandated officials perceived the territory they were dividing. Of particular interest in this respect were the official instructions given to the boundary commissioners and the field reports/correspondence from the boundary commissioners themselves. The official instructions provided insight into what the imperial/colonial governments wanted to achieve with the specific boundary commissions. Information relating to the respective amount of time, energy and funding allocated to different activities/responsibilities was also applicable. Obviously the reports and personal correspondence from boundary commissioners in the field were invaluable in understanding how the official instructions were implemented. However, this material also provided a rich source of narrative geographical discourses about how territory was conceived and enframed for imperial consumption.⁴¹ This is explored in more depth in Chapter 4 which addresses the shifting emphasis that was given to survey versus demarcation by a number of early British colonial boundary commissions in Africa.

The archival research also sought to understand the motivations and influences behind decisions to create boundary commissions in colonial southern Africa (particularly around Northern Rhodesia). Usually this information was not included in files relating to the specific commissions. Instead it was a process of working backwards through other files related to the specific boundary and uncovering why the imperial/colonial/national governments desired to have that specific boundary section demarcated. Material in the National Archives of Zambia was particularly useful in tracing the motivations for demarcation because it contained more localised information from various levels of colonial administration in Northern Rhodesia.

Maps produced by colonial boundary commissions also provided insight into how a boundary was marked on the ground and how the newly-defined territory was perceived by these imperial representatives. For this research, maps produced by colonial boundary commissions were considered only as supplementary to the textual

⁴¹ This process of 'enframing' is in reference to Timothy Mitchell and Derek Gregory's description of the late-nineteenth century Eurocentric perspective of 'world-as-exhibition' which will be examined in more depth later in Chapter 4. T. Mitchell, 'The world as exhibition' *Comparative Studies in Society and History* 31, no. 2 (1989): 217-236, 220; D. Gregory, D. 1994 *Geographical Imaginations* (Cambridge, MA and Oxford: Blackwell, 1994): 34.

narratives and were critically assessed. For example, boundary commission maps often indicated where a boundary mark was placed, but did not reveal the precise nature of that mark. Was it a concrete cairn, a telegraph pole, or a heap of stones? Why was that particular method of marking chosen? Early boundary commission maps in colonial Africa are often of small scale so the distance between adjacent boundary marks may be perceived as being relatively small.

Boundary commission maps were also illustrative of what features of the landscape were considered important enough to be depicted. This again provided insight into how the border landscape was perceived by the boundary commissions. These aspects of cartographic perception and the geopolitical gaze are addressed in more detail in Chapter 4. The organisation of boundary commission maps in the archives consulted was somewhat problematic in that most maps had been removed from the text files and catalogued separately. As with other archive material related to boundary commissions, these maps are catalogued either by boundary name or geographic area which allowed them to be identified easily.

Research collection and organisation

The non-map files researched were composed mainly of correspondence and report documents. Every piece of material in each consulted document file was reviewed and comprehensive notes were taken on every file and map consulted at the various archives. For relevant correspondence documents, the name of the author, the recipient and date was recorded. Due to the vast amount of duplication and draft material in the files, the sent versions of correspondence or final draft of reports were cited wherever possible. Some quotes were transcribed verbatim in the notes where a comment was found to be particularly relevant.⁴²

The notes and photocopies/digital photographs of archival material were first organised by geographic boundary rather than by respective colonial power. For example, the Anglo-Portuguese boundaries in southern Africa were reviewed separately (Angola-Northern Rhodesia boundary and Portuguese East Africa-Rhodesia). Material was then organised chronologically with material relating to specific boundary commissions forming distinct blocks. This method of organisation was utilised in order to provide a coherent narrative for each boundary section and to

⁴² It was felt that comprehensive note-taking was the best way to address the sheer volume of archival material and deal appropriately with the significant duplication within files and across archives.

help identify any commonalities or differences across different boundaries during specific eras. However, the chronological organisation did not impede the ability to analyse other thematic trends that may have been identified during the research and were considered in their respective context.

Zambia fieldwork

Recent borderland studies have advocated using more anthropological and ethnographic methods to examine, experience and understand borders and bordering practices in the everyday lives of borderland populations.⁴³ However, the tendency of these approaches in borderland studies is to treat the boundary line as a pre-existent feature of the landscape, concentrating “on the effects of (inter)national boundaries on the formation and spatialization of political forms, and vice versa.”⁴⁴ Given the strict focus of this research on the historical narrative of demarcation practice, archival material did form the majority of the empirical material. However, bringing that narrative through to the present day required fieldwork outside of the archives. While the everyday practices of bordering on the DRC-Zambia boundary were of interest, this fieldwork did not attempt any quantitative anthropological techniques such as collecting crossing data or surveying of borderland population. Instead, loosely following Megoran’s methodology in analysing the boundary dispute between Uzbekistan and Kyrgyzstan, the fieldwork in Zambia worked to supplement and reinforce the material drawn from textual resources.⁴⁵

Interviews

No documents were found in the National Archives of Zambia concerning boundary practices post-1967. Likewise two additional research strategies were adopted during fieldwork in Zambia through July and August 2007. This included: interviews with survey officials currently responsible for international boundary demarcation and maintenance (particularly along the boundary with DRC) and a site visit to two of the

⁴³ H. Donnan and T.M. Wilson, *Borders: Frontiers of Identity, Nation and State* (Oxford: Berg, 1999); N. Megoran ‘For ethnography in political geography: Experiencing and re-imagining the Ferghana Valley boundary closures’ *Political Geography* 25, 6 (2006): 622-640; P. Nugent, *Smugglers, Secessionists and Loyal Citizens on the Ghana-Togo Frontier: The Lie of the Borderlands since 1914* (Oxford: James Currey, 2002).

⁴⁴ T. Raeymaekers, ‘The silent encroachment of the frontier: A politics of transborder trade in the Semliki Valley (Congo-Uganda)’ *Political Geography* 28 (2009): 55-65. 56-57.

⁴⁵ N. Megoran ‘The critical geopolitics of the Uzbekistan-Kyrgyzstan Ferghana Valley dispute’ *Political Geography* 23, (2004): 731-764. 738-739.

boundary pillars themselves. Two in-depth but unstructured interviews were conducted with Mr. Ed Kateka, Deputy Surveyor General of Zambia responsible for international boundary issues, in his office at the Ministry of Lands, Lusaka on 24 and 30 July 2007. These interviews lasted for approximately one hour on each occasion and Mr. Kateka agreed not to be interviewed anonymously. No recording device was used.⁴⁶ Informal discussion and comments that Mr. Kateka asked not to be cited were withheld from the interview notes. The questions posed to Mr. Kateka focused on the following:

- a. how is international boundary demarcation and maintenance treated in Zambia today?
- b. what emphasis, in terms of financial resources and political interest, is currently given to boundary demarcation and maintenance in Zambia?
- c. are there any problems relating to poor boundary definition on the ground along the boundary with DRC in particular?
- d. what form of contact and cooperation concerning boundary demarcation and maintenance is there with DRC?

Again, Mr. Kateka has served with the Zambian Survey Department for several decades and has been involved in all boundary-related issues with neighbouring states. This experience made him the official best-placed to provide information about Zambian government practice in relation to the maintenance and marking of the boundary with DRC.

Discussions were also held with Mr. Danny Mubanga, Surveyor General of Zambia, in his office at the Ministry of Lands, Lusaka on 30 July 2007 for approximately 30 minutes. These were informal discussions, mainly related to my proposed site visit to the boundary with DRC with some discussion of the questions mentioned above. This was not considered a formal interview and again no recording device was used. As Surveyor General, the responsibility for international boundary demarcation and maintenance is under Mr. Mubanga's jurisdiction and he leads Zambia's delegation in the recently constituted African Union Border Programme (AUBP).⁴⁷

⁴⁶ Due to the perceived political sensitivity of boundary issues, my experience speaking with many government officials around the world about boundary issues I have found it best not to use a recording device as it makes interviewees reluctant to speak candidly.

⁴⁷ Mr. Mubanga attended the *Second International Symposium on Land, River and Lake Boundary Demarcation and Maintenance* held in Maputo, 16-19 December 2009, sponsored by the AUBP. The

On 2 and 3 August 2007, discussions were held with Mr. John Mwanakasale, chief surveyor in the Ministry of Lands at Ndola, Zambia. These were informal discussions related to the topics addressed above, to his responsibilities with regard to the DRC boundary and to the logistics of a site visit to the boundary pillars. These discussions were not cited as official interviews. If any of the topics discussed informally were considered important enough to be included in this thesis, I have contacted Mr. Mwanakasale directly and asked for his clarification of certain statements and his permission to include such information in this thesis. Mr. Mwanakasale was instrumental in organising transport and guides to the sites of two boundary pillars along the DRC boundary.

The information gained during these interviews provided greater understanding of issues that affect current Zambian boundary practice, including budgetary and personnel issues. Of particular interest in assessing this information, as suggested by the allocated resources, was the relative priority given to boundary demarcation by the Zambian government.

Further supplementing discussions with officials in the Zambian survey department, my work with the International Boundaries Research Unit has led to discussions with other survey officials responsible for boundary issues across Africa. This has included work with two regional organisations and participation in workshops concerning boundary delimitation and demarcation (under the aegis of the African Union Border Programme) including: Inter-Governmental Authority for Development (IGAD)⁴⁸, Entebbe, 19-22 May 2008 and the Economic Community of Central African States (ECCAS)⁴⁹, Libreville, 21-23 May 2009. In addition, IBRU acted as co-facilitator with the African Union Border Programme *Second International Symposium on Land, River and Lake Boundary Demarcation and Maintenance* held in Maputo, 16-19 December 2008. Through both the formal presentations and informal discussions with practitioners and officials, I was able to understand more about how African states currently undertake boundary delimitation and demarcation practices.

AUBP and its role in current African boundary demarcation, including the DRC-Zambia boundary, will be addressed in greater detail in Chapter 6.

⁴⁸ Regional organisation of East African states including: Djibouti, Ethiopia, Kenya, Sudan, Somalia and Uganda.

⁴⁹ Regional organisation of central African states including: Angola, Cameroon, Central African Republic, Chad, Republic of Congo, Democratic Republic of the Congo, Equatorial Guinea, Gabon and Sao Tome and Principe.

Site visit to boundary pillars

The information gained from the interviews with Mr. Kateka and Mr. Mubanga indicated that no consistent boundary demarcation regime had been put in place by the Zambian government since independence. Given this inconsistency and in order to understand exactly how the boundary was currently ‘known’ on the physical landscape, I felt it necessary to observe it myself in the field. I had originally hoped to observe boundary pillar 1, located at the important turning point of the boundary south of Lake Bangweulu and nearby the main east-west road through northern Zambia (the ‘Great North Road’ or T2). Because of its position at a turning point, I believed that observing this section of the boundary would be most representative of other boundary sections. Its situation near the Great North Road also made it fairly accessible. However, the surveyor general advised against journeying to this part of the boundary because of security concerns given the unpredictable activities of Congolese border authorities and advised that the Survey Department would not have been in a position to support or endorse such a site visit. He suggested instead that I consult with the Chief Surveyor in Ndola which is the second largest city in Zambia and is located close the watershed section of the boundary with DRC. The support of the Survey Department in this area offered much safer access to the boundary pillar sites.

On 3 August 2007, accompanied by a surveyor and a guide from the Ministry of Lands, Survey Department office in Ndola, I proceeded by government-registered vehicle to two boundary pillar sites along the DRC-Zambia boundary, BPs 16 and 18. During these site visits, I examined the physical state of the boundary pillars and any other marks on the physical landscape used to physically define the boundary. I was less concerned with the actual position of the boundary pillars themselves, although a rough GPS reading of Boundary Pillar 18 was taken. I also observed how the boundary pillars fit into the surrounding landscape, including what kind of impact they had on land use and if/how the boundary as a linear construct was defined on the ground (e.g. by clearing of vegetation between pillars). The local guides who accompanied us to Boundary Pillar 18 provided some degree of insight into how local people ‘understand’ the position of the boundary but no formal interviews were conducted. Due to the short duration of these visits, I was unable to undertake more quantitative research on local knowledge of the boundary position.

Although the two boundary pillars are not positioned at major boundary turning points, they are located in an accessible, populated area near a major administrative centre. In this respect, the two boundary pillars provided a good representation of how the boundary pillars have been treated by the DRC and Zambian government in the recent past. They also provided two contrasting human and physical border landscapes. One located near an important border crossing where there is substantial population and settlements and the other located in a more remote setting.

Overview

The archive material, supplemented by information derived from the fieldwork in Zambia, was considered the best methodology for producing a clear historical narrative of demarcation along the DRC-Zambia boundary through to the present-day. As noted above, this unique technique of isolating the practice of demarcation as a narrative allowed me to draw on the empirical richness of traditional boundary studies, but not to fall into a systematic approach which has been the tendency of determinist international legal methodology. Constructing a historical narrative allowed me to expose aspects of demarcation to contemporary critique, from political geography and geopolitics especially, that could not be applied if the DRC-Zambia boundary was examined as a single boundary production system.

4. Mapping over Marking: the Belgian Congo-Northern Rhodesia boundary 1894-1914

“[we] have been engaged in drawing lines on maps where no white man's foot ever trod; we have been giving away mountains and rivers and lakes to each other, only hindered by the small impediment that we never knew where the mountains and rivers and lakes were.”

Lord Salisbury 1890¹

¹ H.S. Wilson, *The Imperial Experience in Sub-Saharan Africa Since 1870* (St. Paul: University of Minnesota Press, 1977), 95.

Introduction

It was revealed in Chapter 2 how the theoretical concept of boundaries is intrinsically embedded within the development of the territorial state model and how boundaries, as products, have been conceived within a series of distinct practices. Given that European imperialism across Africa during the last decades of the nineteenth and early twentieth centuries was predicated largely on the importation of the territorial state model to bring peace and order to the continent², at first glance the demarcation of inter-colonial boundaries would appear to have been a key priority for the imperial powers. Rejecting the zonal and moveable frontiers that were believed to separate primitive pre-colonial political entities, boundary demarcation would have provided clear symbols of the fixed, linear bounds of territorial sovereignty to local borderland populations. However, the historical narrative of the Belgian Congo-Northern Rhodesia boundary reveals that in practice boundary demarcation was not as systematic as it might seem. Nor can it be considered a single standardised process. Instead it will be shown through this narrative how boundary demarcation was contingent on the way territory itself was perceived by the imperial powers who claimed sovereignty, most importantly through economic lenses.

In the vast majority of cases throughout colonial Africa, the survey and demarcation of inter-colonial boundaries was undertaken by bilateral boundary commissions. While the distinction between delimitation and demarcation had been made clear for British boundary practitioners by Henry McMahon in 1897 and again reiterated by Lord Curzon in 1907,³ within British imperial government departments this distinction was less well known and the terms were often used synonymously by officials in inter-department and inter-colonial correspondence.⁴ This makes it

² There are numerous texts analysing of this notion. For a more generalised examination see Davidson 1992, and for an analysis more closely linked to boundaries see A. Mbembe, 'At the edge of the world: boundaries, territoriality and sovereignty in Africa' translated by S. Rendall *Public Culture* 12, no. 1 (2000): 259-284.

³ S.W. Boggs, S.W. 1940 *International Boundaries: a Study of Boundary Functions and Problems* (New York: Columbia University Press, 1940), 32; J.R.V. Prescott and G. Triggs 2008 *International Frontiers and Boundaries: Law, Politics and Geography* (Leiden: Koninklijke Brill NV, 2008), 59; See also J.W. Donaldson and A. Williams 2008 'Delimitation and demarcation: Analysing the legacy of Stephen Jones' *Boundary-Making* *Geopolitics* 13, no. 4 (2008): 676-700.

⁴ Just some of the numerous examples can be found in the 1907 British Foreign Office (FO) Confidential Print "Part 1: Correspondence respecting boundaries in Africa" in FO 403/391 that includes archival material related to the Congo-Uganda and Yola-Cross (Nigeria-Kameroun) boundaries where the terms delimitation and demarcation are used synonymously throughout the

difficult to place the work of colonial boundary commissions strictly within a systematic boundary development rubric. Therefore, it is more important to analyse the role of boundary commissions in the process of demarcation by the way in which the boundaries they were responsible for defining became ‘known’ on the physical landscape, taking clues from the three theoretical characteristics of territorial boundaries outlined in Chapter 2.

The historical narrative of demarcation along the Belgian Congo-Northern Rhodesia boundary is divided into two parts over this and the following chapters. This reflects what will emerge as the clear disparity in priorities and techniques between the two Anglo-Belgian boundary commissions. Both boundary commissions were responsible for boundary demarcation, but the difference in how the boundary was made ‘known’ presents crucial insight into the way the British imperial project perceived (and conceived) African territory. This chapter will examine the reasoning behind the creation of the first Anglo-Belgian boundary commission, its mandate and its actual work in the field from 1911 to 1914. Although dispatched to undertake demarcation, this analysis will reveal how the Belgian Congo-Northern Rhodesia boundary was made ‘known’ only through the privileged medium of maps. This reflected a perpetuation of the small scale ‘geopolitical gaze’ that was such an integral part of the early decades of British imperialism in Africa.⁵

As representative of early British colonial boundary commissions throughout Africa, the 1911-14 Anglo-Belgian boundary commission prioritised mapping and geographic survey at small scale over the task of boundary demarcation. The boundary pillars/beacons/marks that were meant to symbolise the more advanced political division of territory in the lived landscape were considered of minor importance by the imperial governments who claimed territorial sovereignty. Instead, cartographic knowledge of the boundary was preferred, placing those symbols within the lexicon of maps that was considered at the time to be indicative of European superiority, both political and technological. Taking Brian Harley’s cue, the maps produced by early colonial boundary commissions to illustrate demarcation, and the

correspondence. See also E. Hertslet’s 1906 ‘Table showing the progress made in the delimitation of British frontiers in Africa’ which includes demarcation within the overall title of ‘delimitation’ in R. Robinson and J. Gallagher with A. Denny *Africa and the Victorians: The Official Mind of Imperialism* (London: Macmillan, 1981). Map annex.

⁵ G. Ó Tuathail, *Critical Geopolitics* (London: Routledge, 1996), 69; See also T.J. Bassett, ‘Cartography and empire building in Nineteenth Century West Africa’ *Geographical Review* 84, no. 3 (1994): 316-335.

surveys that informed them, must be deconstructed “to discover the silences and contradictions that challenge the apparent honesty of the image.”⁶

The very composition of the Anglo-Belgian boundary commission and its contemporaries in Africa, personified the imperial nexus between military and scientific superiority, perfectly fulfilling Michael Mann’s defined role of the imperial ‘geopolitician.’⁷ Their surveys did not simply entail that required for representing boundaries and borderland areas on topographical maps, but encompassed a broad range of geographic survey. Although tasked with boundary demarcation, the ‘exploratory’ nature of geographic survey undertaken by the 1911-14 Anglo-Belgian boundary commission (and many of its predecessors in southern Africa) clearly constituted what Edward Said referred to in defining imperialism as the “acts of geographic violence through which virtually every space in the world is explored, charted and finally brought under control.”⁸ In explaining the notion of ‘Tropical Geography’, Marcus Power reflects that “Geographic practices and knowledge provided a set of lenses through which ‘The Tropics’ were known.”⁹

The contribution of colonial boundary commissions in Africa to geographic knowledge at the time extended far beyond any perception of their work within political geography and geopolitics as merely technical cogs in the more minor stage of boundary development (demarcation). As examined in Chapter 2, the presumption that boundary practices are related to a single level of power-relations (inter-imperial in this case) tends to overshadow demarcation and cast it as a practice that follows discreetly from the ‘higher’ political stages of territorial allocation and boundary delimitation. Within the historical narrative of the Belgian Congo-Northern Rhodesia boundary, it will be seen how colonial boundary commissions in Africa acted as the eyes of the British sovereign, contributing what was perceived to be reliable geographic knowledge to the “imperial mind” by its trained and trusted servants.¹⁰ More importantly for this study, it will be shown how the role as ‘imperial eye’

⁶ J.B. Harley, ‘Deconstructing the map’ in *Writing worlds: Discourse text and metaphor in the representation of landscape* eds., T. Barnes and J. Duncan (London: Routledge, 1992), 233. Also cited in D. Gregory, *Geographical Imaginations* (Cambridge, MA): Blackwell, 1994), 74.

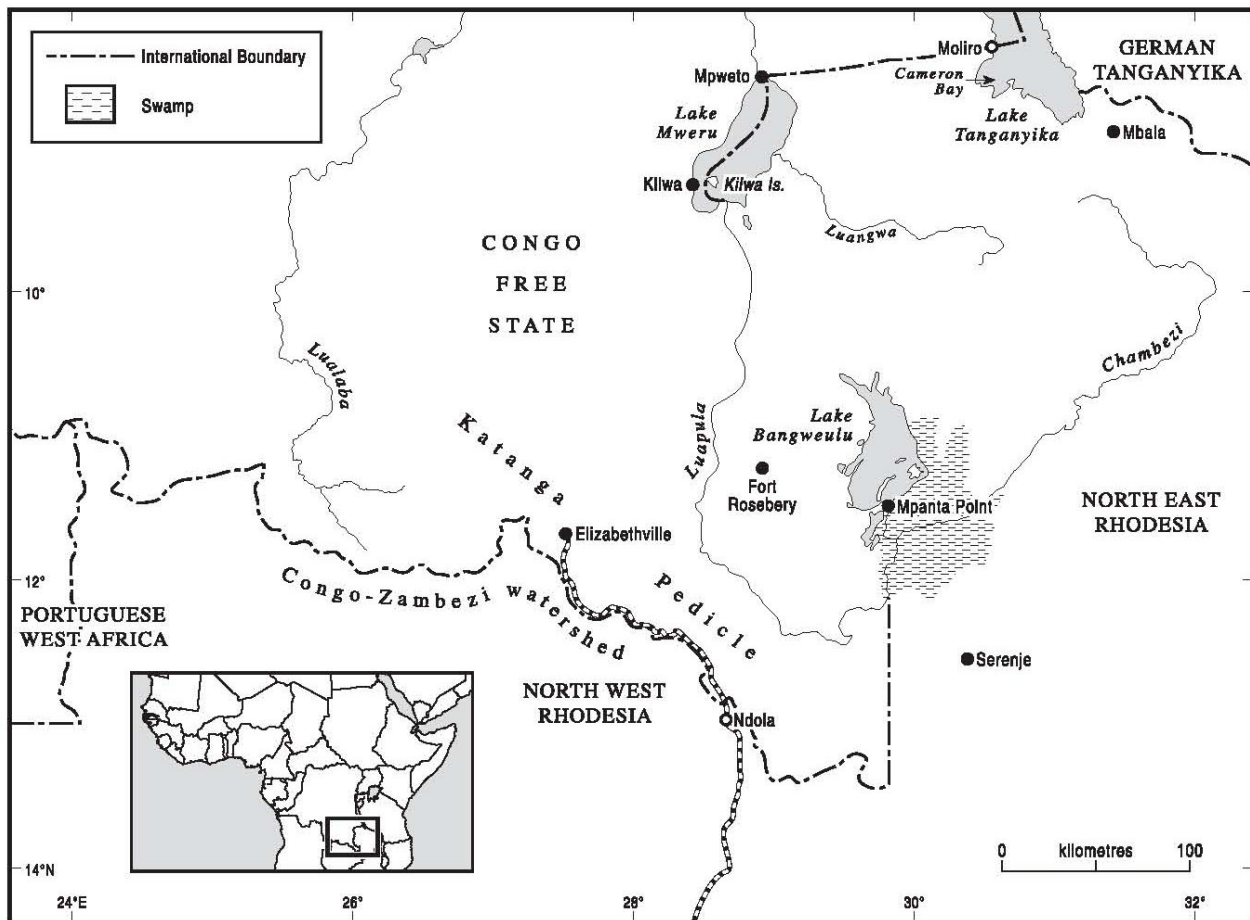
⁷ M. Mann, *The Sources of Social Power Vol. II: The rise of classes and nation-state, 1760-1914* (Cambridge: Cambridge University Press, 1993), 746-747.

⁸ E. Said, ‘Yeats and decolonization’ In *Nationalism, Colonialism and Literature* T. Eagleton, F. Jameson and E. Said, eds., (Minneapolis: University of Minnesota Press, 1990), 77.

⁹ M. Power, *Rethinking Development Geographies* (London: Routledge, 2003), 47.

¹⁰ F. Driver, *Geography Militant: Cultures of exploration and empire* (Oxford: Blackwell Publishers, 2001), 84.

affected the practices by which the Belgian Congo-Northern Rhodesia boundary became ‘known’ on the physical landscape.



Map 1: Overview map of the Belgian Congo-Northern Rhodesia boundary 1894
(Source: Design and Imaging Unit, Durham University)

Allocation of imperial territory and delimitation

Although the stated focus of this research is on the demarcation of the Belgian Congo-Northern Rhodesia boundary, it is necessary first to examine briefly the delimitation instruments that gave the boundary *de jure* status between the neighbouring colonial powers, Belgium and Britain, who claimed territorial sovereignty. As recognised in Chapter 2, boundaries are inherently bilateral and although in that respect the DRC-Zambia boundary did not gain *de jure* existence until the 1894 Anglo-Congolese treaty, its roots can be traced in the territorial claims of the two neighbouring ‘states’ (colonial powers). Certainly this is not to imply that the region was devoid of politico-territorial entities prior to European imperialism but given the stated scope of this work and the theoretical characteristics of ‘boundaries’ developing at the time, this is

where the chronology is most appropriately begun. The general overview map (Map 1) provides some regional context for the geographic position of the Anglo-Congolese boundary and should serve simply as a small scale, supplementary aid for following the historical narrative.

The territory of what became the Belgian Congo took shape at the conclusion of the Berlin Conference 1884-85, although Belgian agents had secured agreements with local leaders for at least two years prior.¹¹ The government representatives in attendance at the Conference agreed in the first article of the first chapter of the 1885 Berlin Act that the territory to be administered by the International Association of the Congo should incorporate all the territories of the Congo river basin. More specifically:

Basin of the Congo Defined

1. In all the regions forming the basin of the Congo and its outlets. This basin is bounded by the watershed (or mountain ridges) of the adjacent basins, namely, in particular, those of the Niari, the Ogowé, the Schari, and the Nile, on the north; by the eastern watershed line of the affluents of Lake Tanganyika on the east; and by the watershed of the basins of the Zambesi and the Logé on the south. It therefore comprises all the regions watered by the Congo and its affluents, including Lake Tanganyika, with its eastern tributaries.

Southern Boundary

2. The southern boundary will follow the course of the Logé to its source, and thence pass eastwards till it joins the geographical basin of the Congo.

Eastern Boundary

3. In the zone stretching eastwards from the Congo basin as above defined, to the Indian Ocean from 5 degrees of North latitude to the mouth of the Zambesi to 5 mile above its confluence with the Shiré, and then follow the watershed between the affluents of Lake Nyassa and those of the Zambesi,

¹¹ See especially the 'List of treaties (contracts) between the Belgian Expedition to the upper Congo and Native Chiefs 1882-1884' transcribed below in Appendix 1, section 8.2. The Berlin Conference from November 1884 to February 1885 included representatives from Austria-Hungary, Belgium, Denmark France, Germany, Great Britain, Italy, Netherlands, Portugal, Russia, Spain, Sweden, Turkey and the United States of America. Many of those in attendance did not have claims to territory in Africa.

till at last it reaches the watershed between the waters of the Zambesi and the Congo.¹²

Prior to the Berlin Conference the International Association of the Congo had already gained recognition as a sovereign state by the international community¹³ and was re-named the L'Etat Indépendant du Congo (Independent Congo State or Congo Free State as it became popularly known) on 1 July 1885. Although recognised as a sovereign state, the Congo Free State was ostensibly run by King Leopold II of Belgium who privately funded its administration. The Belgian Parliament also legitimated his authority by investing state funds in the Association and by allowing the use of Belgian staff and resources for its administration.¹⁴ Initially, the Congo Free State was administered from the small trading station of Vivi that “constituted the territorial embryo of the young Congolese state, the political and military base from which Belgian expeditions set about the occupation of central Africa.”¹⁵ Nevertheless, Jentgen stated that “the recognition of the new state by the United States of America assumed the pre-existence of a state-like entity.”¹⁶

On 1 August 1885 the Independent State of the Congo issued (from Brussels) the *Circular of the Administrator-General of the Department of Foreign Affairs of the Independent State of the Congo, declaring the neutrality of the State, within its Limits as defined by Treaties* that defined its territorial limits in more detail than had been expressed in the 1885 Berlin Act. The relevant clauses in the 1885 Declaration of Neutrality that would go on to determine the future DRC-Zambia boundary included:

To the East

The 30th degree of longitude east of Greenwich up to the 1° 20' of south latitude;

¹² Full text is transcribed in Appendix 1, section 8.1.

¹³ The International Association of the Congo was first recognised as a sovereign state by the United States on 22 April 1884.

¹⁴ For more information on Belgian involvement in the Congo Free State, see especially A. Hochschild, *King Leopold's Ghost: A Story of Greed, Terror and Heroism in Colonial Africa* (London: Pan Macmillan, 2006).

¹⁵ Translation by the author “a constitué l’embryon territorial du jeune État congolais, la base politique et militaire d’où sont parties les expéditions belges qui ont abouti à l’occupation de l’Afrique Centrale.” P. Jentgen, P. 1952 *Les Frontières du Congo Belge* (Brussels: Mem. Institut Royal Colonial Belge, 1952), 10.

¹⁶ Translation by the author “la reconnaissance du nouvel Etat par les Etats-Unis d’Amerique suppose la préexistence du premier comme entité étatique” Jentgen, *Les Frontières du Congo Belge*, 10.

A straight line drawn from the intersection of the 30th degree of longitude by the parallel of 1° 20' of south latitude as far as the northern extremity of Lake Tanganyika;

The median line of Lake Tanganyika;

A straight line drawn from Lake Tanganyika to Lake Moero by 8° 30' south latitude;

The median line of Lake Moero;

The watercourse which unites Lake Moero with Lake Bangweolo

To the South

A line drawn from the southern extremity of Lake Bangweolo until it meets the 24th degree of longitude east of Greenwich, and following the watershed between the Congo and the Zambezi;¹⁷

The Charter of the British South Africa Company (BSAC) granted by Queen Victoria and the British government in October 1889 to administer the British-claimed areas in southern Africa north of the Limpopo river did not specify a northern limit to the Company's area of operation;¹⁸ a discrepancy noted by King Leopold who feared the BSAC would encroach on southern territory of the Congo Free State, a region known as Katanga. His concern was exacerbated by the aggressive concession dealings near Katanga of the BSAC representative Alfred Sharpe that were, close to, and possibly at times within, the limits of the Congo Free State defined in the 1885 Declaration of Neutrality.¹⁹ While the territorial limits outlined in the 1885 Congolese Declaration of Neutrality included Katanga, little effort had been made by the Belgians to control the area outside of the initial expedition that had concluded treaties or conquered local rulers.²⁰ Leopold considered the area his for the taking and

¹⁷ Transcribed in Appendix 1, section 8.2.

¹⁸ Transcribed in Appendix 1, section 8.3; See also G. Macola, *The Kingdom of Kazembe: History and Politics in North-eastern Zambia and Katanga to 1950* (Münster: Lit, 2002), 161.

¹⁹ Macola, *The Kingdom of Kazembe*, 162.

²⁰ For a general historical overview of events leading up to recognition of the Congo Free State see especially Hochschild, *King Leopold's Ghost*.

Sharpe's treaty-making expeditions hastened the sending of Congolese expeditions to show 'effective occupation'²¹ in Katanga.

In late 1891, a Belgian expeditionary force acting on behalf of the Congo Free State killed the Katangan leader M'siri, whose widespread authority soon dissolved throughout Katanga, leaving a power vacuum that was seized on by the Congo Free State administration.²² To the east of the Luapula river²³, the Lunda leader Mwata Kazembe X had already paid tribute to Sharpe in 1890 after resisting several BSAC approaches in previous years.²⁴ Although Kazembe continued to resist BSAC administration²⁵ on occasion until 1899,²⁶ in 1894 the BSAC and British government presumably felt their claim to sovereignty over Kazembe's Lunda kingdom was suitably strong enough to negotiate a bilateral boundary treaty with the Congo Free State. The boundary between the British sphere of influence (the area of activity of the BSAC north of the Zambezi) and the Congo Free State was delimited in Article I, paragraph (b) of the 12 May 1894 Anglo-Congolese Agreement:

Boundary. North of the Zambesi. Luapula River. Lake Moero to Lake
Bangweolo.

b. The frontier between the Independent Congo State and the British sphere to the north of the Zambesi shall follow a line running direct from the extremity of Cape Akalunga on Lake Tanganyika, situated at the northernmost point of Cameron Bay at about 8° 15' south latitude, to the right bank of the River Luapula, where this river issues from Lake Moero. The line shall then be drawn directly to the entrance of the river into the lake, being, however, deflected towards the south of the lake so as to give the Island of Kilwa to Great Britain. It shall then follow the 'thalweg' of the Luapula up to its issue from Lake Bangweolo. Thence it shall run

²¹ The term 'effective occupation' was of course the catch phrase introduced in the 1884 Berlin Conference as the rule by which the European powers could claim sovereignty over territory in colonial Africa.

²² D. Gordon, 'Owners of the land and Lunda lords: colonial chiefs in the borderlands of Northern Rhodesia and Belgian Congo' *The International Journal of African Historical Studies* 34, no. 2 (2001): 315-338, 320.

²³ Part of the defined limit of the Congo Free State, the Luapula is the watercourse referred to in the 1885 Declaration as uniting Lakes Mwero (Moero) and Bangweulu.

²⁴ Gordon, 'Owners of the land and Lunda lords,' 320-321; See also Macola, *The Kingdom of Kazembe*, 162-163.

²⁵ Kazembe even repulsed an armed expeditionary force led by the local BSAC administration in 1897 (Gordon, 'Owners of the land and Lunda lords,' 321).

²⁶ Gordon, 'Owners of the land and Lunda lords,' 321; Macola, *The Kingdom of Kazembe*, 186-189.

southwards along the meridian of longitude of the point where the river leaves the lake to the watershed between the Congo and Zambesi, which it shall follow until it reaches the Portuguese frontier.²⁷ (See Map 1)

The boundary defined in the 1894 treaty is nearly identical to the territorial limits of the Congo Free State outlined in the 1885 Declaration of Neutrality. Recognising the British claim to Kazembe's kingdom east of the Luapula, the only differences between the two were the specification of the section between Lake Tanganyika and Lake Mweru, the deflection around Kilwa island in Lake Mweru and the naming of the Luapula river as the watercourse uniting Lakes Mweru and Bangweulu.

Since the focus of this research is on boundary demarcation, further analysis of the diplomatic and geopolitical context of the 1894 Anglo-Congolese boundary treaty is beyond its scope. Indeed, from an international law perspective this is where the story of the DRC-Zambia boundary effectively ends. The 1894 Anglo-Congolese treaty provided the binding *de jure* delimitation of a linear, fixed and bilaterally agreed boundary between two recognised sovereigns that remains effectively unchanged from its definition within the text even today. However, it is at this point where the empirical narrative of this work begins. While the 1894 Anglo-Belgian treaty established a legal territorial boundary, known only to those very few in power, it was far from a reality on the physical landscape.

Prelude to demarcation

Making the case

With the northern boundary of its territory defined in the 1894 treaty, the BSAC administration gradually penetrated into the borderland areas, especially after the final conquest of the Lunda kingdom in 1899.²⁸ Even without physical definition on the landscape, the first question relating to the alignment of the Congo-Northern Rhodesia boundary was not raised until 1901 when a local trader Mr. Teixeira de Mattos complained to BSAC authorities in Fort Roseberry about the seizure of his rubber-carrying canoes on the Luapula river by Congolese police.²⁹ That same year, the

²⁷ Transcribed in Appendix 1, section 8.4.

²⁸ Macola, *The Kingdom of Kazembe*, 190-223.

²⁹ NRA 3/3/1 vol. I 3950, Various correspondence concerning complaints by Teixeira de Mattos, 1901.

BSAC administration noted an outbreak of sleeping sickness along the Luapula river which prompted BSAC officials to impose travel restrictions.³⁰ Because these issues were largely related to the boundary along the Luapula river (which was assumed to be clearly visible on the ground), they did not require the authorities to more clearly define the boundary on the ground.³¹

The geographic situation of the 1894 boundary created an awkward ‘appendage’ of Congolese territory often referred to as the Katanga ‘pedicle’ that effectively divided North Eastern and North Western Rhodesia Protectorates (See Map 1).³² Katanga was administered as part of the Congo Free State by the Compagnie du Katanga from 1891 to 1900, and from 1900 by the Comité Spécial du Katanga.³³ As traffic between North Eastern and North Western Rhodesia increased in the first years of the twentieth century, Congolese police in the Katanga region, led by a notorious Belgian official Monsieur Declerq, were blamed for frequent abuse and even killings of mail carriers travelling across the Katanga pedicle.³⁴ These problems continued for many decades and are examined in detail by Musambachime.³⁵ By 1903 the situation along the still undemarcated boundary was becoming more strained, particularly in the populated areas south of Lake Bangweulu. Congolese police made frequent raids on villages they claimed to be in Congolese territory. On one occasion in 1903, armed and uniformed Congolese police were detained by BSAC authorities when recruiting for labour in the village of Kapopo, situated southeast of Serenje.³⁶

The main concern for BSAC officials in North Eastern Rhodesia was the position of the boundary south of Lake Bangweulu, in particular whether the village of Chongolo (Tshongolo/Tshongola, near to the present village of Mukuku) lay to the

³⁰ NRA 3/3/1 vol. I 3950 Various correspondence; see also Gordon, *The Kingdom of Kazembe*, 322.

³¹ Rivers were often chosen as boundary sections because they were believed to possess the key characteristics of being linear, fixed and known on the landscape. See especially J. Donaldson, ‘Where rivers and boundaries meet: building the International River Boundaries Database’ *Water Policy* 11 (2009): 629-644.

³² The term pedicle usually refers to the stalk or stem of a plant or flower. Largely due to their geographic separation, the North Eastern and North Western Rhodesia Protectorates were under separate BSAC administrations until 1911 when they were combined to form the Protectorate of Northern Rhodesia. North Eastern Rhodesia was administered from Fort Jameson (Chipata) and North Western Rhodesia from Livingstone (after 1907).

³³ M.C. Musambachime, ‘The social and economic effects of Sleeping Sickness in Mweru-Luapula 1906-1922’ *African Economic History* 10 (1981): 151-173. 151.

³⁴ NRA 3/3/1 vol. II 3950 Various correspondence; Also NRA 3/1/1 vol. II 3948 Letter Codrington to A. Weyns (Comité Spécial du Katanga), 3 November 1902.

³⁵ See M.C. Musambachime, M.C. 1990 ‘Military violence against civilians: the case of the Congolese and Zairean military in the Pedicle 1890-1988’ *The International Journal of African Historical Studies* 23, no. 4 (1990): 643-664.

³⁶ NRA 3/3/1 vol. I 3950.

east (in Northeast Rhodesia) or west (Congo Free State) at the northernmost point of the meridian boundary section (see Map 2, p. 94). Chongolo was located near a ford across the Luapula river southwest of Lake Bangweulu. This ford provided a direct transport link from the two administrative outposts of Serenje and Fort Rosebery on firm ground through the swamps south of the lake. The local BSAC commissioners, Harrington in Fort Rosebery and Hector Croad in Serenje, constructed roads to the ford in 1901, but it was unclear whether or not the route passed through Congolese territory.³⁷ The only alternative routes between the two towns were the lengthy trek north around Lake Bangweulu and the more direct route through the Katanga pedicle. Given the poor treatment of carriers by Congolese police when travelling through Katanga, the BSAC administration hoped that the Chongolo ford would provide a direct route that avoided passing through Congolese territory.

It had also emerged that the western end of the boundary section between Lakes Mweru and Tanganyika left the Congolese village of Mpweto effectively cut off from the northern shoreline of Lake Mweru where Congolese officials were constructing a harbour just south of Mpweto. On 5 November 1903, the BSAC Secretary in London, H. Wilson Fox, with the consent of Sharpe (by this time, British Commissioner of Nyasaland and British Central Africa) suggested that the administrator of North East Rhodesia, Robert Codrington, should “sound (out)” Congolese officials about a potential boundary adjustment or territorial swap that would ensure the Chongolo ford fell east of the meridian boundary south of Bangweulu in exchange for giving Congo the small wedge of territory south of Mpweto to the lake shore.³⁸ Fox advised Codrington first to find out the “exact geographic position” of the boundary south of Bangweulu before negotiations could begin.³⁹ It is clear at this point that the BSAC administration was just gathering information about the proposed adjustments and was not undertaking direct negotiations with the Congolese outside of British imperial government involvement.

The 1894 treaty specified that the meridian section of the boundary should be determined from the point where the Luapula exits Lake Bangweulu at a place called

³⁷ Musambachime ‘Military violence against civilians,’ 650-652.

³⁸ NRA 1/4/4/3 3936 Cablegram from Fox to Codrington, 5 November 1903.

³⁹ NRA 1/4/4/3 3936 Cablegram from Fox to Codrington, 5 November 1903.

Mpanta.⁴⁰ However, the area south of the lake was covered by dense swamps from which the Luapula river emerges near Chongolo. The Luapula river may have appeared to exit from the lake clearly on the small scale mapping used by diplomats to negotiate the 1894 Anglo-Belgian treaty⁴¹, but the local geography was much more complicated. In August 1904 Captain R.G.T. Bright, commandant of the North Eastern Rhodesia constabulary, led a canoe expedition up the Luapula to identify the exact point where the river met the lake in order to determine the meridian and confirm if the “wedge of Congolese territory did indeed block access to Chongolo.”⁴² After a difficult journey through the swamps filled with dense papyrus, Bright identified the position of “Panta” (Mpanta) where the river exited the lake, taking latitude by observations and longitude by time.⁴³ Given the importance of Mpanta for the boundary negotiations, the chief surveyor of North Eastern Rhodesia L.A. Wallace journeyed to Mpanta in October 1904 to verify Bright’s findings and, in the words of the BSAC assistant secretary in London Douglas Brodie, to confirm if the Congolese ‘wedge’ had “any real geographical existence.”⁴⁴

Wallace confirmed Bright’s position of Mpanta and established, as a result, that the meridian boundary did lie some 3 miles east of Chongolo and the road was therefore effectively ‘blocked’ by Congolese territory.⁴⁵ In his October 1904 report that was forwarded to the BSAC offices in London on 6 January 1905, Wallace noted an additional complication. He established that the Luapula actually intersected the meridian three times before the boundary reached Mpanta and proposed adjusting the boundary to place a permanent ford across the Luapula in British territory.⁴⁶

⁴⁰ It is likely that this place-name was taken from David Livingstone’s account of the area south of Bangweulu. See W.V. Brelsford, W.V. 1945 ‘Making an outlet from Lake Bangweulu in Northern Rhodesia’ *The Geographical Journal* 106, no. ½ (1945): 50-58. 52.

⁴¹ Although never made explicit, the description of the eastern endpoint of boundary at “Cape Akalunga” suggests that negotiators consulted the 1890 map “The Tanganyika-Nyassa Plateau” from: *Proceedings of the Royal Geographical Society and Monthly Record of Geography* 12, no. 12. 776 (also produced for the War Office as I.D.W.O. 796) and the maps ‘Lake Tanganyika’ and ‘The Southern Part of Lake Tanganyika’ in E.C. Hore, ‘Lake Tanganyika’ *Proceedings of the Royal Geographical Society and Monthly Record of Geography* 4, no. 1 (1882): 1-28.

⁴² L.A. Wallace, ‘North-Eastern Rhodesia’ *The Geographical Journal* 29, no. 4 (1907): 369-395. p. 373.

⁴³ NRA 2/4/3/3 3944 Report, R. Bright 13 September 1904. The report of Bright’s journey was forwarded on to the BSAC offices in London on 4 October 1904 and passed along to the War Office (NRA 2/4/3/3 3944 Letter Codrington to Brodie, 4 October 1904).

⁴⁴ NRA 1/4/4/3 3936 Letter Douglas Brodie BSAC to the Under Secretary of State CO, 23 August 1904.

⁴⁵ NRA 2/4/3/3 3944 Memorandum, L.A. Wallace, 3 October 1904.

⁴⁶ NRA 2/4/3/3 3944 Report, L.A. Wallace, October 1904 – submitted 6 January 1904.

More importantly for this study, Wallace proposed that the overland section of his adjusted boundary south of Bangweulu would be easy and inexpensive to demarcate. He suggested that the two endpoints of this section should be demarcated and “as they would be only 55 miles apart the line between them could be cleared, and if necessary, intermediate beacons could be placed on the line each of which would be visible from the next.”⁴⁷ Wallace estimated that “final demarcation” of this boundary section from Lake Bangweulu to the watershed (if entrusted to him) would total £800, including £600 for salaries and £200 for transport.⁴⁸ Codrington forwarded Wallace’s suggestions on to the BSAC office in London on 9 January 1904. Almost a decade after the 1894 Anglo-Congolese treaty, this was the first serious discussion about having any section of the Northern Rhodesia-Congo Free State boundary demarcated on the ground. It had been prompted more by the need to ensure a transport corridor through British territory than by any administrative problems with local populations arising from the lack of boundary identification on the ground.⁴⁹

Wallace went on to detail his proposals for boundary adjustments in meetings with BSAC, Colonial Office (CO) and War Office (WO) officials in London during the summer of 1905.⁵⁰ The discussions continued to centre on trading the British territory south of Mpweto on the north shore of Lake Mweru for an adjustment along the meridian section to ensure the all-British transport route south of Bangweulu.⁵¹ But as discussions continued, Codrington intimated that the area south of Mpweto was far more valuable to the Belgians (Congolese) than the area south of Bangweulu was to the BSAC and proposed additional boundary changes to give North East Rhodesia more territory along the Lake Tanganyika shoreline.⁵² On 9 January 1906, Fred Graham (writing on behalf of the Secretary of State for the CO Lord Elgin) submitted these proposals to the newly-appointed British foreign minister Sir Edward Grey in the Foreign Office (FO) suggesting that negotiations should begin with the

⁴⁷ NRA 2/4/3/3 3944 Report, L.A. Wallace, October 1904 – submitted 6 January 1904. p. 6.

⁴⁸ NRA 2/4/3/3 3944 Letter, R. Codrington to secretary of the BSAC London, 9 January 1904.

⁴⁹ A local BSAC administrator Frank Melland later recalled that the ‘hut tax’ was only enforced in North East Rhodesia after 1901 and even then without a population census it was difficult to enforce on the ground. He noted specifically that local populations in the swamps south of Lake Bangweulu would “take to the waters” when he approached to collect hut taxes (F. Melland, ‘Northern Rhodesia: retrospect and prospect’ *Journal of the Royal African Society* 29, no. 117 (1930): 490-498. 491-493).

⁵⁰ These meetings were attended by Major Charles F. Close (later Sir Charles Arden-Close) then of Military Intelligence who had led the British section of the 1898 Anglo-German boundary commission along the North Eastern Rhodesia-Tanganyika boundary just four years prior.

⁵¹ NRA 3/1/1 vol. II 3948 Letter Graham CO to BSAC London, 31 August 1905.

⁵² NRA 3/1/1 vol. II 3948 Letter Codrington to BSAC London, 19 September 1905.

Congolese government on boundary adjustments.⁵³ In a stunning rebuke passed on to the BSAC by the CO on 3 February 1906, Grey said it was “useless” to approach the Congolese government on boundary adjustments and instead suggested: “it is desirable in the first place to determine by actual survey the position of the boundary as laid down by the [1894] Treaty.”⁵⁴

Without any additional explanation it is difficult to understand why the FO responded so coldly to the BSAC’s request for boundary adjustments. Perhaps the FO was reluctant to negotiate with a Congolese government that was rapidly losing credibility with the international community?⁵⁵ However, the wording of the FO response suggested that perhaps it was unwilling to expend significant diplomatic effort simply to secure the BSAC a few additional square miles of unknown African territory. Whatever the case, it was clear at this point that any adjustment or demarcation of the Congo-Northern Rhodesia boundary was effectively shelved by the British government.

Continued administrative problems

However, the lack of boundary demarcation became increasingly problematic for local administrators in the border areas, as both sides accused each other of territorial violations. In April 1907 a local Congo Free State official complained about the actions of the British assistant magistrate of the Serenji district south of Lake Bangweulu, Hector Croad, accusing him of harassing several local chiefs on the Congolese side of the boundary.⁵⁶ When writing to the North East Rhodesia Secretary for Native Affairs to justify his actions, Croad remarked that Congolese police had been active building posts in British territory near the Luombwa river since 1901, up to 20 miles east of where he believed the boundary to be located.⁵⁷ He wrote “During the last six years the work [Congolese police activity] has been greatly increased, and the west of the district kept in a continual state of unrest by the unsettled nature of the boundary.”⁵⁸ The Governor of Katanga, Monsieur E.J. Wangernicé, detailed the

⁵³ NRA 3/1/1 vol. II 3948 Letter Fred Graham CO to Sir E. Grey FO, 3 January 1906.

⁵⁴ NRA 3/1/1 vol. II 3948 Letter Fred Graham CO to BSAC London, 3 February 1906.

⁵⁵ The Casement Report on the dreadful treatment of local populations in the Congo Free State, largely as a result of the rubber trade, had been made public less than two years prior in 1904.

⁵⁶ NRA 3/3/1 vol. II 3950, Letter E. Wangernicé to Codrington, 4 April 1907.

⁵⁷ In his October 1904 report, Wallace mentioned that the Luombwa river had been used as the “working boundary” (NRA 2/4/3/3 3944 Report L.A. Wallace, October 1904 – submitted 6 January 1905. 7).

⁵⁸ NRA 3/3/1 vol. II 3950 Letter H. Croad to the Secretary for Native Affairs, 18 April 1907.

accusations of Croad's activities in a letter to Robert Codrington on 18 July 1907.⁵⁹

Codrington responded to Wangernicé's complaints in December 1907 saying that Croad was censured for undertaking official duties so close to the boundary, even though, from the North East Rhodesia administration's perspective, these activities were most likely exercised within what it believed to be British territory.⁶⁰

Codrington also noted that Congolese activity was jeopardising peace in the area, and recommended that CFS officials should be given similar orders not to undertake administrative duties so close to the unmarked boundary, as a working arrangement:

Whilst the exact position of the boundary is undefined it is certain that disaffected natives will bring complaints to what they consider to be in their case the opposition 'Boma', and difficulties must present themselves to those officials immediately concerned whose great desire, whether Congolese or English, is to prevent disorder. It is in order to avoid these difficulties that our officials have always endeavoured to make some working arrangement with those of the Congo Free State but except with Mr. Massart that has been impossible; such an arrangement made even verbally between two neighbouring and friendly officials would prevent disorder and friction and could not have least effect on the ultimate delimitation of the originally agreed boundary line, nor could it in a country where authority is only exercised to keep order amongst the natives, have any disagreeable after affect.⁶¹

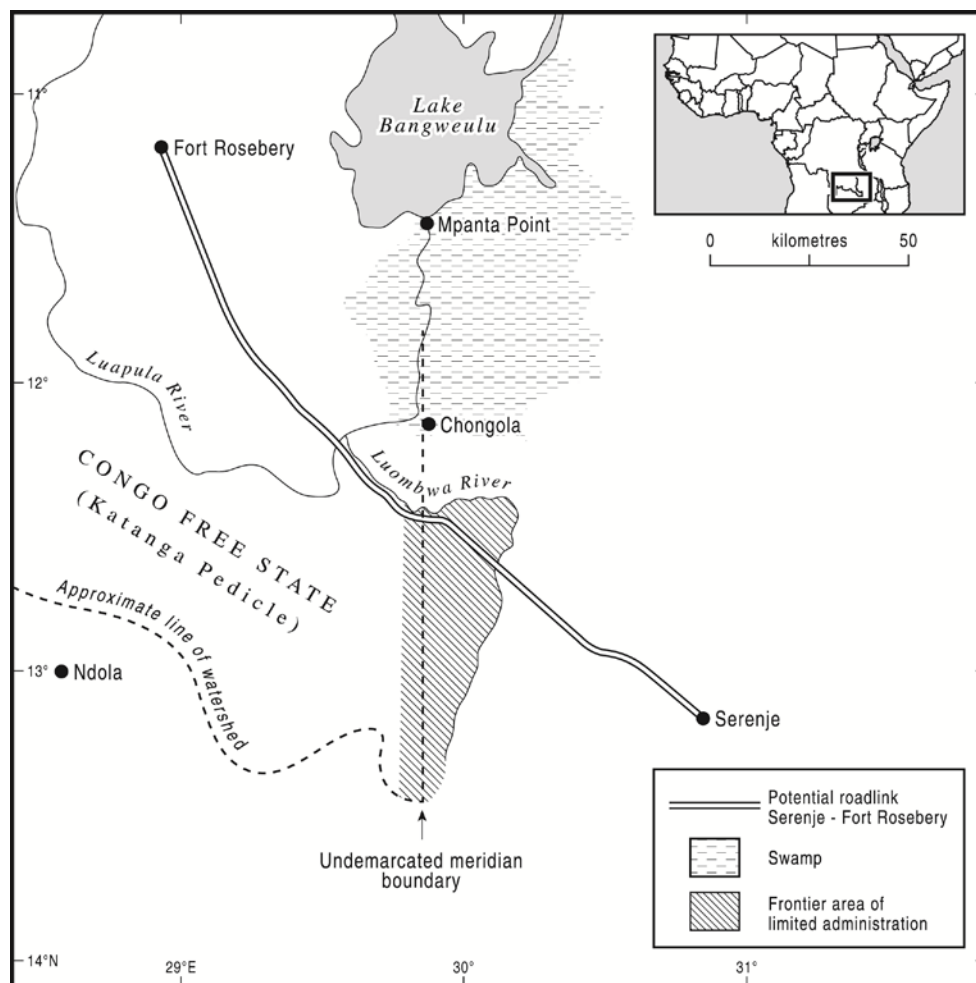
Wangernicé responded in January 1907 saying that he had issued orders for local authorities not to undertake activities so near the boundary but that he was still convinced Croad had crossed into Congolese territory, according their maps.⁶² Map 2 illustrates the approximate geographic extent of the zone west of the Luombwa river that was to be avoided by administrators from both sides along the undefined meridian section south of Bangweulu.

⁵⁹ NRA 3/3/1 vol. II 3950 Letter Wangernicé to Codrington, 18 July 1907.

⁶⁰ NRA 3/3/1 vol. II 3950 Letter Codrington to Wangernicé, 9 Dec. 1907.

⁶¹ NRA 3/3/1 vol. II 3950 Letter Codrington to Wangernicé, 9 Dec. 1907.

⁶² NRA 3/3/1 vol. II 3950 Letter Wangernicé to Codrington, 14 January 1908.



Map 2 Meridian section problems
 (Source: Design and Imaging Unit, Durham University)

It was obvious that the ‘working arrangements’ of restricting administrative actions along the un-defined boundary or observing the Luombwa river as the *de facto* boundary were clearly not preventing administrative problems. This put serious pressure on the North East Rhodesia administration to get the *de jure* boundary marked on the ground. In late 1907 the BSAC made yet another attempt to facilitate at least better mapping of the boundary by suggesting to the CO that the Congo-Uganda boundary commission might travel south to survey the Congo-North East Rhodesia boundary after completing its work.⁶³ The CO was receptive to this idea but

⁶³ NRA 3/1/2 3949 Correspondence BSAC-CO November-December 1907. The 1906-08 Uganda-Congo boundary commission mapped the southern section of the Uganda-Congo boundary on either side of Lake Edward and erected a total of 12 boundary pillars (IBS No. 108 1970). Ironically, the British section of the Uganda-Congo boundary commission was led by (then) Lt. Col. R.G.T. Bright, formerly of the North Eastern Rhodesia Constabulary, who had explored Mpanta point in August 1904, as mentioned above (C.M. Watson, *History of the Corps of Royal Engineers* (Chatham: Institute of Royal Engineers, 1915 reproduced 1954), 213.

commented that the BSAC would need to bear at least part of the cost of the survey. This was something that the BSAC was reluctant to do until a full cost estimate of such a survey could be obtained from North East Rhodesia.⁶⁴ In a January 1908 memorandum, Codrington (now entitled Governor General of North East Rhodesia) endorsed the idea of having the Uganda-Congo boundary commission survey the Congo-North East Rhodesia boundary.

It is clear from the wording of Codrington's 27 January 1908 memorandum that the commission's 'survey' of the boundary would be a pre-requisite for demarcation; in other words, based on the maps produced by this survey, local officials could subsequently erect boundary pillars.⁶⁵ However, Codrington noted that sleeping sickness was prevalent along the Mweru-Tanganyika boundary section and that cross border travel restrictions were in place that might have impeded the survey Congo-Uganda boundary commission. Nevertheless, he felt that the commission could journey farther south and survey the boundary south of Bangweulu where sleeping sickness was not prevalent, concluding that there was no reason these two sections (the meridian section and the Mweru-Tanganyika section) needed to be surveyed together.⁶⁶ It is likely that the presence of sleeping sickness and the cost of extending the Uganda-Congo boundary commission proved prohibitive as this commission was never sent to the Congo-North East Rhodesia boundary. In addition, international support for the independent Congo Free State was rapidly dissolving in 1908. The territory became a formal colony of Belgium on 15 November 1908 and was re-named the Belgian Congo.

A boundary commission at last

After these abortive attempts, demarcation of the Belgian Congo-North East Rhodesia boundary finally gained momentum in the summer of 1910 when the BSAC directors met with L.A. Wallace (the former surveyor general who had become acting administrator of North Western Rhodesia) to discuss the 'delimitation' of all Northern

⁶⁴ NRA 3/1/2 3949 Correspondence H.W. Just CO and D.E. Brodie BSAC, 26 November 1907 and 12 Dec 1907.

⁶⁵ NRA 3/1/2 3949 Memorandum from Codrington, 27 Jan 1908.

⁶⁶ NRA 3/1/2 3949 Memorandum from Codrington, 27 Jan 1908.

Rhodesia's boundaries.⁶⁷ Subsequently, the BSAC made a dramatic appeal to the CO on 28 June 1910, to facilitate boundary demarcation around Northern Rhodesia:

Mr. Wallace states that it is particularly desirable that frontiers which are described as parallels of latitude and meridians, or as straight lines between known points, should be demarcated and beacons since until this is done it is impossible for officials of the Administrations concerned to know with any accuracy the limits of their respective territories. Uncertainty as to boundaries is liable at any time to cause friction between neighbouring Administrations, and the existence of considerable areas which must be regarded as debatable territory has a tendency to unsettle the minds of the natives who inhabit these districts.⁶⁸

The BSAC specifically pressed the CO for demarcation of the Belgian Congo-Northern Rhodesia boundary between lakes Mweru and Tanganyika and the meridian section south of Bangweulu, as well as the lengthy boundary with Portuguese West Africa. Although stating that the “delimitation of the portions of the Rhodesian frontier which are defined by rivers and watersheds is not urgent as a rule”, the BSAC did request that the Belgian Congo-Northern Rhodesia boundary section along the Congo-Zambezi watershed should be beacons since it was not distinctly visible on the ground.⁶⁹ Just a month after this letter from the BSAC, the FO approached the Belgian government about the creation of an inter-colonial boundary commission to demarcate the Congolese-Northern Rhodesia boundary.

Apart from a vague letter by H.W. Just (on behalf of the Earl of Crewe CO) to the FO on 9 July 1910⁷⁰ supporting the BSAC request for assistance with boundary issues, there is little archival material that reveals why this 1910 request had such an immediate impact, seizing the attention of the British government when so many previous attempts had failed. Although the Congo Free State had been considered something of a pariah state, Britain had not shied away from undertaking bilateral boundary demarcation as illustrated by the work of the 1906-08 Uganda-Congo boundary commission. Perhaps the input of L.A. Wallace was particularly influential with British imperial government officials. In his capacity as North Eastern

⁶⁷ It is likely this was prompted by BSAC plans to unite North East and North West Rhodesia Protectorates which came about less than a year later in 1911 when the two were combined to form the Northern Rhodesia Protectorate, administered from Livingstone.

⁶⁸ NRA 1/4/4/3 3936 Letter from D.E. Brodie BSAC to Under Secretary of State CO, 28 June 1910.

⁶⁹ NRA 1/4/4/3 3936 Letter from D.E. Brodie BSAC to Under Secretary of State CO, 28 June 1910.

⁷⁰ NRA 3/1/1 Vol. II 3948.

Rhodesia's surveyor general, Wallace had shown himself to be capable in the field, as his survey of the Luapula river had been published in the *Geographical Journal* in 1907.⁷¹ In addition, Wallace may have made influential contacts when meeting with CO, FO and WO officials in the summer of 1905 to discuss boundary adjustments. They included Major Charles Close (later Sir Charles Arden-Close), a former boundary commissioner in Africa who had been chief of the Geographical Section of the General Staff in 1905 and was poised to become Director General of the Ordnance Survey in 1911.

Perhaps the most intriguing clues lie within the text of the 28 June 1910 letter. Distancing itself from earlier discussions about boundary adjustments, Brodie made it clear that the BSAC recognised the British government's responsibility for the survey and demarcation of colonial boundaries: "My directors presume it will be necessary to appoint an International Commission and to select British officers to represent Great Britain."⁷² This signalled supplication by the BSAC to the imperial government; recognising that demarcation of Northern Rhodesia's boundaries were strictly an imperial concern and were content to let "Great Britain" take the lead. Although the BSAC held administrative control over Northern Rhodesia, the British government was recognised as territorial sovereign and therefore responsible for boundary issues. Other circumstances such as the unification of North East and North West Rhodesian administration may have drawn British government interests to the subject of Northern Rhodesia's boundaries, but the speed of developments that immediately followed the 28 June 1910 BSAC letter indicate that it must have served as something of a catalyst.

1911-14 Anglo-Belgian boundary commission

Getting instructions

The British FO contacted the Belgian Foreign Ministry on 26 July 1910 and proposed that an Anglo-Belgian mixed commission be dispatched to survey part of the Belgian Congo-Northern Rhodesia boundary. It was proposed that the commission begin at the point where the newly laid railway line intersected the watershed boundary and

⁷¹ Wallace, 'North-Eastern Rhodesia,' 369-395.

⁷² NRA 1/4/4/3 3936 Letter from D.E. Brodie BSAC to Under Secretary of State CO, 28 June 1910.

work east along the eastern part of the watershed section of the boundary to the meridian section and then north to Lake Bangweulu.⁷³ The request was also kept deliberately vague on the subject of demarcation, leaving open the possibility for boundary adjustments.⁷⁴ The Belgian government was amenable to the idea of a boundary commission, but proposed instead that the entire length of the Belgian Congo-Northern Rhodesia boundary be both surveyed and demarcated on the ground, commencing at the tripoint with Portuguese West Africa (Angola) and working eastward.⁷⁵

The British Director of Military Operations Brigadier Wilson, who drew up the initial June 1910 recommendations, had restricted his proposal to the boundary just along the eastern watershed section (near the railhead) and along the meridian section because those appeared to him to be the most important sections due to the administrative problems, and because the railway provided easy access.⁷⁶ He conceded that if the Belgians wanted the full boundary demarcated then practically speaking the commission should begin at the railhead, survey westward along the watershed to the tripoint with Angola located at the 24° E meridian and return east “erecting boundary beacons as they retrace their steps.”⁷⁷ He estimated that this operation would take two years to complete. The British Treasury agreed in late March 1911 to fund inter-colonial commissions along Northern Rhodesia’s boundaries with the Belgian Congo and with Portuguese West Africa.⁷⁸ Funding for the British contingent of the commissions was to come from the 1911-12 Colonial Services Vote and the CO indicated that the BSAC should “see no objection” at the very least to providing an escort since the commission itself was being funded entirely by the imperial government.⁷⁹

Negotiations between the British and Belgian governments continued over the exact wording of the instructions for the Anglo-Belgian boundary commission and in January 1911 a Belgian representative met with Brigadier Wilson and officials from

⁷³ NRA 1/4/4/3 3936 Letter Granville to Sir E. Grey, 16 August 1910.

⁷⁴ NRA 1/4/4/3 3936 Letter Granville to Sir E. Grey, 16 August 1910.

⁷⁵ NRA 3/1/1 Vol. II Letter J. Davignon Belgian Foreign Minister to Sir A. Hardinge, British ambassador in Brussels, 11 August 1910.

⁷⁶ NRA 3/1/1 Vol. II 3948 Memorandum by Brigadier Wilson to FO, 7 September 1910.

⁷⁷ NRA 3/1/1 Vol. II 3948 Memorandum by Brigadier Wilson to FO, 7 September 1910.

⁷⁸ NRA 3/1/1 Vol. II 3948 Letter H.W. Just CO to BSAC, 29 March 1911. Demarcation of the Northern Rhodesia boundary with Portuguese West Africa was confined to the overland section from the tripoint with the Belgian Congo south to the Kwando river. The negotiations and preparations for this commission were slightly behind those for the Anglo-Belgian boundary commission.

⁷⁹ NRA 3/1/1 Vol. II 3948 Letter H.W. Just CO to BSAC, 29 March 1911.

the FO and CO in London. According to the final instructions agreed at these meetings, the Anglo-Belgian boundary commission was due to meet at the railhead on the Congo-Zambezi watershed on 1 September 1911 and divide into two groups. The main group, including the two commissioners, was to address the watershed and meridian sections while the second group (operating separately but still under the authority of the two commissioners) would address the Mweru-Tanganyika section.

Mapping was the key priority for the commission which was given explicit instructions to survey and produce maps of the borderland area along the full length of the boundary.⁸⁰ It was also instructed to gather information about the two controversial endpoints of the Mweru-Tanganyika section, the unknown position of “Cape Akalunga” on the southwest shore of Lake Tanganyika and the position of the boundary in relation to the Belgian town of Mpweto on the north shore of Lake Mweru.⁸¹ These two endpoints were to be mapped at a large scale in order “to give a very good idea of the ground.”⁸²

Crucially, the only part of the boundary to be demarcated was the watershed section. Questions over the endpoints of the Mweru-Tanganyika section meant that the boundary commission’s maps and recommendations would inform additional negotiations on potential adjustments. However, it is puzzling that the instructions did not call for demarcation along the meridian section, since, according to Wilson’s explanation of the original proposal, this was the central area of concern due to the persistent administrative problems. It is likely the British government hoped to keep the meridian section open for potential adjustment and did not want to prejudice any future negotiations by marking it on the ground. While the commission’s final instructions included detailed references to topographic survey throughout (such as recommended elevation intervals noted in Article VII), the instructions for actual demarcation were much less specific.

⁸⁰ Along the watershed section, mapping was to extend 10 km on either side of the boundary. Along the Mweru-Tanganyika section, mapping was to extend 10 km north and 25 km south of the perceived boundary line. Along the meridian section from Lake Bangweulu south to the watershed, mapping was to extend to the Munyangashi (a tributary of the Luapula) and 10 km to the east of the meridian (*Instructions for the Anglo-Belgian commission appointed to demarcate the Rhodesia-Congo boundary, 1911*, copy included in RC 609 Report by R. Walker, 15 January 1914.)

⁸¹ For example, a 1:20,000 scale map of Mpweto was produced by the British commission in 1913 (CO 1047/784).

⁸² Article IV, *Instructions for the Anglo-Belgian commission appointed to demarcate the Rhodesia-Congo boundary, 1911*, copy included in RC 609 Report by R. Walker, 15 January 1914.

The commission was instructed to erect boundary pillars along the ideal watershed “where necessary to show the line adopted.”⁸³ The instructions did stipulate that if villages were found situated directly on the watershed, the boundary should deflect around the village lands at a distance of not more than 2 km to keep it solely situated in one territory.⁸⁴ The only instructions on pillar construction stated that: “The frontier posts will be made of masonry or cement and will be numbered. The numbers will be given in the maps and protocols.”⁸⁵ This statement clearly conveys the importance of mapping over actual demarcation for the two governments. Without providing more instructions on the dimensions of, or distance between, boundary pillars, it was left up to the commission to mark the boundary on the ground as they saw fit, as long as the pillars were “numbered” for the “maps and protocols”. The actual marking of the boundary on the ground was of much less concern than its depiction through the imperial lens of mapping, a theme consistent with other British colonial boundary commissions throughout Africa at this time.

Work in the field

Because the Belgian and British contingents of the boundary commission effectively worked in separate groups, along three distinct boundary sections (watershed, meridian and Mweru-Tanganyika) it is difficult to piece together a complete narrative of the commission’s work. The main sources on the activities of the British section include Major R. Walker’s 1914 reports in the National Archive of Zambia file RC 609⁸⁶, E.A. Steel’s 1917 article in the *Geographical Journal* entitled ‘Congo-Zambezi watershed’ and the recollections of Sir Stewart Gore-Browne, a British officer on the

⁸³ Article IIIb, *Instructions for the Anglo-Belgian commission appointed to demarcate the Rhodesia-Congo boundary, 1911*, copy included in RC 609 Report by R. Walker, 15 January 1914.

⁸⁴ Article III, *Instructions for the Anglo-Belgian commission appointed to demarcate the Rhodesia-Congo boundary, 1911*, copy included in RC 609 Report by R. Walker, 15 January 1914. This seemingly pragmatic solution to the allocation of straddling villages was used along many other inter-colonial boundaries such as the French Soudan-Gold Coast boundary (now the Burkina Faso-Ghana boundary) where the boundary was originally delimited along the 11° N parallel. However, the 1904 Anglo-French boundary commission frequently deviated the boundary, mostly along right angles, to include villages either in British or French territory (FO 93/194).

⁸⁵ Article VII, *Instructions for the Anglo-Belgian commission appointed to demarcate the Rhodesia-Congo boundary, 1911*, copy included in RC 609 Report by R. Walker, 15 January 1914.

⁸⁶ Some of the archive material related to the 1911-14 Anglo-Belgian boundary commission kept in the British Public Records Office (now the National Archives) may have been destroyed during the Second World War. The records of the boundary commission are also held in files CART 2071, 2073 and 2078 (B15) at the African Archives of the ex-Ministry of African Affairs, Belgian Foreign Affairs, Brussels.

boundary commission, published in his 1964 article ‘The Anglo-Belgian boundary commission, 1911-14’ in the *Northern Rhodesia Journal*.⁸⁷

The commission began its work in September 1911⁸⁸, and its progress was delayed (as was the case throughout its time in the field) by a lack of ‘carriers’ recruited from throughout Northern Rhodesia.⁸⁹ With the single rail line being the only transport link (see Map 3, p. 102), carriers recruited from local districts were essential for supplying the commission in the field. The armed escort accompanying the commission was used largely for keeping discipline amongst the carriers.⁹⁰ Mapping was the clear priority as the commission’s first task through the autumn of 1912 was to survey a series of triangles from what was at the time the northernmost point of the 30° E meridian triangulation chain.⁹¹ Although the Belgian and British parties worked separately, they kept in communication, comparing survey results and jointly constructing survey beacons.⁹²

⁸⁷ Sir Stewart Gore-Browne later settled in Northern Rhodesia and became a prominent politician in Northern Rhodesia and the first years of Zambian independence. He kept diaries during his time on the boundary commission which are held in his private archives at his estate Shiwa N’gandu near the town of Mpika. See Chapter 3 pp. 66-67 for more information.

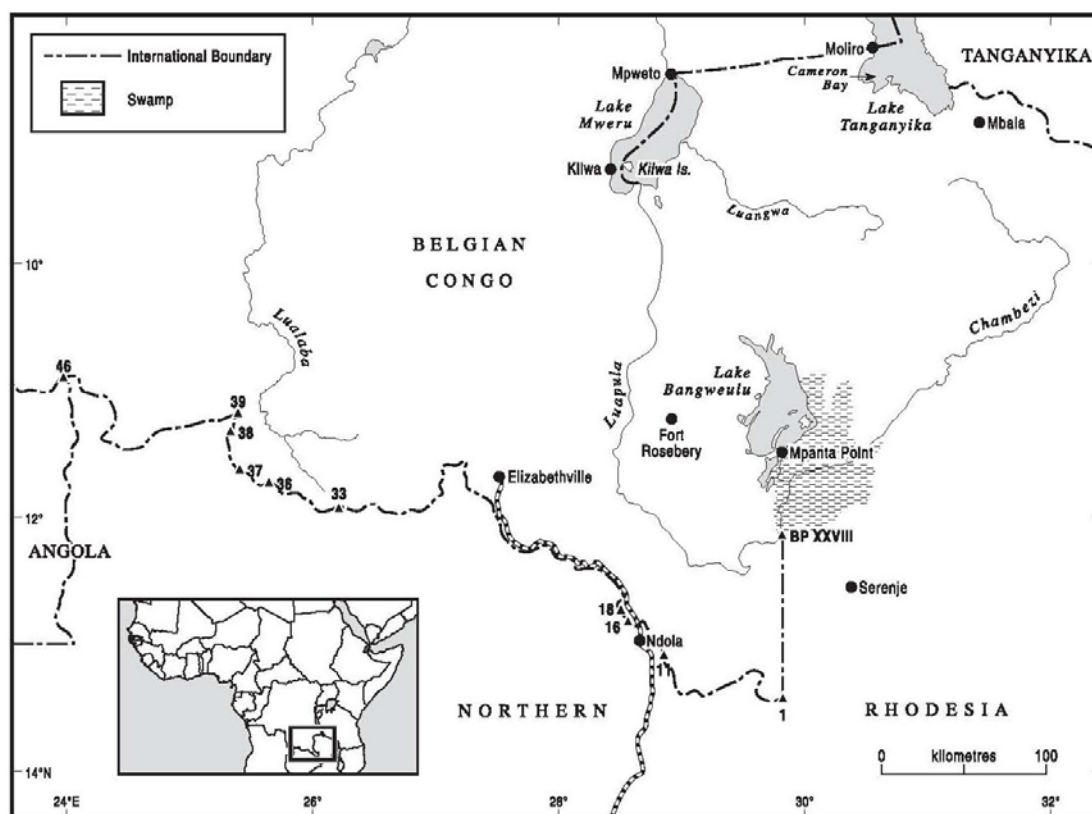
⁸⁸ The two contingents first met at the village of Sakania, located just north of Ndola and the site of the boundary visit in August 2007.

⁸⁹ RC 609 ‘Narrative’ section, Report by R. Walker, 15 January 1914. See also NRA 1/2/2 vol. II 6025 Correspondence March 1912 between FO, CO, BSAC and Belgian Foreign Ministry, and NRA 2/1/12 6030 Correspondence May-July 1914.

⁹⁰ RC 609 ‘Overall Observations’ section, Report by R. Walker, 15 January 1914.

⁹¹ E.A. Steel, ‘Zambezi-Congo watershed’ *The Geographical Journal* 50, no. 3 (1917). 180-193. 180.

⁹² The instructions had been silent about how the two sides would cooperate on surveys, and each side produced its own boundary maps. Discrepancies between the two map series would cause problems later.



Map 3: 1911-14 demarcation overview, pillars along the watershed
(Source: Design and Imaging Unit, Durham University)

In February 1913, the commission divided into two groups, with one group dispatched to survey the Mweru-Tanganyika section⁹³ and the second continuing along the watershed aiming to meet the Anglo-Portuguese boundary commission at the tripoint with Angola in the spring of 1913. This would allow the Anglo-Portuguese commission to connect with the British triangulation chain surveyed along the watershed.⁹⁴ It was only at the end of February 1913 that the subject of actual demarcation gained attention. On 28 February 1913, the Belgian ambassador Lalaing in London sent a note to Sir Edward Grey suggesting that the task of demarcation might be left up to the local officials, with the boundary commission only marking the boundary in areas where local officials might find it difficult to identify the line.⁹⁵ In spite of the British government's initial lack of enthusiasm for having the boundary commission actually demarcate the boundary, Grey recoiled at the Belgian interpretation of the agreed instructions and provided extraordinary insight into the British imperial understanding of boundary demarcation:

⁹³ Detailed survey instructions for the boundary commission along the Mweru-Tanganyika section were issued in November 1912 (NRA 1/1/7 6004 Letter WO to CO, 29 November 1912).

⁹⁴ NRA 1/1/8 6004 Letter L. Harcourt CO to Gladstone, 14 February 1913.

⁹⁵ NRA 1/1/8 6004 Letter Lalaing to Sir E. Grey, 28 February 1913.

It will be remembered that both the agreement and the instructions lay down that the duty of the Commissioners, as regards the frontier where it is formed by the Congo-Zambesi watershed, is to map the frontier and to mark the adopted line by boundary pillars.

His Majesty's Government would also draw attention to the fact that it has been for long an accepted principle that, in cases where the Boundary Commissioners have to lay out the line of frontier, it is also part of their duties to mark it in its entirety. To lay out a frontier line correctly and represent it accurately on the map requires technical knowledge which local officials do not as a rule possess. It is only when the Boundary Commissioners are instructed to survey a zone, and possibly recommend a frontier but not to lay it out on the ground, that local officials are deputed to carry out the work of marking the line; and even then this is only done when the line adopted is marked by clear natural features, and technical knowledge is not required to identify it.⁹⁶

According to Grey, only imperially-mandated boundary commissioners had the “technical knowledge” to identify complex, linear geographic features such as watersheds and meridians. While local officials only had the knowledge to identify “clear natural features”; presumably Grey was referring to features such as rivers or prominent ridgelines that were evident as linear, fixed and known to the ‘less knowledgeable’ surveyor.

A premature end?

Throughout 1913-1914, the boundary commission surveyed along the watershed and finally reached the tripoint with Angola at the 24° E meridian in early spring 1914. Survey work had been extremely difficult since the flat terrain, especially along the watershed west of Ndola, had required the commission to mount survey beacons and plane table platforms on numerous wooden structures.⁹⁷ These structures required substantial manpower to build which, along with the seasonal rains and persistent transport problems, slowed survey progress considerably.⁹⁸

⁹⁶ NRA 1/1/8 6004 Letter Sir E. Grey to Lalaing, 22 March 1913.

⁹⁷ Triangulation requires visible beacons usually located on higher elevations (e.g. hilltops) so that the angles and rays of the triangles can be accurately measured.

⁹⁸ See especially the photos and text in Steel, ‘Zambezi-Congo watershed,’ 181-182. Steel also notes that the Balunda people who lived in the tripoint area, had originally fled upon hearing the approach of the two boundary commissions. “However, when they heard we were only there to fix their boundaries

After fixing the tripoint with the Anglo-Portuguese boundary commission, the Anglo-Belgian boundary commission returned eastward and erected 35 boundary pillars (BPs 46-11, west to east)⁹⁹ along the watershed. Although the original instructions had called for the marks to be built of “concrete or masonry”, most of the boundary pillars consisted of “5 to 6 foot lengths of 6-inch iron piping with a flange at the end” driven into the ground.¹⁰⁰ These pipes were used normally as the bases for wooden telegraph poles and had been used as boundary pillars by numerous other colonial boundary commissions.¹⁰¹ Other pillars along the watershed section were made of 10 ft iron rails, set in a 2 ft concrete base with a wooden board bolted at the top.¹⁰²

By April 1914 the boundary commission completed demarcation to BP 11, but this was the end of contract period for many of the recruited carriers. Without adequate transport to complete demarcation of the watershed section east from this point to the Mpanta meridian, the British contingent would have had to wait three months before new carriers could be recruited from other parts of Northern Rhodesia.¹⁰³ One of the British commissioners, Major Steel, had not won any friends among local officials in Northern Rhodesia whose complaints about his treatment of carriers had reached even the desk of the British High Commissioner in Cape Town.¹⁰⁴ In addition, with the First World War beginning in Europe, the WO was not keen for British army officers to remain idle in remote Africa for three months in order to demarcate a short stretch of colonial boundary that the Director of Military Operations did not feel was worth the trouble of demarcating: “Major General Wilson

and make life more secure for them, they soon began to return and rebuild their villages and grow food, though it was some time before they could be prevailed upon to believe that people who were always climbing trees and building houses in the air, as they termed some of our beacons, could be up to any good” (Steel, ‘Zambezi-Congo watershed,’ 186).

⁹⁹ Similar to Map 1, the general overview provided by Map 3 shows the geographic position of boundary pillars erected by the 1911-14 boundary commission as an illustrative aid to follow the narrative.

¹⁰⁰ E.R.L. Peake, ‘Northern Rhodesia, Belgian Congo boundary’ *Geographical Journal* 83, no. 4 (1934): 263-277. 264.

¹⁰¹ W.F.S. Miles, *Hausaland Divided: Colonialism and Independence in Nigeria and Niger* (Ithaca: Cornell University Press, 1994), 4. Miles notes that the local people along the Niger-Nigeria boundary refer to the boundary posts as “tangaraho” which means telegraph pole in the Hausa language (Miles, *Hausaland Divided*, 1).

¹⁰² RC 609 Memorandum by Fairweather, 30 Sept 1924.

¹⁰³ NRA 1/1/13 6006 Letter WO to CO, May 1914 and NRA 1/1/14 6007 Letter Steel to WO, 16 July 1914.

¹⁰⁴ NRA 1/1/13 6006 Letter High Commissioner in Cape Town to NR Administrator, 11 June 1914.

is of the opinion that the beaconing of this portion of the boundary is of very small importance and that it is not worth any great expense.”¹⁰⁵

Nevertheless, the British government agreed with Belgian recommendations that the remaining portion of the watershed boundary should be beaconed on the ground.¹⁰⁶ Since the watershed section was already surveyed, and the exact coordinates of the Mpanta meridian (29° 48' 52.75 E) had been agreed jointly in 1912, the WO had no objections for a Belgian survey party to complete demarcation of the watershed section eastward from BP 11 to the meridian and later send local BSAC authorities to verify the positions of the pillars.¹⁰⁷ This plan was agreed by the Belgian government and a Belgian survey party from the boundary commission erected ten boundary pillars (BPs 11-1) in June 1914, including BP 1 that was positioned at the meridian turning point.¹⁰⁸

It is unclear why the Anglo-Belgian commission erected pillars at certain locations along the watershed and not others, but the interval between the pillars varied considerably from 5 to 25 miles.¹⁰⁹ On average, the pillars were located approximately 15 miles apart.¹¹⁰ A few of the triangulation beacons were sited on the watershed and were accepted as boundary pillars, but many pillars were not tied into the triangulation network, meaning that their positions could not be accurately identified by coordinates. Certainly with the pending exodus of carriers, the British contingent would have been eager to demarcate the watershed as quickly as possible as they returned eastward from the Angola tripoint. But beginning with their instructions and continuing through the fieldwork, actual demarcation of the watershed boundary was a low priority for the Anglo-Belgian boundary commission. Of much greater importance was the identification and mapping of the watershed, a task that, according to Sir Edward Grey, required the technical knowledge of an imperial boundary commission.

¹⁰⁵ NRA 1/1/13 6006 Letter WO to CO, May 1914.

¹⁰⁶ NRA 1/1/13 6006 Correspondence between Lalaing and Sir E. Grey, 26 March 1914 and 22 April 1914.

¹⁰⁷ NRA 1/1/14 6007 Letter WO to CO, 16 July 1914.

¹⁰⁸ NRA 1/1/14 6007 Letter J. Davignon Belgian Foreign Minister to Villiers British ambassador in Brussels, 26 June 1914.

¹⁰⁹ Peake, 'Northern Rhodesia, Belgian Congo boundary,' 264. See also the Anglo-Belgian Boundary Commission maps in CO 1047/355.

¹¹⁰ RC 609 *Memorandum* by Fairweather, 30 Sept 1924. p. 2. Map 3 gives a general, small scale impression of the distances between many of the boundary pillars along the watershed.

Early African colonial boundary commissions

Maps over marks

To anyone even standing next to one of the 46 pillars erected by the 1911-14 Anglo-Belgian boundary commission, the exact position of the boundary would have been impossible to visualise on the ground. The commission did clear a narrow path through the bush between the pillars for their traverse survey, but this would have quickly become overgrown and indistinct on the ground. However, when depicted on a map, the boundary was indicated and perceived visually as a distinct line running between clearly identifiable pillars.¹¹¹ Knowledge of the boundary in its pure form as a fixed, linear and bilateral entity was available only to those who possessed and could understand the maps on which it was inscribed. This is not to mention the complexities of encoding maps based on the perception of spatial reality by the surveyor in the field through the communication of such codes to map readers. Such relationships are charted by Thongchai Winichakul in the Siamese tradition.¹¹²

As one of the last British colonial boundary commissions in Africa prior to the First World War, the 1911-14 Anglo-Belgian boundary commission was indicative of previous commissions in its prioritisation of boundary mapping over boundary marking.¹¹³ Many other colonial boundary commissions were also given little instruction on how and where to construct boundary marks. The 1898-1899 Anglo-German boundary commission along the North East Rhodesia-Tanganyika boundary between Lakes Nyassa and Tanganyika was given only one instruction for the construction of boundary marks: “beacons should be constructed as permanently as may be possible with the material obtainable.”¹¹⁴ On the ground, these turned out to be wooden posts approximately 3 metres in height surrounded by stone heaps at the base.¹¹⁵ The 1898-1904 Anglo-German boundary commission along the Bechuanaland-South West Africa boundary was given detailed instructions on triangulation survey but only one instruction related to demarcation:

¹¹¹ CO 1047/355, Anglo-Belgian Boundary Commission maps.

¹¹² T. Winichakul, *Siam Mapped: A History of the Geo-Body of a Nation* (Honolulu: University of Hawaii Press, 1994), 52-53.

¹¹³ J.W. Donaldson, ‘Pillars and perspective: demarcation of the Belgian Congo-Northern Rhodesia boundary’ *Journal of Historical Geography* 34 (2008): 471-493. 478-482.

¹¹⁴ FO 64/1549 S.C.N. Grant and D. Von Dankelman 1898

¹¹⁵ Pictures of the boundary posts can be found in CO 1069/104.

6. After the completion of the triangulation, and the computation of the Latitudes and Longitudes of the points, permanent beacons should be erected to define the boundary. The number and distance apart of these beacons should be arranged according to local requirement.¹¹⁶

The instructions given to the Congo-Uganda boundary commission in 1910 specified that boundary pillars should be made of stone, but more importantly, should be numbered for “maps and protocols.”¹¹⁷ Although the lack of stone along the Angola-Northern Rhodesia boundary made demarcation difficult for the 1912-15 Anglo-Portuguese boundary commission, the British WO recommended – and reiterated by the Portuguese government to its commissioner – that “any beaconing, even if not of a permanent character, is useful.”¹¹⁸ More tellingly, Brigadier Wilson followed this recommendation by saying: “It is quite doubtful if a second commission will ever be sent out to mark the boundary more permanently.”¹¹⁹

Given little direction, boundary pillars erected by early boundary commissions throughout Africa prior to 1914 were remarkably crude and unlikely to remain visible on the physical landscape for any great length of time. The iron pipes used by the Anglo-Belgian boundary commission were popular with other early boundary commissions, likely because they were easily acquired (since they were also used at the time as the bases for telegraph poles) and easy to erect. However, the local people along the Sudan-Ethiopia boundary found that the iron pipes could be used to make knives, arrowheads and other tools so they were quickly dismantled from the landscape.¹²⁰ The traditional cairn of heaped stones was another popular method for boundary markers. However, Al-Nur notes that again along the Sudan-Ethiopia boundary local people removed the stones soon after the cairns were erected, not in protest to the imperially-imposed boundary, but in order to be used for sharpening tools.¹²¹ Perhaps the least permanent of boundary markers was the popular method of simply ‘blazing’ or marking tree trunks.¹²²

¹¹⁶ H. Laffan, H. Wettstein, Doering and D. Gill *Report: The Boundary Survey between British Bechuanaland and German South West Africa* (Berlin: Government publisher, 1904), 4.

¹¹⁷ FO 93/1/22, Instructions for the German-British-Belgian boundary commission, 26 August 1910.

¹¹⁸ NRA 1/1/7 6004 Memorandum WO, 14 Nov 1912.

¹¹⁹ NRA 1/1/7 6004 Memorandum WO, 14 Nov 1912.

¹²⁰ T.H. Al-Nur, *The Sudan-Ethiopia boundary: a study in political geography* PhD thesis, University of Durham (1971), 116.

¹²¹ Al-Nur, *The Sudan-Ethiopia boundary*, 116.

¹²² Trees were usually marked either by burning or ‘branding’ symbols on their trunks, or by carving letters and filling them with tar (See Inclosure in No. 3, BFSP 1905-06).

With limited time and resources, early colonial boundary commissions often deviated from the original description of the boundary in delimitation treaty texts in order to save the expense of erecting pillars. When suggesting to the German government in 1908 that portions of the Yola-Cross River section of the Nigeria-Kameroun boundary should be adjusted to follow natural features, Sir W.E. Goschen argued: “The selection of natural features such as streams and rivers has many advantages, not the least of which is that far fewer boundary pillars are required.”¹²³ McEwan uncovers 1902 correspondence from Lord Landsdowne during negotiations with King Leopold II concerning the Uganda-Belgian Congo boundary:

...the frontier line should be drawn along the Jei River rather than that a line should be found east of that river, and at a distance of not less than 40 miles from the Nile. To mark out a line of this nature in an unexplored tropical country is a notoriously difficult, expensive and laborious task...His Majesty's Government are unable to believe that the tract of country to be gained or lost by either party is of sufficient value to justify rectification of a plan which provides a distinct frontier easy both to ascertain and observe.¹²⁴

The 1898-99 Anglo-German boundary commission made numerous adjustments to the boundary between Lakes Nyassa and Tanganyika, originally defined in the 1 July 1890 treaty, in order to create a “workable boundary-line.”¹²⁵ In his final report on this boundary commission, Close emphasised that natural features formed all but 29 miles of the 250 mile boundary agreed with the German commissioner.¹²⁶ The 29 miles of what was called ‘artificial boundary’ was marked by just 23 pillars. One of these ‘artificial’ sections was changed from an indistinct watershed to follow straight-lines between the widely-spaced pillars, in order “to avoid the delay which would have been caused by exact investigation.”¹²⁷

The northern section of the Angola-Northern Rhodesia boundary was originally delimited in a 1901 arbitral award (the Barotse Award) along the 24° E meridian extending north to the tripoint with Belgian Congo on the Congo-Zambezi

¹²³ FO 403/403B Letter W.E. Goschen to von Schoen, 2 December 1908. p. 9.

¹²⁴ A.C. McEwan, *International Boundaries of East Africa* (Oxford: Clarendon Press, 1971), 46. citing FO 10/776 Letter from Landsdowne to Phipps, 3 June 1902.

¹²⁵ FO 64/1549 Letter Sharpe to Lord Salisbury, accompanying C.F. Close's report, 28 January 1899.

¹²⁶ FO 64/1549 Confidential Report C.F. Close, 24 January 1899. p. 32

¹²⁷ FO 64/1549 Confidential Report C.F. Close, 24 January 1899. p. 33. See also: FO 925/930, Herman, Kohlschuetter and Glauning 1900 1:100,000 scale map *Deutsch-Englischche Nyassa-Tanganyika-Grenz Expedition*; Brownlie 1979. pp. 1019-1021.

watershed. However, the 1912-15 Anglo-Portuguese boundary commission that met the Anglo-Belgian boundary commission in the field was instructed to propose any to adjustments to the line as long as they were within 10 miles of the meridian.¹²⁸

Likewise, the Anglo-Portuguese boundary commission shifted this northern section to a complex series of numerous local streams, and was marked on the ground by just 13 pillars.¹²⁹

In his influential 1906 article on boundaries, Major E.H. Hills¹³⁰ encapsulated the British attitude to early colonial boundary demarcation, saying “the question then to be answered is not, what is the best possible frontier line to select, but what is the best line that can be surveyed and laid out within a stated period of time and with a definite limit of cost?”¹³¹ Natural features, especially rivers/streams and watersheds, were considered preferable to the original delimitation treaties because they were believed to offer the three key characteristics of boundaries, being linear, fixed and visibly known. While some watersheds (as sharply defined ridgelines) and rivers may have constituted fixed, linear entities that could be visually recognised on the physical landscape, knowledge of their condition as ‘boundaries’ still had to be communicated to the borderland populations.¹³² Along the Angola-Rhodesia boundary north of the 13° S parallel, it would have been difficult for the 1912-15 Anglo-Portuguese boundary commission to explain the complex course of the boundary following some 20 river/stream sections and numerous overland sections, all of varying lengths, to the local population. In addition, recent research reveals that while boundary rivers/streams may appear as fixed and distinct blue lines on boundary maps, their observed nature on the physical landscape, particularly in areas with seasonal or erratic rainfall, is often much less distinct.¹³³

¹²⁸ NRA 1/1/7 6004 Memorandum from WO to Secretary of State CO, 14 Nov 1912.

¹²⁹ MR Zambia S.24; See also International Boundary Study (IBS) series, *No. 119 Angola-Zambia* Boundary Office of the Geographer, United State Department of State (1972), 4.

¹³⁰ Major E.H. Hills was the first director of the Geographical Section of the General Staff (GSGS) who was succeeded in that role by Close. See especially M. Heffernan, M. 1996 ‘Geography, cartography and military intelligence: the Royal Geographical Society and the First World War’ *Transactions of the Institute of British Geographers* 21 (1996): 504-33. 507.

¹³¹ E.H. Hills, ‘The geography of international frontier’ *The Geographical Journal* 28, no. 2 (1906): 145-155. 146.

¹³² In the 1840s, Robert Schomburgk advocated the choice of “natural” boundaries for British Guiana, particularly rivers and watersheds, since they could be found automatically by even “the most untutored mind.” D.G. Burnett, *Masters of All They Surveyed: Exploration, Geography and A British El Dorado* (Chicago: University of Chicago, 2000), 210.

¹³³ Donaldson, ‘Where rivers and boundaries meet,’ 629-644.

The impermanent and crude nature of boundary demarcation can be contrasted with the pains-taking effort that was expended erecting triangulation beacons. Like the 1911-14 Anglo-Belgian boundary commission, many other early colonial boundary commissions expended the vast majority of their time and effort on geodetic survey through triangulation and topographic plane-tableing. The un-scientific mechanics of building boundary marks would have taken valuable time and resources away from the more sophisticated activities of topographic survey. From 1898 to 1902, the Anglo-German boundary commission working along the meridian and parallel boundary sections between British Bechuanaland and German South West Africa surveyed a lengthy chain of complex triangulation that skirted the western edges of the Kalahari Desert but erected just 41 pillars along the 817 km boundary north of the Nossob river.¹³⁴ Accurate geodetic survey was such a priority for this boundary commission that the British party, led by H.D. Laffan, was under the direct control of Sir David Gill rather than through CO or WO officials. Gill was then HM Astronomer in Cape Town and architect of the 30° E meridian survey that was being heavily supported (politically and financially) at the time by Cecil Rhodes.¹³⁵

The disparity between efforts towards demarcation and towards survey within the work of early boundary commissions in colonial Africa reveal how knowledge of boundaries was privileged to what Pickles described as the ‘cartographic gaze.’¹³⁶ The pre-eminence of boundaries known on maps rather than known on the lived landscape, shows the inherent trust the British Empire had in the accuracy of these boundary maps; in the objective science of cartography at the time. In his work *The Power of Maps*, Denis Woods reveals how trust in the presumed objectivity of maps disguises their inherent subjectivity as social constructs:

As long as the map is accepted as a window on the world, these lines must be accepted as representing things in it with the ontological status of streams and hills. But no sooner are maps acknowledged as social constructions than their contingent, their conditional, their...*arbitrary* character is unveiled. Suddenly the things represented by these lines are opened to discussion and debate, the *interest* in them of owner, state, insurance company is made apparent. Once it

¹³⁴ Laffan et al, *Report: The Boundary Survey between British Bechuanaland and German South West Africa*, ‘Triangulation plan and attached map’.

¹³⁵ Donaldson, ‘Pillars and perspective,’ 479; See also M. Hotine, ‘The east African arc of meridian’ *Geographical Journal* 84, no. 3 (1934): 224-230.

¹³⁶ J. Pickles, *A History of Spaces: Cartographic reason, mapping and the geo-coded world* (London: Routledge, 2004), 80-81.

is acknowledged that the map *creates* these boundaries, it can no longer be accepted as *representing* these ‘realities,’ which alone the map is capable of embodying (profound conflict of interest).¹³⁷

The perceived ‘reality’ expressed on the maps produced by early colonial boundary commissions was the extent of recognised territorial sovereignty. Therefore, the accuracy of the map depended on the reliability of the surveyors in the field which is why the British imperial government entrusted boundary mapping only to military personnel, trained in the latest surveying techniques, male and disciplined in the military traditions of the British army and salaried by the imperial government.

The privileged place of maps and mapping within British imperialism has been examined in other contexts. In his discourse on the role of the trigonometrical surveys in British India during the late eighteenth and early nineteenth centuries, Matthew Edney suggests the relationship between territory and maps was negotiated through surveying.¹³⁸ He argues that British triangulation was “the key to the conceptual consolidation of a pre-existent ‘India.’”¹³⁹ But even more crucially, Edney argued that surveying and mapping was a key expression of British superiority, “a principal means by which the British held themselves to be superior to the Indians and therefore worthy of the territorial sovereignty which they had acquired.”¹⁴⁰ Taking this concept even farther, John Pickles challenges what he refers to as the ‘power knowledge’ interpretation of maps as instruments of power and calls for “some way of understanding the constitutive role maps play in shaping identity and practice.”¹⁴¹ Boundary maps were not representing fact (the boundary as it appeared on the landscape) but rather a performance of the stylised model of territorial boundaries, again taking Harley’s call to interpret maps as texts rather than as mirrors of reality.¹⁴² Simply gaining cartographic knowledge of the Belgian Congo-Northern Rhodesia boundary was a sufficient expression of sovereignty, known and recognised by the neighbouring imperial powers whose concept of ‘territory’ required linear and fixed boundaries.

¹³⁷ D. Wood, *The Power of Maps* (New York: The Guilford Press, 1992), 19.

¹³⁸ M.H. Edney, *Mapping an Empire: The Geographical Construction of British India 1765-1843* (Chicago-London: The University of Chicago Press, 1997), 21.

¹³⁹ Edney, *Mapping an Empire*, 21.

¹⁴⁰ Edney, *Mapping an Empire*, 32.

¹⁴¹ Pickles, *A History of Spaces*, 114.

¹⁴² J.B. Harley, ‘Historical geography and the cartographic illusion’ *Journal of Historical Geography* 15, no. 1 (1989): 80-91. 84.

In the same way, the penetrative indications of triangulation chains surveyed by colonial boundary commissions exposed the ‘blank spaces’ across the African continent.¹⁴³ Triangulation platforms afforded European boundary commissioners with an elevated position that created distance between the subject and object that was indicative of the perceived supremacy of Cartesian perspectivalism.¹⁴⁴ Positioned with scientific accuracy, triangulation positions, rather than boundary pillars, were the (seemingly) fixed points from which the topographic landscape could be accurately mapped; a fixed foundational web of triangles on which to overlay objective geographic knowledge.¹⁴⁵

Early African colonial boundary commissions and British geographical science

The field activities of British boundary commissions in Africa extended beyond geodetic and topographic survey to encompass a wide range of geographic interests. This reflects what Mary Louise Pratt calls the European “anti-conquest” of colonial territory, or the European benign intellectual possession of the world, largely through natural history discourses, that “differed sharply from overtly imperial articulations of conquest, conversion, territorial appropriation and enslavement.”¹⁴⁶ Analysing the relationship between geography and empire, Felix Driver described how geographers of the late nineteenth century came to distinguish their subject “as one of synthesis, drawing together a range of different kinds of knowledge in order to construct accounts of particular places, regions or landscapes.”¹⁴⁷ Borrowing the term from Joseph Conrad, Driver examined the myth of ‘Geography Militant’ that encompassed the romance and heroism of exploration: “the explorer as a missionary of science, extending the frontiers of (European) geographical knowledge.”¹⁴⁸ While the writings of more traditional, imperial ‘explorers’ and ‘travellers’ of the late nineteenth century

¹⁴³ See especially the map entitled ‘Triangulations in East Africa’ in H.S.L. Winterbotham and G.T. McCaw, ‘The triangulations of Africa’ *Geographical Journal* 70, no. 1 (1928): 16-31. The majority of the triangulation chains indicated on this map were constructed by inter-colonial boundary commissions.

¹⁴⁴ Pickles, *A History of Spaces*, 82-83; See also Ó Tuathail, *Critical Geopolitics*, 98-99.

¹⁴⁵ Gregory examines this notion of fixed or permanently known points within René Descartes’ thoughts on what has been described as philosophical ‘foundationalism’ (Gregory, *Geographical Imaginations*, 70-73).

¹⁴⁶ M.L. Pratt, *Imperial Eyes: Travel Writing and Transculturation* (London: Routledge, 1992), 38-39.

¹⁴⁷ Driver, *Geography Militant*, 3.

¹⁴⁸ Driver, *Geography Militant*, 4.

have been critically examined in this vein¹⁴⁹, a similar critique must inform analysis of the first Anglo-Belgian boundary commission.

British boundary commissions throughout colonial Africa were almost exclusively led by officers from the Royal Engineers, military men who conveyed masculinity and discipline, but trained in the ‘science’ of geographical survey, fulfilling the concept of the nineteenth-century ideal expeditionary traveller as described in Galton’s 1855 work *The Art of Travel* and examined by Driver.¹⁵⁰ Their contribution to the British imperial project was defined by Colonel Sir Charles Watson in his 1915 (reproduced 1954) *History of the Corps of Royal Engineers*:

The British Commissioners have nearly always been appointed from the Corps of Royal Engineers, and as in many cases the first reliable information of the geography of the African Colonies has come from the labours of the Commissions, it will be seen how important a part the Corps has taken in developing those parts of the Empire. No development can regularly proceed until sufficient and accurate maps have been obtained.¹⁵¹

Similarly, Thomas Holdich saw both the processes of “exploratory” and “geographical” surveying as part of “the general art of topography” and was clear on the role of early boundary commissions in colonial Africa:

All those surveys in Africa which have been carried out for boundary purposes...rank as geographical surveys in so far as they have been conducted for the production of maps on a small scale for illustration of the features of the country as a whole.¹⁵²

When commenting on the 7 May 1907 presentation by Captain Smith to the RGS concerning the work of the Anglo-German boundary commission that demarcated the British-German East Africa boundary between Lake Victoria and Mt. Kilimanjaro, then Major Charles Close remarked:

Our explorers and surveyors, like Captain Smith, do their best to make Africa uninteresting. We have every year a great succession of elaborate surveys –

¹⁴⁹ Pratt, *Imperial Eyes*; A. Godlewska, and N. Smith, eds., *Geography and Empire* (Cambridge, MA: Blackwell, 1994)

¹⁵⁰ Driver, *Geography Militant*, 63. See also Richard Phillips’ discourse especially on the characteristics of Robinson Crusoe in relation to mapping uncharted spaces, and more generally on the notions of adventurous travel in Victorian literature. R. Phillips, *Mapping Men and Empire: A Geography of Adventure* (London: Routledge, 1997), 32-35 especially.

¹⁵¹ Watson, *History of the Corps of Royal Engineers*, 203.

¹⁵² T.H. Holdich, T.H. 1901 ‘How are we to get maps of Africa?’ *The Geographical Journal* 18, no. 6 (1901): 590-601. 596.

and how elaborate, I suppose, only those know who are, so to speak, in the technical world – which are gradually reducing Africa to a place as well known as the United Kingdom.¹⁵³

Yet in spite of their clear representation of ‘geography militant’, the records of colonial boundary commissions have rarely been subject to this critique. One notable exception is Graham Burnett’s examination of Robert Schomburgk’s exploration of British Guiana in the 1830s and 1840s which provides insight into the role of exploration and imperialism with regard to colonial boundary definition (Burnett 2000). He describes how after four years of exploration in the interior of British claimed Guiana during the 1830s, Schomburgk passionately lobbied the British government to clearly define the boundaries of the colony.¹⁵⁴ In April 1840, the British government instructed Schomburgk himself to undertake this responsibility, including demarcation of boundary markers.¹⁵⁵ Burnett describes how Schomburgk’s unilateral activities were at odds with the traditional boundary development rubric, since: “Schomburgk was instructed, in effect, to demarcate the boundary that he himself had delimited.”¹⁵⁶ More importantly, when Schomburgk arrived in British Guiana in 1841 armed with an arsenal of instruments for geographic survey, Burnett poses the key question “Was he installing a boundary or merely making a topographical survey of the boundary areas in order to form the ‘base map’ for future negotiations?”¹⁵⁷

As a private civilian acting unilaterally, certainly Schomburgk’s 1841-43 boundary expedition was different from the later bilateral boundary commissions in Africa under discussion here. Indeed, Schomburgk was reprimanded by the British government for his demarcation efforts after protests were received from the Brazilian government and ordered to remove boundary marks that had been made in the field and refrain from making any boundary marks without the express consent of neighbouring government officials.¹⁵⁸ But the concept of combining the roles of exploration, survey and boundary demarcation is recurrent. The British government

¹⁵³ H. Schlobach, C. Hill, R.G.T. Bright and C. Close ‘From the Victoria Nyanza to Kilimanjaro: Discussion’ *The Geographical Journal* 29, no. 3 (1907): 269-272. 271.

¹⁵⁴ Burnett, *Masters of All They Surveyed*, 202.

¹⁵⁵ Burnett, *Masters of All They Surveyed*, 202-203.

¹⁵⁶ Burnett, *Masters of All They Surveyed*, 204.

¹⁵⁷ Burnett, *Masters of All They Surveyed*, 204-205.

¹⁵⁸ CO 111/204 13 February 1843 Letter Governor H. Light to R. Schomburgk including official instructions for continuation of his survey.

entrusted Schomburgk¹⁵⁹, as a robust explorer and scientist, to provide an accurate depiction of the British Guiana territory. Just as Sir Edward Grey noted above that only boundary commissioners possessed the “technical knowledge” to be entrusted with demarcation of the Belgian Congo-Northern Rhodesia boundary.

Boundary commissions played an influential role in the perpetuation of “the contemporary myth of the imperial explorer” by the Royal Geographical Society (RGS) through the early decades of the twentieth century.¹⁶⁰ Driver notes that the long-time president of the RGS, Clements Markham, was the most energetic supporter of this myth, but even in his wake: “Many of the presidents of the RGS during the first half of the twentieth century – notably Goldie, Curzon, Holdich, Younghusband and Close – had held high military or political office, and were happy to endorse the public image of the geographical tradition bequeathed to them by Markham and his predecessors.”¹⁶¹ Of the five presidents mentioned by name, Curzon was a vocal proponent of boundary commissions¹⁶², and both Holdich and Close had been boundary commissioners themselves. Close compiled his influential 1905 *Textbook of Topographical and Geographical Surveying* based on the experiences of Royal Engineer officers in the field, largely on duty with boundary commissions.¹⁶³

The reports of African boundary commissions reveal a much broader interest in geographic survey and exploration, beyond simply mapping the topographical terrain.¹⁶⁴ British boundary commissioners were often asked to present detailed accounts of their fieldwork before the Royal Geographical Society (RGS) soon after

¹⁵⁹ Somewhat ironically, Robert Schomburgk was not British but Prussian by birth.

¹⁶⁰ Driver, *Geography Militant*, 203. See also Heffernan, ‘Geography, cartography and military intelligence,’ 507.

¹⁶¹ Driver, *Geography Militant*, 203.

¹⁶² “Along many a thousand miles of remote border are to be found our twentieth-century Marcher Lords. The breath of the Frontier has entered into their nostrils and infused their being. Courage and conciliation - for unless they have an instinctive gift of sympathy with the native tribes, they will hardly succeed - patience and tact, initiative and self-restraint, these are the complex qualifications of the modern school of pioneers. To these attainments should be added - for the ideal Frontier officer - a taste for languages, some scientific training, and a powerful physique. The work, which he may be called upon to perform, may be that of the explorer or the administrator or the military commander, or all of them at the same time. The soldier, perhaps more often than the civilian, furnishes this type; and it is on the Frontier that many of the greatest military reputations have been made. The Frontier officer takes his life in his hands; for there may await him either the knife of the Pathan fanatic, or the more deadly fevers of the African swamp. But the risk is the last thing of which he takes account. He feels that the honour of his country is in his hands.” G.N. Curzon, *Frontiers: The Romanes Lecture 1907* (Oxford: Clarendon Press, 1908), 56-57.

¹⁶³ C.F. Close, *Textbook of Topographical and Geographical Surveying: First Edition* (London: HM Stationary Office, 1905). (Archives of the Royal Geographical Society, MG 399E). p. iii-iv. At least four editions of this famous textbook were published in the following 60 years, and it was a key training manual used in the Ordnance Survey and British military.

¹⁶⁴ Driver, *Geography Militant*, 14-16.

their fieldwork, which engendered a sense that their work was contributing to the burgeoning field of geography that, especially from the 1880s, was seeking to define itself as a scientific discipline.¹⁶⁵ As Driver points out “To the explorer in search of a reputation, meanwhile, the picture of the traveller as merely the fact-gathering functionary of metropolitan science was anathema. Explorers like Livingstone, Burton and Speke fashioned themselves as the proud makers of geographical science rather than its humble employees.”¹⁶⁶

The official reports from boundary commissioners in Africa during the late nineteenth and early twentieth centuries also included page upon page of geographic description, usually divided into sections covering categorised features of the physical and human landscape.¹⁶⁷ Walker’s report on the activities of the Anglo-Belgian boundary commission is a good example. The longest section of the report is the ‘General Description of the country mapped, together with some general remarks on the climate, natives, game and outlook for the future.’¹⁶⁸ As noted above, while Walker’s report did not document the actual positions of boundary pillars (only the positions of triangulation points were recorded), this ‘General description’ addressed issues from detailed descriptions of “Swamp birds” and wildlife to crude anthropological assessments of “The native”, “Native’s who work” and “Woman’s duties.”¹⁶⁹

This multiplicity of geographic survey was also reflected in presentations before the RGS that were often given by boundary commissioners on their return and (many times) drawn directly from their official reports. The title of Steel’s 1917¹⁷⁰ presentation to the RGS concerning the work of the Anglo-Belgian boundary commission was in reference to a geographic region, ‘Congo-Zambezi Watershed’ rather than to the boundary (Belgian Congo-Northern Rhodesia). The text centred almost exclusively on narrative descriptions of the physical and human geographies of

¹⁶⁵ R.A. Butlin, R.A. 1995 ‘Historical geographies of the British Empire, c. 1887-1925’ in *Geography and Imperialism* eds., M. Bell, R. Butlin and M. Heffernan (Manchester and New York: Manchester University Press, 1995), 153.

¹⁶⁶ Driver, *Geography Militant*, 67.

¹⁶⁷ Two examples particularly relevant for this case study include: FO 64/1549 Confidential Report C.F. Close, 24 January 1899 on the Anglo-German boundary commission by C. Close. pp. 20-35; RC/609 Report by Walker 1914.

¹⁶⁸ RC/609 Report by Walker 1914.

¹⁶⁹ RC/609 Report by Walker 1914.

¹⁷⁰ In the RGS President’s introduction of Steel’s 1917 presentation it was noted that the delay between the conclusion of the commission and the presentation itself was due to Steel’s service in the First World War where he was severely wounded during the Battle of the Somme and had only recently recovered to give the presentation (Steel 1917, p. 193).

the borderland area, touching on geographic subjects as diverse as geology, meteorology, transport and communication.¹⁷¹ For several pages Steel even ventured an anthropological glimpse at the spirituality of people in the borderland, drawing on various encounters during his other travels and un-cited studies, and concluded: “It is impossible to describe or even imagine the tremulous condition of the savage mind, yet it is easy from their aspect and manners that they dwell in a state of never-ceasing dread.”¹⁷² Oddly ignoring the 35 pillars that had been erected by his commission, Steel’s only mention of the boundary stated: “The sketch-map illustrating this paper shows the line of watershed. Though the survey is complete delimitation is not complete, and the boundary is not demarcated.”¹⁷³

Lt. (later Lt. Col. Sir) Raymond Boileau’s 1899 presentation on the work of the 1898-1899 Anglo-German boundary commission was taken, often verbatim, from Close’s 5 January 1899 official report on the boundary commission.¹⁷⁴ Boileau’s presentation went into great detail about the flora, fauna and climate of the borderland area; the state of the Stevenson road between Lakes Nyassa and Tanganyika; and the ‘customs and attitudes’ of the native populations, but there was no mention of the commission’s role in boundary demarcation. Bright’s 1908 presentation to the RGS on the work of the Congo-Uganda boundary commission is another good example. In three dizzying paragraphs Bright discussed three diverse geographic issues:

1. Racial features of the border tribes “The Balegga and Bavira are closely allied. Their physique is finer than the natives of either Ankoli of Toro; they belong to the Bantu race”¹⁷⁵
2. Geology of the border area “The high plateau to the east of Lake Albert Edward and Ruwenzori consists mainly of gneiss, with intercalations of schistose rocks of various kinds and bands of quartzite”¹⁷⁶
3. Fauna of the border area “In the thick forest west of the Semliki valley elephant and buffalo were plentiful, but excepting parrots, there was very little bird life.”¹⁷⁷

¹⁷¹ Steel, ‘Zambezi-Congo watershed.’

¹⁷² Steel, ‘Zambezi-Congo watershed,’ 189.

¹⁷³ Steel, ‘Zambezi-Congo watershed,’ 181.

¹⁷⁴ FO 64/1549 Confidential Report C.F. Close, 24 January 1899. pp. 20-35.

¹⁷⁵ R.G.T. Bright, ‘The Congo-Uganda boundary commission: summary report’ *The Geographical Journal* 32, no. 5 (1908): 488-493. 491.

¹⁷⁶ Bright, ‘The Congo-Uganda boundary commission,’ 491.

¹⁷⁷ Bright, ‘The Congo-Uganda boundary commission,’ 491.

Another major theme predominate within both the official reports of many British boundary commissioners and their RGS presentations was the ‘value’ of the colonial territory being surveyed. These assessments were largely indicative of the economic leanings of John Scott Keltie’s contributions to the RGS *Hints to Travellers* series in the last decade of the nineteenth century.¹⁷⁸ The ‘value’ of territory was assessed almost exclusively in economic terms, either in relation to the presence of valuable natural resources, or the accessibility and suitability of areas for European settlement.

Collier points out that when surveying a section of the Anglo-Portuguese boundary along the watershed of the Shire and Zambezi rivers, the British commissioner was keen to highlight a mineral deposit located on the Portuguese side of the boundary. The “blue-black” mineral was not identified but was deemed valuable enough by the commissioner for him to redefine the line along straight lines rather than precisely along the watershed, thus placing part of the deposit within British territory.¹⁷⁹

In his official report on the Anglo-Belgian boundary commission, Walker concluded that the “quality” of the border area along the Congo-Zambezi watershed section was poor:

One can only hope that when N.E. Rhodesia is fully opened up to prospectors and exploration, minerals (above all tin) will be discovered in workable quantities, for without this incentive to progress, this country will remain a backwater of empire for several years to come.¹⁸⁰

Walker believed that in spite of the obvious fertility of the land in Northern Rhodesia, the tsetse fly and mosquito were key impediments to white settlement. He did hold that arduous nature of the country could be overcome by a hardy Victorian traveller:

As long as the white man arrives healthy in the country – takes all reasonable care to avoid being bitten by blood-sucking flies – has a complete change for 6 months every 2 years, is temperate in all things (a teetotaler for choice),

¹⁷⁸ Driver, *Geography Militant*, 40-41.

¹⁷⁹ P. Collier, ‘Boundary demarcation between British and Portuguese colonial territories in east Africa’ *Africana Studia: Revista Internacional de Estudos Africanos/International Journal of African Studies* 9 (2006). 234.

¹⁸⁰ RC/609 Report by Walker 1914. Chapter 6 will reveal Walker’s premonition was remarkably clairvoyant.

respects the sun, can stick loneliness, and doesn't take to drugs, he will, barring accidents of the chase, live and enjoy it.¹⁸¹

Similarly, at the end of his lengthy 1899 confidential report on the Anglo-German boundary between Lakes Nyassa and Tanganyika, Close remarked that parts of North East Rhodesia on the Lower Zambezi river (well south of the boundary with Belgian Congo) were fertile and healthy “a country with a future before it, in which a white man can live as comfortably as on the Hughli.”¹⁸² However, Close repeatedly poured scorn on the plateau region between the lakes where the boundary ran, which he concluded to be “remote, unhealthy, unprofitable country”¹⁸³, “an outpost of territory of little value.”¹⁸⁴ Although he believed the Stevenson road linking the two lakes could in future be an important transport artery, Close found that due to prevalent diseases “it is, of course, out of the question that this country could ever be fit for European colonization” and “it is unlikely, unless the native population largely increases in the next generation, that the country will be able to pay for its own Administration.”¹⁸⁵

Questions on early colonial demarcation in Africa

Given the early techniques of boundary demarcation undertaken by the 1911-14 Anglo-Belgian boundary commission and their predecessors across Africa, two questions might be raised about their role in understanding the boundary development rubric. First, it might be argued that they were not engaged in demarcation at all, but in some kind of more advanced form of delimitation, recalling an earlier stage of boundary development. Due to some degree of overlap as noted in Chapter 2, it is difficult, and in many ways unhelpful, to define delimitation and demarcation as consequential stages in a systematic process, which is why this chapter has found it more useful to examine the practices of boundary commissions in how a boundary was made ‘known’. Nevertheless, however rudimentary and impermanent the boundary pillars may have been, the fact remains that these early boundary commissions were instructed by sovereign authorities to make some attempt to

¹⁸¹ RC/609 Report by Walker 1914.

¹⁸² The Hughli or Hooghly is a distributary river at the mouth of the Ganges in West Bengal, India that was popular with European settlers.

¹⁸³ FO 64/1549 Confidential Report C.F. Close, 24 January 1899. p. 35.

¹⁸⁴ FO 64/1549 Confidential Report C.F. Close, 24 January 1899. p. 32.

¹⁸⁵ FO 64/1549 Confidential Report C.F. Close, 24 January 1899. p. 32.

indicate boundaries on the physical landscape with visible marks, the key definition of demarcation distinguishing it from other processes of boundary development. I do not agree with McEwen's assertion that the distinction between delimitation and demarcation is simply "a matter of convenience rather than etymology" although such an approach does work around the legalistic/technical assumptions that delimitation must precede demarcation. As examined in Chapter 2 my view is that these are two distinct, albeit often inter-linked, practices and the distinction is useful to analyse the different narratives associated with each. However, it is also helpful to take McEwen's hint that while "the expressions Delimitation Commission and Demarcation Commission appear in boundary agreements it is necessary to look behind the formal title to discover exactly what the commission is required and empowered to do."¹⁸⁶ While his point here is that boundary commissions may have undertaken survey and mapping duties alongside erecting pillars, my view is that if any effort was made to physically mark the boundary on the ground then their duties must be construed as demarcation.

Second, if it was acceptable for the imperial mind to 'know' the position of its colonial boundaries only through cartographic representation, why did the early boundary commissions undertake any kind of demarcation at all? Despite their rudimentary physical composition, the widely spaced pillars provided the 'dots' with which to connect the linear and fixed boundary when represented on maps, rather than on the physical landscape.¹⁸⁷ It was the boundary commission maps that inscribed these boundary pillars with their own reality, irrespective of their permanence on the landscape. In his critique of Geoff King's 1996 work *Mapping Reality*, Pickles suggests:

Systems of meaning are inscribed in maps through the lines, boundaries and symbols that give meaning and reality to the world. These are not mere representations of reality but come to represent objects whose existence is in part conditioned and produced by their representation.¹⁸⁸

¹⁸⁶ McEwen 1971. p. 43.

¹⁸⁷ See Burnett, *Masters of All They Surveyed*, 209-210.

¹⁸⁸ Pickles, *A History of Spaces*, 32.

This is particularly the case on small scale maps where the depicted distance between pillars was reduced, again perpetuating the geopolitical gaze through which Africa had been seen throughout the original partition.¹⁸⁹

However, perhaps the moniker of ‘demarcation’ was simply a guise used to mask what were in essence imperially-funded, exploratory expeditions, probing the outer limits of imperial territory for anything of economic benefit. The use of boundary commissions for exploring remote areas during the late nineteenth and early twentieth centuries was not limited to Africa. Karl Meyer and Shareen Brysac suggest that the 1911-13 expeditions of Frederick M. Bailey and Capt. Henry Morshead into the Tibetan borderlands and frontier areas of China was “clearly an intelligence mission, linked to British efforts at demarcating India’s North-East frontier.”¹⁹⁰ In his historical analysis of the Mexico-United States 1848-57 boundary commission, Joseph Richard Werne reviews the arduous surveys undertaken by the commission of previously unknown terrain in the American southwest.¹⁹¹ As already addressed above, Robert Schomburgk’s efforts to ‘find’ the boundaries of British Guiana in 1841 could easily be interpreted as an imperially-mandated scientific expedition.¹⁹²

In addition, perhaps this rudimentary method of demarcating the Belgian Congo-Northern Rhodesia boundary was more reflective of the British governments’ own perception of territorial sovereignty within the administratively disparate African territories. It is important to recall that North East (and later Northern) Rhodesia was first administered by the BSAC rather than by the British government directly and at the time of the 1911-14 Anglo-Belgian boundary commission it was technically considered a protectorate (not a colony). However, British imperial officials were under no doubt that whatever their administrative distinction, these were all British boundaries as was clear in Edward Hertslet’s multiple editions of *Map of Africa by Treaty*. In his famed 1907 *Frontiers* lectures, Lord Curzon also made no distinction between boundaries around British colonial possessions regardless of their technical administrative status; they were all considered British, and therefore British territory.¹⁹³

¹⁸⁹ Ó Tuathail, *Critical Geopolitics*, 24-25.

¹⁹⁰ K. Meyer and S. Brysac 1999 *Tournament of Shadows: The Great Game and the Race for Empire in Asia* (London: Abacus, 1999), 431.

¹⁹¹ J.R. Werne, *The Imaginary Line: A History of the United States and Mexican Boundary Survey 1848-1857* (Fort Worth: Texas Christian University Press, 2007), 226-227.

¹⁹² Burnett, *Masters of All They Surveyed*.

¹⁹³ Curzon, *Frontiers*, 9.

Most importantly, while the local and native administrators in Northern Rhodesia's border areas implored their superiors to mark the boundary with Belgian Congo clearly on the ground, they were often left with just the opposite; at best, widely-spaced pillars and a series of map sheets. It might be construed that easing the administration of local 'native' borderland populations was not a sufficient cause for the expense of clear boundary demarcation. Instead, the division of local colonial administration, like that along the meridian section of the Belgian Congo-Northern Rhodesia boundary, was often left as tacitly understood zones of non-interference. As analysed in Chapter 2, zonal divisions (frontiers) were considered by European scholars and government officials as aspects of under-developed, pre-colonial African political entities. Indicative of what might be described as the 'imperial moment' in the narrative of the boundary, cartographic knowledge of the boundary as fixed, bilateral and linear was considered a sufficient expression of territorial sovereignty by the neighbouring imperial governments. The imagined depiction of a continuous line on a map without any perceived overlapping claims or ambiguous gaps, was sufficient to prevent major disputes between neighbouring imperial powers. In the context of the Belgian Congo-Northern Rhodesia boundary, this changed dramatically following the First World War and the discovery of economic resources.

5. Marking over mapping 1914-1934

“But when a line is to be run it must run upon the ground; that is it must be definite and continuous. It cannot alter its position with every minor circumstance. It must have the advantages even while recognising the defects, of the broad and the general.”
Isaiah Bowman, 1928¹

¹ I. Bowman, *The New World: Problems in Political Geography* (London: George Harrap and Co. Ltd., 1928), 32.

Unanswered questions

This chapter returns to the historical narrative of the Belgian Congo-Northern Rhodesia boundary in the wake of 1911-14 Anglo-Belgian boundary commission. Following events after the First World War, it will be shown how the Belgian Congo-Northern Rhodesia boundary remained a subject of debate between British and Belgian governments as well as within the British colonial administrative hierarchy. There was continued confusion between the British imperial and Northern Rhodesian governments as to who held the sovereign responsibility for boundary demarcation. More significantly, it will be shown how the administrations' perceptions of the boundary itself changed dramatically alongside a change in the economic geography of the borderland area. This led to re-demarcation of the boundary by a second Anglo-Belgian boundary commission, and a complete shift in how the boundary was made 'known'.

There are three progressive questions within this historical narrative that must be posed in order to chart the reasoning behind why this second boundary commission was dispatched and how its work was exceptionally different from its predecessor. First, how did the perception of the Belgian Congo-Northern Rhodesia border landscape within the British imperial mindset change after the conclusion of the 1911-14 Anglo-Belgian boundary commission? Second, what caused this change in perception? And third, how did this change in perception manifest itself in the process of demarcation and in the way the boundary was made 'known'? After examining these issues through the historical narrative, they are compared with similar situations across colonial Africa. These issues are then examined in light of more recent post-colonial discourses, interrogating the often neglected role economic geography played in colonial boundary demarcation throughout British-administered Africa in particular.

Aftermath of the 1911-14 boundary commission

The conclusion of the Anglo-Belgian boundary commission in May 1914 left a number of unanswered questions. Most importantly, the lack of demarcation on both the Mweru-Tanganyika and Mpanta meridian boundary sections had left them open for further negotiations between the Belgian and British governments. The BSAC continued to lobby for adjustments along the meridian section, in order to ease the

transport issue between the growing administrative town of Ndola and the Luapula river as well as Fort Rosebery farther east.² Proposed boundary adjustments were forwarded to the British delegation at the Paris Peace conference in June 1919 for negotiation with Belgium. These were reviewed by Major Wynne, a former boundary commissioner himself attached to the British delegation in Paris, who formalised the proposals and passed them on to Lord Curzon, the then appointed British Foreign Secretary.³ But the BSAC heard nothing from the FO until a year later, when under Secretary of State Henry Lambert explained that the Belgian Congo-Northern Rhodesia boundary had been left out of the territorial discussions at the Paris Peace talks and would not be addressed until the fate of ex-German East Africa was concluded.⁴ Nevertheless, the CO again pressed Lord Curzon to address the issue of boundary adjustments with the Belgians in April 1921, knowing that negotiations over ex-German East Africa were coming to an end.⁵ In October 1921, after an approach by the FO, the Belgian government agreed to re-open talks on the Congo-Rhodesia boundary.⁶

The British position on adjusting the boundary was based on Major Wynne's 1919 proposals, which had been heavily influenced by BSAC requests.⁷ Throughout 1922, several proposals and counter-proposals passed between the FO, CO and BSAC, the majority of which called for an adjustment of the meridian section to provide a more direct territorial link from Ndola to the Luapula river, while compensating Belgian Congo with adjustments on the Mweru-Tanganyika line. Throughout this internal British correspondence, the existing demarcation along the watershed section was never mentioned, indicating that as far as the British and Northern Rhodesia governments were concerned, the watershed section, particularly from BP 11-46 (less so BP 1-11 since this had not yet been inspected by a British

² See especially M.C. Musambachime, 'Military violence against civilians: the case of the Congolese and Zairean military in the Pedicle 1890-1988' *The International Journal of African Historical Studies* 23, no. 4 (1990): 643-664; and M.C. Musambachime, 'The role of Kasenga (eastern Shaba) in the development of Mweru-Luapula fishery' *African Studies Review* 38, no. 1 (1995): 51-68.

³ RC/609 Report accompanying the letter from Henry Lambert FO to BSAC, 1 July 1919.

⁴ RC/609 Letter H. Lambert (FO) to BSAC, 13 July 1920.

⁵ RC/609 Letter Gilbert Grindle (CO) to FO, 18 April 1921.

⁶ RC/609 Letter H. Jaspas, Belgian Ministry of Foreign Affairs to Sir G. Grahame, British ambassador in Brussels, 19 Oct 1921.

⁷ RC/609 Letter Millar (BSAC London) to CO, 6 March 1922 and RC/609 Report accompanying the letter from Henry Lambert FO to BSAC, 1 July 1919.

official⁸) was effectively a *fait accompli*. No one questioned the existing work of the Anglo-Belgian boundary commission, focusing instead on the two sections that had been left undemarcated. This all changed in 1923-24.

Copper and boundary pillars

Copper mining had been prevalent along the Congo-Zambezi watershed for centuries, but both the Katangan and Northern Rhodesia colonial administrations had little idea as to the extent of these deposits. In 1919 the Northern Rhodesia administration had even enquired among the local populations about the extent of mineralised areas.⁹ The Belgian Compagnie du Katanga and Union Minière du Haut Katanga had established operations along the Congolese side of the watershed in 1906, but full scale copper mining did not begin until 1921. By the end of the 1920s the Belgian Congo was the world's third largest exporter of copper with 5.8% of world output of smelter production.¹⁰

In 1898, George Grey and a group of British prospectors 'discovered' the Kansanshi copper mine just 12 miles south of the watershed, but there was no substantial mining operations on the Northern Rhodesia side prior to 1920. This changed dramatically in 1922 when the BSAC, holder of exclusive mining rights over all Northern Rhodesian territory, "altered its policy of granting individual prospecting licenses to one of granting exclusive prospecting rights to large companies."¹¹ One of the new prospecting licenses was issued to the Rhodesia Congo Border Concession Ltd. (RCBC) in 1922, a subsidiary of Minerals Separation Ltd.,¹² and covered a 52,000 sq mile area that was located directly along the Congo-Zambezi watershed.

On 16 August 1923, the RCBC approached Northern Rhodesia's chief surveyor William Fairweather for more information regarding the boundary pillars

⁸ Although none of the archival material suggests that the British deliberately entrusted demarcation of BPs 1-11 to the Belgians in order not to prejudice their negotiating position on boundary adjustments, it is interesting to note that while most sources indicate the British section of the 1911-14 boundary commission on the watershed was recalled to Britain as a result of the First World War, BPs 1-11 were located along precisely the section of the boundary that the BSAC was eager to shift the meridian section.

⁹ RC/609 Letter Matthews (Asst. Native Commissioner Mporokoso) to Native Commissioner in Abercorn, 26 March 1919.

¹⁰ B. Fetter, 'If I had known that 35 years ago: contextualizing the copper mines of central Africa' *History in Africa* 26 (1999): 449-452. 450.

¹¹ C.E. Harvey, *The Rio Tinto Company: An Economic History of a Leading International Mining Concern 1873-1954* (London: Alison Hodge Publishers, 1981), 228.

¹² Minerals Separation Ltd. was acquired in 1929 by the mining super-giant Rio Tinto (Harvey 1981, p. 230).

along the watershed.¹³ Previously, the Northern Rhodesia survey department had supplied the RCBC with maps and survey data from the 1911-14 boundary commission, but the company found that the survey data documented the position of triangulation beacons and not the boundary pillars. “It is extremely important to us to establish accurately the boundary on the ground at various points between beacon 16 and beacon 29, N.W. of Elisabethville as well as elsewhere, because our prospecting work may disclose deposits very close to the line....”¹⁴ This request for more information about the watershed boundary was passed on to the BSAC offices in London in September 1923 which then made enquiries with the CO. Acting on the advice of the CO, the top officials of Minerals Separation in London were put in contact with the WO, more specifically with Colonel Harold St. John L. Winterbotham, who had become director of the Geographical Section of the General Staff in military intelligence (MI4). After what was perhaps quite literally a shuffling of papers, a number of problems were uncovered.

First, it emerged that the British section of the 1911-14 boundary commission had never produced a definitive list of the boundary pillars on the ground.¹⁵ However, the Belgian commission had produced a lengthy draft report defining the position of all 46 boundary pillars by coordinates and geographic description.¹⁶ The CO feared that because both the lead British commissioners (Gilliam and Walker) had died during the First World War, there was little hope of obtaining the survey details for both the boundary pillars and triangulation beacons.¹⁷

Second, because the British and Belgian contingents had surveyed separately, they produced two different sets of maps for the watershed and meridian sections, the British at 1:250,000 scale and the Belgian at 1:200,000 scale.¹⁸ It also emerged that the British maps had never actually been produced (printed) and “the only map in existence is the one which has been made by the Belgian government, which has been

¹³ RC/609 Letter R. Brooks to Fairweather, 16 August 1923.

¹⁴ RC/609 Letter, R. Brooks to Fairweather, 16 August 1923.

¹⁵ RC/609 Letter C.T. Davis CO to BSAC London, 9 January 1924.

¹⁶ Trans. ‘Descriptive Rough Draft of the Frontier between the Belgian Congo and Rhodesia constituted by the water parting of the basins of the Congo and Zambesi rivers’ in WO 181/187 and accompanying RC/609 RCBC Memo and cover letter by H.C. Hankins, Minerals Separation to the CO, 29 November 1923. This Belgian report appears to have been forwarded to the FO in 1918 with the aim of having the results and maps of the commission being formally accepted in a ‘proces-verbale’. (See RC/609 Letter C.T. Davis CO to BSAC London, 9 January 1924.)

¹⁷ RC/609 Letter C.T. Davis CO to BSAC London, 9 January 1924.

¹⁸ British maps of 1911-14 boundary commission CO 1047/355, 1:250,000 produced 1924 sheets 1-5 cover watershed (starts at BP 11, 29° E); Belgian maps 1:200,000 meridian section only CO 1047/782.

practically accepted by the Rhodesian authorities and by the public as representing what the boundary is between Belgian Congo and Northern Rhodesia.”¹⁹ Without British maps to hand, Northern Rhodesian officials had provisionally accepted the boundary as shown on the Belgian maps.²⁰

Perhaps slightly embarrassed that the only depiction of this British colonial boundary was on a foreign map, the WO quickly printed the British maps in late 1923 (reaching full production in 1924)²¹ and compared them with the Belgian maps and draft report on the boundary pillars. This comparison revealed many discrepancies between the Belgian and British maps, even in relation to the boundary line along the watershed.²² In discussing the Belgian depiction of the boundary with a CO official in November 1923, Col. Winterbotham noted that “it certainly appeared that the Belgians had taken full advantage of the situation so as to place the Border as far to the South as possible at points where minerals were known to exist.”²³

Minerals Separation was unimpressed with the British government’s lack of coherent information about the boundary, and its chairman Francis Gibbs sent a sternly worded letter to the CO on 14 March 1924 with the clear aim to focus imperial attention on this boundary, since knowledge of its position on the ground was rapidly growing in importance:

The whole question of the boundary between the two countries is one of greatest importance from an Imperial point of view as well as from the point of view of my Company holding as it does a Concession of all the mineral rights in Northern Rhodesia. It is further of vital importance that a settlement of a fair boundary between the two countries should be arrived at at the earliest possible opportunity, in view of the copper and other mineral potentialities of Northern Rhodesia, which have become prominent and the value of which until quite lately has not been appreciated. Several of the valuable mineral discoveries made on the Belgian Congo side undoubtedly run into Northern Rhodesia and now that my Company have fortunately been able to place before the Colonial Office our knowledge regarding the potential

¹⁹ RC/609 RCBC Memo and cover letter by H.C. Hankins, Minerals Separation to the CO, 29 November 1923.

²⁰ RC/609 Letter C.T. Davis CO to BSAC London, 9 January 1924.

²¹ CO 1047/355.

²² RC/609 Report by Captain Knox accompanying the RCBC Memo and cover letter by H.C. Hankins, Minerals Separation to the CO, 29 November 1923.

²³ RC/609 Letter by H.C. Hankins, Minerals Separation to the CO, 29 November 1923.

mineral resources of Northern Rhodesia, it seems very necessary that the boundary should be so definite that an absolutely fair division between the two countries should be arrived at.

It is, of course, common knowledge that frequently the failure to define boundaries exactly between two nations has caused international trouble and there appears to be a situation existing between Belgian Congo and Northern Rhodesia which at any moment might involve a dispute arising as to where the boundary between the two countries actually is.²⁴

What is remarkable about Gibbs' letter is that it represents a complete shift in geographic perspective on this territory. Despite being the subject of so much British government interest in previous years, Minerals Separation and the RCBC were largely unconcerned about bargaining with Belgium for boundary adjustments; trading bits of territory at a small scale perspective. Instead, Gibbs' primary concern was to understand precisely where the boundary ran on the ground. The 46 widely spaced pillars left the boundary line, and therefore the division of natural resources, indeterminate.

Fairweather was sympathetic to Gibbs' concerns about the position of the boundary along the watershed: "I do not think the representations of Mineral's Separation Ltd. can be ignored and steps should be taken to more clearly define the Boundary on the ground by placing intermediate beacons in such a manner as to leave no doubt as to the actual boundary."²⁵ Having inspected boundary pillars 16 and 17 himself, he noted that with approximately 15 miles of dense bush between each pillar "it is quite an impossibility for any one to determine in which direction to turn so as to traverse the actual watershed between the two beacons."²⁶ His conclusion was that the watershed section of the boundary required more thorough demarcation as soon as possible, and while he suggested the mining companies could help fund such demarcation work, he failed to specify if this should be undertaken by the Northern Rhodesia survey department or by another imperial boundary commission.²⁷

²⁴ RC/609 Letter Gibbs, Minerals Separation to the CO, 14 March 1924.

²⁵ RC/609 Memorandum, William Fairweather to Chief Secretary, Northern Rhodesia, 30 September 1924.

²⁶ RC/609 Memorandum, William Fairweather to Chief Secretary, Northern Rhodesia, 30 September 1924.

²⁷ RC/609 Memorandum, William Fairweather to Chief Secretary, Northern Rhodesia, 30 September 1924.

The governor of Northern Rhodesia, H.J. Stanley passed Fairweather's recommendations along to the CO in a confidential dispatch on 6 October 1924. After several months, the newly installed Secretary of State for the Colonies, Leo Amery, responded in June 1925 when forwarding the recently-published British boundary commission maps. Amery was largely unmoved by Stanley's request for demarcation, and instead was more concerned with verifying the accuracy of the Belgian and British boundary maps so they could be ratified in a *proces verbale*.²⁸ In addition, he was still interested in negotiating a boundary adjustment to permit access from Serenje to Fort Rosebery across the Luapula (see Map 2, p. 94). Amery suggested that the first priority should be the survey of BPs 1-10 along the watershed. These had been erected unilaterally by the Belgian commission and were particularly important because this was the area of interest to Minerals Separation Ltd.²⁹ Such a survey was to be carried out by "a qualified officer" who could then suggest if additional demarcation was necessary.³⁰ Amery felt additional demarcation of other parts of the watershed boundary was unnecessary "except in any part where mining or agricultural operations are probable in the near future."³¹ Amery's comments hinted at the imperial government's prioritisation of colonial territory based on economic geography. The clear demarcation of Northern Rhodesian territory was reserved for those areas that possessed some kind of economic benefit, an issue that will be analysed from recent postcolonial critique at the end of the chapter.

In August 1925, E. Eccles, acting as director of surveys in Fairweather's absence, responded to Amery's comments in a memo to the chief secretary of Northern Rhodesia and agreed it would be advantageous to shift the meridian boundary section to the Luombwa river in order to provide access across the Luapula. However, he believed this would first require a report on "the nature of the country and the number of natives affected."³² Eccles shared Fairweather's desire for re-demarcation along the watershed boundary and stated "it is to be regretted that it is not deemed necessary to define more clearly the whole boundary."³³ Nevertheless, Eccles felt it was at least necessary to re-demarcate from BP 1-27 but said his department did not have the staff even to review the existing pillars, much less

²⁸ RC/609 Letter Amery to Stanley, 30 June 1925. para. 6.

²⁹ RC/609 Letter Amery to Stanley, 30 June 1925. para. 6.

³⁰ RC/609 Letter Amery to Stanley, 30 June 1925. para. 7.

³¹ RC/609 Letter Amery to Stanley, 30 June 1925. para. 8.

³² RC/609 Memorandum Eccles to Chief Secretary, 5 August 1925. para. 3.

³³ RC/609 Memorandum Eccles to Chief Secretary, 5 August 1925. para. 6.

conduct full demarcation.³⁴ Governor Stanley passed Eccles' memo on to Amery in September 1925, re-emphasising the key points, and estimated that the cost of Northern Rhodesian officials erecting more boundary pillars between BPs 1-17 would cost £5,500 and require at least two additional surveyors.³⁵ Stanley suggested that the BSAC should be asked to contribute funding for demarcation and, as an almost off-hand suggestion, assumed that the British government would need to approach the Belgians for their participation.

Fairweather had recommended in his June 1925 memo that there were two alternatives for additional demarcation along the watershed section. First, additional boundary pillars could be erected and the boundary would follow the exact line of watershed on the ground between the pillars. Second, additional pillars would be erected and the boundary would follow 'straight' lines³⁶ between the pillars rather than the watershed line itself.³⁷

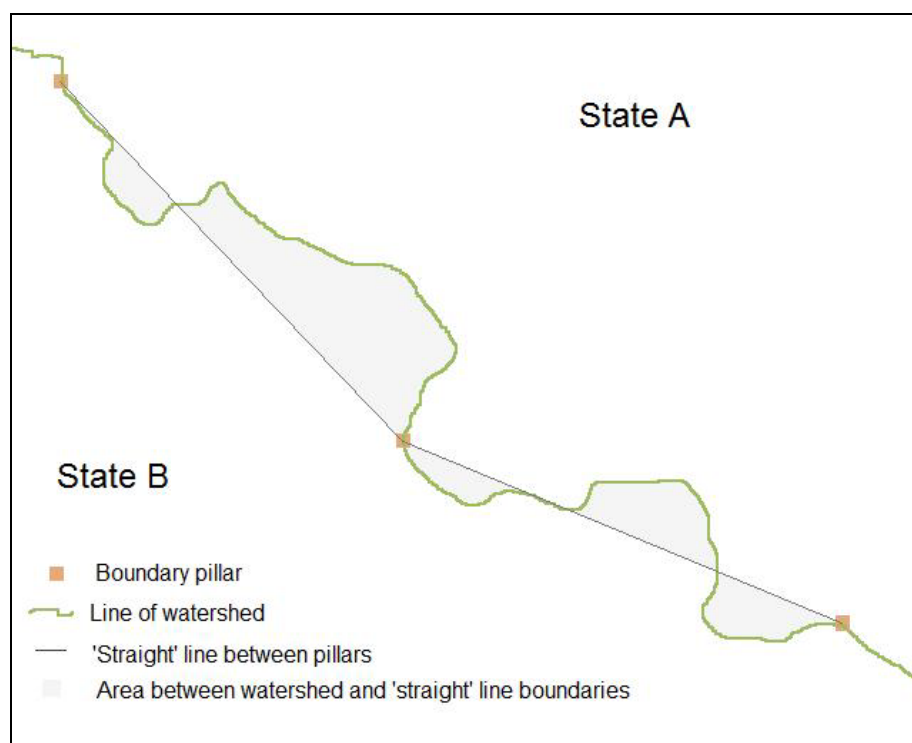


Figure 1 Model showing disparity in 'straight' v watershed lines between boundary pillars

³⁴ RC/609 Memorandum Eccles to Chief Secretary, 5 August 1925. para. 7.

³⁵ RC/609 Letter Stanley to Amery, 4 September 1925.

³⁶ N.B. Because the Earth's surface is not flat, no lines on its surface can be deemed 'straight'. In this context, the term straight line is meant to be a line of constant bearing between two identified points.

³⁷ RC/609 Memorandum William Fairweather to Chief Secretary, Northern Rhodesia, 30 September 1924. para. 10.

The farther apart the boundary pillars, the more potential discrepancy there could be between a boundary following the watershed and a boundary following ‘straight’ lines (see Figure 1). The presence of copper deposits along the watershed made every square inch of territory potentially valuable.³⁸ With reports reaching Livingstone in June 1925 of a local Belgian administrator having moved BP 40 to Belgian Congolese advantage³⁹, the Northern Rhodesian and British governments were becoming more and more anxious about the exact position of the watershed boundary on the ground.

Concern about the mineral deposits in relation to the boundary was the main subject of correspondence between the Director of Military Operations, Major General Sir John Burnett-Stuart and the CO between October 1925 and February 1926.⁴⁰ Both agreed that inspection of the BPs 1-10 was an absolute priority. Even more so, Sir Burnett-Stuart raised concerns about the ownership of the mineral resources with the Belgian and British concessions located so close to the watershed and recommended that any new mining developments should be kept at some distance from the boundary.⁴¹ Amery forwarded these comments on to Stanley in March 1926 and posed the question at the heart of the matter: “I shall be glad if you will inform me whether you consider that there is any likelihood of difficulties arising in the immediate future owing to the lack of a well defined boundary in the mineralised districts...”⁴²

No doubt exasperated with pressing his case, Fairweather made an unequivocal response to Amery’s question just two weeks later: “I consider there is every likelihood of difficulties arising on the question of ownership owing to the lack of a well defined boundary between the two Territories.”⁴³ He noted that the lack of boundary definition between the boundary pillars made it difficult to even restrict

³⁸ A memorandum written after a combined meeting of FO, CO and WO officials in July 1926 stated: “It may be mentioned that between pillars XXII and XXIX, where important mineral operations are at present in progress, the average distance between the pillars is about 20 miles, a distance which clearly does not allow of sufficiently accurate demarcation of the frontier in a mineralised area where even a few square yards may be of great value.” RC 33 Memorandum accompanying Letter Stratchey CO to FO, 13 July 1926.

³⁹ The Chief Secretary of Northern Rhodesia sent a protest to the Governor of the Belgian Congo province of Katanga, G. Hennen, in December 1925 complaining about the shifting of BP 40. The governor of Katanga apologised for the incident in June 1926, saying that it had been a mistake by a young and inexperienced local agent. The pillar was re-sited to its original position in September 1926. RC 610 Correspondence, G. Hennen, Governor of Katanga - Elisabethville and H. Stanley, Chief Secretary NR – Livingstone, 9 Dec 1925, 13 Jan 1926 and 29 June 1926.

⁴⁰ RC 33.

⁴¹ RC 33 Letter Sir John Burnett-Stuart to CO, 12 January 1926.

⁴² RC 33 Letter Amery to Stanley, 22 February 1926.

⁴³ RC 33 Letter Fairweather to Stanley, 6 April 1926.

mining with some kind of buffer zone (read ‘frontier’) and re-emphasised that his 1924 suggestions for demarcation should be implemented immediately. Once again Amery passed Fairweather’s thoughts directly on to the CO, adding his own emphasis: “Strongly urge earliest possible steps should be taken to demarcate and beacon boundary by either of methods suggested in paragraph 10 of enclosure in my dispatch of 6th October 1924 confidential.”⁴⁴ After a high level meeting of officials from the CO, FO and WO, the FO was asked on 13 July 1926 to approach the Belgian government “with the proposal that a supplementary Anglo-Belgian boundary commission should be constituted immediately for the purpose of conducting an intensive survey of the whole boundary between pillars I and XXIX and of demarcating the Congo-Zambesi watershed there by intermediate beacons or by some other means, in view of the mineral possibilities of the adjoining areas.”⁴⁵ This request was quickly forwarded to the Belgian Ministry of Foreign Affairs from the British ambassador in Brussels, George Grahame, on 17 July 1926.⁴⁶

The 1927 Brussels conference and agreement

The Belgian government responded favourably to British requests for a new boundary commission in August 1926 but stated that they did not have adequate personnel available to carry out the work.⁴⁷ By December 1926 the Belgian government still could not put together enough trained surveyors for the commission, so in order to make use of the delay they proposed that “competent authorities” from both states should meet to agree common instructions to direct the boundary commission.⁴⁸

This was accepted by the British government departments and the WO nominated Colonel Winterbotham to be the British representative. A prominent fellow of the RGS, Colonel Winterbotham was a well-known military surveyor who had championed advances in topographic surveying for artillery range-finding during the First World War.⁴⁹ Winterbotham met with CO and FO officials on 24 January 1927

⁴⁴ RC 33 Confidential telegram, Stanley to CO, 8 April 1926.

⁴⁵ RC 33 Letter CO to FO, 13 July 1926.

⁴⁶ RC 33.

⁴⁷ RC 33 Letter Grahame to Chamberlain FO, 27 August 1926.

⁴⁸ RC 33 Letter Knatchbull-Hugessen, Belgian Ministry of Foreign Affairs to FO, 9 December 1926.

⁴⁹ Winterbotham served on the Council of the RGS from 1923-29 and 1930-31. His obituary in 1947 was authored by none other than his colleague and former African boundary commissioner Sir Charles Close (Arden-Close). (C.F. Arden-Close, ‘Obituary Brigadier Harold St. John L. Winterbotham C.B., C.M.G., D.S.O.’ *The Geographical Journal* 109, no. 1/3 (1947), 153-154.)

and authored a memo that outlined the key points to be discussed with the Belgians.⁵⁰ This memo is noteworthy because it makes no mention of any adjustments to the Belgian Congo-Northern Rhodesia boundary. In fact, it did not even mention the as-yet undefined boundary section between lakes Mweru and Tanganyika. It clearly conveyed the British government's belief that the primary concern was the course of the boundary between the 1911-14 boundary pillars.⁵¹ The CO was keen to emphasise that the meeting should stick solely to the subject of demarcation and warned Winterbotham not to negotiate any exchanges of territory.⁵²

The Brussels Conference, as it became known, was held from 16-19 March 1927. In his personal report on the conference, Winterbotham explained how the 1911-14 boundary commission had been given leverage to deviate the boundary along the watershed up to 2 km.⁵³ However, given the value of the mineralised areas along the watershed, the new Anglo-Belgian boundary commission would only be allowed to deviate a maximum of 200 metres from what it could identify as the 'ideal watershed.' "Now the principle of leaving small encroachments undivided where good faith and economic interest dictate, is qualified by the expressed intention of getting within 200 metres of the ideal watershed."⁵⁴ In other words, whereas the actual identification of a linear boundary in the context of the 1911-14 boundary commission was relatively unimportant and a zone of 2 km was effectively adequate, the presence of "economic interests" shifted the scale of British geographical perspective on this territory, quite literally, by a factor of ten.

Not only was the second boundary commission instructed to survey and identify the watershed boundary cartographically, so important was the identification of a linear boundary that the instructions called for demarcation of pillars at 500 metre intervals. Six months prior to the Brussels Conference, a Northern Rhodesia surveyor A. Godwin-Austen had been dispatched to review boundary pillars 1-11, trace the watershed between the pillars and compare his survey with the Belgian and British

⁵⁰ RC 33 Winterbotham H., *Memorandum on the Rhodesia-Congo boundary*, from meeting held 24 January 1927.

⁵¹ RC 33 Winterbotham H., *Memorandum on the Rhodesia-Congo boundary*, from meeting held 24 January 1927. paras. ii and iii.

⁵² RC 33 Letter Strachey CO to FO, 3 March 1927.

⁵³ RC 33 Winterbotham, H. *Zambesi-Congo watershed boundary. Personal report on the meeting of 16-19 March 1927.* section 3.

⁵⁴ RC 33 Winterbotham, H. *Zambesi-Congo watershed boundary. Personal report on the meeting of 16-19 March 1927.* section 3.

boundary commission maps.⁵⁵ Fairweather had also instructed Godwin-Austen to place beacons along his interpretation of the watershed “for the relocation of your line and as a guide for District Officials etc.”⁵⁶ Having a British surveyor unilaterally demarcate an international boundary was kept quiet during the Brussels Conference and Winterbotham noted “It is obvious that the subsidiary beacons inserted during the course of this investigation can have no present international authority.”⁵⁷

The representatives at the conference enshrined the instructions for the second Anglo-Belgian boundary commission in what would become known as the Brussels Agreement (BFSP 1931, pp. 218-224). It stands as one of the most detailed set of instructions ever given to a colonial boundary commission and was later cited many times in Stephen Jones’ *Boundary-Making*.⁵⁸ The detailed agreement outlined everything from instructions for triangulation survey to the exact dimensions for boundary pillars. Unlike the majority of previous instructions issued to British colonial boundary commissions throughout Africa, the Brussels agreement was actually ratified by both states as a binding treaty.⁵⁹

The 1927-34 Anglo-Belgian boundary commission

Inauspicious start

As with the 1911-14 boundary commission, a detailed chronological narrative of every move of the 1927-33 Anglo-Belgian boundary commission is largely outside the focus of this work. The inter-colonial dynamics expressed in the negotiations for boundary adjustments, as well as the inter-personal drama within the boundary commission itself would be well worth its own historical review. However, this work concentrates on boundary demarcation so that element of the commission’s work will remain in focus.

Considering the Brussels Agreement was only concluded in March 1927, and the Belgian government had delayed progress by six months due to a lack of trained personnel, the second Anglo-Belgian boundary commission took to the field

⁵⁵ RC 33 Letter Fairweather to Godwin-Austen, 2 September 1926.

⁵⁶ RC 33 Letter Fairweather to Stanley, 6 April 1926.

⁵⁷ RC 33 Winterbotham, H. *Zambesi-Congo watershed boundary. Personal report on the meeting of 16-19 March 1927*, section 4.

⁵⁸ S.B. Jones, *Boundary-Making: A Handbook for Treaty Editors, Statesmen and Boundary Commissioners* (Washington D.C.: Carnegie Endowment for International Peace, 1945).

⁵⁹ Transcribed in Appendix 1, section 8.5.

remarkably quickly in July 1927.⁶⁰ Throughout April and May 1927 there was furious correspondence between British government departments and with Northern Rhodesian officials concerning funding, logistics and personnel of the British commission.⁶¹ The British commissioner chosen was Lt. Colonel D. Cree, who had recently been attached to the Hungarian-Yugoslav boundary commission from 1924 to 1925⁶² and was to prove a disastrous choice. The Belgian contingent was led by the veteran boundary commissioner F. Gendarme who had served on the 1911-14 boundary commission and had more recently led the Belgian contingent of the Anglo-Belgian boundary commission along the Rwanda-Burundi boundary with Tanganyika.⁶³

Cree's relationship with Gendarme was fractious from the start and the survey progress was extremely slow.⁶⁴ Cree's correspondence from July to November 1927 mainly dealt with difficulties related to the Northern Rhodesian police escort⁶⁵ and one incident when a member of the Belgian police escort was detained by local Northern Rhodesia officials.⁶⁶ There was little information about the actual progress of the survey fieldwork. Cree was particularly anxious about having to negotiate any boundary adjustments with the Belgians and asked the Northern Rhodesian administration for its position as early as 12 August 1927.⁶⁷ After receiving comments from the Northern Rhodesia administration in October 1927, Cree wrote back in November stating that given the mineral prospects all along both the watershed and Mweru-Tanganyika boundary sections, he believed options for adjustment were very limited since both sides would be reluctant to cede large areas.⁶⁸

⁶⁰ The speed with which the commission took to the field may be partly explained by the fact that the RCBC had agreed to pay £2000 toward the cost of the commission if its work began promptly at the site of their mining operations. RC 33 Letter Strachey CO to FO, 13 July 1926.

⁶¹ RC 36 Various correspondence.

⁶² D. Cree, 'Yugoslav-Hungarian boundary commission' *Geographical Journal* 65, no. 2 (1925): 89-110.

⁶³ After the First World War, the German territory of Tanganyika was divided so that Rwanda and Burundi were administered by Belgium and Tanganyika became a British protectorate.

⁶⁴ CO 795/23/9 Correspondence 1927-1928.

⁶⁵ RC 36 Letter Cree to NR Chief Secretary, 20 September 1927. Cree complained when the askari (soldiers) of the Northern Rhodesia police escort brought their wives with them to the boundary commission camp. The Northern Rhodesia Police and administration assured Cree that this was the normal procedure when the askari were dispatched to the field (RC 36 Letter Police commandant to NR chief secretary, 1 November 1927).

⁶⁶ RC 36 Letter Cree to NR Chief Secretary, 12 December 1927.

⁶⁷ RC 36 Letter Cree to NR Chief Secretary, 12 August 1927.

⁶⁸ RC 36 Letter Cree to NR Chief Secretary, 7 November 1927.

By December 1927, Cree's relationship with Gendarme and the Belgian commission had become so difficult that Gendarme sent a written letter to him about various Rhodesian mining concessions being posted on the Belgian side of the boundary, even though the two men were living in the same camp.⁶⁹ Cree's relationship with his own commission was also at breaking point. With morale at rock bottom, survey progress slow and many of the members of the British commission threatening to leave, Cree was recalled on 28 February 1928.⁷⁰ The medical officer attached to the British commission, Dr. Luner, later wrote that Cree's behaviour may have been caused by his "continental period" and he had apparently been advised not to return to Africa prior to joining the commission.⁷¹

Cree was replaced in April 1928 by Lt. Col. Arthur B. Clough, a veteran of boundary commissions in Albania and a close personal friend of Winterbotham.⁷² Clough was meant to be a temporary appointment since he had only served one year out of a promised four year posting to the WO and had spent very little time in England since the end of the First World War.⁷³ Clough also had unspecified "private reasons" that made him reluctant to undertake fieldwork in Africa. However, Winterbotham did eventually convince Clough to serve out Cree's normal tour and, in effect, get the British section of the boundary commission back on track.⁷⁴

Pressure for progress

Meanwhile, pressure to demarcate had been building from mining interests. One company, Mineralize Ventures in Ndola, had approached Cree directly in November 1927 to enquire making minor adjustments to the boundary in the Mokambo area.⁷⁵ N.A. Dumbleton of the same company later begged the Northern Rhodesia survey department for coordinates of the new boundary pillars in April 1928, but Fairweather could only send revised figures for the 1911-14 pillars.⁷⁶ In March 1928 the RCBC and the BSAC paid the Colonial Office their £2000 contribution towards the cost of

⁶⁹ RC 36 Letter Gendarme to Cree, 1 December 1927 and CO 795/23/8 Correspondence between Gendarme and Cree, December 1927.

⁷⁰ CO 795/27/9 Winterbotham, H. *Tour Report*, 4 June 1929. section 5.

⁷¹ CO 795/23/9 and CO 795/23/10 Letter Luner to CO, 16 March 1928.

⁷² Their correspondence always had a very personal tone and began "My dear Clough"/"My dear Colonel".

⁷³ CO 795/27/9 Winterbotham, H. *Tour Report* 4 June 1929. p. 5.

⁷⁴ CO 795/27/9 Winterbotham, H. *Tour Report* 4 June 1929. p. 5.

⁷⁵ RC 36 Letter Parker to Cree, 14 Nov 1927.

⁷⁶ SEC 3/291 vol. 1 Correspondence between Dumbleton and Fairweather, 12 and 13 April 1928.

the boundary commission that had ensured the commission first demarcated their mineralised section of the watershed boundary between BPs 22 and 29.⁷⁷ The Northern Rhodesia Secretary for Mines, Tudor G. Trevor, was also being pressed by yet another company, the Bechuanaland Exploration Company (agents for the Northern Rhodesia Company) who initially enquired about the boundary in June 1927 and enquired again, less politely, in December 1928: “will you kindly let me know if the Boundary Commission has yet completed sufficient work to determine whether these claims are in Northern Rhodesia or otherwise.”⁷⁸

It had not just been the poor leadership of Cree that held up the commission’s progress. Clough arrived in May 1928 to find the British and Belgian survey results completely incompatible. The two sides found it difficult to recover the triangulation points established by the first boundary commission. This required a completely new triangulation network to be surveyed in order to lay the topographic mapping and identify the geographic position of the boundary pillars. According to Clough, the Belgians were using less accurate triangulation methods and not undertaking adequate topographical survey as had been specified in the Brussels convention instructions.⁷⁹ Gendarme had defended his methods by stating that he was using the original instructions as a guide. Just as the 1911-14 Anglo-Belgian boundary commission had discovered, the rate of triangulation was painstakingly slow in the relatively flat landscape of the watershed that was covered by forest canopy. This meant that trees and brush to be cleared along the rays of triangles so distances and angles could be observed.⁸⁰

Clough raised his concerns over the survey methods with Winterbotham in May 1928. After consulting with his counterpart in the Belgian survey department Commandant Maury, Winterbotham wrote back to Clough on 25 June 1928 and amended the original instructions. Given the difficulties in triangulation, Winterbotham and Maury agreed that, contrary to the Brussels Agreement, not every main boundary pillar needed to be tied to the ruling triangulation system.⁸¹ Instead they suggested that the less accurate but more rapid traverse method of survey could

⁷⁷ CO 795/23/8 Letter BSAC to CO, 12 March 1928.

⁷⁸ CO 795/23/8 Letter Trevor to NR Chief Secretary, 29 December 1928.

⁷⁹ SEC 3/290 Clough, C. *Report on activities of the British Section 11 Apr-30 June 1928*. pp. 2-3.

⁸⁰ SEC 3/290 Clough, C. *Report on activities of the British Section 11 Apr-30 June 1928*. p. 9.

⁸¹ CO 795/23/8 Letter Winterbotham to Clough, 25 June 1928.

be undertaken.⁸² Winterbotham emphasised that Clough should regard the instructions as guidelines and not follow them strictly if they were found to impede demarcation progress.⁸³ More remarkably, Winterbotham emphasised that boundary demarcation was much more important than the survey: “In all questions of boundaries it is the actual position of the stones and of the cleared line on the ground which is of most immediate importance. The actual survey of them is not so important and is indeed not a direct matter of the treaty (Brussels convention).”⁸⁴ This change of instruction was a remarkable turn-around from the practice of the 1911-14 Anglo-Belgian boundary commission whose priorities were exactly the reverse, accuracy of topographic and geodetic survey was of far greater concern than demarcation.

The second Anglo-Belgian boundary commission intended to replace all 46 of the old boundary pillars and build new ones after triangulation was complete. But while observing rays for triangulation, the survey teams also identified and cleared the ill-defined watershed line through the thick bush. As the first boundary commission discovered, the watershed proved extremely difficult to identify:

the Watershed ridge itself is very ill defined. It is, in most parts, very flat and, by eye, it is quite impossible to say in which direction the ground is falling the gradients are so slight. Hence the necessity of the slow and tedious method adopted, that of running cross levels at intervals of 100 yards or so in order to decide where exactly the top of the ridge actually is.⁸⁵

Clough was successful in hastening the commission’s work and by the end of June 1928 he reported that approximately 36 miles of the watershed between BPs 23 and 26 had been surveyed and cleared.⁸⁶ However, he concluded that there was no way of increasing progress:

In spite of much thought, no quicker or more satisfactory method of fixing the boundary has yet been devised. Assuming, therefore, that the remainder of the

⁸² Instead of surveying a network of triangles to identify distances from a fixed point as in triangulation, traverse surveying involved measuring short lines (approx. 300 feet) along fixed azimuths from a fixed starting point. This was much slower than triangulation because the area covered was much smaller and was also more prone to error. It was used in flat and heavily wooded terrain devoid of hill tops or high elevations that could be used for triangulation (Personal correspondence with Alastair MacDonald FRGS, former surveyor in Africa with the British Directorate of Overseas Survey, July 2008).

⁸³ CO 795/23/8 Letter Winterbotham to Clough, 25 June 1928.

⁸⁴ CO 795/23/8 Letter Winterbotham to Clough, 25 June 1928. para. 3

⁸⁵ SEC 3/290 Clough, C. *Report on activities of the British Section 11 Apr-30 June 1928*. p. 9.

⁸⁶ SEC 3/290 Clough, C. *Report on activities of the British Section 11 Apr-30 June 1928*. p. 9.

boundary is similar in character and that there is the same necessity of defining it with similar accuracy, it may be forecast that it will not be completed until the end of 1931 or possibly sometime in 1932. This is assuming that the rate of progress is as at present.⁸⁷

In addition, the survey progress of the Belgian contingent was much slower. In his second quarterly report documenting work up to the end of September 1928, Clough reported that the British section had identified and cleared 105 miles of the watershed between BPs 20 and 27, while the Belgian section had only identified and cleared 25 miles from BPs 11 to 20 and 35 miles between BPs 26 and 27.⁸⁸ Jointly, the two parties had built a total of 21 main pillars (concrete) and some 225 stone auxiliary pillars along these sections of the watershed boundary.⁸⁹

With such slow progress, Clough and Winterbotham discussed the advantage of having the two governments ratify demarcation results as they were completed, rather than waiting to ratify the entire boundary demarcation all at once.⁹⁰

Winterbotham passed this recommendation on to the CO, stating that among the many advantages of ratifying the boundary bit-by-bit: “d) It would add to the prestige of the Commission among the local industrial interests.”⁹¹ The WO echoed Winterbotham’s sentiment and told the CO “Important financial interests appear to be involved and a final agreement might add confidence to development.”⁹² Maury had advocated this type of ratification during the 1927 Brussels conference and in June 1929 the Belgian foreign minister Paul Hymans agreed to ratify the results of demarcation as they were completed, with the condition that “the ratification in question should not suspend the delimitation work of the Commission which should again proceed under the terms of the March 1927 agreement.”⁹³ With even more mining interests and production on their side of the watershed boundary, the Belgian government was also keen to see the demarcation progress as quickly as possible.

⁸⁷ SEC 3/290 Clough, C. *Report on activities of the British Section 11 Apr-30 June 1928*. p. 9.

⁸⁸ SEC 3/290 vol. 1 Clough, C. *Report on activities of the British Section 1 July-30 September 1928*. p. 5.

⁸⁹ SEC 3/290 vol. 1 Clough, C. *Report on activities of the British Section 1 July-30 September 1928*. p. 5.

⁹⁰ CO 795/23/11 Correspondence between Clough and Winterbotham, November 1928.

⁹¹ CO 795/23/11 Letter Winterbotham to J. Frederick Green, 22 November 1928.

⁹² CO 795/27/9 Letter Widdows WO to CO, 3 January 1929.

⁹³ Trans. “la ratification en question ne fasse pas suspendre l’exécution de travaux auxquels la Commission de délimitation doit encore procéder, aux termes de l’arrangement de mars 1927” SEC 3/289 vol. I Letter Hymans to Knatchbull-Hugesse, 17 June 1929.

The commissioners themselves were well aware of the potential value of the territory they were demarcating. The British section of the boundary commission included a geologist Dr. James W. Lunn whose extensive geological survey of the primary copper workings along the watershed was completed on 30 September 1928.⁹⁴ Lunn's findings greatly influenced Clough's negotiating strategy. When the Belgian section asked Clough to consider adjusting the boundary near Mokambo to prevent the Belgian railway from encroaching on Northern Rhodesia territory, Clough consulted with the CO stating "I am now in a position to state definitely that, in my opinion, it would be unwise to agree to any modification of the boundary in the present state of our knowledge of the mineral value of the land in the area concerned."⁹⁵ Clough admitted that the watershed line had been altered slightly to accommodate some very minor encroachments by the Belgian railway and a Northern Rhodesia road, but this proposed adjustment in Mokambo included an area of around 100 acres which was considered too large for him to agree.⁹⁶

Clearly the earlier (pre-1920s) ideas of making substantial boundary adjustments trading large tracts of territory between Belgian Congo and Northern Rhodesia were never going to be agreed by the Belgian and British governments, given the economic interests at stake. With the geographic configuration of the Katanga pedicle, Belgium effectively had the territorial upper hand and British officials were concerned that any territorial swaps might result in losing valuable mining prospects. Indeed, both sides recognised that mineral prospects along the boundary made every inch of territory potentially valuable. No longer could the decisions over colonial territory be negotiated with regard to European interests alone, based on small scale (imperial) geographical perspective. This land was becoming extremely valuable to the economies of the colonial powers so neither side was willing to risk losing economic benefits by changing definition of their territories from the 1894 boundary delimitation. Similarly, such valuable territory required demarcation at a local scale that would make the division of territory clearly visible on the ground.

⁹⁴ CO 795/23/11 Full report by James W. Lunn PhD, 30 September 1928.

⁹⁵ CO 795/23/8 Letter Clough to CO, 22 September 1928.

⁹⁶ SEC 3/290 vol. 1 Clough, C. *Report on the British section 1 October 1928 – 15 January 1929*. p. 4 and accompanying letter Clough to NR Chief Secretary, 23 Jan 1929.

Financing the boundary commission

By January 1929 the exhausted British section was desperate for a period of leave.⁹⁷ Having focused exclusively on the watershed boundary section between BPs 11 and 27 at the request of the RCBC, the Anglo-Belgian boundary commission had traversed, located and cleared the watershed for 203 miles.⁹⁸ The commission had driven pipes 2-3 feet into the ground to mark spots along the watershed where the main and auxiliary pillars would be located; the British having placed 498 pipes and the Belgians 297. Main pillars were built of concrete over these pipes and for auxiliary pillars the pipes were covered by heaps of large stones.⁹⁹ By the time of Clough's January report, 21 main pillars and 253 auxiliary pillars had been built with a further 34 main and 487 auxiliary pillars under construction.¹⁰⁰

This painstaking detail in identifying and marking the watershed was not only taking its toll on the personnel of the commission, it was also becoming very expensive. Stepping down from his role as head of the Geographical Section of the General Staff in 1928, (by this time) Brigadier Winterbotham decided to tour colonial survey departments throughout the Empire before taking on his new position as Director General of the Ordnance Survey. Winterbotham included a visit to the Anglo-Belgian boundary commission in the field on his itinerary. He reached Elisabethville in Katanga on 25 May 1929 and spent the next few days in discussion with both sides of the commission, reviewing their work and meeting with local mine managers.¹⁰¹ In his report, Winterbotham admitted that he and his Belgian colleague Maury had seriously underestimated the time involved in the boundary commission's work. They had originally estimated 2 years of work, but given the difficulties with locating, clearing and surveying the visibly ill-defined watershed line, Winterbotham estimated that this section alone would require an additional 2 ½ field seasons; an estimate did not include demarcation of the Mpanta meridian section or the disputed section between Lakes Mweru and Tanganyika.¹⁰²

⁹⁷ SEC 3/290 vol. 1 Evans, H. Silvester *Medical report*, 10 January 1929.

⁹⁸ Clough specified that the British section had located and cleared 106 miles of the watershed and the Belgian section, 97 miles, although the Belgian section was believed to be a month behind on the traverse survey. (SEC 3/290 vol. 1 Clough, C. *Report on the British section 1 October 1928 – 15 January 1929*. p. 4 and accompanying letter Clough to NR Chief Secretary, 23 Jan 1929.)

⁹⁹ SEC 3/290 vol. 1 Clough, C. *Report on the British section 1 October 1928 – 15 January 1929*. p. 4 and accompanying letter Clough to NR Chief Secretary, 23 Jan 1929.

¹⁰⁰ SEC 3/290 vol. 1 Clough, C. *Report on the British section 1 October 1928 – 15 January 1929*. p. 5 and accompanying letter Clough to NR Chief Secretary, 23 Jan 1929.

¹⁰¹ CO 795/27/9 Winterbotham, H. *Tour Report* 4 June 1929. Note 65

¹⁰² CO 795/27/9 Winterbotham, H. *Tour Report* 4 June 1929. p. 3.

Winterbotham once again endorsed the idea of having the governments ratify the demarcation work already completed by the commission. Although the recently completed section of the boundary between BPs 11 and 27 had been considered the most important, Winterbotham concluded in no uncertain terms that the commission should continue with its painstaking demarcation work no matter the time or cost involved.

There is reason to suppose, however, even if there is at present no direct proof, that copper astride the watershed will be roughly on the arc of a circle whose centre may be approximately at Broken Hill. Mining developments, physical features and geological probability support this view. It is then at least probable that questions of international ownership may soon become as important between pillars 1 to 11 and 30 to 47 as they have already proved between 12 and 29. While the commission is at work it should continue to beacon as close, and demarcate as clearly as has been done hitherto, in order to provide a permanent settlement and prevent the necessity of sending out a fresh commission.¹⁰³

With (later un-substantiated) reports of ore deposits found along the Mweru-Tanganyika section, Winterbotham recommended that this section also be demarcated with precision once its alignment was settled by the two governments.¹⁰⁴ Depending on the boundary chosen between the lakes, Winterbotham estimated that the Anglo-Belgian boundary commission should complete demarcation of the entire boundary within 4 to 5 years.

The CO had estimated in October 1926 that this second Anglo-Belgian boundary commission would last two years and the British section would cost approximately £15,000 per annum, based on the £14,300 annual budget of the Anglo-Italian Jubaland boundary commission that was in the field at roughly the same time.¹⁰⁵ A review of the finances in 1929 revealed that costs were rapidly spiralling out of control: from £13,220 in 1927-28 to £15,070 in 1928-29 and a projected budget of £17,500 in 1930-31.¹⁰⁶ Even these figures may have been underestimating reality, as one Treasury official noted that the actual cost for 1928-29 reached £19,600, which

¹⁰³ CO 795/27/9 Winterbotham, H. *Tour Report* 4 June 1929. p. 4.

¹⁰⁴ CO 795/27/9 Winterbotham, H. *Tour Report* 4 June 1929. p. 4.

¹⁰⁵ T 161/1017 Letter CO to Treasury, 14 October 1926.

¹⁰⁶ CO 795/34/7

itself did not include travel costs for the personnel's leave in England.¹⁰⁷ These costs per annum were slightly greater than comparable British colonial boundary commissions working at the same time, for example the 1931-32 per annum budget of the British section of the Abyssinia-British Somaliland boundary commission was £15,000.¹⁰⁸ However, it was the duration of the Anglo-Belgian boundary commission that was really driving costs up; a direct result of the detail with which the boundary was being marked on the ground.

Winterbotham convinced the CO that the demarcation work was worth the increased cost and his recommendations from the field were forwarded on to the Treasury.¹⁰⁹ The Treasury agreed that demarcation should continue “due largely to the fact that the frontier runs through important mineralised areas, necessitating very careful demarcation”, but felt it was reasonable that because demarcation was related to the development of copper mining, and in turn adding to the local revenue, that “the total cost might fairly be divided equally between the Imperial Government and the Protectorate.”¹¹⁰ It was suggested that Northern Rhodesia, by this time under CO administration, could charge their portion of the funding to a development loan fund through the CO.¹¹¹

Requesting local British colonial administrations to foot part of the bill for a boundary commission poses interesting questions about responsibility for the sovereign act of boundary demarcation. Already it has been shown that the British imperial government felt prior to the First World War that only British military personnel were suitably knowledgeable to address inter-colonial boundary issues. Yet the Treasury justified its 1929 request for funding from Northern Rhodesia by quoting a 1907 letter from the CO to the BSAC:

The principle hitherto followed in connection with the delimitation of the boundaries of Colonies and Protectorates administered under this Department has been that all expenditure incurred primarily a charge on the local administration; but it has sometimes happened that, owing to the international questions involved and other considerations, His Majesty's Government have themselves sent out an expedition to undertake the necessary work, and have

¹⁰⁷ T 161/1018 Handwritten note by Reynolds, 8 November 1929, advising on drafts of letter Treasury to CO, 20 November 1929.

¹⁰⁸ T 161/750 *Report on the final costings of the Abyssinia-British Somaliland boundary commission*.

¹⁰⁹ T 161/1018 Letter Treasury to Green, 20 November 1929.

¹¹⁰ T 161/1018 Letter N.V. Nind-Hopkins (Treasury) to Green, 20 November 1929.

¹¹¹ T 161/1018 Letter N.V. Nind-Hopkins (Treasury) to Green, 20 November 1929.

relieved the Colony or Protectorate, as the case may be, of part or even the whole of the cost.¹¹²

In essence, the Treasury was throwing the CO's own argument back in its face. In reality, the vast majority of inter-colonial British boundary commissions were funded by the imperial government because they were considered international concerns; a fact only vaguely hinted at within the 1907 letter. The draft text of the 1929 letter from the Treasury to the CO generated a substantial amount of comment within the Treasury department, and one keen-eyed official cited a much more recent letter from the CO to the Treasury in 1922 stating:

that the delimitation and demarcation of boundaries in Africa as the result of international treaties and arrangements has always been regarded as an Imperial concern, the funding being usually embodied in a formal agreement between the Powers concerned. Therefore, the expense has in the main been borne on Imperial estimates with Treasury consent.¹¹³

Nevertheless, the Treasury's attitude was that because Northern Rhodesia was now financially self-supporting as a result of the copper mining, it should also bear some of the financial responsibility for boundary demarcation;¹¹⁴ even though demarcation was being undertaken exclusively, and explicitly, by Imperial authorities.

Northern Rhodesia reluctantly agreed to pay half of the boundary commission costs using money from the development loan fund as suggested by the Treasury.¹¹⁵ However, Northern Rhodesia did not let the issue lie and in December 1931 Governor J.C. Maxwell, responding to complaints made in Northern Rhodesia's Legislative Council, demanded to know why the costs of the boundary commission were running at £19,000 annually, when he had estimated the Northern Rhodesia survey department could have undertaken the work at a much lower cost.¹¹⁶ The Secretary of State for the Colonies, Philip Cunliffe-Lister responded to Maxwell's complaints with a stern and considered rebuke in March 1932. This letter from Cunliffe-Lister did more than simply counter Maxwell's argument, it was a remarkable statement on the relationship

¹¹² T 161/1018 Letter N.V. Nind-Hopkins (Treasury) to Green, 20 November 1929.

¹¹³ T 161/1018 Handwritten letter Reynolds to Skerington, 8 November 1929, advising on drafts of letter Treasury to CO, 20 November 1929.

¹¹⁴ T 161/1018 Handwritten letter Reynolds to Skerington, 8 November 1929, advising on drafts of letter Treasury to CO, 20 November 1929.

¹¹⁵ SEC 3/291 vol. II Letter Maxwell (NR Governor) to Passfield (Secretary of State CO), 21 January 1930.

¹¹⁶ SEC 3/291 vol. II Letter Maxwell to Phillip Cunliffe-Lister (CO), 14 December 1931.

between the British Empire and colonial boundary commissions and is worth examining in more detail.

Estimates from the Northern Rhodesia survey department called for the use of four European survey staff, which Cunliffe-Lister argued would be difficult to spare from the local survey department and would take much longer to complete the demarcation than the imperial commission already at work.¹¹⁷ Cunliffe-Lister indicated that colonial surveyors focused primarily on cadastral survey and did not possess the skills to address boundary issues.

Full allowance does not appear to have been made in that estimate for the special character of the work of boundary demarcation, which is not ordinary surveying but has a technique of its own. Boundary demarcation frequently involves technical problems of an unusual character and of considerable difficulty. Apart from questions of finding alignment of the boundary, the identification of the line itself may present difficulties.¹¹⁸

He suggested that the special character of boundary work required military personnel, and specifically the Royal Engineers: “The Royal Engineers personnel engaged for the technical work on Boundary Commissions are picked men, and in them the Governments concerned secure personnel whose qualifications could hardly be matched by personnel obtainable elsewhere...”¹¹⁹ Even more tellingly, Cunliffe-Lister stated:

The Chief of a Boundary Commission is, in a sense, a representative of His Majesty’s Government, even if he is not actually a plenipotentiary he is often called upon to conduct delicate negotiations, and in cases of dispute it is usually upon his advice that the Government has to make its decision. For this reason it is desirable to select for employment on Boundary Commissions persons who have not only experience dealing with men and affairs, but also some previous knowledge of boundary demarcation and who are detached from local interests and influences, since experience has shown that the possibility of attempts to prejudice or compromise the work of the Commissioners by intimidation or otherwise cannot be altogether ignored, and

¹¹⁷ SEC 3/291 vol. II Cunliffe-Lister (CO) to Maxwell, 30 March 1932. para. 3.

¹¹⁸ SEC 3/291 vol. II Cunliffe-Lister (CO) to Maxwell, 30 March 1932. para. 3.

¹¹⁹ SEC 3/291 vol. II Cunliffe-Lister (CO) to Maxwell, 30 March 1932. para. 3.

that it is desirable to employ on boundary demarcation only well-disciplined parties on a military or semi-military basis.¹²⁰

It was made absolutely clear to Maxwell that boundary demarcation remained the responsibility of the sovereign. The sovereign could only entrust this important responsibility with its military men whose discipline and commitment inoculated them from local influences that might prejudice their decisions on the sacrosanct act of demarcating territory.

Completing demarcation

With financing finally resolved, the Anglo-Belgian boundary commission returned to the field in March 1930, authorised to take as long as necessary to demarcate the boundary. Almost the entire staff of British officers and NCOs was replaced while on leave in early 1930, with Lt. Col. E.R.L. Peake of the Royal Engineers taking over for Lt. Col. Clough. Peake had no previous experience of boundary commissions but proved to be a good choice. He formed a good working relationship with Gendarme whom he praised at length in his 1934 *Geographical Journal* article.¹²¹ While in England at the War Office, Clough and his second-in-command Lt. Stainer continued to work through March 1933, computing the survey data for the maps and plans covering their demarcation work from BP 11 to 33. These results were ratified in an Anglo-Belgian exchange of notes on 7 April 1933.¹²²

Although not completed in time to be ratified with the initial work, Clough and Gendarme had surveyed and demarcated the watershed between BP 33 and 34 so the new members of the boundary commission re-started work at BP 34 in March 1930. Unlike the 1911-14 boundary commission which surveyed the watershed first and demarcated on their return from the Angola tripoint, this later boundary commission first identified and demarcated the watershed boundary before then tying the boundary pillars into their triangulation network. From March 1930, the commission continued the same process of demarcation westward from BP 34. First, the 'ideal' watershed was painstakingly identified by levelling and a 5 metre wide clearing was cut through the bush along the line. Peake described how the commission would then use the same pillaring techniques as had been undertaken

¹²⁰ SEC 3/291 vol. II Cunliffe-Lister (CO) to Maxwell, 30 March 1932. para. 4.

¹²¹ E.R.L. Peake, 'Northern Rhodesia, Belgian Congo boundary' *Geographical Journal* 83, no. 4 (1934): 263-277. p. 265.

¹²² Transcribed in Appendix 1, section 8.6.

previously, driving 2 foot pipes flush with the ground, filling them with concrete and embedding a empty cartridge casing in the centre as the survey point (See Figures 2 and 3).

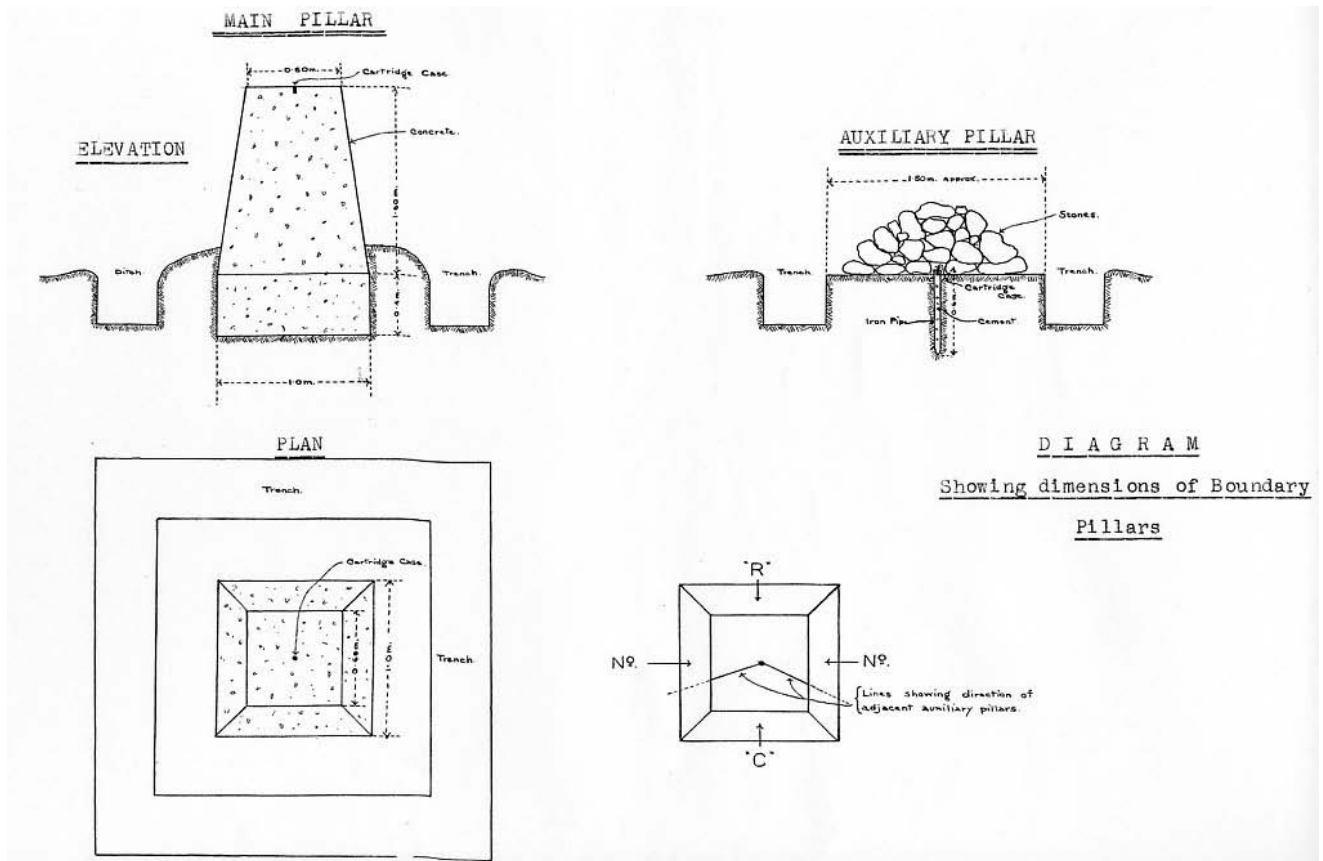


Figure 2 Diagram of boundary pillar and trench dimensions along the watershed section¹²³

¹²³ SEC 3/289 vol. I and CO 795/67/6 Diagrams 1 and 2 in Appendix 1 'Triangulation data' in Peake, E. *Final Technical Report on BPs 1-11, 33-46 and 1-XXVIII*, 1 Mar 1934; see also Peake 1934. p. 266.

D I A G R A M
Showing Smaller Pattern of Main Boundary Pillar
 erected between
River LUOMBWA and River LUAPULA

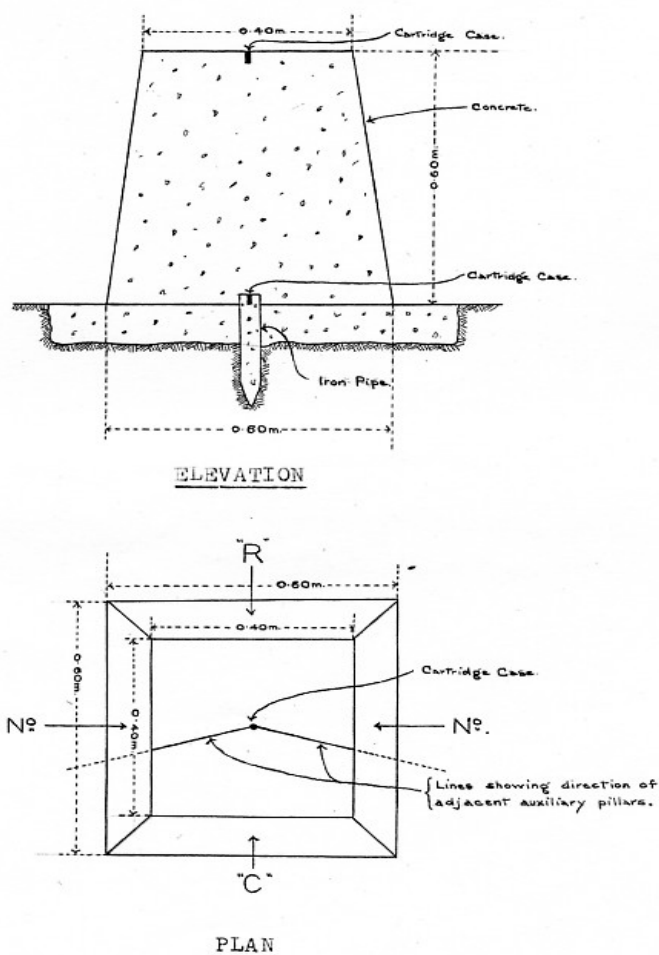


Figure 3 Diagram of main boundary pillars along the Mpanta meridian section¹²⁴

Again, main pillars were built as square, tapering concrete pillars approximately 1.5 metres in height (above ground) and auxiliary pillars were heaped stones placed over the buried pipes.¹²⁵ There was no more than 500 metres between pillars, making them inter-visible with the bush cleared between them. Having boundary pillars or marks inter-visible means that when standing at one pillar, the two pillars on either side can be seen, and the boundary ‘line’ can be visualised in the mind’s eye. Even more than clearing the sight-lines between pillars, the Anglo-

¹²⁴ SEC 3/289 vol. I and CO 795/67/6 Diagrams 1 and 2 in Appendix 1 ‘Triangulation data’ in Peake, E. *Final Technical Report* on BPs 1-11, 33-46 and 1-XXVIII, 1 Mar 1934; see also Peake 1934. p. 266.

¹²⁵ SEC 3/289 vol. I and CO 795/67/6 Diagrams 1 and 2 in Appendix 1 ‘Triangulation data’ in Peake, E. *Final Technical Report* on BPs 1-11, 33-46 and 1-XXVIII, 1 Mar 1934; see also Peake 1934. p. 266.

Belgian boundary commission dug a ½ metre deep trench along the watershed between each of the pillars, in addition to a circle around each auxiliary pillar and a square around every main pillar.¹²⁶ This was a rare demarcation technique and quite literally carved the linear boundary onto the land itself, making it unmistakably ‘known’ in the physical landscape (See Figure 4).



Figure 4 Boundary trench just south of Luapula river¹²⁷

Only once the pillars were in place were they then surveyed. As Winterbotham had advised Clough, the boundary commission only tied every other main boundary pillar into the triangulation network. However, as the 1911-14 boundary commission had discovered, the flat watershed terrain from BP 36 to BP 46 made triangulation impossible without the construction of towers.¹²⁸ Again with speedy demarcation the priority over strict cartographic accuracy, the boundary commissioners agreed to survey the watershed boundary exclusively by catenary traverse method, a less accurate and tedious technique using short lengths of suspended steel tape.¹²⁹ Working through the rainy season, the boundary commission completed demarcation and survey of the watershed from BP 34 to BP 46 in March 1931.¹³⁰ The commission then returned to BP 11 and demarcated along the watershed southeast to BP 1. This section of the watershed was ideal for triangulation and the topography in many

¹²⁶ SEC 3/289 vol. I and CO 795/67/6 Diagrams 1 and 2 in Appendix 1 ‘Triangulation data’ in Peake, E. *Final Technical Report* on BPs 1-11, 33-46 and 1-XXVIII, 1 Mar 1934; see also Peake 1934. p. 266.

¹²⁷ Peake, ‘Northern Rhodesia, Belgian Congo boundary,’ 276.

¹²⁸ Peake, ‘Northern Rhodesia, Belgian Congo boundary,’ 267.

¹²⁹ Peake, ‘Northern Rhodesia, Belgian Congo boundary,’ 267.

¹³⁰ Peake, ‘Northern Rhodesia, Belgian Congo boundary,’ 268.

places made the watershed line itself more visible than on the flat terrain farther west.¹³¹

By September 1931, Peake and Gendarme were negotiating the Mpanta meridian section. As had emerged earlier, the Luapula river crossed and re-crossed the meridian several times south of Mpanta point¹³² leaving small pockets of Belgian territory east of the meridian but west of the Luapula. Gendarme proposed that, in exchange for Belgium renouncing any claim to these areas east of the meridian, Britain should transfer sovereignty of Kilwa Island in Lake Mweru.¹³³ Oddly, Peake referred this proposal to the Chief Secretary of Northern Rhodesia, rather than to the CO, who scoffed at the idea: “It is obvious that Kilwa island in Lake Mweru would be of considerable value to the Belgian Congo but the adjustment of the Mpanta meridian, which the Belgians offer, is worth nothing to us.”¹³⁴ Even Gendarme must have believed there was no chance that Northern Rhodesia would agree to give up a strategically important island in Lake Mweru for two small areas of inaccessible swampland south of Lake Bangweulu. Instead, the boundary commission demarcated the meridian boundary section from BP 1 north to its first intersection with the Luapula river, as had been serving as the observed boundary.¹³⁵ Opposed to any adjustments along the meridian section, Governor Maxwell had observed back in 1928:

...I can see no advantage in disturbing a boundary, artificial though it may be, which has become known to the native population and is accepted by them...Tribal and family divisions have now adjusted themselves to the Mpanta meridian.¹³⁶

With the Belgian party demarcating southward from the Luapula and the British section working north from BP 1, the boundary commission continued from March to July 1932, erecting 28 main pillars.¹³⁷ This concluded one of the most detailed

¹³¹ Peake, ‘Northern Rhodesia, Belgian Congo boundary,’ 271-272.

¹³² Recall that the 1911-14 boundary commission had established the meridian of what was referred to as Mpanta point. However, several surveys had found that the Luapula river did not exit into Lake Bangweulu and instead disappeared into the swamps south of the lake. See especially Peake, ‘Northern Rhodesia, Belgian Congo boundary,’ 273 and W.V. Brelsford, ‘Making an outlet from Lake Bangweulu in Northern Rhodesia’ *The Geographical Journal* 106, no. ½ (1945): 50-58.

¹³³ RC/1348 Letter Peake to Chief Secretary NR, 2 September 1931.

¹³⁴ RC/1348 Letter Kennedy (NR Chief Secretary) to Peake, 24 September 1931.

¹³⁵ RC/1348 Letter Fairweather (NR Director of Surveys) to NR Chief Secretary, 12 March 1929.

¹³⁶ RC/1348 Letter Maxwell (NR Governor) to Amery (CO), 28 August 1928.

¹³⁷ SEC 3/289 vol. I and CO 795/67/6 ‘Triangulation data’ in Peake, E. *Final Technical Report on BPs* 1-11, 33-46 and 1-XXVIII, 1 Mar 1934; see also Peake 1934. p. 266 and 274.

demarcation exercises ever seen in colonial Africa. The Belgian Congo-Northern Rhodesia boundary from the tripoint with Angola to the Luapula river south of Lake Bangweulu was so clearly ‘known’ on the physical landscape that one could not fail to visually identify it and, if not careful, could have easily tripped over it if passing from one territory into the other.

Mweru-Tanganyika section

The complex dispute over the straight line boundary section between Lakes Mweru and Tanganyika continued for many years as the two sides failed to agree on the position of the eastern terminus at so-called ‘Cape Akalunga’ on the western shore of Lake Tanganyika. The borderland area along this section had never been closely administered by Northern Rhodesia and in the autumn of 1929 the Northern Rhodesia district commissioner based in Chiengi, J.B. Thomson, travelled through the border area and found that numerous villages located within the British-claimed territory, were being administered and taxed by Belgian authorities.¹³⁸ Thomson revealed that the tribes inhabiting these villages were under the control of chiefs located in the Belgian Congo, although noted: “Tribal organisation is lax all along the border and it is admitted that tribal boundaries were in a state of constant flux before European occupation of the country.”¹³⁹ Nevertheless, Thomson concluded that given the choice of moving to Belgian Congo territory or staying and coming under British administration, most of the villages would have preferred the former.¹⁴⁰ Not wanting to upset the situation on the ground, and aware that the Anglo-Belgian boundary commission was to address this section in the near future, Governor Maxwell informed the Colonial Office at the end of 1929 “that the matter be left in obedience until the boundary is definitely fixed.”¹⁴¹

In October 1931, Peake and Gendarme had jointly re-surveyed the area between the lakes¹⁴² and together they sketched out an entirely new boundary that followed a complex series of natural features, largely small streams and minor

¹³⁸ RC/1355 Report by J.B. Thomson to Provincial Commissioner, Fort Rosebery, 14 October 1929, paras. 1 and 4.

¹³⁹ RC/1355 Report by J.B. Thomson to Provincial Commissioner, Fort Rosebery, 14 October 1929, para. 4.

¹⁴⁰ RC/1355 Report by J.B. Thomson to Provincial Commissioner, Fort Rosebery, 14 October 1929, para. 4.

¹⁴¹ RC/1355 Letter Maxwell (NR Governor) to CO, 30 December 1929.

¹⁴² Peake, ‘Northern Rhodesia, Belgian Congo boundary,’ 274.

watersheds.¹⁴³ The Peake-Gendarme line, as it became known, gave each side largely an equal amount of territory when compared with a hypothetical mean straight line between the two claimed lines¹⁴⁴, but also involved Northern Rhodesia ceding Kilwa Island to Belgian Congo.¹⁴⁵ The proposal was studied in detail by the Northern Rhodesian Department of Native Affairs which fervently rejected the idea:

If the arrangements proposed by the Senior British Commissioner are carried out, the advantage will be entirely with the Belgians who will secure the bulk of the native population on the boundary line and the most habitable portions of the territory. Unless Northern Rhodesia is to gain advantages elsewhere, I do not recommend the acceptance of the proposals submitted. The straight line from Pweto to Cape Kipimbi [the original Belgian claim] would be better, so far as this Territory is concerned, in the matter of cultivable land and population.¹⁴⁶

Based on this advice, Maxwell informed the CO in December 1931 that Northern Rhodesia could not approve the Peake-Gendarme proposal, unless the Belgians could be persuaded to make major territorial adjustments to the Katanga pedicle; the long-held desire of Northern Rhodesia.¹⁴⁷ But Peake was adamant that the Belgians' would not agree to any adjustments: "As the Belgians appear to be quite averse to giving up any part of the 'Toe' [Katanga pedicle], in fact the Comite Special have been remapping that part of the Katanga and their prospectors have been busy in that area for some time, and in view of the above dispatch, I advocated the retention of the Mpanta Meridian as the Eastern boundary of the 'Toe'."¹⁴⁸ Given the mineral interests in Katanga, the Northern Rhodesia administration knew the Belgian government would not be persuaded to part with major areas in the Pedicle.

¹⁴³ RC/1349 vol. II 1:250,000 'Anglo-Belgian boundary, Proposed Adjustment' Sketch map illustrating the various proposed line adjustments and RC 1349 vol. II 1:200,000 'Commission de Delimitation, Moero-Tanganyika' Sketch map illustrating the Peake-Gendarme line.

¹⁴⁴ The eastern terminus of the Mweru-Tanganyika line was specified in the 1894 treaty at a place called 'Cape Akalunga' that neither administration was able to locate. Belgian officials believed that this was in reference to Cape Kipimbi at the north of Cameron Bay, while British officials claimed that 'Akalunga' referred to Cape Pungu located several miles north of Kipimbi.

¹⁴⁵ The Belgian Congo was eager to acquire Kilwa Island because the lake area west of the island was silting up requiring any boats to navigate through Northern Rhodesian waters to the east of the island. However, the island had a large population who were "especially attached to their British sovereignty, and who are presented with a British flag every year as an emblem of this loyalty" (RC/1349 CO *Note on the Anglo-Belgian boundary question*, November 1932).

¹⁴⁶ RC/1349 vol. II Report 'Anglo-Belgian Mweru-Tanganyika Boundary' Secretary of Native Affairs to NR Chief Secretary, 13 November 1931. para. 12.

¹⁴⁷ RC/1349 vol. I Letter Maxwell (NR Governor) to P. Cunliffe-Lister (CO), 8 December 1931.

¹⁴⁸ RC/1349 vol. I Letter Peake to Kennedy (NR Chief Secretary), 10 January 1932.

After completing demarcation of the meridian section in July 1932, Gendarme was instructed by the Belgian government to demarcate the Mweru-Tanganyika line in accordance with the October 1931 Peake-Gendarme proposal.¹⁴⁹ However, Peake had received no orders from the CO and was cognisant of the fact that Gendarme could not demarcate the boundary without his presence.¹⁵⁰ Confusing the situation further, the CO finally sent a telegram to Livingstone in early September stating that the British government was trying to negotiate with Belgium for a boundary adjustment in the pedicle area, but wanted to know which line the Belgian commission had been instructed to demarcate between the lakes.¹⁵¹ The CO then noted:

if it is not found possible to secure arrangement as to a major exchange question must be considered whether demarcation of northern boundary would be of sufficient utility to justify cost of further work.¹⁵²

In other words, if Belgium would not agree to adjustments in the pedicle area, the British government saw no point in demarcating this remote northern section. Crucially, by the time this message was sent, Peake and Gendarme had already completed demarcation of the Mpanta meridian, therefore any adjustments along the Pedicle would have required up-rooting the boundary pillars already in place and going against the express advice of local administrators.

The Northern Rhodesia administration still believed the Mweru-Tanganyika section should be demarcated (especially considering the encroachment by Belgian administration) but “in view of the uncertainty as to the result of negotiations which are now proceeding regarding proposed major exchanges and the fact that acceptance of the Belgian Government of such proposals as might receive your approval might now be agreed upon, it would be a waste of time and money to proceed further with the demarcation of that boundary.”¹⁵³ With the British section already fully supplied for several months’ fieldwork, Peake was instructed to continue surveying the area for three months while awaiting orders to demarcate.¹⁵⁴ The CO agreed to this suggestion

¹⁴⁹ RC/1349 vol. I Peake, E. *Report on activities and progress for the period 6 May 1932-25 July 1932*, 25 July 1932.

¹⁵⁰ RC/1349 vol. I Letter Peake to Kennedy (NR Chief Secretary), 5 August 1932.

¹⁵¹ RC/1349 vol. I Letter Kennedy (NR Chief Secretary) to P. Cunliffe-Lister (CO), 6 September 1932.

¹⁵² RC/1349 vol. I Letter Kennedy (NR Chief Secretary) to P. Cunliffe-Lister (CO), 6 September 1932.

¹⁵³ RC/1349 vol. I Letter Kennedy (NR Chief Secretary) to P. Cunliffe-Lister (CO), 6 September 1932. para. 2.

¹⁵⁴ RC/1349 vol. I Letter Kennedy (NR Chief Secretary) to P. Cunliffe-Lister (CO), 6 September 1932. para. 2.

but then through a series of telegrams it squabbled with Northern Rhodesia over who was to fund what had become simply survey work.¹⁵⁵ With the boundary commission just surveying the area for maps (that would primarily benefit the local administration) and not actually demarcating the boundary, the Colonial Office felt Northern Rhodesia should fund the entire cost of the commission during this period. Northern Rhodesia countered that the survey was simply a preface to boundary demarcation so it should continue to be funded evenly between the two administrations.

At the same time, the FO was conducting complex but largely unproductive negotiations with Belgium. At one point in September 1932, Belgium did agree to cede a small corner of the pedicle in return for acceptance of the Peake-Gendarme line between Mweru and Tanganyika. However, since Northern Rhodesia had already rejected the Peake-Gendarme line, and the small area of the pedicle along the meridian being offered was of little use for improving transportation routes, the FO could not agree.¹⁵⁶ These negotiations continued to drag on through the mid-1930s, but no agreement on the Mweru-Tanganyika section, or on any adjustments to other sections was ever reached.¹⁵⁷ They are interesting in their own right and might warrant additional analysis, but since the discussions never affected the physical demarcation of the boundary they are beyond the scope of this research.

The calamitous narrative of the Mweru-Tanganyika boundary section highlights two very important issues. First, the correspondence between the FO, CO and the Northern Rhodesia administration reveals the inherent tension in dealing with boundary issues within a British colonial system that gave significant autonomy to local administrations. The issue of who was sovereign authority and able to make decisions on boundary demarcation seemed to get lost. The CO kept requesting information and opinions from Northern Rhodesia, but the administration in Livingstone felt it could not instruct Peake without express consent from London. The issue of funding the boundary commission highlighted this tension most clearly. If the boundary commission was only undertaking topographic survey for mapping, then the

¹⁵⁵ RC/1349 Correspondence between CO and Northern Rhodesia, September 1932.

¹⁵⁶ RC/1349 CO 'Note on Anglo-Belgian boundary question', November 1933.

¹⁵⁷ So complex were these negotiations that the correspondence was collected and bound by the Colonial Office in two Confidential Print series. '*Northern Rhodesia-Belgian Congo Boundary Commission and Proposals for Exchange of Territory 1925-37*' located in CO 879/131 and '*Northern Rhodesia-Belgian Congo Boundary Commission and Proposals for Exchange of Territory 1937-38*' in CO 879/140.

imperial government felt the Northern Rhodesia administration should cover the bill. If the boundary commission was undertaking boundary demarcation of sovereign territory, then the funding should be shared between them.

Second, and more significantly, the vignette perfectly illustrates a complete disparity in geographic perspective when compared with the other boundary sections. The great emphasis on clearly demarcating the boundary along the watershed and meridian sections was tied directly with the economic resources in the border landscape. The border area between Lakes Mweru and Tanganyika did not possess any proven mineral resources¹⁵⁸ and the only appeals for boundary demarcation came from the local administrators. Indeed, the Northern Rhodesia Secretary for Native Affairs advised Governor Maxwell that even the ‘straight line’ advocated by Belgium would have sufficed as long as it was demarcated, even though “the cost of surveying a straight line might cost more than the land in dispute is worth.”¹⁵⁹

Recalling the long history of negotiations going back before the 1911-14 boundary commission, the Colonial Office still saw major territorial concessions in the Katanga pedicle as the primary goal in order to alleviate the transport issues between the two territorial ‘halves’ of Northern Rhodesia. The only perceived ‘value’ of the Mweru-Tanganyika borderland was as a bargaining chip for gaining the more ‘valuable’ area in the Pedicle. This reflects the retention of the small scale, imperial perspective whereby the pedicle appeared as a territorial wedge disturbing what might be perceived on a small scale map as the territorial cohesion of eastern and western Northern Rhodesia.

The Northern Rhodesia administration certainly would have preferred to have had major territorial adjustments in the pedicle, but it knew, just as well as Peake, that there was no chance of Belgium agreeing any major adjustments given the presence of copper resources. Instead, Livingstone was more concerned with getting a workable and demarcated boundary between the lakes, to the point of accepting the Belgian claim of the straight line from Lake Mweru to Cape Kipimbi, which it believed gave better quality land for future settlement when compared with the Peak-Gendarme line. This perspective was of a larger scale, informed by an understanding

¹⁵⁸ RC/928 Letter J. Austen Bancroft (Rhodesia Anglo-American Ltd.) to Baird (local BSAC secretary), 9 July 1930.

¹⁵⁹ RC/1349 Vol. I Draft letter from Maxwell (NR Governor) to Cunliffe-Lister (CO), 20 November 1931.

of where villages were positioned, the tribal connections in Belgian Congo, existing/observed *de facto* boundaries and the responsibility of local administration.

Influence of economic geography on colonial boundary demarcation in southern Africa

An underestimated influence

Most boundary studies, especially of African boundaries, only hint at the role economic geography played in boundary demarcation. Confusingly, Prescott and Triggs cite Laws¹⁶⁰ and Peake¹⁶¹ in their recent work and state “how the boundaries separating the former Belgian Congo from British Northern Rhodesia and Tanganyika were only delimited when copper and tin deposits were discovered in the borderland and companies needed certainty about the extent of Belgian and British authority.”¹⁶² This is an overly simplistic statement that actually dates back to a 1965 quote by Prescott where in fact the phrase was originally worded “...the boundaries separating the former Belgian Congo from Northern Rhodesia and Tanganyika remained undemarcated until copper and tin mining made demarcation essential if major disputes were to be avoided.”¹⁶³ It seems remarkable that Prescott and Triggs should have used the term ‘delimited’ when clearly Prescott’s earlier use of these citations was in describing ‘demarcation’, two terms that he has clearly elucidated.¹⁶⁴ The statement also overlooks the initial demarcation of the Belgian Congo-Northern Rhodesia that was not motivated by mining interests. Perhaps the re-phrasing and dismissal of the initial demarcation were in error, but Prescott and Triggs do not give justice to the complexity of the historical narratives of the specific cases and the theoretical underpinnings of boundary-making processes. Significantly, they also miss the opportunity to reflect in more detail on the influence that economic resources had on those processes, particularly in the colonial context.

¹⁶⁰ J.B. Laws, ‘A minor adjustment to the boundary between Tanganyika territory and Ruanda’ *Geographical Journal* 80, no. 3 (1932): 244-247.

¹⁶¹ Peake, ‘Northern Rhodesia, Belgian Congo boundary.’

¹⁶² J.V. Prescott and G. Triggs *International Frontiers and Boundaries: Law, Politics and Geography* (Leiden: Koninklijke Brill NV, 2008), 67.

¹⁶³ J.R.V. Prescott, *The Geography of Frontiers and Boundaries* (London: Hutchinson & Co., 1965), 70.

¹⁶⁴ Prescott, *The Geography of Frontiers and Boundaries*, 70-71.

In truth, across British colonial territories in southern Africa, the influence of mineral deposits on boundary demarcation was pervasive. The BSAC appealed to the FO in 1902 for demarcation of the boundary between North Eastern Rhodesia and Portuguese East Africa (Mozambique) arguing: “This line passes through mineralised areas and the North Charterland Exploration Company cannot tell where limits of their concession.”¹⁶⁵ As the highest ranking British surveyor in colonial Africa, Sir David Gill along with his German counter-part A.V. Danckelman made the connection between mineral resources and boundary demarcation absolutely explicit in their Explanatory Memorandum that accompanied the instructions given to the 1898-1902 Anglo-German boundary commission in South West Africa:

Having regard to the possibility that a diamond or gold mine might be found near the boundary, the existence of which might lead to the most serious disputes if any but a really definitive and final method of demarcation were resorted to, we are further confirmed by this consideration in the plan which we have recommended.

In Article 6 however, we have avoided defining the distance apart of the beacons which are to be erected on the boundary, - and we understand that in the desert region of the boundary such beacons are to be placed only at very wide intervals but such that in the event of valuable mines being found near the boundary there would be no difficulty in beaconing it more closely.¹⁶⁶

As Prescott and Triggs indicate, the 1931 Anglo-Belgian demarcation of the Kagera river section of the Ruanda-Tanganyika boundary was instigated by the presence of the Ankole-Karagwe tinfield.¹⁶⁷ Laws outlined how the commission altered the delimited boundary from the indistinct course of the Kagera river through dense swamps, to a series of ‘straight lines’ between observable pillars located on islands or high ground within the swamps. In addition to giving “assurance” to local populations that one side of the swamp was Belgian and the other British, Laws concluded “the line joining the intervisible pillars provides the owner of a mining

¹⁶⁵ NRA 3/1/2 3949 Letter J.F. Jones (BSAC) to FO, 24 March 1902.

¹⁶⁶ H. Laffan, L. Wettstein, Doering and D. Gill, *Report: The Boundary Survey between British Bechuanaland and German South West Africa* (Berlin: Government publisher, 1906), 6.

¹⁶⁷ Prescott and Triggs, *International Frontiers and Boundaries*, 67. See also A.C. McEwen, *International Boundaries of East Africa* (London: Oxford University Press, 1971), 156.

concession a permanent boundary which he can re-establish at any point when it is required.”¹⁶⁸

When the BSAC obtained an estate property along the boundary between Northern Rhodesia and Tanganyika in 1934, it was discovered that the old Anglo-German boundary had effectively disappeared from the landscape. Northern Rhodesia’s director of surveys, William Fairweather placed blame squarely on the 1898 Anglo-German boundary commission having left “indefinite, impracticable and almost wholly valueless demarcation of the watershed portions where the boundary in addition to being that between two territories is also that of a privately owned estate.”¹⁶⁹ In approving plans for more rigorous demarcation, the British Army Council indicated that “The British South Africa Coy. [*sic*] Boundary coincides with the inter-colonial boundary, and they are, therefore, unable to sell any land adjacent to their boundary with any degree of certainty as to its extent in a northerly direction.”¹⁷⁰ Although Fairweather had condemned the 1898 demarcation of the entire boundary, only the section that coincided with the BSAC estate was re-surveyed and demarcated in 1937 by a BSAC surveyor. Although there were no mineral resources involved, the fact that the BSAC estate was being apportioned to sell white farm properties motivated the re-demarcation of the boundary.

The Manica section of the boundary between Southern Rhodesia and Portuguese East Africa (Moçambique) was first surveyed by an Anglo-Portuguese boundary commission in 1892, precipitated by white mining and farming in the area.¹⁷¹ A dispute over its alignment prompted international arbitration in 1897, after which the BSAC administration in Rhodesia was so eager for demarcation because of mining concessions that they offered to use their own surveyors.¹⁷² A second Anglo-Portuguese commission in 1898 failed to demarcate the Manica section clearly, and did not demarcate along northern boundary sections primarily because the area had not received any applications for white farms.¹⁷³ Finally, from 1933-37 a third Anglo-Portuguese boundary commission demarcated the Manica boundary section with

¹⁶⁸ Laws, ‘A minor adjustment to the boundary between Tanganyika territory and Ruanda,’ 247.

¹⁶⁹ SEC 3/263 vol. II Letter Fairweather to Chief Secretary NR, 2 January 1934.

¹⁷⁰ SEC 3/263 vol. II Army Council Memorandum accompanying Letter Widdows (WO) to CO, 3 Nov 1933.

¹⁷¹ P. Warhurst, ‘A troubled frontier: North-eastern Mashonaland, 1898-1906’ *African Affairs* 77, no. 307 (1978): 214-229. p. 214.

¹⁷² FO 63/1435 Letter Milner to Chamberlain,

¹⁷³ Warhurst, ‘A troubled frontier,’ 215-216.

some 335 main and auxiliary boundary pillars, most of which were located less than 500 metres apart.¹⁷⁴ There is little doubt that the re-demarcation in 1933-37 was a direct result of the increasing number of mining concessions and white-owned farms in the Manica region, a scenario eerily similar to the situation along the Belgian Congo-Northern Rhodesia boundary.

In 1939 Northern Rhodesia's Commissioner for Lands, Mines and Surveys commented on proposals for demarcation of Northern Rhodesia's boundary with Angola along the high-water bank of the Kwando river saying: "refinement is not at present necessary and would only become necessary in the unlikely even of considerable development, such as mineral development, taking place in that locality."¹⁷⁵ Winterbotham had suggested a decade earlier that the Kwando border only required survey by air, concluding "The country is, I understand, of small value, but of a kind and climate unsuitable for prolonged survey."¹⁷⁶ In all of these scenarios, only those boundary sections in areas that possessed mineral resources or white-owned farm properties were subject to rigorous demarcation, making them known on the physical landscape.

Postcolonial reflection on colonial boundary demarcation techniques

Certainly other factors, such as the more general penetration of colonial administration, may have influenced boundary demarcation in other contexts. However, the Belgian Congo-Northern Rhodesia context reveals a disparity in techniques of demarcating territory when required for the administration of local populations and when required by economic interests. If the model of state sovereignty that was being exported to colonial Africa contemplated territory as a two-dimensional constant, as evidenced by its expression in small scale mapping seen in Chapter 4 and whose theoretical underpinnings were examined in Chapter 2, how can this disparity in demarcation techniques be interpreted? If territorial sovereignty was considered a constant, would not the techniques for boundary demarcation also be constant, treating every square inch of territory the same as the next?

¹⁷⁴ International Boundary Study (IBS), *No. 118 Mozambique-Zimbabwe Boundary* Office of the Geographer, United States Department of State (1971), 12-17; see also I. Brownlie, *African Boundaries: A Legal and Diplomatic Encyclopaedia* (London: C. Hurst and Co., 1979), 1227-1235.

¹⁷⁵ SEC 3/293 Letter Eccles to NR Chief Secretary, 21 Jan 1939.

¹⁷⁶ RC/1350 Letter Winterbotham to NR Chief Secretary, 7 June 1929.

The change in demarcation techniques along the Belgian Congo-Northern Rhodesia boundary after the influence of copper production, reveals how the perceived economic geography of border landscapes became a dominant influence on way the British imperial metropole came to make its inter-colonial boundaries ‘known,’ thereby reflecting its perception of colonial territory in Africa. The 1911-14 Anglo-Belgian boundary commission had left a boundary that was known only through the privileged medium of cartography, representing territory as a two-dimensional, constant plane.

But the disparity goes beyond the difference between the two Anglo-Belgian boundary commissions to include the huge difference in the work of the second commission alone, which clearly demarcated watershed and meridian sections, and left the Mweru-Tanganyika section undemarcated. The border region between Lakes Mweru and Tanganyika was of low administrative importance where the only concern was administration of ‘native’ populations. Likewise, demarcation of the boundary was a low priority; the division of territorial administration remained a nebulous zone or frontier. However, in border areas with mining concessions or white-owned farming interest, such as the Congo-Zambezi watershed, boundary demarcation generated significant attention from the imperial government and the division of territorial administration had to be a clearly defined line or boundary. The ‘imperial’ moment, with its boundary imagined on small scale maps, gave way to what can be described as the ‘colonial’ moment in the demarcation narrative, whereby territory required clearly defined jurisdictional limits in order to facilitate more efficient exploitation of economic resources.

The significance of this disparity in demarcation can be engaged with more critically through recent postcolonial discourses. In Mahmood Mamdani’s work *Citizen and Subject*, he refers to the colonial state as “bifurcated,” within which white/European settlers were governed under direct rule, participating in their own governance with rights of citizenship as well as the benefits of land appropriation.¹⁷⁷ Under the same system, the ‘native’ population was subject to indirect rule marked by the imposition of ‘customary law’ where “land remained a communal – ‘customary’ – possession.”¹⁷⁸ However, Mamdani argues that this enforcement of ‘customary’ or

¹⁷⁷ M. Mamdani, *Citizen and Subject* (Princeton: Princeton University Press, 1996) 16-17.

¹⁷⁸ Mamdani, *Citizen and Subject*, 17.

communal land holding both reflected and led to three characteristics of institutional rule in colonial Africa:

1. the ‘containerisation’ of the individual whereby identity shifted from a ‘native’ to being a ‘tribesperson’ as British colonial rule sought to civilise African ‘communities’ rather than individuals.
2. the ‘customary tradition’ or monarchical/patriarchal ‘custom’ privileged by colonial administrations was the least deeply engrained in pre-colonial Africa and was ill-defined which created disagreement about its definition prior to enforcement.
3. customary rule was marked by force, that could be backed up by the direct rule of the colonial administrations that were often de-centralised.¹⁷⁹

Mamdani considers that pre-colonial Africa did not have a single model of political organisation although “the transition from tribal to state organisation has often been conceptualized as one from kinship to a territorially based authority.”¹⁸⁰ Instead, he argues that tension between clan (kinship) and administrative (territorial) based political institutions existed long before European involvement in Africa.¹⁸¹ This meant there were no overriding ‘customary’ centralised institutions with exclusive jurisdiction, as was created by the colonial administrations in ‘native authority,’ and “like with rights over land and natural resources, jurisdiction over persons was likely to be multiple and not exclusive.”¹⁸² The ‘communal’ rights to territory essentially came to be dictated by the ‘customary’ ruler within the auspices of indirect rule.

Achille Mbembe reflects in his 2001 work *On the Post-Colony*, that the imposition of European colonial rationality rested on what he called ‘commandement’ which included the classification of people based on their perceived “value.”¹⁸³ In the same way people were classified based on their “value”, the narrative of the Belgian Congo-Northern Rhodesia boundary suggests so was land and, consequently, the perception of territory. Mbembe goes even further in explaining that commandement

¹⁷⁹ Mamdani, *Citizen and Subject*, 22-23.

¹⁸⁰ Mamdani, *Citizen and Subject*, 41.

¹⁸¹ Mamdani, *Citizen and Subject*, 42.

¹⁸² Mamdani, *Citizen and Subject*, 48.

¹⁸³ A. Mbembe, *On the Postcolony* (Berkeley: University of California Press, 2001), 29.

was rooted on “a very specific imaginary of state sovereignty”¹⁸⁴ not attached to people but related solely to territory:

The colonial space had its space, its shape, its borders. It had its geological make up and its climates. It had its resources, its soils, its mineral, its animal and plant species, its empty lands. In short, it had its qualities.¹⁸⁵

He suggests that while in pre-colonial Africa “the idea that political power and sovereignty were closely associated with land was not unknown,” territory was not the exclusive mark of sovereignty; that pre-colonial African space was represented in other ways relating to notions of exclusion and belonging, often linked to protection from capture for slavery.¹⁸⁶ In this regard, for pre-colonial African political entities “attachment to the territory and to the land was entirely relative”¹⁸⁷ while the colonial imposed model of territorial sovereignty required this relationship to be exclusive; expressed in the form of boundary demarcation when the land possessed economic value.

This notion recalls a quote by Gathii (see Chapter 2) in his review of the 1999 Botswana-Namibia case over Kasikili/Sedudu island which outlines the way modern international law has developed: “law on title to territory is subtly-laced with an implicit evolutionary or hierarchical subtext that characterises non-European relations to land as primitive and as such not capable of creating a legal title.”¹⁸⁸ The fact that these economic activities in the borderland areas were being conducted by white Europeans is certainly influential and worthy of more reflection. But considering the focus of this study, the influence was not just who was undertaking these activities on the land, it was the nature of the activities themselves. Just as the colonial system applied different political systems to people based on ‘value’, boundary demarcation reflects that land itself was defined differently based on its proven and perceived economic value. This conveys the deep penetration of Lockean concepts of land on the British colonial perception of territory, whereby ‘wasted’ land only became property through the exclusivity of labour imposed upon it.¹⁸⁹

¹⁸⁴ Mbembe, *On the Postcolony*, 25.

¹⁸⁵ Mbembe, *On the Postcolony*, 32.

¹⁸⁶ Mbembe, *On the Postcolony*, 70.

¹⁸⁷ A. Mbembe, ‘At the edge of the world: boundaries, territoriality and sovereignty in Africa’ trans. S. Randall *Public Culture* 21, no. 1 (2000): 259-284. p. 263)

¹⁸⁸ J.T. Gathii, ‘Geographical Hegelianism in territorial disputes involving non-European land relations: an analysis of the case concerning Kasikili/Sedudu’ *Leiden Journal of International Law* 15 (2002): 581-622. 583.

¹⁸⁹ J. Locke, *The Second Treatise of Civil Government* (Oxford: Basil Blackwell, 1946), 25-26.

Prescott and Triggs missed the opportunity to highlight how powerfully the economic perception of colonial land in Africa participated in the boundary-making practices. The narrative of the Belgian Congo-Northern Rhodesia boundary through the two demarcation commissions clearly conveys the predominate influence of the Lockean concept of land usage on imperial perceptions of African territory. Land that was being productively used for economic gain required linear boundaries that were clearly known on the physical landscape; the exclusivity of territorial and property rights clearly demarcated to ensure efficient exploitation of resources. Land with no economically productive capacity could be left with linear boundaries known only through cartographic representation and made known on the ground only in the presence of valuable resources. Without economic resources, the local division of colonial authority over local populations was left indistinct on the ground, often observed as zones, or, to recall the term from Chapter 2, ‘frontiers’ that were assumed to be part of ‘traditional’ rule in pre-colonial Africa and believed by boundary scholars to be indicative of more primitive politico-geographical entities.

6. Boundary demarcation in independent Zambia

“We underscore the relevance of the African Union Border Programme based on the need:

a. to address the persistence of the border delimitation and demarcation issue; Subject to an inventory to be undertaken, it is estimated that less than a quarter of African borders have been delimited and demarcated. This situation is fraught with risks, as the lack of delimitation and demarcation gives rise to ‘undefined zones’ within which the application of national sovereignty poses problems, and constitutes a real obstacle to the deepening of the integration process”

African Union Border Programme (AUBP)

Introduction

As revealed in Chapter 4, the early demarcation of the Belgian Congo-Northern Rhodesia certainly provided little knowledge of the boundary on the ground and there was little administrative influence that might have enforced the boundary through actual control across its full length. Quite the opposite, the limited colonial administration in border areas often reflected a distinctly zonal character as revealed in Chapter 5; administrations separated by spatial frontiers rather than linear boundaries. It was shown in Chapter 5 that the later demarcation of the watershed and meridian sections certainly exhibited the boundary as a visible characteristic of the landscape which, irrespective of acts of actual control, provided knowledge of the boundary that was intended to influence activity in the borderland area.

Clearly, the activity meant to be influenced by the later demarcation of the Belgian Congo-Northern Rhodesia boundary was the exploitation of raw natural resources. As the post-colonial insights from Mamdani and Achebe suggest, this was largely characteristic of British administration over ‘territory’ in colonial Africa. Given the model of territorial sovereignty examined in Chapter 2, particularly in the post-1945 development of international law, linear boundaries provide for the most efficient administration of resources as well as populations. With that model in mind, it is reasonable to expect that the early post-independent Zambia government would have been eager to maintain the visibly known boundary as definition of its territorial inheritance; as an essential component of its introduction into the community of recognised modern states. Even if the post-independence motivations for exhibiting administrative control were less economically focused, clearly defined boundaries of territory could have had indirect influence on borderland administration particularly when, as in the case of Zambia, the immediate post-independence administrative structure included a limited cadre of experienced staff. However, this chapter will show that the maintenance of boundary demarcation after the 1933 Anglo-Belgian boundary commission was left largely ignored by subsequent government administrations.

This chapter will begin by reviewing the demarcation maintenance procedures undertaken by the Northern Rhodesian (and the Federation of Rhodesia and Nyassaland) colonial administration leading up to independence in 1964. With the

lack of available documentary evidence of demarcation methodology post-1964, the narrative up to the present day will be constructed from dialogue with relevant government officials and a site visit to two boundary pillars as discussed in Chapter 3. Not only will this complete the demarcation narrative by understanding how sections of the boundary currently appear on the physical landscape, it will also reveal how the mining industry continues to participate in the sovereign process of demarcation. It is just as valuable to understand why a boundary section has been left undemarcated, so this examination of the watershed boundary section will be contrasted with the undemarcated section between Lakes Mweru and Tanganyika. Although reportedly delimited in 1989, it will be shown how the lack of demarcation has led to periodic disputes, sometimes resulting in violence.

The lack of demarcation along the DRC-Zambia boundary after 1933 and since Zambian independence, either through neglect of inherited colonial demarcation or the continued lack of initial demarcation, is generally representative of other post-independent African state practice. Likewise, the Zambian practice posits valuable insight into more general discourses on African boundaries. Examining the issues that have affected the on-going process of boundary demarcation particularly in the post-independence context will help expose some of the issues in the tense relationship between independent African political institutions and their inherited territory.

Maintaining the boundary line until Zambian independence

When the demarcation results of the second Anglo-Belgian commission for BPs 11-33 was agreed in the 1933 exchange of notes, the two imperial governments agreed to be responsible for annual maintenance of the boundary pillars, and clearing bush to keep the pillars inter-visible.¹ Because of the dense vegetation along many sections of the boundary, particularly in the Copperbelt area, inter-visibility between boundary pillars could quickly disappear, obscuring the boundary as a visually perceived line. Northern Rhodesia was responsible for boundary maintenance between BPs 11-24 and 31-33, while Belgian Congo took responsibility for BPs 24-31.² It was also agreed that the two governments would undertake a joint perambulation of the entire

¹ See Appendix for full text.

² See Appendix for full text.

demarcated boundary every 10 years, beginning in 1938. In spite of these detailed provisions, there was a mixed response by the colonial administrations to maintaining the boundary pillars and keeping the line cleared of undergrowth. The Northern Rhodesia administration appropriated funds for boundary maintenance in 1933 but not in 1934, while Belgian Congolese officials undertook clearance in 1935.³

By October 1942 the Northern Rhodesia commissioner of forests, C.E. Duff, advocated clearance of the boundary between BPs 20-21 as it had become overgrown.⁴ Duff argued that clearance of undergrowth could be undertaken by a forest ranger, but if this was not undertaken soon, the boundary would effectively disappear from the landscape requiring a more expensive re-survey.⁵ Perhaps because of events in Europe, the 1938 joint perambulation never took place and any maintenance or clearance appears to have been undocumented. However, the issue was raised again in early 1956 when officials in the survey department alerted the Ministry for External Affairs that there had been reports of broken boundary pillars and noted that the next scheduled ten-year joint perambulation was due to take place in 1958.⁶ Although not stated explicitly, the correspondence suggests that no perambulation took place in 1948. Another official in the Ministry for Health, Lands and Local Government had also noted in November 1954 that several boundary pillars were broken and needed replacing. However, it was felt that pillars could only be rebuilt after the joint inspection had taken place.⁷ There is no record in any of the archives researched of a joint perambulation ever having taken place prior to Zambian independence in October 1964. Given the international nature of such an exercise, it is very likely that records would confirm if it had ever taken place.

Questions over boundary definition with Belgian Congo did perpetuate between 1945 and 1964. There were extensive negotiations in the late 1950s about the position of the boundary in Lake Mweru, especially around Kilwa island since silt was building up on its western side, potentially linking it with the Belgian Congo shoreline and requiring Congolese vessels to navigate through Rhodesian waters when transiting to Mpweto.⁸ There were proposals for minor boundary adjustments in the

³ SEC 3/293 Prov. Comm to Chief Secretary, 30 October 1942.

⁴ SEC 3/293 Report by C.E. Duff, 19 Oct 1942.

⁵ SEC 3/293 Report by C.E. Duff, 19 Oct 1942.

⁶ WP 1/14/36 Letter Federal Survey Adviser to the Minister for External Affairs), 26 April 1956.

⁷ WP 1/14/36 Letter P. Bennett to Heathcote, 24 May 1956.

⁸ See SEC 3/292 Correspondence between the Federal Ministry of Land and Local Government and the Ministry of External Affairs, 1958-59.

Mokambo and Nkana areas, as well as extensive negotiations concerning Zambian rights along the so-called ‘Pedicule Road’ and the lingering question concerning the undemarcated Mweru-Tanganyika section that continued without resolution.⁹ Given these continued negotiations about possible boundary adjustments, it is unsurprising that no joint perambulation and reconstruction of boundary pillars was ever undertaken prior to independence.

Maintenance of boundary demarcation only reappears within the colonial administrative records in early 1964 when the Senior Provincial Commissioner (SPC) in Ndola was approached by R.S.T. Mine Services to clear the boundary between BPs 15 and 22 along their Mufulira Special Grant area.¹⁰ The SPC had received a bid from a private survey company (C.J. Surveys Ltd) to clear this boundary section for a total cost of £626.¹¹ The Northern Rhodesia administration did annually allocate funds for boundary clearance and in 1964 that amount was £1,100, divided between the provincial commissioners at Ndola (£600) and Solwezi (£500) to clear the entire watershed boundary section with Belgian Congo.¹² The SPC appealed to Lusaka for the £626 on top of the normal £600 budget so that this specific section between BPs 15-22 could be better cleared by the survey company. He noted in his request:

I have been requested by R.S.T. Mine Services Ltd to clear the border in this area and funds warranted to me of £600 for the whole of the border are insufficient to provide for the standard of clearing required.¹³

But the Northern Rhodesia administration was puzzled why the job could not be undertaken with local labour instead of being tendered out to such an expensive contractor.¹⁴ The Office of the Prime Minister also enquired when the boundary had been last cleared and by what method. The Senior Provincial Commissioner responded that the meagre budget he was allocated for clearance only provided for the burning of brush along the boundary. This technique had been so crude that “in

⁹ For a summary of the situation see SEC 3/292 Meeting minutes, 8 August 1958 ‘to consider proposed negotiations with the Belgian government on the question of the Pedicle Road in relation to certain matters concerning the Northern Rhodesia/Belgian Congo boundary’ and SEC 3/292 Memoranda accompanying A.C. Ganimara, Zambia Chief Secretary to all ministries, 1 July 1958.

¹⁰ FA 1/1/3 Letter SPC, Ndola to Permanent secretary, Office of the Prime Minister, Lusaka, 26 February 1964.

¹¹ FA 1/1/3 Letter Moses to Senior Provincial Commissioner, Ndola, 21 February 1964.

¹² FA 1/1/3 Letter Finance Office to Under Secretary for Provincial Affairs, 18 April 1964.

¹³ FA 1/1/3 Letter SPC, Ndola to Permanent secretary, Office of the Prime Minister, Lusaka, 26 February 1964.

¹⁴ FA 1/1/3 Notes from Secretary of the Cabinet, Prime Minister’s Office, 9 March 1964.

consequence, it can be said that there is no clear definition of the border.”¹⁵ The £626 for the contracted clearance was allocated by the administration but it was unable to provide the normal £600 budget allocation, suggesting “Within the limits of the funds provided you must decide which particular areas should be given priority for clearance.”¹⁶ (Letter N. McClelland, Office of the Prime Minister to Senior Provincial Commissioner, Ndola 14 July 1964 FA 1/1/3).

There are two issues at play in the maintenance regimes put in place by Northern Rhodesia between the end of the second Anglo-Belgian boundary commission in 1933 and Zambian independence in 1964. First, the clearance of bush between boundary pillars to maintain inter-visibility between the pillars was established under the 1933 agreement as a unilateral exercise, with each side allocated a specific stretch of the boundary. However, it appears that only a very limited amount of boundary clearance was undertaken with any regularity by Northern Rhodesia and any clearance of a higher ‘standard’ was reserved for areas of mining interests. Second, the limited archival material suggests that Northern Rhodesian officials were reluctant to repair the boundary pillars themselves, even though the 1933 treaty explicitly stated that both sides would be responsible for “the boundary pillars to be maintained in a proper state of repair” along their respective sections.¹⁷ Perhaps such an act was believed to be an inherently bilateral operation, necessitating participation of Belgian officials in a joint perambulation. Both operations, the clearance of the boundary as a horizontal line-of-sight and the maintenance of the verticality of boundary pillars, constructed the theoretical characteristics of the boundary as linear and fixed. However, the inherent bilateral nature of boundaries may have imbued an almost sacred quality to the pillars themselves; suggesting they were the actual physical containers of both neighbouring sovereignties and could only be repaired with the consent or direct participation of both states.

¹⁵ FA 1/1/3 Senior Provincial Commissioner, Ndola to Secretary to the Cabinet, PM Office Lusaka, 3 April 1964.

¹⁶ FA 1/1/3 Letter N. McClelland, Office of the Prime Minister to Senior Provincial Commissioner, Ndola, 14 July 1964.

¹⁷ Art. 10, Enclosure in No. 1, Appendices VI-VIII, 7 April 1933 Anglo-Belgian Exchange of Notes. See Appendix for full text. Also reproduced in I. Brownlie, *African Boundaries: A Legal and Diplomatic Encyclopaedia* (London: Hurst and Co., 1979), 729.

What can happen without demarcation: the Mweru-Tanganyika section after independence

The dispute over the undemarcated Mweru-Tanganyika section of the Belgian Congo-Northern Rhodesia boundary continued long after the second Anglo-Belgian boundary commission was so ignominiously disbanded in 1934. Although interrupted by the Second World War, the complex negotiations continued through the 1940s, 1950s and 1960s. The exact course of these negotiations is well beyond the scope of this work, but is documented in various archival files. Both sides retained their original claims to the disputed eastern terminus on Lake Tanganyika, while the British and Northern Rhodesian administrations continued to press for territorial concessions within the Congolese ‘pedicle’. While these negotiations dragged on for decades, this boundary section remained undemarcated on the physical landscape.

The suppression of revolts in Katanga (also known as Shaba) province in 1963, 1977 and 1978 often led to minor border problems, caused by refugee movements and mistreatment of Zambians travelling through the pedicle by Katangan forces who were faced defeats on other fronts.¹⁸ But it was the undemarcated Mweru-Tanganyika section that provoked tension in August 1980 when Zambia accused Zaire of establishing a border post some 30 km within Zambian claimed territory in the Kaputa area on the western end of the Mweru-Tanganyika section near Lake Mweru. The *de facto* boundary in this area had been observed along the Luchinda river since at least 1929, and there were other enclaves of Congolese controlled areas all along this section. In 1961 the Provincial Commissioner in the area reported that while the Congolese enclaves made the Mweru-Tanganyika boundary section “nebulous”, the *de facto* boundary south of Kaputa and the tolerance of the enclaves caused no administrative problems.¹⁹ In the context of boundary negotiations he had suggested to ‘let sleeping dogs lie.’²⁰

¹⁸ M.C. Musambachime, ‘Military Violence against Civilians: The Case of the Congolese and Zairean Military in the Pedicle 1890-1988’ *The International Journal of African Historical Studies* 23, no. 4 (1990): 643-664.

¹⁹ FA 1/1/3 Correspondence Button, Provincial Commissioner to Ministry of Native Affairs, March and April 1961.

²⁰ FA 1/1/3 Correspondence Button, Provincial Commissioner to Ministry of Native Affairs, 17 April 1961.

There were a number of reported problems along the boundary after 1961²¹, which even prompted the Zambian Surveyor General and Permanent Secretary in the Ministry of Lands and Natural Resources to propose setting up a boundary commission in August 1966 to demarcate the disputed Mweru-Tanganyika section.²² However, no commission was ever established and tensions escalated rapidly again in early 1982 when a series of skirmishes erupted in the Kaputa area (Allcock et al 1992, p. 321). The tension soon spread to the watershed section where exchanges of fire reportedly took place in February and March 1982 including several deaths.²³ Although a prisoner release was organised in April 1982, tensions continued as Lusaka radio claimed in June that two more Zairean border posts had been established within Zambian territory in the Kaputa area, and in September that tourists had been abducted by Zairean forces also in the same area.²⁴

Problems occurred along all Zaire-Zambia borderland areas continued for several years, often blamed on the accusations of territorial violations by Zairean forces and on increased banditry and smuggling that supposedly prompted increased Zambian forces in the border areas.²⁵ Most of the cross-border problems remained concentrated around the Kaputa area, but smaller incidents were reported on Kilwa island, along the Luapula river and in the Copperbelt area. Some of these skirmishes resulted in the sending of troops to the area, but none appears to have escalated into large-scale military operations. Although the respective presidents, Mobutu Seso Seko of Zaire and Kenneth Kaunda of Zambia met several times during the period of tensions, no agreement on defining the Mweru-Tanganyika section was reached. Documents from the US Department of State indicate that Zaire and Zambia had set up a joint technical committee to settle the disputed Mweru-Tanganyika section during the tensions in 1982. On 20 December 1987, Zambian cabinet secretary Charles Manyema stated that this committee had reached agreement on how the Mweru-Tanganyika boundary section should be demarcated, but their recommendations still had to be approved by Kaunda and Mobutu.²⁶ Over the

²¹ See especially incidents from 1965 to 1967 documented in NAZ file FA 1/1/67.

²² FA 1/1/67 Letter Copeland, SG to Office of the President, 18 August 1966 and Letter Permanent Secretary, Ministry of Lands and Natural Resources to Ministry of Foreign Affairs, 2 November 1966.

²³ J. Allcock, G. Arnold, A. Day, D. Lewis, L. Poultney, R. Rance and D. Sagar, *Border and Territorial Disputes Third Edition* (London: Longman Group, 1992), 321.

²⁴ Allcock, *Border and Territorial Disputes Third Edition*, 321.

²⁵ Allcock, *Border and Territorial Disputes Third Edition*, 321.

²⁶ US Department of State communiqué (confidential telegram) from Lusaka embassy, 21 December 1987.

following year, Kaunda was quoted several times saying that the boundary dispute was resolved and only required signing the treaty with Mobutu. An official at the American Embassy in Lusaka commented on one such quote in January 1989: “We suspect Kaunda’s latest announcement, and the attendant front page publicity, might have been more an attempt to counteract the recent spate of anti-Zaire newspaper reports than an indication the decade-long border dispute has finally been resolved.”²⁷

It was not until 19 September 1989 the treaty was signed by Presidents Mobutu and Kaunda in the Zairean town of Nsele near Kinshasa, after what unconfirmed sources suggest was a three day party including the presidents of Angola, Congo, Sao Tome and Principe and Zimbabwe. President Kaunda proudly announced at the time:

The signing of this treaty is truly a proud moment for Africa. It shows that left to themselves, African countries are sufficiently mature to resolve even the most serious of problems in an amicable manner.²⁸

In spite of all the fanfare, the actual text of this agreement does not appear to have ever been made public.²⁹ Some sources indicate that the treaty addressed frontier security, trans-border smuggling as well as supposedly delimiting a new boundary along the Mweru-Tanganyika section.³⁰ It was widely reported that the 1989 agreement may have settled the Tanzania-Zaire-Zambia tripoint in Lake Tanganyika. A variety of sources which make this claim all quote the following phrase, which may indicate that it was derived from the lone press release: “Tanzania-Zaire-Zambia tripoint in Lake Tanganyika may no longer be indefinite since it is reported that the indefinite section of the Zaire-Zambia boundary has been settled.” It is still not clear if this ‘treaty’ of 19 September 1989 was ever ratified by the respective governments.³¹

While the 1989 agreement was hailed by the two presidents as a breakthrough, minor skirmishes and problems continued. More importantly, it is clear that

²⁷ US Department of State communiqué (confidential telegram) from Lusaka embassy, 24 January 1989.

²⁸ ‘Border agreement signed with Zaire’ ZANA/PANA – Zambian News Agency, 19 September 1989.

²⁹ The 1989 treaty was never deposited with the United Nations and is not available in the National Archives of Zambia.

³⁰ Allcock, *Border and Territorial Disputes Third Edition*, 322.

³¹ Note that President Kaunda was voted out of office in October 1991 which may have had some effect on ratification of the 1989 agreement. From 1989 until he was removed in 1994, President Mobutu reigned over an increasingly chaotic domestic situation in Zaire that may also have affected the ratification and implementation of the 1989 agreement.

no demarcation of the Mweru-Tanganyika section has ever taken place. In March 1990, an unnamed Zambian minister was reported as saying “that the demarcation of the frontier along the Luapula was not yet complete although ‘considerable progress’ in resolving the border dispute between the two countries had been made.”³² In early December 1997, the Zambian deputy foreign affairs minister stated in the Zambian Parliament that he blamed “the physical non-demarcation of Zambia’s border with the Democratic Republic of Congo on the state of insecurity (along the boundary).”³³ The deputy foreign minister went on to say that Zambia was willing to undertake physical demarcation but the state of insecurity along the boundary and “uncooperative attitude which characterised the former Zaire”³⁴ had hampered efforts.

Recovering the post-independence demarcation narrative

As noted in Chapter 3, the government records in the National Archives of Zambia are extremely scarce after the early 1970s. In fact, there is no documentation of any Zambian government boundary demarcation and maintenance concerning the DRC boundary after independence held in the NAZ or the UNIP files that were available in August 2007. As noted in Chapter 3, this lack of documentary information necessitated a change in research methodology to understand exactly what process had been carried out since that time. This included interviews with Survey Department officials, to understand official Zambian policy towards boundary demarcation and what processes have been undertaken since independence.

Since independence, the responsibility for demarcation and maintenance of all Zambia’s international boundaries has been held by the Zambian Survey Department, part of the Ministry of Lands, headquartered in Lusaka. Zambia’s deputy surveyor general Ed Kateka has worked in the Survey Department for over twenty years and among his many duties is coordinating boundary maintenance with neighbouring states. Given his duration of service in the Survey Department, Mr. Kateka was best placed to explain Zambian demarcation practice since 1964 that he has negotiated himself. He confirmed what the lack of documentation suggested, stating in an

³² Allcock, *Border and Territorial Disputes Third Edition*, 322. The reference to the “frontier along the Luapula” is likely to have been in mistaken reference to the Mweru-Tanganyika section.

³³ ‘Committee to check envoys postings set’ *The Times of Zambia* (Ndola), 4 December 1997.

³⁴ ‘Committee to check envoys postings set’ *The Times of Zambia* (Ndola), 4 December 1997.

interview in July 2007 that maintenance of the DRC-Zambia boundary has not taken place for many years.³⁵ Although both Mr. Kateka and Zambia's surveyor general, Mr. Danny Mubanga noted having seen several of the boundary pillars along the Congolese boundary (particularly in areas north of Ndola), they confirmed that there is no consistent regime in place to maintain either the pillars themselves, or clear lines-of-sight between pillars through the bush. In addition, Mr. Kateka confirmed in July 2007 that while the Mweru-Tanganyika boundary was effectively delimited in the 1989 agreement, it still has yet to be demarcated on the ground.³⁶

With no documentary evidence of any boundary demarcation or maintenance having taken place since 1964, either under the auspices of the 1933 treaty or in an effort to resolve the Mweru-Tanganyika boundary dispute, I wanted to bring the narrative up to the present day by viewing the physical condition of the boundary in person. As described in Chapters 1 and 3, I was able to view the boundary at two sites north of the Zambian city of Ndola (see Map 3, p. 102).

As explained in the prologue, the first boundary pillar to be visited was BP 16, located at the Sakania crossing point. Figure 1 shows the current physical condition of BP 16 which remains fairly distinguishable as an international boundary pillar, in spite of having required quite significant repair. However, the lack of any other visible marks or cleared tracks through the bush meant that the boundary as a linear, fixed and bilateral entities could not be 'known' visually on the physical landscape at the lived scale. This resulted in what was perceived as a wide zone of indistinct jurisdiction between the widely separated border checkpoints.

³⁵ E. Kateka, interview at the Survey Department headquarters, Lusaka, 30 July 2007.

³⁶ Kateka, Interview. 30 July 2007.



Figure 1: BP 16 (2 August 2007)

Again recalling the opening prologue in Chapter 1, the second boundary site I visited was a section around BP 18. North of BP 16, we were joined by two local guides who brought us to what they believed to be a ‘boundary pillar,’ deep in the bush. This ‘boundary pillar’ turned out to be a concrete block at the base of a large fence (See Figure 2). From this supposed boundary pillar we followed the fence (see Figure 3) north along the Zambian side for approximately 3-4 km to eventually find BP 18. Like BP 16, BP 18 is also visually unmistakable as a symbol of an international boundary, with its inscribed number and territorial distinctions by letter (see Figure 4). What was very different about this boundary section was the presence of the large fence that was referred to by two local residents as ‘the boundary’ (See Figure 3).



Figure 2: Supposed boundary pillar (2 August 2007)



Figure 3: The 'boundary fence' south of BP 18 (2 August 2007)



Figure 4: BP 18 at southeast corner of the Frontier Copper Mine (2 August 2007)

BP 18 stood at the junction of two fences: the ‘boundary’ fence that we had followed for several kilometres and a perpendicular fence of an almost identical style that enclosed a large compound area. Just within the fenced compound at the junction of the two fences was a military-style observation post, occupied by armed security forces (See Figure 5). The fenced compound is the area of the Frontier copper mine, owned with a 95% controlling stake by First Quantum Minerals (FQM) Ltd., a Canadian-listed mining company with operations in Zambia, DRC and Mauritania. With \$226 million invested by FQM, the Frontier mine is an operating open pit copper mine that began commercial production on 2 November 2007 with a projected twenty year life span.³⁷ Although the mine is technically registered in the DRC (whose government owns a 5% stake), according to its 2008 corporate report First Quantum acquired mining rights from both DRC and Zambia to land concessions on either side of the boundary “to enable the operational work areas to be constructed efficiently and effectively.”³⁸

³⁷ FQM, Frontier Fact Sheet http://www.first-quantum.com/i/pdf/Frontier_Fact.pdf (24 November 2009)

³⁸ FQM 2008 Annual Information Form. p. 22.



Figure 5: Zambian survey officials and the security observation post at southeast corner of the Frontier mine

Surprisingly, the Zambian survey department officials were completely unaware that the ‘boundary’ fence had been erected despite their responsibilities for boundary demarcation and maintenance, as well as the close proximity of their offices in Ndola only some 35 km away. The style of fencing and lack of knowledge by the Survey Department suggests that the fence, identified by the two local residents/guides as the ‘boundary’ had been erected and maintained by contractors associated with the Frontier mine. Certainly it is possible that another government agency in Zambia or the DRC such as the military may have erected the fence, but it is implausible that the Zambian survey department, both in Ndola and Lusaka, were not notified of the fence construction considering the department is responsible for boundary maintenance.

Because the ‘boundary’ fence extends beyond the actual Frontier mine compound, it is also unclear whether or not the fence was intended to demarcate the boundary line on the ground.³⁹ This border area is much less densely populated than that around BP 16 and the Sakania border post. Without knowing how the boundary had been marked just prior to the erection of the fence, or having a comprehensive topographic survey of the area, it is impossible to discern if the fence is positioned exactly along the Congo-Zambezi watershed (the delimited boundary). Irrespective of the motivations for its erection, if the opinions of the two local guides are representative, the local Zambian borderland residents consider this fence to be the

³⁹ Although there is no mention of the ‘boundary fence’ erection in any of its corporate literature, it is worth noting that FQM contributed to the cost of refurbishing the Sakania immigration post on the Congolese side of the boundary as part of its ‘corporate responsibility programme’ (See FQM 2008, Annual Information Form, Corporate Responsibility photos).

‘boundary’; a fixed, linear and (seemingly) bilateral entity known on the visible landscape.

Wither demarcation on African boundaries?

Impediments to Zambian efforts for boundary demarcation

Kaunda’s announcement in 1989 concerning agreement on the Mweru-Tanganyika section implies that boundary problems have been considered to be the most “serious” of bilateral concerns by the Zambian government; still the “razor’s edge on which hang suspended the modern issues of war or peace, of life or death to nations.”⁴⁰ With this in mind, the lack of demarcation along the Mweru-Tanganyika section and lack of maintenance along the watershed section by the government in the post-independence context seems strange given its ‘seriousness.’ From the Zambian government perspective, deputy surveyor general E. Kateka identified two issues that have impeded regular maintenance of the boundary demarcation with DRC, lack of resources (largely financial) and the relationship with the neighbouring sovereign.

Kateka confirms that the lack of domestic funding for boundary demarcation maintenance has hampered efforts on all of Zambia’s international boundaries including the recent initiatives with Malawi.⁴¹ From independence, funding for international boundary demarcation and maintenance was included in the Zambian government’s ‘capital projects’ budget.⁴² This placed demarcation activity in the same budget category as major infrastructure and transport projects, such as road construction and maintenance.⁴³ For a landlocked state like Zambia, highly dependent on road and rail transport, it is easy to see how international boundary maintenance would quickly fall to a very low priority within the ‘capital projects’ budget, in spite of Kaunda’s 1989 announcement on the seriousness of boundary concerns. In addition, with its population focused mainly in Lusaka and not in the borderland areas, it is likely that any funding in the ‘capital projects’ budget would not prioritise issues such as boundary demarcation in peripheral areas.

⁴⁰ G.N. Curzon, *Frontiers: The Romanes Lecture 1907* (Oxford: Clarendon Press, 1908), 7.

⁴¹ ‘Lack of funds impedes border demarcation of Zambia, Malawi’ Xinhua News Agency, 18 June 2008.

⁴² E. Kateka, interview at the Survey Department headquarters, Lusaka, 26 July 2007.

⁴³ Kateka, interview. 26 July 2007.

The second issue that has impeded Zambia's efforts to maintain boundary demarcation with DRC has been the continued instability within DRC itself. While the formal diplomatic relationship between DRC and Zambia has been largely good since independence (with a few exceptions including the above mentioned border skirmishes), Kateka admits that it has been difficult to engage consistently even with provincial officials in neighbouring Katanga because any bilateral issues such as boundary demarcation have to be referred to national authorities in Kinshasa where they are rarely acted upon.⁴⁴ Although the budget allocation for boundary maintenance within the current Congolese governments could not be ascertained, it is likely to be, like Zambia's funding, very restricted especially considering the enormous length of all DRC's international land boundaries. Nevertheless, given the 'seriousness' of boundary issues, it seems difficult to understand how both states could not have allocated adequate initiative and funding to address demarcation in forty years of independence. Perhaps the 'seriousness' expressed by Kaunda was not in reference to political will?

A 'tangible' inheritance?

These two impediments to demarcation on the DRC-Zambia boundary, lack of financial resources and inconsistent relations with the neighbouring state government, are frequently cited by officials across post-independence African states as main impediments to boundary demarcation and maintenance.⁴⁵ Most colonial boundary pillars have largely disappeared from the physical landscape and undemarcated boundary sections have rarely been demarcated by post-independence governments.⁴⁶

⁴⁴ Kateka, interview. 26 July 2007. This structure may be reflective of the more centralised Belgian colonial administration in Congo, compared with more devolved administration in British colonies and protectorates.

⁴⁵ Both issues were cited in discussion of survey officials from across the African Union at the Second International Symposium on Land, Lake and River Boundaries Management held in Maputo, Mozambique, 17-19 December 2008.

⁴⁶ See especially A.I. Asiwaju, 'The Conceptual Framework' in *Partitioned Africans: ethnic relations across Africa's international boundaries 1884-1984* ed., A.I. Asiwaju (London: Hurst and Lagos: University of Lagos Press, 1985), 11; J.V. Prescott and G. Triggs, *International Frontiers and Boundaries: Law, Politics and Geography* (Leiden: Koninklijke Brill NV, 2008), 69. The recent demarcation of the Burkina Faso-Mali boundary (2008), partly funded by Germany's Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), and the on-going demarcation of the Cameroon-Nigeria boundary after the 2002 judgment of the ICJ, organized under the United Nations Office for West Africa partly funded by a United Nations Special Fund and other donor governments, are recent exceptions. These exercises are detailed in the forthcoming work *Delimitation and Demarcation: An African Union Border Programme Handbook* in chapters by I. Coulibaly, former Malian commissioner

Uganda's commissioner for geological survey and mines recently said that Uganda alone has had some 1,500 boundary pillars uprooted from its international boundaries since independence.⁴⁷ In justifying the institution of the African Union Border Programme (AUBP) in 2007, it was noted that "subject to an inventory to be undertaken, it is estimated that less than a quarter of African borders have been delimited and demarcated."⁴⁸ The exact extent of what is meant by the phrase "delimited and demarcated" is unclear as all African boundaries have some form of delimitation, to a greater or lesser degree of accuracy.⁴⁹ However, the clear implication is that many boundaries across the continent are as visibly unclear on the ground as the DRC-Zambia boundary around BP 16.

The AUBP has been recently instituted to help African states address the lack of demarcation across their boundaries as a result either of the lack of clear boundary demarcation during the colonial period or neglect of any existing demarcation. This initiative comes forty-three years after the 1964 Cairo Declaration of the Organisation of Africa Unity (OAU) famously called on all signatory states to accept the definition of the territories by their previous colonial administrative boundaries to avoid disputes. The oft-cited relevant clause reads:

BORDER DISPUTES AMONG AFRICAN STATES

The assembly of Heads of State and Government meeting in its First Ordinary Session in Cairo, UAR, from 17 to 21 July 1964,

Considering that border problems constitute a grave and permanent factor of dissention;

Conscious of the existence of extra-African manoeuvres aimed at dividing African States;

Considering further that the borders of African States, on the day of their independence, constitute a tangible reality;

Recalling the establishment in the course of the Second Ordinary Session of the Council of the Committee of Eleven charged with studying further measures for strengthening African Unity;

to the Burkina Faso-Mali boundary commission, and jointly by S. Issa and A. Toure, the respective Nigerian and Cameroonian commissioners to the Cameroon-Nigeria Mixed Commission.

⁴⁷ B. Okior, '1,500 border pillars uprooted' *New Vision/All Africa* (Kampala), 04 May 2009.

⁴⁸ Declaration of the African Union Border Programme, 7 June 2007. Article 2 para. a.

⁴⁹ See especially Brownlie, *African Boundaries*.

Recognising the imperious necessity of settling, by peaceful means and within a strictly African framework, all disputes between African States;

Recalling further that all Member States have pledged, under Article IV of the Charter of African Unity, to respect scrupulously all principles laid down in paragraph 3 of Article III of the Charter of the Organization of African Unity:

1. SOLEMNLY REAFFIRMS the strict respect by all Member States of the Organization for the principles laid down in paragraph 3 of Article III of the Charter of the Organization of African Unity;
2. SOLEMNLY DECLARES that all Member States pledge themselves to respect the borders existing on their achievement of national independence.

AHG/Res. 16(I)

The operative statement in Article 2 “respect the borders existing on their achievement of national independence” has been one of the most influential phrases in post-independent African administrative and scholarly discourses. However, more can be learned about the context of the declaration and the relationship with inherited colonial boundaries in the introductory phrases.

The first sentence recalls the boundary disputes that were on-going at the time of the Cairo assembly, including the Algeria-Morocco conflict and the tensions between Somalia and neighbouring Ethiopia and Kenya, both of which led to the leaders of Morocco and Somalia boycotting the Cairo meeting. The more minor boundary dispute between Burkina Faso and Ghana at the time was actually addressed in a separate resolution within the Cairo Declaration (AHG Res 20). As Saadia Touval points out, the OAU itself had been helpless to settle these specific disputes and the whole focus of the Cairo assembly was to cement the OAU as a mechanism for inter-state dispute resolution, which was a key incentive for the chief proponent of Pan-Africanism, Ghana’s Kwame Nkrumah, to concede to the Declaration.⁵⁰ A subsequent protocol to the Cairo Declaration would set up the Commission on Mediation, Conciliation and Arbitration but this elaborate dispute resolution mechanism never gained influence and was eventually disbanded in 1973.⁵¹

⁵⁰ S. Touval, ‘The Organization of African Unity and African borders’ *International Organization* 21:1 (1967):102-127. pp. 123-124.

⁵¹ See especially M. Wolfers *Politics of the Organization of African Unity* (London: Methuen & Co. 1976) 106-113.

The second sentence hints at the fears held among many African leaders at the time of external state influence that might exacerbate disputes. This partly reveals the close connection that the burgeoning OAU had with a seemingly strange-bedfellow, the global Non-Aligned movement. Dike Nworah explores this connection and saw Tanzania's President Julius Nyerere as the most vocal proponent of the Non-Aligned Movement within the OAU, seeing it as an avenue for weaker nations "trying to maintain their independence and use it for their own benefit in a world dominated politically, economically and militarily by a few big powers."⁵² It seems somewhat paradoxical that an organisation dedicated to inter-state political unity might be closely aligned with a movement that was such a proponent of individual state independence and based on the notion of sovereign equality and territorial integrity.

More insight into the historical context of the Cairo Declaration is beyond the scope of this research, however the third introductory clause in resolution relates directly to the issue of boundary demarcation. Perhaps overshadowed by the operative statement in article 2, the third introductory clause to resolution 16(1) states that "the borders of African States, on the day of their independence, constitute a tangible reality." A powerfully explicit phrase, but did the boundaries (to use the more appropriate term) between the newly independent African states really "constitute a tangible reality" at independence? In Suzanne Lalonde's study of the international legal concept of *uti possidetis juris*, she makes an interesting comparison between the de-colonisation processes in Latin American and Africa. Lalonde suggests that at de-colonisation in Latin America, there was first the question as to which former colonial administrative units would become independent states. Only then was the second question "how would those boundaries be determined?"⁵³ In other words: "For Latin American republics, it was not simply a question of *maintaining* the territorial *status quo* but of actually creating the territorial *status quo*."⁵⁴ The ambiguity of both political and territorial distinctions at the moment of de-colonisation led to many years of conflict between the emerging Latin American states during the early to mid nineteenth century.

⁵² D. Nworah, 'Nationalism vs. Coexistence: Neo-African attitudes to classical neutralism' *Journal of Modern African Studies* 15, no. 2 (1977): 213-237. 230.

⁵³ S. Lalonde, *Determining Boundaries in a Conflicted World: The Role of Uti Possidetis* (Montreal/Kingston: McGill-Queen's University Press, 2002): 121-122.

⁵⁴ Lalonde, *Determining Boundaries in a Conflicted World*, 122.

In the African context, Lalonde suggests the process was different since the political distinction between colonial administrations was more distinct. “Devolution occurred within the territorial limits as defined by the metropolitan powers, which were at liberty to adjust boundaries and transfer territory right up to the date of independence.”⁵⁵ Lalonde believes that the colonial boundaries across Africa were “defined with much greater precision than the Spanish administrative lines.”⁵⁶ She concludes that the concept of *uti possidetis juris* for Latin American states provided entitlement to boundaries of the former Spanish administrative divisions “*at law*” while “the newly independent African states, for their part, merely agreed to accept those boundaries, *in fact*, that existed at the date of independence.”⁵⁷ This provides some indication as to why the Cairo declaration specifically avoids using the term ‘*uti possidetis*’ but Lalonde only hints at the wide variety of boundary definition that existed across Africa at the moment of de-colonisation by suggesting that:

Those boundaries that had been established and clearly demarcated were, following independence, protected according to general principles of international law. Those boundaries that had been unsettled during the colonial period remained unsettled.⁵⁸

While most boundaries inherited by African states at independence were defined with greater geographic precision than the vague limits of Spanish colonial administration in Latin America prior to 1810, it could not be concluded even in 1964 that all African boundaries constituted a ‘tangible reality.’ It has been revealed that even sections of the DRC-Zambia boundary, subject to one of the most intensive demarcation projects in colonial Africa, may not have been a tangible reality at independence. The only distinction Lalonde makes between “established” and “unsettled” boundaries does not begin to indicate the wide range of ways that boundaries were known to the respective African states at independence. The term ‘tangible reality’ quite clearly suggests that a boundary can be recognised on the physical landscape, implying that one knows precisely when he/she passes across the static, fixed and linear limit of one state jurisdiction to another. A boundary may be

⁵⁵ Lalonde, *Determining Boundaries in a Conflicted World*, 122.

⁵⁶ Lalonde, *Determining Boundaries in a Conflicted World*, 123.

⁵⁷ Lalonde, *Determining Boundaries in a Conflicted World*, 122.

⁵⁸ Lalonde, *Determining Boundaries in a Conflicted World*, 122.

depicted on a map but that does not that make it a ‘tangible reality.’ A boundary may be defined in a legally binding text to a greater or lesser degree of precision, but that does not make it a ‘tangible reality.’

So did the African leaders at the Cairo assembly believe incorrectly that their state boundaries did actually constitute tangible realities? Was this assumed? Was this phrase used consciously to deflect attention away from inadequate boundary definition that may have led to more disputes? Whatever the case, the statement in the Cairo declaration clearly belies clear boundary definition from what was in fact a much more haphazard and ambiguous definitions of territorial inheritance. By not making any distinction between the varying degrees of boundary clarity, the phrase ‘tangible reality’ implies that all boundaries could be observed on the physical landscape in 1964; that the colonial boundaries across Africa had effectively reached the same *fait accompli* prior to independence. If a boundary can reach *fait accompli* the logical implication is that it has been the product of a distinct and finite process or system.

Are critiques over-generalising African colonial boundaries?

This lack of distinction has led most critiques of the Cairo Declaration to focus on the original territorial apportionment of independent African states particularly in the more recent so-called ‘failed state’ discourse and debates about de-centralisation.⁵⁹ Within these discourses, the boundaries of African states become generalised (often simply referred to as ‘colonial boundaries’). If African boundaries are considered out of context, critiques can fall into the trap of drawing generalisations about territorial definition rather than considering how those divisions appear and operate on the ground.

For example, Englebert, Tarango and Carter use statistical modelling to discount the hypothesis that lack of clear boundary demarcation leads to greater likelihood of dispute.⁶⁰ Claiming to use Brownlie’s 1979 *African Boundaries* as their source, Englebert et al provide no details about their technique for distinguishing the five categories of relative boundary clarity used to analyse this hypothesis. It may be

⁵⁹ W.I. Zartman, *Collapsed States: The Disintegration and Restoration of Legitimate Authority* (Boulder: Lynne Rienner Publishers, 1995); B. Davidson, *The Black Man’s Burden: Africa and the Curse of the Nation-State* (New York: Three Rivers Press, 1992).

⁶⁰ P. Englebert, S. Tarango and M. Carter ‘Dismemberment and suffocation: A contribution to the debate on African boundaries’ *Comparative Political Studies* 35:10. 1093-1118. 1099 and 1105.

assumed, given the scale of such a task, that this research simply assigns a level of clarity based on the presence or absence of boundary demarcation. Such a technique would fall squarely into problematic assumptions about systematic boundary production. Although the lack of clear research methodology makes it impossible to be certain, it is likely that the DRC-Zambia boundary ranked high on the level of boundary clarity based on its demarcation in 1933. But this does not ensure that the boundary was as much of a ‘tangible reality’ in 1964, even less so in 1979 (the date of Brownlie’s work).

While it is certainly true that clear knowledge of a boundary on the physical landscape alone does not ensure the prevention of inter-state conflicts, the suggestion that lack of demarcation does not contribute to disputes is difficult to sustain when compared with actual events. The example of the DRC-Zambia boundary skirmishes in the Kaputa area were a direct result of the Mweru-Tanganyika boundary section not being demarcated on the ground. Countless localised problems over boundary alignment have occurred throughout post-independence Africa, most recent examples in 2008 and 2009 include the violent skirmishes between DRC and Uganda over Rukwanzi island in Lake Albert, Djibouti and Eritrea’s hostile standoff over the boundary along the undemarcated boundary on Doumeirah peninsula and the dispute between Kenya and Uganda over Misingo island in Lake Victoria and resultant fishing practices. Most of these disputes have not escalated to the scale of the Eritrea-Ethiopia conflict from 1998-2000 that was initiated by a local boundary dispute and which cost hundreds of thousands of lives⁶¹, and certainly other underlying tensions may contribute to the escalation of boundary disputes. However, with their high political profile boundary disputes often become the conduits through which other political tensions are channelled.

Another example of this more generalised approach has been the prominent critique of colonial boundaries in Africa that focuses on their division of pre-colonial political and cultural identities.⁶² For some critics, demarcation of African boundaries by the post-independent state is perceived to cement those divisions. Asiwaju cited B.A. El-Gaali’s unpublished thesis on Sudan’s boundaries where he concluded that African boundaries should not be demarcated because of the prohibitive costs

⁶¹ See especially M. Plaut ‘The conflict and its aftermath’ In D. Jacquin-Berdal and M. Plaut, eds., *Unfinished Business: Eritrea and Ethiopia at War* (Trenton, NJ: The Red Sea Press, 2004): 87-123. 87-89.

⁶² I.L.I. Griffiths, *The African Inheritance* (London: Routledge, 1995), 91-93; Asiwaju 1985.

involved and “the need to avoid the likely negative reactions not only among states themselves but also among partitioned ethnic groups in the border areas.”⁶³ Allott echoed El-Gaali’s argument stating that “The general demarcation of boundaries in Africa would, however, be enormously costly and quite unjustifiable.”⁶⁴ He believes demarcation would not prevent boundary disputes across Africa, again because of the pre-existent cross border links, suggesting instead that regional African communities should be enhanced to reduce the significance of boundaries.⁶⁵ Allott’s comments tie the generalised discourses about the claimed artificiality of colonial boundaries with the persistence of cross border cultural, political and ethnic identities in Africa, and in doing so make a direct link between the boundary demarcation practice and the supposed inappropriateness of the territorial state model. The essays in Asiwaju (1985) lend support to this notion, suggesting that “border regions in Africa have always evolved as special areas of socio-political ambivalence” and “rather than develop a strong sense of attachment to either of the states separated by the boundary, African border populations have at best evolved attitudes and characteristics suggesting a preference for some measure of binationality or dual citizenship.”⁶⁶

In his work on the Karelian community along the Finnish-Russian boundary, Anssi Paasi found that in the wake of Finland’s independence in 1917, identification of the boundary on the ground was linked with a concerted effort to ‘nationalise’ the peripheral border areas during the 1920s.⁶⁷ Paasi reflected that

This attitude seemed to be based on the argument that the nation-building process calls for complete occupation of the national space, which ends expressly at the border line. Thus the boundary was considered to constitute an essential element in social integration, one which was necessary for the nation building process.⁶⁸

Paasi’s use of the term ‘nation’ places important emphasis on the link between social identity as reinforced by the clear demarcation of territory. In this light, it is not unreasonable to suggest that fears may persist that demarcation would press a national

⁶³ Asiwaju, ‘The Conceptual Framework,’ 11-12.

⁶⁴ A. Allott, ‘Boundaries and the law in Africa’ In *African Boundary Problems* ed. C.G. Widstrand (Uppsala: Scandinavian Institute of African Studies, 1969), 17.

⁶⁵ Allott, ‘Boundaries and the law in Africa,’ 17.

⁶⁶ Asiwaju, ‘The Conceptual Framework,’ 12.

⁶⁷ A. Paasi, *Territories, Boundaries and Consciousness: The Changing Geographies of the Finnish-Russian Border* (Chichester: J. Wiley & Sons, 1996), 174.

⁶⁸ Paasi, *Territories, Boundaries and Consciousness*, 175-176.

identity that many local African borderland communities feel erodes their local identities (political, cultural or ethnic).

However, the division of local, cross border ethnic and cultural identities by an international boundary (even one that was imperially constructed) is certainly not unique to Africa, nor is it consistent along every one of Africa's current international boundaries. Concluding that the majority of colonial boundaries in Africa did divide common language and ethnic groups, Brownlie explains

The picture is, however, more complicated. The European practice did not operate upon a principle which excluded ethnological considerations *tout court*. Rather, a variety of considerations were relied upon and these tended to be incompatible with tribal distribution. None the less, in a significant minority of cases substantial (though not necessarily exclusive) reference was made to tribal distribution in delimitation of frontiers.⁶⁹

Assumptions about the division of cross border identities also tends to foster nostalgia about pre-imperial political entities that may or may not be factual. In his study of the Hausa people along the Niger-Nigeria boundary, Miles examined this complex balance of national vs. local identity in a local African border context.⁷⁰ Although focusing on the boundary's division of the Hausa as a distinct cultural and political entity, Miles did find, contrary to many post-colonial assertions that the division of West Africa by colonial boundaries was "an unmitigated evil", that: "Among the people most directly affected – the borderline Hausa – there is rather a continued appreciation that the partition heralded an end to the incessant warfare waged between surrounding and encroaching kingdoms."⁷¹

It is important to emphasise that Paasi's mention of boundary visibility was part of a number of social initiatives to nationalise the Finnish-Russian border areas post-independence. Simply maintaining visibility of an international boundary may imbue a distinct socio-political identity based on defined space, but it is difficult to conclude that such a practice is sufficient to completely erode existing identities on its own, particularly if it does not physically impede crossing.⁷² Indeed, to address the

⁶⁹ Brownlie, *African Boundaries*, 6.

⁷⁰ W.F.S. Miles, *Hausaland Divided: Colonialism and Independence in Nigeria and Niger* (Ithaca: Cornell University Press, 1994).

⁷¹ Miles, *Hausaland Divided*, 75.

⁷² Just to emphasise, my use of the term 'demarcation' here is not in reference to the few physical fences or walls that have been constructed bilaterally along a boundary, such as the boundary fence erected by Malaysia and Thailand. This form of 'demarcation' would have a much more dramatic,

strong cross border identities of African borderland populations, Asiwaju recommends that “special governmental arrangements should be evolved at the local level to accommodate the idiosyncrasies of the border societies” so that “boundaries can be maintained and promoted as lines of mutual contact rather than of exclusion.”⁷³

Given the strength of sub-national cross border identities, Allott’s comments above present another notion that has contributed to the more generalised critiques of Africa’s ‘colonial’ boundaries, that a regional political body (such as regional economic unions) or continent-wide (such as the OAU/AU) would be a more appropriate administrative spatial structures for post-independence Africa than the inherited state model. This suggests that the regional or continental ‘identity’ is more influential than national identities, which tends to undermine the criticism of colonial boundaries based on their division of more localised ethnic or cultural identities. In addition, regional bodies would still have cross border communities existing at their own territorial boundaries and any pan-African governing structure would still require some kind of internal political division to facilitate participatory governance and administration, still potentially creating cross border identities. If the newly independent African states have had difficulty extending their administrative structures to encompass the peripheries of their own state territory after independence (as represented by the lack of national identity), it is implausible that regional or continental administrative body could do the same thing over an even greater territorial extent. Promotion of pan-Africanism in the early stages of decolonisation, particularly in the context of the OAU, failed to address what Funmi Olonisakin called “the natural tension between sovereignty, which stipulated non-interference in the affairs of member states, and pan-Africanism, which implied the submission of some sovereignty to a supranational authority, [and] appeared to have been resolved in favour of the former.”⁷⁴

Mamdani suggests that the Pan-Africanist response to the current overarching crisis of political institutions in Africa has been critical of colonial boundaries

physical influence on transborder movements and, consequently, borderland identities. However, as noted in Chapter 1, the vast majority of border control barriers are constructed unilaterally and therefore should not be understood as boundary demarcation.

⁷³ Asiwaju, ‘The Conceptual Framework,’ 13.

⁷⁴ F. Olonisakin, ‘Conflict Management in Africa: the role of the OAU and sub-regional organisations’ *Monograph 46, Building Stability in Africa: Challenges for the new millennium, February 2000* (Tshwane: Institute for Security Studies, 2000), 2.

“because these boundaries were and are artificial – in the African case more so, since they were drawn up with a pencil and ruler on a map at a conference table in Berlin in the 1880s.”⁷⁵ While no doubt presenting a slightly popularised criticism of African boundaries which over-simplifies colonial delimitation practice and fails to mention demarcation, Mamdani responds to this criticism on two counts. First he presents the traditional political geography response that all boundaries are inherently artificial and that historically boundaries have been linked to shifting power relations. Second, and more important, Mamdani argues that the Pan-Africanist thinking makes “the assumption that cultural and political boundaries should coincide, and that the state should be a nation-state – that the natural boundaries of a state are those of a common cultural community.”⁷⁶ This powerful argument is based on Mamdani’s earlier work that sought to re-focus postcolonial critique on the politico-institutional inheritance of African states,⁷⁷ rather than being limited to small scale geographical, cultural or economic arguments that have tended to generalise all African colonial boundaries.

Given Paasi’s look at how knowledge of the Finnish-Russian boundary as a distinct and ‘known’ line on the physical landscape contributed to the development of a distinct national identity, demarcation of vague colonial boundaries should have seemed an attractive exercise for post-independence African governments in helping concretise national identity within borderland populations. The reluctance of African states to dedicate time and resources to boundary demarcation and maintenance until the very recent AUBP initiative may hint at a deeper underlying notion of the relationship between sovereignty and territory in the immediate post-independence environment.

Jackson and Rosberg believe that the independent states of Africa initially achieved sovereignty through recognition only, that few had the full trappings of statehood to effectively cover their inherited territory.⁷⁸ Lacking the adequate infrastructure for governance over their territories, Jackson and Rosberg suggest

⁷⁵ M. Mamdani, ‘Identity and national governance’ In *Towards a New Map of Africa* eds., B. Wisner, C. Toulmin and R. Chitiga (London: Earthscan, 2005), 266-267. Although the term Pan-Africanism is not used as widely as in the immediate post-independent period of the 1960s, the sentiment remains strong. A prime example can be found on the website of the African Union where the opening page includes an animation showing all the states of Africa as dispersed puzzle pieces all coming together to make up a continental map and the text reads “Africa...Must...Unite”.

⁷⁶ Mamdani, ‘Identity and national governance,’ 267.

⁷⁷ Mamdani, ‘Identity and national governance,’ 267-279.

⁷⁸ R.H. Jackson and C. Rosberg, ‘Sovereignty and underdevelopment: juridical statehood in the African crisis’ *Journal of Modern African Studies* 24, no. 1 (1986): 1-31. 2.

“their sovereignty derives more from right than from fact” indicating a prioritisation of juridical over empirical statehood.⁷⁹ This can be represented through the lack of attention given to territorial boundaries, as Allott states succinctly: “It is one thing, however, to declare respect for the border; it is another thing to determine where it runs.”⁸⁰ With the bases of the political establishment in newly independent African states often far less than the extent of recognised state territory, Jackson and Rosberg indicate that this led to an entrenchment of negative sovereignty where African governments felt no obligation to enforce jurisdictions since their legitimacy over territory was enshrined in *uti possidetis* and guaranteed by external forces.⁸¹ This presented little motivation for African governments to exercise positive sovereignty, guaranteeing domestic legitimacy and improving the capacity for self government.⁸²

Although this argument does draw a fairly general concept across many individual histories of decolonisation and doesn't full address the impact of inherited colonial governing structures,⁸³ it provides an interesting lens with which to interpret post-independence African boundary demarcation. If the governments of independent DRC and Zambia felt their legitimacy over their territory was guaranteed through acceptance of their colonially-inherited boundary then why should it require demarcation? Inayatullah reflects that independence of states entailed more than rights to the resources of territory but also the responsibility for administration of people (positive sovereignty).⁸⁴ This responsibility as “the expression of sovereignty requires wealth.”⁸⁵ If the lack of wealth or the insufficiency of capacity (infrastructural, political etc.) has made it difficult for post-independent African states to administer the full extent of their territories, then why should they reinforce the territorial limits of that responsibility through boundary demarcation?

Within these questions rises the issue of the (supposed) boundary fence along the DRC-Zambia boundary near BP 18, a fixed, linear and (seemingly) bilateral entity known on the physical landscape. If FQM did erect the ‘boundary’ fence along the

⁷⁹ Jackson and Rosberg, ‘Sovereignty and underdevelopment,’ 2-3.

⁸⁰ Allott, ‘Boundaries and the law in Africa,’ 17.

⁸¹ Jackson and Rosberg, ‘Sovereignty and underdevelopment,’ 13.

⁸² Jackson and Rosberg, ‘Sovereignty and underdevelopment,’ 14.

⁸³ See especially N. Chazan, P. Lewis, R. Mortimer, D. Rothchild and S.J. Stedman, *Politics and Society in Contemporary Africa, Third Edition* (Boulder: Lynne Rienner Publishers, 1999), 46.

⁸⁴ N. Inayatullah, ‘Beyond the sovereignty dilemma: quasi-states as social constructs’ In *State Sovereignty as Social Construct* eds., T.J. Biersteker and C. Weber (Cambridge: Cambridge University Press, 1996). 73.

⁸⁵ Inayatullah, ‘Beyond the sovereignty dilemma,’ 75.

DRC-Zambia boundary as a result of its mining operations, it posits two important issues at what might be described as the ‘post-colonial’ moment of the demarcation narrative. First, it would indicate that a private company assumed the responsibility for demarcating territory from the two respective territorial sovereigns. This recalls efforts made by the British South Africa Company (BSAC) during the colonial period to participate in demarcation along several of Northern Rhodesia’s boundaries.⁸⁶ Even if Congolese government authorities had endorsed or participated in the construction of the boundary fence, it cannot be construed as valid boundary demarcation unless it involved Zambian consent which is unclear.

Second, the ‘boundary’ fence suggests that the ‘post-colonial’ moment is remarkably similar to the ‘colonial’ moment in that the demarcation practice continues to be contextualised (albeit on a less expansive scale than the pains-taking work of the 1927-33 Anglo-Belgian boundary commission along the full length of the watershed) based on the exploitation of natural resources. Both moments reflect a perpetuation of the Lockean notion of land use and continued influence of economic geography on boundary demarcation which precipitated the shift from the ‘imperial’ to the ‘colonial’ moments in the demarcation narrative of the Belgian Congo-Northern Rhodesia boundary. Their influence can be seen again when contrasting the section around BP 18 with the boundary section around BP 16 and the Sakania crossing point. The local economic geography around BP 16 is largely small scale agriculture and is populated by what would have been considered in the British colonial administration ‘native’ populations. Given the lack of boundary maintenance and clearance, this section of the boundary is no better known on the ground than it was at the imperial moment, in the wake of the 1914 Anglo-Belgian boundary commission.

The wide separation of Congolese and Zambian border control infrastructures gives rise to a frontier zone, an inefficient division of land from a Lockean perspective and indicative of more primitive division of politico-territorial structures from the modernist perspective. In contrast, the Frontier mine represents a large scale economic contribution to both the DRC and Zambia, employing 1,030 people at the end of December 2007.⁸⁷ In 2007, FQM paid total income taxes of almost \$183

⁸⁶ See especially the Tanganyika estate demarcation in Chapter 5, p. 160.

⁸⁷ FQM 2008 Annual Information Form. 23.

million for all of its operations in both DRC and Zambia.⁸⁸ Although this figure does not discern how much was paid to each government, it is obvious that the company's economic impact in terms of both tax revenue and local employment is not unsubstantial.

An initial reaction to the way economics continues to influence demarcation along the DRC-Zambia boundary might be that this narrative contributes to the lengthy debates concerning the very origins of European imperialism in Africa. It might be seen as lending support to the economic interpretations of European imperialism emphasised by late nineteenth century thinkers such as Alexander Helphand and John Robson and revived in the post-colonial Marxist discourses.⁸⁹ These discourses saw the European partition of Africa in the late nineteenth century as a continuation of previous economic investment in the (by that time outlawed) slave trade, motivated by the pursuit of African markets for surplus production through 'legitimate trade' and of raw materials to feed European production.⁹⁰ However, as examined in Chapter 2, the demarcation is an *a posteriori* act, predicated on some form of legal boundary delimitation or territorial allocation.⁹¹ Therefore its perceived relationship with the original imperial 'partition' of Africa is difficult to substantiate directly. Nevertheless, it is equally difficult to ignore the continued disparity in boundary demarcation practice within areas of high and low economic 'value.'

Insight from recent land reforms in Zambia

Taking a cue from Locke's understandings of land usage and property, an interesting perspective to this disparity of boundary demarcation and maintenance in the DRC-Zambia context can be found in the issues of land tenure within Zambia. In her unpublished conference paper of 2006, Mweembe Mudenda examined how the lack of adequate domestic property demarcation has inhibited land reforms, and the move

⁸⁸ FQM 2007 Annual Report p. 71. This amount was the total income tax paid for all of its operations in both DRC and Zambia.

⁸⁹ L.H. Gann, and P. Duignan, 'Reflections on Imperialism and the scramble for Africa' (eds.) *Colonialism in Africa 1870-1960 Vol. 1 The History and Politics of Colonialism* eds., L.H. Gann and P. Duignan (Cambridge: Cambridge University Press, 1977), 104-105.

⁹⁰ S. Akinrinade and T. Fulola, 'Africa and Europe: Prelude to the Partition' In *Africa and Europe: From Partition to Independence or Dependence* ed., A. Sesay (Croom Helm: Beckenham, 1986), 11.

⁹¹ Prescott and Triggs, *International Frontiers and Boundaries: Law, Politics and Geography*, 66.

from customary to leasehold tenure. Commenting on the Zambian 1995 Lands Act, she states:

Although the act explicitly recognizes and protects customary land rights, an unstated but crucial assumption underlying the act is that overtime the conversion of customary to leasehold tenure will open up more land for investment and diminish the amount of land held under customary tenure. Most Zambians are also at a disadvantage when it comes to protecting their land rights because their territorial boundaries are in abstract form.⁹²

This lack of clear land definition has allowed leasehold tenure reforms to be instituted by the Zambian government haphazardly, often favouring large scale investors over local residents who have in some cases found themselves turned into squatters overnight.⁹³

There have been lengthy debates about the relative benefit of private leasehold over customary land tenure within the market reforms across Africa⁹⁴, but Mudenda's argument suggests that in either case it is necessary to clearly define and demarcate boundaries in order to prevent conflict.⁹⁵ Even if, as she suggests, customary land tenure is culturally consistent with African values and ways of life, but it must be secured through "boundaries (that) are defined and well maintained."⁹⁶ This could include community projects for defining their boundary marks through "participatory mapping" projects.⁹⁷

Taylor Brown interestingly points out that although 94% of land in Zambia is held under communal/customary tenure, there are portions of privately held land.

Private tenure is concentrated in and near Zambia's cities, along the railway line between Livingstone and the Congo border, in the mining areas of the Copperbelt, and in certain productive farming areas. Customary lands, on the other hand, may be indirectly held, but the allocation and use of these lands (to

⁹² M.M. Mudenda, 'The Challenges of Customary Land Tenure in Zambia' unpublished conference paper *Conflicts and Land Administration, Shaping the Change XXIII FIG Congress* (Munich, Germany, October 8-13, 2006).

http://www.fig.net/pub/fig2006/papers/ts50/ts50_03_mudenda_0740.pdf. p. 6. (1 December 2009)

⁹³ Mudenda, 'The Challenges of Customary Land Tenure in Zambia,' 5.

⁹⁴ This has often been instigated in recent decades by the requirements for re-organising state debts or gaining monetary aid. See especially S. Evers, M. Spierenburg and H. Wels (eds.) *Competing Jurisdictions: Settling Land Claims in Africa* (Leiden/Boston: Brill, Afrika Studiecentrum Series, 2005).

⁹⁵ Mudenda, 'The Challenges of Customary Land Tenure in Zambia,' 9.

⁹⁶ Mudenda, 'The Challenges of Customary Land Tenure in Zambia,' 9.

⁹⁷ Mudenda, 'The Challenges of Customary Land Tenure in Zambia,' 9.

a greater or lesser extent) are administered by chiefs and headmen on behalf of ‘tribal communities’. On customary land, titles do not exist, land taxes are not paid, and transfer and use are governed by ‘customary’ law...The most valuable and productive land, however, is held as private tenure.

This division between customary and private titled land has its origins in the colonial era and has been perpetuated by the post-colonial state.⁹⁸

Brown points out that it is difficult to assess the actual number of new private tenure landowners as official statistics have not been kept in the Ministry of Lands since the early 1970s. Although the 1995 Land Act opened up the option of securing leasehold tenure over land, Brown suggests that the prohibitive costs involved in travelling to the Ministry of Lands headquarters in Lusaka and the appropriate fees have proved prohibitive for the vast majority of rural Zambians.⁹⁹ Brown notes that to apply for a fourteen year leasehold title “applicants must not only secure the permission of the chief and district council, they must also hire a surveyor to draw a sketch map of the land and pay a lease charge – outlays which are at least 500,000 kwacha (about \$100).”¹⁰⁰ More intriguingly, if the applicant wishes to apply for a ninety-nine year leasehold title “a rigorous boundary survey is required – something that can cost millions of kwacha in fees and transportation depending on how far the survey team has to travel from Lusaka.”¹⁰¹ Similarly, in her work concerning her extensive experience of land re-distribution in post-Apartheid South Africa, Cherryl Walker recalls the desire of land applicants who wanted more official title deeds with maps rather than simply textual descriptions.¹⁰² Although this did not necessarily concern boundary demarcation per se, it is obvious that new property owners were not satisfied with more abstract definitions of land, so the more accurate the definition of land the better.

What is so interesting about Brown’s comments on applying for leasehold title in Zambia from communal/customary lands is the interplay of geographic scales that

⁹⁸ T. Brown, ‘Contestation, confusion and corruption: market-based land reform in Zambia’ in Evers, Spierenburg and Wels, *Competing Jurisdictions: Settling Land Claims in Africa*, 79-102. 82. See also B. van Loenen, ‘Land Tenure in Zambia’ (Orono: University of Maine, Department of Spatial Information Engineering, 1999).

<http://www.spatial.maine.edu/~onsrud/Landtenure/CountryReport/Zambia.pdf> (1 December 2009)

⁹⁹ Brown, ‘Contestation, confusion and corruption,’ 90.

¹⁰⁰ Brown, ‘Contestation, confusion and corruption,’ 90.

¹⁰¹ Brown, ‘Contestation, confusion and corruption,’ 90.

¹⁰² C. Walker, *Land-Marked: Land-claims & Land Restitution in South Africa* (Athens, OH: Ohio University Press, 2008), 100.

has echoed throughout this work. For a fourteen year lease, Brown points out that only a rough survey and sketch map is required, while a full ninety-nine year title requires “a rigorous boundary survey”. It is possible to draw a direct parallel with the disparity in demarcation methodology undertaken by the two Anglo-Belgian boundary commissions examined in Chapters 4 and 5, and the disparity in geographic scales in making the boundary ‘known.’ Indeed, similar to the discourse in Chapter 5, Brown also draws on Mamdani’s examination of colonial rule when looking at Northern Rhodesian land policy up to independence and the dichotomy of political participation in colonial governance.¹⁰³

It is clearly possible to use this current practice of leasehold title acquisition in re-examining the discourse about state legal personality within international law being strictly territorial. Mudenda and Walker see this in the micro-territorial scale, that in order for communities (like individual title holders) to benefit from the security of legal personality, they must have a defined area of land, not simply boundaries in “abstract form.” Brown then shows how the actual geographic definition of this land by scale differs depending on the type of leasehold title sought. The stronger the title over the land, the more precise (larger scale) the boundaries of that property are required to be. Given his earlier conclusion that the small portion of Zambian land held under leasehold title is located within urban, mining or farming areas, it is clear that the same Lockean privileging of land based on its economic value echoes through domestic land reforms in Zambia.

¹⁰³ Brown, ‘Contestation, confusion and corruption,’ 82-84.

7. Using boundary demarcation in Africa as an analytical lens

“the process of demarcating a boundary is quite apart from definition or delimitation. It is the crux of all boundary-making. Any political administrator can define a paper boundary, given the necessary topographical and ethnographical data, but it falls to the demarcator to do the real spade work of boundary construction; to determine the sites for pillars and artificial boundary marks and fit the line to the conformation of the land. It is in this process that disputes usually arise, and weak elements in the treaties or agreements are apt to be discovered.”

Thomas Holdich 1916¹

¹T.H. Holdich, *Political Frontiers and Boundary Making* (London: MacMillan & Co. Ltd., 1916), 208.

Overview

This work began by drawing a distinction between the terms boundary and border, with boundaries distinguished by their three essential characteristics of being fixed, bilateral and linear, and borders distinguished as unilateral state actions. To this end, Newman and Paasi², and Van Houtum³ have suggested that the separation between borders and boundaries has come to form separate sub-disciplines within political geography. With an emphasis on the actual expressions of state control, the bordering sub-discipline has tended to focus on the unilateral practices of state securitisation, national identity and the broader geographic border regions. With this perspective of borders and bordering becoming increasingly dominant within political geography, the sub-discipline of boundaries has been cast as ‘technical practices’ that are divorced from theoretical analysis.

What this research has conveyed is that boundary-making practices are far more organic than the label of ‘technical practices’ might imply, and can certainly be exposed to theoretical critique. Boundaries themselves cannot simply be assumed as mathematical constructs, but have a discernible life-cycle; they may be conceived originally by a diplomatic pen on a small scale map, but they become manifest as physical features through various physical symbols, these symbols whither by forces of the border landscape and may or may not be re-built with a similar methodology. Within this practice, even something as seemingly mundane as building a boundary pillar is imbedded with political meaning. In his study of the 2000 Iraq-Kuwait boundary demarcation commission, Jan Klabbers notes candidly that:

It is repeatedly stated that the Commission was called on to perform a technical and not a political task, and that it was not supposed to reallocate territory; indeed, repetitions of this statement are so abundant that one cannot help but form the impression that what is actually occurring is some kind of exorcism: if we claim often enough that we are not reallocating territory, then perhaps we will not be seen to be reallocating territory.⁴

² D. Newman and A. Paasi, ‘Fences and neighbours in the postmodern world: boundary narratives in political geography’ *Progress in Human Geography* 22, no. 2 (1998): 186-207. Especially 188-189.

³ H. Van Houtum, ‘The geopolitics of borders and boundaries’ *Geopolitics* 10, no. 4 (2005): 672-679. 674.

⁴ J. Klabbers, ‘No more shifting lines? The report of the Iraq-Kuwait Boundary Demarcation Commission’ *International and Comparative Law Quarterly* 43, no. 4 (1994), 904-913. 908.

Although the Commission repeatedly claimed to be performing a mere technical task, it could not escape the necessity of relying heavily on considerations of equity...⁵

The key element that distinguishes boundaries from borders is that boundary practices are exercised with the direct participation or consent of both neighbouring states. However, the elements of control emphasised by bordering scholarship and the bilateral element of boundary practices have been brought together in this research to reveal that these two sub-disciplines are more entwined than contemporary political geography may give credence.

Before examining boundary practices (demarcation specifically) in the DRC-Zambia context, it was necessary to begin by analysing those three distinguishing characteristics of boundaries (linear, fixed and bilateral) in greater depth. Isolating a 'boundary' as a theoretical construct, these characteristics were shown to be inextricably linked with the concept of territorial sovereignty which is not an unfamiliar conclusion to be drawn. However, in Chapter 2 the examination delves more deeply into how state territorial sovereignty, as it remains conceived within international law, cannot be actuated (and recognised) without these distinguishing geographic features. One important contributor to the historical development of territorial sovereignty that had implications for the idea of boundaries was the concept of exclusive property rights. Having supplanted other forms of land use appropriation and political organisation in European state development, the legacy of private property rights still resonates in the unique geographic characteristic of modern territorial sovereignty that requires fixed and defined territorial extent for the application of legal title and jurisdiction (positive sovereignty).

Overlapping titles come into tension with the concept of exclusive land rights and have the potential to provoke disputes. At lower political levels (e.g. private property), these disputes may be negotiated or adjudged through the defined legal mechanisms within a political space. However, international law developed without such an overriding legal jurisdiction. So as the peaceful intermediary for disputes that often led to major territorial conflict, international law had to define states' title to territory as a constant, rather than as a variable based on the actual application of state control and power. Recognised title to territory endowed states with an equal measure

⁵ Klabbers, 'No more shifting lines?', 910

of legal personality (sovereignty) and allowed them to use international law as a legal mechanism for resolving their disputes through respected binding measures.

Sovereignty, thus conceived as a legal constant, led to the familiar Janus-faced trappings of the modern state, the legitimacy (if not the exclusive means) to exercise control within its defined territory and the ability to interact with other states as an equal, legal personality. The development of territorial sovereignty as a legitimising construct reached its zenith in the imperialism of the late nineteenth and early twentieth centuries, as illustrated by the European imperial practice of supposedly endowing (or rather imposing) modernity's model of territorial sovereignty on the African continent. However, the logical tension of sovereignty requiring defined and fixed territory prior to its validation through recognition presented legal difficulties in the African imperial context and leading to the dubious 'legal' practice of claiming geographically-imagined territory prior to any extensive application of actual administrative control. Elucidating these more general concepts provided the theoretical framework for using boundary demarcation as a tool that could be used to expose some of the land-use prejudices that are engrained in the very model of territorial sovereignty.

Rather than as a formulaic or 'technical' system, demarcation practices along the DRC-Zambia boundary were recovered as a historical narrative. Taking this narrative approach revealed a disparity in colonial methodology that called into question assumptions of boundary-making being a strictly objective or technical process. Under critical analysis, the demarcation narrative exposed differing perceptions of territory at three particular historical moments that have been identified as the imperial, the colonial and the postcolonial. Demarcation undertaken by the 1911-14 Anglo-Belgian boundary commission was indicative of an 'imperial' perception of territory whereby demarcation practice with crude and widely spaced pillars made the boundary 'known' only to a privileged few who possessed (and could interpret) maps. Although through the imperial lens of small scale mapping the boundary as a line may have appeared distinct, on the ground (at large scale and in three dimensions) the division of respective 'authority' was left in a more 'primitive' state, as a zone or frontier, held at the time to be more indicative of the division of pre-imperial, 'traditional' African political entities.

Similar to other contemporary inter-colonial boundary commissions across Africa, the work of the first Anglo-Belgian boundary commission indicated that

making the boundary ‘known’ at the local level was of only minor concern to the neighbouring imperial ‘sovereigns.’ More often boundary commissions were used for territorial exploration in order to capture comprehensive geographic knowledge of the border landscapes. If the work of these boundary commissions was researched solely from a ‘technical’ perspective, with a demarcated boundary as a distinct product, the contribution of their narratives to the geopolitical imagination of the era could easily be overlooked. It would be interesting to conduct similar analyses of the narratives of other colonial boundary commissions both around Africa and other inter-imperial border landscapes prior to 1914. This might yield a more comprehensive idea of the contribution made by boundary commissions to the collective geographical knowledge project at the height of European imperial positivism in the last decades of the nineteenth century.⁶

Many of Africa’s colonial boundaries, including the section of the DRC-Zambia boundary between Lakes Mweru and Tanganyika, were left effectively suspended in the imperial moment, with the linear division of territory imagined on a small scale map and illustrated by geographical characteristics of the landscape collected by boundary commissions and reproduced in government reports and in presentations before the RGS. However, in the DRC-Zambia narrative the emergence of copper mining in the 1920s along the watershed section became the dominant political feature of the border landscape. It was the economic ‘value’ of land that dictated the demarcation practice of the second Anglo-Belgian boundary commission (1927-33) and led to a clear definition of the fixed and linear boundary on the local landscape. This represented a distinct shift from territory being perceived through the imperial lens of small scale mapping to territory being perceived as an economic commodity that had to be apportioned and exploited; from imperial imagination to colonial exploitation.

It could be argued that the rigid demarcation of the Belgian Congo-Northern Rhodesia boundary by the 1927-33 Anglo-Belgian boundary commission was simply indicative of a greater penetration of colonial administration in the 1920s. Analysis of the overall penetration of colonial administration in Northern Rhodesia and Belgian Congo between 1914 and 1927 was beyond the scope of this research, and itself would be difficult to quantify. Yet what the demarcation narrative suggests is that

⁶ Perhaps looking at the sheer quantitative volume of contributions from boundary commissions to the RGS’s *Geographical Journal* would be an appropriate starting point for further research.

there was much greater administrative attention paid to the watershed region than other areas along the boundary. This penetration of administration was not motivated by the expansion of responsible administration over local population within a defined area, but rather by the presence of valuable mineral deposits. Proper state administration over this form of land-use, according to the European territorial model, required well-defined boundaries that clearly distinguished the allocation of resources on the ground and provided the legally defined area for efficient exploitation. There could be similar examples of the shift from the imperial to the colonial moments illustrated by boundary practices that could be worth further analysis.

From the imagined control over territory in the imperial perspective, through the realities of administration for economic exploitation in the colonial perspective, the DRC-Zambia boundary currently resides in the postcolonial moment. As at the colonial moment, knowledge of the boundary on the ground is still subject to contextualisation based on the economic resources of the land itself. However, the postcolonial moment of the DRC-Zambia boundary sees a private corporation undertaking the demarcation practice that had once been so jealously guarded by government actors. While commercial interests influenced demarcation practice in the colonial moment, they now appear to have supplanted those ‘sovereign’ actors in the actual demarcation practice; the marking of sovereign territory. As examined in Chapter 6, the lack of Zambian government engagement in boundary practices since independence has been blamed on lack of financial commitment and difficulties in engaging with the neighbouring Congolese government. Both of which indicate a lack of political interest in boundary practices which tends to reinforce Jackson and Rosberg’s assertions about African states over reliance on juridical rather than actual empirical statehood.⁷ Along the watershed boundary, the practical aspects of territorial administration and control appear to have been assumed by a private company.

Economic contextualisation of African territory

Demarcation of boundaries in the African colonial context was still largely a ‘secondary’ practice that followed the original, small scale territorial allocations and

⁷ R.H. Jackson and C. Rosberg, ‘Sovereignty and underdevelopment: juridical statehood in the African crisis’ *Journal of Modern African Studies* 24, no. 1 (1986): 1-31. 2-4.

boundary delimitations made by the imperial powers. Therefore, it is difficult to engage demarcation practice in the lengthy arguments about imperial motivations for the original partition of Africa. For example, Uzoigwe provides a summary of the various ‘economic’, ‘psychological’, ‘diplomatic’ and ‘African dimension’ theories behind the original imperial partition of Africa.⁸ While demarcation practices may or may not have significantly altered the position of boundaries from the initial, small scale diplomatic partition of African territory,⁹ the DRC-Zambia case indicates that the initiation of subsequent boundary making processes – in other words, demarcation and maintenance – was often motivated by the economic resources of the landscape.

Critiquing European imperialism in Africa as having been economically motivated is certainly not new, with notable economic perspectives stemming from Karl Marx and John Hobson among many others. Drawing on a distinctly geographical perspective, the American geographer Isaiah Bowman was highly critical of colonialism in the introduction to his famed work *The New World*, suggesting that its sole raison d’être was the supply of raw materials:

The uplift of the native is mere pretence, because that would be missionary work and no government is permitted by the electorate to spend millions in doing good to distant aliens. The maintenance of order likewise would interest the merchant and the statesman not at all if there were no capital investments to safeguard from disorder.¹⁰

The second half of Bowman’s comment is remarkably appropriate to this research considering this book was published in 1928 when the second Anglo-Belgian boundary commission was in the field bringing territorial ‘order’ along the Congo-

⁸ G.N. Uzoigwe, ‘European partition and conquest of Africa: an overview’ In *General History of Africa VII: Africa Under Colonial Domination 1880-1935* ed. A.A. Boahen (Heinemann, CA: UNESCO, 1985), 20-27. There are numerous texts that review the various theories about imperial motivations for the partition of Africa dating back to Marx, Helphand, Hobson and Keltie. Another of the more recent reviews of these arguments is: L.H. Gann and P. Duignan eds., *Colonialism in Africa 1870-1960 Vol. 1: The History and Politics of Colonialism* (Cambridge: Cambridge University Press, 1977).

⁹ The definition of many colonial boundaries in Africa was much more of a reductive process. One prominent example is the significant changes to the boundary between Nigeria and the French colonial territories west of the Niger river (now the Niger-Nigeria boundary). This was initially defined along a lengthy ‘straight’ line between two identified points in 1890, but was dramatically altered in 1898 as a result of greater local knowledge and again in 1904 following a joint commission survey, which even called for a subsequent demarcation commission to refine the boundary farther. See I. Brownlie *African Boundaries: A Legal and Diplomatic Encyclopaedia* (London: Hurst and Co., 1979), 448-451.

¹⁰ I. Bowman, *The New World: Problems in Political Geography, Fourth Edition* (Yonkers, NY: World Book Company, 1928), 18.

Zambezi watershed in an unveiled exercise to facilitate copper mining.¹¹ There have been many postcolonial critiques that follow Bowman's thinking. One notable analysis from Naeem Inayatullah views British and French colonial administration in Africa as having exercised economic integration that contributed to the 'positive sovereignty' of the respective metropolises. However, the same colonial practice did not exercise the political/cultural integration that was essential for bringing an equal level of positive sovereignty to the respective colonies.¹²

From a more historical perspective, the contextualisation of demarcation practice might be indicative of what Robinson and Gallagher saw in 1962 as the sequential imposition of territorial governance in colonial Africa.

...in the 1880s the policy makers had intended nothing more ambitious than building diplomatic fences around these territories and ham-stringing their rulers by informal control. But such methods would not work with the proto-nationalists of Egypt and Ethiopia, the Muslim revivalists of Tunisia and the (Sudan belt), the Arab slavers of Nyasaland and the Congo, the large animist kingdoms of Buganda, Ashanti and Dahomey. They had to be conquered. Once conquered they had to be administered; once administered, they had to be developed to pay the bills for their governance. But the crux of this imperialism lies in its sequence.¹³

The progression of boundary making along the Belgian Congo-Northern Rhodesia boundary can be seen in this sequence. The original delimitation in 1894 was left undemarcated until the first Anglo-Belgian boundary commission embarked in 1911. Even in the wake of their work, the boundary was left unclear at the local scale and remained little more than a 'diplomatic fence'. But the discovery of copper, and its potential economic benefit to the Northern Rhodesia administration, led to the second Anglo-Belgian boundary commission and the rigorous determination of territorial

¹¹ Bowman's use of the term 'order' is particularly poignant from a territorial boundary perspective and in a North American context when read in H.B. Johnson's 1976 work on cadastral surveys in the American mid-west, *Order Upon the Land: The US Rectangular Land Surveys and the Upper Mississippi Country* (New York: Oxford University Press, 1976).

¹² N. Inayatullah, 'Beyond the sovereignty dilemma: quasi-states as social constructs' In *Sovereignty as Social Construct* eds. T.J. Biersteker and C. Weber (Cambridge: Cambridge University Press, 1996), 70.

¹³ R. Robinson, R. and J. Gallagher, 'The partition of Africa' In *The New Cambridge Modern History Vol. XI: Material Progress and World-Wide Problems 1870-1898* ed. F.H. Hinsley (Cambridge: Cambridge University Press, 1962), 623-633. This quote is re-emphasised in the conclusion to their subsequent work R. Robinson and J. Gallagher with A. Denny, *Africa and the Victorians: The Official Mind of Imperialism Second Edition* (London: MacMillan, 1981/rep. 1992), 482.

division at the very largest scale. What Robinson and Gallagher's sequential model fails to address when applied to the Belgian Congo-Northern Rhodesia context is that the penetration of colonial governance was not only motivated by control over conquered peoples, but control of economic resources. To recall a quote by Achille Mbembe cited in Chapter 5:

The colonial space had its space, its shape, its borders. It had its geological make up and its climates. It had its resources, its soils, its minerals, its animal and plant species, its empty lands. In short, it had its qualities.¹⁴

Demarcation methodology may not have represented exactly the level of colonial administrative activity in border areas, but the DRC-Zambia narrative reveals that it did illustrate a higher level of political interest than other boundary sections with less 'valuable' economic assets.

This indicates that despite boundary-making practices (especially demarcation) being dismissed as technical exercises, in reality there are deep political notions to be drawn from those practices. If clear boundary demarcation was reserved for areas with economic prospects, it suggests that the territorial state model purportedly brought to the African continent through imperial division and colonial administration, and subsequently inherited by post-independent African states, was applied unevenly. This is Mamdani's central notion in *Citizen and Subject* with regards to the application of administration over people. What this research into the DRC-Zambia demarcation narrative indicates is that the notion may be applied similarly to the administration of territory itself: that not all African territory, just like individuals under colonial administration, was considered equal, despite small-scale cartographic representation of boundaries suggesting otherwise. If territorial boundaries are a constituent element of the territorial state model, why were its practices so unevenly distributed?

In this sense it is difficult to assess whether or not the European territorial state model is or is not appropriate for post-independent Africa since the inherited 'model' was never exported/imposed with any consistency. The inconsistency of current boundary practices suggests that African governments have been lulled into an imperial perspective of their territory due to their ambivalence towards large scale boundary practices on the ground. While it may be regarded as the European model

¹⁴ A. Mbembe, *On the Postcolony* (Berkeley: University of California Press, 2001), 32.

due to the origin of its ‘exporters’, the ‘model’ of exclusive territorial state sovereignty imposed across Africa through nineteenth century imperialism and twentieth century colonialism was itself never actually consistent within Europe.¹⁵ Similarly, there is no clear indication that pre-colonial Africa had a single consistent model of political organisation.¹⁶ While it is true that the acceptance of colonially defined territory by the OAU in 1964 entrenched the political power of African elites who assumed government positions at independence, has there been any counter model of political organisation that is deemed to be more appropriate in Africa. Despite grand rhetoric about “unscrambling” the political map of Africa, Makau wa Mutua provides no suggestion as to how the new map would be drawn.¹⁷ If Africa should be an exception to the ‘European’ territorial state model, perhaps due to the mobility of its population, seemingly inextricable fusion of political and ethnic identities or its tradition of commonly held land rights, then what should be the alternative model of political organisation? Can these criticisms be assumed across the full breadth of the continent? Would any re-drawing of the political map of Africa not involve the use of fixed, linear and bilateral boundaries between politico-administrative unit, or would it be based on anthropological characteristics?

Because this research has concentrated on boundary practices in relation to the territorial state as exported through the imperial and colonial moments, these issues require more reflection than is available here. In addition, this concentration on that specific idea of ‘boundary’ and the practice of ‘demarcation’ unfortunately has had to exclude a broader historiography of the pre-imperial political entities in the region of the DRC-Zambia boundary.¹⁸ Although Mbembe has suggested that the division of

¹⁵ This is explored in Chapter 2. See especially S. Beaulac, *The Power of Language in the Making of International Law: The word sovereignty in Bodin and Vattel and the myth of Westphalia* (Leiden/Boston: Martinus Nijhof, 2004) and S.D. Krasner, ‘Compromising Westphalia’ *International Security* 20, no. 3 (1995-96): 115-151.

¹⁶ Jan Vansina indicates that even within a relatively limited area of the central African rainforest, there was little ethnic, cultural or political consistency between the numerous tribal groups. J. Vansina, *Paths in the Rainforests: Toward a History of Political Tradition in Equatorial Africa* (Madison: University of Wisconsin Press, 1990). See especially pp. 19-21. See also I. Kopytoff ‘The internal African frontier: the making of African political culture’ in I. Kopytoff, ed., *The African Frontier: The Reproduction of African Societies* (Bloomington and Indianapolis: Indiana University Press, 1987), 8-9.

¹⁷ M. wa Mutua, ‘Why redraw the map of Africa: A moral and legal inquiry’ *Michigan Journal of International Law*, 16 (1994-95): 1113-1176. 1162. Would it see polities defined by ethnicity? Or language? Or religion?

¹⁸ An excellent example of such work is Giacomo Macola’s historiography of the Kazembe kingdom in what became North East Rhodesia, which examines the pre-colonial political structure and the initial engagement with European imperialism. G. Macola, *The Kingdom of Kazembe: History and Politics in North-eastern Zambia and Katanga to 1950* (Münster: Lit, 2002).

pre-colonial African political entities were divided by ‘boundaries capable of infinite extension and abrupt contraction,’¹⁹ in terms of demarcation as a political practice, further research into any methodologies of territorial marking by pre-colonial African polities would be a fascinating contribution to boundary studies.

Demarcation as a continuous process

Beyond the conclusions that can be drawn concerning the imposition of the European territorial state model on Africa, the focus on demarcation raised further significant issues about the relationship between boundary-making practices and more recent discourses on borders and bordering. It is not only contemporary political geography that has distanced itself from boundary-making practices, having once been so engaged both theoretically and practically, there are also misunderstandings about the practices held by government practitioners themselves, conveyed most overtly by the OAU heads of state incorrect description of all African boundaries as ‘tangible realities.’²⁰ The very first specific recommendation in the agreed conclusions of the 2008 African Union Border Programme Symposium called for: “the establishment by the AU Commission of a working group to prepare a practical handbook on delimitation and demarcation in Africa.”²¹ Now over sixty years old, Jones’ 1945 *Boundary-Making* remains the primary (and arguably only) source of instructive discourse on practical demarcation methodology.²² As noted in Chapter 2, Kristof criticised De la Pradelle’s boundary-making stages of preparation, decision and execution as pursuing boundaries in an objective rather than subjective sense.²³ The same critique may be levelled at Jones, although he took great pains to emphasise that

¹⁹ A. Mbembe, ‘At the edge of the world: boundaries, territoriality and sovereignty in Africa’ trans. S. Rendall *Public Culture* 12, no.1 (2000): 259-284. 263-264. See also I. Kopytoff *The African Frontier: The Reproduction of Traditional African Societies* (Bloomington and Indianapolis: Indiana University Press, 1987)

²⁰ 17 July 1964 Declaration of the Council of Ministers, Organization of African Unity, Resolution 16(1).

²¹ African Union Border Programme (AUBP) *Conclusions of the 2nd International Symposium on Land, Maritime, River and Lake Boundaries Management* AUBP/EXP/3(VI). Article 10(i). The fruition of this call, a book entitled *Boundary Delimitation and Demarcation: An African Union Border Programme Practical Handbook* is now in print and was edited by myself.

²² See especially J.W. Donaldson and A. Williams, ‘Delimitation and demarcation: analysing the legacy of Stephen B. Jones’ *Boundary-Making*’ *Geopolitics* 13, no. 4 (2008): 676-701.

²³ L.K.D. Kristof, ‘The Nature of Frontiers and Boundaries.’ *Annals of the Association of American Geographers* 49, no. 3-1 (1959): 269-282. 276.

Boundary-Making was an ideal set of guidelines that reflected a very specific geopolitical context.²⁴

While boundary practitioners in Africa seek out guidelines to inform their practices, there are two conceptual elements thrown up by Kristof's critique as viewed through the lens of the DRC-Zambia boundary narrative. First, it must be questioned whether or not a disparity in demarcation techniques along a boundary requires a disparity in the perception of territory? Is the political rhetoric about the homogeneity of territory a myth that is eroded by the practical realities of the landscape? If so, what realities are more important than others, and therefore require more precise territorial division? These questions refer back to the discussion in Chapters 1 and 2 about the neutral perception of territory in international law versus the heterogeneous perception reflected in more recent bordering discourses. The DRC-Zambia boundary narrative does not provide direct answers to these questions, but it does elevate these core tensions to the surface for political consideration.

The DRC-Zambia boundary narrative expresses that demarcation practices operate within this tension between national (imperial) and local political contexts; both the idealised, cartographic imagery of two sovereign homogeneous territories as well as the varied tapestry of human and physical contexts in local border landscapes. Recalling Megoran's comments noted in Chapter 1, contemporary political geography may view boundary-making practices only as exercising high (imperial/national) political decisions, but the process of demarcation forces an interaction with the local border landscapes. The DRC-Zambia boundary narrative reveals that rather than simply the technical production of a pre-existent line superimposed on the physical landscape, demarcation practices can be, and have been, subject to the conditions of local contexts which have had greater or lesser influence on those practices. Indeed, both Holdich and Jones emphasised that demarcation, and determination of the final, most accurate position of a boundary on the ground, is best advised by a deep understanding of the human as well as the physical geography of the border

²⁴ S.B. Jones, 'Boundary concepts in the setting of place and time.' *Annals of the Association of American Geographers* 49, no. 3 (1959): 241-255. 251-252. See also Donaldson and Williams, 'Delimitation and demarcation.'

landscape.²⁵ This is where political geography can re-engage with boundary practices that are tending to lean towards an objective rigidity within international law.

Drawing from this tension, the DRC-Zambia boundary narrative does put forward a second, more practical notion that may be influential to policy-makers. As suggested in Chapter 2, approaching boundary-making as a technical process tends to imply the production of a discrete product (boundary). Perhaps this stems from conceptualising territory as neutral and homogeneous; the two-dimensional plane on which to draw a mathematical line. However, this narrative has demonstrated that the physical definition of a boundary has a much more cyclical lifespan, indicating that it fades in and out of clarity on the landscape. With clarity of boundary definition being a constitutive component of both neighbour states' territorial sovereignty within international law, ambiguity can lead to overlapping claims and dispute. Therefore, the practical lesson for governments is to resist the temptation to approach boundary-making as a system with a finite objective, rather than an on-going responsibility.

Even beyond its inherent importance as a political geographic process, what the DRC-Zambia narrative suggests about demarcation is that it cannot be seen as a technical stage in a finite system, nor as a finite process itself. Accepting the definition of demarcation from Holdich and Jones as the visual representation of the boundary and even taking it as the final stage in a perceived objective production process, a boundary can never be assumed unless it is experienced in the local context whether through the unilateral state practices of bordering or the bilateral markers of a boundary. Visual knowledge of even a demarcated boundary is constantly undermined by vegetation growth, erosion of pillars and human activity. To take this to its logical end, it might be said that visual knowledge of a boundary through demarcation is strictly positivist; a boundary is either demarcated or it is not; it is visually known or it is not. Saying that the DRC-Zambia boundary was demarcated from 1927 to 1933 by the Anglo-Belgian boundary commission cannot imply that it is visually and physically known on the local landscape today, as my visit to BP 16 revealed.

In Jones' 1945 boundary-making rubric, he suggested that demarcation was followed by the process of 'administration', which in essence he refers to as the

²⁵ See especially Holdich, *Political Frontiers and Boundary Making*, 208; and S.B. Jones, *Boundary-Making: A Handbook for Statesmen, Treaty Editors and Boundary Commissioners* (Washington, DC: Carnegie Endowment for International Peace, 1945), 165.

physical maintenance of the boundary marks.²⁶ While he outlined these as distinct parts of boundary-making, because demarcation itself is the act of making a boundary visible, any ‘administration’ or maintenance of the physical symbols that keep the linear boundary visible must be considered demarcation. Prescott and Triggs treat demarcation and administration as a single discrete subject in their recent work.²⁷ While this certainly hints at the notion that demarcation is not a finite process, they do not make the conceptual link between the demarcation and maintenance practices directly. If the marks or pillars disappear from the landscape, the boundary may revert back to its legal delimitation²⁸ and, therefore, require new demarcation. In other words, the boundary shifts back to the small scale perspective, back to the objective abstraction, back to the privileged knowledge of territorial extent through lines on maps or legal texts.

This idea of demarcation being a continuous practice recalls discussion in Chapter 1 about Robert Sack’s statement in *Human Territoriality* that “territories require constant effort to establish and maintain.”²⁹ Taken even further, Sack says that “delimitation becomes a territory only when its boundaries are used to affect behaviour by controlling access” and suggests that space becomes territory “if the boundaries are used by some authority to mold, influence, or control activities.”³⁰ More importantly, the discussion in Chapter 1 highlighted what David Newman calls the “functional continuum” of bordering practice³¹, revealing the influence of Sack’s concepts on contemporary border studies. Taking Sack’s lead, the boundaries of territory either need to be enforced by some sort of actual control (bordering), or be satisfactorily ‘known’ through symbols such as boundary pillars or marks in order to influence directly or indirectly the patterns and movements of people. The degree of control places bordering practices within Newman’s functional continuum which

²⁶ Jones, *Boundary-Making*, 5 and 220-224.

²⁷ J.R.V. Prescott and G. Triggs *International Frontiers and Boundaries: Law, Politics and Geography* (Leiden: Koninklijke Brill NV, 2008), 60-61 and 69.

²⁸ This is the case if demarcation had never been legally ratified which is commonplace. Some parts of the DRC-Zambia watershed section since the results of the 1927-33 Anglo-Belgian boundary commission demarcation were not officially ratified through an exchange of notes. Given the duration of time and the lack of any objection by either state to the 1927-33 demarcation, it is unlikely that demarcation along the un-ratified portions would ever be considered illegal but it presents a legal ‘grey area.’

²⁹ R.D. Sack, *Human Territoriality: Its theory and history* (Cambridge: Cambridge University Press, 1986), 19.

³⁰ Sack, *Human Territoriality*, 19.

³¹ D. Newman, ‘From the International to the Local in the Study and Representation of Boundaries: Theoretical and Methodological Comments’ In *Holding the Line: Border in a Globalized World* eds. H. Nicol and I. Townsend-Gault (Vancouver: University of British Columbia Press, 2005), 400.

allows analysis of the variations in demarcation practices to open up conversations about the relationship between state and territory.

If demarcation is a continuous process, can it be said to reside conceptually within that ‘functional continuum’ of bordering or are they indicators of an inert mathematical boundary line? Certainly as the symbols of territorial sovereignty, boundary pillars are intended to assert indirect control over populations by communicating that an individual is passing from one area of state jurisdiction and control into another. In terms of its actual construction, demarcation can be seen on a spectrum or continuum where at one end exists undemarcated frontier zones, where jurisdiction is undefined and control may be asserted on an individual from either neighbouring state within a wide geographic area, to the other end where boundary markers stand side-by-side to form a physical barrier, wall or fence.

What the historical narrative of the DRC-Zambia boundary communicates is that the position of demarcation methodology on such a spectrum can convey the level of state interest in rights to the land itself rather than in the responsibilities for governing people. The lack of demarcation suggests a lack of administrative influence, both in the pejorative sense of controlling movements and influencing identity, as well as the (potentially) more beneficial aspects of administrative control such as rule of law, conflict prevention and state-provided services. In the DRC-Zambia context, the presence of economic resources within the land itself along the watershed is the catalyst for the strict imposition of the territorial state model. Areas of less economic ‘value’ do not require as great a penetration of state administrative mechanisms and, therefore, do not require as clear a division of sovereignty.

This brings the theoretical discourse back to the initial discussion about the growing separation between boundary studies and contemporary political geography. The DRC-Zambia case shows that although demarcation may appear as a technical process pursuing an objective boundary product, in reality demarcation can be much more of a contextualised practice, influenced by aspects of the local border landscape. Demarcation was not undertaken uniformly across all African boundaries, either by colonial or post-independence governments. Instead it can be seen along a continuum, influenced by local contexts that include, as the DRC-Zambia case indicates, the economic resources of the land itself. The disparity in boundary demarcation practice along various boundary sections does suggest that states have often taken a more subjective approach to boundary-making rather than treating each boundary as an

objective whole. This in effect heeds Kristof's warning about approaching boundaries subjectively rather than treating the boundary as a homogeneous line that would conceptually reflect homogeneous territory. However, what the demarcation narrative of the DRC-Zambia boundary has revealed is that economic resources are often elevated to the relevant 'subjectivity' that influences demarcation practices, over other aspects of state responsibility.

Epilogue

In December 2008, I attended the Second International Symposium on Land, River and Lake Boundary Demarcation, held in Maputo, Mozambique. Although the first symposium held in Bangkok in 2006 had a more global scope³², this second symposium was focused exclusively on African boundaries, having been organised under the aegis of the newly constituted African Union Border Programme (AUBP). The African Union (AU) invited (and sponsored) representatives from all member states³³ and the symposium was intended to focus on the practical aspects of ensuring member states work toward the – practically impossible – deadline of having all African boundaries recovered and demarcated by 2012.³⁴ The symposium brought together many of the surveyors and practitioners who are responsible for boundary demarcation in their respective governments across Africa. As a co-facilitator of the programme, I also served as rapporteur in one of the two working groups. This technical working group discussed many of the practical issues involved in the demarcation methodologies. Having written the discussion points myself, this was an excellent forum to understand how African governments are approaching boundary demarcation today.

There are no international regulations for boundary demarcation methodology and at one point discussion in the technical working group turned to whether or not

³² International Boundaries Research Unit and Kingdom of Thailand Ministry of Foreign Affairs *Proceedings of the International Symposium on Land and River Boundaries Demarcation and Maintenance in Support of Borderland Development* Bangkok, Thailand, 7-11 November 2006.

³³ However, not all member states were represented. There were two representatives from Zambia, including Mr. Danny Mubanga, and one representative from DRC.

³⁴ African Union, *Declaration on the African Union Border Programme and its Implementation Modalities as Adopted by the Conference of African Ministers in Charge of Border Issues*, Addis Ababa, 7 July 2007. Preamble Art. 1c(iii); See also African Union, *Memorandum of Understanding on Security, Stability, Development and Cooperation in Africa (CSSDCA)*, adopted by the OAU Assembly of Heads of State and Government, Durban, South Africa, July 2002 [Decision CM/Dec.666(LXXXVI)].

the doctrine of intervisibility should be agreed as a key principle, if not a legal requirement, for demarcation. It was agreed that the overall goal of boundary demarcation should be to make pillars/marks intervisible on the ground in order to prevent bilateral disputes and to clarify jurisdiction for local administration. However, a debate ensued when it was questioned whether or not intervisible boundary demarcation was appropriate in uninhabited desert areas. Some delegates suggested that while intervisibility should remain the goal, demarcation should be subject to three influences: topography, available resources (for demarcation) and population density. Other delegates argued that the very purpose of intervisibility in preventing bilateral disputes was compromised if it was not applied consistently. They mentioned that disputes over boundary position could arise even in uninhabited desert areas especially if “oil” (the term actually used in debate) was discovered in border areas. In the end, the working group decided that intervisible demarcation was the overall aim, but it was subject to geographic conditions (both human and physical) and to the available resources of the neighbouring governments. This debate prompted me to think about two overriding themes that have been exposed throughout the DRC-Zambia boundary narrative.

The first intriguing aspect of the discussion on intervisibility was the assumption that rigorous demarcation would be necessary to prevent disputes over economic resources (oil in particular). No doubt this was just an off-hand comment, but it reflects what is often seen as a discernible rise in media interest and political tension when boundary disputes involve (either directly or imagined) economic resources.³⁵ This close association between economic resources and the political value of territory reminded me of the way the DRC-Zambia boundary was marked around BP 18 by the 3 metre high fence near the Frontier copper mine, while it was left totally indistinct just a few kilometres away at BP 16. It suggests that territory continues to be contextualised by governments who see the demarcation of boundaries as necessary for the allocation of land with economic resources; that such

³⁵ To take just one of numerous examples, the Bakassi peninsula at the centre of the Cameroon-Nigeria boundary dispute continues to be referred to in media stories as being ‘oil rich’ when in fact all operations are located well offshore. DRC and Uganda are currently in dispute over Rukwizi island in Lake Albert after an increase in oil exploration on the Ugandan side of the lake. See ‘DRC, Uganda presidents agree security and boundary measures’ *International Boundaries Research Unit news archive*, 8 September 2007; ‘Briton killed as tensions build on DRC-Uganda border in Lake Albert’ *International Boundaries Research Unit news archive*, 3 August 2007; ‘River shift poses questions on DRC-Uganda boundary’ *International Boundaries Research Unit news archive*, 30 May 2007.

resources are worth disputing while land without such resources is less likely to cause dispute.

This raises the question of whether economic resources alone attract territorial administration and necessitate clear knowledge of jurisdictional limits. It is true that the technical working group also discussed the need for clearer boundary demarcation in more populated areas. However, the almost instinctive reaction that the discovery of oil in remote border areas would prompt a boundary dispute recalls the key critique of colonial demarcation practice as being contextualised by the economic value of territory. Indeed, the similarities between the colonial and post-colonial moments of the DRC-Zambia boundary suggest that post-colonial African governments, much like their colonial predecessors, still view territory as a commodity to be exploited. The responsibilities for ‘modern’ and efficient administration are reserved for those areas with the greatest economic yield, begging the question, is it ill-defined territory or ill-defined economic resources that continues to provoke boundary disputes between neighbouring African states?

As discussed in the context of the 1927-33 Anglo-Belgian boundary commission, the notion of intervisibility is intriguing because it makes the linear limit of territory visible at the local scale. As a methodological goal this indicates that state territory should not be contextualised when defining its boundaries at any scale and particularly in the demarcation process. The distinct coloured lines on maps (at any scale) should be as distinctly visible in the lived 1:1 scale. Although the delegates at the 2008 Maputo symposium reflected that this was effectively entrenching boundaries made by the “colonial masters,”³⁶ their preference for intervisible demarcation can be seen as a preference to conceive and communicate the territorial extent of the state as a de-contextualised whole at the lived scale, clarifying the linear limits of both territorial state rights and responsibilities, and removing the prospect of inter-state dispute over boundary definition. This is an objective approach that eliminates the complex political questions of treating territory subjectively.

Indirectly the debate on intervisibility was tied to a second intriguing discussion on the involvement of local populations in the demarcation process that links with the postcolonial discourses on identity noted at the end of Chapter 6.

³⁶ The phrase “colonial masters” was used repeatedly throughout the symposium, although its use eventually gained a tongue-in-cheek resonance.

Boundary pillars or marks have been shown throughout this work to be quite literally the signposts of national political identity based on the territorial state model that in many cases was haphazardly transposed during the colonial period, both in terms of territorial definition and political institutions. Several delegates at the Maputo symposium stated that borderland populations often destroyed boundary pillars, not to protest their significance for political identity but believing that they contained some kind of precious metal (e.g. mercury or gold).³⁷ The consensus in the technical working group was that borderland populations should be educated about the demarcation process, in order to dispel myths about the pillars themselves, and to participate directly in pillar construction. It was felt that if borderland populations knew more about boundary pillars the more they would be respected and maintained; an interesting premise suggesting that local borderland populations, effectively, take possession of marks and symbols that are imbued with national significance.

This research has tried to suggest that the seemingly de-contextualised practice of demarcation is, in fact, imbued with context. Nevertheless, it exposes the difficult balance that my research at the International Boundaries Research Unit seeks to make between academic critique and sound practical advice. If a state is advised not to treat demarcation as a totally de-contextualised practice, avoiding the jaws of the territorial trap, they must make the political decision as to what land is worthy of being clearly marked on the ground by boundaries and what is not. If international law intends that the clear definition of territory by boundaries is essential to prevent conflict, then a contextualised demarcation practice suggests that some land is worth disputing while some is not. What then are the criteria that a state uses to assess the ‘value’ of its territory? Is it the Lockean and imperial approach favouring the economic uses of land, as evidenced by the DRC-Zambia boundary narrative? Should it be based on some kind of human geographical homogeneity (language, culture, ethnicity) or perhaps based on the actual practice of control? These questions raised by the narrative of the DRC-Zambia boundary are for further reflection, but what is clear from this research is that demarcation practices are able to be critically assessed and

³⁷ This was reinforced recently the Ugandan government announced that some 1,500 boundary pillars along all of its international boundaries have been uprooted since independence. Although some had been destroyed by Idi Amin’s soldiers in 1979, “some pillars are said to have been uprooted by vandals who believed they contained mercury at the base.” B. Okiror, ‘1,500 border pillars uprooted’ *New Vision/All Africa (Kampala)*, 4 May 2009.

Chapter 7 – Using demarcation as an analytical lens

doing so provides a unique perspective on the foundational relationship between state and territory.

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**Appendix - Transcriptions of relevant treaties, agreements
and exchanges of notes**

1. General Act of the Conference of Berlin, relative to the Development of Trade and Civilization in Africa; the free navigation of the rivers Congo, Niger &c.; the suppression of the Slave Trade by Sea and Land; the occupation of Territory on the African coasts, &c. “Berlin Act” Berlin, 26 February 1885 – relevant article only¹

CHAPTER I.—DECLARATION RELATIVE TO FREEDOM OF TRADE IN THE BASIN OF THE CONGO, ITS MOUTHS AND CIRCUMJACENT REGIONS, WITH OTHER PROVISIONS CONNECTED THEREWITH.

Freedom of Trade to all Nations.

ART. I. The trade of all nations shall enjoy complete freedom:—

Basin of the Congo Defined.

1. In all the regions forming the basin of the Congo and its outlets. This basin is bounded by the watersheds (or mountain ridges) of the adjacent basins, namely, in particular, those of the Niari, the Ogowé, the Schari, and the Nile, on the north; by the eastern watershed line of the affluents of Lake Tanganyika on the east; and by the watersheds of the basins of the Zambesi and the Logé on the south. It therefore comprises all the regions watered by the Congo and its affluents, including Lake Tanganyika, with its eastern tributaries.

Maritime Zone Defined

2. In the maritime zone extending along the Atlantic Ocean from the parallel situated in 2° 30' of South Latitude to the mouth of the Loge,

Northern Boundary.

The northern boundary will follow the parallel situated in 2° 30' from the coast to the point where it meets the geographical basin of the Congo, avoiding the basin of the Ogowé, to which the provisions of the present Act do not apply.

Southern Boundary.

The southern boundary will follow the course of the Logé to its source, and thence pass eastwards till it joins the geographical basin of the Congo.

Eastern Boundary.

3. In the zone stretching eastwards from the Congo Basin as above defined, to the Indian Ocean from 5 degrees of North Latitude to the mouth of the Zambesi in the south, from which point the line of demarcation will ascend the Zambesi to 5 miles above its confluence with the Shire, and then follow the watershed between the affluents of Lake Nyassa and those of the Zambesi, till at last it reaches the watershed between the waters of the Zambesi and the Congo.

Free Trade Principles applied to Signatory Powers, and to such Independent States as may approve the same.

It is expressly recognized that in extending the principle of free trade to this eastern zone, the Conference Powers only undertake engagements for themselves, and that in the territories belonging to an independent Sovereign State this principle shall only be applicable in so far as it is approved by such State. But the Powers agree to use their

¹ E. Hertslet, *Map of Africa by Treaty Vols. I and II* (London: H.M. Stationery Office, 1894), 24.

good offices with the Governments established on the African shore of the Indian Ocean for the purpose of obtaining such approval, and in any case of securing the most favourable conditions to the transit (traffic) of all nations. (See also Art. XY, p. 33).

2. Circular of the Administrator-General of the Department of Foreign Affairs of the Independent State of the Congo Declaring Neutrality of the State, within its Limits as defined by Treaties. Brussels, 1 August 1885²

(Translation.)

Neutrality.

THE Undersigned, Administrator-General of the Department of Foreign Affairs of the Independent State of the Congo, is charged by the King, Sovereign of this State, to make known to his Excellency the Marquis of Salisbury, Secretary of State for Foreign Affairs in London, that in conformity with Article X of the General Act of the Berlin Conference (No. 17), the Independent State of the Congo declares by these presents that it shall be perpetually neutral, and that it claims the advantages guaranteed by Chapter III of the same Act, at the same time assuming the duties which neutrality carries with it. The state (condition) of neutrality shall apply to the territory of the Independent State of the Congo comprised within the limits resulting from the successive Treaties concluded by the International Association with Germany (No. 52), France (No. 47), and Portugal (No. 68), Treaties notified to the Berlin Conference and annexed to its Protocols, and which are thus determined,* namely:—

To the North.

A straight line starting from the Atlantic Ocean and joining the mouth of the river which flows into the sea to the south of Cabinda Bay, near Ponta Vermelha, at Cabo-Lambo;

The parallel of this latter point prolonged as far as its intersection by the meridian of the confluence of the Culacalla with the Luculla; The meridian thus determined until it meets the River Luculla;

The course of the Luculla to its confluence with the Ohiloango (Luango Luce);

The River Ohiloango, from the mouth of the Luculla to its most northern source; The watershed between the Niadi-Quillou and the Congo as far as the meridian of Manyanga;

A line to be determined which, while following as much as possible a natural division of the land, terminates between the station of Manyanga and the cataract of Ntombo-Mataka, at a point situated on the navigable portion of the river;

The Congo as far as Stanley Pool;

The median line of Stanley Pool;

² FO 881/6067X and in Hertslet, 1894. 198.

Appendix – Transcriptions of relevant treaties, agreements and exchanges of notes

The Congo from a point to be determined above the River Likona-Nkundja.
A line to be determined from this point to the 17th degree of longitude east of Greenwich, following as much as possible the watershed of the Licona-Nkundja Basin;
The 17th degree of longitude east of Greenwich until it meets the 4th parallel of north latitude ;
The 4th parallel of north latitude until it meets the 30th degree of longitude east of Greenwich.

To the East.

The 30th degree of longitude east of Greenwich up to 1° 20' of south latitude ;
A straight line drawn from the intersection of the 30th degree of longitude by the parallel of 1° 20' of south latitude as far as the northern extremity of Lake Tanganyka;
The median line of Lake Tanganyka;
A straight line drawn from Lake Tanganyka to Lake Moero by 8° 30 south latitude;
The median line of Lake Moero ;
The watercourse which unites Lake Moero with Lake Bangweolo.*
The western shore of Lake Bangweolo.*

To the South.

A line drawn from the southern extremity of Lake Bangweolo until it meets the 24th degree of longitude east of Greenwich, and following the watershed between the Congo and the Zambezi;
The watershed of the basin of the Kassa'i between the 12th and 6th parallels of south latitude;
The 6th parallel of latitude to its intersection by the Quango;
The course of the Quango until it meets the parallel of Nokki:
The parallel of Nokki until it meets the meridian which passes through the mouth of the River Uango-Uango;
The course of the Congo from the confluence of the River Uango-Uango to the sea.

To the West.

The Atlantic Ocean between the mouth of the Congo and the river which flows into the sea to the south of Cabinda Bay near Ponta Yarmelha.

EDM. VAN
EETVELDE.

Brussels, 1st August, 1885.

LIST OF TREATIES (CONTRACTS) between the Belgian Expedition to the Upper Congo and Native Chiefs, 1882-1884

20 Oct., 1882 Laufountchou and Kindokki - Cession. Villages and Districts. Land between the Rivers Nsoundon and

	Ntombé to their confluents, and the road leading from the village of Laufountchou of Lutéle to that of Kimbanda.
29 Oct., 1882 Selo – Cession	Sovereignty. Villages and District.
6 Jan., 1883 Palla Balla – Cession	District
1 Apr., 1884 M’Boma (King Né Pereira) – Cession	Sovereign rights. Villages and lands. Seugne (Manilombi), Sara Ora, and Chinquella Goma (Capitos), Luçala, Emboche (Manilombi), N’Boch
19 Apr., 1884 M’Boma (King Né Corado) – Cession	Sovereign rights. Villages and lands. M’Banza, Chianda, Dimbo, Chincorda, N’Sança, Lutélé, Maktandan, Jouco Dekeli (Capita), Sacra N’Jouka (Manilombi)
19 Apr., 1884 Moïnda (Nelambé Zoulau) – Cession	Sovereign rights. Seven villages (not named)
19 Apr., 1884 Palla Balla	Meaning of term “Cession of Territory” in Treaty of 6 th January, 1883. “Suzerainty” not “Purchase of Soil”
19 Apr., 1884 M’Boma (King Né Canha or Né Pereira) – Cession	Sovereign rights. Towns and lands. M’Bonza, N’Comboa, Caia M’Boma, N’Bouvalle (Monilombi), Louvongo, N’Souni, Mahunda (Capita)
20 Apr., 1884 Moïnda (Nelambé Zoulau) – Cession	Bank of the Congo bordering his States on the South. (Land acquired by Foreign Houses excepted).

3. Charter granted to the British South Africa Company, signed at Westminster, 29 October 1889 – Relevant Clauses Only³

VICTORIA, by the grace of God of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith, to all to whom these presents shall come, greeting.

WHEREAS a humble Petition has been presented to us in our Council by the Most Noble James Duke of Abercorn Companion of the Most Honourable Order of the Bath; the Most Noble Alexander William George, Duke of Fife, Knight of the Most Ancient and Most Noble Order of the Thistle, Privy Councillor; the Right Honourable Edric Frederick. Lord Gifford, V.C.; Cecil John Rhodes, of Kimberley, in the Cape Colony, Member of the Executive Council and of the House of Assembly of the Colony of the Cape of Good Hope; Alfred Belt, of 29, Holborn Viaduct, London, merchant; Albert Henry George Grey, of Howick, Northumberland, Esquire; and George Cawston, of 18, Lennox Gardens, London, Esquire, Barrister-at-Law ;

And whereas the said Petition states, amongst other things:

That the Petitioners and others are associated for the purpose of forming a Company or Association, to be incorporated, if to us should seem fit, for the objects in

³ British and Foreign State Papers (BFSP) Vol. 81 (1888-89), 617.

the said Petition set forth, under the corporate name of “The British South Africa Company”;

That the existence of a powerful British Company, controlled by those of our subjects in whom we have confidence, and having its principal field of operations in that region of South Africa lying to the north of Bechuanaland and to the west of Portuguese East Africa would be advantageous to the commercial and other interests of our subjects in the United Kingdom and in our Colonies;

That the Petitioners desire to carry into effect divers Concessions and Agreements which have been made by certain of the Chiefs and tribes inhabiting the said region, and such other Concessions, Agreements, Grants, and Treaties as the Petitioners may hereafter obtain within the said region or elsewhere in Africa, with the view of promoting trade, commerce, civilization, and good government (including the regulation of liquor traffic with the natives) in the territories which are or may be comprised or referred to in such Concessions, Agreements, Grants, and Treaties, as aforesaid;

That the Petitioners believe that if the said Concessions, Agreements, Grants, and Treaties can be carried into effect, the condition of the natives inhabiting the said territories will be materially improved and their civilization advanced, and an organization established which will tend to the suppression of the Slave Trade in the said territories, and to the opening up of the said territories to the immigration of Europeans, and to the lawful trade and commerce of our subjects and of other nations;

That the success of the enterprise in which the Petitioners are engaged would be greatly advanced if it should seem fit to us to grant them our Royal Charter of Incorporation as a British Company under the said name or title, or such other name or title, and with such powers, as to us may seem fit for the purpose of more effectually carrying into effect the objects aforesaid;

That large sums of money have been subscribed for the purposes of the intended Company by the Petitioners and others, who are prepared also to subscribe or to procure such further sums as may hereafter be found requisite for the development of the said enterprise, in the event of our being pleased to grant to them our Royal Charter of Incorporation as aforesaid:

Now, therefore, we, having taken the said Petition into our Royal consideration in our Council, and being satisfied that the intentions of the Petitioners are praiseworthy and deserve encouragement, and that the enterprise in the Petition described may be productive of the benefits set forth therein, by our prerogative Royal and of our especial grace, certain knowledge, and mere motion, have constituted, erected, and incorporated, and by this our Charter, for us and our heirs and Royal successors, do constitute, erect, and incorporate into one body politic and corporate, by the name of "The British South Africa Company," the said James, Duke of Abercorn, Alexander William George, Duke of Fife, Edric Frederick, Lord Gifford, Cecil John Rhodes, Alfred Beit, Albert Henry George Grey, and George Cawston, and such other persons and such bodies as from time to time become and are members of the body politic and corporate by these presents constituted, erected and incorporated, with perpetual succession and a common seal, with power to break, alter, or renew the same at discretion, and with the further authorities, powers, and privileges conferred, and subject to the conditions imposed by this our Charter. And we do hereby accordingly will, ordain, give, grant, constitute, appoint, and declare as follows, that is to say:—

1. The principal field of the operations of the British South Africa Company (in this our Charter referred to as "the Company") shall be the region of South Africa

lying immediately to the north of British Bechuanaland, and to the north and west of the South African Republic, and to the west of the Portuguese dominions.

2. The Company is hereby authorized and empowered to hold, use and retain for the purposes of the Company, and on the terms of this our Charter, the full benefit of the Concessions and Agreements made as aforesaid, so far as they are valid, or any of them, and all interests, authorities, and powers comprised or referred to in the said Concessions and Agreements. Provided always that nothing herein contained shall prejudice or affect any other valid and subsisting Concessions or Agreements which may have been made by any of the Chiefs or tribes aforesaid, and in particular nothing herein contained shall prejudice or affect certain Concessions granted in, and subsequent to, the year 1880, relating to the territory usually known as the district of the Tati; nor shall anything herein contained be construed as giving any jurisdiction, administrative or otherwise, within the said district of the Tati, the limits of which district are as follows, viz., from the place where the Shasi River rises to its junction with the Tati and Ramaquaban River, thence along the Ramaquaban River to where it rises, and thence along the watershed of those rivers.

3. The Company is hereby further authorized and empowered, subject to the approval of one of our Principal Secretaries of State (herein referred to as " our Secretary of State ") from time to time, to acquire by any Concession, Agreement, Grant, or Treaty, all or any rights, interests, authorities, jurisdictions, and powers of any kind or nature whatever, including powers necessary for the purposes of government and the preservation of public order in or for the protection of territories, lands, or property comprised or referred to in the Concessions and Agreements made as aforesaid, or affecting other territories, lands, or property in Africa, or the inhabitants thereof, and to hold, use, and exercise such territories, lands, property, rights, interests, authorities, jurisdictions, and powers respectively for the purposes of the Company, and on the terms of this our Charter.

4. Provided that no powers of government or administration shall be exercised under or in relation to any such last-mentioned Concession, Agreement, Grant, or Treaty, until a copy of such Concession, Agreement, Grant, or Treaty, in such form and with such maps or particulars as our Secretary of State approves, verified as he requires, has been transmitted to him, and he has signified his approval thereof, either absolutely or subject to any conditions or reservations; and provided also that no rights, interests, authorities, jurisdictions, or powers of any description shall be acquired by the Company within the said district of the Tati, as hereinbefore described, without the previous consent in writing of the owners for the time being of the Concessions above referred to relating to the said district, and the approval of our Secretary of State.

5. And we do lastly will, ordain, and declare, without prejudice to any power to repeal this our Charter by law belonging to us, our heirs and successors, or to any of our Courts, Ministers, or officers, independently of this present declaration and reservation that in case at any time it is made to appear to us in our Council that the Company has substantially failed to observe and conform to the provisions of this our Charter, or that the Company is not exercising its powers under the Concessions, Agreements, Grants, and Treaties aforesaid, so as to advance the interests which the petitioners have represented to us to be likely to be advanced by the grant of this our Charter, it shall be lawful for us, our heirs and successors, and we do hereby expressly reserve and take to ourselves, our heirs and successors, the right and power, by writing under the Great Seal of our United

Kingdom, to revoke this our Charter, and revoke and annul the privileges, powers, and rights hereby granted to the Company.

In witness whereof we have caused these our Letters to be made Patent.

Witness ourself at Westminster, the 29th day of October, in the 53rd year of our reign.

By warrant under the Queen's Sign Manual.

MUIR MACKENZIE

4. Agreement between Great Britain and His Majesty King Leopold II, Sovereign of the Independent State of the Congo, relating to the Spheres of Influence of Great Britain and the Independent State of the Congo in East and Central Africa, signed in Brussels, 12 May 1894 and attached map⁴

THE Undersigned, the Honourable Sir Francis Richard Plunkett, a Knight Grand Cross of the most distinguished Order of St. Michael and St. George, Her Britannic Majesty's Envoy Extraordinary and Minister Plenipotentiary to the King of the Belgians, on behalf of the British Government, and M. van Eetvelde, Officer of the Order of Leopold, Grand Cross of the Orders of St. Gregory the Great, of Christ of Portugal, and of the African Redemption, &c., Secretary of State of the Interior of the Independent State of the Congo, on behalf of the Government of the Independent State of the Congo, duly authorized by their respective Governments, have agreed as follows:

His Majesty the King of the Belgians, Sovereign of the Independent State of the Congo, having recognized the British sphere of influence, as laid down in the Anglo-German Agreement of the 1st July, 1890 (No. 129), Great Britain undertakes to give to His Majesty a lease of territories in the western basin of the Nile, under the conditions specified in the following Articles:—

Boundary. North of German Sphere. Watersheds between the Nile and the Congo.

ART. I.— (a.) It is agreed that the sphere of influence of the Independent Congo State shall be limited to the north of the German sphere in East Africa by a frontier following the 30th meridian east of Greenwich up to its intersection by the watershed between the Nile and the Congo, and thence following this watershed in a northerly and north-westerly direction.

Boundary. North of the Zambesi. Luapula River. Lake Moero to Lake Bangweolo.

(b.) The frontier between the Independent Congo State and the British sphere to the north of the Zambesi shall follow a line running direct from the extremity of Cape Akalunga on Lake Tanganika, situated at the northernmost point of Cameron Bay at about 8° 15' south latitude, to the right bank of the River Luapula, where this river issues from Lake Moero. The line shall then be drawn directly to the entrance of the river into the lake, being, however, deflected towards the south of the lake so as to give the Island of Kilwa to Great Britain. It

⁴ FO 93/14/66 and in Hertslet, 1894. 990.

shall then follow the "thalweg" of the Luapula up to its issue from Lake Bangweolo. Thence it shall run southwards along the meridian of longitude of the point where the river leaves the lake to the watershed between the Congo and Zambesi which it shall follow until it reaches the Portuguese frontier.

Lease of certain Territories by Great Britain to the Congo State.
West Shore of Lake Albert and Watershed between the Nile
and the Congo.

ART. II Great Britain grants a lease to His Majesty King Leopold II, Sovereign of the Independent Congo State, of the territories hereinafter defined, to be by him occupied and administered on the conditions and for the period of time hereafter laid down.

Boundaries.

The territories shall be bounded by a line starting from a point situated on the west shore of Lake Albert, immediately to the south of Mahagi, to the nearest point of the frontier defined in paragraph (a) of the preceding Article. Thence it shall follow the watershed between the Congo and the Nile up to the 25th meridian east of Greenwich, and that meridian up to its intersection by the 10th parallel north, whence it shall run along that parallel directly to a point to be determined to the north of Fashoda. Thence it shall follow the "thalweg" of the Nile southward to Lake Albert, and the western shore of Lake Albert to the point above indicated south of Mahagi.

This lease shall remain in force during the reign of His Majesty Leopold II, Sovereign of the Independent Congo State.

Nevertheless, at the expiration of His Majesty's reign, it shall remain fully in force as far as concerns all the portion of the territories above mentioned situated to the west of the 30th meridian east of Greenwich, as well as a strip of 25 kilom. in breadth, to be delimited by common consent, stretching from the watershed between the Nile and the Congo up to the western shore of Lake Albert, and including the port of Mahagi.

This extended lease shall be continued so long as the Congo territories as an Independent State or as a Belgian Colony remain under the sovereignty of His Majesty and His Majesty's successors.

Flag.

Throughout the continuance of a lease there shall be used a special flag in the leased territories. Lease of Territory by Congo State to Great Britain between Lake Tanganika and Lake Albert Edward.

ART. III. The Independent Congo State grants under lease to Great Britain, to be administered when occupied, under the conditions and for a period hereafter determined, a strip of territory 25 kilom. in breadth, extending from the most northerly port on Lake Tanganika, which is included in it, to the most southerly point of Lake Albert Edward. This lease will have similar duration to that which applies to the territories to the west of the 30th meridian east of Greenwich.]

Self-Denying Declaration.

ART. IV. His Majesty King Leopold II, Sovereign of the Independent Congo State, recognizes that he neither has nor seeks to acquire any political rights in the territories ceded to him under lease in the Nile Basin other than those which are in

conformity with the present Agreement. Similarly, Great Britain recognizes that she neither has, nor seeks to acquire, any political rights in the strip of territory granted to her on lease between Lake Tanganika and Lake Albert Edward other than those which are in conformity with the present Agreement.

Telegraphic Communication.

ART. V. The Independent Congo State authorizes the construction through its territories by Great Britain, or by any Company duly authorized by the British Government, of a line of telegraph connecting the British territories in South Africa with the British sphere of influence on the Nile. The Government of the Congo State shall have facilities for connecting this line with its own telegraphic system. This authorization shall not confer on Great Britain or any Company, person or persons, delegated to construct the telegraph line, any rights of police or administration within the territory of the Congo State.

Equality of Treatment in Territories Leased.

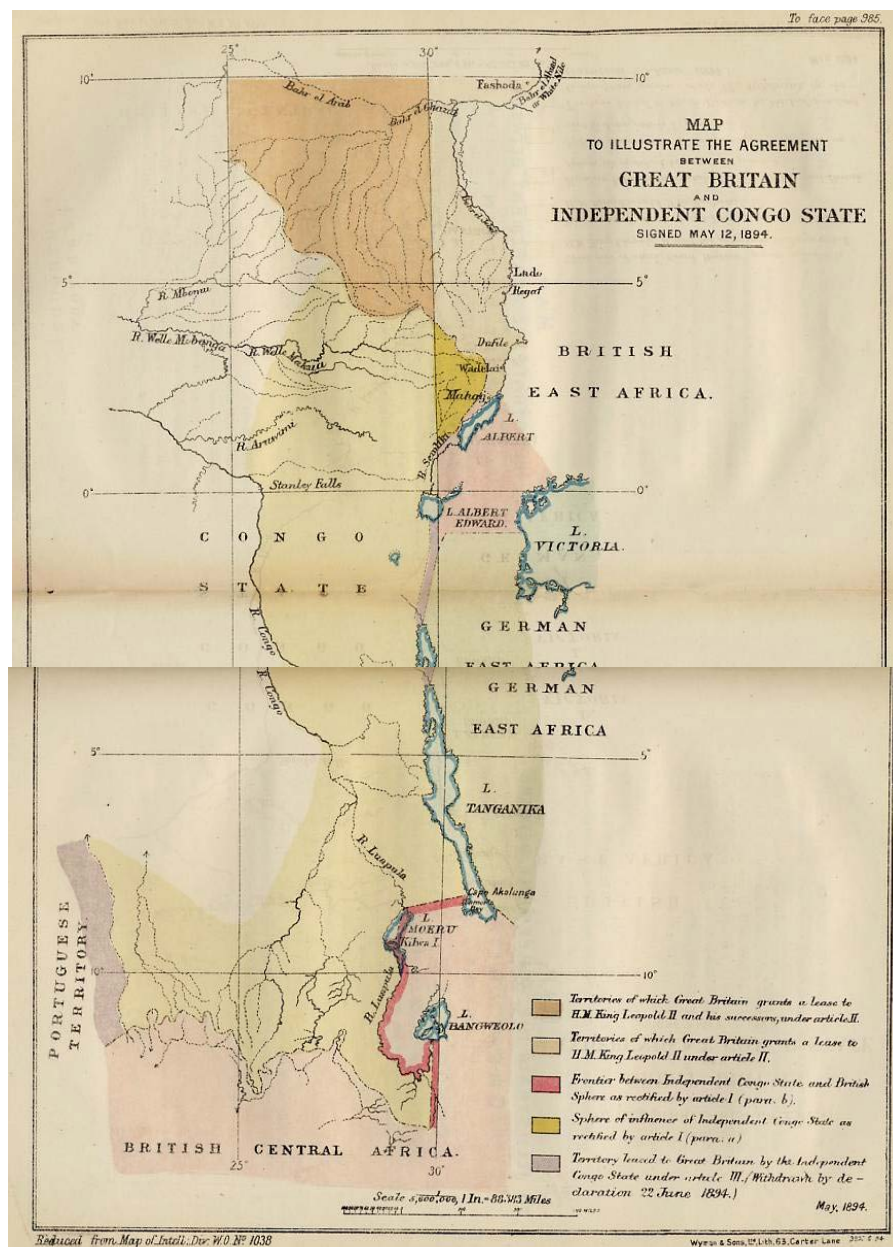
ART. VI. In the territories under lease in this Agreement the subjects of each of the Contracting Parties shall reciprocally enjoy equal rights and immunities, and shall not be subjected to any differential treatment of any kind.

In witness whereof the Undersigned have signed the present Agreement, and have affixed thereto the seal of their arms.

Done in duplicate at Brussels, this 12th day of May, 1894.

(L.S.) FRANCIS RICHARD
PLUNKETT.

(L.S.) EDM. VAN EETVELDE.



Map to illustrate the 1894 Anglo-Belgian Treaty (southern section)

5. Exchange of Notes between Great Britain and Belgium in regard to the Delimitation of the Boundary between Northern Rhodesia and the Belgian Congo, exchanged in London, 4 April and 3 May 1927⁵

To: His Majesty's Principal Secretary for Foreign Affairs, London
 M. le Secrétaire d'Etat,
 Londres, le 4 avril 1927.

LA conference par le Gouvernement du Roi, mon auguste Souverain et par le Gouvernement de Sa Majeste britannique en vue de conference les instructions á remettre á une commission de délimitation de la frontière entre le Congo et la

⁵ FO 93/14/113

Rhodésia du Nord, s'est réunie comme le sait votre Excellence, du 16 au 19 mars 1927, á Bruxelles.

Les délégués belges et britanniques ayant été chargés de s'entendre, sous réserve de l'approbation de leurs Gouvernements respectifs, j'ai l'honneur, d'ordre de mon Gouvernement, de porter á la connaissance de votre Excellence que le Gouvernement belge accepte les conclusions de la conférence.

Je saisis, &c.

BN. MONCHEUR.
Belgian Ambassador

To: The Belgian Ambassador, London

Your Excellency,

Foreign Office, May 3, 1927.

IN your note of the 4th ultimo your Excellency was so good as to inform me that the Belgian Government had accepted the conclusions of the conference, which met in Brussels from the 16th to the 19th March, with a view to prepare instructions for the commission which is to delimit the frontier between the Belgian Congo and Northern Rhodesia.

2. I have the honour on behalf of His Majesty's Government in Great Britain to inform you that they also accept the conclusions of the above-mentioned conference.

I have, &c.

(For the Secretary of State),
R.H.CAMPBELL.

Agreement respecting the Appointment of a Commission for the Demarcation of the Katanga-Northern Rhodesia Boundary, from the Convention in Brussels, signed 19 March 1927

THE. British and Belgian delegates appointed to agree, subject to the approval of their respective Governments, upon the scope and composition of a Mixed Commission to carry out the demarcation of the boundary between Katanga, a part of the Belgian Congo, and Northern Rhodesia, and upon the text of the instructions to be given to that Commission, met at the Ministry for Foreign Affairs, Brussels, from the 16th to the 19th March, 1927, inclusive:

The British delegate was Colonel H. St. J. L. Winterbotham, of the War Office.

The Belgian delegates were M. Louwers. of the Ministry for Foreign Affairs, MM. Halewyck de Heusch and Maury, of the Ministry of Colonies.

The decisions arrived at are given below in English and French, and shall be included in the instructions to be given to the respective Commissioners.

Of the two appendices attached to this document, appendix I gives a short and signed resume of the agreement already reached on the subject of the whole Anglo-Belgian boundary from Lake Tanganyika to pillar 46. Appendix II [not reproduced] shows the type of boundary pillars agreed to.

1. A Mixed Anglo-Belgian Commission will be appointed to demarcate precisely that portion of the boundary between the Congo and Northern Rhodesia lying between boundary pillars 1 and 46, erected by the Anglo-Belgian (Rhodesia-Congo) Boundary Commission of 1911-1914.

Throughout this portion the boundary is defined as the ideal watershed dividing the basins of the rivers Congo and Zambesi.

11.5.3.2 Powers of the Commission.

2.—(1) The Commissioners shall have authority, generally, to make such minor rectifications, and adjustments, to the ideal watershed as are necessary to avoid the troubles which might arise from a literal interpretation of the treaty.

(2) The present position of the boundary pillars shall be accepted where they lie not further than 200 metres from the ideal watershed. In exceptional circumstances, and in areas of no particular known economic value, errors of position up to 500 metres may be allowed. In adjusting such departures from the ideal watershed to the general run of the boundary, no sharp re-entrants will be formed.

(3) Where there are alternative ideal watersheds, including undrained basins, the Commissioners shall agree upon, and demarcate, a compromise line.

(4) In all cases of encroachment by the nationals of either party, the Commissioners will be guided by the following general principles:—

(a) Properties and enclosures which lie athwart the ideal watershed shall be left undivided as far as possible, whether they be State, corporation, tribal or individual, in character.

(b) The good faith and economic importance of any encroachment shall be taken into account.

(c) No encroachment of a date subsequent to the signature of this agreement shall be considered.

(5) In the possible event of a difference of opinion, each Commissioner will forward an immediate report embodying the view of both parties to—

(a) The home authority.

(b) The local authority, together with a request that local views may be represented as early as possible to the home authority.

In the above case the ideal watershed will be marked temporarily, but adequately, during the progress of discussion.

(6) The Commissioners shall consider the question of the Belgian railway, north and north-west of Mokambo station, with a view to establishing whether a modification of the boundary, such as to allow of shortening the railway, can be arranged.

3. The general report of the Commission shall include:—

(a)—(1) A general description of the line.

(2) A plan, cadastral in nature, showing all field measurements, both linear and angular, the positions of all boundary pillars, main and auxiliary, the levels and spot heights, and the relative positions of artificial detail, such as railways and buildings, lying within 500 metres of the actual boundary. The scale of this plan shall be 1/10,000.

(3) A special report, accompanied by its own topographical plan (at the scale of 1/10,000), to illustrate any important deviation from the ideal watershed considered necessary under the terms of paragraph 2.

(4) A list of boundary pillars descriptive of construction and tabulating the bearings and check measurements necessary for restoration.

(b)—(1) A diary of the work and conclusions of the Commission.

(2) A technical report on methods and instruments.

4.—(1) Main boundary pillars shall include Nos. 1 to 46 as already established, or as altered by the present Commission, amplified by the insertion of additional pillars at a mean interval of 5 kilometres.

(2) Auxiliary boundary pillars, at a mean interval of 500 metres, shall be inserted to define change of bearing, and in such a fashion as to allow of a definition of the boundary by the straight lines joining them.

(3) Successive pillars shall be intervisible between instrument (taken as 1-40 metres) and stave (taken as 3 metres).

5.—(1) Main boundary pillars shall be established with reference to the ruling triangulation, except in cases where natural difficulties make it necessary to traverse.

(2) Auxiliary pillars shall be points of a continuous traverse, except where ranges or hill features make direct recourse to triangulation easier and cheaper.

6. Trigonometrical heights will be obtained for all boundary pillars, main and auxiliary; the actual position of the ideal watershed being obtained, where necessary, by levelling sections perpendicular to the boundary.

7. The error of triangular closure shall not exceed 12 seconds, and of traverses a closing discrepancy, angular $\sqrt{n} \times 30''$ (where n is the number of summits), and linear $\sqrt{d}/1,000$ metres (where d is the distance in kilometres).

The British field measures shall be in feet, and the Belgian in metres.

8. The tables used shall be based on Clarke's 1880 figure. Main boundary pillars shall be defined by their geographical co-ordinates, and auxiliary pillars shall be defined in rectangular co-ordinates referred to the main pillar lying next to the east as origin.

All values shall be the mean of the British and Belgian results, and shall be given in metres.

9. All boundary pillars, main or auxiliary, shall be marked in iron, concrete, cement or stone.

For main pillars the general type of the attached diagram [not reproduced] shall be adhered to wherever possible. At auxiliary pillars a section of iron piping, 3 feet in length and 2 inches in diameter, may be driven in flush with the surface, and marked by a cairn or pillar, and trench, above. In addition to the marks as defined above, a line of 5 metres in width will be cleared along the boundary.

10. The Commission shall allocate responsibility for the upkeep of boundary pillars, and of cleared boundary lines, to the respective local Governments in such a fashion as to halve the labour and cost in the most convenient way. A joint perambulation and inspection of the boundary shall be made every 10 years, and during this inspection the position of any restored shall be verified. Repairs considered necessary will be brought to the notice of the responsible official, who shall be authorised to undertake them as a matter of routine.

11. The Mixed Commission shall consist of British and Belgian elements similar in strength and composed as under:—

One Chief Commissioner.

Two Assistant Commissioners.

Four Technical Assistants.

12. The Commission shall assemble at Elisabethville on or about the 15th July, 1927, and shall start with the demarcation between boundary pillars 22 and 29.

13. It will be necessary to arrange for a medical officer, for transport, labour and porters, and for suitable escort. The Governments of Northern Rhodesia and Katanga shall be asked to consider, to decide and to provide what may be necessary under the above headings.

14. Each nationality shall bear the expense of its own Commission, transport, stores, &c., and the Mixed Commission shall endeavour, by equitable division in the field, to avoid subsequent accounting.

15. The decisions and conclusions of the Commissioners shall be submitted for ratification by the two Governments, and the delimitation shall, thereby, become authoritative.

Signed in duplicate at Brussels on the 19th day of March, 1927.

H. S. WINTERBOTHAM, Colonel.

HALEWYCK DE HEUSCH.

O. LOUWERS.

MAURY.

APPENDIX I TO No. 3.— Resume of Agreement respecting the whole Anglo-Belgian Boundary from Lake Tanganyika to Pillar 46.

IN order to facilitate negotiations for the final delimitation and demarcation of the Anglo-Belgian boundary included in the following four sectors, viz.:—

I.—Congo-Zambesi watershed section,

II.—Bangweulu section (Mpanta meridian),

III.—Luapula river and Lake Mweru section,

IV.—Mweru-Tanganyika section,

the conference take occasion to define the points on which agreement has already been reached.

I.— Congo-Zambesi Watershed Section.

It is agreed in principle that this boundary is defined upon the ground by the ideal watershed between boundary pillars 1 and 46. Small adjustments to the ideal watershed are envisaged, but pillars 1 and 46 are both already fixed for the following reasons:—

(a) Pillar 1.—The meridian of Mpanta has been agreed to, and actually provides the only definite point of departure for sections I and II. The meridian is partially cleared on the ground and the position is known to be substantially correct.

(b) Pillar 46.—The position of this point should be agreed to simultaneously by Great Britain, Belgium and Portugal, forming as it does a common point. Great Britain and Portugal have already ratified the treaty dealing with the Anglo-

Rhodesia boundary and have, therein, agreed to the present position of this pillar. It remains therefore to include that position, as it exists, in the demarcation now to be undertaken.

II.—Bangweulu Section (Mpanta Meridian).

There is, for this section, an agreement as to the longitude of the Mpanta meridian, and upon the fact that the River Luapula does not issue from Lake Bangweulu, and is cut by the Mpanta meridian south of the Lake.

III.—Luapula River—Lake Mweru.

The agreed upon line—the thalweg of the Luapula river to its debouchment into Lake Mweru and the line through Lake Mweru to the point where the River Luvua leaves the Lake, leaving the island of Kilwa to Rhodesia—is agreed to.

IV.—Mweru-Tanganyika Section.

Practically no agreement has been reached in this section. The straight line, defined by treaty, extending from the point where the River Luvua issues from Lake Mweru (on the west) to the Cape Akalunga (on the east) is not possible of demarcation without further agreement.

The western terminal point, chosen with difficulty, and subsequently agreed upon by the commission of 1913, denies access to the Lake to the town of Pweto—a modus vivendi establishes that access temporarily. The eastern terminal point has not so far been agreed to. Cape Akalunga cannot be established. It appears that no such name is recognised, and the intention of the treaty is interpreted in different ways by the parties interested.

O. LOUWERS.

HALEWYCK DE HEUSCH.

MAURY.

H. S. WINTERBOTHAM, Colonel.

6. 7 April 1933 Exchange of Notes between Great Britain and Belgium concerning the Results of the Boundary Commission of the boundary between Northern Rhodesia and the Belgian Congo⁶

M. le Ministre,

Brussels, April 7, 1933.

I HAVE the honour to inform your Excellency that His Majesty's Government in the United Kingdom of Great Britain and Northern Ireland, having noted the protocols signed on the 1st October, 1929, and the 24th February, 1930, containing the decisions of the Commissioners appointed to delimit and demarcate a section of the boundary between the Belgian Congo and Northern Rhodesia, declare that they approve these protocols and consider as being the exact boundary between these two territories the boundary resulting from the text of the said protocols as printed and annexed hereto and the accompanying maps.

⁶ FO 93/14/65 and FO 93/14/66.

2. At the end of the protocol of the 1st October, 1929, is an undertaking which may be summarised as follows:—

"It was not found possible to effect a modification of the boundary north-west of Mokambo which would have allowed the Belgian railway to construct in this area a short portion of the railway with the object of facilitating the working of the line, but it is agreed that, if at some future date the British interests in that portion of Rhodesian territory which would have to be ceded to Belgium to enable this alteration to be effected should admit, the question of the possibility of a modification of the boundary between the main pillars 22 and 22 II might be considered."

3. His Majesty's Government in the United Kingdom confirm this undertaking. On the other hand, they note the renunciation previously agreed to by the Belgian Government of the facilities which the Commissioners had decided to offer it, pending the contemplated rectification of the boundary, so as to allow the Belgian railway to pass through Rhodesian territory.

4. I have the honour to propose that the present note and your Excellency's reply in similar terms shall be regarded as placing on record the agreement arrived at between the two Governments in this matter.

I avail, &c.

GRANVILLE.

Enclosure 1 in No. 1.—Protocol containing the Decisions of the Commissioners respecting the Frontier between Boundary Pillars Nos. 11 and 29. - 1 October 1929

THE undersigned: [Names of the Commissioners] having been duly appointed by their respective Governments to delimit and demarcate the frontier between British and Belgian territory along the Congo-Zambesi watershed, in accordance with the agreement signed in Brussels between Great Britain and Belgium on the 19th March, 1927, have surveyed the boundary in accordance with the instructions laid down and have come to the following agreement:—

(1) The international frontier between Northern Rhodesia and the Belgian Congo between boundary pillar No. 11 and boundary pillar No. 29 shall, except where modified by special agreement between us (vide appendix III), follow as closely as possible the line of ideal watershed separating the river Zambesi from the river Congo.

(2) The boundary, as actually demarcated on the ground, consists of a series of straight lines, each of an average length of about 500 metres. These lines have been sited in such a way that they follow, as closely as possible, the line of ideal watershed (except where the boundary has been modified, vide paragraph (1)).

(3) At every change of direction between these straight lines a boundary pillar has been erected. The boundary pillars are classified under two heads:—

(a) Main boundary pillars (constructed of concrete), at intervals of approximately 5 kilometres along the boundary.

(b) Auxiliary pillars (cairns of stones), at every intermediate point between main pillars.

For details of construction, see appendix VIII.

In addition, a lane of 5 metres in width has been cut all along the boundary.

(4) The existing numbering of the boundary pillars erected by the 1912-14 Commission has been retained.

As these pillars were, in many cases, at a considerable distance apart, it was found necessary to erect a number of extra main pillars, in order to comply with the instructions that there shall be a main pillar every 5 kilometres approximately.

These extra main pillars have been numbered by adding roman numerals to the original numbers, e.g., between B.P. 24 and B.P. 25 it was found necessary to insert four extra main boundary pillars.

These were, therefore, numbered as follows:—

24.1, 24.11, 24.III and 24.IV.

The auxiliary boundary pillars have been designated by adding a letter of the alphabet to the number of the main boundary pillar to which their co-ordinates are referred.

To avoid confusion, in no case has the letter "I" been used. The sequence of lettering runs, therefore, direct from "H" to "J," omitting "I," e.g., between B.P. 24.1 and B.P. 24.11 there are eleven auxiliary pillars, which are numbered as follows:—

24.I.A, 24.I.B, &c., to 24.I.L.

All numbering is from east to west along the boundary.

(5) The actual positions of the boundary pillars are defined as follows:—

(a) Main pillars.—By their geographical co-ordinates.

(b) Auxiliary pillars.—By their rectangular co-ordinates on the Cassini projection, the origin for each bay of the boundary between main boundary pillars being the next main pillar to the eastward along the boundary, and the axes of reference the meridian through that point and the line at right angles to it.

(6) In appendix VI will be found a complete list of all boundary pillars, both main and auxiliary, giving the reduced horizontal distance between successive pillars, and the included angles between the successive legs as obtained from direct field measurement and, in addition, provisional values for their co-ordinates of position and altitudes.

In accordance with section 2 (2) of the Brussels agreement (1927), the original positions of some of the main boundary pillars as sited by the 1912-14 Commission were altered so as to conform to the actual location of the ideal watershed.

A list of the occasions where these original pillars have not been accepted, and where a new position has therefore been selected, will be found in appendix V.

(7) Twenty-five plans on a scale of 1/10,000 are attached to this protocol (vide appendix VII).

These cadastral plans illustrate the run of the boundary from B.P. 11 to B.P. 29, and contain sufficient data for re-establishing any boundary pillars which may be destroyed.

In addition, one special plan is attached illustrating the only important deviation from the ideal watershed in this section of the boundary. The special report dealing with this deviation will be found in appendix III.

(8) A general description of the boundary will be found in appendix II.

(9) No fresh determination (by re-survey or re-computation) of the position of any natural feature or boundary pillar mentioned in this protocol shall alter the boundary line as marked on the ground and herein described.

(10) Responsibility for the upkeep of boundary pillars and for the clearing of the boundary lines is allocated as follows:—

Government of Northern Rhodesia.

From B.P. 11 (inclusive) to B.P. 24 (exclusive).

Government of the Belgian Congo.

From B.P. 24 (inclusive) to B.P. 29 (inclusive).

It is agreed that each Government shall, annually, ensure that the portion of the boundary for which it is responsible shall be cut or cleared in whatever manner appears suitable, and that the boundary pillars shall be maintained in a proper state of repair.

A joint perambulation and inspection of the boundary shall be made every 10 years by representatives detailed by the Governments of Northern Rhodesia and the Belgian Congo to ensure that the boundary is kept properly cleared and that the pillars have not been moved.

The first perambulation shall take place during 1938.

(11) In accordance with section 2, paragraph (6), of the agreement signed at Brussels on the 19th March, 1927, the possibility of effecting a modification to the boundary to the north-west of Mokambo has been investigated.

In consequence of mineral development in that area, it has not been found possible at the present time to effect any such modification.

It is agreed, however, that if at some future date it is found that the small area of Rhodesian territory concerned is not required for a commercial development, the question of the possibility of a modification of the boundary between B.P. 22 and B.P. 22.11 shall be reconsidered.

In the meantime, by virtue of an agreement which was signed by the British and Belgian Commissioners on the 15th May, 1929, the Belgian railway is authorised, under certain conditions, to reconstruct a short portion of the railway through Rhodesian territory immediately to the south of the Mokambo hills.

A copy of the above-mentioned agreement is attached to this protocol (vide appendix IV).

(12) The two original copies of the present protocol, in English for the British Section and in French for the Belgian Section, are signed this 1st day of October, 1929.

A. B. CLOUGH, Lieut.-Colonel,
Senior British Commissioner.

F. GENDARME, Lieut.-Colonel.
Senior Belgian Commissioner.

11.6.3 APPENDIX I TO ENCLOSURE 1 IN No. 1.— Agreement between Great Britain and Belgium respecting the Appointment of a Commission for the Demarcation of the Katanga-Northern Rhodesia Boundary.—Brussels, March 19, 1927. (see Appendix 1, section 10.5)

APPENDIX II TO ENCLOSURE 1 IN No. 1.— General Description of the Boundary, B.P. 11-B.P.29.

For practically the entire distance from B.P. 11 to B.P. 29, the boundary passes through "savannah bush." Visibility is restricted to 100 to 200 yards at a maximum. The trees average about 40 feet in height and about 6 inches in diameter. As a general rule the undergrowth is not thick. The prevalence of many large ant-hills is a peculiar feature.

Except on rare occasions the watershed ridge is of a flat-topped nature showing very little rise or fall for a considerable distance on either side. In the following description the terms "unmistakable," "well-defined" and "ill-defined" afford a relative idea as to the nature of the actual watershed ridge.

B.P. 11.

Situated on a prominent summit at the northern extremity at the Kabwa hills, about 15 miles to the south-east of Ndola. Its centre point corresponds with the trigonometrical station in the triangulation known as Kabwa.

From B.P. 11 the boundary bears north-west for a distance of about 3 miles and then runs due north to B.P. 12. The watershed is ill-defined. Between B.P. 11 and B.P. 12 one additional main boundary pillar has been erected as follows:—

B.P. 11.I.: Situated at a distance of about $2\frac{3}{4}$ miles from B.P. 11.

B.P. 12.

Is situated a short distance north of the sources of the rivers Mwatesi (Rhodesia) and the Makinka (Congo) and lies about 12 miles to the east of Ndola.

Between B.P. 11 and B.P. 11.I there are 15 auxiliary boundary pillars.

Between B.P. 11.I and B.P. 12 there are 13 auxiliary boundary pillars.

From B.P. 12 to B.P. 13 the watershed is ill-defined and traverses a large plateau following a general north-westerly direction for about 6 miles, when it bears west-north-west and after 2 more miles B.P. 12 is reached.

Between B.P. 12 and B.P. 13 two additional main boundary pillars have been erected as follows:—

B.P. 12.I: About 3 miles to the north-west of B.P. 12.

B.P. 12.II.: A little over 2 miles to the north-west of B.P. 12.1.

Between B.P. 12 and B.P. 12.I there are 8 auxiliary boundary pillars.

Between B.P. 12.I. and B.P. 12.II. there are 9 auxiliary boundary pillars.

Between B.P. 12.II. and B.P. 13 there are 10 auxiliary boundary pillars.

B.P. 13.

Situated between the sources of the rivers Mupatanzi (Rhodesia) and Kaluoza (Congo).

From B.P. 13 the watershed is ill-defined and follows a general north-westerly direction, crossing a large plateau, the slopes of which are gentle towards the Congo but steeper towards the Rhodesian valley of the river Itawa.

B.P. 14 is reached after about 9 miles along the watershed from B.P. 13, the watershed being ill-defined.

Between B.P. 13 and B.P. 14 one supplementary main pillar has been erected as follows:—

B.P.13.I.: Which is situated nearly 4 miles to the north-west of B.P. 13.

Between B.P. 13 and B.P. 13.I there are 16 auxiliary boundary pillars.

Between B.P. 13.I and B.P. 14 there are 13 auxiliary boundary pillars.

B.P. 14.

Situated about 3 miles to the east of Misundu (the frontier station of the railway from Ndola to Sakania).

Continuing in a north-westerly direction for about 1 mile after passing B.P. 14, the boundary bears sharp to the west and swinging round slightly towards the south, reaches B.P. 15, about 3 miles from B.P. 14 measured along the boundary.

Between B.P. 14 and B.P. 15 there are 13 auxiliary boundary pillars.

Situated immediately to the west of the railway line, just north of Misundu, where the railway crosses from Rhodesia into Congo territory.

At B.P. 15 the boundary turns sharply towards the south, thus commencing the extensive and very pronounced loop towards Rhodesia, which has a depth of about 5 miles from west to east and is about 15 miles in length from north to south.

The sources of the river Itawa are found a short distance to the south of B.P.'s 14 and 15, and the pronounced and marshy valley of the Itawa runs thence in a southerly direction, on the east-side of the railway, towards Ndola, 10 miles to the south.

Leaving B.P. 15 in a south-south-westerly direction B.P. 15.I. is reached, about 40 metres north of the Ndola-Nkana road. The actual watershed line is ill-defined. It crosses to the south of the road at this point and, looping first to the west and then northwards, crosses the road again about 1,800 metres further to the west, at a point which is now B.P. 15.I.D. The boundary here was, however, modified and runs now from B.P. 15.I. to B.P. 15.I.D. at a distance of about 10 metres to the north of the road, thus leaving the road wholly in Rhodesian territory.

At B.P. 15.I.D. the boundary swings to the north-west away from the road until reaching B.P. 16.

Between B.P. 15 and B.P. 15.I. there are 21 auxiliary boundary pillars.

Between B.P. 15.I. and B.P. 16 there are 15 auxiliary boundary pillars.

B.P. 16.

Is situated on the side of the branch road leading from the main Ndola-Nkana road to Sakania, at a distance of approximately 500 metres from the road junction.

This road junction is about 11½ miles from Ndola.

From B.P. 16 the boundary follows a general north-north-westerly direction and B.P. 17 is reached after traversing a wide plateau for a distance of about 3½ miles.

The watershed is ill-defined.

Between B.P. 16 and B.P. 17 there are 9 auxiliary boundary pillars.

B.P. 17.

Situated close to, and just to the north-east of, the source of the south branch of the river Mwekera (Rhodesia).

Leaving B.P. 17 the watershed ridge becomes rather more pronounced and turns towards the north-west.

B.P. 17.I.: Is reached at a distance of about 3½ miles from B.P. 17. The ridge then becomes less pronounced as the boundary is followed to B.P. 18.

Between B.P. 17 and B.P. 17.I. there are 12 auxiliary boundary pillars.

Between B.P. 17.I. and B.P. 18 there are 10 auxiliary boundary pillars.

B.P. 18.

Situated about 6 miles to the north-west of B.P. 17 and in close proximity to the northern branch of the Mwekera river (Rhodesia) and of the river Kamoka (Congo).

This latter stream drains into a small enclosed basin lying to the north-west of Sakania between the boundary and the Katanga railway.

Old B.P. 18 was situated at a point where now stands B.P. 18.F. This point lies in open ground resembling a "dembo" from which an open clear view is obtained to the south-west and north-east.

Continuing in a north-westerly direction for about 2 miles after leaving B.P. 18, the boundary then swings round to the north-north-east, thus commencing the northern limits of the big loop which originated at B.P. 15 to the southward. The ridge here is ill-defined.

Between B.P. 18 and B.P. 19 one supplementary main boundary pillar has been erected, viz.:—

B.P. 18.I: Situated about 4 miles north-north-west of B.P. 18.

Immediately after leaving B.P. 18.I. the boundary swings round to the east and at a distance of about 3 miles from B.P. 18.I., B.P. 19 is reached.

Between B.P. 18 and B.P. 18.I. there are 18 auxiliary boundary pillars.

Between B.P. 18.I. and B.P. 19 there are 14 auxiliary boundary pillars.

B.P. 19.

Shortly after leaving B.P. 19 the boundary swings round to the north approaching close to the railway and reaching B.P. 20 at a distance of about 3 miles along the boundary from B.P. 19.

Between B.P. 19 and B.P. 20 there are 11 auxiliary boundary pillars.

B.P. 20.

Situated about 300 metres to the west of the railway. The watershed ridge now becomes well-defined. Leaving B.P. 20 the boundary follows a general north-north-easterly direction for about U miles when it swings round to the

north-west and continues thus to B.P. 21, a further distance of about 14 miles. The railway runs more or less parallel to the boundary all the way. Between B.P.'s 20 and 21 four supplementary main boundary pillars have been erected as follows:—

B.P. 20.I.: In close proximity to kilometre 28 on the railway.

B.P. 20.II.; Close to kilometre 35 on the railway.

B.P. 20.III-: About 4[^] miles north-west of B.P. 20.II.

B.P. 20.IV.: Situated on an unmistakably rocky prominence in the vicinity of kilometre 49 on the railway and about 2 miles to the south-east of Tshofoshi railway station.

Between B.P. 20 and B.P. 20.I. there are 11 auxiliary boundary pillars.

Between B.P. 20.I. and B.P. 20.II. there are 22 auxiliary boundary pillars.

Between B.P. 20.II. and B.P. 20.III. there are 19 auxiliary boundary pillars.

Between B.P. 20.III. and B.P. 20.IV. there are 19 auxiliary boundary pillars.

Between B.P. 20.IV. and B.P. 21 there are 25 auxiliary boundary pillars.

B.P. 21.

Situated on a small hill about 2 miles to the north-west of Tshofoshi station and in close proximity to kilometre 54 on the railway.

The rivers Mutundu (Rhodesia) and Tshofoshi (Congo) have their sources in the vicinity of B.P. 21.

Leaving B.P. 21 the boundary continues along the well-defined watershed ridge towards the foot of the very prominent Mokambo hills.

B.P. 22 is reached at a distance of just over 4 miles from B.P. 21.

Between B.P. 21 and B.P. 22 there are 22 auxiliary pillars.

B.P. 22.

Situated 150 yards to the west of Mokambo railway station.

From B.P. 22 the boundary continues towards the north-west and climbs up the steep shoulder of Mokambo hill to B.P. 22.I. which corresponds with the main trigonometrical point, "Mokambo south."

Dropping down to a col at B.P. 21.I.D. the boundary turns in a general westerly direction, and, after a series of three very pronounced bends, reaches B.P. 22.III.

The watershed ridge after leaving Mokambo hill becomes ill-defined once more.

About half-way between B.P. 22.I. and B.P. 22.III. another supplementary main boundary pillar has been erected, viz., B.P. 22.II.

B.P. 22.III.: (A supplementary main pillar) is 100 metres distant from the railway line in the vicinity of kilometre 86.

From B.P. 22.III. to B.P. 22.IV. the boundary runs towards the west for a distance of about 2 miles and then bends round towards the north reaching B.P. 22.IV. in the close vicinity of kilometre 91 on the railway. The watershed is ill-defined.

B.P. 22.IV.: (A supplementary main pillar) is situated in the vicinity of kilometre post 91 on the railway.

From B.P. 22.IV. the boundary proceeds westwards for about 1½ miles and then bears to the south-west reaching B.P. 23 after a further 2 miles.

Between B.P. 22 and B.P. 22.I. there are 8 auxiliary boundary pillars.

Between B.P. 22.I. and B.P. 22.II. there are 21 auxiliary boundary pillars.

Between B.P. 22.II. and B.P. 22.III. there are 14 auxiliary boundary pillars.
Between B.P. 22.III. and B.P. 22.IV. there are 12 auxiliary boundary pillars.
Between B.P. 22.IV. and B.P. 23 there are 12 auxiliary boundary pillars.

B.P. 23.

Situated about 800 metres to the south of the railway in the vicinity of kilometre 98.

The old traction road from Tshinsenda crosses the railway from the north side at kilometre 99 and passes close by B.P. 23 proceeding in a south-easterly direction towards Sakania.

At B.P. 23, the watershed ridge turns sharply to the south and forms a most pronounced loop about 3 miles in depth and of an average width of approximately 2 miles.

The eastern and western sides of this loop are well-defined. The base of the loop, at its south end, is, however, ill-defined.

B.P. 23.I.: At the most south-westerly point on the loop.

B.P. 23.II.: About 1½ miles to the south-west of Lubembe station.

B.P. 23.III.: The boundary approaches close to the railway once more at kilometre 108 near which point is situated B.P. 23.III.

From this point the watershed is fairly well-defined and follows a sinuous and roughly westerly direction as far as B.P. 23. VI. which is situated close to kilometre 118 on the railway, and the railway runs close to and parallel with it all the way. B.P.'s 23.IV. and 23.V. are erected in close proximity to, and connected by traverses with, the terminals "B" and "A" respectively of the old control base of Tshinsenda.

After leaving B.P. 23.VI. the boundary turns to the south-west for a distance of about 2½ miles, when it swings round rapidly in the form of a loop and, following a general northerly direction, reaches B.P. 24. Along this section the watershed is less well-defined.

B.P. 23.VII.: Situated about 2½ miles south-south-west of B.P. 24 and lies about 200 metres to the east of the Tshinsenda-Nchanga road.

Between B.P. 23 and B.P. 23.I. there are 15 auxiliary boundary pillars.

Between B.P. 23.I. and B.P. 23.II. there are 15 auxiliary boundary pillars.

Between B.P. 23.II. and B.P. 23.III. there are 10 auxiliary boundary pillars.

Between B.P. 23.III. and B.P. 23.IV. there are 8 auxiliary boundary pillars.

Between B.P. 23.IV. and B.P. 23.V. there are 10 auxiliary boundary pillars.

Between B.P. 23.V. and B.P. 23.VI. there are 7 auxiliary boundary pillars.

Between B.P. 23.VI. and B.P. 23.VII. there are 16 auxiliary boundary pillars.

Between B.P. 23.VII. and B.P. 24 there are 13 auxiliary boundary pillars.

B.P. 24.

Situated about 190 yards to the west of the main railway track at Tshinsenda station. The concrete pillar has been constructed alongside and within 2 metres of the small anthill in which the pipe, indicating the position, had been fixed by the 1912-14 Commission.

The original pipe has been left in situ.

From B.P. 24 and to B.P. 25 the line of watershed separates the waters of the rivers Muliashi (Rhodesia) and those of the rivers Tshinsenda and Luina (Congo).

Leaving B.P. 24 it is ill-defined and runs for approximately 5 miles in a north-north-westerly direction, when it makes a sharp bend to the west-north-west and, rising gradually and becoming well-defined, it reaches a point (B.P. 25) where the very prominent Chiwolere ridge juts out away to the north-west and the watershed itself turns very sharply to the south-south-west.

Between B.P. 24 and B.P. 25 four supplementary main pillars have been erected as follows:—

B.P. 24.I: About 150 metres from the railway line in the vicinity of kilometre 130.

B.P. 24.II.: About 500 metres north of Kawimba railway station.

B.P. 24.III.: About 3 miles west of B.P. 24.II.

B.P. 24.IV.: About 4½ miles west of B.P. 24.III.

Between B.P. 24 and B.P. 24.I. there are 14 auxiliary boundary pillars.

Between B.P. 24.I. and B.P. 24.II. there are 11 auxiliary boundary pillars.

Between B.P. 24.II. and B.P. 24.III. there are 9 auxiliary boundary pillars.

Between B.P. 24.III. and B.P. 24.IV. there are 19 auxiliary boundary pillars.

Between B.P. 24.IV. and B.P. 25 there are 5 auxiliary boundary pillars.

B.P. 25.

Is situated 750 metres to the south-south-east of the main trigonometrical station on the summit of Chiwolere hill. It marks the point of intersection of the Congo-Zambesi watershed with the crest of a very prominent ridge and line of hills extending thence in a north-westerly direction and separating the basins of the rivers Mushosa and Luina (both in the Congo). The concrete pillar is constructed close alongside and within 2 metres of the original pipe inserted by the 1912-14 Commission.

From B.P. 25 the boundary descends sharply towards the south and south-west and continues thus for about 6 miles, separating the head waters of the rivers Muliashi and Mingomba (Rhodesia) from those of the Chikalonga (Congo). Along this section the watershed is ill-defined. The boundary then runs in a westerly direction, rising quickly to the top of a very prominent ridge which forms the northern limit of the Konkola hills. Continuing along the crest of this unmistakable ridge, and descending gradually, a point is reached about U miles north of Konkola trigonometrical point, where the boundary bends, first to the north-west and then again to the west, and rises sharply to the summit of an isolated kopje on which stands B.P. 26.

NOTE.—B.P. 26, as described above, is not situated on the same site or in the vicinity of the original B.P. 26 fixed by the 1912-14 Commission. Old B.P. 26, although within a few metres of the ideal watershed, was not capable of being fixed trigonometrically. An entirely new site was therefore chosen for new B.P. 26.

Between B.P. 25 and B.P. 26, five supplementary main boundary pillars have been erected as under:—

B.P. 25.I.: About 3½ miles to the south-west of B.P. 25.

B.P. 25.II.: On a rocky kopje about 500 metres south of the old traction road between Baya and Tshinsenda, which was opened during 1928, and about 2½ miles south-west of B.P. 25.1.

B.P. 25.III.: On the top of one of the most prominent rocky kopjes on the ridge mentioned above, and about 2 miles to the west-north-west of B.P. 25.II.

B.P. 25.IV.: Cannot be defined with any relation to any prominent landmark. It is in the normal bush and about 30 metres north of the old traction road from Baya to Tshinsenda. It is about $2\frac{3}{4}$ miles to the west of B.P. 25.III.

B.P. 25.V.: On a steep rocky kopje at the western end of the well-defined ridge mentioned above, and about 300 metres to the north of the road, and about $2\frac{1}{4}$ miles west of B.P. 25.IV.

Between B.P. 25 and B.P. 25.I. there are 22 auxiliary boundary pillars.

Between B.P. 25.I. and B.P. 25.II. there are 11 auxiliary boundary pillars.

Between B.P. 25.II. and B.P. 25.III. there are 10 auxiliary boundary pillars.

Between B.P. 25.III. and B.P. 25.IV. there are 12 auxiliary boundary pillars.

Between B.P. 25.IV. and B.P. 25.V. there are 8 auxiliary boundary pillars.

Between B.P. 25.V. and B.P. 26 there are 13 auxiliary boundary pillars.

B.P. 26.

Situated on a small kopje (as previously described) about 2 miles to the south of Mushoshi station.

From B.P. 26 the boundary runs first to the north-east for about 2 miles and then turns sharply to the north-west. With many fluctuations the boundary continues in a general north-westerly direction for about 30 miles before reaching B.P. 27. Along the whole of this section the watershed is ill-defined.

Between B.P. 26 and B.P. 27 the boundary runs almost parallel with and at an approximate distance of 10 miles from the river Kafue (Rhodesia).

Nine supplementary main pillars have been erected between B.P.'s 26 and 27 as follows:—

B.P. 26.I.: Just over 3 miles north of B.P. 26 and roughly $\frac{3}{4}$ mile to the west of the railway in the vicinity of kilometre 180.

B.P. 26.II.: About $3\frac{1}{2}$ miles to the west-north-west of B.P. 26.I. and about 200 metres to the south of the railway in the vicinity of kilometre 186.

B.P. 26.III.: About $3\frac{3}{4}$ miles north-west of B.P. 26.II. and 400 metres distant from the railway in the vicinity of kilometre 193.

B.P. 26.IV.: About 4 miles north-north-west of B.P. 26.III. and about 470 metres west of the railway in the vicinity of kilometre 200.

B.P. 26.V.: Just over 3 miles north-north-west of B.P. 26. IV.

B.P. 26.VI.: Nearly $2\frac{1}{2}$ miles north-west of B.P. 26.V.

B.P. 26.VII.: Just over $2\frac{1}{2}$ miles north-north-west of B.P. 26.VI.

B.P. 26.VIII.: About 4 miles north-north-east of B.P. 26. VII. and 430 metres to the west of the railway in the vicinity of kilometre 213.

B.P. 26.IX.: Nearly $3\frac{3}{4}$ miles north-west of B.P. 26.VIII.

From the neighbourhood of Mushoshi station (north-east of B.P. 26) to a point within 4 miles of B.P. 27 the Belgian railway runs parallel with and at an average distance of about 1 mile from the boundary.

Between B.P. 26 and B.P. 26.I. there are 18 auxiliary boundary pillars.

Between B.P. 26.I. and B.P. 26.II. there are 13 auxiliary boundary pillars.

Between B.P. 26.II. and B.P. 26.III. there are 14 auxiliary boundary pillars.

Between B.P. 26.III. and B.P. 26.IV. there are 14 auxiliary boundary pillars.

Between B.P. 26.IV. and B.P. 26.V. there are 13 auxiliary boundary pillars.

Between B.P. 26.V. and B.P. 26.VI. there are 13 auxiliary boundary pillars.

Between B.P. 26. VI. and B.P. 26. VII. there are 10 auxiliary boundary pillars.

Between B.P. 26.VII. and B.P. 26.VIII. there are 19 auxiliary boundary pillars.
Between B.P. 26. VIII. and B.P. 26.IX. there are 16 auxiliary boundary pillars.
Between B.P. 26. IX. and B.P. 27 there are 11 auxiliary boundary pillars.

B.P. 27.

Is situated nearly 5 miles west-south-west of Baya station, on the south side of the road leading from Baya to Kipushi.

From B.P. 27 the boundary continues in a roughly north-westerly direction for a distance of about 15 miles when B.P. 28 is reached. At a distance of about 6 miles from B.P. 27 the branch railway from Munama junction to Kipushi mine approaches very close to the boundary and continues to run parallel with and about 200 metres from it to within a short distance of Kipushi.

Here the boundary swings away a little to the south-west and then bends sharply again towards the north-west before reaching B.P. 28. The watershed here is ill-defined.

Between B.P. 27 and B.P. 28 five supplementary main pillars have been erected as follows:—

B.P. 27.I.: About 3½ miles to the north-west of B.P. 27.

B.P. 27.II.: About 6 miles north-west of B.P. 27 at the point where the Kipushi railway approaches close to the boundary in the vicinity of kilometre 21, as measured from Munama. It is at B.P. 27.II. that the Kipushi boundary modification commences. (See Appendix III)

The railway here is 200 metres to the north of the boundary.

B.P. 27.III.: 200 metres south of the railway in the vicinity of kilometre 26, and about 3 miles west-north-west of B.P. 27.II.

B.P. 27.IV.: Nearly 3 miles west-north-west of B.P. 27.III. and 200 metres south of the railway line in the vicinity of kilometre 30.

B.P. 27.V.: On the north side of the Kipushi-Kansanshi road, about 350 metres from the right-angled junction between this road and the old Kipushi mine-Elisabethville road.

Between B.P. 27 and B.P. 27.I. there are 12 auxiliary boundary pillars.

Between B.P. 27.I and B.P. 27.II. there are 10 auxiliary boundary pillars.

Between B.P. 27.II. and B.P. 27.III. there are 11 auxiliary boundary pillars.

In addition, an extra pillar has been erected on the boundary line between B.P.27.II.C. and B.P. 27.II.D., at the point where the road leading towards Baya and Kansanshi crosses the boundary.

This road, after crossing the railway at kilometre 22, rejoins the old road from Kipushi to Elisabethville.

The boundary pillar is constructed of concrete and is similar in all respects to a main pillar. It carries the inscription 27.II.C.-D. and is situated at a distance of 420 metres to the west of 27.II.C.

Between B.P. 27.III. and B.P. 27.IV. there are 11 auxiliary boundary pillars.

Between B.P. 27.IV. and B.P. 27. V. there are 18 auxiliary boundary pillars.

Between B.P. 27. V. and B.P. 28 there are 4 auxiliary boundary pillars.

B.P. 28.

Is situated on the old traction road from Elisabethville through B.P. 30 to Musofi,

From B.P. 28 to B.P. 29 the watershed is ill-defined and runs in a northerly direction, climbing up towards the Mukambo hills. The actual watershed

runs parallel with and from 1 to 2 miles to the west of the prominent Mukambo ridge. B.P. 29 itself is not on the prominent summit called "Mukambo A," but about 1 mile to the west of it.

Between B.P. 28 and B.P. 29, three supplementary main pillars have been erected as follows:—

B.P. 28.1.: A little more than 3 miles to the north-north-east of B.P. 28.

B.P. 28.11.: About 3 miles to the north of B.P. 28.I.

B.P. 28.III.: About 4 miles to the north of B.P. 28.II. The river Kafue (Rhodesia) has its source in the vicinity.

Between B.P. 28 and B.P. 28.I. there are 13 auxiliary boundary pillars.

Between B.P. 28.I. and B.P. 28.II. there are 15 auxiliary boundary pillars.

Between B.P. 28.II. and B.P. 28.III. there are 18 auxiliary boundary pillars.

Between B.P. 28.III. and B.P. 29 there are 11 auxiliary boundary pillars.

B.P. 29.

Situated about 1 mile to the west of "Mukambo A" trigonometrical point, the most prominent point on the Mukambo hills.

A. B. CLOUGH, Lieut.-Colonel,
Senior British Commissioner.

F. GENDARME, Lieut.-Colonel,
Senior Belgian Commissioner.

11.6.5 APPENDIX III TO ENCLOSURE 1 IN No. 1.— Summary of the Occasions where the Commissioners agreed to deviate from the Ideal Watershed when demarcating the Boundary, Sub-Section B.P. 11-B.P. 29.

11.6.5.1 (A)—MAJOR ADJUSTMENTS.

Only one major modification has been effected, namely, in the vicinity of Kipushi.

Special Report on the Modification of the Boundary in the Vicinity of Kipushi.

When locating the line of ideal watershed in the vicinity of Kipushi (approximately 25 kilometres to the south-west of Elisabethville), it was found that the branch railway line running from Munama (a station on the main C.F.K. line at kilometre 240) to Kipushi crossed over the watershed into Rhodesian territory at varying intervals along the total length of approximately 3 to 4 kilometres.

At the first time of crossing it remained on the Rhodesian side of the watershed for 800 metres, but lay close to it. It then recrossed and remained on the Belgian side for nearly 5½ kilometres, when it again crossed over into Rhodesia.

This time it remained for 2,600 metres on the Rhodesian side of the watershed, for a considerable part of which it ran close to the watershed line. At the end nearest to Kipushi, however, the watershed makes a re-entrant into the Congo, thus causing the railway to cut off a triangle whose greatest depth was about 530 metres.

The instructions to the Commissioners laid down that properties lying athwart the ideal watershed should be left undivided as far as possible, but the good faith and economic importance of each particular case should be taken into

account and no encroachment subsequent to the 19th March, 1927, should be considered.

The portion of the railway under consideration was in operation in April 1926, so this latter contingency did not arise.

Owing to the thickly wooded nature of the country, the actual watershed is nowhere obvious and the good faith of the railway engineers who sited the railway must be acknowledged.

There remains the economic clause to be considered. From the available evidence it would not appear that the land in question had any obvious economic value.

The then Senior British Commissioner, Lieutenant-Colonel D. Cree, R.E., therefore agreed to allow this encroachment to stand and to trace the boundary line so as to run parallel to the railway and at such a distance from it as not to cramp it.

On the suggestion of the Belgian Commissioner, it was agreed that, in compensation for the area thus ceded by the British Commissioner, the boundary should be traced parallel to the railway and at 200 metres from it, from the point where it first crossed over into Rhodesia as far as the point where it finally crossed back into the Congo.

On this basis, the exchanges of area were approximately equal.

The attached plan, drawn on a scale of 1/10,000, shows:—

(a) The line of ideal watershed.

(b) The line of railway.

(c) The boundary agreed to by the British and Belgian Commissioners.

We, the undersigned, therefore, being duly authorised, under the provisions of section II of the technical instructions, to make certain modifications and adjustments to the watershed boundary as seems desirable for special reasons, do agree that the line of boundary between B.P. 27.II. and B.P. 27.IV. shall be so modified as to leave entirely in Belgian territory the line of railway from Munama to Kipushi, in so far as it existed in the month of August 1927. This modification is to be interpreted as it has been actually marked, on the ground, by boundary pillars and auxiliary beacons, by this present Commission, and as illustrated by the attached plan (scale 1/10,000), which represents the topographical features and line of boundary between B.P. 27.II. and B.P. 27.IV.

A. B. CLOUGH, Lieut.-Colonel,
Senior British Commissioner.

F. GENDARME, Lieut.-Colonel,
Senior Belgian Commissioner.

11.6.6 (B)—MINOR ADJUSTMENTS.

1. Between B.P. 15 and B.P. 16, it was found that the line of ideal watershed made a loop towards the south in such a way that a portion of the main Ndola-Nkana road remained on the Belgian side of the watershed for a length of about 1,800 metres.

In exchange for a series of small concessions at various places along the railway between B.P. 20 and B.P. 23.VII. (see paragraph 2, A, below), the boundary between B.P. 15 and B.P. 16 was modified in such a way as to leave the Ndola-Nkana road entirely in Rhodesian territory.

Along the stretch of road in question the boundary has therefore been demarcated at a distance of 10 metres on the north side of the road. This modification takes effect between B.P. 15.1. and B.P. 15.I.D. on the newly-located boundary. (See attached sketch map, "A.").

2. On locating the line of ideal watershed it was found that at several places between B.P. 20 and B.P. 27 the watershed line approached very close to the railway.

As it is essential, in the case of a railway running through tropical bush country, to be able to cut and clear a width of trees and undergrowth on either side of the track as a fire precaution, the boundary was modified in all such cases in such a way that it should nowhere approach closer than 100 metres to the centre line of the track.

Such minor adjustments were effected as follows:—

A.—Between B.P. 20 and B.P. 23. VII.

- (1) In the neighbourhood of kilometre 31.
- (2) In the neighbourhood of Mokambo station.
- (3) In the neighbourhood of kilometres 91, 92 and 94.
- (4) At several places to the east and west of Kilenko station between B.P. 23.III. and B.P. 23.VII.

In exchange for this series of small concessions, the boundary was modified between B.P. 15 and B.P. 16 (see paragraph 1), where the Ndola-Nkana road was found to lie for a certain distance on the Belgian side of the watershed.

B.—At Tshinsenda Station.

Between B.P. 24 and B.P. 24.C. the watershed line approached so close to the railway that, without modification, much inconvenience would have been caused to the station authorities with regard to the provision of a fire guard and the erection of station buildings.

At the same time, working back from B.P. 24 towards B.P. 23.VII. the watershed line put a stretch of nearly 1,000 metres of the road from Tshinsenda to Nchanga into Belgian territory.

A small local exchange of territory was therefore effected which would—

- (a) Satisfy the requirements of the Belgian railway.
- (b) Put the Tshinsenda-Nchanga road entirely in Rhodesian territory.

C.— Between B.P. 24 and B.P. 27.

On two occasions the boundary was slightly modified so as to be 100 metres from the railway.

Both these small adjustments were taken into account in making the exchange near Tshinsenda station (see paragraph 2, B).

3. Between B.P. 25 and B.P. 25.D. it was found that an iron claim which had been pegged by the Bwana M'Kubwa Mining Company (Rhodesia) lay athwart the watershed line.

At the request of the British Commissioner and in accordance with section 2, paragraph (4), of the Brussels agreement (1927), the boundary was slightly modified in order to preserve the claim intact. (See attached sketch map "B.")

A. B. CLOUGH, Lieut.-Colonel,
Senior British Commissioner.
F. GENDARME, Lieut.-Colonel,

Senior Belgian Commissioner.

11.6.7 APPENDIX IV TO ENCLOSURE 1 IN No. 1.—Agreement between the Commissioners regarding the Construction of the Belgian Railway near Mokambo.—May 15, 1929.

(Not reproduced.)

APPENDIX V TO ENCLOSURE 1 IN No. 1.— Details regarding the Boundary Pillars whose Original (1913-14) Positions have not been retained.

B.P. 12.

The old B.P. 12 lay within 3 metres of the actual watershed, close to what is now B.P.11.I.K. A new position for B.P. 12 has been selected 1,450 metres further to the north-west along the watershed where it was found possible to tie in the boundary traverse to a trigonometrically fixed point.

B.P. 13.

The old B.P. lay within 50 metres of the actual watershed, between what are now B.P. 12.II.G. and B.P. 12.II.H. A new position for B.P. 13 has been selected for the same reason as applies to B.P. 12 (above) and is about 1,350 metres to the north-west of the old site.

B.P. 14.

The old B.P. 14 was found to lie 400 metres on the Rhodesian side of the true watershed line. As this exceeded the limit allowed by our instructions a new position was selected on the actual line of watershed.

B.P. 15.

No marked pipe was found representing old B.P. 15, but two small pillars on either side of the railway were discovered. It is assumed that these marked the actual dividing line on the railway between Rhodesia and the Belgian Congo.

The new position of B.P. 15 is on the actual watershed line immediately on the west side of the railway. The two small pillars referred to above lay within about 10 metres of the true watershed, and from 40 to 50 metres on either side of the railway.

B.P. 16.

Old B.P. 16 was found to lie 280 metres on the Congo side of the true watershed.

As this exceeded the limiting distance allowed, a new position was selected on the actual watershed line.

B.P. 17.

Old B.P. 17 lay correctly on the actual watershed, but was inconveniently situated for tying into a trigonometrically fixed point. Old B.P. 17 is situated in close proximity to what is now B.P. 17.D. on the newly-located boundary.

B.P. 18.

Old B.P. 18 was found to lie correctly on the line of ideal watershed, but its position was not suitable for tying into a trigonometrically fixed point.

New B.P. 18 was therefore sited about 2,400 metres further to the south-east along the watershed.

Old B.P. 18 practically coincides with what is now B.P. 18.F. on the newly-located boundary.

B.P. 19.

Old B.P. 19 was found to lie more than 1,000 metres on the Rhodesian side of the watershed.

A new position for B.P. 19 was therefore selected with due regard for ease in tying into trigonometrically fixed point, about 2,500 metres further to the east.

Old B.P. 19 lies about 1,300 metres to the north-west of new B.P. 18.1.L.

B.P. 20.

Old B.P. 20 was found to lie about 350 metres on the Rhodesian side of the true watershed line. A new site for B.P. 20 was therefore selected on the actual watershed, about 350 metres to the east-south-east of old B.P. 20.

B.P. 21.

Old B.P. 21 was correctly sited on the watershed, but a new position for new B.P. 21 was selected 30 metres further to the north-west so as to facilitate fixation by triangulation.

B.P. 22.

Old B.P. 22 was within 50 metres of the watershed, but as its position was less than 100 metres from the railway, a new position was selected at the full distance of 100 metres from the track.

B.P. 26.

Old B.P. 26 was found to lie within 50 metres of the true watershed line, but was inconveniently situated for fixing trigonometrically. A new site for B.P. 26 was therefore selected on a small kopje, lying on the watershed, about 1,500 metres to the south-west of old B.P. 26.

B.P. 27.

Old B.P. 27 lay about 800 metres on the Rhodesian side of the watershed, thus exceeding the limit allowed. New B.P. 27 lies therefore about 800 metres to the south-east of old B.P. 27.

B.P. 28.

Old B.P. 28 lay just over 300 metres on the Congo side of the watershed, thus exceeding the limit allowed. A new site was therefore selected 320 metres west-south-west of old B.P. 28.

B.P. 29.

Old B.P. 29 was erroneously sited on top of Mukambo hill, which is not on the watershed.

A new site has been selected, which is roughly one mile further to the west on much lower ground, and on the ideal watershed.

A. B. CLOUGH, Lieut.-Colonel,
Senior British Commissioner.

F. GENDARME, Lieut.-Colonel,
Senior Belgian Commissioner.

[Not reproduced.]

Enclosure 2 in No. 1.—Protocol containing the Decisions of the
Commissioners
respecting the Frontier between Boundary Pillars Nos. 29 and 33.— February
24,
1930.

THE undersigned:—[Names.] having been duly appointed by their respective
Governments to delimit and demarcate the frontier between British and
Belgian territory along the Congo-Zambesi watershed, in accordance with
the agreement signed in Brussels between Great Britain and Belgium on the
19th March, 1927 (vide appendix 1), have surveyed the boundary in
accordance with the instructions laid down and have come to the following
agreement:—

- (1) The international frontier between Northern Rhodesia and the Belgian Congo between boundary pillar No. 29 and boundary pillar No. 33 shall follow as closely as possible the line of ideal watershed separating the river Zambesi from the river Congo.
- (2) The boundary, as actually demarcated on the ground, consists of a series of straight lines, each of an average length of about 500 metres. These lines have been sited in such a way that they follow, as closely as possible, the line of ideal watershed.
- (3) At every change of direction between these straight lines a boundary pillar has been erected. The boundary pillars are classified under two heads:—
 - (a) Main boundary pillars (constructed of concrete) at intervals of approximately 5 kilometres along the boundary.
 - (b) Auxiliary pillars (cairns of stones) at every intermediate point between main pillars.In addition, a lane of 5 metres in width has been cut all along the boundary.
- (4) The existing numbering of the boundary pillars erected by the 1912-14 Commission has been retained.

As these pillars were, in many cases, at a considerable distance apart, it was found necessary to erect a number of extra main pillars, in order to comply with the instructions that there shall be a main pillar every 5 kilometres approximately.

These extra main pillars have been numbered by adding roman numerals to the original numbers, e.g., between B.P. 29 and B.P. 30 it was found necessary to insert 6 extra main boundary pillars.

These were therefore numbered as follows:—

29.I, 29.II, 29.III, 29.IV, 29.V, and 29.VI.

The auxiliary boundary pillars have been designated by adding a letter of the alphabet to the number of the main boundary pillar to which their co-ordinates are referred.

To avoid confusion, in no case has the letter "I" been used. The sequence of lettering runs, therefore, direct from "H" to "J" omitting "I."

E.g.: Between B.P. 29.I and B.P. 29.II there are 16 auxiliary pillars, which are numbered as follows:—

29.IA, 29.IB, &c., to 29.IQ.

All numbering is from east to west along the boundary.

- (5) The actual positions of the boundary pillars are defined as follows:—
- (a) Main pillars.—By their geographical co-ordinates.
 - (b) Auxiliary pillars.—By their rectangular co-ordinates on the Cassini projection, the origin for each bay of the boundary between main boundary pillars being the next main pillar to the eastward along the boundary, and the axes of reference the meridian through that point and the line at right angles to it.
- (6) In appendix IV will be found a complete list of all boundary pillars, both main and auxiliary, giving the reduced horizontal distance between successive pillars, and the included angles between the successive legs as obtained from direct field measurement and, in addition, provisional values for their co-ordinates of position and altitudes.
- In accordance with section 2 (2) of the Brussels agreement (1927), the original positions of some of the main boundary pillars as sited by the 1912-14 Commission were altered so as to conform to the actual location of the ideal watershed.
- A list of the occasions where these original pillars have not been accepted, and where a new position has therefore been selected, will be found in appendix III.
- (7) 10 plans on a scale of 1/10,000 are attached to this protocol (vide appendix V).

These cadastral plans illustrate the run of the boundary from B.P. 29 to B.P. 33, and contain sufficient data for re-establishing any boundary pillars which may be destroyed.

- (8) A general description of the boundary will be found in appendix II.
- (9) No fresh determination (by re-survey or re-computation) of the position of any natural feature or boundary pillar mentioned in this protocol shall alter the boundary line as marked on the ground and herein described.
- (10) Responsibility for the upkeep of boundary pillars and for the clearing of the boundary lines is allocated as follows:—

Government of Northern Rhodesia.
From B.P. 31 (inclusive) to B.P. 33 (inclusive).

Government of the Belgian Congo.
From B.P. 29 (inclusive) to B.P. 31 (exclusive).

It is agreed that each Government shall, annually, ensure that the portion of the boundary for which it is responsible be cut or cleared in whatever manner appears suitable and that the boundary pillars be maintained in a proper state of repair.

A joint perambulation and inspection of the boundary shall be made every 10 years by representatives detailed by the Governments of Northern Rhodesia and the Belgian Congo to ensure that the boundary is kept properly cleared and that the pillars have not been moved.

The first perambulation shall take place during 1938.

- (11) The two original copies of the present protocol, in English for the British Section and in French for the Belgian Section, are signed this 24th day of February, 1930.

A. B. CLOUGH, Lieut.-Colonel,
Senior British Commissioner.
F. GENDARME, Lieut.-Colonel,

Senior Belgian Commissioner.

APPENDIX I TO ENCLOSURE 2 IN No. 1.—Protocol between Great Britain and Belgium respecting the Appointment of a Commission for the Demarcation of the Katanga -Northern Rhodesia Boundary.—Brussels, March 19, 1927.

(see Appendix 1, section 10.5)

APPENDIX II TO ENCLOSURE 2 IN No. 1.—Description of Boundary,
B.P. 29 to B.P. 33.

From B.P. 29 to B.P. 33 the watershed ridge is covered throughout with "Savannah bush." It differs little in aspect or characteristics from the portion of boundary between B.P. 11 and B.P. 29, which was demarcated during 1927-28.

Limited visibility on the watershed itself and the difficulty of getting rays through from points on the watershed to triangulation points on either side of the boundary continued to add to the difficulty of the actual survey work.

From B.P. 29 to B.P. 31, a distance of about 56 miles, the watershed runs approximately north-east-south-west.

At B.P. 31 the direction changes, and from this point as far as B.P. 33, a distance of about 54 miles, the watershed runs approximately east-west. The country on either side is on the whole well watered. There is a great scarcity of villages on or near the watershed ridge. Game is scarce.

The trees average about 40 feet in height and from 6 to 8 inches in diameter.

B.P. 29.

Situated about 1 mile to the west of Mukambo, a trigonometric station which is the most prominent point in the Mukambo hills.

From B.P. 29 the boundary runs south-west for a distance of about 4½ miles as far as B.P. 29.I., at which point it turns due west and continues thus for about 7½ miles, when B.P. 29.III. is reached. Along this stretch of boundary, the watershed separates the headwaters of the river Kafue (Rhodesia) from those of the river Lupoto (Congo).

At B.P. 29.III. the boundary commences to turn towards the south, and after following a sinuous course arrives at B.P. 30, about 13 miles to the south of B.P. 29.III.

Between B.P. 29 and B.P. 30, six supplementary main boundary pillars have been erected as follows:—

B.P. 29.I.: Situated 4¼ miles south-west of B.P. 29. From B.P. 29 to B.P. 29.I. the watershed is ill-defined.

B.P. 29.II.: Situated 4 miles to the west of B.P. 29.I. Between B.P. 29.I. and B.P. 29.II. the watershed is ill-defined.

B.P. 29.III.: Situated about 3 miles to the west of B.P. 29.II., at the point where the watershed begins to turn towards the south. The watershed here tends to become better defined.

B.P. 29.IV.: Situated about 2½ miles to the south-west of B.P. 29.III.

Between B.P. 29.III. and 29.IV. the watershed is well-defined, but follows a somewhat tortuous course.

B.P. 29.V.: Situated about 3½ miles south-south-east from B.P. 29.IV., a short distance to the north of the sources of the river Pompono (Congo).

Between B.P. 29.IV. and 29.V the watershed is well-defined.

B.P. 29.VI: Situated about 4 miles south-south-west from B.P. 29.V. near the sources of the rivers Maubu (Congo) and Mushindamu (Rhodesia).

Between B.P. 29.V. and 29.VI. the watershed is well-defined.

Auxiliary boundary pillars are erected as follows:—

Between B.P. 29 and 29.I. there are 13.

Between B.P. 29.I. and 29.II. there are 16.

Between B.P. 29.II. and 29.III. there are 15.

Between B.P. 29.III. and 29.IV. there are 13.

Between B.P. 29.IV. and 29.V. there are 15.

Between B.P. 29.V. and 29.VI. there are 14.

Between B.P. 29.VI. and 30 there are 19.

B.P. 30.

Is situated at the point where the old traction road (now overgrown and unused) from Elizabethville to Musofi crosses the watershed. The old B.P. 30 was not on the true line of watershed and lay about 660 yards on the Rhodesian side of the present boundary.

About 3 miles to the south of B.P. 30 the boundary commences a sharp bend towards the south-west and this general direction is maintained for a distance of about 15 miles when, a short distance after reaching B.P. 30.IV., the boundary cuts across the main Kipushi-Kansanshi road. At this point the boundary turns due west and continues thus for a further distance of about 5 miles when B.P. 31 is reached.

For most of the distance between B.P. 30 and B.P. 31 the watershed is ill-defined.

Between B.P. 30.IV. and B.P. 31 the boundary crosses and recrosses several times the Kipushi-Kansanshi road.

Five additional main boundary pillars have been erected between B.P. 30 and B.P. 31 as follows:—

B.P. 30.I.: About 5½ miles from B.P. 30 as measured along the boundary, near the source of the river Sigwibu (Rhodesia).

B.P. 30.II.: About 4 miles to the south-west of B.P. 30.I.

B.P. 30.III.: About 4 miles to the south-west of B.P. 30.II. and rather less than a mile on the north side of the Kipushi-Kansanshi road.

B.P. 30.IV.: About 3½ miles to the north-east of Luamibanga hill. It is distant only about 150 yards from the Kipushi-Kansanshi road, and on the north side of it, just before the boundary crosses the above road for the first time.

B.P. 30.V.: Immediately due north of Luamibanga hill and about 300 yards on the north side of the road mentioned above.

Auxiliary boundary pillars have been erected as under:—

Between B.P. 30 and B.P. 30.I. there are 14.

Between B.P. 30.I. and B.P. 30.II. there are 14.

Between B.P. 30.II. and B.P. 30.III. there are 13.

Between B.P. 30.III. and B.P. 30.IV. there are 9.

Between B.P. 30.IV. and B.P. 30. V. there are 10.

Between B.P. 30. V. and B.P. 31 there are 12.

B.P. 31.

Is situated on a prominent isolated hill which lies about 100 metres on the north side of the Kipushi-Kansanshi road and about 1½ miles to the west of the junction between this road and the road which comes up from Nchanga.

After leaving B.P. 31 the boundary follows a general westerly direction, though forming a series of prominent bends to north and south. Between B.P. 31 and 32 the watershed separates the numerous headwaters of the rivers Lunga and Chifubwa (Rhodesia) from those of the rivers Moatsi and Nakolwe (Congo).

Immediately after leaving B.P. 31 the boundary takes a sweep to the north towards Selano hill and then bends down to the south again towards the prominent group of hills called Kapundungoma.

As a result of this latter bend to the south a strip of road about 3 miles in length is left in Congo territory.

Immediately to the north-west of Kapundungoma the boundary recrosses to the north side of the road and follows a general direction west-north-west towards B.P. 32.

From B.P. 31 to B.P. 32 is a distance of approximately 26 miles as measured in a straight line across country.

Between B.P. 31 and B.P. 32, seven supplementary main boundary pillars have been erected as follows:—

B.P. 31.I.: About 3 miles to the north-west of B.P. 31 near the source of the river Karobwe (Rhodesia).

B.P. 31.II.: About 2¾ miles to the north-east of Kapundungoma hill, near the source of the river Ngofwa (Rhodesia).

B.P. 31.III.: Lies 1¾ miles to the north-north-west of Kapundungoma hill.

B.P. 31.IV.: Is situated about 4 miles to the north-west of Kapundungoma hill and on the north side of the Kipushi-Kansanshi road. It lies about 3 miles to the west of B.P. 31.III.

B.P. 31.V.: About 3 miles to the north-west of B.P. 31 .IV., at the head of the river Chifubwa.

B.P. 31.VI.: Is situated on high ground a short distance to the east of the sources of the river Cheshale (Rhodesia).

B.P. 31.VII.: About 4 miles to the north-west of B.P. 31. VI. and 4½ miles south-east of B.P. 32.

Between B.P. 31 and B.P. 31.IV. the watershed is fairly well defined. From B.P. 31.IV. to 31.V. it is ill-defined. From B.P. 31.V. to B.P. 32 it becomes very well-defined.

Auxiliary boundary pillars have been erected as under:—

Between B.P. 31 and B.P. 31.I. there are 16.

Between B.P. 31.I. and B.P. 31.II. there are 15.

Between B.P. 31.II. and B.P. 31.III. there are 11.

Between B.P. 31.III. and B.P. 31.IV. there are 11.

Between B.P. 31.IV. and B.P. 31.V. there are 10.

Between B.P. 31.V. and B.P. 31.VI. there are 13.

Between B.P. 31.VI. and B.P. 31.VII. there are 21.

Between B.P. 31.VII. and B.P. 32 there are 17.

B.P. 32

Lies at the most northerly point of the extensive loop in the watershed which separates the headwaters of the rivers Chimalala-Katandana (Rhodesia) from those of the river Musos (Congo).

The prominent sugar-loaf hill of Kalungeme lies about $3\frac{3}{4}$ miles west by north from B.P. 32, and the very prominent massif of Chafugoma lies $6\frac{3}{4}$ miles south by west from B.P. 32.

After leaving B.P. 32, the boundary follows a south-westerly course and passes within about $1\frac{1}{2}$ miles of Kalungeme hill, which lies on the north side of the boundary.

At a distance of about 8 miles south-west of B.P. 32 the boundary meets the old traction road which runs up from Kansanshi. At this point of junction between the boundary and the road, the ground drops away very steeply to the south and there is a fine open view towards the south-south-east with Chafugoma hill in the distance.

From this point the boundary follows along the edge of this abrupt slope (the slopes to the north being gentle) in a due westerly direction for a distance of about 3 miles, when it bears slightly towards the north and, following a west-north-westerly direction for about a further 9 miles, reaches B.P. 33.

Along this stretch of boundary between B.P. 32 and B.P. 33 the watershed separates the headwaters of the rivers Katandana, Chafugoma, Solwezi and Mutanda (Rhodesia) from those of the rivers Musofi, Kianbashi, Musombweshi and Kamalengo (Congo).

The distance from B.P. 32 to B.P. 33, as measured direct across country, is about 16 miles, the watershed throughout is fairly well-defined.

Between B.P. 32 and 33 five supplementary main boundary pillars have been erected as under:—

B.P. 32.I.: About $1\frac{1}{2}$ miles to the south-south-east of Kalungeme hill and about 3 miles south-west of B.P. 32.

B.P. 32.II.: About 3 miles south-west of B.P. 32.I.

B.P. 32.III.: About 3 miles to the west of the point where the boundary, coming

from B.P. 32, first meets the old traction road. It lies within 100 yards of the road on the south side, and is on the edge of the abrupt slopes to the southward.

B.P. 32.IV.: About 2 miles to the north-west of B.P. 32.III. and on the south side

of the old traction road.

B.P. 32.V.: Is on the summit of a small prominent hill immediately on the south

side of the old traction road and rather less than 1 mile to the south-west of Musombweshi hill.

B.P. 33.

Is situated on the summit of Kapaka hill, which is a point in the ruling triangulation. This hill lies about $3\frac{1}{2}$ miles to the south-east of the prominent hill and triangulation point of Itembe.

Auxiliary boundary pillars have been erected as under:—

Between B.P. 32 and B.P. 32.I there are 17.

Between B.P. 32.I. and B.P. 32.II. there are 11.

Between B.P. 32.II. and B.P. 32.III. there are 17.

Between B.P. 32.III. and B.P. 32.IV. there are 8.

Between B.P. 32.IV. and B.P. 32. V. there are 13.

Between B.P. 32. V. and B.P. 33 there are 15.

A. B. CLOUGH, Lieut.-Colonel,
Senior British Commissioner.

F. GENDARME, Lieut.-Colonel.
Senior Belgian Commissioner.

APPENDIX III TO ENCLOSURE 2 IN No. 1.—List of Main Boundary Pillars
whose Original (1913-14) Positions have not been retained.

B.P. 29.

Old B.P. 29 was erroneously sited on top of Mukambo hill, which is not on the watershed. A new site was therefore selected on the ideal watershed, about 1 mile further to the west.

B.P. 30.

This was found to be over 600 yards on the Rhodesian side of the actual watershed line. As this distance exceeds the limiting distance allowed by our instructions, a new site for B.P. 30 was selected on the actual watershed line.

B.P. 33.

Old B.P. 33 was correctly sited on the watershed. The new position was selected a few metres to the north in order to facilitate its fixation by triangulation.

A. B. CLOUGH, Lieut.-Colonel,
Senior British Commissioner.

F. GENDARME, Lieut.-Colonel,
Senior Belgian Commissioner.

APPENDICES IV-V.

[Not reproduced.]

(No. 2.)— The Belgian Minister for Foreign Affairs to the
British Ambassador at Brussels.

M. l'Ambassadeur,

Bruxelles, le 7 avril 1933.

VOTRE Excellence m'a fait l'honneur de m'informer que le Gouvernement de Sa Majesté britannique au Royaume-Uni de Grande-Bretagne et d'Irlande du Nord, ayant pris connaissance des protocoles signés le 1^{er} octobre 1929 et le 24 février 1930 et contenant les décisions des Commissaires désignés pour la délimitation et la démarcation d'une section de la frontière entre le Congo belge et la Rhodesie du Nord, approuve ces protocoles et entend considérer comme étant la frontière exacte entre les deux territoires en cause celle qui résulte du texte de ces protocoles, tels qu'ils sont ici annexés et des cartes qui les accompagnent. Je remercie votre Excellence de cette communication.

De mon côté, j'ai l'honneur de lui faire savoir que le Gouvernement du Roi approuve les mêmes protocoles et entend aussi considerer comme etant la frontiere exacte entre le Congo beige et la Rhodésie du Nord celle qui résulte desdits protocoles et des cartes qui les accompagnent.

La lettre de votre Excellence rappelle que le protocole du 1^{er} octobre 1929 porte in Fine une stipulation qui peut être resumee comme suit:

"Il n'a pas été possible d'établir au nord-ouest de Mokambo une frontiere qui eût permis au chemin de fer beige de construire dans cette région une courte variante destiné à faciliter l'exploitation de la ligne, mais il est entendu que si, dans l'avenir, les intérêts britanniques pouvant être en cause dans la portion de territoire rhodesien qui devrait être cédée a la Belgique pour la réalisation de cette variante le permettaient, la question de la possibilité d'une modification de la frontiere entre les bornes principales 22 et 22.II pourrait être envisagée."

Votre Excellence a bien voulu me dire que le Gouvernement britannique prend à son compte cette promesse; le Gouvernement du Roi lui en est reconnaissant. Je tiens, d'autre part, à donner acte à votre Excellence de la renonciation à laquelle le Gouvernement belge a précédemment consenti, au sujet de facilités que les Commissaires avaient décidé de lui offrir en attendant la rectification de frontiere envisagée pour permettre au chemin de fer belge de passer en territoire rhodésien.

Le Gouvernement belge accepte la proposition de votre Excellence de considerer le présent échange de lettres comme tenant lieu d'instrument de l'accord intervencu entre les deux Gouvernements dans cette matiere.

Je saisis, &c.

HYMANS