

The London School of Economics & Political Science

From Frontiers to Borders

The Origins and Consequences of Linear Borders in International Politics

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A Thesis

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Declaration

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it). The copyright of this thesis rests with the author. Quotation from it is permitted, provided that full acknowledgement is made. This thesis may not be reproduced without my prior written consent. I warrant that this authorisation does not, to the best of my belief, infringe the rights of any third party. I declare that my thesis consists of 99,883 words.

Statement of Inclusion of Previous Work

I can confirm that sections of chapters 2 and 3 are published in Kerry Goettlich, 'The rise of linear borders in world politics', *European Journal of International Relations*, advance online publication, doi:10.1177/1354066118760991, first published March 16, 2018.

Abstract

This thesis offers a theoretical analysis of the process by which borders have come to be precise, fixed, mappable, and infinitely thin lines traced over the surface of the earth. I argue that accounts of global modernity should understand the linearization of borders as a process related to, but relatively autonomous from processes of state formation and other structures and processes typically associated with global modernity. In other words, linear borders have their own causes and consequences, which the thesis aims to unpack. The contribution of the thesis lies within debates on the historical origins of modern international relations which often overlook the history of borders through a focus on sovereignty.

The thesis theorizes modern linear borders as an outcome of 'survey rationality', drawing on theories of rationalization. Survey rationality is a mode of territorial governance which conceives of the location of predefined borders as a technical and non-political question, and therefore susceptible to measurement and calculation through surveys and other technologies. The central argument of the thesis is that survey rationality on its own is not a natural or necessary part of territorial rule, but must be articulated with other historically particular rationalities in order to be effective in practice. I illustrate this argument historically by examining two such historically particular rationalities: first, the logic of agrarian capitalism in the English colonies of North America, and secondly, the logic of the civilizing mission in the 'Scramble for Africa'. Finally, I show how international politics are different in a world of formally linearized borders. Linear borders underpin hierarchies by altering the distribution of geographical knowledge resources, for example at the 1919 Paris Peace Conference, and they contribute to a modular pattern of territorial partition, from Mysore and Poland in the 18th century to Vietnam and Korea in the 20th.

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Chapter One

Introduction

In May 1993, United Nations Secretary-General Boutros Boutros-Ghali presented to the Security Council the finished work of a commission charged with demarcating the Iraq-Kuwait boundary in the wake of the Gulf War. In line with the UN's renewed post-Cold War mission to promote world peace, Boutros-Ghali remarked, 'I believe that the work performed by the Commission will have a beneficial effect on the restoration of international peace and security in the area concerned'.¹ The report contained, among other things, a long list of latitudinal and longitudinal coordinates. These numerical abstractions designated the exact series of points on the earth's surface which, when connected, officially constituted the border itself.

But doubts remained, as Iraq boycotted the commission when the commission affirmed Kuwaiti sovereignty over an area administered by Iraq. That territory included Iraq's only deep-water naval base, about half the Iraqi city of Umm Qasr, and part of the Rumaila oil field, a dispute over which had been a trigger for the Gulf War. The commission's response to Iraq's criticisms was that it was not creating a new border, only a more accurate demarcation of the already existing border which had been agreed in 1932 between the British mandate of Iraq and the British protectorate of Kuwait, and inherited by the two states upon independence. Determining the new demarcation, however, had involved judgements at key points, such as inferring the location of a customs post which was nowhere to be found, based on astronomical observations from 1942. Another point on the supposed boundary was a noticeboard which had been removed in 1939. The commission found evidence of three possible locations A, B, and C where the noticeboard might have been, and decided to place the boundary halfway between points B and C. In a way, the commission was much more concerned with the locations of objects that no longer existed than with those that did.

The UN Security Council insisted that 'through the demarcation process the Commission is not reallocating territory between Kuwait and Iraq, but it is simply carrying out the technical task necessary to demarcate for the first time the precise coordinates of the boundary'. As the

¹ Boutros Boutros-Ghali, Letter from the Secretary-General Addressed to the President of the Security Council, 21 May, 1993 (http://repository.un.org/bitstream/handle/11176/51176/S_25811-EN.pdf?sequence=3&isAllowed=y).

Secretary-General put it, 'the Commission was called to perform a technical and not a political task and as it is stressed in the Final Report, the Commission has made every effort to strictly confine itself to this objective'. This separation between the political act of allocating territory and the technical act of demarcation made it possible for the Commission to make the boundary into any concrete reality. Any acknowledgement that politics were involved at every point in the process would presumably have brought it to a grinding halt, and insofar as the UN was concerned, the border would have remained a legal, theoretical, and ephemeral entity.

There are many kinds of territory often referred to in political discourse which are never really defined with a great deal of precision or technical detail, and a widely accepted lack of precision is often what makes the use of these abstractions possible. Where, for example, does any particular national 'homeland' begin or end? Where does a 'homeland' end and a 'backyard' begin? When does a 'backyard' become a 'sphere of influence'? It would be difficult to answer these questions by listing coordinate points of latitude and longitude. But when we are asked to imagine an international system which is made up of sovereign territorial states, the territoriality referred to is not of that kind. On the contrary, state territories are today almost invariably defined by borders more or less similar to the UN-defined Iraq-Kuwait boundary. Unlike other kinds of territory, these territories are delineated by a specific kind of border which is thoroughly technological, whether we look at it as an idea, an institution, or as a practice. They depend on the possibility of a correspondence between a territory and a map, and on a strict separation between the political process of defining a border and the technical process of 'locating' it and marking it. As one boundary surveyor puts it, the practice of demarcating interstate boundaries 'is certainly non-political in character, its functions are technological and its decisions limited to the transformation of the verbal, graphical and digital definitions to the terrain surface.'² Yet paradoxically, such a statement reveals that technical practices of measuring and determining locations, such as GPS and its historical predecessors, are integral to the spatiality of the modern state. The absence of boundaries which could conceivably be determined through such practices, indeed, would call into question the nature of territoriality.

² Ron Adler, *Geographical Information in the Delimitation, Demarcation and Management of International Land Boundaries*, Boundary and Territory Briefing 3:4, (Durham: International Boundaries Research Unit 2001), 10.

These borders are 'linear', in the sense that they are made up of points on the earth's surface, as small as can be imagined through applied mathematics, connected by equally thin imaginary lines. Where they are not, they are usually defined by some principle such as a watershed boundary, or the deepest channel of a river, which would allow someone familiar with certain bodies of knowledge such as geology and geometry, to 'find' the true, linearly defined border. Certain experts are accredited with the knowledge to ensure the unambiguous and precise linearity of the border, which today often requires some combination of GPS and satellite or aerial photography. In the case of the Iraq-Kuwait boundary the technically precise nature of the border was briefly subject to media interest, and was perhaps even problematized. But it is more rarely remarked on that this particular kind of territoriality is what makes it possible to imagine the physical shape of the state system itself, and it is this technical linearity which distinguishes the territoriality of the state system from the vagueness of 'homelands' and 'spheres of influence'.

This has not been the case for as long as one might think. As recently as the late twentieth century, for example, a considerable number of borders on the Arabian Peninsula were left undefined in any document. Going further back to the mid-nineteenth century, virtually all types of rule, from European metropolitan and colonial territories to polities beyond colonial rule in most regions of the world, manifested varying types of territoriality, including linear borders in some places and sometimes not. Before the seventeenth century, it was rare anywhere in the world, although not necessarily unheard of, for people to set up a series of boundary markers which connected up to form a linear border between one polity and another. Thus, while IR theory tends to see borders transhistorically as outcomes of power struggles or of converging interests, there is a historically particular kind of border which all states today pursue.

This thesis is a historically informed and theoretically driven analysis of linear borders as a global system of managing space. It asks where linear borders historically come from and what they do to international politics. Why do borders always seem to require precision and linearity, how did such borders become so globally widespread, and what difference does it make?

The historicity of modern territoriality, of course, is not new to IR. Accounts of the history and origins of sovereignty and the international system often refer to a particular spatial compartmentalization which characterizes the modern international system. Some of these

even refer to linear boundaries as international modernity's defining feature.³ As I will explain in more detail later, however, they tend to view the emergence of modern territoriality as a place-holder for something else, usually some version of the sovereign state, and in practice, it is the latter phenomenon, rather than linear borders themselves, which they focus on. When Hendrik Spruyt, for example, refers to 'external demarcation by borders' or 'territorial demarcation', he means that a centralized state organization's authority is supreme within a geographical area, not that the demarcation itself is particularly precise.⁴ Or when Christian Reus-Smit notes that the Peace of 'Westphalia did not institute a fully formed system of territorially demarcated states', the reason for this is primarily the continuation of dynastic sovereignty which was opposed to the confining of sovereign authority within the limits of one territory.⁵ Many would on some level agree with Stuart Elden's conceptualization of boundaries as a 'second-order problem' which 'only become possible in their modern sense' through a notion of territory.⁶ By contrast, this thesis views the linearization of borders as a process relatively autonomous to the sovereign territorial state, and focuses squarely on precise linearity as a specific kind of territoriality fashioned out of or imposed on top of other kinds of territoriality.

The Case for a Global Historical Approach

If IR thus far has not been particularly interested in the linearity of borders, as an idea and practice separate from territorial sovereignty, why should it be interested in a global history of linear borders? Might the thesis do more harm than good by reinforcing a conception of a singular modernity with which social scientists have rightly become dissatisfied?⁷ Moreover, a global history of modern borders would seem at first glance to be an impossible task for one thesis, requiring an impossibly complex synthesis of a potentially endless amount of historical knowledge. For a long time, it was part of IR's standard methodology to solve such difficulties of historicizing globalized structures such as the sovereign state by limiting the analysis to European history alone, although thanks to recent critiques this procedure is no longer tenable,

³ John Ruggie 'Territoriality and beyond: problematizing modernity in international relations', *International Organization* 47:1 (Winter 1993), 139-174.

⁴ Hendrik Spruyt, *The Sovereign State and its Competitors* (Princeton, NJ: Princeton University Press, 1994), 154.

⁵ Christian Reus-Smit, *The Moral Purpose of the State: Culture, Social Identity, and Institutional Rationality in International Relations* (Princeton, NJ: Princeton University Press, 1999), 112.

⁶ Stuart Elden, 'Land, terrain, territory', *Progress in Human Geography* 34:6 (2010), 811.

⁷ Gurinder Bhambra, *Rethinking Modernity: Postcolonialism and the Sociological Imagination* (New York: Palgrave Macmillan, 2007), ch. 3.

if it ever was. Why not confine oneself to a local or regional study of the linearization of borders, which could be much more grounded in historical specificity?

IR's lack of explicit engagement with the historical linearization of borders is a problem because, as inconvenient as it might be, the global aspect of linear borders is impossible to avoid completely. In the absence of such an explicit engagement, IR to a certain extent borrows or reproduces other ideas which do so, in particular from late nineteenth-century and early twentieth-century political geographers who will become important in chapters five and six of the thesis. In this section I mention two in particular as an indication of what motivates this thesis, and then I argue that only with the global in mind can we properly assess and re-evaluate them.

The first is that precise borders were historically delineated around political communities as an inevitable result of their development into modern nation-states. One prominent articulation of this idea was by German geographer Friedrich Ratzel, who argued that linear borders were integral to socioeconomic development, as societies which learned to use efficiently and value land were driven to use every last inch.⁸ Lord Curzon, between serving as Viceroy of India and as UK Foreign Minister, delivered a lecture on *Frontiers*, which was comparable in its influence on political geography.⁹ It gave a similar story of the idea of demarcated borders as 'an essentially modern conception' which is antithetical to 'the oriental mind'. Curzon thought progress in the development of institutions and techniques which would bring about more precise and fixed borders 'is undoubtedly a preventive of misunderstanding, a check to territorial cupidity, and an agency of peace'. Thus it is the development of the modern nation-state which results in the linearization of borders, either through Ratzel's imperative for the state to mobilize all possible resources in a geopolitically competitive world, or in Curzon's terms as the ability to achieve cooperation and a rule of law between states.

Second, as a result, the linearization of borders as a global historical process radiated outwards from Europe. For Ratzel, 'Want of defined frontiers is in the essence of the formation of barbarous states. The line is intentionally not drawn, but kept open as a clear space of varying

⁸ Friedrich Ratzel, *Géographie Politique*, trans. Pierre Rusch and Charles Hussy (Geneva: Éd. Regionals européennes, 1988), 338; Lucien Febvre, 'Frontière: The Word and the Concept', in Peter Burke (ed), *A New Kind of History: From the Writings of Febvre*, trans. K. Folca (London: Routledge and Kegan Paul, 1973), 208-18.

⁹ George Curzon, *Frontiers* (Oxford: Clarendon Press, 1907).

breadth'.¹⁰ For Curzon, fixed boundaries in Asia could only be arrived at through European intervention because of a 'strong instinctive aversion to the acceptance of fixed boundaries', arising 'partly from the dislike of precise arrangements that is typical of the oriental mind'.¹¹ The origins of non-European borders, according to this line of thought, were understood through Lord Salisbury's after-dinner boast that

We have been engaged in drawing lines upon 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 exactly where the mountains and rivers and lakes were.¹²

More recently, the linearity of borders has tended to be taken for granted, but these narratives have largely survived the test of time. Ratzel's and Curzon's explicit imperialism, as well as their interest in linear borders as a global, historically bounded phenomenon, would be unusual today. But at the same time, the dominant understanding in the social sciences is that linear borders originated in Europe as an outcome of the development of the nation-state, with imperialism subsequently remaking the world in Europe's territorially demarcated image.¹³

These ideas find resonance in IR. As I. William Zartman put it, borders in most of the world are 'the walls and moats of history, natural defence lines whose traces mark the military conflicts and diplomatic compromises of the nation's past'.¹⁴ For John Herz, similarly, the modern nation-state originated out of Europe's gunpowder revolution, which replaced the individual castle with an extended line of fortifications as the safest protection.¹⁵ This 'hard shell' boundary was what made possible the formation of large territorial political communities. While Zartman and Herz were not as focused as Ratzel was in the particular ways in which societies understand and utilize territory, they shared with him the idea that boundaries originate from an intense competition between states for territory. Curzon's point of view, in parallel, foreshadowed IR's liberal institutionalists, who argue that clearly defined borderlines agreed between states result in joint

¹⁰ Quoted in Jens Bartelson, *War in International Thought* (Cambridge: Cambridge University Press, 2018), 124.

¹¹ Curzon, *Frontiers*, 49.

¹² Quoted in Adekunle Ajala, 'The Nature of African Boundaries', *Africa Spectrum* 18:2 (1983), 180.

¹³ For a more complete demonstration of this observation, see Jordan Branch, "'Colonial reflection" and territoriality: The peripheral origins of sovereign statehood, *European Journal of International Relations* 18:2 (2012), 278-281.

¹⁴ I. William Zartman, 'The Politics of Boundaries in North and West Africa', *The Journal of Modern African Studies*, 3:2 (Aug., 1965), 155.

¹⁵ John Herz, 'Rise and Demise of the Territorial State', *World Politics* 9:4 (Jul. 1957), 474.

benefits, from facilitating trade to mitigating conflict.¹⁶ David Carter and H. E. Goemans, for example, cite Curzon's *Frontiers* lecture in making this argument.¹⁷ Moreover, the *Frontiers* lecture is often drawn on and quoted in Border Studies and by border technicians as a rationale for the scientific practice of border demarcation rooted in a progression towards international peace and cooperation.¹⁸

So far, the main challenges to dominant narratives of the origins of modern borders have generally been limited by their failure to either analyse critically the linearity of modern borders, or to contest the intra-European origins of modern territoriality. Perhaps the most familiar counter-narrative to Curzon's peace and progress through the spread of linear boundaries has been the anti-colonial critique of 'artificial' border-drawing. The Berlin West Africa Conference (1884-5) and the Sykes-Picot Agreement (1916) have long been seen as critical moments in the reshaping of Africa and the Middle East, respectively, and have been blamed for many of the misfortunes those regions have seen. For example, the 1958 meeting in Accra of the All-African People's Congress adopted a resolution which, among other things,

- (a) denounces artificial frontiers drawn by imperialist Powers to divide the peoples of Africa, particularly those which cut across ethnic groups and divide people of the same stock;
- (b) calls for the abolition or adjustment of such frontiers at an early date...¹⁹

Similarly, many have characterized the Sykes-Picot Agreement as an arbitrary line on a map, a narrative which 'Islamic State' capitalized on in 2014 when it declared the 'end of Sykes-Picot', and bulldozed the Iraq-Syria border in an internet video.²⁰

The concept of colonial artificiality as a critique of modern borders has been powerful in gaining support from a range of perspectives, whether anti-colonial or not, partly because of its ability to transcend local particularities. Colonialism is well known as a global phenomenon, at least in historical terms, and the image of a colonial administrator more or less randomly drawing lines

¹⁶ Beth Simmons, 'Rules over Real Estate: Trade, Territorial Conflict, and International Borders as Institution', *Journal of Conflict Resolution* 49:6 (Dec. 2005), 823-848.

¹⁷ David Carter and H. E. Goemans, 'The Making of the Territorial Order: New Borders and the Emergence of Interstate Conflict', *International Organization* 65:2 (Spring 2011), 277.

¹⁸ International Boundary Commission, *Joint Annual Report 2013* ([http://www.internationalboundarycommission.org/uploads/joint%20annual%20reports/jar_2013_en_\(web\).pdf](http://www.internationalboundarycommission.org/uploads/joint%20annual%20reports/jar_2013_en_(web).pdf)), 2.

¹⁹ Ajala, 'African Boundaries', 182.

²⁰ Meghan Tinsley, 'Whose Colonialism? The Contested Memory of the Sykes-Picot Agreement', *Rethinking Nation and Nationalism: POMEPS Studies* 14 (2015), 39-43.

on maps resonates widely. For our purposes, however, the idea of artificial colonial borders is a dead end because it was already integral to the early political geographers' conceptions of borders. It points to the European nation-state as the original, with boundaries determined through centuries of competition as Ratzel might have imagined, and extra-European borders as a less authentic copy. It can be traced back to statements such as Lord Salisbury's above, or of British frontier surveyor Thomas Holdich, who wrote in 1891 that the worst kind of boundary is

that artificial class of boundary which follows no natural feature at all, and which crossing the lines of drainage and dividing the main arteries of a country, jumps from ridge to ridge, and requires every yard of it to be demarcated artificially.²¹

The implication of the concept of artificial colonial borders is that the problem of imperialism was its failure to reproduce European civilization outside Europe properly, and that it should have done so better. Just as it was for Holdich, the artificiality of these borders for some contemporary Western commentators seemed an invitation to create new linear borders in different places, drawing accusations of simply reproducing the interventionist logic of Sykes-Picot itself.²² If colonial borders are to be problematized, it cannot be through the concept of artificiality.

Many scholars, of course, have noted that the idea of artificial borders is of limited analytical value, but there have been few other narratives which explain the origins of borders in such a general way. In critiquing the idea of artificial borders, some have emphasized non-Western agency in the making of imperial boundaries and the ways in which these borders reflected pre-colonial geographies.²³ One can also point to continuing Western intervention as a reason for the weakness of states in the Global South, rather than artificial borders.²⁴ These moves are useful and necessary, but they stop short of calling into question the linear nature of borders

²¹ Thomas Holdich, 'African Boundaries, and the Application of Indian Systems of Geographical Survey to Africa', *Proceedings of the Royal Geographical Society and Monthly Record of Geography* 13:10 (Oct., 1891), 599

²² Ralph Peters, 'Blood Borders: How a better Middle East would look', *Armed Forces Journal*, June 1, 2006 (<http://armedforcesjournal.com/blood-borders/>); Jeffrey Goldberg, 'After Iraq: A report from the new Middle East—and a glimpse of its possible future', *The Atlantic*, Jan./Feb., 2008 (<https://www.theatlantic.com/magazine/archive/2008/01/after-iraq/306577/>); Robin Wright, 'Imagining a Remapped Middle East', *The New York Times* Sep. 28, 2013 (<https://www.nytimes.com/2013/09/29/opinion/sunday/imagining-a-remapped-middle-east.html>).

²³ Pinar Bilgin, 'What is the point about Sykes-Picot?', *Global Affairs* 2:3 (2016), 355-359.

²⁴ Siba Grovogui, *Sovereigns, Quasi Sovereigns, and Africans: Race and Self-Determination in International Law* (Minneapolis, MN: University of Minnesota Press, 1996).

worldwide, and the extent to which efforts at systemic transformation have been limited by linear borders.

Some critical understanding of the linearization of borders as a global process is indispensable, because without it, the political geography of Ratzel and Curzon will remain at least partially within unexamined assumptions. Even if we were to escape the characterization of borders as either natural or artificial, avoiding global history will obscure key aspects of linear borders. There have been many excellent efforts by historians to denaturalize the emergence of linear borders in particular places.²⁵ For example, Peter Sahlins' highly localized, in-depth study of the French-Spanish border has enormous potential for countering the narratives of early political geography.²⁶ Far from an outcome of Ratzel's fierce competition for space between organic states, the narrative reveals modern European states that are largely indifferent to the minute details of their periphery in the Pyrenees. Rather than being imposed by states, the border's demarcation was demanded by inhabitants of the frontier as a solution to their own local disputes, and the two states avoided it until the 1860s. Yet, as with the many other histories that have been written of the linearization of borders in particular places, the broader significance of this border among other borders that might have comparable stories is largely left to the reader's imagination, and the lateness of the French-Spanish border can be explained away as an exception to the rule. What this thesis can contribute, then, is not so much a detailed explanation of border formation in a particular area, but in bringing together rich historical accounts like Sahlins' in order to make sense of a larger picture. It is by keeping in view borders as a subject to a global process of linearization, rather than as unique individual cases, that this thesis seeks to re-evaluate old universal narratives regarding the history of territoriality.

The necessity at some level of a global understanding of borders is manifest not only in the social sciences but also in international politics itself. To return to the call for abolishing artificial colonial frontiers, what the 'abolition' of artificial frontiers could have meant at the moment of decolonization was open to debate, as was much anti-colonial strategy before the final collapse

²⁵ Thongchai Winichakul, *Siam Mapped: A History of the Geo-Body of a Nation* (Honolulu: University of Hawai'i Press, 1994); George Gavrilis, *The Dynamics of Interstate Boundaries* (Cambridge: Cambridge University, 2008); Sabri Ateş, *Ottoman-Iranian Borderlands: Making a Boundary, 1843-1914* (Cambridge: Cambridge University Press, 2013); Peter Perdue, 'Boundaries, Maps, and Movement: Chinese, Russian, and Mongolian Empires in Early Modern Central Eurasia', *The International History Review* 20:2 (1998), 263-286; Bernardo Michael, *Statemaking and Territory in South Asia: Lessons from the Anglo-Gorkha War, 1814-1816* (London: Anthem Press, 2014); Daniel Nordman, *Frontières de France: De l'espace au territoire, XVIe-XIXe siècle* (Paris: Gallimard, 1998).

²⁶ Peter Sahlins, *Boundaries: The Making of France and Spain in the Pyrenees* (Berkeley: University of California Press, 1991).

of the European empires.²⁷ But even doing away with all the borders over an entire continent would still likely lead to an external border somewhere else. Hedley Bull argued in *The Anarchical Society* that even if European integration led all the way to the creation of a European state, 'the upshot would be to reduce the number of sovereign states but to leave the institution of the sovereign state precisely where it was before'.²⁸ The same could be said of borders. Unless and until linear borders are reconsidered as a universalized practice, any attempt at a fundamental transformation may change little more than the number and location of borders. In the next section, then, I outline the thesis and how it responds to these challenges.

[This image, a map of Africa with borders redrawn, has been removed as the copyright is owned by another organisation]

*Figure 1: From Makau wa Mutua, 'Why Redraw the Map of Africa?'*²⁹

The Thesis and its Outline

This thesis, in broad terms, reconciles two points that emerge from the above discussion. On the one hand, the thesis rejects the idea that linear borders represent part of a high, rational form of civilization or are logically derivative from the 'core' of a singular modernity. Linear borders do not exist simply because it would be impossible to imagine some state, understood as a centralized bureaucracy which effectively monopolizes legitimate violence over a particular

²⁷ Eg. Robbie Shilliam, 'What about Marcus Garvey? Race and the transformation of sovereignty debate', *Review of International Studies* 32:3 (July 2006), 379-400.

²⁸ Hedley Bull, *The Anarchical Society: A Study of Order in World Politics* (Basingstoke: Macmillan, 1995), 255.

²⁹ Makau wa Mutua, 'Why Redraw the Map of Africa: A Moral and Legal Inquiry', *Michigan Journal of International Law* 16:4 (1995), 1113-1176.

space, that could exist otherwise. Contrary to Curzon, fixing precise borders does not always, self-evidently create conditions for peace and cooperation rather than war and conflict, and against Ratzel, linear borders do not self-evidently entail an efficient use of space. Moreover, linear borders, as a regular and taken-for-granted system of dividing up political space, did not emerge first in Europe, to be exported to the rest of the world later.³⁰ Those ideas concerning borders should be seen within the context of imperial expansion and competition out of which they emerged.

On the other hand, I have stressed the need for an approach to the history of borders which transcends any particular part of the world. A global perspective, I have argued, best equips us to deal with the idea and practice of linear borders themselves because, for better or for worse, they, and the narratives about borders we find ourselves embedded in, operate on a global, not a regional or local scale. This means we must reopen questions which have long been backgrounded in Anglophone scholarship. In a way not dissimilar from Curzon and Ratzel, we must inquire into the nature of linear borders, about the timing and whereabouts of their appearance on the global stage, and about what the linearization of borders, in the abstract, does to international politics. Moreover, it is unavoidable that the border imaginary of global modernity is linear. While borders often do not conform to linear expectations, those linear expectations are a powerful assumption lurking behind much contemporary international politics. John Ruggie was not wrong when he referred to '*a particular form of territoriality—disjoint, fixed, and mutually exclusive*' as 'the most distinct feature of modernity in international politics'.³¹

How, then, does the thesis propose to return to analytical frameworks that appear similar to those appearing in colonial geography without simply reproducing the latter? In brief, it does this by making strategic use of the theoretical tool known as 'articulation'. Articulation is a way of describing the relationship between two discourses or social forces which become linked to each other not by their internal logic but by historical contingency. The argument of the thesis, in a nutshell, is that while the global linearization of borders is a process not logically necessitated by the state itself, or any other structure normally taken as the political manifestation of modernity, but became linked to global modernity through particular, identifiable historical processes. Linear borders are part of a certain way of arranging the space of political life such that it is legible from a cartographic perspective, which I call 'survey

³⁰ Branch, "'Colonial reflection' and territoriality'.

³¹ Ruggie, 'Territoriality and Beyond', 168.

rationality'. Survey rationality, like secularity, development, capitalism, civilization, the nation-state, popular sovereignty, and any other signifiers associated with modernity, are capable of existing in different combinations and arrangements. The thesis demonstrates historically that linear borders are not reducible to any of these other aspects of modernity, either in terms of their origins or consequences, but nevertheless became entangled with them.

The thesis unfolds in three parts, each consisting of two chapters. The first part provides the theoretical, historical, and methodological grounding for the rest of the thesis. Chapter two, the first substantive chapter, positions the thesis relative to IR and related literature and outlines the object of analysis for the thesis. It first creates an overview of literature on territory, organized using Henri Lefebvre's spatial triad of spatial practices, representations of space, and lived space, and calls for more sensitivity to the relationships between the three parts of the triad. It then reviews the literature on the history of territory in IR, arguing that its very minimal discussion or problematization of what territoriality actually is leads to a confusing mix of implicit definitions and widely disparate historical narratives. Finally it arrives at defining the object of analysis, by differentiating between territoriality more broadly and linear borders as a specific kind of territoriality, and giving a historical outline of its trajectory over the period examined in the thesis.

Chapter three moves from positioning and setting up the problematic of the thesis to providing theoretical concepts which are later historically fleshed out in the remainder of the thesis. It begins by presenting linear borders as a kind of rationalization in the Weberian sense. It fashions this into a historical theory first by demonstrating the complexity of Weber's concept of rationality and his understanding of the multiplicity of rationality. The rationality of linear borders, within this framework, I call 'survey rationality'. I then introduce the concept of articulation, taken from Stuart Hall and others, and show how, even within Weber's understanding, we can understand rationalities as historically emergent through particular articulations. This sets up the main argument of the thesis, that survey rationality, or the perspective through which linear borders appear as rational, is the product of historical articulations with other rationalities, particularly capitalism and 'civilization', although I leave open the possibility of any number of others. Finally, I outline two patterns in international politics which result from the articulation of survey rationality. I argue that survey rationality contributes to a proliferation of territorial partition, as well as a politics of expertise in the delineation of boundaries which reinforces knowledge hierarchies.

The second part of the thesis transitions from theory to history and speaks to the historical emergence of the global linearization of borders. Corresponding to the two different articulations of survey rationality referred to in chapter three, chapters four and five investigate the rationality of agrarian capitalism and 'civilized' land-appropriation in the North American colonies and nineteenth-century West Africa, respectively. In chapter four, I examine the emergence of a systematic usage of linear borders in the North American colonies, particularly the Thirteen Colonies in the seventeenth and eighteenth centuries. I argue that the intercolonial boundaries which saw frequent contestation, at times violent struggle, in this period, were ultimately determined by surveying experts as a scaling up of an already existing practice of surveying property boundaries. This practice of property surveying derived from a historically particular articulation of agrarian capitalism, where the precise measurement of a property increased its value and erased customary and other unmeasurable rights. This normalization of this surveying practice made it imaginable for political boundaries also to be surveyed in the same way. Moreover, the construction of colonial frontier space as a sum of actual and potential improvable and surveyed properties made the surveying of political boundaries a necessity given the progress of settlement.

While dynamics of private property capitalism and 'civilization' were present in both the eighteenth-century Thirteen Colonies and nineteenth-century West Africa, it is the idea of 'civilization' which had a clearer impact on the transition towards linear borders in the latter case. This transition is partially related to the dramatic expansion of territory in Africa claimed as European colonies beginning in the 1880s, but it is not reducible to it. Along with the reasons for overturning the 'imperialism of free trade' in favour of formal colonialism, which have been well rehearsed in the historical literature, we must also consider how linear borders came to be associated with a 'civilized' form of international cooperation. The idea of civilization was important not just as a moral end in the form of the civilizing mission, but also as a security interest, in that civilizing the process of land-appropriation was thought to make it safer. International law emerged as a profession and a scientific discipline at this time, as civilization brought it a rationale it had lost with the decline of natural law. As social theorists increasingly identified formal and abstract territoriality with civilization, and as the demarcation of linear borders became increasingly symbolic feats of mastery over nature, it became a requirement in international law and thought necessary for the avoidance of great power war. The older system of concluding treaties with native peoples was thus no longer considered within the remit of international law, nor a secure assurance of avoiding territorial conflict with other colonial powers. It is within this context that we must understand why the colonial powers turned

towards drawing linear boundaries right across the continent, a possibility they had earlier been reluctant to imagine.

In the third part the thesis moves from the emergence and globalization of linear borders to the consequences that arise from them. Chapter six explores the politics of expertise made possible by the assumption that borders must be linear. It takes the example of the emergence of Border Studies, and in particular the concept of the 'scientific frontier'. This concept originated in British policy debates regarding the northwest frontier of India, initially signifying a thinly veiled imperial expansionism. Geographers such as Thomas Holdich, however, transformed it into a scientific concept, drawing on their practical experience in demarcating boundaries. The increasingly scientific nature of boundary demarcation, and cosmopolitan cooperation over it, set up a new kind of struggle, not between Western powers competing for colonies, but between colonial knowledge and colonized peoples. By the time of the 1919 Paris Peace Conference, there was a developing subfield of Border Studies dedicated to questions such as the nature of a scientific frontier, and scientific modes of geopolitical reasoning were so valued that geographers and the concept of the scientific frontier made a clear impact on the decisions of the conference. To demonstrate this, I compare the conference's deliberations over the Austro-Italian and Yugoslav-Italian boundaries.

Chapter seven is a brief genealogy of territorial partition, the object of which is to show how the globalization of linear borders makes the act of partitioning of territory across a wide range of historical contexts comparable in the view of those who work towards them or are otherwise involved in them. Linear borders make all territories, regardless of circumstances, appear to be different instantiations of the same thing, which makes it possible to imagine partition as a phenomenon larger than any particular version of partition. I trace the lineage of partition through three different historical versions. First, there is partition as cooperative territorial expansion, which is manifest in Poland and Mysore in the late eighteenth century, up through the partitions which were either realized or anticipated in Africa, China, and the Ottoman Empire. Second, there are the partitions enacted within the British Empire under the framework of imperial federalism, namely in Ireland, Palestine, and India, which were conceived by imperial officials as divisions necessary to retain some retrenched imperial unity. Finally there are the Cold War partitions of Germany, Korea, and Vietnam, accepted as a stalemate in the struggle to win peoples and states over to the US or Soviet camp. Virtually each case of partition was influenced, either in terms of policy or strategies of resistance, by the knowledge and memory

of previous partitions, and partition emerges as a phenomenon appearing as one thing, abstracted from New Imperialism, imperial federalism, or the Cold War.

Defining the Problem: The Relative Autonomy of Borders

The concept of 'borders' is in some sense inherently central to International Relations (IR). According to one IR textbook, for example, if there is anything that defines what the discipline studies, it might be summed up in the phrase 'cross-border transactions'.¹ Studying IR, then, at some level, presupposes some understanding of borders. Yet not only do IR scholars use the concept of borders in very different ways, but they also tend not to discuss the way they use it explicitly. As Burak Kadercan puts it, 'The poverty of the dialogue across different literatures is striking'.² Even within the discipline of IR itself, the concepts of 'modern territoriality', or 'territorial sovereignty', for example, have meant very different things for different scholars, ranging from the legal definition of sovereignty, to the exercise of exclusive control over an area, to the technical precision of linear borders in treaty texts.³ This means that in order to investigate the origins and consequences of linear borders, some conceptual work is required first.

Against this backdrop, this chapter sets up a research problem which does not so much attempt to unite all these literatures into one agenda, but positions itself among several of the major discourses on borders and territory and carves out an area of analysis which they have, for the most part, problematically overlooked. First I use spatial concepts from the sociologist Henri Lefebvre to arrange these discourses in relation to each other and to argue that they would each benefit from closer engagement with each other. Second, I examine the concept of 'territorial sovereignty', the dominant language within which IR has tended to approach the historical emergence of the international system and the particular space of international modernity. I argue that much confusion exists behind the usage of the term, and that a focus on the linearization of borders is better able to capture the historical particularity of the space of global modernity, and in doing so I specify the object of analysis of the thesis. Finally, I briefly outline historically the basic object of analysis, the process of the global linearization of borders in order to illustrate the conceptual arguments made in the previous section and to familiarize the reader

¹ Chris Brown and Kirsten Ainley, *Understanding International Relations* (Basingstoke: Palgrave Macmillan, 2009), 7.

² Burak Kadercan, 'Triangulating territory: a case for pragmatic interaction between political science, political geography, and critical IR', *International Theory* 7:1 (2015), 126.

³ Kerry Goettlich, 'The rise of linear borders in world politics', *European Journal of International Relations*, advance online publication, doi:10.1177/1354066118760991, first published March 16, 2018.

with the processes that the thesis then continues on to theorize in more depth. The overall aim is to clarify the object of analysis of the thesis, the process of the global linearization of borders, which I argue is a relatively autonomous aspect of international politics.

Territory in IR, Seen Through Lefebvre's Triad

Perhaps the most influential set of categories for theorizing different aspects of space has been Henri Lefebvre's spatial triad.⁴ Lefebvre's triad can help clarify the relationship between the different literatures on territorial borders.

Lefebvre divides space, for the purposes of social theory, into the following:

1. *Spatial practice*, which embraces production and reproduction, and the particular locations and spatial sets characteristic of each social formation...
2. *Representations of space*, which are tied to the relations of production and to the 'order' which those relations impose, and hence to knowledge, to signs, to codes, and to 'frontal' relations.
3. *Representational spaces*, embodying complex symbolisms, sometimes coded, sometimes not, linked to the clandestine or underground side of social life, as also to art...⁵

He later clarifies further that spatial practice is space perceived or 'felt', representations of space are spaces conceived or 'thought', and representational space is space as imagined or 'lived':

1. *Spatial practice*: ...The specific spatial competence and performance of every society member can only be evaluated empirically. 'Modern' spatial practice might thus be defined—to take an extreme but significant case—by the daily life of a tenant in a government-subsidized high-rise housing project. Which should not be taken to mean that motorways or the politics of air transport can be left out of the picture...
2. *Representations of space*: conceptualized space, the space of scientists, planners, urbanists, technocratic subdividers and social engineers, as of a certain type of artist with a scientific bent—all of whom identify what is lived and what is perceived with what is conceived. (Arcane speculation about Numbers, with its talk of the golden number, moduli and 'canons', tends to perpetuate this

⁴ Neil Brenner and Stuart Elden, 'Henri Lefebvre on State, Space, Territory', *International Political Sociology*, 3:4 (Dec. 2009), 365; Lisa Smirl, *Spaces of Aid: How Cars, Compounds and Hotels Shape Humanitarianism* (London: Zed Books, 2015), ch. 3.

⁵ Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith (Oxford: Blackwell, 1991), 33.

view of matters.) This is the dominant space in any society (or mode of production). Conceptions of space tend...towards a system of verbal (and therefore intellectually worked out) signs.

3. *Representational spaces*: space as directly lived through its associated images and symbols, and hence the space of 'inhabitants' and 'users'...This is the dominated—and hence passively experienced—space which the imagination seeks to change and appropriate...Thus representational spaces may be said, though again with certain exceptions, to tend towards more or less coherent systems of non-verbal symbols and signs.⁶

As an example, consider the space of the human body.⁷ Spatial practice in this case would include the use of the body, as in the use of the hands to do work. Representations of space would typically include scientific knowledge of anatomy or of the body's relations with nature and the environment. Representational space would be the lived or 'cultural' space of the body.

If we were to apply the triad to the space of territorial borders, spatial practice would entail not only the physical demarcation of borders through markers, walls, and fences, but also any practices of infrastructure-building or administration insofar as they physically enact a particular space with some discernible limits.⁸ Representations of space would typically consist of maps, with a particular outline of a territory visually represented, but could also include mathematical and geometrical systems such as GIS which form a systematic conceptual framework that structures the demarcation of borders. Lived space could entail a nation or body politic, as Lefebvre mentions ideology in an everyday, common-sense way as a component of lived space, but it is always tied directly to the lived experience of people, and is not necessarily made up of stable, coherent theoretical concepts. Depending on the context, lived space is sometimes set up in contradiction to a dominant representation of space, and so could consist of alternatives to territory, fuzzy borders, liminal spaces, and so on.

The key part of Lefebvre's triad that puts it in motion is the insistence that these three spaces are always connected; 'That the lived, conceived and perceived realms should be interconnected, so that the "subject", the individual member of a given social group, may move from one to another without confusion—so much is a logical necessity'.⁹ The success and proliferation of any representation of space depends, Lefebvre suggests, on the extent to which

⁶ Ibid., 38-39.

⁷ Ibid., 40.

⁸ Brenner and Elden, 'Henri Lefebvre', 365.

⁹ Lefebvre, *Production of Space*, 40.

it is in accord with representational space. Moreover, while architectural visionaries would generally be seen in terms of spaces of representation, he uses a comparison of two particular examples to demonstrate the difference between spaces of representation and representational space: 'Frank Lloyd Wright endorsed a communitarian representational space deriving from a biblical and Protestant tradition, whereas Le Corbusier was working towards a technician, scientific and intellectualized representation of space'.¹⁰

Yet in IR, these three aspects of space are rarely all given the same ontological priority, and the relations between them are often obscured. I am not arguing that there are no studies which satisfactorily include all three kinds of space, but only that the general tendency, in any given strand of literature, is to emphasize one of them, or sometimes two, at the expense of an approach which would take seriously all three of them, and the relationships between them. Perhaps the dominant approach to the history of territoriality has been to concentrate on spatial practices. Territoriality is treated here as a physical manifestation of practices of state-making, or a geographical way of characterizing them. Neo-Weberian approaches, for example usually consider a territorially demarcated area integral to the very definition of the state, regardless of historical era. Michael Mann, for instance, argues that what distinguishes states from other organizations is that its resources 'stop at defined territorial boundaries'.¹¹ It is the limiting of an organization's power to a specific area that is characteristic of states. This can be understood through the lens of spatial practices because it has little to do with how people or states understand territory and its usefulness. Ideology, of course, is important as a kind of power for Mann, along with economic or military power. Yet the spatiality of ideology is still seen in terms of the geography of its spread by human communication through spaces and across boundaries, rather than in terms of spaces imagined by and within ideologies.

Much of IR theory would also fall into this category. For classical realists this is sometimes explicitly stated, for example in John Herz's formulation of the state border as a 'hard shell' of outer fortifications, but structural realists tend to more implicitly define territory as a geographical description of the physical resources a state can draw on.¹² Versions of IR

¹⁰ Ibid., 43.

¹¹ Michael Mann, 'The autonomous power of the state: its origins, mechanisms and results', *European Journal of Sociology* 25:2 (1984), 198. See also Charles Tilly, *Coercion, Capital, and European States, AD 990-1992* (Malden, MA: Blackwell, 1992). Historical materialists of a more Marxist persuasion would also fit into this category, for example, Benno Teschke, *The Myth of 1648: Class, Geopolitics, and the Making of Modern International Relations* (London: Verso, 2003).

¹² John Herz, 'Rise and Demise of the Territorial State', *World Politics* 9:4 (Jul. 1957), 474; Jeremy Larkins, *From Hierarchy to Anarchy: Territory and Politics before Westphalia* (New York: Palgrave Macmillan,

constructivism that rely on Alexander Wendt's 'rump materialism', likewise see territory through the lens of spatial practices. For Wendt, a study of the relations between states must in some sense take territory as a given, 'in the same way that sociology must take as given the fact that people have spatial extension'.¹³ Much like Lefebvre's example of the spatial practice of the human body as the movement of hands, territory for Wendtian constructivists is ultimately a physical space which is not fundamentally constituted by ideas or discourse.

Others, however, see territory in terms of representations of space, including many scholars of critical geopolitics, historians of cartography, and some constructivist IR scholars. According to these perspectives, it is not enough to consider the physicality of territory, as materialist approaches can easily naturalize representations of space and make them appear universal, when they are actually historically contingent. Critical geopolitics has long made the cogent argument that geopolitics should be seen as a discourse and a system of historically contingent representations rather than an objective analysis of the world.¹⁴ Territory, then, is not just a natural outcome or a geographical description of a basic kind of space taken up by polities, but rather emerges through a certain geopolitical gaze which began to emerge in the European Renaissance and Enlightenment. Maps, in a certain sense, have power to 'write' the world, and thus the emergence of the modern state has to be seen in the context of a historical process of the state literally being put 'on the map', beginning in the sixteenth century. This argument for the central role of representations such as maps is not limited to scholars identified with critical geopolitics. Jordan Branch makes a similar argument that the possibility of representing a territory 'accurately' can be historically shown to be a prerequisite for certain kinds of modern sovereignty and for making certain types of political claims.¹⁵ Jeremy Larkins, likewise, theoretically and historically fleshes out John Ruggie's claim that the Renaissance representational regime of the single-point perspective redefined subjectivity, and along with it, the spatial organization of politics.¹⁶

2010), 20; Nisha Shah, 'The Territorial Trap of the Territorial Trap: Global Transformation and the Problem of the State's Two Territories', *International Political Sociology* 6:1 (March 2012), 3.

¹³ Alexander Wendt, *Social Theory of International Politics* (Cambridge: Cambridge University Press, 1999), 211.

¹⁴ Gearóid Ó Tuathail, *Critical Geopolitics: The Politics of Writing Space* (London: Routledge, 1996); Gearóid Ó Tuathail and Simon Dalby (eds), *Rethinking Geopolitics* (London: Routledge, 1998); Klaus Dodds, Merje Kuus, and Joanne Sharp, *The Ashgate Compendium to Critical Geopolitics* (Burlington, VT: Ashgate, 2013).

¹⁵ Jordan Branch, *The Cartographic State: Maps, Territory, and the Origins of Sovereignty* (Cambridge: Cambridge University Press, 2014). See also Jeppe Strandsbjerg, *Territory, Globalization and International Relations: The Cartographic Reality of Space* (Basingstoke: Palgrave Macmillan, 2010).

¹⁶ Larkins, *From Hierarchy to Anarchy*; John Ruggie 'Territoriality and beyond: problematizing modernity in international relations', *International Organization* 47:1 (Winter 1993), 139-174.

Representations of space need not take a primarily visual form, moreover, as Lefebvre included in this category all kinds of systematic knowledge, signs, and codes. Stuart Elden's conceptual approach to territory, while centred on analysis of texts rather than cartography, could also be seen through the lens of representations of space. Elden's work, which 'gets to grips with the complexities in the term *territory* itself', does not seek to construct a more accurate definition of territory but finds the meaning of the concept in the ways it is used in a wide range of texts.¹⁷ In particular, for Elden, the conception of territory as the ultimate referent of political power finds its first full expression in the writings of mathematician Gottfried Leibniz, whom Michel Foucault considered a 'general theoretician of force as much from the historical-political point of view as from that of physical science'.¹⁸ While yielding vast new insights into the history of territory, Elden also strengthens the existing emphasis on mathematical and scientific conceptions of the world, which Lefebvre considered typical of what he called 'representations of space'.

Yet defining territory as a representation of space rather than as a spatial practice, and viewing historical change in territory in this light comes with its own risks. In recent debates over the turn to new materialisms, some have argued that in critical geopolitics, along with a range of other critical IR approaches, there is a need to re-evaluate the role of material, matter, and the non-human. According to Vicki Squire, despite recent efforts to push critical geopolitics to engage with materiality, the subfield still 'over-invests the representational, cultural, and the interpretive dimensions of geopolitics'.¹⁹ It has primarily seen territory in terms of how it is represented, potentially to the detriment of a deep understanding how territory is enacted, embodied, performed, or practiced. As John Agnew argues, the history of territory as a concept and as an idea is important, but 'What remains unsecured is the relevance of this textual pathway to how 'territory' has actually figured in political practice and if and how the textual sources have entered into practical politics'.²⁰

Finally, a common feature of most of these literatures is a relative absence of *representational* space. The spaces of the everyday, the marginal, and the less rigidly codified and systematised

¹⁷ Stuart Elden, *The Birth of Territory* (Chicago: University of Chicago Press, 2013), 5.

¹⁸ Quoted in *Ibid.*, 316.

¹⁹ Vicki Squire, 'Reshaping critical geopolitics? The materialist challenge', *Review of International Studies* 41:1 (Jan. 2015), 140.

²⁰ John Agnew, 'By words alone shall we know: Is the history of ideas enough to understand the world to which our concepts refer?' *Dialogues in Human Geography* 4:3 (2014), 316.

do not often feature prominently. Recently, however, interdisciplinary work bringing together human geography, sociology, international relations, and other disciplines, has increasingly sought to tackle this problem. 'Formalised' in a special issue of *Geopolitics*, the approach known as critical border studies has made it a priority to develop 'alternative border imaginaries', or resources for understanding borders beyond the dominant conception of borders as simply lines on maps.²¹ Moving away from the hegemonic representations of space, then, the goal of critical border studies can be understood as a shift towards representational, lived space. Rather than reproducing the modern fixation with lines, many critical border studies scholars have pointed to how real people may experience borders in a more dispersed way than simply at the edges of states, and citizens and ordinary people, not just states, play a role in constituting borders²² Spatial practices, of course, are by no means ignored, and often in fact provide a rationale for the move from representations of space to representational space. While critical border studies refers to a heterogeneous assemblage of scholarly efforts, what often unites it are 'common complaints' about

the growing disparity between the diversity and complexity of contemporary bordering practices on the one hand, and the perception that more theoretical and conceptual work needed to be done in order to keep pace with these developments in academic border studies on the other hand.²³

Borders, for example, are often off-shored and out-sourced in what is termed the 'border-work' of the EU.²⁴ Accordingly, critical border studies 'urges two twinned moves: a shift from the *concept of the border* to the *notion of bordering practice*; and the adoption of the lens of *performance* through which bordering practices are produced and reproduced.'²⁵

Critical border studies, and more broadly, work connected to its project of shifting from dominant representations of space towards representational spaces which accord better with current spatial practices, have provided a solid basis from which to understand major developments in bordering practices, and demonstrated the utility of seeing borders from many

²¹ Noel Parker and Nick Vaughan-Williams, 'Critical Border Studies: Broadening and Deepening the 'Lines in the Sand' Agenda', *Geopolitics* 17:4 (2012), 727-733.

²² Chris Rumford, 'Towards a Vernacularized Border Studies: The Case of Citizen Borderwork', *Journal of Borderlands Studies* 28:2 (2013), 169-180.

²³ Parker and Vaughan-Williams, 'Critical Border Studies', 727.

²⁴ Chris Rumford, 'Towards a Multiperspectival Study of Borders', *Geopolitics* 17:4 (2012), 887-902; Luiza Bialasiewicz, 'Off-shoring and Out-sourcing the Borders of EUrope: Libya and EU Border Work in the Mediterranean', *Geopolitics* 17:4 (2012), 843-866.

²⁵ Parker and Vaughan-Williams, 'Critical Border Studies', 729.

different perspectives. They have also shown that 'Whilst borders may have become more difficult to determine than they have been in the past, they seem certain to survive *in some form or other*', and that continued attention to representations of space is still necessary.²⁶ While the simple image of the line on a map may be misleading in countless ways, this image continues to dominate public discourses over borders, and while bordering practices may be diversifying and multiplying, walls and fences continue to constitute an important part of contemporary border-work. What would it mean, then, to examine the ways in which alternative border imaginaries not only provide analytical tools for understanding changing spatial practices, but also how these constitute and interact with dominant representations of space? Moreover, how does the dominance of one particular representation of space, the line on the map, constitute complex border landscapes and imaginaries in ways particular to our historical era?

The important work of such literatures as critical border studies, critical geopolitics, and historical materialism can be built upon by returning to Lefebvre's spatial triad. As Lefebvre argued, spatial practices, representations of space, and lived space all make each other possible, and exist in a three-sided historical dialectic, or trilectic. This thesis does not attempt to pursue Lefebvre's whole agenda from a global historical perspective. It does, however, take Lefebvre's ideas as an inspiration and as a theoretical starting point in two key ways. First is the idea of space as a historical mediator of social relations. Social relations always exist in some kind of space which is historically and contextually dependent, and that space always shapes societies in some way. Any society can be analysed through a spatial lens, and the society's spatial characteristics are important for how it operates. This thesis takes as its object of analysis the space-society relations entailed by linear borders, or the kinds of social relations which produce and are produced by the global process of the linearization of borders. Second is the idea that a society's spatial characteristics cannot be reduced to spatial practices, representations of space, or representational spaces. Each of these is influenced by the other two, and approaches which focus on only one of them could stand to benefit by engaging with the others. I do not use this idea of the spatial triad so much as a specific theory of space, but more as a series of signposts that remind us of the many different aspects of space. The spatial triad is useful for positioning relative to each other the different uses of space in IR, and for imagining what a different approach might look like which builds on existing work by explicitly taking into account all three aspects.

²⁶ Noel Parker and Rebecca Adler-Nissen, 'Picking and Choosing the "Sovereign" Border: A Theory of Changing State Bordering Practices', *Geopolitics* 17:4 (2012), 774.

In this thesis, all three aspects of the triad are important in different ways. Linear borders are in part an abstract ideal, or a representation of space, which is constantly worked towards without ever being actually achieved, especially as a global system of dividing space. This ideal exists on maps, and in all kinds of discourse from treaty texts to everyday speech which refers to borders as lines or assumes their linearity. There has never been, and never will be, a time when all borders everywhere have been defined perfectly linearly in practice. At the same time, we can also speak of linear borders as a spatial practice in terms of the meaningful and material patterns of action that make it possible to imagine the ideal of linear borders as accomplished or as a real potential. These practices include surveying, calculating distances and areas, constructing monuments, the drafting of maps, and many other kinds of practices of geographic knowledge production. Lived space, finally, is important for this thesis primarily as that which the ideal and practices of linear borders modify, replace, or obscure. Linear borders were never imposed on an empty landscape, but were always imagined and created in a pre-existing context, or in other words, a space that was lived in. Any account of linear borders, then, must take into account the spaces that preceded them.

Thus the thesis takes inspiration from Lefebvre's multifaceted conception of space, and complicates a range of IR perspectives by drawing attention to the ways in which spatial practices, representations of space, and lived space are co-constituted. The next section continues the task of positioning the thesis relative to other IR approaches, moving from the concept of space to that of borders.

The Trouble with 'Territorial Sovereignty'

This section engages with IR accounts of the origins of 'territorial sovereignty', and argues that the use of the concept of border in this literature is potentially misleading. This is because it has been mostly focused on centres of authority, and references to the way polities are geographically differentiated from each other at their borders have not been explained in detail. I then argue for a more explicit engagement with borders, which clears the ground for the thesis.

In IR, most discussions of the origins of modern international relations see some version of the concept of 'territorial sovereignty' as the basic structure to be explained in terms of its origins or its spread to the rest of the world. These are broadly divisible into historical materialist

explanations of territoriality,²⁷ and constructivist or discursive explanations.²⁸ Differences exist as to the precise terminology, including variants such as 'exclusive sovereignty' or 'modern territoriality', but there seems to be broad agreement on what needs explanation: the geographical compartmentalization of legitimate political authority which is particular to the current historical era.

Yet while explanations of the origins of territorial sovereignty abound, the historical emergence of precise borderlines, as a way of attempting to universally specify this compartmentalization of authority, has received surprisingly little attention. This thesis, with Robert Sack, understands territoriality as consisting of at least three things: classification by area, social communication of this area, and an assertion of control over the area.²⁹ While this conception of territoriality is widely used, discussions of territoriality have elaborated far more on the last two aspects than the first. Many discussions of the history of territorial sovereignty refer to 'borders', but empirical examination of treaty texts or diplomatic negotiations over borders is not

²⁷ Hendrik Spruyt, *The Sovereign State and its Competitors* (Princeton, NJ: Princeton University Press, 1994); Benno Teschke, *The Myth of 1648: Class, Geopolitics, and the Making of Modern International Relations* (London: Verso, 2003); Charles Tilly, *Coercion, Capital, and European States, AD 990-1992* (Malden, MA: Blackwell, 1992).

²⁸ Jens Bartelson, *A Genealogy of Sovereignty* (Cambridge: Cambridge University Press, 1995); Jeremy Larkins, *From Hierarchy to Anarchy: Territory and Politics before Westphalia* (New York: Palgrave Macmillan, 2010); Daniel Philpott, *Revolutions in Sovereignty: How Ideas Shaped Modern International Relations*. (Princeton: Princeton University Press, 2001); John Ruggie 'Territoriality and beyond: problematizing modernity in international relations', *International Organization* 47:1 (Winter 1993), 139-174; Jeppe Strandsbjerg, *Territory, Globalization and International Relations: The Cartographic Reality of Space* (Basingstoke: Palgrave Macmillan, 2010).

²⁹ Robert Sack, *Human Territoriality: Its Theory and History* (Cambridge: Cambridge University Press, 1989). Some political geographers would likely object to my use of Sack's transhistorical definition for the purposes of building a historical account of international geography which avoids fetishizing constructions of a particular time period, as Sack, according to some, suffers from precisely this weakness, eg. Stuart Elden, 'Land, terrain, territory', *Progress in Human Geography* 34:6 (2010), 799-817. Elden's philological and conceptual-historical approach would perhaps seem a better fit, from the perspective of many geographers. Yet historians focusing on non-modern polities, on the contrary, have found the utility of Sack's approach 'in the flexibility it brings to the explanation of complex historical developments and in the rejection of either/or divisions implied in the rigid application of 'primitive' and 'civilized'. It allows for the influences of kinship to exist in modern capitalist society and those of territoriality to be operative in premodern decentralized societies such as those found in equatorial Africa in the mid-nineteenth century'. Christopher Gray, *Colonial Rule and Crisis in Equatorial Africa: Southern Gabon, C. 1850-1940* (Rochester, NY: University of Rochester Press, 2002), 21. Thongchai Winichakul, similarly, in his classic study of the history of the spatiality of Siam, has no problems with classifying each of the pre-colonial kingdoms of Cambodia, Mon, and Siam as a 'spatial organization of the terrestrial earth, a "territoriality" in Robert Sack's word.' Thongchai, *Siam Mapped*, 23. Elden's approach, on the other hand, while developing an approach more closely sensitive to the history of Western Europe, has not yet been applied, for obvious reasons of feasibility, on the global scale. The claim that Sack's conception is inapplicable to non-modern or non-Western contexts, at the same time, has not primarily been a result of close study of those contexts.

widespread.³⁰ Still rarer is the use in IR of histories of surveying and demarcating borders, and close attention to when and where borders were implemented as lines rather than zones.³¹ Territory, it is agreed, is integral to modern conceptions of sovereignty, but variations in the way territory is defined or distinguished from other territories have received little attention. Other kinds of variations in territorial entities have been considered important, such as the sizes of territorial units and the contiguity of territories under one sovereignty, but variations in kinds of borders remain mostly unremarked upon.³² Moreover, studies of the origins of territorial sovereignty have mostly remained geographically confined to Europe, and few, if any, have tried to understand how and why, or even when attempts were made to linearize borders globally.

According to these literatures, the particular ways in which territories are distinguished from one another, whether in terms of treaty texts or the practices of measuring and marking space, seem to matter little to the overall constitution of international politics. Yet territories have historically possessed many widely varying types of borders, some of which might be too vague to be considered 'borders' today. Without considering borders, then, it is difficult to know precisely what is meant by 'territorial sovereignty'. What kind of borders or boundaries must exist at the edges of a territory for it to be considered an example of 'modern territoriality'? Must there simply be some basically functional or liveable way of knowing which territory one is in, or must all parts of every frontier consist of a series of connected lines, with no ambiguity or area in-between? Such questions have not generally been considered along with the origins of territorial sovereignty. Likewise, the concept of exclusivity is important but often ambiguous when it comes to the shape of territorial borders, as it can refer either to the holder of authority in a given area, or it can refer to the geography of the area itself. The French monarchy, for example, held a certain 'exclusive authority' over France in the fourteenth century, in that wherever 'France' was, the monarch was supreme.³³ Yet even within the 1648 Peace of Westphalia, some areas were incorporated into France only in a way which was limited and shared with the Holy Roman Empire.³⁴ France, at that point, held exclusive sovereignty within its territory, but its territory was not quite mutually exclusive with other territories.

³⁰ Except Christian Reus-Smit, *The Moral Purpose of the State: Culture, Social Identity, and Institutional Rationality in International Relations* (Princeton, NJ: Princeton University Press, 1999).

³¹ Except Jordan Branch, *The Cartographic State: Maps, Territory, and the Origins of Sovereignty* (Cambridge: Cambridge University Press, 2014).

³² Tilly, *Coercion, Capital, and European States*; Teschke, *The Myth of 1648*; but see Burak Kadercan, 'Territorial design and grand strategy in the Ottoman Empire', *Territory, Politics, Governance* 5:2 (2017), 158-176.

³³ Spruyt, *The Sovereign State*.

³⁴ Derek Croxton (1999) 'The Peace of Westphalia of 1648 and the origins of sovereignty', *The International History Review* 21:3 (Sept. 1999), 581.

To begin with, there is the Westphalia narrative; at one time the canonical wisdom was that the 'rugged individualism of territorial and heterogeneous states' was 'among the legacies of the Settlement of Westphalia' of 1648, which 'represents the majestic portal which leads from the old into the new world'.³⁵ Leo Gross's article from 1948 stating this was primarily on sovereignty as a legal concept, but if one (mis)reads it as an inquiry into the origins of the territorial state, it suggests that this did not exist fully until the seventeenth century.

For Hendrik Spruyt, by contrast, France had already become territorial the moment that the king of France became the unchallenged authority within France, by clearly subjugating the French dukes, counts, and other vassals.³⁶ On this interpretation, the phrase 'the sovereign state confined itself territorially' means that 'sovereigns claimed hierarchy within borders and recognized no higher authority'.³⁷ This is in contrast to the Holy Roman Emperor, or the Pope, whose authorities were not defined in terms of geographical place but instead theoretically applied to all of Christendom. Defined in this way, France became territorial around the fourteenth century. Philpott uses a similar test, arguing that in the medieval era, 'Each set of obligations between lord and vassal had unique terms, determined by negotiations between them, not by a common law that prescribed obligations within a territory'.³⁸ This had changed by the early sixteenth century in 'Britain', France, and Sweden, where monarchs 'had established supremacy over the Church and other territorial rivals'.³⁹ While appearing to add nuance to the received Westphalian narrative of the origins of territory, neither Spruyt nor Philpott engage with the international legal debates at the centre of Gross's 1948 article. Instead, the primary distinction they make hinges on whether or not people are subject to a particular authority based primarily on where they live, rather than based on some other bond, such as religion or nationality, which does not vary with the person's location.

In another version of the origins of territorial sovereignty, Christian Reus-Smit does not see this existing until the 1713 Peace of Utrecht. He argues that the Peace of Westphalia actually reinforced some feudal rights, with France and Sweden both being granted fiefs outside their 'borders', in the Holy Roman Empire: 'dynastic ties and bonds of lineage—more than clearly

³⁵ Leo Gross, 'The Peace of Westphalia, 1648–1948', *The American Journal of International Law*, 42:1 (1948), 40, 28.

³⁶ Spruyt, *The Sovereign State*, 79.

³⁷ *Ibid.*, 109.

³⁸ Philpott, *Revolutions in Sovereignty*, 79

³⁹ *Ibid.*, 80

demarcated territorial boundaries—defined the extension of rule’.⁴⁰ ‘Territorial boundaries’ only appeared in full force later: ‘The Treaties of Utrecht were pivotal in delineating the geographical extension of sovereign rights, making a decisive contribution to the consolidation of territoriality’.⁴¹ Yet if Reus-Smit dates territoriality to a time which is in accord neither with the received Westphalian narrative nor with the late-medieval or Renaissance-era territoriality of Spruyt or Philpott, it is not because he is reading different history texts but because his conception of territoriality is implicitly different. It was by agreeing to establish a boundary between France and Spain, he argues, thereby precluding a dynastic link between them, that territoriality was reinforced. Neither Gross’s international legal debates, nor Spruyt’s and Philpott’s distinction between geographically and non-geographically based authority seem to appear here.

In yet another account, Jordan Branch historicizes another aspect of modern territoriality. For him, what is left out of previous scholarship is the idea of homogenous territory bounded by linear borders, rather than other kinds of frontiers. By this standard, even the Treaties of Utrecht reflected the resilience of older notions of authority because, just as was common in medieval treaties, territory in Europe was still transferred primarily by listing places and things, rather than clearly indicating a line. For example, the cession of Gibraltar to Britain entailed ‘the full and entire Propriety of the Town and Castle of Gibraltar, together with the Port, Fortifications, and Forts thereunto belonging’, without any further specification.⁴² Linear divisions of space appeared regularly in European treaties only beginning in the early nineteenth century at the Congress of Vienna and the Treaties of Paris.⁴³ This would bring us to a generous range of four to five centuries between Spruyt’s Capetian consolidation in the fourteenth century to Branch’s Congress of Vienna in the nineteenth century.

With the role of borders remaining generally implicit or ambiguous, ‘territorial sovereignty’ is too underspecified to carry the conceptual burden that the historical IR literature has placed on it. Territory, borders, and sovereignty are not the same thing, and while they seem to coincide today, assuming that they evolved simultaneously risks confusion. At issue here is not, as it may seem, an empirical disagreement, so much as a clash of differing, mostly implicit definitions of territorial sovereignty. These different definitions have to do with historical debates about the legal concept of sovereignty, exclusive effective control over some geographic area, the

⁴⁰ Reus-Smit, *The Moral Purpose of the State*, 114.

⁴¹ *Ibid.*, 117.

⁴² Branch, *The Cartographic State*, 130.

⁴³ *Ibid.*, 135.

abandoning of dynastic unions tying together distant territories, or precise linear borders at the edges of territories. There are, of course, good reasons for adopting different definitions, based on different goals of different studies. This multiplicity of definitions of 'territorial sovereignty', however, has in this case served to obscure important differences between the topics under discussion by different theorists. Territorial sovereignty is not one thing, but a bundle of different ideas, technologies, and practices. Clarifying what question we are asking, in this case, is not a matter of hair-splitting, as it affects the answer we receive by a matter of centuries. This chapter, in response, argues for an understanding of the global linearization of borders as a historical process relatively autonomous from territorial sovereignty, with distinct conditions of possibility and effects.

Of course, the subject of borders more generally has not gone unexplored. Political scientists, historians, scholars of critical border studies, and others have consistently challenged the assumption that borders are simply lines between states.⁴⁴ From various perspectives, it has been convincingly shown how the idea of linear borders obscures a far more complex reality of 'borderlands', and the co-implication of 'inside' and 'outside'.⁴⁵ Territories and borders are not monopolized by sovereign states.⁴⁶ Borders have fulfilled various different functions in different times and places; the military, economic, and law enforcement aspects of borders may have changing or contradictory dynamics, and controls over people and migration have always been subject to historical variation.⁴⁷ This thesis aims not so much to examine the complex reality obscured by the simple image of the line as to problematize the historical process of coming to take for granted this kind of line. This historical process has received attention largely as it relates to other processes, such as the emergence of territorial sovereignty or nationalism as 'the principle that holds that the national and the political unit should be congruent'.⁴⁸ Yet borders are often defined in treaties without any reference to military bases, economic resources, functional differences between borders, or, perhaps most notably, any people or groups of

⁴⁴ Louise Amoore, 'Biometric borders: Governing mobilities in the war on terror', *Political Geography* 25:3 (2006), 336-351; Parker and Vaughan-Williams, 'Critical Border Studies'.

⁴⁵ Michiel Baud and Willem Van Schendel, 'Toward a comparative history of borderlands', *Journal of World History* 8:2 (Fall 1997), 211-242; R.B.J. Walker, *Inside/Outside: International Relations as Political Theory* (Cambridge: Cambridge University Press, 1993).

⁴⁶ Gitte du Plessis, 'When pathogens determine the territory: Toward a concept of non-human borders', *European Journal of International Relations*, 24:2 (2018), 391-413; Jessica Shadian, 'From states to polities: Reconceptualizing sovereignty through Inuit governance', *European Journal of International Relations* 16:3 (2010), 485-510.

⁴⁷ Peter Andreas, 'Redrawing the line: Borders and security in the twenty-first century', *International Security* 28:2 (2003), 78-111; John Torpey, *The Invention of the Passport: Surveillance, Citizenship and the State* (Cambridge: Cambridge University Press, 2000).

⁴⁸ Ernest Gellner, *Nations and Nationalism* (Oxford: Blackwell, 2006).

people. It is this process of abstracting borders from what they are intended to divide, and from any intended function they might have, which is the object of analysis here.

Conceiving of the linearization of borders as a relatively autonomous process, however, does not mean it is without implications for fields of study interested in territorial sovereignty, nationalism, borderlands, migration, and other border-related phenomena. The specification of borders as precise lines by no means eliminates the complexity of borderlands, but it does make possible a certain kind of borderland, by creating a position from which authorities and 'experts' can claim a monopoly over the ability to know and manipulate border geographies. The efforts that polities put into negotiating, surveying, mapping, and demarcating linear borders makes it possible to imagine that borders literally are as linear 'on the ground' as they appear on maps. This ability to confuse maps with reality has an important role in sustaining what John Agnew calls the 'territorial trap'.⁴⁹ That politics and social relations take place first and foremost within bounded territorial entities, Agnew argues, is an assumption of much of the social sciences which rules out the study of the historical emergence of territoriality as well as the possibility of future systemic changes. The role of state territoriality or 'state space' as a container of power and social relations is historically particular.⁵⁰ The territorial trap provides a set of spatial assumptions at the foundations of both policies and theories which naturalizes states' control over territory and makes non-territorial spaces difficult to imagine.⁵¹

The historical process of the linearization of borders is what makes this territorial trap convincing and believable. The very idea of 'juridical sovereignty' requires a conceptual separation between a clearly defined territory and an area of effective control or positive sovereignty, which is made possible through technological practices of boundary demarcation.⁵² Indeed, IR theory's very conception of the international as a finite set of discrete states and their interactions, as opposed to a thick space of mutual co-constitution, depends on the assumption that all non-state forms of political association that may have existed within the frontiers between states have been absorbed into one or another state territory. This thesis, then, is situated within the

⁴⁹ John Agnew, 'The territorial trap: The geographical assumptions of International Relations theory', *Review of International Political Economy* 1:1 (1994), 53-80.

⁵⁰ Peter Taylor, 'The state as container: Territoriality in the modern world-system', *Progress in Human Geography* 18:2 (1994), 151-162.

⁵¹ Fiona Adamson, 'Spaces of global security: Beyond methodological nationalism', *Journal of Global Security Studies* 1:1 (2016), 19-35; Daniel Neep, 'State-space beyond territory: Wormholes, gravitational fields, and entanglement', *Journal of Historical Sociology* 30:3 (2017), 466-495; Shah, 'The territorial trap of the territorial trap'.

⁵² Robert Jackson and Carl Rosberg, 'Why Africa's weak states persist: The empirical and the juridical in statehood', *World Politics* 35:1 (1982), 1-24.

broader project of achieving a ‘historical-geographical consciousness’ in which the spatial structures of international politics are problematized and historicized rather than reified and given assumed fixity.⁵³ Yet within this broader agenda, it sheds new light on the increasingly linearized character of borders, and the consequences of this shift in international politics.

The Linearization of Borders as an Autonomous Process: Conceptual Overview and Timeline

Borders are different from territory, both in theory and in history. In contrast to much of the literature reviewed in the previous section, this section sets out an outline of the linearization of borders as a process conceptually and empirically distinct from more familiar historical processes. In theoretical terms, territory can be conceptualized as having frontier zones at the edges, possessing some width or ambiguity, or it can be thought to have more precise boundary lines. International law, for example, defines territory in the latter sense, as having boundaries which are normally ‘defined and delimited in all respects’.⁵⁴ On this ‘linear’ or ‘coterminous’ conception of territorial borders, it is theoretically impossible for a point on land, besides Antarctica, to be in more or less than one territory at a given moment. There is no place which is on or within the border rather than in one or the other territory. Often these imaginary lines are straight, and even borders that appear to be ‘squiggly’ on small-scale maps are often officially defined by a series of boundary markers connected by straight lines. Despite the technically infinite complexity that can be achieved by a large number of boundary markers connected in this way, this conception of borders is inevitably limited by the fact that it is always built on lines. Even when a treaty defines a border otherwise, for example, by following a watershed boundary, it is still meant to be linear in the sense that the boundary could, in principle, be ‘found’ at any point, to any degree of precision required. While this conception was not applied in Europe in the seventeenth century, and while it was first attempted in European colonies, it has often been misleadingly called ‘Westphalian’ territoriality.⁵⁵

The concept of territory, however, is also often used in a much broader sense than that defined by international law. ‘Territoriality’, used here as an ideal-type, refers to strategies of rule

⁵³ Agnew, ‘The territorial trap’, 77.

⁵⁴ Georg Schwarzenberger, *International Law* (London: Stevens and Sons Limited, 1957), 310.

⁵⁵ Jordan Branch, “Colonial reflection” and territoriality: The peripheral origins of sovereign statehood, *European Journal of International Relations* 18:2 (2012), 277–297.

recurring in a wide range of contexts in human experience.⁵⁶ The key difference between territorial and non-territorial strategies of rule is whether authority is applied to people and things based on *where* they are rather than by *who* or *what* they are. Territoriality is essentially 'rule by geography' rather than universal rule, or rule by networks or personal relationships. While this definition of territoriality is widely used, it is less often realized that territorial strategies of rule are not irreconcilable with vague frontiers that fade into each other; overlapping territories do not preclude rule by geography.⁵⁷ An authority can be meaningfully considered territorial as long as there is some way of conceptualizing a region where the authority applies, and socially communicating its geography. There is no need for a linear border to be drawn on a particular kind of map or demarcated physically with a particular kind of sign.

Linear borders in the pure, geometrical sense implied by international law are distinct from 'natural borders' in the sense of the rivers, mountain chains or other large geographical referents that can be used to describe a frontier. Rivers have width and change their courses, for example. Intergovernmental organizations have been founded in response to these unavoidable gaps between the simple ideal of fixed linear borders and complex realities such as riverine topography. An International Boundary Commission, for example, continually defines and redefines the nearly 9,000-kilometer long Canada-US border as a series of straight lines connecting specified turning points.⁵⁸ Including where the boundary follows river courses, it is a series of over 8,000 regularly maintained monuments and precisely defined turning points, not rivers themselves, which define every minute twist and turn of the boundary. Despite the intuitive simplicity of river boundaries, according to the Commission itself, 'Without the work of the IBC, we simply would not know where the border is'.

Mountain chains have also been used as 'natural borders', yet merely referring to a mountain range has often been deemed insufficiently precise. Despite being a famous example of a 'natural frontier', the Pyrenees mountains between France and Spain are not really as linear as they appear on some maps, and the international border was not linearized in some parts until

⁵⁶ Sack, *Human Territoriality*. Likewise, I use 'territory' as an ideal-type referring to a somehow specified area within which a polity locates its authority. This is different, for example, from the *concept* of territory, eg. Elden, *The Birth of Territory*. The distinction is important because while the latter must be located within a very particular historical context, polities have specified their authority geographically in a wide range of historical contexts.

⁵⁷ Philpott, *Revolutions in Sovereignty*, 17; Spruyt, *The Sovereign State*, 35.

⁵⁸ International Boundary Commission, 'About us', 2015 (<http://www.internationalboundarycommission.org/en/about.php>).
International Boundary Commission, 'The boundary', 2015 (<http://www.internationalboundarycommission.org/en/about/the-boundary.php>).

the late nineteenth century.⁵⁹ The complexity of 'natural boundaries' was famously demonstrated by British colonial geographer Thomas Holdich.⁶⁰ Anyone with actual surveying experience, he presumed, would know that the highest chain of a mountain and the watershed boundary are usually two very different things, and boundary agreements failing to specify which would take precedence risked future conflict. Assigned to a border arbitration between Chile and Argentina, Holdich's final report on the case made it into a textbook example of the problem.⁶¹ It is important, of course, to recognize that absolutely unambiguous borders, as sought by Holdich and others, are never concretely attainable but are only worked towards through surveys, cartography, formalized treaty language, engineering, and other practices. It may be more useful, then, to refer to linearization as an uneven and never-completed process rather than to linear borders as an identifiable idea or a practice that was achieved at some point in the past and subsequently spread geographically.

In historical terms, attempts to universally linearize borders are only a very recent episode in the broader history of territoriality. As recently as the late nineteenth century, well after the 1648 Peace of Westphalia, the expectation that borders be linear has been far from globally accepted. Many historical polities were territorial, but without indicating borders with the scientific kind of precision expected today. As examples of non-linear boundaries, consider the heterogeneity of some of the answers given to an 1875 British inquiry into the boundaries of some Malay principalities:

"The boundary of our State extends as far as the meeting of the fresh water with the salt water of the river;" or, "If you wash your head before starting, it will not be dry before you reach the place;" or, "The boundary may be determined on the river, as far as the sound of a gunshot may be heard from this particular hill."⁶²

Many states today make great efforts to indicate the exact locations of their borders, but this has not always been the case; there are at least two conceivable reasons why a polity using territorial strategies of rule might not pursue precise linear borders. On one hand, it may not

⁵⁹ Peter Sahlins, *Boundaries: The Making of France and Spain in the Pyrenees* (Berkeley: University of California Press, 1991).

⁶⁰ Thomas Holdich, 'The use of practical geography illustrated by recent frontier operations'. *The Geographical Journal* 13:5 (1899), 470.

⁶¹ Samuel Whittemore Boggs, *International Boundaries: A Study of Boundary Functions and Problems* (New York, NY: Columbia University Press, 1940), 91.

⁶² D.D. Daly, 'Surveys and explorations in the native states of the Malayan Peninsula, 1875–82'. *Proceedings of the Royal Geographical Society and Monthly Record of Geography* 4:7 (1882), 398.

have any interest in the first place in giving serious attention to the precise locations of various objects and people far from the centre of its territory. For example, this was the case in pre-colonial Siam, despite it being territorial according to Sack's definition.⁶³ When pressed by British officials, the Siamese court simply declared that 'no boundaries could ever be established between the Siamese and the Burmese' and urged them to take their enquiry to 'the old inhabitants residing on the frontiers'.⁶⁴ On the other hand, even if a concept of a linear border exists, technological limitations might make it very difficult to render it a continuous line with a stable course surrounding the whole territory. In early modern Europe, surveys were considered the appropriate method for accurately determining borders, yet they were costly and took decades to complete.⁶⁵ Borders did appear on early modern European maps, but they were often intended to indicate geographical regions such as Germany, rather than states, and did have any necessary relation to the space controlled by any particular polity.

In the early nineteenth century, linear borders did exist, in some parts of the world more consistently than in others. However, it would not be possible to say that at that time most people in most places considered linear borders with precise locations to be necessary. On the contrary, many, perhaps most, people did not have a concept equivalent to a linear border, and those who did have one did not apply it universally. While pre-colonial forms of rule may have been more or less territorial, they tended not to have 'hard' borders.⁶⁶ In Siam, for example, even the idea of a frontier as a zone completely surrounding the kingdom had limited significance.⁶⁷ The concept of a *khetdaen*, which was like a frontier, existed, but it was only applied to areas where there were passages through thick forests or mountains used by travelers to go between kingdoms. Between these discontinuous frontier locales there was simply, as Thongchai understands it, 'a lot of blank space'.

European imperialists and settlers, moreover, who often did have a concept of linear borders, were nevertheless, for today's standards, relatively very tolerant of ambiguous frontiers. In IR it is typically suggested that territoriality travelled with European imperialists and settlers as they spread into non-European areas of the world.⁶⁸ Yet in the earlier part of the nineteenth century,

⁶³ Thongchai, *Siam Mapped*, 24.

⁶⁴ *Ibid.*, 64.

⁶⁵ Michael Biggs, 'Putting the state on the map: Cartography, territory, and European state formation', *Comparative Studies in Society and History* 41:2 (1999), 374–405.

⁶⁶ Kadercan, 'Territorial design'.

⁶⁷ Thongchai, *Siam Mapped*, 75–76.

⁶⁸ Barry Buzan and Richard Little, *International Systems in World History: Remaking the Study of International Relations* (Oxford: Oxford University Press, 2000), 256–264; Kalevi Holsti, *Taming the*

borders were still left vague or nonexistent in most of the world, at the edges even of areas controlled by European empires or their settler states.

In the Americas, linear borders had long existed, but often faded into uncertainty far from settler populations. In Latin America, especially, linear borders had a very notional existence at the beginning of the nineteenth century.⁶⁹ According to one legal scholar, at the time the Spanish-speaking republics had achieved independence, ‘not a single boundary line had been actually agreed upon and defined, much less marked. Even where attempts were made to indicate them, the indications were insufficient or defective, owing to the want of precise geographical data’.⁷⁰ Likewise in North America, instead of resolving the territorial ambiguity of the Pacific Northwest, Britain and the United States agreed in 1818 to joint control of all territory west of the Rocky Mountains—which are themselves by no means strictly linear—not claimed by any other power. This joint control lasted until 1846.⁷¹

In Africa, European imperial officials generally avoided drawing borders, even around the predominantly small coastal settlements they established. Borders were seen to restrict the area of possible commercial and other operations, which would have contradicted the ‘free trade imperialism’ of the time.⁷² Even in Europe, despite the fact that some Europeans had already begun to stigmatise non-Europeans for their imprecise borders, some non-linear, feudal frontiers persisted into the late nineteenth century.⁷³ For example, the Cerdanya region between France and Spain was delimited with a linear border for the first time in the Treaties of Bayonne (1856-1868), and likewise the Couto Mixto area between Portugal and Spain in the 1864 Treaty of Lisbon.⁷⁴ Europeans travelling in Asia attempting to deal with territorial ambiguity

Sovereigns: Institutional Change in International Politics (Cambridge: Cambridge University Press, 2004), 73-109.

⁶⁹ Suzanne Lalonde, *Determining Boundaries in a Conflicted World: The Role of Uti Possidetis* (Montreal: McGill-Queen’s University Press, 2002).

⁷⁰ John Bassett Moore, *Costa Rica-Panama Arbitration: Memorandum on Uti Possidetis* (Rosslyn, VA: The Commonwealth Co., 1913), 21.

⁷¹ Edward Miles, ‘Fifty-four forty or fight’ — An American political legend’, *Mississippi Valley Historical Review* 44:2 (1957), 291–309.

⁷² J.D. Hargreaves, ‘The making of the boundaries: Focus on West Africa’, in A.I. Asiwaju (ed.), *Partitioned Africans: Ethnic Relations across Africa’s International Boundaries, 1884–1984* (Lagos: University of Lagos Press, 1985).

⁷³ Ayşe Zarakol, ‘What made the modern world hang together: socialisation or stigmatisation?’, *International Theory* 6:2 (July 2014), 311-332.

⁷⁴ Peter Sahlin, *Boundaries*; Valerià Paül and Juan-Manuel Trillo-Santamaría, ‘Discussing the Couto Mixto (Galicia, Spain): Transcending the Territorial Trap Through Borderscapes and Border Poetics Analyses’ *Geopolitics* 20:1 (2015), 56-78.

sometimes attempted to adopt 'the test made use of by the Asiatics themselves'.⁷⁵ But more important than any particular conception of space was the fact that uncertainty prevailed around even the very nature of frontiers and whether or not they had to be linear. As Martin Bayly puts it, 'Quite apart from the indeterminate geographical location of boundaries, particularly in areas in-between imperial interests, there was disagreement among the British as to the appropriate measure of political authority at this time'.⁷⁶

By the late nineteenth century, however, the extent to which it appeared possible for empires and states to allow borders to remain vague, inconsistent, or nonexistent had markedly diminished. One manifestation of this was what is often called the 'Scramble for Africa', or the end of the classic period of 'free trade imperialism'. This consisted of a quick succession of boundary agreements made by the imperial powers, which began in full force with an 1889 Anglo-French agreement.⁷⁷ In Latin America the process was more gradual. There, it was perhaps the wars which erupted over previously ambiguous and nonexistent borders that contributed to a sense that demarcating precise boundaries was necessary at all.⁷⁸ As a US State Department geographer observed in 1940, in South America, 'Most of the boundaries have been defined since 1850 and many of them within the last fifty or sixty years'.⁷⁹ Moreover, the formal arbitration of disputed boundaries came into 'special vogue during the last quarter of the nineteenth century. In that period a large number of boundary arbitrations were held, the awards of which were generally accepted by the parties'.⁸⁰ Especially the British Empire became increasingly concerned with conducting boundary commissions, for example, surveying the Persian-Afghanistan and Persia-Baluchistan border (1870-2), the Russian-Afghan border (1884-6), the Afghan-Indian border (1894-6), the Burmese-Indian (1881), and even the Persian-Ottoman border (1847-1914).⁸¹

⁷⁵ Mountstuart Elphinstone, quoted in Martin Bayly, *Taming the Imperial Imagination: Colonial Knowledge, International Relations, and the Anglo-Afghan Encounter 1808–1878* (Cambridge: Cambridge University Press, 2016), 78

⁷⁶ Martin Bayly, 'Imperial ontological (in)security: 'Buffer states', International Relations and the case of Anglo-Afghan relations, 1808–1878', *European Journal of International Relations*, 21:4 (2015), 819.

⁷⁷ Hargreaves, 'The making of the boundaries'.

⁷⁸ Moore, *Costa Rica-Panama Arbitration*, 32.

⁷⁹ Boggs, *International Boundaries*, 74.

⁸⁰ L.H. Woolsey, 'Boundary Disputes in Latin-America', *The American Journal of International Law* 25:2 (Apr., 1931), 324.

⁸¹ Benjamin Hopkins, 'The bounds of identity: the Goldsmid mission and the delineation of the Perso-Afghan border in the nineteenth century', *Journal of Global History* 2:2 (July 2007), 233-254; Pradip Phanjoubam, *The Northeast Question: Conflicts and frontiers* (New York: Routledge, 2017).

While it is debatable whether rule in these places had previously been 'territorial', these were quite often the first attempts to establish linear boundaries and replace relatively heterogeneous notions of space. As historian Benjamin Hopkins argues, referring to South and Central Asia,

[T]he emergent states of the nineteenth century were initially able to navigate a hybrid political universe with considerable success, due to their ability to speak both the old indigenous languages of political authority and the new European one...Yet the success these states enjoyed previously waned as European ideas of statehood became the only acceptable language of politics after mid-century.⁸²

Until the late nineteenth century, the delimitation and demarcation of precise borders in much of the world was considered at best difficult or unnecessary, and at worst counterproductive, among many of both colonizers and colonized. The precise, linear, ideally demarcated border, then, was not a globally dominant mode of spatial organization until substantially later than is usually implied.

Because the existing literature on territorial sovereignty focuses almost exclusively on the progression of Europe from feudalism towards modernity, it runs the risk of overstating the historical specificity of territoriality. When Morgenthau refers to the 'new phenomenon of the territorial state' in the sixteenth century, or others note that 'systems of rule in the early Middle Ages...were nonterritorial', it is implied that territoriality itself was invented in the process of the European transition from the medieval to the modern.⁸³ This fits in with a long tradition in Eurocentric historiography which focuses on this progression and the sharp temporal break it appears to have created.⁸⁴ Rule, of course, need not always be defined territorially. But much work that has been done on systems of rule outside Western modernity suggest instead that forms of territoriality have been expressed in various times and places.

Instead, it is more accurate to say that the global linearization of borders, rather than territoriality, is specific to our era, and relies on a host of technologies and practices which are

⁸² Hopkins, 'The bounds of identity', 238.

⁸³ Hans Morgenthau, *Politics Among Nations: The Struggle for Power and Peace* (New York: Knopf, 1985), 327; Spruyt, *The Sovereign State*, 35; Philpott, *Revolutions in Sovereignty*, 78.

⁸⁴ Dipesh Chakrabarty, *Provincializing Europe: Postcolonial Thought and Historical Difference* (Oxford: Princeton University Press, 2008); Tom Lundborg, 'The limits of historical sociology: Temporal borders and the reproduction of the 'modern' political present', *European Journal of International Relations* 22:1 (2016), 99-121.

more historically specific than territoriality. As Thomas Holdich wrote after demarcating many of the British Empire's borders, 'Truly this period in our history has been well defined as the boundary-making era'.⁸⁵ Holdich, like many, confused the historically specific form of precise linear borders with territorial boundaries more generally, but he had good reasons to label his own era as such, at the end of the nineteenth century, rather than the era of 'Westphalia'.

At the same time, it would be a mistake to view the globalization of linear borders as a process completed in the early twentieth century. The Saudi-Yemeni border, for example, remained mostly undefined until 2000, and the linearization of maritime borders in the Arctic and South China seas remains contentious.⁸⁶ Moreover, borders have so far been specified primarily in only two dimensions. Despite state territory long being formally recognized as three-dimensional, there is no consensus in international law on the nature of boundaries between states and outer space.⁸⁷ A 'functionalist' school of thought, contrary to 'spatialists', insists that these boundaries do not have fixed locations but instead depend on the nature of any particular activity, for example, whether a vehicle is jet- or rocket-propelled.

To sum up, the global linearization of borders is a process which, after several centuries, reached a climax in the late nineteenth century, but continues today. Existing theories of the origins of territorial sovereignty, which tend to see territorial sovereignty effectively consolidated by the early nineteenth century or earlier, do not account for this process. In the next chapter, I turn towards explaining the global linearization of borders.

⁸⁵ Thomas Holdich, 'The use of practical geography illustrated by recent frontier operations', *The Geographical Journal* 13:5 (1899), 466.

⁸⁶ Askar Halwan Al-Enazy, "'The International Boundary Treaty" (Treaty of Jeddah) Concluded between the Kingdom of Saudi Arabia and the Yemeni Republic on June 12, 2000', *The American Journal of International Law* 96:1 (Jan. 2002), 161-173.

⁸⁷ Bin Cheng, *Studies in International Space Law* (Oxford: Clarendon Press, 1997).

Survey Rationality and its Articulations

If the linearization of borders is indeed comprehensible as relatively autonomous from territoriality, as argued in the previous chapter, two additional things must be shown theoretically: that this process had some conditions of possibility independent from or broader than territoriality, and that linear borders had some constitutive effect on international politics that cannot be attributed to territoriality alone. The following chapter, then, explores the origins and consequences of linearized borders. It lays out the basic theoretical framework through which the thesis seeks to understand the co-constitution of international politics and the linearization of borders. First, linear borders are conceptualized as a form of rationalization, in Max Weber's sense. Then, beyond Weber, I discuss what it would mean to see the ideas and practices of linear borders as a particular kind of rationalization, which I call 'survey rationality'. Survey rationality is introduced as the central episteme, or form of reasoning, within which the linearization of borders appears to be rational. Survey rationality on its own, however, explains very little, and leaves open the question of why and to what extent survey rationality has affected the practices of people and polities. A theory of articulation, then, is needed to describe how survey rationality becomes elided with other rationalities which are backed by more readily identifiable social forces. The main two such rationalities explored in this thesis are agrarian capitalism and 'civilizational' rationality, and these rationalities are elaborated on here. Yet the precise manner in which this articulation takes place depends on the historical context in which it occurs, and therefore is investigated historically in the following chapters. Finally, I outline two ways in which the linearization of borders has had constitutive effects on international politics, first by enabling borders to be drawn in new places and in new ways, and second, by altering the distribution of geographical knowledge resources.

The Linearization of Borders as Rationalization

While the linearization of borders is not typically dealt with as such in IR, there are some crucial insights from literature on the history of territoriality that are useful for our purposes here. On one hand, what might be called 'epistemic' explanations point to the influence of increasingly

atomistic notions of subjectivity in European society, art, and literature.¹ On the other hand, 'cartographic' explanations stress the technology of map-making as enabling certain forms of territorial governance to be conceived of, before they could be implemented in practice.² These explanations of territorial sovereignty rely on an implicit concept of rationalization. Whether it is cartographic practices and technology or conceptions of subjectivity which are under consideration, these studies all allude to a shift or narrowing of what appears 'rational'. Branch, for example, notes that 'Frontier zones filled with enclaves and overlaps were "rationalized," or made linear,' as part of the process of 'territorializing the state actors involved in international politics'.³ Richard Ashley, similarly, identifies the 'Cartesian practice of spatialization', in which 'resides the very possibility of rational political subjectivity', as a source of modern sovereignty.⁴

The rationalization of subjectivity and of cartographic practices referred to in such studies are particular aspects of one larger bundle of processes. This process by which forms of knowledge and order perceived as traditional, mystical, arbitrary, or unclear were delegitimized in favour of those which seem rational was termed 'rationalization' and first theorized as such by Max Weber. Weber believed rationalization to be 'the fate of our age', and while his analysis of bureaucratic rationality is particularly well-known in IR, he wrote about its effects in a wide variety of domains of life, such as theology, law, and even music theory.⁵ Weber wrote little about political geography, despite including a territorial requirement in his definition of the state, which offers no reflection on the nature of a territory's borders.⁶ Yet the framework of rationalization is helpful for understanding the process of the linearization of borders and its constitutive effects on international politics.

¹ Jeremy Larkins, *From Hierarchy to Anarchy: Territory and Politics before Westphalia* (New York: Palgrave Macmillan, 2010); John Ruggie, 'Territoriality and Beyond: Problematizing Modernity in International Relations', *International Organization* 47:1 (Winter, 1993), 139-174.

² Jordan Branch, *The Cartographic State: Maps, Territory, and the Origins of Sovereignty* (Cambridge: Cambridge University Press, 2014); Jeppe Strandsbjerg, *Territory, Globalization and International Relations: The Cartographic Reality of Space* (Basingstoke: Palgrave Macmillan, 2010).

³ Branch, *Cartographic State*, 92.

⁴ Richard Ashley, 'Living on borderlines: Man, poststructuralism and war', in Michael Shapiro and James Der Derian (eds), *International/Intertextual Relations: Postmodern Readings of World Politics* (Lexington: Lexington Books, 1989) 290; R.B.J. Walker, *Inside/Outside: International Relations as Political Theory* (Cambridge: Cambridge University Press, 1993), 129.

⁵ Max Weber, 'Science as a Vocation', in Peter Lassman and Irving Velody (eds), *Max Weber's 'Science as a Vocation'* (London: Unwin Hyman, 1988), 30; Ferenc Feher, 'Weber and the rationalization of music', *International Journal of Politics, Culture, and Society* 1:2 (Winter, 1987), 147-162.

⁶ Max Weber, 'Politics as a Vocation', in Hans Gerth and C. Wright Mills (eds.), *From Max Weber: Essays in Sociology* (London: Routledge, 1991).

According to Max Weber, all areas of modern Western life have been subject to a process of rationalization, from political institutions to the arts.⁷ Weber understands there to be many kinds of rationality not unique to modernity or the West, but he posits the existence of a certain methodical way of life he calls 'formal rationality', which historically emerged only with industrialization.⁸ Beyond simple means-end calculation, formal rationality involves a drive towards the universal, impersonal application of certain rules and laws and an orientation of daily activity towards calculative and regular procedures. Only the most precise and totalizing forms of knowledge are to be privileged. Conversely, the process of 'disenchantment' entailed the rejection of traditional and mystical interpretations of nature, history, and society. Any form of order or knowledge perceived as arbitrary or irrational is to be rationalized, and rules are to be applied 'without regard to persons', a situation embodied in the bureaucratic form of administration. In the sphere of law, it is first and foremost the legal process that is to be adhered to, by formally trained jurists, rather than instead primarily taking into account a particular conception of justice. In the sphere of science, it is the methodical trial of every technically possible experiment in the highly controlled environment of the laboratory which constitutes formal rationalization. With the more mysterious forces of the world removed from sight by such rational institutions as bureaucracy and modern science nearly everything appeared, to the world of formal rationalization, subject to measurement, explanation, and ultimately control.

Processes of rationalization can be broken down into three components which are of concern to linear borders. First, concepts were pushed to the highest levels of abstraction and generality, while the particularities of concrete things, people, and places were to be understood only through general categories. These abstractions then became rules used to order practical action, descending back down to the level of the concrete. Finally, these rules were actively spread horizontally to new areas to ensure their conformity.

⁷ Weber, 'Science as a Vocation'; Stephen Kalberg, 'Max Weber's Types of Rationality: Cornerstones for the Analysis of Rationalization Processes in History', *The American Journal of Sociology* 85:5 (March 1980), 1145-1179.

⁸ Kalberg, 'Types of Rationality', 1158.

Privileging the Abstract over the Concrete

The first step in processes of rationalization involves the creation of concepts and abstract systems of thought, in place of direct action.⁹ Such systems of thought, which Weber calls 'theoretical rationality', were crucial in disavowing all magical and mysterious forces, and comprehensively explaining human suffering and the meaning of existence. In the late sixteenth century, for example, the renaissance humanist interest in ethnographic, geographic, and historical concreteness and particularity gave way to the generalized laws of the scientific revolution.¹⁰ With the growth of seventeenth-century physics, the concept of 'place' came to be defined only by the general characteristics of all places that could be abstracted from any place in particular, such as size and distance from other places, and were thus subordinated to a more generalized and homogeneous notion of Cartesian space.¹¹ To be clear, the important shift here is not towards fuller knowledge of the conditions of human life, but rather towards the belief that 'if one only wanted to one could find out any time' the answer to any particular question about this natural, disenchanted world.¹²

Three particular systems of abstraction laid the groundwork for the development of linear borders. First is the Renaissance adaptation of Ptolemy's system of latitude and longitude. As standardized under the Greenwich Meridian, this powerful system of spatial epistemology relies on only two particular objects: the rotational axis of the earth, and the Royal Observatory at Greenwich. In theory, it allows one to determine one's location 'objectively', or, given a set of any technically possible coordinates, to locate the one spot on the earth's surface which corresponds to it. Any ambiguity or error can be attributed to the instruments used or the interpretation of their output, but not to the system itself. Second, alongside this spatial epistemology came the ontology of bounded, formally equivalent, self-contained geographic entities, as began to be represented in early modern European maps.¹³ In the same way that abstract equations define objective laws of motion, even if never precisely observed in practice, the fact that frontiers can only ever tend towards a line is overlooked in the search for geometrical abstractions.

⁹ Kalberg, 'Types of Rationality', 1152.

¹⁰ Stephen Toulmin, *Cosmopolis: The Hidden Agenda of Modernity* (Chicago: Chicago University Press, 1992), 32.

¹¹ Edward Casey, *The Fate of Place: A Philosophical History* (Berkeley: University of California Press, 1997).

¹² Weber, 'Science as a Vocation', 13.

¹³ Michael Biggs, 'Putting the State on the Map: Cartography, Territory, and European State Formation', *Comparative Studies in Society and History* 41:2 (Apr. 1999), 374-405.

The connection between these two systems is made necessary by a third one, international law. The project of international law has, from its origins, been an application of allegedly universal reason on the global scale.¹⁴ For Francisco de Vitoria, it was a novel solution to the gap between the legal systems of Spain and that of the Indians the Spanish encountered, based not on Christian divine law but on the universal reasoning ability of humans. Yet some nations were thought to be organized more rationally than others and were therefore more civilized.¹⁵ Refashioning the idea of Christendom into a secular 'European' civilization distinguished European nations from non-European nations primarily on the basis of their rational civilization. It was this international law founded on universal reason which would purportedly entitle European powers to draw definitively fixed borders, not only between each other but in all parts of the world.

Putting Abstractions into Practice

Along with these newly ambitious abstract systems of knowledge came attempts to apply them back to the concrete reality from which they were extrapolated and use them to reshape the world. Through the disenchantment of theoretical bodies of knowledge it became believable that 'one can, in principle, master everything through calculation'.¹⁶ The Cartesian idea of the rational mind as an architect planning imaginary structures first, free from the complexity of the world, and only then building them in reality, maintained the priority of the abstract over the real.¹⁷ Weights and measures were standardized, and forests began to be managed and planted in rational patterns in the late eighteenth century.¹⁸ Even frontiers had to be 'rationalized' according to military logic.¹⁹

Space was one such dimension of life which was subject to rationalization processes. States such as France, and cities such as Paris, in the nineteenth and twentieth centuries, aimed at a 'superior political rationality' by aspiring towards the spatial centralization of 'wealth, means of

¹⁴ Antony Anghie, *Imperialism, Sovereignty, and the Making of International Law* (Cambridge: Cambridge University Press, 2005).

¹⁵ Thomas Patterson, *Inventing Western Civilization* (New York: Monthly Review Press, 1997).

¹⁶ Weber, 'Science as a Vocation'.

¹⁷ Timothy Mitchell, *Rule of Experts: Egypt, Techno-Politics, Modernity* (Berkeley: University of California Press, 2002).

¹⁸ James Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998).

¹⁹ Branch, *Cartographic State*, 155.

action, knowledge, information and “culture”. In short, everything’.²⁰ One exemplary project of spatial rationalization was the late nineteenth-century razing of Paris’s slums and construction of boulevards under prefect Georges-Eugene Haussmann.²¹ This was intended to render governable a chaotic city perennially at risk of insurrection, by imposing a logic which was more comprehensible from the perspective of the state. Instead of allowing buildings to be constructed wherever chosen by individuals with the means to do so, the city would be organized under one state-driven logic. Similarly, even the national territory of France itself was rationalized by constructing lines of communication radiating outwards from Paris.²²

At the level of the international, spatial rationalization achieved its clearest form in the emergence of the global dominance of one universal system of marking space: the linear border. While small pockets of overlapping feudal jurisdictions in Europe may have long been undesirable for state authorities, such as the Couto Mixto between Spain and Portugal, and the Cerdanya between France and Spain, these were finally expunged.²³ Border commissions, often mandated by Western empires, passed more methodically than ever through frontier after frontier from the Ottoman Empire to Siam, rationalizing each, according to the latest standards of accuracy. Throughout Latin America the legally and bureaucratically objective mechanism of the arbitral tribunal made frequent appearances, fixing each contested frontier with precise lines. For some, the image of the line may have previously constituted an ideal frontier, but it was only the industrial-era process of formal rationalization which made it necessary to take this ideal and apply it with an aim towards rigour and universality.

Just as Haussmann’s boulevards made Paris legible to the state, borders make states themselves, as well as colonies, dominions, and protectorates, legible to and governable by empires, from the bird’s-eye perspective of modern cartography. Instead of having to distinguish objects by type, a system of territoriality clearly communicated through boundaries can be an extremely efficient as a form of simplified classification.²⁴ As cartographic simplifications, borders cannot tell us what a frontier landscape looks like to someone who lives amidst it, or attempts to cross it, nor can it tell us how life in two neighbouring states might be similar or

²⁰ Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith (Oxford: Blackwell, 1991), 332.

²¹ Scott, *Seeing Like a State*, 59-63.

²² Scott, *Seeing Like a State*, 76.

²³ Peter Sahlins, *Boundaries: The Making of France and Spain in the Pyrenees* (Berkeley: University of California Press, 1989); Valerià Paül and Juan-Manuel Trillo-Santamaría, ‘Discussing the Couto Mixto (Galicia, Spain): Transcending the Territorial Trap Through Borderscapes and Border Poetics Analyses’ *Geopolitics* 20:1 (2015), 56-78.

²⁴ Robert Sack, *Human Territoriality: Its Theory and History* (Cambridge: Cambridge University Press, 1989).

different. They do, however, attempt to tell us where a state begins and ends, and with mathematical precision, on a breathtakingly large scale. Rather than having to visit a frontier or come in contact with someone who is familiar with it, linear borders make possible knowledge of such places instead through reference to an apparently universal, rational framework.

Historically, divine forces have often appeared to assist in the fixing of boundaries.²⁵ In ancient Rome, for example, the god Terminus presided over property boundaries, which had to be marked, and moving these markers was not only illegal but also sacrilegious. In early modern England, villagers accompanied clergy on an annual walk tracing parish boundaries, saying prayers and chanting psalms. The politics of locating and relocating boundaries often gave a role to divine powers that could never completely be captured by human understanding. But with the removal of mysterious forces from the world by rationalization, it was left to human imagination and design to fix boundaries. The 1494 Treaty of Tordesillas, which was perhaps the first attempt to create a large-scale linear border, was originally guaranteed by the spiritual authority of the papacy. Yet as international law developed, it increasingly derived its authority instead from its self-evident rationality, having been elaborated by 'rational' civilizations. Inter-imperial agreements such as that concluded at the Berlin Conference of 1884 reveal empires attempting to set down rules which would rationalize colonial activities and effectively manage their projections of power on the continent. It was the calculability of state interests which had given rise to the idea of a 'balance of power' which guaranteed these boundaries, not religion or mystical powers.²⁶

In addition to what was now believed to be institutionally realistic, technological developments were applied to make linear ideals a reality on the ground. Using the Ptolemaic system of latitude and longitude, by specifying a series of connected coordinate points, called 'turning points', borders can be reduced to little more than a series of numbers, such as the following definition of the Saudi-Jordanian border:

TP No. 1 Jabal 'Anazah; 32° 14' North and 39° 18' East;

tripoint with Iraq

TP No. 2 32° North; 39° East

TP No. 3 31° 30' North; 37° East

TP No. 4 30° 30' North; 38° East

²⁵ John Stilgoe, 'Jack-o'-lanterns to surveyors: The secularization of landscape boundaries', *Environmental Review* 1:1 (Jan. 1976), 14–32.

²⁶ Jens Bartelson, *A Genealogy of Sovereignty* (Cambridge: Cambridge University Press, 1995), 181.

TP No. 5 30° 20' North; 37° 40' East
TP No. 6 30° North; 37° 30' East
TP No. 7 29° 52' North; 36° 45' East
TP No. 8 29° 30' North; 36° 30' East
TP No. 9 29° 11' North; 36° 04' East
TP No. 10 29° 21' 30" North) indicate as approximate position
34° 57' 30" East) of coastal terminal point.²⁷

One element of modern processes of rationalization which drove the linearization of borders is quantification. Numbers and the calculative mode of thought enabled by them are essential for modern rationalization. Money, for example, enables valuable objects to be ordered by one logic, under which they are distinguished not by any uniqueness or incomparability but solely by differences in the amounts of currency they are worth.²⁸ Likewise, linear borders are not distinguished from each other by the various cultural or political conceptions that people living near them might have, as ambiguous or zonal frontiers might be, but instead they are distinguished solely by their locations.

These locations themselves are geographically quantifiable through the Ptolemaic system of longitude and latitude. An early method of border-drawing which relied on the quantification of space was the use of parallels and meridians, dating to the 1494 Treaty of Tordesillas. North America, through colonial claims, was overlain with a series of parallel lines distinguished only by their numerical arc length from the equator, as ignorance of the land and its existing societies meant that Europeans could say little else about them. Yet these lines did not necessarily have precise endpoints in the West, and could hardly have been surveyed fully. Later parallels such as the Mason-Dixon Line (39°43' N) and the Missouri Compromise Line (36°30' N) began to have clearer endpoints. In the westward expansion of the United States, certain places became known in public discourse by numbers before many actual particularities of the place were known. For example, a famous rallying cry of hard-liners in the American attempt to draw the border with British North America as far north as possible was 'Fifty-Four Forty or Fight', referring to the latitude 54°40' N, which was the southernmost point of Russian claims in Alaska.²⁹ In previous contexts imagination had been a more acceptable source of knowledge on

²⁷ US Department of State, *International Boundary Study, No. 60: Jordan-Saudi Arabia Boundary*, Office of the Geographer, Bureau of Intelligence and Research, 30 December, 1965.

²⁸ Matthew Deflem, 'The Sociology of the Sociology of Money: Simmel and the Contemporary Battle of the Classics', *Journal of Classical Sociology* 3:1 (2003), 67-96.

²⁹ Edwin Miles, "'Fifty-Four Forty or Fight"—An American Political Legend' *Mississippi Valley Historical Review* 44:2 (1957), 291-309.

little known places, with maps being filled with animals and fictitious mountain ranges.³⁰ But with a universal, scientific system of reference available based on latitude and longitude, it became possible to believe that only things which were scientifically verified to exist—and in the case of the mid-nineteenth century Pacific Northwest, little but longitude and latitude was known to the United States—had to be referred to.

With the proliferation of surveys, however, and the increasing privileging of knowledge gained from them, it became clear that not even this numerical system of parallels was accurate enough, and instead, the boundary posts laid down by surveyors took precedence. After the first survey of the Westernmost extent of the US-British Columbia border along the 49th parallel (1857-1862), it was realised that the astronomical observations used for demarcation, done by plumb line, had been affected by gravitational anomalies such as mountains.³¹ It was decided, then, to simply connect the markers laid down with many short straight line segments, such that the US-British Columbia border actually crosses and re-crosses the geodetic 49th parallel.

This quantification of borders, as Georg Simmel described a money economy, ‘corresponds to the ideal of natural science: to transform the world into an arithmetic problem, to fix every part of the world by mathematical formulas’, giving an impression of certainty and unambiguity.³² Yet a border which has been, at the conceptual level, made into a set of numbers is unable to capture anything culturally or socially unique, and instead is distinguishable only by the angular distance of its constituent points from the equator and the prime meridian. Any other distinguishing features of a particular border are obscured by the system’s aspiration towards universal accuracy and certainty.

Beginning in the colonial New World, then, European empires began to divide real space with theoretical lines. This gave the impression that space had been rationally planned first, and then simply implemented according to plan. Contrary to appearances, however, the linearization of borders has rarely, if ever, been completed precisely according to any comprehensive plan. Instead, linearization is a continuous process often characterized by an oscillation between the failure of the world to conform to abstract concepts, and the creation of new abstract concepts

³⁰ Thomas Bassett, ‘Cartography and Empire Building in Nineteenth-Century West Africa’, *Geographical Review* 84:3 (Jul., 1994), 316-335.

³¹ Stephen Jones, *Boundary-Making: A Handbook for Statesmen, Treaty Editors, and Boundary Commissioners* (Washington, DC: Carnegie Endowment for International Peace, 1945), 155.

³² Georg Simmel, ‘The Metropolis and Mental Life’, in Kurt Wolf (ed. and trans.), *The Sociology of Georg Simmel* (New York: Free Press, 1950), 412.

in order to correct for the previous failure, with first principles never being called into question. As an illustrative example, consider the roughly three hundred years of boundary disputes between the colonies, and later states, of Pennsylvania, Maryland, and Delaware.³³ The southern boundary of Pennsylvania was originally set at 40° North, but it was later discovered that Philadelphia, the main city of Pennsylvania, was south of this line. Thus an agreement was reached between the three colonies whereby the Pennsylvania-Maryland boundary would be moved south, and Maryland would receive part of Delaware in exchange. But this agreement could not be implemented either, because it required delimiting a radius of twelve miles around New Castle, Delaware, a town with no obvious centre point. A further agreement specified the centre as the cupola of New Castle's Court House, but then when a twelve-mile radius was drawn from there, it did not quite reach the northeast corner of Maryland, and a thin wedge of territory was left outside each of the three colonies. It was not until 1921 that this wedge became part of Delaware.

British colonial official Henry McMahon is generally best known for his 1915 promise of an independent Arab state to the Sharif of Mecca. But in Border Studies, he is also well known for his attempt to conceptualize a solution to the above problem, endemic to all attempts to linearize borders, of the inevitable discrepancies between the world in theory and the world in practice. The solution is to analytically separate the task of border-drawing into two parts, one political and one technical, otherwise known as 'delimitation' and 'demarcation'.³⁴ This distinction is still used in Border Studies today. Agreement on the general course of the boundary should be agreed on first by diplomatic negotiators, and only then, once a political agreement was reached, geographical technicians should set out to physically mark the boundary however possible. The impossibility of total knowledge of the world would be incorporated into this system of rationalization by establishing a certain amount of freedom to be given to the technicians to demarcate the boundary according to the reality of the world rather than confining them to a geographically ill-informed treaty. Yet this could not solve the problem completely because it never revisited the first principle of the entire system: the essentially linear nature of borders.

³³ William Bayliff, *The Maryland–Pennsylvania and Maryland–Delaware Boundaries* (Annapolis, MD: Maryland Board of Natural Resources, 1959).

³⁴ Dennis Rushworth, 'Mapping in support of frontier arbitration' *Boundary and Security Bulletin* 5:1 (Spring 1997), 61–64.

The first two elements of rationalization entailed the linearization of some borders. Yet linear borders coexisted alongside other methods for centuries. Some borders dead-ended in continental interiors, and most states in Europe still lacked linear borders in the mid-eighteenth century, even when they possessed colonies in the Americas that had them.³⁵ But by the end of the nineteenth century, imperialists were making more and more deliberate efforts to linearize borders as a universal rule rather than one among many possibilities. Weber's concept of 'formal rationality' can help us understand this universalization.³⁶ Under conditions of formal rationality, which Weber sees as taking shape most clearly in the industrial era, all action in any particular domain has to be oriented according to one objective set of principles. Formal rationality differs from 'theoretical rationality' and 'substantive rationality', in that rules dictate everything, 'without regard to persons', rather than particular worldviews or values. The universalization of linear borders, I argue, is part and parcel of this larger historical shift towards uniformly applied rules.

In order for this to happen, Western empires had to assert that their ideals were not only superior to other ideals but also had to replace them. Forms of colonialism which explicitly worked within local knowledge were delegitimated, and European technology and scientific expertise was increasingly thought of as a measure of this superiority.³⁷ Many imperialists considered it necessary to rid the colonial world, if possible, of the supposedly arbitrary and personalized systems of rule which characterized pre-colonial societies—in other words, to ensure the rationalization of governance.³⁸ As the notion of the objective superiority of European culture and civilization intensified and became more widely accepted in the nineteenth century, so did a notion that technologies and techniques of rule were part and parcel of this superior civilization.³⁹ While European colonialism always relied on local knowledge, attempts to understand local knowledge on its own terms and govern within it were increasingly abandoned in favour of instead discrediting local knowledge and purging colonial governance of non-Western notions.⁴⁰ This dynamic of constructing non-Western knowledge as

³⁵ Jordan Branch, "'Colonial reflection' and territoriality: The peripheral origins of sovereign statehood," *European Journal of International Relations* 18:2 (2012), 277–297.

³⁶ Kalberg, 'Types of Rationality', 1158.

³⁷ Michael Adas, *Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance* (Ithaca: Cornell University Press, 1989).

³⁸ Mitchell, *Rule of Experts*.

³⁹ Adas, *Machines as the Measure of Men*.

⁴⁰ Christopher Bayly, *Empire and Information: Intelligence Gathering and Social Communication in India, 1780-1870* (Cambridge: Cambridge University Press, 1996).

‘wrong’, moreover, was not limited to directly colonized areas but indeed affected many societies which escaped direct colonization, such as Siam and Japan.⁴¹

One of these systems of governance which stood to be rationalized under the ‘civilizing mission’, using Western ideas and technology, was the frontier. Linear borders, for imperialists beginning in the late nineteenth century, had to replace non-Western conceptions of space because they were inherently more rational than other forms of frontiers. According to followers of the German geopolitical tradition, linear borders emerged when ‘civilized’ societies neighbouring each other exerted mutual pressure that forced them to adopt a rational use of the land, and eliminate any unused middle ground.⁴² Thus linear borders, as opposed to the previously more common zonal frontiers, had developed as a way to cut unused peripheral land to a minimum. Local notions of space were no longer considered useful or precise enough, and linear borders were the solution.

Those who did not abide by this universal standard, on the other hand, were derided. After serving as Viceroy of India, George Curzon observed, ‘In Asia, the oldest inhabited continent, there has always been a strong instinctive aversion to the acceptance of fixed boundaries...partly from the dislike of precise arrangements that is typical of the oriental mind’.⁴³ Likewise, to British surveyor Thomas Holdich, the Kirghiz of Central Asia ‘just wanders, adjusting himself to conditions of weather, and his life appears to be the ideal of simple contented ease...caring nothing for the boundaries which have been drawn about his hills’.⁴⁴ Curzon congratulated European imperialism for addressing this problem, in that ‘primitive forms’ of frontiers ‘have nearly everywhere been replaced by boundaries, the more scientific character of which...is undoubtedly a preventive of misunderstanding, a check to territorial cupidity, and an agency of peace’.⁴⁵ It was precisely this effort to rationalize colonial spaces that motivated the establishment of an academic science of borders. Curzon’s 1907 lecture, an unapologetic and strident defence of imperialism, is widely cited as a classic academic text on the topic of borders.⁴⁶ Holdich, likewise, was a primary instigator of one of the first debates in border

⁴¹ Ayşe Zarakol, ‘What made the modern world hang together: socialisation or stigmatisation?’, *International Theory* 6:2 (July 2014), 311-332.

⁴² Ellen Semple, ‘Geographical boundaries – I’, *Bulletin of the American Geographical Society* 39:7 (1907), 390-392.

⁴³ George Curzon, *Frontiers* (Oxford: Clarendon Press, 1907), 49.

⁴⁴ Thomas Holdich, *Political Frontiers and Boundary Making* (London: Macmillan and Co., 1916), 5.

⁴⁵ Curzon, *Frontiers*, 48.

⁴⁶ Curzon’s lecture has ‘often been quoted’, according to J.R.V. Prescott, *Political Frontiers and Boundaries* (New York: Routledge, 1987), 5; The lecture is referred to as ‘the most famous example’ of pre-WWII research on boundary fortifications in Ron Hassner and Jason Wittenberg, ‘Barriers to Entry: Who Builds

studies, over the relative merits of mountain borders and river borders.⁴⁷ Another British colonial administrator, Henry McMahon, who has been credited with conceptualizing the distinction between 'delimitation' and 'demarcation', has already been mentioned in the previous section.

The transformation of British views of Afghan territoriality over the course of the nineteenth century is particularly indicative of an increasingly uncompromising application of universal rules, disregarding local concepts. Earlier in the century, in describing the 'limits of the kingdom of Caubul', diplomat Mountstuart Elphinstone had drawn on 'the test made use of by the Asiatics themselves', and considered 'the King's sovereignty as extending over all the countries in which the Khootba is read and the money coined in his name'.⁴⁸ But by the later part of the century, a British official could state that in fact 'there is no such thing' as an Afghan boundary.⁴⁹ Where did these boundaries go? What changed was not the ability of imperial agents to access knowledge, but rather that local knowledge did not correspond to the universal principle of linear boundaries. Consider the Pamir mountains in the far northeast of Afghanistan, described by Curzon as 'so lofty in situation, fast bound in the fetters of frost and ice during eight months of the year, almost destitute of vegetation, swept by hurricanes...the ownership or boundaries of which none are able, and few are anxious, to determine'.⁵⁰ Yet despite making boundary-drawing in this region seem an absurdity, Curzon could not entertain the possibility of this boundary remaining 'haphazard' and 'irregular', in the face of Russian expansion through Central Asia.

While linear borders emerged in part from an imperialist understanding of the relationship between colonizer and colonized, they also come out of understandings of inter-imperial relationships which were evolving at the same time, namely the presumed ability of empires to dispose of global space in a 'rational' and 'civilized' way. In particular, the image of the world as a space entirely divided up by precise linear borders into distinct political spaces should be understood as having emerged within a context at roughly the turn of the twentieth century

Fortified Boundaries, and Why?', *International Security* 40:1 (Summer 2015), 163n; Curzon is also quoted extensively in David Carter and H.E. Goemans, 'The Making of the Territorial Order: New Borders and the Emergence of Interstate Conflict', *International Organization* 65:2 (Spring 2011), 277.

⁴⁷ Julian Minghi, 'Boundary Studies in Political Geography', *Annals of the Association of American Geographers*, 53:3 (Sep., 1963), 407-428.

⁴⁸ Martin Bayly, *Taming the Imperial Imagination: Colonial Knowledge, International Relations, and the Anglo-Afghan Encounter 1808-1878* (Cambridge: Cambridge University Press, 2016), 78.

⁴⁹ Bayly, *Imperial Imagination*, 244.

⁵⁰ Martin Ewans, *Britain and Russia in Central Asia, 1880-1907* (London: Routledge, 2008), 240.

where narratives of global closure and the elimination of the 'empty', 'unknown', and 'frontier' spaces of the world were ascendant within Western discourses.⁵¹ Such narratives spanned the political spectrum from Left to Right. The conservative scholar of geopolitics Halford Mackinder, for example, grounded his influential 'Heartland Thesis' by noting that 'Of late it has been a commonplace to speak of geographical exploration as nearly over...the world, in its remoter borders, has hardly been revealed before we must chronicle its virtually complete political appropriation.'⁵² At roughly the same time Communist icon Vladimir Lenin declared, 'for the first time the world is completely divided up...in the future *only* redivision is possible'.⁵³ Yet perhaps the most prominent articulation of all was Frederick Turner's 'Frontier Thesis', which lamented that the American frontier, as the US Census of 1890 reported, had disappeared.⁵⁴

This was a world where empires no longer felt safe assuming that there was plenty of empty space in the world for them to fill, and were increasingly concerned with the possibility of territorial conflict as a result. It was not until this anxiety emerged in the late nineteenth century that borders truly came to be perceived as necessary in the colonial world. As J.D. Hargreaves argues, it was this concern about empires 'elbowing' each other that led to the Europeans' obsession with boundary agreements in Africa from 1889 onwards.⁵⁵ Similarly, on the northwest frontier of India, British imperial officials were concerned about Russian expansionism which led to diplomatic crisis. The solution to this anxiety eventually agreed upon was the territorial fixity and certainty brought by clearly marked linear borders. As one military officer put it, 'If the frontier were left undefined, then indeed the peace of the world would be at the mercy of any ambitious frontier officer', the assumption being it would be more difficult for such an officer to violate a clearly marked boundary.⁵⁶ A crucial precondition, then, for the idea that all global space should be clearly marked with lines was the equally novel idea in the late nineteenth century that global space was a scarce resource.

The adoption of fixed boundaries, in global-historical terms, is often associated with the proliferation of nationalisms and national states, while many empires are thought to have been

⁵¹ Gerry Kearns, 'Closed space and political practice: Frederick Jackson Turner and Halford Mackinder', *Environment and Planning D: Society and Space* 2:1 (1984), 23-34.

⁵² Halford Mackinder, 'The Geographical Pivot of History', *The Geographical Journal* 23:4 (1904), 421-437.

⁵³ Quoted in Neil Smith, *American Empire: Roosevelt's Geographer and the Prelude to Globalization* (Berkeley: University of California Press, 2003), 14.

⁵⁴ Smith, *American Empire*, 211.

⁵⁵ J.D. Hargreaves, 'West African Boundary Making', in Paul Ganster and David Lorey, *Borders and Border Politics in a Globalizing World*, (Lanham, MD: Scholarly Resources, 2005), 98.

⁵⁶ West Ridgeway, 'The New Afghan Frontier', *The Nineteenth Century* 128 (Oct., 1887), 478.

antithetical to the fixing of boundaries.⁵⁷ Comparing bordering practices and discourses in metropolises and colonies complicates this view, however, firstly because border linearization was first attempted in colonies, not metropolises.⁵⁸ Moreover, the linearization of borders in most of the world occurred under the auspices of formal or informal empire, whether through inter-imperial border commissions, or through British or American arbitration. The academic field of Border Studies owes its foundation in large part to a group of imperial officials grappling less with the problem of attaching a national identity to a particular territory than with the problem of rendering unfamiliar spaces intelligible and safe for imperial expansion by fixing inter-imperial limits. Regardless of the context, these officials assumed the rationality of linear borders and argued that precise borders would help ‘civilize’ spaces which they found difficult to govern.

The Core Argument: Multiple Rationalities, Articulation, and Change

Linear borders, then, are a form of rationalization. This provides us with a general idea of what they are, but we need a thicker conceptual framework in order to go further with a more detailed historical analysis which is more sensitive to the unevenness and complexity of the linearization of borders as a global process. This section provides such a framework, divided into three steps. First, we must recognize the multiplicity, irony, and contradictions within the concept of rationality. Second, I outline ‘survey rationality’ as a specific kind of rationality particular to linear borders. Third, I use the idea of articulation as a way to historically link survey rationality to more familiar modern historical processes.

Multiple Rationalities

Weber, unlike many of his contemporaries, successors, and translators, was quite clear on the fundamental ambiguity of the concept of rationality.⁵⁹ As he wrote of *The Protestant Ethic and the Spirit of Capitalism*, probably his most famous work, ‘If this essay makes any contribution at all, may it be to bring out the complexity [or many-sidedness] of the only superficially simple

⁵⁷ Malcolm Anderson, *Frontiers: Territory and State Formation in the Modern World* (Cambridge: Polity, 1996); Charles Maier, *Once Within Borders: Territories of Power, Wealth, and Belonging since 1500* (Cambridge, MA: Harvard University Press, 2017), 14-81.

⁵⁸ Branch, ‘Colonial Reflection’.

⁵⁹ Kalberg, ‘Weber’s Types of Rationality’; Donald Levine, ‘Rationality and Freedom: Weber and Beyond’, *Sociological Inquiry* 51:1 (Jan. 1981), 5-25.

concept of the “rational””.⁶⁰ In the text itself, he wrote, “‘Rationalism’ is a historical concept that contains a world of contradictions in itself”.⁶¹ As if this point was not clear enough, he then added in a revised edition, ‘This simple proposition, which is often forgotten, should be placed at the beginning of every study which essays to deal with rationalism’.

One important dimension of complexity in Weber’s understanding of rationality is in the four different definitions of rationality that can be found in Weber’s work, some of which have been referred to above: instrumental, theoretical, substantive, and formal. While theoretical rationality refers to systems of thought, the others refer to actions, with which Weber was most concerned. Instrumental, substantive, and formal rationality are each associated with different types of ends, which frequently do not align with each other. In short, action is instrumentally rational if it is the best means towards a specific and direct end, it is substantively rational if it corresponds to an overarching set of values, and it is formally rational if it corresponds to abstract rules and fixed procedures. The indeterminacy of rationality is particularly apparent with substantive rationality, which has been described as being based in a ‘radical perspectivism’, or a ‘Nietzschean departure from Kant’, in that values in themselves cannot be described as rational or having any rational basis, in any meaningful sense.⁶²

Irony and paradox in the interactions between different historically constructed rationalities are common themes in Weber’s writing, with the classic example of this being his discussion of the Puritan origins of capitalism.⁶³ In Weber’s view, it was precisely the ability of substantive rationality to overcome instrumental rationality which made it such a consequential world-historical force. During the Reformation, some radical Protestant groups had identified earthly wealth as the primary evidence of an individual’s divine election to everlasting life, as it was thought to be an outcome of the mastering of one’s actions through hard work and self-denial which was required for complete religious devotion. As time passed, however, the ‘psychological premium’ placed on acquiring wealth eclipsed the other-worldly orientation of the Puritans. This led to the emergence of a ‘spirit of capitalism’ in which economic acquisition was pursued as the highest possible end in itself. Contrary to accounts of capitalism as the outcome of a unilinear

⁶⁰ The German word Weber uses here for complexity is *vielseitigkeit*. Levine, ‘Rationality and Freedom’, 10.

⁶¹ Weber used the words ‘rationality’ and ‘rationalism’ interchangeably. Levine, ‘Rationality and Freedom’, 10.

⁶² Kalberg, ‘Weber’s Types of Rationality’, 1155; Tarak Barkawi, ‘Strategy as a Vocation: Weber, Morgenthau and Modern Strategic Studies’, *Review of International Studies* 24:2 (Apr., 1998), 166.

⁶³ Max Weber, *The Protestant Ethic and the Spirit of Capitalism*, trans. Talcott Parsons (London: Routledge, 2001).

process of increasing means-end rationality through the Reformation and Enlightenment, then, Weber argued that the spirit of capitalism had evolved through a complex process in which historically constructed rationalities combined and contradicted each other in a double irony. On the one hand, the reversal of the usual subordination of wealth to the human needs and desires it pays for, in the pursuit of wealth as an absolute good in itself, was absolutely irrational from practically any perspective other than capitalism, especially from the perspective of spontaneous enjoyment of life. The substantive rationality of the spirit of capitalism, in other words, decisively overcame the instrumental rationality of everyday life insofar as it was able to rationalize action in certain ways. On the other hand, it also contradicted the substantive rationality of Puritan theology which valued the glorification of God above all else, and instead became increasingly focused on the accumulation of riches.

Survey Rationality

Explaining historical processes of rationalization thus requires first and foremost an understanding of the perspective from which something appears rational, in order to then proceed to determine the conditions under which that rationality was constructed. The substantive rationality which seeks to linearize borders as an end in itself, for the purposes of this thesis, can be called 'survey rationality', a concept developed here.

Inherent in modern territoriality is a certain set of scientific practices. At the centre of these practices is the location of borders through technical and formal means.⁶⁴ While the allocation of territory and the process of selecting a border is a political process, locating an already defined border is thought to be a technical question, not a political one, in that some combination of official documentary evidence, technological devices, training in survey methods, and access to the site are strictly sufficient for resolving it. In border studies, the technical part of the boundary-making process is known by the term 'demarcation', and it is kept separate from 'delimitation', which is political.⁶⁵ According to one experienced boundary surveyor, 'The mission of demarcation is certainly non-political in character, its functions are technological and

⁶⁴ Alain Pottage, 'The Measure of Land', *The Modern Law Review* 57:3 (May 1994), 361-384.

⁶⁵ Dennis Rushworth, 'Mapping in Support of Frontier Arbitration: Delimitation and Demarcation', *Boundary and Security Bulletin* 5:1 (1997), 61-64.

its decisions limited to the transformation of the verbal, graphical and digital definitions to the terrain surface.’⁶⁶

Modern territoriality is thus characterized by what could be called survey rationality, defined as an attribute socially given to a space consisting of legibility from the perspective of a surveyor, or in other words, its possession of boundaries susceptible to measurement and calculation.⁶⁷ According to the American Congress on Surveying and Mapping, a surveyor is someone who makes ‘all essential measurements to determine the relative position of points and/or physical and cultural details above, on, or beneath the surface of the Earth, and to depict them in a usable form, or to establish the position of points and/or details’.⁶⁸ Spaces defined within the parameters of survey rationality, then, must be delimited by points capable of being measured, fixed in terms of their relative position, and depicted in a form usable to surveyors. Thus while modern territoriality consists of survey rationality, the latter works on a broader range of spaces than political territory but also can be applied to jurisdictions, private properties, and other spaces.⁶⁹ In fact, as the next chapter argues, survey rationality was first applied to private properties, and only after it had become a central element in maintaining the political order of the English settler colonies was it then scaled up to the level of the international. The key element of survey rationality is the articulation of technical and formal criteria for the precise location of boundaries which are kept strictly separate from the authority to create or move those boundaries, whether this is political, juridical, or proprietary authority.

According to survey rationality, locations are determined ‘without regard to persons’.⁷⁰ Because a well-defined border can only have one unambiguous location, a person demarcating a border matters only in terms of their skill and training in the manipulation of tools and data. Determining the location of a border by asking locals where it is, resorting to vague or creative descriptions, or renegotiating the border would be examples of going outside the rationality of surveys, insofar as they do not depend on technical knowledge. Along with the assumption that

⁶⁶ Ron Adler, ‘Geographical Information in the Delimitation, Demarcation and Management of International Land Boundaries’, *Boundary and Territory Briefing* 3:4, International Boundaries Research Unit, University of Durham, 10.

⁶⁷ Scott, *Seeing Like a State*; Mitchell, *Rule of Experts*.

⁶⁸ G.S. Rao, *Global Navigation Satellite Systems* (New Delhi: Tata McGraw-Hill, 2010), 327.

⁶⁹ It is important to remember that the distinction between a private, economic realm and a public, political realm is not universal but rather a hallmark of capitalist modernity. In considering the history of territoriality, then, privately owned spaces should be considered along with political spaces of sovereignty. Justin Rosenberg, *The Empire of Civil Society: A Critique of the Realist Theory of International Relations* (London: Verso, 1994).

⁷⁰ Kalberg, ‘Max Weber's Types of Rationality’, 1158.

technology and mechanically defined formal procedures, not politics, will tell where a border is, survey rationality also comes with certain corollaries relating to the social conditions in which it is applied. For example, there is the assumption that there exists a profession of surveyors in sufficient numbers and skill who can mediate between political decision-makers and the objective conditions of the natural world, and make plain the locations of borders to the uninitiated masses. Despite the fact that these technicians define their activities as non-political, modern territoriality cannot exist without them, not just because boundary treaties can be complex but because without formal criteria for identifying who can interpret boundary treaties, they would not know who to listen to.

Neither the quantity of boundary monuments constructed around a space nor the degree of success of attempts to correctly locate its boundaries is an important part of the survey rationality of a space. Boundary monuments are far from unique to modern territoriality, and have been observed in various ancient cultures.⁷¹ Moreover, in modern territoriality, boundaries exist by political definition whether or not they are marked. The important part is that boundaries have the potential to be located and marked by technical experts, if states wish for them to do so. Neither is actual accuracy or correspondence between a political definition and an actual demarcation crucial for survey rationality. When boundary markings are accused of being inaccurate and not corresponding with an official definition, this is a clear indication that the territory is considered to have a technically correct boundary along a particular measurable line, and that, in other words, it is socially attributed with survey rationality. Technological developments over the course of centuries have not removed the possibility of demarcation errors, which continue to be found, and can inflict substantial costs on states to rectify.⁷²

Articulated Rationalities

Survey rationality as a substantive rationality on its own historically possessed a limited capacity to impose a geometrical order in practice on what was a world full of various different kinds of territorial and geographical modes of distinguishing polities from one another. Envisioning political space as even and homogenous, and divided up neatly into discrete territories by lines on the ground that corresponded to lines on a map was not, alone, a sufficiently compelling

⁷¹ Stilgoe, 'Jack-o'-lanterns to surveyors'.

⁷² NBC News, 'U.S. border fence protrudes into Mexico: Accidental placement could cost federal government \$3 million to fix', 29 June, 2007 (http://www.nbcnews.com/id/19513246/ns/us_news-security/t/us-border-fence-protrudes-mexico/#.WuQsPdPwZAZ).

motivation to attempt to create this order in practice. Unlike other substantive rationalities such as religions or Marxist doctrine, no grand armies were commanded to fight for survey rationality, nor did any revolutions have the linearization of borders as a primary goal in mind in overthrowing any government. This does not mean that the linearization of borders was an unintended consequence of purely structural changes.⁷³ It does, however, mean that the extent to which survey rationality has been achieved at a global level is best explained in combination with other substantive rationalities. While many different such rationalities undoubtedly acted to amplify the practical effectiveness of survey rationality, the focus here is on two in particular: capitalism and 'civilization'.

Exactly how these secondary rationalities are related to survey rationality itself is ultimately a question that has to be answered through historical investigation, which is done in the following chapters. Analytically, however, this relation can best be described using the concept of articulation. Articulation entered the vocabulary of social theory in the early twentieth century in the early phases of the decline of orthodox Marxism.⁷⁴ Thrown into brief moments of power in Western Europe by convulsions following the First World War, Marxists' refusal to think outside narrow, essentialized class interests made it difficult to achieve lasting changes, according to retrospective analysis. In this context, theorists such as Antonio Gramsci began to argue that in order to achieve hegemony, a class had to articulate a programme in which other classes could identify their interests, and thus acquire their consent. The concept of articulation thus became a way to think outside the predetermined and inevitable links between mode of production, class, and interest, on which orthodox Marxism had insisted. In later work, primarily that of Ernesto Laclau and Stuart Hall, articulation became a more general term to describe social-theoretical linkages between things without assuming their essential or logical unity.⁷⁵ For Laclau, articulation is a discursive move made to connect concepts, which never have necessary or natural links but have to be articulated together in particular contexts. Hall then employed the concept of articulation in analyzing practices as well as discourse, arguing that practices may be situated in ideology but they are not reducible to ideology. The main point is that articulation

⁷³ For example, Jordan Branch argues that the linearization of borders was an 'unintended by-product of the visual language of maps and the commercial market for them in the early modern period'. Branch, *Cartographic State*, 88.

⁷⁴ Ernesto Laclau and Chantal Mouffe, *Hegemony and Socialist Strategy: Towards a Radical Democratic Politics* (London: Verso, 2001), ch. 2.

⁷⁵ Jennifer Slack, 'The theory and method of articulation in cultural studies', in Kuan-Hsing Chen and David Morley (eds), *Stuart Hall: Critical Dialogues in Cultural Studies* (London: Routledge, 1996), 113-129.

is a device for analyzing 'difference in complex unity, without becoming a hostage to the privileging of difference as such'.⁷⁶

In this thesis, the function of articulation is to characterize the historically constructed linkages between different rationalities, or in other words, to put the focus of the analysis on the process by which different rationalities come to appear, in context, to be the same, while still maintaining that their internal logics do not necessitate any linkage. Discussions in social theory of the term 'articulation' began after Weber's time, but theorizing articulation in this way, as the historical construction of links between rationalities in particular contexts, is arguably an essential aspect of Weber's work, and certainly forms an indispensable part of the logic of *The Protestant Ethic and the Spirit of Capitalism*. In these terms, the final chapter of the essay, 'Asceticism and the Spirit of Capitalism', is about the articulation between two substantive rationalities: the glorification of God, and the acquisition of wealth.⁷⁷ It is quite clear that the pursuit of one of these ends is by no means inherently linked to that of the other, 'For that the conception of money-making as an end in itself to which people were bound, as a calling, was contrary to the ethical feelings of whole epochs, it is hardly necessary to prove'.⁷⁸ But through a kind of discourse analysis of writings of Puritan theologians, Weber demonstrated the rhetorical work that fused them together. For example, as one wrote,

If God show you a way in which you may lawfully get more than in another way (without wrong to your soul or to any other), if you refuse this, and choose the less gainful way, you cross one of the ends of your calling, and you refuse to be God's steward, and to accept His gifts and use them for Him when he requireth it...⁷⁹

In other words, God helps those who help themselves. It was only through this particular line of reasoning, conceived in a particular context, in which religious piety and shrewd business-dealing were fashioned into the same thing. In an analogous way, the logics of capitalism and 'civilization' were each articulated in certain contexts with survey rationality, and this process of articulation is what helps explain why survey rationality was pursued in practice more seriously in only some contexts, contradicting other rationalities.

⁷⁶ Stuart Hall quoted in Slack, 'Articulation in cultural studies', 124.

⁷⁷ Strictly speaking, the former is, instead of the glorification of God, the pursuit of certain knowledge of one's salvation. The elision between these two ends is an additional act of articulation which is dealt with in the text, although more briefly.

⁷⁸ Weber, *Protestant Ethic*, 34.

⁷⁹ Weber, *Protestant Ethic*, 108.

At this point some definitions of capitalism and ‘civilization’ is in order. Both of these concepts have had many different possible definitions, and the concern here is neither to find the correct or best definitions, nor to undertake a conceptual history of either of them, but simply to outline ideal-typical definitions that are useful for the argument. Capitalism could be defined expansively, if it had been the primary object of analysis. For example, in writing a non-Eurocentric account of its origins, Alexander Anievas and Kerem Nişancıoğlu define it as ‘a set of configurations, assemblages, or bundles of social relations and processes oriented around the *systematic reproduction of the capital relation*, but not reducible—either historically or logically—to that relation alone’.⁸⁰ This definition, however, would not fit with the type of analysis undertaken here, which is based on the explication of certain rationalities and their articulation together, in specific contexts, to form new rationalities. The concern here is with a particular set of contexts in which capitalism was tied to survey rationality, and thus the focus is necessarily limited to only some kinds of capitalism and not others, although this should not be taken to mean that other forms of capital-labor relations do not constitute capitalism or did not contribute substantially to modernity.

From the perspective of examining the origins of linear borders, the type of capitalism that is most relevant is agrarian capitalism, particularly as it developed in England in the sixteenth to eighteenth centuries, and even more so in England’s American colonies. This particular configuration of capitalism that seemed to require plots of land to be accurately surveyed with mathematical techniques, and for geometrically precise records to be kept and referred to in case of disputes. Even this is not necessarily unique, as evidence exists of highly precise mathematical surveying in pre-Columbian Mesoamerica. What is important about the English colonies, however, is the way in which these precise property boundaries made it necessary to also survey political boundaries in the same way. Many other types of capitalism existed, before and after this, but their relationship with linear borders had no necessary meaning. Banking and high-volume trade have long existed, but they do not require borders to be specified in any particular way. Likewise, the free-trade capitalism which began to displace mercantilism in the eighteenth century led to forms of imperialism that were purposefully kept geographically

⁸⁰ Alexander Anievas and Kerem Nişancıoğlu, *How the West Came to Rule: The Geopolitical Origins of Capitalism* (London: Pluto Press, 2015), 9; On defining capitalism, see Alexander Anievas and Kerem Nişancıoğlu, ‘Why Europe? Anti-Eurocentric Theory, History, and the Rise of Capitalism’, *Spectrum Journal of Global Studies* 8:1 (2016), 70-98.

vague. Agrarian capitalism of a certain kind, however, has historically been associated with the linearization of boundaries in a way other kinds of capitalism have not.

As for civilization, there are two different meanings that the term could take on. The most prevalent meaning is perhaps civilization in the sense of a particular civilization, a whole assemblage of valued cultural, economic, political, and other symbols and institutions but with some sense of continuity of identity across epochs.⁸¹ The other meaning occurs when one particular civilization is identified as the embodiment of all civilization *per se*. As an objective condition, this meaning of the term is no longer commonly used in social science, but as a subjectively perceived condition, 'civilization' in inverted commas has been an important object of analysis in IR at least since Gerrit Gong's influential 1984 work demonstrated its effects on international society.⁸²

Like capitalism, 'civilization' could potentially take on a very broad, cross-contextual meaning. As Hedley Bull noted, 'The arrogance of many Europeans, in equating civilization with the particular civilization of Europe, was no less than that of the Chinese, nor was the belief of Europeans that their religion was the one true faith any less than that of the Muslim peoples with whom they came into contact'.⁸³ But similarly, the focus here is on a particular construction of 'civilization', especially as it was manifest in legal theory, but also articulated within a broad range of other discourses. Particularly characteristic of this construction was the influence of evolutionary theory, which made it possible to put all societies on the same scale of development, with the West at one end, and all others at various other points on the spectrum. Tracing the particular trajectory of the universalization of linear borders, in terms of where and when it occurred, must be done with reference to particular local conditions, and the focus here is on West Africa, where international politics shifted form dramatically in the late nineteenth century, for a number of reasons which historians have long debated. But ultimately it was only by associating survey rationality with the logic of 'civilization' that the 'New Imperialism' took on linear borders.

Rationality, in the sense that Weber intended, could be ascribed not only to capitalism and 'civilization', but to all manner of different historical processes, which do not necessarily work

⁸¹ For very different works both using this meaning, see John Hobson, *The Eastern Origins of Western Civilisation* (Cambridge: Cambridge University Press, 2004); Samuel Huntington, *The Clash of Civilizations and the Remaking of World Order* (New York: Simon & Schuster, 1996).

⁸² Gerrit Gong, *The Standard of 'Civilization' in International Society* (Oxford: Clarendon Press, 1984).

⁸³ Hedley Bull, 'Foreword', in Gong, *The Standard of 'Civilization'*, ix.

together. Capitalism and 'civilization' should not be taken to represent all of modernity or rationalization, nor are they meant to amount to a total explanation of linear borders. These are only two chosen out of many possible rationalities which have historically been articulated with survey rationality and have contributed to the linearization of borders. Understood broadly they both operate on a global scale, and in some way have been factors of border linearization in many parts of the world. When contextualized more narrowly as in the next two chapters, they explain in a more direct way certain key moments in the global process of linearization. Agrarian capitalism in the English North American colonies was an important part of the beginning of that global process. Linear borders had existed beforehand in certain limited ways in various places, but took on an element of regularity, systematization, and institutionalization there in a way for which it is difficult to find historical precedent. The idea of 'civilization' in late nineteenth-century colonialism in Africa represents a turning point in the universalization of linear borders. There is no easily identifiable region which acted as any kind of last hold-out of non-linear borders, and as mentioned earlier, the linearization of borders continues in many ways, in many parts of the world. But the transformation of imperialism in Africa from an ill-defined political geography based on forts and diffuse trading zones to sharply defined boundaries was only the most dramatic and sudden manifestation of a global shift that was occurring more gradually. Unlike the early modern world of multiple different systems of territoriality depending on the region and the empire, territoriality after New Imperialism in Africa very rarely came without some kind of linear definition, as a general global rule.

To sum up, this section has presented the main argument that ties together all the threads of the thesis. In conceiving of the linearization of borders as a process of rationalization, we must consider the complexity and contradictory nature of the concept of rationality. The thesis follows Weber's radical perspectivism and attention to historical context relating to rationality. Survey rationality, or the particular rationality of linear borders, whereby the world appears rational to the extent that it is legible from a surveyor's perspective, is one historically constructed rationality, as is capitalism and 'civilization'. Survey rationality cannot be logically derived from any abstract definition of capitalism, nor has it always everywhere been considered part of civilized modernity. Instead, in order to understand the global linearization of borders, we should analyse the historically specific articulations between these rationalities, which the thesis proceeds to do in the following two chapters. Moreover, if I am right in arguing that linear borders are a distinct, articulated component of modernity, then international politics in a world made up entirely of theoretically coterminous, interlocking territories with linear borders must be different from politics in a world of multiple acknowledged forms of territoriality, in ways

that are not reducible to other aspects of modernity, in particular the sovereign state. Indeed, there are certain forms of politics that have been characteristic since around 1900 that were impossible without linear borders, even in the relatively well-defined territories of 'Westphalian-era' Europe. In the next section, I give an overview of some examples of these kinds of politics in broad analytical form, while in the last two substantive chapters I single out more precise mechanisms and go into more historical depth.

The Consequences of Spatial Rationalization

Many different patterns in international politics can potentially be seen as distinctly an outcome of linear borders. This thesis focuses on two: firstly, the acceleration of territorial partition particular to the past century or so, and secondly, the specific form of power derived by some states through cartographic technology.

Partition

One remarkable pattern in international politics since the early twentieth century that has been noted in IR is the increasing number and decreasing size of polities, in contrast to the previous decades, which were marked by decreasing numbers and increasing sizes.⁸⁴ At first glance, there is a striking correlation between the time at which linear borders crystallized as a global standard of territorial definition, in the late nineteenth century, and the time at which a process of global partition began. Linearized borders alone did not cause this global partitioning. They did, however, enable and accelerate the process in three ways: by making territory appear more readily divisible, by abstracting spatial considerations from other issues, and by creating a modular process of partition which could technically be transplanted to any place in the world.

⁸⁴ Ryan Griffiths, *Age of Secession: The International and Domestic Determinants of State Birth* (Cambridge: Cambridge University Press, 2016); David Lake and Angela O'Mahoney, 'The Incredible Shrinking State: Explaining Change in the Territorial Size of Countries', *Journal of Conflict Resolution* 48:5 (Oct. 2004), 699-722.

First, linearized borders help make space divisible in new ways. A number of IR scholars have investigated the conditions under which actors are unable to partition territory.⁸⁵ But if we expand our analysis outside times and places where linear borders are the assumed way of defining authority, how territory becomes divisible in the first place is equally in need of explanation. Any effort to partition is always limited by the concepts and knowledge possessed by decision-makers. Conceptually, space may be made up not of homogenous, infinitely divisible space, but rather of a finite number of socially constructed regions, provinces, counties, and so on. At some point, divisions and subdivisions of these are likely to reach a small enough sub-region that dividing it is no longer meaningful to a sizeable social group, and there is no guarantee that such a strategy would be useful or available to negotiators.

Linear borders mitigate the obstacles to creating radically new boundaries, or at least they can appear to do so from the bird's-eye perspective of authorities. As long as it can be mapped and has area, a territory can be split into smaller areas in a technically infinite number of ways. Linear borders make it possible to imagine that an objective and reliable division can be created, even if it has very little in common with existing arrangements, or cuts across local habits and customs. The 1947 partition of India, for example, divided the provinces of Punjab and Bengal in a way which would not likely have made sense before the linearization of borders, using only very small administrative divisions and cutting across thick spaces of land ownership.⁸⁶ It was typical for individuals to use and hold various kinds of rights over many disparate plots of land, meaning that the partition criminalized the networks and routine transactions which sustained much of the countryside. The earlier Mughal administrative divisions, which were not so linear, had accommodated these transactions.⁸⁷ When British administrators arrived, they found it difficult to understand the existing divisions, as they found them constantly shifting and filled with enclaves.

Over the course of their nearly two centuries of rule in India, they linearized the borders of these divisions, but this did not completely eradicate earlier patterns of land usage. The commissioner for the partition, Cyril Radcliffe, was chosen not despite but because he had had no experience with either India or boundary-drawing, which the government hoped would put him beyond

⁸⁵ Stacie Goddard, *Indivisible Territory and the Politics of Legitimacy: Jerusalem and Northern Ireland* (Cambridge: Cambridge University Press, 2009); Ron Hassner, "'To Halve and to Hold': Conflicts over Sacred Space and the Problem of Indivisibility", *Security Studies*, 12:4, (2003), 1-33.

⁸⁶ Joya Chatterji, 'The Fashioning of a Frontier: The Radcliffe Line and Bengal's Border Landscape, 1947-52', *Modern Asian Studies* 33:1 (Feb., 1999), 185-242.

⁸⁷ Bernardo Michael, 'Making Territory Visible: The Revenue Surveys of Colonial South Asia', *Imago Mundi* 59:1 (2007), 78-95.

suspicion of partiality. He did, however, have maps and data at his disposal, and by design it was largely on this basis that he made his decision, which would likely have been very different if not for the assumption that a simple linear border could be, and had to be drawn.

Divisibility is only one precondition of territorial partition that linear borders accentuate. Another is what might be called 'territorialisation'. Territorialisation is the process by which issues are transformed from less clearly territorial issues to more clearly territorial, or in other words how the issue of how to distribute space between actors becomes distinct from other issues. Linearizing borders facilitates this process of territorialisation, as a form of rule which is both abstract and concrete. As an inherently abstract system, it helps conceptually separate territory and its contents, and thus provides a clear way of differentiating between territorial and non-territorial strategies of rule. Nearly any political problem, from a particular perspective, can appear to be a problem of defining borders in the right way. The more that borders become conceptually tied to a global geometrical system of reference rather than concrete practices of rule, the easier it is to imagine territorial politics as a distinct and autonomous sphere of politics. It is through the global linearization of borders that the question of division becomes an already identifiable and potentially conflict-engendering possibility.

While they are characterized by abstraction from people and objects, linear borders, when mapped, appear to give territory a physical substance which can be measured precisely. When Thongchai Winichakul refers to the creation of Siam's 'geo-body', it means not simply territory, but territory with mappable borders, and it is Thongchai's contention that these borders gave the Thai national space a more tangible existence.⁸⁸ While Siamese territorial entities had existed previously, it was only through this recent process that a Thai nation itself was territorialized. Linear borders provide an appearance of precision and measurability to some social facts, such as identity, which would often otherwise seem more ambiguous and imprecise. In a rationalizing world in which virtually all areas of life demand certainty and clarity, identity can prove disconcertingly fluid and vague to be deployed as a basis of political contestation, but linear borders seem otherwise, and can thus be used as a proxy.

Finally, because linear borders are theoretically applicable anywhere, experiences gained from one partition can affect others, and disparate issues can become linked. Like Benedict Anderson's nationalisms, partition has become a 'modular' phenomenon, capable of being

⁸⁸ Thongchai Winichakul, *Siam Mapped: A History of the Geo-Body of a Nation* (Honolulu: University of Hawai'i Press, 1994).

reproduced and appropriated for different purposes in different places.⁸⁹ When we take multiple cases of partition into account, then, we have to consider the effect that they have on each other. Partition is, by now, an experience shared by a wide range of peoples, from Korea to Ireland, and the more that different partitions resemble each other, the greater the possibilities for transnational links to be forged based on these experiences, with issues in different places becoming linked, and imperial officials transferring their experiences from one partition to the next.

In particular, the partitions sponsored by the British Empire in many places, including Ireland, Palestine, and India are connected not only by comparisons that might be drawn in hindsight, but also by direct links. India's close involvement within the UN on arrangements for Palestinian independence had everything to do with its own ongoing partition into Hindu and Muslim areas.⁹⁰ According to one historian, many in Ireland, similarly, have viewed Israel as a 'little Jewish Ulster', taking a term coined by one British colonial governor, and such perceived parallels have engendered 'an emotional connection with Palestine that has inspired Irish activism in the region up to the present day'.⁹¹ Several British officials such as Reginald Coupland and Leo Amery were influential in both the Indian and Palestinian partitions.⁹² While many individual and comparative studies of partition exist, little work has been done to appreciate the mutual influences between and transnational links created by partitions, many of which have been made possible by the apparent universality of linear borders.

In sum, linearized borders make partition less immediately contingent upon particular socially constructed regions, more likely to appear as a solution to the ambiguities of identity politics, and allow partitions to feed off of each other and proliferate globally.

The Scientific Peace: The Politicization of Geographers

The linearization of borders is inseparable from historically particular, 'scientific' types of knowledge, and it can empower experts of a certain kind and the states that employ them. At

⁸⁹ Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso, 2006).

⁹⁰ P.R. Kumaraswamy, *India's Israel Policy* (New York: Columbia University Press, 2010).

⁹¹ Rory Miller 'Why the Irish support Palestine', *Foreign Policy*, 23 June, 2010 (<http://foreignpolicy.com/2010/06/23/why-the-irish-support-palestine-2/>)

⁹² T.G. Fraser, *Partition in Ireland, India and Palestine: Theory and Practice* (London: Macmillan, 1984).

peace negotiations, for example, the impact that one group or state has on the ultimate result has to do not just with its military or economic power, but also depends on its power in terms of this particular kind of knowledge. While geometrical, mathematical, and statistical knowledge appear obviously applicable to linear borders, other geographies such as those of lived experience no longer seem necessary. This section sets out the role of the linearization of borders within the co-constitution of science and international politics, and argues that scientific discourses constitute an important source of power by limiting the kinds of knowledge considered valid.

When borders are 'hereabouts', no group is necessarily better positioned than any other to identify them. Without centralized records of linear borders, polities as widely ranging as France and Siam historically depended on local inhabitants to know where exactly boundaries were.⁹³ Linear borders, however, being conceptually limited and geometric, narrow the kind of knowledge that appears useful for this. Knowledge of lived experience or of gods no longer has any obvious bearing. Instead, the knowledge resources that are socially constructed as useful tend to be survey techniques, demographic cartography, and, more recently, computerized Geographic Information Systems (GIS). These techniques provide the geometric 'footholds' necessary to enable mathematics to be used directly in peace agreements, increasing the leverage of states that have access to particular knowledge resources.

In practical terms, when scientific methods are considered a necessary part of a peace agreement, certain people and instruments can prove very valuable in effecting a desired outcome. For example, in the negotiations over the 1995 Dayton agreement on the partition of Bosnia, when both sides of the conflict agreed to a territorial division of 49% to 51% by area, they became dependent on a team of US computer technicians to repeatedly carry out complex geometrical calculations parallel to the negotiations.⁹⁴ These calculations became so important that negotiations were almost derailed when one party realized some results had been kept secret. Moreover, in terms of legitimation, the involvement of scientific methods can serve to obscure political interests, making an agreement appear to be objective and fair. In contrast to a type of contestation that is perceived as 'political', where outcomes seem to be decided by the powerful, the more a negotiation appears to be conducted according to a 'scientific' logic, where outcomes are decided according to what is objectively true.

⁹³ David Buisseret, 'The cartographic definition of France's Eastern boundary in the early seventeenth century', *Imago Mundi* 36:1 (1982), 72-80; Thongchai, *Siam Mapped*.

⁹⁴ Richard Holbrooke, *To End a War* (New York: Modern Library, 1999).

The impact of the privileging of specific kinds of geographical knowledge often becomes clear in peace negotiations, such as the Paris Peace Conference of 1919. Bringing the First World War officially to a close, the Paris Conference was centrally concerned with territorial changes in Europe, drawing three thousand miles of new borders.⁹⁵ With the collapse of the major continental European empires, the victorious Allies sought to balance resurging national aspirations against each other, along with their own interests, in a turbulent, revolutionary context of scattered continuing warfare. The difficulties of drawing linear borders cartographically separating intricately intermixed national groups were well known, but the assumption of linear borders was never seriously questioned, resulting in an advantage to those who could best manipulate them.

Examples abound of this kind of power at work at the Paris Conference. For example, some argue that the conference's favorable views of Yugoslav territorial claims, at the expense of other states of similar size, had much to do with the fact that a Serbian geographer, Jovan Cvijic, who was acclaimed for his 'scientific attitude', was highly trusted and involved in the decision-making process.⁹⁶ The United States exercised a similar kind of power through scientific plausibility, using a specially designed body of experts, called 'The Inquiry'.⁹⁷ President Woodrow Wilson set up the Inquiry in 1917, only a few months after the American declaration of war, bringing together a large group of mostly academics from various disciplines. It was an unprecedented effort, in type and scale, to compile and process scientific knowledge ahead of negotiations. As it was unmatched by any of the other delegations, the US had the only delegation that was able to assemble a concrete set of proposed borders for the whole of Europe in the early stages of the negotiations.

The Inquiry, and other efforts like it, had an important impact on the outcome of the conference. Without this supply of carefully presented facts and expertise to counter opposing claims and arguments, Wilson's much-ridiculed project of a just and fair settlement could easily have been marginalized by the conference. As a historian of the Inquiry put it,

⁹⁵ Jeremy Crampton, 'The cartographic calculation of space: race mapping and the Balkans at the Paris Peace Conference of 1919', *Social & Cultural Geography* 7:5 (2006), 731-752; Neil Smith, *American Empire: Roosevelt's Geographer and the Prelude to Globalization* (Berkeley: University of California Press, 2003).

⁹⁶ Crampton, 'The cartographic calculation of space', 743.

⁹⁷ Lawrence Gelfand, *The Inquiry: American Preparations for Peace, 1917-1919* (London: Yale University Press, 1963).

It is virtually inconceivable to think of the peace treaties of 1919 assuming the form they did without benefit of the enormous preparatory effort exerted by the Allied governments and the United States...Perhaps there is no better measure than the work of the Inquiry to indicate that the United States by 1917 had reached the status of a great power.⁹⁸

In practical terms, the expectation that precise borders would be agreed on at the conference created a demand for a particular kind of knowledge, which the US was able to supply. As noted by Isaiah Bowman, the head of the Inquiry, 'Unfortunately, nations cannot be separated approximately. A boundary has to be here, not hereabouts'.⁹⁹ Command over socially privileged forms of geographical knowledge were particularly determining in areas of Europe such as the Balkans, where the most powerful states were not highly invested in any particular outcome, as long as agreement on borders could be reached. These time-consuming tasks were usually handed down to territorial commissions—often including Inquiry members—with almost free reign to draw borders. According to one observer, 'most of the articles in the treaties were taken bodily without change from the reports of the commissions'.¹⁰⁰

In terms of legitimation, moreover, the message of Wilsonian self-determination risked perceptions of naïveté at the negotiating table unless it could be backed up with cold, hard 'science'. As Wilson and Bowman both understood well, maps always made political choices in terms of what to include or exclude, but could be very persuasive by taking on an appearance of neutral objectivity. As Bowman put it, 'A map was as good as a brilliant poster, and just being a map made it respectable, authentic. A perverted map was a life-belt to many a foundering argument'.¹⁰¹ Despite inexperience and internal divisions, it was perhaps primarily the Inquiry's use of maps, made possible by linear borders, for which the US drew praise from other delegations.

Throughout the last 150 years, territorial conflict and contestation have played a major role in international politics, and it has mattered greatly that only territory which is specified in linear terms can be claimed legitimately. While there may be many reasons for this, I have argued here in particular that linear borders enable new patterns of territorial partitions and empower states with access to a particular kind of geographical knowledge.

⁹⁸ Gelfand, *The Inquiry*, 333.

⁹⁹ Branch, *Cartographic State*, 140.

¹⁰⁰ Smith, *American Empire*, 150.

¹⁰¹ Smith, *American Empire*, 147.

Conclusion

This chapter and the previous chapter have served to lay the conceptual groundwork for the thesis. They argued that the linearization of borders, as a global phenomenon, is historically recent and constitutive of international politics, in contrast with other accounts of the origins of modern international politics, which take borders as simply an expression of territorial sovereignty. This conflation of borders and territoriality has obscured an understanding of how linear borders originated as a distinct component of global modernity. Instead, I propose a framework for historical analysis of this process in terms of articulated rationalities. This, I argue, gives us a novel view of the territorial politics of the last century and a half, showing phenomena such as peace conferences and territorial partitions in a new light.

Borders thus have a history which is interrelated with but separate from the history of territory. Neither sovereignty nor territoriality fully captures the peculiar condition of the modern world whereby every coordinate point on land, besides Antarctica, theoretically corresponds to one and only one state territory. Nor does it account for the particular way in which struggles over maritime regions are currently unfolding over lines such as the meridians of the Arctic and the 'Nine-Dash Line' of the South China Sea. While various opposing claims to sovereignty in these areas have been made, what remains less often questioned is why they almost invariably take a linear form, rather than referring to particular islands or shipping routes. Whether or not states will make more consistent efforts to draw planar boundaries between themselves and outer space, moreover, is a fundamental question in the law of outer space.¹⁰²

Moreover, the recent global dominance of linear borders sheds new light on and raises new questions about the future relevance of linear borders as a form of territoriality. On one hand, it suggests that, contrary to some versions of globalization theory, we may currently be seeing the beginning rather than the end of linear borders. The functions, significance, and particular locations of borders have undoubtedly been subject to fluctuation, dispute, and violent contestation, and are likely to continue to be. Practical experience of real border regions may reveal quite starkly the inadequacy of the idea that borders generally tend to be linear. Yet serious efforts to undermine this idea remain limited and marginalized.

¹⁰² Bin Cheng, *Studies in International Space Law* (Oxford: Clarendon Press, 1997).

On the other hand, the origins of linear borders within a very particular rationality suggest that the longevity of linear borders as such may be subject to the same limitations as this type of rationality. Theories of rationalization remind us that forms of knowledge that appear rational in one time and place will not necessarily always do so. The Enlightenment idea of abstracting worldly phenomena into pure forms, and attempting to universally apply such forms in practice, in other words, may not always serve as a basis for understanding political geography. For example, some states have found their purposes better served by allowing local border guards to pursue their own policies, rather than applying a top-down idea of frontier policing.¹⁰³ If this were to be extended beyond governing institutions to the fundamental concept of borders themselves, borders could conceivably be de-linearized in particular cases where this made them easier to govern from a local, rather than a centralizing, cartographic perspective. While such an unravelling of linear borders seems far-off from a contemporary standpoint, theories of rationalization may hold the key for understanding when and where it could potentially occur.

¹⁰³ George Gavrilis, *The Dynamics of Interstate Boundaries* (Cambridge: Cambridge University, 2008).

Chapter Four

Agrarian Capitalism and the Surveyor

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| de duro est ultima ferro. protinus inrupit venae peioris in aevum omne nefas: fugere pudor verumque fidesque... communemque prius ceu lumina solis et auras cautus humum longo signavit limite mensor. | And last of all the ruthless and hard Age of Iron prevailed, from which malignant vein great evil sprung; and modesty and faith and truth took flight.... Surveyors anxious marked with metes and bounds the lands, created free as light and air: |
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—Ovid, *Metamorphoses*, l.127-136¹

Any grand search for beginnings comes with unavoidable risks, as the Roman poet Ovid knew well.² A search for the absolute origins of something called ‘modern territoriality’ which could function as a Westphalian ‘majestic portal which leads from the old world into the new world’ runs the risk of innumerable definitional, empirical, and political problems.³ It is important to recognize at the outset of the historical portion of the thesis that there never was an invention of the linear border. In one way or another, people have virtually always used lines to order landscapes. While ancient evidence is often scarce and sketchy, it may not have been uncommon for empires such as Rome or China to have defined administrative units using linear boundaries, famously in the case of Julius Caesar’s crossing of the Rubicon.⁴ What is more historically specific to the political geography of our era than linear borders themselves is the linearization of borders as a manifestly global process, and survey rationality as a way of thinking which places a premium on performing practices which attempt to implement precise linear borders in reality.

¹ Ovid, *Metamorphoses*, trans. Brookes More (Boston: Cornhill Publishing, 1922).

² Ibid., book 2.

³ Leo Gross, ‘The Peace of Westphalia, 1648–1948’, *The American Journal of International Law*, 42:1 (1948), 28; Benjamin de Carvalho, Halvard Leira, and John Hobson, ‘The Big Bangs of IR: The Myths That Your Teachers Still Tell You about 1648 and 1919’, *Millennium: Journal of International Studies* 39:3 (2011), 735–758.

⁴ Robin Yates, ‘Body, Space, Time and Bureaucracy: Boundary Creation and Control Mechanisms in Early China’, in John Hay (ed.), *Boundaries in China* (London: Reaktion Books, 1994); Edward Shaughnessy, ‘Western Zhou History’, in Michael Loewe and Edward Shaughnessy (eds), *The Cambridge History of Ancient China: From the Origins of Civilization to 221 BC* (Cambridge: Cambridge University Press, 1999), 327.

This thesis dispenses with the idea of a 'majestic portal', but nonetheless it does try to explain in this chapter how the global process of linearizing borders got underway. In order to do this, it does not start by cataloguing all the different uses of linear borders throughout human history, and then searching for a moment of transformation. Instead, it elaborates a logic or mechanism which gives insight into the global reach of linear borders, and shows historically how it began to affect political boundaries. In particular, this chapter details the articulation of survey rationality with a capitalist rationality of private property. In its simplest form, the logic here is that wherever private property has to be surveyed, political boundaries must also be surveyed in order to ensure the protection of private property.

Colonialism, as it took shape in North America in the seventeenth and eighteenth centuries, turns out to have been a crucial part of the process. An important implication of this chapter, then, has to do with discussions about what the English School called the 'expansion of international society', and recent attempts to displace this narrative with one that takes colonial co-constitution seriously. New perspectives on the colonial origins of modern territoriality, in particular, have challenged long unquestioned assumptions about processes of state formation within Europe. The Renaissance 'discoveries' of abstract space, the mathematical measurement of the globe, and rules of linear perspective, many have argued in different ways, could not displace the traditional political geography of European feudalism as easily as they could be used to divide up the vast unknown spaces of the New World.⁵ The territoriality of colonialism, with its conceptions of homogenous space and explicit reference to linear division, rather than that predominating in the metropolises of contemporary Europe, consisting of lists of places and overlapping, differentiated feudal rights, more closely resembles modern territoriality.

This chapter builds on recent scholarship putting colonialism at the centre of analysis of global modernity by asking why it was these particular understandings of space that eventually constituted a presumed basis for territorial claims. Demarcated lines of specific and fixed location did not predominate among either inter-imperial or inter-colonial frontiers until a long period of colonial interactions had already taken place. The Americas were indeed often constructed by imperial authorities as a clean slate or *terra nullius* open for the taking, but they

⁵ Jordan Branch, "'Colonial reflection' and territoriality: The peripheral origins of sovereign statehood', *European Journal of International Relations* 18:2 (2012), 277-297; Gerry Kearns, 'The Territory of Colonialism', *Territory, Politics, Governance* 5:2 (2017), 222-238; Jeremy Larkins, *From Hierarchy to Anarchy: Territory and Politics before Westphalia* (New York: Palgrave Macmillan, 2010), ch. 9; Jeppe Strandsbjerg, *Territory, Globalization and International Relations: The Cartographic Reality of Space* (Basingstoke: Palgrave Macmillan, 2010), ch. 5.

were not forced to conceive of them in the abstract and geometrical terms of cartography and navigation simply by their own geographical ignorance. The emergence of linear borders in the Americas has to be explained, then, with reference to long processes of colonial interactions.

First, I discuss approaches to the colonial origins of modern territoriality in more detail and how my argument builds on them. Second, I discuss some of the precedents of survey rationality, and make a case for differentiating survey rationality from abstract or homogenous space more generally. Third, I show how an articulation of survey rationality and capitalist rationality arose in the context of the eradication of customary peasant land use in the English enclosure movement. Fourth, I examine the construction of surveying practices as a particularly powerful underpinning of the frontier settler society of the Thirteen Colonies. Finally, I show how the colonial manifestation of property boundary surveys resulted in the scaling up of survey rationality from property boundaries to inter-colonial boundaries, and ultimately inter-imperial boundaries. Mathematical boundary surveying of this kind emerged in Europe, but it was only through colonial encounters that it first came to be used to delineate the boundaries of international politics.

The Origins of Modern Territoriality: Metropolitan or Colonial?

One of the main questions recently raised in the literature on territoriality in the history of international relations is whether territoriality emerged in Europe, as a result of European dynamics, or whether it arose through European empires' expansion to places outside Europe. According to many scholars, in IR and beyond, modern territoriality originated in Europe and afterwards spread to the rest of the world via imperialism and decolonization. Many different variations on this theme exist, from a focus on French consolidation of territorial authority⁶ to a focus on British transition from feudalism to capitalism.⁷ Later, nationalisms tended to accept boundaries given to them by European empires, even as they rejected imperial control.⁸ Recent

⁶ Hendrik Spruyt, *The Sovereign State and its Competitors* (Princeton, NJ: Princeton University Press, 1994); Daniel Philpott, *Revolutions in Sovereignty: How Ideas Shaped Modern International Relations*. (Princeton: Princeton University Press, 2001).

⁷ Christian Reus-Smit, *The Moral Purpose of the State: Culture, Social Identity, and Institutional Rationality in International Relations* (Princeton, NJ: Princeton University Press, 1999). Benno Teschke, *The Myth of 1648: Class, Geopolitics, and the Making of Modern International Relations* (London: Verso, 2003).

⁸ Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso, 2006); Thongchai Winichakul, *Siam Mapped: A History of the Geo-Body of a Nation* (Honolulu: University of Hawai'i Press, 1994).

scholarship has tended to reinforce this consensus that intra-European dynamics were central to the evolution of territory and territoriality. Saskia Sassen, for example, contends that 'territorial state sovereignty is invented' by the French monarchy in the thirteenth century, and that 'in addition it was at this time that the notion itself of boundaries was established'.⁹ Stuart Elden, looking instead for the meaning of territory in the historical emergence of the concept, finds its origins in the writings of scholars from Baldus de Ubaldis to Gottfried Leibniz, intervening in European political issues.¹⁰ As Elden has remarked, 'it is a Eurocentric history because it is a study of a European question'.¹¹

Historians of cartography have provided a strong basis for challenging this European focus. Modern practices of mapping, and the growth in social importance of modern maps, argue historians of cartography, were a precondition for the very idea of territory as a homogenous and discretely bounded space and have played a crucial role in the naturalization of this particular kind of territory.¹² For some, this view of territorial space as constructed through cartography meant that the origins of modern territoriality could not be separated from the imperial expansions that coincided with the transformation of European cartography beginning in the fifteenth century.¹³ In particular, the spatial system that Carl Schmitt had called 'global linear thinking' was brought back into view.¹⁴ The prime example of global linear thinking was the demarcation line of the Papal Bull *Inter Caetera* (1493) and subsequent treaties, which divided the non-Christian world in half, into a Spanish and a Portuguese sphere of influence, along specified lines of longitude. It was the abstract cartographical system of latitude and longitude which made possible these extra-European lines that prefigured modern territoriality.

But Schmitt also included in the same category the 'amity lines' separating a European zone of international law from the New World, which would be left in perpetual war and piracy. The removal of the Americas from the zone of international law provided a justification for European powers to ignore territorial sovereignty whenever convenient, and no precise, linear territorial

⁹ Sassen, *Territory, Authority, Rights*, 44.

¹⁰ Elden, *The Birth of Territory*.

¹¹ Stuart Elden, 'The Birth of Territory—a response', *Political Geography* 46 (2015), 99.

¹² David Buisseret, 'The Cartographic Definition of France's Eastern Boundary in the Early Seventeenth Century', *Imago Mundi* 36 (1984), 72-80; Michael Biggs, 'Putting the State on the Map: Cartography, Territory, and European State Formation', *Comparative Studies in Society and History* 41:2 (Apr. 1999), 374-405.

¹³ Jeppe Strandsbjerg, *Territory, Globalization and International Relations: The Cartographic Reality of Space* (Basingstoke: Palgrave Macmillan, 2010); Jordan Branch, *The Cartographic State: Maps, Territory, and the Origins of Sovereignty* (Cambridge: Cambridge University Press, 2014).

¹⁴ Carl Schmitt, *Nomos of the Earth in the International Law of the Jus Publicum Europaeum*, trans. GL Ulmen (New York: Telos Press, 2006).

boundaries were demarcated between European empires in the Americas for roughly two centuries. As Sir Francis Drake allegedly said, there would be 'no peace beyond the line'.¹⁵ This chapter, then, attempts to address the questions that remain: how did the notionally infinite and abstract space of cosmographers and mathematicians lead eventually to modern territoriality? And if the fundamentally necessary spatial technologies first arose in Europe, then how could modern territoriality first emerge in the Americas 'beyond the line', rather than within the zone of international law?

The greater importance which cartographic theories of territoriality place on global linear thinking, and the observation that it occurred long before linear borders were established in major European treaties, pose a substantial challenge to the view that modern territory originated within purely intra-European dynamics. The use of abstract lines drawn on a map to divide space was a major break with established practices of territoriality, and is now taken for granted in international politics. Yet cartographic theories of territoriality have not argued that the long period of interaction over centuries of imperialism in the Americas fundamentally affected this innovation, except to strengthen the already existing need for it. Instead, the news of and the Iberian response to Columbus's first voyage, which created the need for a way to comprehend and quickly divide up vast, unfamiliar space from afar, was the main form of colonial co-constitution that altered notions of territoriality. After the late fifteenth century, the usage of maps in European attempts to govern the Americas only became more extensive, continuing to structure space, and thus claims to authority, according to Ptolemy's lines of longitude and latitude.

While not denying the importance of the cartographic revolution for the emergence of modern territoriality, the remainder of this chapter argues that in order to understand the shift from abstract global linear thinking towards the actual practice of precisely bounded territoriality, and to understand why this happened first in European settler colonies, we must understand property surveys. Survey practices are an integral part of modern territoriality, but they were used for surveying properties long before they were used to demarcate territorial boundaries. It was in the colonial context that these practices were scaled up and used to demarcate international politics. In the next section, I develop in more detail the distinction between global linear thinking and precise boundaries, and show how looking at the history of property

¹⁵ China Miéville, *Between Equal Rights: A Marxist Theory of International Law* (Chicago: Haymarket, 2006), 180. The Spanish-Portuguese line of *Inter Caetera* was in certain ways an important exception, but attempts to agree on its measurement failed, and the line was not respected in practice.

surveying practices provides the link between them. In the following sections, I then explain how these practices came to be applied to territorial claims.

From Geometric Cosmology to Survey Rationality

In the wake of Christendom's Columbian encounter with America, increasingly quantified understandings of political geography emerged, but the way in which they were used in practice remained limited for the time being. Schmitt argues that new geographical concepts were used in this era to reapportion the globe and establish some spatial order in the context of a rapidly changing distribution of territory in the New World.¹⁶ He notes two types of the new global lines used by European empires, *rayas* and 'amity lines'. *Rayas* were lines of longitude intended to partition all the non-Christian areas of the world between the Spanish and Portuguese empires, first under the Papal Bull *Inter Caetera* (1493), and then under the Treaty of Tordesillas (1494), as well as subsequent treaties. Other empires resisted this Iberian partition of the globe, and a system of verbally agreed 'amity lines' developed, which separated a European zone of international law from the New World, which would be left in perpetual war and piracy.¹⁷ Treaties would be respected within Europe, but as Sir Francis Drake supposedly put it, there would be 'no peace beyond the line'.¹⁸ To these two might be added a third category of global lines, or at least continental lines, the first few French and English land grants of the early seventeenth century. Unilaterally declared by a monarch, the early land grants were typically given to a person or company for all land lying between two lines of latitude, from the Atlantic to the Pacific.¹⁹

The repeated usage of lines of latitude and longitude within this global linear thinking has been used to support theories arguing that modern territoriality is in large part a result of cartographic ideas and practices. Jordan Branch argues that it was 'the hegemony of modern mapping and the resulting understanding of the world as a geometrically divisible surface' that gave states

¹⁶ Schmitt, *Nomos of the Earth*, 87.

¹⁷ Frances Davenport, *European Treaties Bearing on the History of the United States and its Dependencies to 1648* (Washington, DC: Carnegie Institute of Washington, 1917), 220.

¹⁸ China Miéville, *Between Equal Rights: A Marxist Theory of International Law* (Chicago: Haymarket, 2006), 180.

¹⁹ Bill Hubbard Jr., *American Boundaries: The Nation, the States, the Rectangular Survey* (Chicago: University of Chicago Press, 2009), 7.

their exclusively territorial shape.²⁰ The key development here was the rediscovery of Ptolemy's system of coordinates of latitude and longitude, or 'graticule', and the resulting geometrically proportional maps which drove cartographers to depict states territorially. Linear borders according to cartographic theories were an outcome of the technologies that shaped authorities' understandings of space.

Maps were undoubtedly instrumental in the onset of Schmitt's 'global linear thinking'. Yet the development of quantitative, geometric, and proportional cartography in itself explains little about the precision expected of borders today, as these elements of cartographic technology that were necessary for global linear thinking were by no means unique to post-Renaissance Western Europe. Western maps were not the only maps that used latitude and longitude, nor were they the only maps that enabled linear boundary-drawing. Indian scholars of the second century, for example, established a Prime Meridian in Ujjain, long before the Greenwich or Paris meridians.²¹ Islamic astronomers, building on the works of both the Greeks and the Indians, kept extensive records of the global coordinates of far-flung locations, and to some extent used this geometrical knowledge to create world maps.²² Lines of latitude were even used to delineate boundaries, albeit not political borders but boundaries of climate zones. For Chinese scholars, such as the third-century cartographer Pei Xiu, correspondence between map and reality was crucial, and led to developments in survey technology such as a plane tables and sighting instruments.²³ Beginning in the twelfth century, some Chinese maps of large regions achieved remarkable accuracy by using a scaled grid, where each side of a square represents one hundred *li*, or two hundred kilometres. During the Ming Dynasty, 'fish-scale' cadastral maps represented landholdings with linear boundaries.²⁴ Linear borders, therefore, were no inevitable outcome of cartographic practices striving for geometrically accurate representations of the world.

²⁰ Jordan Branch, 'Mapping the Sovereign State: Technology, Authority, and Systemic Change' *International Organization* 65:1 (2011) 29; Jeppe Strandsbjerg, *Territory, Globalization and International Relations: The Cartographic Reality of Space* (Basingstoke: Palgrave Macmillan, 2010).

²¹ Joseph Schwartzberg, 'Introduction to South Asian Cartography', in JB Harley and David Woodward (eds) *Cartography in the Traditional Islamic and South Asian Societies* (Chicago: University of Chicago Press, 1992), 315.

²² Gerald Tibbetts, 'Later Cartographic Developments', in Harley and Woodward, *Islamic and South Asian Societies*.

²³ Cordell Yee 'Reinterpreting Traditional Chinese Geographical Maps', in JB Harley and David Woodward (eds), *Cartography in the Traditional East and Southeast Asian Societies* (Chicago: University of Chicago Press, 1994), 35-70.

²⁴ Cordell Yee, 'Chinese Maps in Political Culture', in Harley and Woodward, *East and Southeast Asian Societies*, 85.

The production of homogeneous, Euclidian space through the new geometrically proportional cartography and the revival of Ptolemy's graticule may have been an important step, but it was not a novel one. Not to mention Ptolemy himself, Chinese and South Asian cartographers had already made maps that were, in geometric terms, more or less as 'accurate' as European maps circa 1500. Islamic scholars, while less frequently making maps using the graticule, compiled many long lists of places with their global coordinates. While 'empty' Euclidian space is often associated with the Enlightenment, the Scientific Revolution, and Descartes, it long predates these scholars and phenomena. Ancient geography of any part of the world, of course, should not be abstracted unduly from the historical context of its authorship, but to a certain degree 'Cartesian' space existed long before Descartes. Something else is needed to explain the emergence of the particular space of the 'international', which is compartmentalized and measured according to obsessively precise borders, and the dominance of this idea not only in the contemplations of scholars but among the everyday practices of larger societal groups.

The global linear thinking enabled by Renaissance cartography certainly had a role to play in the emergence of precise linear borders, but the divergence between these global lines and the linear borders of today is quite stark. For one thing, the system of 'no peace beyond the line' meant that in fact no linear borders existed between the French, English, and Spanish settlements for most of the seventeenth century. The linear borders that were established were not in bilateral treaties but in unilateral charters given by a sovereign to a particular individual or company, and did not establish any limits on the sovereignty of the empire more generally. Even when Spain recognized its sharing of the island of Hispaniola with France's colony of Saint-Domingue in the 1697 treaty of Ryswick, it did so implicitly and without mentioning a specific boundary.²⁵ More importantly, the global lines were not generally taken as literally or precisely as borders are today. They were rarely, if ever, surveyed or marked, and as they moved from the single Spanish-Portuguese line to the multiple lines of land grants, they often quite obviously overlapped, without much pretence of the tightly interlocking territories of today. This was true of the Tordesillas line, which after centuries was finally rejected in favour of recognizing existing occupation and settlement.²⁶ It was also true of many of the early seventeenth-century French and English land grant lines, which tended to mark off large bands of latitude all the way through

²⁵ Fred Israel (ed), *Major Peace Treaties of Modern History, 1648-1967, vol. I* (Philadelphia: Chelsea House, 1967), 145.

²⁶ Alison Sandman, 'Spanish Nautical Cartography in the Renaissance', in David Woodward (ed), *Cartography in the European Renaissance: Part I* (Chicago: University of Chicago Press, 2007); L.A. Vigneras, 'The Cartographer Diogo Ribeiro', *Imago Mundi* 16 (1962) 76-83; Max Saville, *Empires to Nations: Expansion in America, 1713-1824* (Minneapolis: University of Minnesota Press, 1974), 132.

to the Pacific Ocean. The French claim of Acadia of 1603 was more or less the same as the New England of 1620, and both overlapped with Virginia's claim, which, if taken literally, would have included Alaska. The Treaty of Tordesillas was no doubt used as a justification for Portuguese settlement in Brazil, but as for the precise limits of Brazil, the treaty could only be said to have had a marginal influence on the borders that were eventually codified later.

One could argue that this was simply because actually surveying and demarcating these lines was technologically not possible. The difficulty with this argument is that no such thing had ever been done before. Tordesillas did stipulate that if the line was found to intersect any land, 'some kind of mark or tower shall be erected, and a succession of similar marks shall be erected in a straight line from such mark or tower, in a line identical with the above-mentioned bound'.²⁷ But since this never occurred, it is unclear what precise form this would have taken if it had later become possible, unless we accept some form of technological determinism. It would entail another substantial change to actually insist on taking these lines as seriously as borders are today. At most it could be said that these global and continental lines were an important intermediary step between medieval practices and precise linear borders.

Survey rationality, however, provides a link between 'empty', quantitative, and geometric space on the one hand, and on the other hand the particular space of the international, which is compartmentalized and measured according to formally precise borders. With this particular relationship established between abstract, theoretical space and borders as they are practiced 'on the ground', cartographic representations of the world are not simply exercises for university scholars or tools for navigators but can also become politicized in new ways and can determine what kind of territorial agreements are possible. Quantitative and homogenous conceptions of global space, and techniques of representation were well established in various contexts by the sixteenth century, and were used extensively in the creation of European empires in the Americas. Survey rationality, however, in terms of the ordering of political geography through particular kinds of technical means, was not. Neither Native Americans nor European settlers were generally concerned with survey rationality, either on the level of property boundaries or of inter-colonial boundaries.²⁸

²⁷ Davenport, *European Treaties*, 96.

²⁸ The main exception is to be found in Mesoamerica, where Nahuatl-language records show a great deal of attention to surveying, which was at least as accurate as that of early European settlers. However, little is known about the techniques that were used to create them and what they were used for. Allan Greer, *Property and Dispossession: Natives, Empires and Land in Early Modern North America* (Cambridge: Cambridge University Press, 2018), 320-326.

In New Spain, mathematical survey methods were mostly unused before the eighteenth century, while various other traditions developed.²⁹ Spanish settlers resisted the use of maps for depicting the land, according to one account, because they associated the visual arts with Native American cultures whose writing systems were based on pictograms. A typical land grant described the place and extent of the land to be granted but specified little in the way of boundaries, for example, by mentioning settlements the land was near or in between, and giving distances 'more or less'.³⁰ With property rights defined, in the early colonial period, in terms that combined earlier Spanish traditions with indigenous practices, the administrative boundaries of the Spanish Empire were defined similarly in royal decrees, describing a list of places and jurisdictions included within the boundaries rather than the boundaries themselves.³¹

Professional surveying was practiced in New France, but French settlement was concentrated into groups, such as Canada, Acadia, and Louisiana, such that the delineated properties of different colonies were not in close proximity, with Native American territories in between. Administrative boundaries there were no clearer than in the Spanish Empire, as demonstrated multiple times when officials later attempted to make sense of them in order to form new inter-imperial boundaries. In the eighteenth century, for example, France ceded the colony of Acadia to Britain 'in its entirety, conformable to its ancient limits', but it was unclear what exactly that entailed. A joint commission was created in 1749 to investigate the question, but it was unable to come to an agreement, based on a variety of conflicting information from various maps, documents, and local officials.³² Similarly, at the end of the Seven Years' War, with France's decisive defeat, Canada would become a British colony, but the lack of officially defined administrative boundaries meant that it was unclear what 'Canada' was.³³ France initially maintained that the Ohio Valley was part of Louisiana, not Canada, but after an official captured in the war told the opposite to the British, it was ceded to Britain as part of Canada.

²⁹ Barbara Mundy, *The Mapping of New Spain: Indigenous Cartography and the Map of the Relaciones Geographicas* (Chicago: University of Chicago Press, 1996).

³⁰ Jonathan Amith, *The Möbius Strip: A Spatial History of Colonial Society in Guerrero, Mexico* (Stanford, CA: Stanford University Press, 2005).

³¹ E.g. the 'Cedula de 27 de Mayo de 1717', which created the Viceroyalty of New Granada, *Contestación de Venezuela al Alegato de Colombia* (Madrid: Est. Tipográfico de los Sucesores de Rivadeneyra, 1884), 423-425.

³² Mary Pedley, 'Map Wars: The Role of Maps in the Nova Scotia/Acadia Boundary Disputes of 1750', *Imago Mundi* 50 (1998), 96-104.

³³ Frank Brecher, *Losing a Continent: France's North American Policy, 1753-1763* (Westport, CT: Greenwood Press, 1998) 177-178.

The way in which Native Americans and Europeans adapted to each other's presence meant that in many cases the methods of dividing territory that were called for were closer to traditional Native American practices than any linear division. In particular, French officials relied heavily on alliances with Native Americans, based on the fur trade, to maintain its claims over vast expanses of territory beyond the St Lawrence River Valley, and recognized that their Native American allies were much more effective than the French military in opposing the expanding British colonies.³⁴ As a result, to a large extent French suzerainty coincided with boundaries that Native Americans understood better than the French, who had little reason, or capacity, to interfere with such boundary conceptions.

Survey Rationality in the English Enclosure Movement

One context in which survey rationality took on a particular socially constituted importance was within the English enclosure movement. This section shows the historical origins of survey rationality in this particular context, as an outcome of its articulation with agrarian capitalism. In a narrow sense, 'enclosure' refers to the building of fences and walls by landowners, surrounding what were previously lands held in common through customary rights or actual usage by peasants, usually between the late medieval and industrial periods. More generally, it refers to the dispossession of peasants' access to various kinds of manorial and common lands and the commodification and marketization of land. The following section will then show how survey rationality came to be implemented in the North American property surveys, and the section afterwards will show how this led to the linearization of political borders.

As the price of wool was rapidly increasing in the early sixteenth century, powerful landowners particularly in England began to eject peasants from common lands, in order to use that land for raising sheep, in a process known as enclosure.³⁵ This had been underway to some extent for centuries, but picked up intensity in the first decades of the sixteenth century. This was initially illegal, with a series of laws passed against enclosures, although there was little that England's

³⁴ Yves Zoltvany, 'The Frontier Policy of Philippe de Rigaud de Vaudreuil, 1713-1725', *The Canadian Historical Review* 48:3 (Sept, 1967), 227-250.

³⁵ Andro Linklater, *Owning the Earth: The Transforming History of Land Ownership* (New York: Bloomsbury, 2013).

small army could do about it.³⁶ Moreover, peasants had always had rights to use common lands, but these were often customary rather than formal, and could easily be ignored by landlords. By the eighteenth century, however, a substantial shift in social understandings of land had occurred, towards the preoccupation with capitalistic improvement associated with John Locke, and Parliament began to pass laws accelerating the enclosure of the commons. These lands had always been tended to by stewards called 'surveyors', who were sometimes accompanied by land measurers. In the early sixteenth century, however, word spread that profits could be multiplied many times by enclosing as much land as possible. In the face of rioting dispossessed peasants and laws enacted against enclosure, landowners tended to look to surveyors to extend their rights on the land to the maximum through geometrically accurate maps. Surveyors, as a consequence, were reduced to land measurers, as simply measuring the land did not involve enumerating the customary rights of peasants. There arose an ever greater demand for more accurate methods, skilled measurers, and useful instruments. Enclosure was central to the process which translated—literally, from Latin to English—the abstract and cosmographical theories of astronomers into a profession of measuring land.

Part of this process was the radical narrowing of the surveyor's duties, or the replacement of the surveyor by the 'land-meter'.³⁷ The medieval surveyor's duties originally included many that would later be taken up by an estate agent or a farm manager. The surveyor not only investigated boundaries by interviewing tenants and reviewing whatever written records might exist but also provided advice on farming, manuring, draining, irrigating, and the like. Classically educated and well-versed in law and agricultural techniques, surveyors measured the extent of the land often by estimation, and sometimes without even visiting all the premises. Quantitative measures were only required by statute for 'improved' areas, and even then were often done simply by counting strips of land.

Beginning in the sixteenth century, however, practical guides aimed at surveyors, which included applied geometry proliferated and were frequently reprinted. 'Qualitie and quantitie be unseparable companions', declared one text which established mathematics on an equal footing with legal and agricultural knowledge.³⁸ Over the course of the seventeenth century, the non-

³⁶ This demilitarization was partially a result of England's relative geopolitical isolation. Alexander Anievas and Kerem Nisancıoğlu, *How the West Came to Rule: The Geopolitical Origins of Capitalism* (London: Pluto Press, 2015).

³⁷ H.C. Darby, 'The Agrarian Contribution to Surveying in England', *The Geographical Journal* 82:6 (Dec. 1933) 529-535; EGR Taylor, 'The Surveyor' *The Economic History Review* 17:2 (1947) 121-133.

³⁸ Jess Edwards, *Writing, Geometry and Space in Seventeenth-Century England and America: Circles in the Sand* (Abingdon: Routledge, 2006), 25.

mathematical elements dropped out, and the manor itself began to disappear from texts, replaced by the generalized space of geometry. Suddenly angles and distances had to be precise, and surveyors had to be familiar with multiplications and trigonometric functions, as well as a whole host of newly invented instruments. Surveyors advertised their services on the streets of London, claiming that 'No Man may arrogate to himselfe the name and title of a perfect and absolute Surveior of Castles, Mannors, Lands and Tenements unlesse he be able in true forme, measure, quantitie, and proportion; to plat the same in their particulars *ad infinitum*'.³⁹ As one of the new survey texts quipped in its preface,

Both simple, gentle; Barons, Lords, and Knights,
Will take thee for their chiefest of delights.
Thou teachest them to measure all ther grounde;
Which, certainly,, will save them many a pound.⁴⁰

Immediately the attack on the traditional agrarian order was felt. In general, of course, dispossessed peasants rioted throughout England and tore down the gates and fences that manifested physically the enclosures.⁴¹ At first, the figure of the surveyor was perceived as an agent of this newly rapacious landlord, and 'goes like a Beare with a Chaine at his side'.⁴² One Elizabethan satirical illustration, for example, pictured a pair of monks measuring a plot of land, with a Latin title, 'Of the avaricious monk' and caption, 'For the iniquity of his covetousness was I wroth, and smote him: I hid me, and was wroth, and he went on frowardly in the way of his heart. Isaiah 57'.⁴³

³⁹ Andrew McRae, 'To Know One's Own: Estate Surveying and the Representation of the Land in Early Modern England', *The Huntington Library Quarterly* 56:4 (Autumn 1993) 340.

⁴⁰ Darby, 534.

⁴¹ Christian Liddy, 'Urban Enclosure Riots: Rising of the Commons in English Towns, 1480-1525', *Past and Present* 226:1 (2015) 41-77.

⁴² McRae, 'To Know One's Own' 334.

⁴³ *Ibid.*, 333.

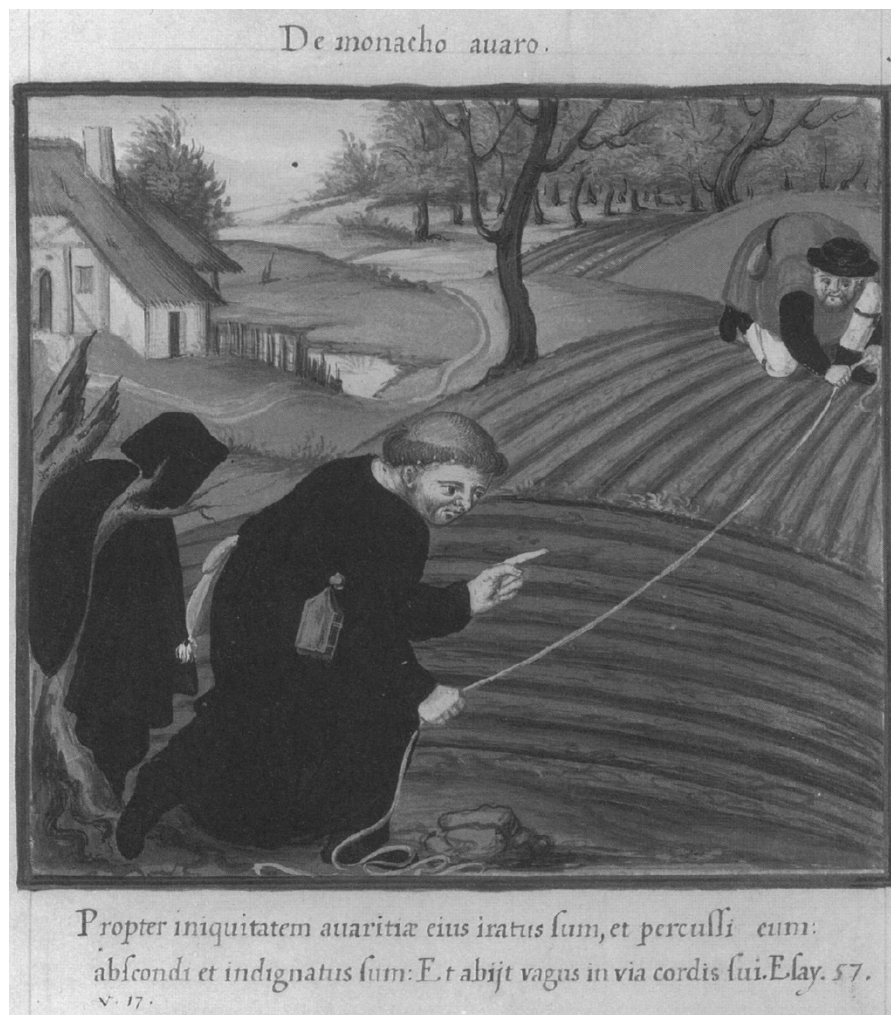


Figure 2: William Boyer, *Heroica Eulogia*, England, 1567⁴⁴

The vision that the proponents of estate surveys projected was one of rationalization. On one hand, the new applied geometry claimed merely to be revealing universal truths which had previously been 'locked up in strange tongues'.⁴⁵ The direct target was often the inaccuracies of traditional methods. Ralph Agas complained that among most land-meters of the time 'infinite errors are therein dailie committed, and the rare and eccellente skill in measure almost utterlie condemned', and that 'almoste as manie errors are comitted as there are operations undertaken'.⁴⁶ In stark contrast to the common sense of the fifteenth century, Edward Worsop maintained that no one could be a true surveyor 'except he can also prove his instruments and measurements, by true Geometricall Demonstration'.⁴⁷ Yet on the other hand, it was no secret that this 'universal' justice was only meant to benefit some people. Suspicions grew that

⁴⁴ Ibid., 333. Huntington Library MS. HM 160, fol. 35r.

⁴⁵ Darby, 'The Agrarian Contribution to Surveying', 532.

⁴⁶ Ibid., 534.

⁴⁷ Ibid., 534.

peasants were 'concealing' land from landowners. Commoners and the commons alike were branded as irrational and disorderly. Moreover, peasants, and to some extent perhaps more broadly literary culture, also seemed to regard surveyors with suspicion and sometimes hostility.⁴⁸

The process of disenchantment, or the disavowal of magic and ritual, was also an important factor.⁴⁹ In medieval England, the ceremony of perambulations was central to the preservation of boundaries through memory.⁵⁰ This ritual evolved out of what was originally a pagan procession intended to protect crops from disease, and during the Christian era priests began to use them to walk parish boundaries and remind villagers who owed tithes to whom. Under pressure from Puritans, most such festivals were banned in the sixteenth century, but due to the civic importance of boundary walks, this particular one could be kept by calling it a 'perambulation' rather than a 'procession'. While Puritans disapproved of the merry-making and the use of banners, handbells, and such accessories, they had to admit there were 'four manifest advantages' of the perambulations: 'it procured God's blessing on the fields, preserved boundaries, brought neighbours together in good fellowship, and provided an opportunity for assisting the poor'.⁵¹ Thus rationalized, they could continue.

Transplanted into the Puritans' utopian societies in New England, however, perambulations were stripped of all their religious significance, leaving only the 'useful' elements behind.⁵² The calendar of Saints' Days and local rituals was officially abolished along with ecclesiastical jurisdiction over property and even moral offences. Instead of parish boundaries, New Englanders perambulated town or property boundaries with civic leaders, and they focused on the practical legal utility of stabilizing the colonial geography. While distance from England limited settlers' access to experienced surveyors, they tended increasingly to find certainty and security in quantitative measures rather than in traditional rituals.

Roger Williams, the founder of Providence Plantations, observed that 'The Natives are very exact and punctuall in the bounds of their Lands, belonging to this or that Prince or People, (even to a

⁴⁸ Edwards, *Writing, Geometry and Space*.

⁴⁹ Max Weber, 'Science as a Vocation', in Peter Lassman and Irving Velody (eds), *Max Weber's 'Science as a Vocation'* (London, 1989).

⁵⁰ John Stilgoe, 'Jack-o'-lanterns to Surveyors: The Secularization of Landscape Boundaries', *Environmental Review* 1:1 (1976) 14-32.

⁵¹ *Ibid.*, 19.

⁵² Allegra di Bonaventura, 'Beating the Bounds: Property and Perambulation in Early New England', *Yale Journal of Law & the Humanities* 19:2 (2007) 115-148.

River, Brooke) &c. And I have knowne them make bargain and sale amongst themselves for a small piece, or quantity of Ground'.⁵³ Yet for the most part the English colonists considered Indian land usage irrational and disregarded it; even Roger Williams classified them as either 'Rude and Clownish' or fit to be 'civilized'.⁵⁴ This gave boundaries of settler communities a whole new function of creating new spaces rather than simply maintaining the existing order.

As late as 1618 the new mathematics still required justification, such that cartographer John Norden published the *Surveyor's Dialogue*, an extensive defence of the practice, which is highly revealing of its politics. A discontented tenant farmer denounces a surveyor: 'you looke into the values of mens Lands, whereby the Lords of Mannors doe racke their Tennants to a higher rent and rate then ever before', and 'by your meanes rents are raysed, and Lands knowne to the utter-most Acre'.⁵⁵ The surveyor replies:

I perceive that the force of your strongest arguments is...your feare and unwillingnesse that the Lord of the Mannor, under whom, & in whose Land you dwell, should know his owne: and that you thinke it better for you, that he should continue still ignorant of what he hath, and that your estates should bee alwaies hidden.

By the end of the seventeenth century, it was the surveyor's argument that had largely won, at least by achieving Parliamentary support. The image of the stingy monks greedily measuring their land had been replaced by the hard-working improver. In the eighteenth century, the state-sponsored cadastral map, which had existed in a few places, now spread across Europe, as part of a growing mentality of calculation.

Survey Rationality and Market Rationality

Why did this concern for geometrical precision arise? A common answer to this question in the literature on the history of enclosure is simply the desire for financial gain. In other words, survey rationality was an outcome of market rationality. Due to economic changes, and the rapid increase in the marginal value of land, it mattered increasingly for landowners to know exactly how much land they possessed. The timing of surveys indeed seems to have often been

⁵³ Roger Williams, *A Key into the Language of America: Or, An Help to the Language of the Natives in That Part of America, Called New-England* (London: Gregory Dexter, 1643), 93.

⁵⁴ *Ibid.*, 1.

⁵⁵ McRae, 'To Know One's Own', 350.

associated with land sales. For thinkers such as Friedrich Ratzel, who believed societies modernized by using land more efficiently, and thus reduced peripheral wastelands into linear boundaries, this would likely have been the explanation.

The difficulty with this rationalist explanation, however, is that it is impossible to know beforehand whether surveying a plot of land more accurately than it was surveyed before will result in an increase or decrease of the known area of the plot. If it was known in advance that a new survey using more accurate methods would find a greater area than a previous survey, then something more than an increase in accuracy is at work; there must be a source of knowledge other than the surveys themselves. In other words, it does not follow that because something is more precisely measured, it must be bigger. Any explanation for why many English landowners chose to have their lands resurveyed must address the question of why the old-fashioned methods always seemed to have underestimated the value of land, and never to have overestimated it. The connection between the new forms of market rationality engendered by agrarian capitalism, on the one hand, and the survey rationality of precisely measured, geometrical space, on the other, is not altogether straightforward.

Rather than necessarily belonging together as a result of their internal logic, the link between these two rationalities was articulated by the propagandistic literature of the time which made the case that surveys would increase land values.⁵⁶ It is important not to take the surveyors' propaganda at face value, and to view it in a broader social context, in which value is increasingly accorded to the accurate measurement of the world as an end in itself, independently of any other end it might be a means towards. The equation of precision with prosperity makes sense if we view survey rationality not as a discovery of its objective utility or as an organizational principle that has spread through a kind of natural selection, but as a historically particular rationality emerging within particular power configurations.

While complex capitalist markets had long been in operation in the Mediterranean, Italian merchants of the thirteenth century were served quite well by Roman numerals, and carried out calculations on an abacus rather than with the numerals themselves.⁵⁷ The 'basic function of written numbers in medieval and early modern commerce was to record transactions, not to

⁵⁶ On the concept of articulation, see John Clarke, 'Stuart Hall and the theory and practice of articulation', *Discourse: Studies in the Cultural Politics of Education* 36:2 (2015) 275-286.

⁵⁷ Patricia Cohen, *A Calculating People: The Spread of Numeracy in Early America* (London: Routledge, 1999).

create manipulable bodies of data'.⁵⁸ Even through the late seventeenth century, economic writers tended not to use quantitative terms to discuss economies. Only in the sixteenth century did English books of Arabic arithmetic emerge. These books began to assert that arithmetic was the foundation of knowledge as well as a tool to sharpen the mind.

In the seventeenth century the activity of 'pantometry', or 'the measuring of all things' emerged as almost a distinct pastime of the mathematically minded, who congregated in mathematical clubs such as the Royal Society of London. They wrote books on arithmetic, navigation, bookkeeping, interest rates, and so on, not from any particular interest in any these subjects but as part of a general ethic of quantification. While their numbers remained small at this stage, they were convinced that a wider audience should adopt the practice and techniques of numeracy in order to provide a foundation of knowledge and to sharpen the mind.

Arguments erupted over the true heights of mountains and the exact number of years since God's creation of the world. Dozens of men acquired thermometers and barometers and consulted them thrice daily to measure the weather...The mathematical similarity in all these endeavours was precisely what attracted them. Prefaces to gauging and arithmetical books often specified ingenious persons of mathematical bent as part of the intended audience...That was how they saw themselves: as men disposed to delight in numbers.⁵⁹

While the functional utility of scientific successes, such as the circumnavigation of the earth, certainly contributed to interest in further scientific investigations, it cannot explain this self-sustaining obsession with calculation in general as an end in itself rather than with regard to any specific purpose.

Nevertheless, the specific, immediate reason for enacting surveys, at least in the mind of the landowners having them done, was probably for financial gain. In spite of any inherent logical contradiction that might be spotted, the increase in accuracy claimed by the surveying manuals was seamlessly attached to an absolute increase in land value. Moreover, the timing of surveys seems to suggest that they were often carried out right before a property sale.⁶⁰ Landowners needed enclosed space to raise sheep, and surveying had become part of the set of practices that would create that result. We can therefore somewhat modify the question: How did the

⁵⁸ Ibid., 19.

⁵⁹ Ibid., 16-17.

⁶⁰ Catherine Delano-Smith and Roger Kain, *English Maps: A History* (London: British Library, 1999).

surveys contribute to the increased property values, or how were they perceived to increase them?

If precision alone cannot explain the overall increase, what would explain it, according to the surveyors, was in the revelation that the peasants were somehow hiding land, presumably by living on it. In other words, the customary rights of peasants were illegible to the new geometric surveyor. This was not, of course, because it would have been impossible to find some way to represent customary rights using Euclidian geometry, but because surveyors served those who could pay to employ them, and so had little reason to be creatively inclusive of the underprivileged. Landlords needed a new way to articulate space in a way that did not include peasants, and this was provided by mathematical surveys.

In a strictly functional sense this could have been accomplished by a re-articulation of the formal, explicit rights that landowners had on the land, to the exclusion of customary rights. The surveys, according to their advertisements, were no more than a technical application of these already existing formal rights. If the surveys really were just that and no more, however, they would hardly have been worth the effort of innovation. Mathematical surveys tended to increase property values and areas not because they more accurately reflected reality but because they were articulated with a change in the interpretation of legal rights. The surveys were necessary because they made what was actually an arbitrary negation of customary rights seem to be no more than a reflection of what already existed.

The real explanation, then, comes from the affective and valorised nature of the new quantitative practices and modes of thought which made surveys seem, in the minds of an initially small but growing number of people, to be good insofar as they revealed true knowledge of the world. This then allowed the class interests of the landowners, in expelling commoners from the commons, to be pursued in a way which was otherwise thought immoral. The enclosure of the commons preceded the proliferation of surveys, and could have accelerated without it. But what the surveyors contributed to the enclosures was, first of all, a conception of empty space which could render unintelligible the complex customary rights of peasants. Empty space in itself is, as suggested above, hardly a unique invention of sixteenth-century England. Yet the surveyors went further, developing a routinized technique which would demonstrate to the literate public that what they were doing was simply re-enacting the owned space in a way that better reflected the rights already possessed by the landowner.

The mathematical surveyor, then, did originate out of financial gains associated with surveys, but not because of a general functional utility of surveys. The articulation of survey rationality along with market rationality instead hinged crucially on the particular circumstances of the time and place, namely the landowning class's interest in enclosed space to raise sheep, as well as the growing value placed in true and mathematically accurate descriptions of the world as an end in itself.

Survey rationality was not a logical corollary of market rationality but had to be articulated as such within the particular conditions of the enclosure movement. The proliferation of property surveys manifested a kind of political alliance between a class interest in repurposing the English countryside and a movement to achieve a perfect knowledge of the world through precision. The service performed by surveyors was not simply to measure the shape and size of a manor but also, at least as importantly, to deploy the growing legitimacy of numeracy and precise counting as a way of understanding the world, on behalf of landowners seeking to increase the size of their holdings. Mathematical surveys could be expected to increase property values and areas not because they more accurately reflected reality but because they helped to alter the interpretation of legal rights in favour of those that could be measured, and made what was seen from one perspective as an arbitrary negation of customary rights into no more than a reflection of what already existed.

Survey Rationality and Anglo-American Settler Society

As a result of its articulation with market rationality, survey rationality proved to be a powerful weapon of the landowning class in England and helped to accomplish a redistribution of property rights in favour of the wealthy. English settlers in North America implemented surveys partially for different reasons. In particular, in contrast to the surveys of the English enclosures in the Tudor period, property surveys in Anglo-America were part of a process of alienating land supposedly owned by the Crown rather than simply rationalizing private titles that supposedly already existed. This meant they were part of a self-conscious movement of settler expansion into the interior of the North American continent. In some areas surveys were done prior to settlement, while in other areas, surveys formalized a recent but already accomplished settlement, but there was no sense that those enacting surveys were simply measuring ancient properties. Unlike the English landowners who feared that commoners were 'concealing' lands

they had long owned, English settlers just arriving on the North American continent had to justify their claims differently.

The property relations that emerged in the English colonies turned on a particular interpretation of American Indian civilizations. This was not a result of simple lack of familiarity with Indians and inability to navigate their patterns of land usage. Instead, based on specific impressions which held after extensive contact, English observers ruled out recognition of Indian ownership of the land equivalent to what they understood as private property. In particular, constructions of the American Indians were central to John Locke's labour-mixing theory of property, which is often seen as typical of the eighteenth century and beyond in Anglo-American discussion of property rights. According to Locke, who could claim some familiarity with the politics of land usage in North America, as Secretary to the Lords Proprietor of the colony of Carolina, 'the wild Indian, who knows no enclosure...is still a tenant in common'.⁶¹ But unlike the commons of England, which were particular to specific local communities, America was wide open and available to all, and represented the antithesis of property. Unlike previous theories of property which traced ownership from owner to owner back to 'time immemorial', Locke's theory began with a state of nature. This was not simply a theoretical abstraction, but, for Locke, actually existed in America, as suggested by his claim 'All the world was America'.

This particular understanding of settler land appropriation removed the necessity for any concerted effort to establish the antiquity of native boundaries in order to acquire them. Instead, unlike England, North America had to be established as a tabula rasa in which no boundaries existed. The existence of indigenous agriculture and techniques of bounding space, some of which are now well documented, had to be ignored. America was constructed as a land held entirely in common, but it was a different sort of commons than land which was 'common by compact', or in other words, land which was not common 'to all mankind, but is the joint property of this country or that parish'.⁶² Enclosure in England and in America were mutually co-constitutive but not the same.

Yet at the same time, from the point of view of those being dispossessed, this may not have been an important distinction. The creation of surveyed boundaries in North America underpinned Native dispossession similarly to the way in which in England it had underpinned

⁶¹ Allan Greer, 'Commons and Enclosure in the Colonization of North America', *American Historical Review*, 117:2 (Apr. 2012), 367.

⁶² *Ibid.*, 368.

the dispossession of commoners. Just as in England, surveys were central to ensuring the legitimacy of the new and aggressively expansive system. Historian Allan Greer has argued that the use of a seemingly fair market system of property exchange marks an important distinction between the Protestant empires in North America, including not only the English but also the Dutch and Swedish empires, and the other Euro-American empires.⁶³ The French, Portuguese, and Spanish attempted as best they could to include within an imperial hierarchy indigenous peoples, along with their lands, without making a fine distinction between the two. Settlers in those empires were not prevented from appropriating Indian lands, but doing so was not a primary imperial goal. The Spanish, for example, were on the whole more interested in the labour than the land of the Indians they encountered. When New Mexico was annexed to the Spanish empire in 1598, the act of possession on behalf of the king laid claim to not only 'the mountains, rivers, valleys, meadows, pastures, and waters', but also 'the native Indians in each and every one of the provinces'.⁶⁴ English rule in America, by contrast, was based on the fiction that settlers had fairly negotiated the transferral of land, achieving consent through compensation within some kind of free market. Benjamin West's 1771 painting 'William Penn's Treaty', for example, depicted Indians being offered textiles and other goods in a spirit of peace and mutual respect, and later became 'an allegory of Colonial America'. The English told themselves that they were unlike the French in Canada and Louisiana, who 'have scarce any other title to the country than what they obtained by usurpation, very seldom asking leave of the natives'.⁶⁵

Replicating all the formalities of English private property included the requirement that property be validated through mathematical surveys. Doing so in the New World, however, created new challenges which led ultimately to new dynamics reinforcing a concern for survey rationality to the point where many of the landowning class were familiar with the techniques of surveying. These challenges centred around the tensions between the high volume of land which had to be properly alienated and the scarcity, at least, initially, of expert practitioners. The immediate result was the accumulation of a great deal of power in the hands of surveyors. The continued availability of the surveying profession as a means of influencing the settlement of land, then, contributed to its attainment of a certain role in settler society and habitus. By the late eighteenth century, survey rationality and the importance of governing space through scientific

⁶³ Allan Greer, 'Dispossession in a Commercial Idiom: From Indian Deeds to Land Cession Treaties,' in Juliana Barr and Edward Countryman (eds), *Contested Spaces of Early America* (Philadelphia: University of Pennsylvania Press, 2014), 69-92.

⁶⁴ *Ibid.*, 69.

⁶⁵ *Ibid.*, 76-77.

and mathematical methods had only expanded from its sixteenth-century roots, to the point where it was arguably an integral part of the American Empire at the moment of its separation from the British Empire. Survey rationality pervaded both the episteme of the elite class of land-owners who set out and negotiated the terms of American independence and the expansionist policies undertaken by Congress which received their first major expression in the Northwest Ordinance of 1787.

In New Spain, settlement had begun before it was common to mathematically survey properties in Europe, and patterns of settlement that had developed over the course of the sixteenth century largely remained in place during the beginning of English settlements. In Portuguese Brazil, similarly, large landholdings went without any specified boundaries and could be marked with only a single stone.⁶⁶ But as historian Patricia Seed concludes in a comparative study of European territorial claims in the Americas, besides the English colonies, 'No other European colony employed surveyors so extensively; no other European colonists considered establishing private property or boundaries in the New World as central to legitimate possession'.⁶⁷ This section describes and explains the extent to which a concern for survey rationality became widespread in Anglo-American settler society. In short, the focus here is on the insistence on a state-guaranteed private property regime despite many challenges unique to the colonial context: amateurism among surveyors, combined with high volumes of settlement, including squatters and speculators, which created a confusion of claims, which became particularly violent towards Native Americans, who resisted settlers' claims. In a context combining all these factors, many settlers became familiar with surveying practices, and for the many settlers who owned land it was vital to secure these claims using surveys.

The scarcity of skilled, professional surveyors in the colonies, and the widespread parallel usage of improvised techniques resulted in a cacophony of boundary disputes, but did not diminish colonial reliance on surveys.⁶⁸ On the contrary, it encouraged some settlers to learn survey techniques on their own, and most colonial surveyors were self-taught. English surveying manuals were extremely popular, such as John Love's *Geodaesia*, published in six editions from 1688 to 1753, and written explicitly for American readers.⁶⁹ More traditional techniques such as

⁶⁶ Patricia Seed, *Ceremonies of Possession in Europe's Conquest of the New World, 1492-1640* (Cambridge: Cambridge University Press, 1995), 144.

⁶⁷ Seed, *Ceremonies of Possession*, 24.

⁶⁸ Greer, *Property and Dispossession*, 346-354.

⁶⁹ Martin Brückner, *The Geographic Revolution in Early America : Maps, Literacy, and National Identity*, (Chapel Hill: University of North Carolina Press, 2006), 27.

perambulations, or the practice of walking around the boundaries and committing them to memory, lived on in New England, but these were increasingly rationalized and stripped of their previously religious meaning by Puritans.⁷⁰ While by no means perfect or universal, mathematical surveying knowledge became widely dispersed enough that it could be referred to as 'a new form of popular literacy'.⁷¹

Yet the Crown and the colonial governments retained responsibility for making this private property regime workable despite amateurism in the surveying practice. This led to the emergence of a productive relationship between survey rationality and political power on the frontier of settlement which strengthened over a long period of time. Early Virginia provides a good example of this productive relationship, where surveying was seen as necessary for maintaining an orderly process of settlement, with no overlapping or fraudulent claims, and thus surveyors held the power to complete settler's claims to land.⁷² Virginia had a surveyor general by 1621, and by the late seventeenth century, the office of the surveyor general had become one of the most powerful in the colony because it appointed surveyors who controlled the parcelling out of crown lands into privately owned titles. While surveyors were not necessarily the highest-paid officials, their privileged access to land gave them important political and economic advantages. Because being granted one of these appointments as a surveyor was such a significant political favour, the surveyor general was able to gather a sizeable faction within the Virginia Assembly. Perceptions of cronyism among surveyors were one of the major political issues of the time, and it contributed to general outrage at government corruption and threats of rebellion.

The main solution to the problem of favouritism in the distribution of crown land envisioned by the colonial elite was a technical one, not a political one, through an intensification of survey rationality. Whereas this problem in other contexts might have been a reason to find some other means of legitimating land titles besides through surveys, in Virginia the demand was for surveys to become more accurate and correct, in order to avoid fraudulent surveys. Amidst a period of contentious boundary disputes in Virginia, a law was passed in 1642 requiring that all surveyors 'should deliver an exact plott to each parcel surveyed and measured'.⁷³ Maryland, likewise, in

⁷⁰ Stilgoe, 'Jack-o'-lanterns to surveyors'.

⁷¹ Brückner, *The Geographic Revolution in Early America*, 17.

⁷² Sarah Hughes, *Surveyors and Statesmen: Land Measuring in Colonial Virginia* (Richmond, Va.: Virginia Surveyors Foundation, 1979), 8-19.

⁷³ Roger Kain and Elizabeth Baigent, *The Cadastral Map in the Service of the State: A History of Property Mapping* (Chicago: University of Chicago Press, 1992), 269.

1674 doubled fees for surveyors who used a chain and circumferentor, the best technology available. These laws were justified by the amount of litigation that was required in cases of overlapping claims, whether these were a result of genuine mistakes or fraud on the part of the surveyors. A 1659 Virginia law, for example, began, 'whereas many contentious suites do arise about titles to land, occasioned much through the fraudulent and underhand dealing of surveighors who frequently make sale of the surveighs by them made, in the behalfe of one person to another, whereby often times he that had the first and justest right is unjustly deprived of his due...'⁷⁴ As the pace of settlement increased, the problem of speculators also arose. With surveyors willing to turn a blind eye in order to make extra fees, speculators could end up claiming land many times over. For example, in Franklin County, Georgia, 5 million acres of claims were approved, more than ten times the county acreage.⁷⁵

The role of surveys in controlling settlement contributed to a colonial environment where surveyors were associated with a certain social rank, and the distinctions between politicians, landowners, and surveyors were often blurred. Similar in its requirements of technical knowledge and the possibility of formal certification, surveying was socially analogous to the medical or legal professions. 'Their satin waistcoats, brocaded vests, patent slippers, and powdered wigs were of the latest English fashions'.⁷⁶ Many owned slaves. Surveying manuals such as John Wing's *The Art of Surveying* and John Love's *Geodaesia* could be found in the libraries of gentlemen planters, especially those who were not even surveyors themselves. Even when many of the old surveying families gave up the profession in the late eighteenth century as settlement moved westward, they continued to occasionally fill the Virginia governorship into the mid-nineteenth century. While surveyors' status, income, and level of professionalization varied with the particular time and place, the ability to demarcate boundaries convincingly was in all Thirteen Colonies a desirable skill which conferred important advantages.

George Washington provides a good example of the ways in which the early American elite, the burgeoning real estate market, and the surveying practice implicated each other. At age 11 in 1743, Washington's schooling covered mathematics, including geometry, trigonometry, and surveying, along with writing and 'Rules of Civility', all important practical preparation for becoming a planter and land speculator, and for entering Virginia's ruling class.⁷⁷ When he was seventeen he secured an appointment as a county surveyor for Culpeper County, probably

⁷⁴ Hughes, *Surveyors and Statesmen*, 11.

⁷⁵ Kain and Baigent, *The Cadastral Map*, 275.

⁷⁶ Hughes, *Surveyors and Statesmen*, 156.

⁷⁷ Paul Longmore, *The Invention of George Washington* (London: University Press of Virginia, 1999), 6-14.

through family connections. It was through this surveyorship that he made his start in the lucrative business of acquiring, planting, and selling land, which helped propel him to wealth and prominence. Washington's direct experience in surveying was something he had in common with six of the fifty-six signers of the Declaration of Independence and two others of the four men depicted on Mount Rushmore.⁷⁸

As settlers transitioned from the precarious establishment of coastal colonies in the seventeenth century towards the domination of the North American continent in the late eighteenth and nineteenth centuries, the importance of establishing accurate and reliable boundaries as a political issue deepened. This is especially apparent, directly following US independence, in the way in which Congress explicitly used surveys to entrench its sovereignty where it was still weak, in the vast lands ceded to the US by Britain which were not integrated into any state.⁷⁹ The semi-constitutional Land Ordinance of 1785 specified in detail the technical procedures to be used in these surveys, the integrity of which was crucial:

A surveyor from each state shall be appointed by Congress, or a committee of the States, who shall take an Oath for the faithful discharge of his duty, before the Geographer of the United States...The lines shall be measured with a chain; shall be plainly marked by chaps on the trees, and exactly described with a plat...⁸⁰

Dividing up this territory into small plots of land as accurately and precisely surveyed as possible, it was thought, would help do this for three reasons. First, there were frequent wars with Native Americans who rejected settlers' claims. US leaders were confident that settlement would progress despite this, but they did aim to make sure settlement was organized in order to contain the violence involved in rapidly redistributing land. Many settlers proceeded west on their own terms, swayed by narratives of abundant land beyond the Ohio River. These squatters were construed as barely more 'civilized' than the Native Americans, and they took much of the blame for the violence of settlement. In addition, selling this land was one way Congress could

⁷⁸ The six surveyors who signed the Declaration were Stephen Hopkins, Thomas Jefferson, John Morton, Roger Sherman, and James Smith. Of the four statues on Mount Rushmore, Thomas Jefferson, Abraham Lincoln, and George Washington were surveyors. Robert Conrad (ed), *Sanderson's Biography of the Signers to the Declaration of Independence* (Philadelphia: William Brotherhead, 1865); Lola Cazier, *Surveys and Surveyors of the Public Domain* (Washington: US Department of the Interior, Bureau of Land Management, 1976), 10-11.

⁷⁹ Peter Onuf, *Statehood and Union: A History of the Northwest Ordinance* (Bloomington, IN: Indiana University Press, 1987); Bill Hubbard Jr., *American Boundaries: The Nation, the States, the Rectangular Survey* (Chicago: University of Chicago Press, 2009).

⁸⁰ Onuf, *Statehood and Union*, 22.

gain badly needed revenue, which squatters threatened to take away. Second, some settlers, such as in Vermont, organized themselves into their own states, initially independent of Congress's sovereignty. 'In the course of a few years the [Ohio] country will be peopled like Vermont', as some Congressional delegates reported in 1783.⁸¹ 'It will be independent, and the whole property of the soil will be lost forever to the United States'. Third, jurisdictional conflicts between states continued and proliferated as they had between British colonies, but with the added problems of a relatively weak central authority and a new and untested constitutional framework at the foundation of the legal system. In a few cases, these conflicts became violent, and it was seen as essential that a legal framework for resolving them was established, which inevitably relied on the accuracy of surveys.

Linear Boundaries: The Colonial Inflection of Enclosure

The transformation of property boundaries through the rise of survey rationality in the sixteenth century did not immediately result in a similar transformation of borders between states and principalities in Europe. As Jordan Branch has shown, until the 1815 Congress of Vienna, treaty texts indicate that European territory continued to be typically defined and understood as a series of listed places and feudal rights rather than as one homogenous space, with everything on one side of a line belonging to one territory, and everything on the other side belonging to another.⁸² Because of the particular significance of survey rationality in settler colonial society outside Europe, however, the absolute geometrical precision expected of property boundaries also came to be expected of larger-scale borders, in a process which is the focus of this section.

In the context of the English colonies in North America, private property surveying was a major factor in the emergence of precise international boundaries. There were two main reasons for this upscaling of survey rationality. First, as explained in the previous section, many settlers were familiar with the practice of surveying, either by first-hand experience, or simply by participating in their society. This made referring to surveys seem a natural response to disputes over how to translate a line which was described in a legal document into an actual demarcated boundary. Second, in many cases, because of the multiplicity of government bodies within the empire able to grant land, local private property disputes could quickly become linked directly to inter-

⁸¹ Onuf, *Statehood and Union*, 29.

⁸² Branch, 'Colonial Reflection'.

colonial disputes. As private properties could only be in one colony at a time, colonial governments usually shared boundaries with private properties, and if these properties were to be surveyed, this would have a direct impact on the colonial territory. Moreover, obtaining a title from a colony was of limited value if that colony's control over the area was uncertain. Violent territorial disputes between Pennsylvania, Maryland, and indigenous inhabitants deterred settlement for decades and prompted government officials to hire surveyors Charles Mason and Jeremiah Dixon from England to demarcate the intercolonial boundary, known as the Mason-Dixon line.⁸³ After decades of disputes, then, colonial governments began to survey territorial boundaries more often, in order to clear the way for settlers' titles to be legitimated by surveys.

It is important to remember that in the seventeenth century, in the absence of a nation-state system, borders could not be 'international' in the sense we understand today. For that reason, some caution is due in drawing too clear a distinction between 'internal' administrative borders and 'external' inter-imperial borders. In some empires, such as the English empire, provincial governors could act with much autonomy, even to the point of going to war against each other. In that sense, the surveyed inter-colonial borders of the English North American colonies were already 'international' in the mid-seventeenth century. Yet at the same time, the distinction between inter-colonial and inter-imperial borders was historically important not least because there was an intervening period of about a century between the time at which mutually recognized borders of considerable precision were common between the English colonies and the time at which they were common between European empires in the Americas. It is worth considering, then, the process by which the precision expected early on of inter-colonial borders later came to be applied to inter-imperial borders.

Intra-Imperial Boundaries

Before widespread attempts to specify precise boundaries with other empires, and long before European borders were linearized by treaty, it became commonplace to refer to survey techniques in cases of lower-level border disputes in the English colonies. Inter-colonial boundary surveys were then often seen as a direct result of local property disputes, especially

⁸³ Allan Kulikoff, *From British Peasants to Colonial American Farmers* (Chapel Hill: University of North Carolina Press, 2000), 145; Patrick Spero, *Frontier Country: The Politics of War in Early Pennsylvania* (Philadelphia: Pennsylvania University Press, 2016), ch. 4.

those which arose when different land-granting authorities encroached on each other. In the Puritan settlements of the Plymouth and Massachusetts Bay colonies, where towns allocated property to colonists, local town boundaries were constantly disputed and represented significant political issues for the early colonists.⁸⁴ The boundary between the towns of Barnstable and Sandwich, for example, had to be surveyed four times between 1637 and 1660 due to bitter controversy. While amateurism was certainly rife among surveyors, as the profession was in its infancy, and skilled practitioners were difficult to come by west of the Atlantic, the value placed in the calculative science of land measuring was perhaps higher here than anywhere else at that time.

William Bradford, the governor of Plymouth Colony, reports how an early boundary dispute arose between the towns of Hingham and Scituate over a tract of land they each aimed to divide up and distribute for private ownership. The dispute was not only over town lines but also over inter-colonial lines, as Scituate was in Plymouth Colony and Hingham was in Massachusetts Bay Colony:⁸⁵

Those of this plantation having at sundrie times granted lands for severall townships, and amongst the rest to the inhabitants of Sityate...this tracte of land extended to their utmost limets that way, and bordered on their neigbours of the Massachusets, who had some years after seated a towne (called Hingam) on their lands next to these parts. So as now ther grue great difference betweene these 2 townships, about their bounds, and some meadow grownds that lay between them. They of Hingam presumed to alotte parte of them to their people, and measure and stack them out. The other pulled up their stacks, and threw them. So it grew to a controversie betweene the 2 goverments, and many letters and passages were betweene them aboute it; and it hunge some 2 years in suspense...In the end boath Courts agreed to chose 2 comissioners of each side, and to give them full and absolute power to agree and setle the bounds betwene them; and what they should doe in the case should stand irrevocably.

The two colonies then agreed to determine their boundary by appointing a 'mathematician and surveyor', Nathaniel Woodward, who later went on to survey the Connecticut-Massachusetts border in 1642, along with Solomon Saffery.⁸⁶ The border between New York and Connecticut was also partially surveyed first in 1684. Here geometrical analysis was particularly important

⁸⁴ H. Roger King, *Cape Cod and Plymouth Colony in the Seventeenth Century* (Lanham: University Press of America, 1993), 199-215.

⁸⁵ William Bradford, *History of Plymouth Plantation, 1620-1647* (Massachusetts Historical Society, 1912), 274-277.

⁸⁶ Clarence Bowen, *The Boundary Disputes of Connecticut* (Boston: James Osgood and Co., 1882), 19.

for achieving an agreement, as New York was only persuaded to give up what is now the 'Connecticut Panhandle' by receiving in exchange a strip of territory equal in area which is less than two miles wide and stretches along most of the length of Connecticut's western border.

In the southern colonies, land was granted through the colonial government itself rather than through townships, as in New England. Yet this did not remove the problem of multiple land-granting authorities. Due to uncertainty and potential overlap between the Crown Colony of Virginia and the proprietary colony of Carolina, would-be settlers could apply for land on the frontier from either authority. According to one of the survey officers who later ran the official borderline, 'the Crown was like to be the loser by this Incertainty, because the Terms of both taking up and seating Land were easier much in Carolina'.⁸⁷ Many of these surveys had to be repeated multiple times due to inaccuracies and disagreements, and often were not settled until the eighteenth or nineteenth centuries. It is clear, however, that boundaries were already considered by political officials to be subject to the authority of mathematical and geometric knowledge by the seventeenth century.

While many histories emphasize the inaccuracies of the English colonies' early surveys, they still differed significantly from other settler communities simply by making such a concerted effort to scientifically rationalize space. In New Spain, for example, mathematical survey methods were mostly unused before the eighteenth century, while various other traditions developed.⁸⁸ While the ambitions of Philip II to have a survey of New Spain never materialized, the collection of cartographic information by questionnaires sent to colonial officials was one common method used. Early Spanish colonists were generally uninterested in maps, associating the visual arts with Indian cultures whose writing systems were based on pictograms. The maps that were returned with the questionnaires, then, tended to be made by Indians, contrary to the wishes of the Peninsular geographers, and generally did not correspond to their geometrically rationalized ideas of space. Mathematical textbooks on geometric surveying were hardly anywhere to be found in New Spain, and even the copy of Ptolemy's *Geography* held by a Franciscan monastery near Mexico City was sold away in 1584 on account of being 'useless'. A typical land grant, or *merced*, described the place and extent of the land to be granted but specified little in the way of boundaries, for example:

⁸⁷ William Boyd (ed), *William Byrd's Histories of the Dividing Line betwixt Virginia and North Carolina* (Raleigh, NC: The North Carolina Historical Commission, 1929), 11.

⁸⁸ Barbara Mundy, *The Mapping of New Spain: Indigenous Cartography and the Map of the Relaciones Geographicas* (Chicago: University of Chicago Press, 1996); Jonathan Amith, *The Möbius Strip: A Spatial History of Colonial Society in Guerrero, Mexico* (Stanford, CA: Stanford University Press, 2005).

I give a *merced* to Francisco Lopez of a *sitio de estancia para ganado mayor* and two *caballerias* of land in the vicinity of the pueblo of Tepequacuylo in a plain and flat savanna a short league more or less from the aforementioned pueblo, between two ancient and abandoned settlements...the center of the aforementioned *sitio* is to be in between the said two ancient settlements, and it shall run from north to south toward the road that goes to Acapulco.

Distances were often maintained by law between properties and settlements, but this did not necessarily translate into a continuous boundary. The common method of survey that was used was a *vista de ojos*, or 'eye's view', in which a common unit of measurement was 'more or less a musket shot'.

With property rights defined, in the early colonial period, in terms that combined earlier Spanish practices with indigenous techniques, rather than according to the kind of survey rationality implemented in the English colonies, the administrative boundaries of the Spanish Empire similarly followed a different trajectory, which can be illustrated with reference to the boundaries of the Viceroyalty of New Granada. The Viceroyalty was created via the Real Cedula del 27 de mayo de 1717, which read as follows:

And I have also resolved that the territory and jurisdiction that the said Viceroy, Audiencia, and court of accounts of the city of Santa Fe must have, is the entire province of Santa Fe, the new kingdom of Granada, those of Cartagena, Santamarta, Maracaibo, that of Caracas, Antioquia, Guayana, Popayan, and that of San Francisco de Quito, with all the rest that is included in their boundaries.⁸⁹

This level of generality was common in the Spanish dominions, and from the perspective of lawyers of the nineteenth century and later attempting to determine the limits of administrative divisions in order to make or evaluate territorial claims on behalf of Latin American republics, these boundaries were generally of a very unsatisfactory level of precision. To take another example, El Salvador and Honduras agreed in a 1992 boundary dispute that in principle the basis for their land frontier would be whatever administrative division was in force at the moment of

⁸⁹ *Contestación de Venezuela al Alegato de Colombia* (Madrid: Est. Tipográfico de los Sucesores de Rivadeneyra, 1884), 423-425.

independence in 1821, but 'neither party was able to produce any evidence indicating, with the authority of the Spanish Crown, the location of the boundaries in the disputed areas'.⁹⁰

In New France, administrative divisions were even less clear than the *cedulas* promulgated before the mid-18th century. In a similar fashion to the nineteenth- and twentieth-century debates over post-revolutionary Latin American boundaries, the particular kind of ambiguity surrounding French administrative divisions can be seen in disputes which arose in trying to retrospectively make sense of internal boundaries in order to use them as inter-imperial boundaries. For example, in the 1713 Peace of Utrecht, England received 'Nova Scotia also, otherwise Acadia, in its entirety, conformable to its ancient limits; as also the town of Port Royal, now called Annapolis Royal, and generally all the dependences of the said land...'.⁹¹ But what were these 'ancient limits'? A boundary commission appointed in 1749 was unable to find any. Despite being critical of using maps as a source of geographical knowledge, the commissioners generally based their claims on maps. The French commissioners, for example, pointed to English maps that placed the name Acadia over less territory than the English claimed, and the English pointed to French maps that indicated a larger Acadia. They do not seem to have considered any opinions of inhabitants of the disputed area on whether it counted as Acadia. The commission did not come to a conclusion before it was ended by the outbreak of war between the two empires in the Ohio Valley.

Similarly, at the end of the Seven Years' War, with France's decisive defeat by England and its Aboriginal allies in Canada, how much territory would go to the English? France's initial position was that since the whole Ohio Valley was part of the French Louisiana territory rather than Canada, it should remain French.⁹² But the French were then made aware that their captured governor-general, the Marquis de Vaudreuil, had informed the English that the boundaries of Louisiana in fact excluded most of the Ohio Valley, following a line from the source of the Mississippi River to the source of the Wabash River, then down that river to the Ohio River and the Mississippi. The French government then claimed that Vaudreuil was basing his line not on any formal demarcation but on an internal administrative debate, and that being based in Canada, he would naturally exaggerate his own side's territorial extent.

⁹⁰ Peter Bekker (ed), *Commentaries on World Court Decisions* (The Hague: Martinus Nijhoff, 1998), 143.

⁹¹ Mary Pedley, 'Map Wars: The Role of Maps in the Nova Scotia/Acadia Boundary Disputes of 1750'.

⁹² Frank Brecher, *Losing a Continent: France's North American Policy, 1753-1763* (Westport, CT: Greenwood Press, 1998), 177-178.

Episodes such as these suggest that clarifying administrative boundaries had not been a priority for the French Empire before the mid-eighteenth century in anywhere near the way it was for the English colonies in North America. The limited reach of French administration into areas it considered part of New France with sparse or no settler population may partially explain the low importance of the precise locations of boundaries.

Inter-Imperial Boundaries

Before the mid-eighteenth century inter-imperial treaties specifying precise boundaries were very limited. The idea of agreeing with neighbouring empires on a border which could theoretically be demarcated surfaced in particular contexts, but proved, for the time being, impossible to follow through with. This can be seen as early as the 1494 Treaty of Tordesillas, which called for a joint commission including geographers to agree on and survey the line of demarcation. That commission never met, but when subsequent treaties in 1524 and 1529 called for commissions, they managed to meet but could not come to an agreement. The same dynamic repeated itself in the seventeenth century when the Governor of New Haven proposed a border agreement with the neighbouring Dutch colony of New Netherlands. The resulting 1650 Treaty of Hartford called for a temporary line to be drawn 'upon Long Iland...from the westernmost part of the Oyster Bay soe and in a straight and direct lyne to the sea', and on the mainland, 'to begine at the west side of Greenwidge Bay, being about 4 miles from Stanford, and soe to runne a northerly lyne twenty miles up into the cuntry, and after as it shalbee agreed by the two goverments of the Duch and of Newhaven...' The two governments never further specified, however, because they went to war in 1652-4, after which England refused to ratify the treaty, and instead granted Connecticut a charter in 1662 which indicated the Pacific Ocean as the colony's western border.

Of the major pairs of European empires in North America during this period, the British and French perhaps came closest to a boundary agreement, yet repeated efforts failed. As early as the negotiations leading to the 1667 Treaty of Breda, the territorial definition of Acadia came into question, as British and French colonial charters had long overlapped, but the treaty specified no boundaries.⁹³ In the 1697 Treaty of Ryswick, Britain and France committed to returning to each other any territory captured in King William's War and to establish a joint

⁹³ Paul Demers, 'The French Colonial Legacy of the Canada-United States Border in Eastern North America, 1650-1783', *French Colonial History*, 10 (2009), 38.

commission 'invested with sufficient Authority for settling the Limits and Confines of the Lands to be restor'd', but the commission never took place, and both sides kept the captured posts.⁹⁴ In the 1713 Treaty of Utrecht a commission was again called for in order to establish the inter-imperial boundary, part of which would conform to the 'ancient limits' of Acadia. Yet again the commission clause was ignored. A 1737 report to the lieutenant-governor of New York noted, 'I know of no Regulations for Determining the Boundaries between New York & Canada'.⁹⁵ Finally, following the 1748 Treaty of Aix-la-Chapelle, the commission was appointed and met in 1750-1755, but they were unable to find any 'ancient limits' of Acadia amidst a mass of conflicting evidence, and did not produce any results before the 1754 outbreak of the French and Indian War, and the resulting collapse of New France.

In the area of contact between Spanish Texas and French Louisiana, boundary arrangements remained informal into the early eighteenth century.⁹⁶ Spain never recognized France's right to Louisiana at all, but stopped just short of invading it in 1721, when a Spanish presidio was built twelve miles away from the outlying French post of Natchitoches. After the Spanish officials declared their intent to stay, the French official responded that he had no 'specific orders to agree to this or to prevent it', and they agreed between them to uphold in America the 'truce which existed in Europe between the two crowns'.⁹⁷ A similar frontier zone with Spanish Florida was opened up by the British settlement of Carolina in the late seventeenth century. A main point of reference here was the 1670 Treaty of Madrid, which did not mention any borders, or even any specific places, only acknowledging and legalizing whatever actual settlement existed, but the colony of Georgia was later founded in defiance of this.⁹⁸ Several attempts were made to negotiate a border in the early eighteenth century, but none ever materialized, amidst recurring frontier skirmishes.⁹⁹

The absence of precise agreed inter-imperial boundaries for much of the period of European empires in the Americas cannot be reduced to simply an outcome of a lack of close contact between settlements. Rather, the lack of such borders was part of a geopolitical system of amity

⁹⁴ Ibid., 40; Israel, *Major Peace Treaties*, 147.

⁹⁵ E. B. O'Callaghan, *The Documentary History of the State of New-York* (Albany: Charles van Benthuyssen, 1851), 178.

⁹⁶ David Weber, *The Spanish Frontier in North America* (London: Yale University Press, 1992), ch. 6.

⁹⁷ Francis Galán, 'Last Soldiers, First Pioneers: The Los Adaes Border Community on the Louisiana-Texas Frontier, 1721-1779' PhD Dissertation, Southern Methodist University, 2006, 29.

⁹⁸ Frances Davenport, *European Treaties Bearing on the History of the United States and its Dependencies, Vol. II, 1650-1697* (Washington, DC: Carnegie Institution of Washington, 1929), 193-196.

⁹⁹ Verner Crane, *The Southern Frontier, 1670-1732* (Tuscaloosa: University of Alabama Press, 2004), ch. 10.

lines, which was maintained as legitimate at different times by different empires. The amity lines, usually drawn along the Prime Meridian through the Canary Islands, meant that 'beyond the line' there was no peace, and therefore no need for specifying any boundaries. In particular, Spain long insisted on upholding the Treaty of Tordesillas, as this meant that most of the American continents would remain Spanish, regardless of any non-Christian powers or any Christian settlements founded west of the line of demarcation after 1494. While the line of demarcation was only heeded by the Spanish and Portuguese, in only the vaguest way, and no attempt to find it on the ground ever took place, it was the only line that had any legitimacy, according to Spain and Portugal. During the period of clear Spanish military superiority over other European empires, the system of amity lines enabled Spain to enforce this vast claim without provoking a legitimate response in Europe. In the seventeenth century, the notion of 'no peace beyond the line' was invoked repeatedly but inconsistently by different powers, depending on the context. Thus, while the line of demarcation can in one sense be read as a linear border, which could theoretically have been surveyed and implemented, the geopolitical order legitimated by the Treaty of Tordesillas, at the same time, precluded any other borders from legitimately being drawn. As Lauren Benton has insisted, territoriality in these contexts did not correspond to simple coloured areas on maps.¹⁰⁰

Moreover, the way in which Native Americans and Europeans adapted to each other's presence meant that in many cases the methods of dividing territory that were called for were closer to traditional Indian practices than any linear division. In particular, France relied heavily on alliances with Indians, based on the fur trade, to maintain its claims over vast expanses of territory beyond its power base in the St Lawrence River Valley. As a result, to a large extent French suzerainty coincided with boundaries that Indians understood better than the French, who had little reason, or capacity, to interfere with such boundary conceptions.

The first major inter-imperial border in North America fixed as a specific, explicitly described geographical line in a European treaty, without passing on the entire process to a commission, was the British-French boundary in the 1763 Treaty of Paris, which, 'In order to re-establish peace on solid and durable foundations, and to remove for ever all subject of dispute with regard to the limits of the British and French territories on the continent of America', drew the border along the middle of the River Mississippi.¹⁰¹ Following the conclusion of the treaty, the British

¹⁰⁰ Lauren Benton, *A Search for Sovereignty: Law and Geography in European Empires, 1400-1900* (Cambridge: Cambridge University Press, 2010).

¹⁰¹ Israel, *Major Peace Treaties*, 310.

government immediately set bounds to its new Province of Quebec in the Royal Proclamation of 1763. Much of the boundary between Quebec and the Thirteen Colonies consisted of the 45th North Parallel, which was surveyed in the early 1770s.¹⁰² The Royal Proclamation thus paved the way for the 1783 Treaty of Paris, which described the boundaries of the entirety of the newly independent United States in what was, for the time, an extraordinary level of detail. In the late 1790s the boundary between the United States and Spanish Florida was surveyed by Andrew Ellicott, who had worked on continuing the Mason-Dixon Line, as well as the Ohio-Pennsylvania Line, and on laying out the city of Washington, DC along with Benjamin Banneker.¹⁰³

In addition to boundaries between European empires, the second half of the eighteenth century also witnessed multiple treaties establishing linear borders between settlers and Native Americans. Most famously, the 1763 Royal Proclamation reserved for the Native Americans 'all the Lands and Territories lying to the Westward of the Sources of the Rivers which fall into the Sea from the West and North West as aforesaid'.¹⁰⁴ While a somewhat vague definition at first, the line was, in some significant parts, surveyed and demarcated by a team of British technicians, with Native American observers accompanying them and making their own demarcations.¹⁰⁵ Individual colonies also concluded linear boundary agreements with Native American polities which were often almost immediately transgressed and renegotiated, but nonetheless surveyed and demarcated in much the same way intercolonial boundaries were, despite their frequent absence from both contemporary and current maps.¹⁰⁶

The territorial practices of European empires in North America, then, were characterized at first by vague frontiers, and attempts to agree on boundaries either failed or did not take place. Then, around the mid-eighteenth century, there was a rapid shift towards demarcation. The need for fixed boundaries was not simply an outcome of settlement in general, but of the particular kind of settlement characterizing especially the British colonies, which, as a result of the colonial inflection of the enclosure movement, systemically depended on survey rationality. The settlers of the Thirteen Colonies, many of whom were quite familiar with the politics of settling boundaries by technical means, either because they had direct experience in surveying, or

¹⁰² Francis Carroll, *A Good and Wise Measure: The Search for the Canadian-American Boundary, 1783-1842* (Toronto: University of Toronto Press, 2001), 70.

¹⁰³ Cazier, *Surveys and Surveyors*, 21-22.

¹⁰⁴ James Crutchfield, Candy Moulton, and Terry Del Bene (eds), *The Settlement of America: An Encyclopedia of Westward Expansion*, (New York: Routledge, 2011), 541.

¹⁰⁵ S. Max Edelson, *A New Map of Empire: How Britain Imagined America before Independence* (Cambridge, MA: Harvard University Press, 2017).

¹⁰⁶ Louis DeVorse, Jr, 'Indian Boundaries in Colonial Georgia', *The Georgia Historical Quarterly* 54:1 (Spring, 1970), 63-78.

simply because they were landowners in a rapidly expanding settler society, were taking an increasingly larger role in negotiations. In particular, with the independence of the Thirteen Colonies, negotiations between British settlers and the Crown, which would previously have counted as intra-colonial affairs, were now affairs between two sovereign nations. These settlers were particularly conscious of the surveying of boundaries because, given their recent arrival, this is what secured their right to these lands against squatters, accusations of being squatters themselves, and especially against those who already occupied the land beforehand.

The British government, for its part, had its own reasons for shifting towards fixed boundaries. After over a century of boundary disputes between the American colonies, it could reasonably expect new ones to arise on the Canadian border. The interest of the British government, then, was no longer in extending its claim as far to the north as possible, but rather in providing a clear and reliable territorial structure which could easily and legitimately resolve disputes. Unlike international arbitrations like the one which dealt with the dispute over Acadia's boundaries, which dragged on for years with no resolution, arbitrations between colonies by the Crown were much simpler and more likely to return effective results. While New England and Canada were under two different crowns, it was typical of the early modern international order in the Americas for frontiers to be kept vague. The two empires would make unilateral claims and substantiate them with settlements or military occupation. When they were united under the British Crown, however, that border became an intercolonial border, and thus it was also typical for it to be, just as the other British intercolonial borders tended to be, fixed, surveyed, and demarcated.

The French Empire, on the other hand, had maintained its expansive control primarily through other means. Compared to the British, the French relied extensively on alliances and hierarchies in a network of Native American connections. With a much lower settler population, French authorities were less interested in acquiring land for direct use by European settlers, and focused more on establishing trading networks. Because the French depended more on already existing systems of rule, they had less reason, or ability, to redefine political control by fixing linear boundaries, especially at the edges of imperial authority. In this sense, some Native Americans may have had a better sense of the boundaries of New France than French authorities did. The lines of latitude marking the boundaries between many of the British colonies, which extended far beyond actual settlement and even beyond the limits of geographical knowledge, would have made little sense in the French context, as future settlement in these areas was not imminently anticipated. The dramatic collapse of New France, then, along with that of many of

its Native American allies, also contributed to the shift towards fixed boundaries in North America, by dealing a substantial blow to resistance against Anglo-American hegemony.

Conclusion

This chapter, in line with recent attempts to theorise the ways in which global modernity and international relations emerged out of colonial relations rather than out of the diffusion or expansion of structures and practices from one part of the world outwards, has shown how the settler colonial context of British North America is key to explaining the emergence of fixed and linear borders. Survey rationality, understood as the legibility of both property and territorial spaces from a surveyor's perspective, became a significant societal concern as a result of the English enclosure movement just before and during the onset of English settler colonialism in North America. But the particular significance that survey rationality took on in the settler colonial context meant that it had implications there that it did not have in European metropolises. Amidst the uncertainties involved in settlers' claiming of land, including violent conflict with already existing Native American claims to the land, rampant squatting, speculation, and fraud, and the difficulty of colonial oversight of the frontier, the practice of mathematical surveying was seen as a solution to these problems and thus took on a powerful role in society. As a result, inter-colonial borders were fixed and surveyed in a way that they were not in other European empires. Moreover, ultimately the borders of the British Empire itself began to be precisely delineated, with the independent United States governed in large part by a landowning class closely familiar with the practice of surveying land.

The politically transformative implications of surveying practices highlighted here are especially relevant today in the context of the global South, in many areas of which land tenures are currently being rapidly redistributed.¹⁰⁷ In this context, the formalization of customary land tenures is not a distant historical legacy but is both an ongoing reality and a major topic of scholarly debate.¹⁰⁸ Many have claimed that formalizing property rights, which necessarily entails quantitative surveys, can ameliorate some of the world's worst conditions of poverty. As economist Hernando de Soto argues, the poor of the global South experience too little benefit

¹⁰⁷ Annelies Zoomers, 'Globalisation and the foreignization of space: seven processes driving the current global land grab', *Journal of Peasant Studies* 37:2 (2010), 429-447.

¹⁰⁸ Espen Sjaastad and Ben Cousins, 'Formalisation of land rights in the South: An overview', *Land Use Policy* 26 (2008), 1-9.

from capitalism because of their unclear property claims: 'In the West, by contrast, every parcel of land, every building, every piece of equipment or store of inventories is recorded in a property document that is the visible sign of a vast hidden process that connects all these assets to the rest of the economy.'¹⁰⁹ A crucial part of this 'hidden' process is the commodification of land through surveying practices. In the context of the seventeenth-century English countryside, many argued that surveys simply allowed landlords to 'know their own'. Some arguments in favour of property formalization today are similar, in that they aim at increases in property values emerging from rationally ordered knowledge and measurement of what is thought to already exist. As de Soto writes, 'most of the poor already possess the assets they need to make a success of capitalism...But they hold these resources in defective forms: houses built on land whose ownership rights are not adequately recorded...' For some surveyors, this has made it important to understand the key role that the profession plays in the constitution of land rights in the global South and to search for new technologies and techniques, ultimately with the intended aim of achieving 'agricultural growth potential' and addressing world poverty and hunger.¹¹⁰

Critics of large, comprehensive surveying structures have argued that they create a dilemma between cost and effectiveness; either surveys will be prohibitively costly for developing countries, or they will be inaccurate and proliferate disputes.¹¹¹ Moreover, it is unclear whether the diversity of 'rights on the ground' can be integrated into one national framework without altering those rights in some way. This chapter sheds new historical light on these issues and raises questions for further research. Can mathematical surveys ever simply record 'what is already there', or does it always involve some kind of dispossession? Can they ever benefit subalterns, or do they always result in variations on their historical origins? Whether we analyse England, English colonies, or places elsewhere, surveying often involves the imposition of formalized, geometric limits where customary boundaries had existed previously, and where the precise locations of boundaries had been to some extent left to locals to define in whatever workable way they might. Control over the methods and techniques by which boundaries are defined, we have seen, is an integral part of the ability to control access to space. Viewed from the perspective of international politics, the collapse of any absolute distinction between these

¹⁰⁹ Hernando de Soto, *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else* (London: Black Swan, 2001), 6.

¹¹⁰ Paul van der Molen, 'Food security, land use and land surveyors', *Survey Review* 49:353 (2017), 147-152.

¹¹¹ Camilla Toulmin, 'Securing land and property rights in sub-Saharan Africa: The role of local institutions', *Land Use Policy* 26 (2008), 10-19.

two forms of power—the physical means of coercion and the monopolization of the ability to make certain forms of geographical measurement and calculation appear unambiguously valid—should become as apparent as it was to those who, in many different times and places, have resisted the encroachments of surveyors.

Chapter Five

The Logic of 'Civilization'

The logic of private property and the social forces which ensured its expansion make up a substantial part of the conditions of possibility for the increasing attempts to make territorial boundaries conform to survey rationality since the seventeenth century, not just in the Americas. In continental Europe, the rise of the state-controlled cadastre roughly coincided with the linearization of territorial borders that became systematic at the post-Napoleonic Congress of Vienna and was set in motion by a round of boundary surveys which lasted well into the 1820s.¹ The state cadastral survey extended a not dissimilar logic of control over the countryside to that which Anglo-American governments had previously been using, and in so doing, firmed up property boundaries in a way that could be useful to international boundary surveyors.

Yet the geometric parcellization of landownership at the turn of the nineteenth century was not universalized within the British Empire, let alone outside of it. Agrarian capitalism did not transform common-sense spatial practices so radically that other forms of space could not be imagined, nor is it a total explanation for the linearization of boundaries. As this chapter will show, the agents of European empires continued to participate in the production of spaces in the nineteenth century which bore little resemblance to survey rationality. While most of the chapter focuses on West Africa, I begin with British India in order to show how the capitalist logic of the British East India Company, as it transitioned in the late eighteenth century towards extracting wealth directly from land rather than from trade, was at first not enough to force it to linearize borders.² Then, I show how different varieties of colonial spaces continued to proliferate in West Africa, and attempts to establish precise territorial boundaries there before 1870 were almost non-existent. This was because the territorial order of European imperialism in the region was based on colonial treaties with local rulers, which developed as institutions separately from other contexts. This system, which generally did not involve precise borders, made attempts to linearize borders largely unnecessary, and as long as it held together, the reasons for avoiding fixed boundaries tended to outweigh the reasons in favour of linearization.

¹ Edward Hertslet, *The Map of Europe by Treaty*, vol. I (London: Butterworths, 1875); Roger Kain and Elizabeth Baigent, *The Cadastral Map in the Service of the State: A History of Property Mapping* (Chicago: University of Chicago Press, 1992).

² By 'West Africa' I mean a region constituted by a particular set of colonial territorial patterns, including the west coast of Africa between the Sahara Desert and the Anglo-Dutch settler colonies of South Africa, as well as certain portions of the adjoining continental interior.

Early signs of change in this system can be seen in the 1860s and 1870s as territorial disputes of European officials and merchants became more prominent, but only in the 1880s did a new system of inter-imperial linear boundaries begin to replace the old system.

The central argument of this chapter is that in order to explain the linearization of borders in West Africa, and to some extent the universalization of linear borders more generally as it crystallized in the late nineteenth century, the key is to understand ordering practices increasingly based on the idea of 'civilization'. It was this idea which came to be articulated with survey rationality by the end of the nineteenth century. Imperial officials had long been making treaties with local rulers and recognized these treaties as evidence of territorial claims. Within the political context of early nineteenth-century West Africa, this system suited the colonial powers well enough, and the natural law tradition had provided a useful theoretical rationalization for the contracting of treaties with non-Christian polities. However, certain discourses, such as international law and social theory, during the nineteenth century came to be concerned in new ways with the boundaries of 'civilization', and with determining criteria for membership in a community of nations. These concerns were influential enough in nineteenth-century European societies that they altered the background knowledge and assumptions of imperial officials and brought about a shift in the practices of European empires towards linear borders.

The logic of 'civilization' sharply distinguished between two levels of intersocietal relations, on one hand relations between the colonial powers and colonized, or not-yet-colonized peoples, and on the other hand between the colonial powers themselves. On the first level, colonial difference, especially in the context of West Africa, was imagined to be so great that colonial treaties were seen as inherently suspect, no matter how morally or practically necessary they remained. As the organization of society on a territorial basis became one of the criteria for 'civilization', the customary recourse to territorially ambiguous colonial treaties became less satisfying for officials attempting to resolve disputes. On the inter-imperial level, the idea of progress in the ordering of this community of nations contributed to more ambitious attempts to control violence between empires. The civilizing mission gave the colonial powers the ideology of a common purpose, legitimating the colonization of Africa on the basis of their assumed ability to handle a mass land-appropriation in an orderly fashion. But beyond the realm of moralizing rhetoric, which can potentially be misleading, the acceptance of the idea of 'civilization' also created the perception that dangerous warfare had to be avoided, whether for moral or for selfish reasons, through inter-imperial agreements, rather than maintaining the

existing treaty system or by simply claiming as much territory as possible. As a result of all these aspects of the concept of 'civilization', the legitimacy and efficacy of African colonial treaties increasingly came into question, and in turn so did the basis of the older, non-linear colonial territorial order.

This chapter, then, moves from a focus on survey rationality's articulation with a sixteenth-century rationality of private landownership towards its articulation with a nineteenth-century rationality of civilization. More than questions of efficiency, settlement, and productivity, this chapter reveals questions of sovereignty, international order, and social evolution which have been central, implicitly or explicitly, in many efforts to linearize borders since the nineteenth century. This is not to imply that these two sets of considerations are in any sense mutually exclusive, or that they did not in many cases follow from one another. Indeed, Anglo-American settlers often pointed to their better uses of the land as a justification for their colonial expansion, and that Native American land usage was evidence of an inferior civilization. Moreover, conceptions of private property were in some ways integral to colonialism in West Africa.³ But in the context of the linearization of boundaries private property, strictly speaking, is only part of the story. In the landed settler colonialism of Anglo-America or the tax system of the East India Company after it became a large territorial entity, the economic basis of colonialism was tied to parcels of land, of which it was important for the imperial power to know the value or productive potential. But colonialism in much of Africa did not operate this way, being based instead on customs revenue from trade. Nevertheless, linear boundaries eventually became a universal expectation of territorial claims, regardless of the system of landownership in operation within a claimed territory. Understanding how the linear bounding of territorial claims came to be part of what it meant to act as a member of the club of civilized nations moves us beyond the specificity of regimes of surveyed private property towards understanding the emergence of a more universalizing system of territorial boundaries.

The chapter proceeds as follows. First, I examine the linearization of borders in British India, in order to show how a profit-maximizing capitalist enterprise did not necessarily lead immediately to linear borders, and that some other explanation is needed. I then record the history of colonial and inter-imperial treaties made by Western empires in Africa up to 1884, in order to show a distinction between the linearization of boundaries and the onset of the 'scramble for Africa'. Then I move towards explaining this process of linearization by contextualizing it within the

³ For example, the concept of property was often used to deny the status of statehood to African polities, through the argument that they constituted properties rather than states.

emergence of a profession of international law. I show the implications of these growing conceptions of a 'civilized' family of nations on the linearization of borders globally in the nineteenth century. Finally, I examine the delegitimation of the colonial treaty system as a basis for territorial order and the emergence of inter-imperial boundary treaties.

British India

South Asian politics before European colonialism was based to a large extent on territorial rule, and although there was a substantial degree of variation, a rich vocabulary of geographical concepts had meaning across the region. Yet as detailed and formalized as territorial knowledge may have been in Mughal imperial records, territories were not generally defined with linear borders but rather as lists of places, much like Europe at the time. This section first describes the process by which British India transitioned over time towards linear borders. It then argues that, while the framework of the previous chapter, based on an analysis of agrarian capitalism, may be useful to some extent, it is not sufficient for explaining the process. In particular, this is because in contrast to the Anglo-American private property regime, British East India Company initially tried to rule within pre-existing territorial logics, despite its capitalist disposition.

Gradual Linearization of Borders in British India, 1757-c.1900

At first, as the Company transitioned from its earlier role as a trading empire with coastal bases towards its role as a major land power, it appropriated territorial concepts existing in the places of its expansion. Within this field of concepts, the precise locations of the boundaries of territories was not as important as the various different kinds of titles that could be possessed. Following the pivotal 1757 Battle of Plassey, the following was declared in a treaty between the Company and the Nawab of Bengal:

All the land lying to the south of Calcutta, as far as Culpee, shall be under the Zemindarry of the English Company; and all the Officers of those parts shall be under their jurisdiction. The revenues to be paid by them (the Company) in the same manner with other Zemindars.⁴

⁴ C.U. Aitchison (ed), *A Collection of Treaties, Engagements and Sanads: Relating to India and Neighbouring Countries, Vol. I* (Calcutta: Superintendent Government Printing, 1909), 186.

This meant that the Company now had the right to collect taxes in that area, according to the *zamindar* system established by the Mughal Empire. The area, however, still formed a part of the province of Bengal, ruled by the Nawab, which was in turn nominally a part of the Mughal Empire. The treaty itself did not specify the territory in question any further than ‘to the south of Calcutta, as far as Culpee’. A subsequent order by the Nawab of Bengal did list twenty-four *parganas*, or districts, to be transferred to the Company, but it also noted that whatever part of these districts ‘may be situated to the west of Calcutta, on the other side of the Ganges, does not appertain to the Company’.⁵ Likewise, when the Company acquired a greatly expanded territorial reach in the 1765 Treaty of Allahabad, this was done by a *firman* of the Mughal Emperor granting the Company *diwani* rights over the provinces of Bengal, Bihar, and Orissa, which had a specific meaning within existing revenue collection structures.

These revenue collection structures usually consisted officially of lists and tables, sometimes long and complex.⁶ Boundaries did not usually appear on maps, which were likely instead to show rights of rulers or landowners appertaining to towns and villages in other ways. In these systems, local landowners had a great deal of freedom to modify records and manipulate the arrangement of lands based on local politics. Moreover, in areas which periodically fell in and out of cultivation, some lands were not counted in records while they were temporarily not used for agriculture.⁷ These holdings were liable to reappear later as cultivated land within a unit of revenue collection different from the ones they had appeared in previously. At the time of the British East India Company’s entrance into South Asian territorial politics, then, pre-existing linear borders easily recognizable to them generally did not exist, a situation the British Empire had also found itself in previously in North America. *Parganas* shifted around constantly, and rarely formed compact, contiguous areas. Some were little more than lists of widely dispersed villages. Yet unlike British North America, the British East India Company at first attempted to base its territorial claims on existing units such as provinces and *parganas* regardless of the fact that they were not organized on the basis of linear borders, and instead officials had to rely on locals for information.

Attempts to linearize borders began somewhat modestly. As early as 1792, in a treaty by which Mysore ceded territory to the Company, while the usual list of districts was specified, the list was accompanied by a clause which would consolidate the respective territories into more

⁵ Ibid., 189.

⁶ Bernardo Michael, *Statemaking and Territory in South Asia: Lessons from the Anglo-Gorkha War (1814-1816)* (London: Anthem Press, 2014), 67-85.

⁷ Ibid., 28.

coherent areas. It stated that any part of these districts northeast of the river Cavery would belong to the Company, and any part to the southwest should be returned to Mysore, 'in exchange for others of equal value'.⁸ In the next treaty with Mysore, in 1799, a similar provision was given, but instead of specifying a particular dividing line, it simply required an exchange of territories and an explanation; as some of the newly ceded districts were 'inconveniently situated, with a view to the proper connection of their respective lines of frontier', the contracting parties would 'proceed to such an adjustment by means of exchanges or otherwise, as shall be best suited to the occasion'. Likewise in the 1802 Treaty of Bassein between the East India Company and the Maratha Empire, the following clause was included:

As it may be found that certain of the territories ceded by the foregoing Article to the Honorable Company may be inconvenient from their situation, His Highness Rao Pundit Purdhan Behauder, for the purpose of rendering the boundary line of the Honorable Company's possession a good and well-defined one, agrees that such exchanges of talooks or lands shall be made hereafter, on terms of a fair valuation of their respective revenues, as the completion of the said purpose may require.⁹

This same clause was also included again in 1817, word for word, in a subsequent treaty between the same parties.¹⁰ In these early decades of British territorial rule in the South Asian interior, then, the Company was clearly concerned with maintaining territorial contiguity in a way that the rulers it was displacing had not been. The apparent confusion of territorial units resulted, for Company officials, in a kind of 'cartographic anxiety'.¹¹ A new normative standard was being applied to Indian political geography, from the perspective of a bird's-eye view.¹²

At the same time, these clauses avoided specifying a particular boundary, which was left open for future officers to construct in an ad hoc way. In fact, actual descriptions of borders in these treaties were still relatively schematic in comparison to the very detailed border negotiations taking place concurrently between Britain and the United States. While territorial contiguity was desired since not long after 1765, then, precise boundaries specified in treaties did not appear until later, and instead older boundaries persisted but in a form modified to fit British ideas of

⁸ C.U. Aitchison (ed), *Collection of Treaties*, Vol. IX (Calcutta: Superintendent Government Printing, 1909), 216.

⁹ C.U. Aitchison (ed), *Collection of Treaties*, Vol. VI (Calcutta: Superintendent Government Printing, 1909), 53.

¹⁰ *Ibid.*, p.67.

¹¹ Sankaran Krishna, 'Cartographic Anxiety: Mapping the Body Politic in India', *Alternatives: Global, Local, Political* 19:4 (Fall 1994), 507-521.

¹² Jordan Branch, 'How should states be shaped? Contiguity, compactness, and territorial rights', *International Theory* 8:1 (March 2016), 1-28.

how territories should be shaped. A rationalizing system of territorial order not involving the specification of boundaries in treaty texts, or at least the beginnings of one, can be seen here. This would seem to indicate that the goal of bundling tracts of land together, while in a certain sense creating linear boundaries, was at the same time different from the survey rationality of Anglo-America. The Company could have attempted a radically new geographical logic, as the British did in North America, through a combination of mostly rivers and astronomical lines, at least in its directly ruled territories, if not also over its sphere of influence generally. If precision and the avoidance of future boundary disputes had been the priority, or if ideas had been directly applied from North America, this might have been the case. But the Company instead attempted to rule through geographical institutions with pre-existing legitimacy, at the same time as it rationalized boundaries in a certain way.

In the mid-nineteenth century a particular style of boundary formulation was introduced, consisting essentially of 'north', 'west', 'south', and 'east' portions, could eventually become very detailed, but were not necessarily so. To take one example, a schedule of territory attached to an 1819 treaty declared that 'The frontier extends from the Kistna and Warna on the south, to the Neera and Beema on the north, and from the western ghauts, or Syadree Hills on the west, to the districts of Punderpore and Beejapore on the east'.¹³ Yet it also included a far more detailed list of lands to make up the state of Satara, at the level of villages and 'half-villages', suggesting that the description of the frontier was meant primarily to give a general idea of the geography, and that any future boundary dispute would have to be solved in reference to the lists of villages.

Then, only in the late nineteenth century do treaties show descriptions of boundary lines as extensive and detailed as the following:

South. — From pillar No. 1 at the junction of the Khunigadh stream, with the Tons river, up the said stream, there forming the boundary of the Jaunsar-Bawar pargana of the Dehra Dun district, to pillar No. 2 at a point where two main valleys coming from the Ringali peak meet...then up that stream to its source on the main ridge at Suranukiser, pillar No. 14 ; then along the main ridge being the water parting between the Tons and Jumna rivers through pillars Nos. 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 to pillar No. 26 at Saloglani...¹⁴

¹³ C.U. Aitchison, *Collection of Treaties*, Vol. VII (Calcutta: Government of India Central Publication Branch, 1931), 394.

¹⁴ Aitchison, *A Collection of Treaties*, Vol. I, 45.

The description continued similarly through east, north, and west, all the way to pillar 193 before arriving back at pillar 1. The boundaries between British India and the Portuguese colonies of Daman and Diu seem to have been first determined and demarcated in 1859.¹⁵ Likewise, in 1853 British India determined its borders with the French colony of Chandernagore in Bengal.¹⁶

In sum, borders in British India were gradually linearized over the course of the late eighteenth to the late nineteenth centuries. At first, treaties between the East India Company and Indian rulers appropriated territorial concepts from the South Asian context, and did not mention borders as lines. Around the turn of the nineteenth century, the treaties began attempting to consolidate territories into contiguous and stable wholes where possible. Finally, by the mid- to late nineteenth century, they included detailed descriptions of borderlines, at the level of individual boundary markers.

Profit Maximization as Insufficient for Linearization

This long, gradual transition towards linear borders did not play out in entirely the same way as in North America in the previous chapter. Yet this is not because of an absence of a similar motive towards maximizing profit by stabilizing property rights through surveys, nor because of an absence of such technology. As in North America, the idea of ‘improvement’ loomed large in the minds of Company officials. While the wealth to be gained by the Company would leave India rather than enriching a local settler population, the set of economic ideas the British took with them to India was not too different from those that emerged from colonialism in North America.

From the beginning of the Company’s territorial rule, officials were uncomfortable with a geographical order that could not be expressed in terms of linear borders. The most immediate problems for the Company upon achieving *diwani* rights had to do firstly with stabilizing its new revenues, particularly in the aftermath of a great famine of 1769 to 1773, and secondly with maintaining its legitimacy in London, where it was accused of exploiting the East Indies at a criminal level.¹⁷ The key to both of these, it seemed, was in finding the right levels of taxation,

¹⁵ Frederick Charles Danvers, *The Portuguese in India: Being a Rise and Decline of their Eastern Empire* (London: W.H. Allen & co, 1894), 463

¹⁶ Aitchison, *A Collection of Treaties*, Vol. I, 268.

¹⁷ T.R. Travers, ‘The Real Value of the Lands’: The Nawabs, the British and the Land Tax in Eighteenth-Century Bengal’, *Modern Asian Studies* 38:3 (July 2004), 517-558.

which in turn required knowledge of 'the real value of the lands'. The unfamiliar geography of the *parganas* made this a frustrating task for some, and just as the unsurveyed landscape of England had in the sixteenth century, signalled that land was being 'secreted', or unreported, to avoid paying revenues to the Company. As the revenue collector for Chittagong wrote to the Company leadership, insisting on the need for more direct oversight of revenue collection,

In the confused and disjointed state of the Chittagong lands not a *chakla* or *pargana* stood entire...with the districts of one man in five or six, perhaps more, places, it must have been utterly impossible for any Collector whatever to ascertain the true and real collection of any one zamindar's district or *parganah*...The point Government has not hitherto gained is a knowledge of the actual collections from the ryots throughout the Province, and how much they exceed the established one paid to Government. By such information only of the abilities of the tenants, assessments can be formed with precision and equity. The secreted lands are, without a doubt, considerable, and are, in fact, the lands of the State.¹⁸

But the Company did not trust landowners to accurately and impartially give up this information, suspecting them of fraud and rack-renting. In this context it brought about the Permanent Settlement, whereby taxes first in Bengal, and later in other provinces, would be fixed in perpetuity. According to historian John McLane, 'a permanent tax was a fiscal oddity, born of perplexity and frustration', much of which came from the inability to comprehend the non-linear boundaries of land holdings.¹⁹

The alternative to fixing taxes, according to Company discussions, would have been detailed revenue surveys which would bypass local knowledge and learn directly the 'true' value of the land. Revenue surveys would have, and eventually did, give the Company the ability to abstract polities and other geographical units from local particularities and understand them instead in terms of abstract space divided into distinct areas by abstract points and lines. But surveys are intrusive practices which create expectations that something will be done with the information collected and often generate opposition or resistance from those affected by the measurement of land. English landowners already understood this before the East India Company took on territorial administration. While there was not yet a systematic approach to surveys, they were occasionally done ad hoc by some officials on their own initiative. The Company's Council

¹⁸ Quoted in R.B. Ramsbotham, *Studies in the Land Revenue History of Bengal, 1769-1787* (London: Oxford University Press, 1926), 17. See also Bernardo Michael, 'Making Territory Visible: The Revenue Surveys of Colonial South Asia', *Imago Mundi* 59:1 (2007), 80.

¹⁹ John McLane, *Land and Local Kingship in Eighteenth Century Bengal* (Cambridge: Cambridge University Press, 1993), 67.

learned of one such survey in 1775 from a group of angry inhabitants of Dacca who insisted that their land was granted by the Mughal emperor Akbar and that they did not owe anyone and had never paid taxes to any government.²⁰ As a result of experiences like this, the Company was under no illusions that surveys allowed them to see the land without being seen, as if they had access to a kind of panopticon. A general programme of topographical surveys could have been organized, along the lines of the British Ordnance Survey, which began in 1791, but in India this was considered impractical. The Permanent Settlement, then, provided a solution to the problem of how to use European principles of administration without necessitating the kind of detailed topographical knowledge which was coming to be taken for granted in Europe.²¹

The Permanent Settlement, on one hand, is incomprehensible except in terms of eighteenth-century European ideas of agricultural production. It depended particularly on the principles of physiocracy, the idea that land was the fundamental source of economic value, logically prior to all else. Yet on the other hand, although it did not survive long before it was modified, it was a clear alternative to the linearization of borders. Because taxes were simply fixed, there was a limit to how detailed the information about the land needed by the Company would be, and thus a limit to the utility of the extensive topographical surveys. This was by design, as part of the reason for implementing the Permanent Settlement was the political and technical difficulty of carrying out the surveys that would be necessary for linearizing borders.

At the same time, this information was still thought necessary, and increasingly so. The decentralized decision-making of the Company's surveying activities meant that while it took many decades of effort for proponents of a massive, expensive project such as the Great Trigonometrical Survey of India to secure approval for it, local officers in some places could still carry out smaller-scale topographical surveys on their own initiative when they thought it necessary, despite some high-level officials who discouraged them.²² Regulation 7 of 1822 represented a turning point at a higher level, as it ordered detailed cadastral surveys for the whole of Bengal and the Northwest Provinces for the first time. Maintaining fixed revenue rates without periodic adjustments on the basis of information gathered through surveys, it seemed, was untenable in the long run. By 1855 the *pargana* was abandoned as the basic unit of the revenue surveys, in favour of the 'main circuit', which would not have complex boundaries. This

²⁰ Travers, 'The Real Value', 541.

²¹ Ranajit Guha, *A Rule of Property for Bengal: An Essay on the Idea of Permanent Settlement* (London: Duke University Press, 1981).

²² Matthew Edney, *Mapping an Empire: The Geographical Construction of British India, 1765-1843* (Chicago: Chicago University Press, 1997).

would allow surveyors to first mark off a main circuit, and then proceed to determine individual village boundaries, according to the principle that 'all survey operations work should always be carried on from whole to part, and never from part to whole'.²³

In the end, the logic of agrarian capitalism likely played some role in moving British India towards linear borders, through the imperative to know the 'real value of the land'. But this did not involve simply transposing an already developed system from one place to another, in the way that the colonization of Australia began in the late eighteenth century largely with private settler ownership based on surveys already in mind.²⁴ Instead it was a slow, protracted transition, with the Permanent Settlement along the way representing a possible alternative system of maintaining the profit-making functions of the East India Company without undertaking extensive surveys. In North America, the surveying process was largely conducted by settlers, and came to be accepted by many as a necessary part of owning land, with earlier Native American landownership being erased, whereas the East India Company had to work from within and modify existing structures in the absence of settlers. Political and technical difficulties of extensive surveying, such as resistance to surveying, and the need for the Company itself to finance and carry out the surveys, were encountered much more heavily here. The Permanent Settlement is thus important to take into account alongside the substantially different kind of agricultural capitalism we saw in the previous chapter. It was the Permanent Settlement which, albeit temporarily, made it possible to maintain the profit-making functions of the East India Company without immediately undertaking extensive surveys.

If agrarian capitalism of certain kinds could be formulated without the necessity of linear borders, then, how did linear borders become globalized, and why were alternatives not pursued for longer? The remainder of this chapter takes up this question, with West Africa at the centre of analysis. It argues that the notion of 'civilization' and its articulation with survey rationality, separately from capitalism, provides a useful answer.

²³ Michael, 'Making Territory Visible', 88.

²⁴ Brenna Bhandar, *Colonial Lives of Property: Law, Land, and Racial Regimes of Ownership* (Durham, NC: Duke University Press, 2018).

The Linearization of Borders in West Africa

Until the late nineteenth century, the spatial extent of European empires on the east and west coasts of Africa found expression more often in treaties between European empires and African states than in treaties among European empires. They varied significantly over time and space, following no particular overarching pattern. In some cases, they became more precise over time, but others remained vague definitions throughout. What did change, however, were treaties between European empires, which at the beginning of the century were very rare, and where they did exist were quite vague, but in the later part of the century became more frequent, and by the end of the century became dramatically more precise and detailed. This section gives an overview of the dynamics of treaty-making in West African colonies in this period, before later sections go on to explain and make sense of them. The important point here is that the shift towards linearization is related to but not reducible to colonial expansion after the Berlin West Africa Conference of 1884.

Treaties between European empires before the late nineteenth century, where they existed at all, tended to conceive of places such as forts, and were traded between empires as such. For example, in the 1667 Treaty of The Hague, Sweden ceded to the Netherlands

all right, possession, actions, and pretensions, that his Sacred Royal Majesty of Sweden, or his Swedish-African Company, either actually had, or thought they had, in the fortress situated on the promontory called Cabo Corso, and every right derived therefrom, and all the rest of the fortresses and magazines in Guinea on the African coast, with all the rights dependent thereupon...²⁵

Boundaries of European holdings in West Africa were rarely mentioned, if ever. In a 1641 Dutch-Portuguese Treaty of The Hague a reason for the lack of inter-imperial boundaries was even stated explicitly:

All that which the Portuguese and the subjects of these Provinces possess on the coasts of Africa needs no delimitation, since there are various peoples and nations between them who determine and form the limits.²⁶

²⁵ Frances Davenport (ed), *European Treaties Bearing on the History of the United States and its Dependencies, Vol. II* (Washington, D.C.: Carnegie Institute of Washington, 1929), 117.

²⁶ Frances Davenport (ed), *European Treaties Bearing on the History of the United States and its Dependencies to 1648* (Washington, DC: Carnegie Institute of Washington, 1917), 344.

As late as 1850 this format can be seen in a transfer of the Danish Gold Coast to Britain:

His Danish Majesty cedes to Her Britannic Majesty...all the forts belonging to the Crown of Denmark, which are situated on that part of the coast of Africa called the Gold Coast or the Coast of Guinea, and which comprise Fort Christianborg, Fort Augustaborg, Fort Fredensborg, Fort Kongensteen, and Fort Prindsenstein...together with all other possessions, property, and territorial rights whatever belonging to His Danish Majesty on the said coast.²⁷

For a better idea of the extent of these relatively small territories on the coast before 1880, one would more likely refer to treaties negotiated between European empires and African states. These treaties exhibit a considerable amount of variety, probably depending on the particular individuals involved in negotiating them. Colonial officials are unlikely to have possessed a great deal of legal knowledge. Yet it is possible to distinguish broadly between two types, one of which gave some description of the territory to be handed over, and some simply handed over all the territory belonging to the African polity. Some correlation can be found with particular colonies.

The more descriptive type of treaty can often be found with the British colony of Sierra Leone. British treaties with rulers in Sierra Leone during this period used various methods of geographical distinction, not necessarily referring to borders as lines, but also not necessarily relying on pre-existing territorial systems as much as in India. A 1788 treaty gave to the colony 'all the land, wood, water, &c., which are now contained from...St. George's Bay, coastwise up the river Sierra Leone to Gambia Island, and southerly or inland from the river side, 20 miles.²⁸ Place-names taken from European languages such as St. George's Bay and Sierra Leone, and the absence of references to any pre-existing political entities in the geographical description would indicate the inscription of a new geographic order over the area. At the same time, the treaty lacked an explicit reference to any kind of line circumscribing this territory. This was a common format, in identifying two points on a coast or a river and indicating a certain depth inland but not referring to a line. At this stage, it was not always clear how precise this measure of depth was intended to be. Similarly, an 1807 treaty granted 'all the right, power, possessions of every

²⁷ Lewis Hertslet (ed), *A Complete Collection of the Treaties and Conventions, and Reciprocal Regulations at Present Subsisting between Great Britain and Foreign Powers*, Vol. IX (London: Butterworths, 1856), 237.

²⁸ Lewis Hertslet (ed), *A Complete Collection of the Treaties and Conventions, and Reciprocal Regulations at Present Subsisting between Great Britain and Foreign Powers*, Vol. XIV (London: Butterworths, 1880), 927.

sort and kind in the peninsula of Sierra Leone and its dependencies', without clarifying where the beginning of the peninsula was considered to be, or where its dependencies were.²⁹

Another format used, more similar to patterns seen at the same time in British India, was to name kingdoms being absorbed into the colony. In 1825 the governor-general of Sierra Leone issued a proclamation that possession of the Sherbro and Yacomba kingdoms 'has been by us taken in the name of and on behalf of His Majesty, and that the same, by virtue of the powers in us vested, are constituted an integral part of the colony of Sierra Leone'.³⁰

As Sierra Leone expanded, these kinds of territorial claims continued, but some became increasingly detailed. For example, one 1872 treaty to which a map was attached provisionally retroceded to the Quiah kingdom

that portion of British Quiah bounded as follows: commencing at the entrance of Bance Creek, thence following the creek at Ro Bruce River to the north of the town of Madonkia, thence in a straight line along the proposed road marked A B by Songo Town to the point marked C on Songo Town Creek, thence following the original boundary to a point marked D on Quiah Creek and thence following the course of the creek and the banks of Sierra Leone River to the point of commencement...³¹

British rule in Sierra Leone in most of the nineteenth century, then, was characterized by a mix of more or less brief descriptions of geographical features of the territory without necessarily focusing on bounding it in every direction, although with some increasing attempts to specify linear boundaries towards the later part of the century.

On the Gold Coast, British treaties with West African states and rulers exhibited a different pattern. Until 1874, unlike in Sierra Leone, British rule in the Gold Coast outside its coastal forts was informal, yet this does not mean it did not exist as a kind of territory. Three regional treaties, in 1831, 1844, and 1852, established different aspects of a British protectorate over specified coastal leaders, including taxation and British jurisdiction over certain crimes.³² While these treaties may show continued dominance over local affairs to be held by the African rulers

²⁹ Ibid., 929.

³⁰ Ibid., 951.

³¹ Ibid., 985.

³² Rebecca Shumway, 'Palavers and Treaty Making in the British Acquisition of the Gold Coast Colony (West Africa)', in Saliha Belmessous (ed), *Empire by Treaty: Negotiating European Expansion, 1600-1900* (New York: Oxford University Press, 2014).

involved, British officials clearly believed the Gold Coast to be a part of their dominion and the local people to be British subjects, regardless of the fact that no linear borders were established until the late nineteenth century. After the Gold Coast Colony was established in 1874, the British began to formalize its territory, but this still did not always entail specific borders. One 1879 treaty recognized British 'territorial jurisdiction' over simply 'the seaboard of Agbosomé for two miles from the high-water mark inland', and an 1886 treaty ceded to Britain 'The country and territory of Aquamoo', without specifying further.³³

French treaties with West African states were, on the whole, even less geographically precise than British treaties. For example, in an 1821 treaty with the King of Brackna, the latter agreed to give to the French representative 'all the terrain which he judges convenient to build dwellings and grow longan trees' and also allowed the French to 'build forts or batteries for the defence and protection of the dwellings and longan trees that might grow thereafter'.³⁴ The dimensions of the area might be even be specified more precisely than the location, suggesting closer similarity to a plot of private property than sovereignty, as follows: 'The King of Boud'hié...cedes in full ownership to the King of the French a site situated to the south of the village of Segiou along the river, descending it for 250 metres, with a depth towards the interior of 100 metres'.³⁵ Indeed, at this point it is not clear whether property or sovereignty was transferred in these treaties, as sometimes treaties suggesting landownership rather than sovereignty were later reinterpreted as granting sovereignty, and sometimes they explicitly referred to both 'full ownership and sovereignty'.³⁶ The distinction between the two was porous, and the authors of the treaties themselves often did not understand the legal subtleties involved. But as treaties later in the century began ensuring explicitly that sovereignty was being transferred to France, there was no general increase in their precision or linearity. In 1886 a treaty of territorial cession on the Ivory Coast could look much the same as treaties in earlier decades: 'the full and entire sovereignty of the country of Dabou, which extends from the right bank of the river Aebi to the country of Bouboury and the territories which depend on it, is ceded to the French Republic'.³⁷

³³ Edward Hertslet (ed), *The Map of Africa by Treaty, Vol. I* (London: Harrison and Sons, 1909), 64-70.

³⁴ Jules de Clercq (ed), *Recueil des Traités de la France, Vol. III* (Paris: A. Durand et Pedone-Lauriel, 1880) 274. Author's translation.

³⁵ Jules de Clercq (ed), *Recueil des Traités de la France, Vol. IV* (Paris: A. Durand et Pedone-Lauriel, 1880), 364. Treaty concluded in 1837.

³⁶ Isabelle Surun, 'Une souveraineté à l'encre sympathique ? Souveraineté autochtone et appropriations territoriales dans les traités franco-africains au XIXe siècle' *Annales. Histoire, Sciences Sociales* 69:2 (June 2014), 313-348.

³⁷ Jules de Clercq (ed), *Recueil des Traités de la France, Vol. XVII* (Paris: A. Durand et Pedone-Lauriel, 1891), 297.

Treaties between European powers, however, took a radically different turn in the late nineteenth century, towards conterminous territories divided by lines specified in treaty texts, attempting increasingly scientific precision. In West Africa, the Anglo-Dutch treaty of 1867 could be regarded as a first step in this direction.³⁸ Whereas before, the British and Dutch had owned multiple coastal forts scattered across the Gold Coast, they agreed in this treaty to exchange them such that the boundary between them would be 'a line drawn true north from the centre of the mouth of the Sweet River, where their respective territories are conterminous', allowing for deviations 'as shall be necessary to retain within British territory any villages which have been in habitual dependence on the British Government', and vice-versa for Dutch dependencies. This implied that areas under British influence according to the treaties of 1831, 1844, and 1852 counted as 'British territory' and established only a western boundary on them.

In 1882 the British and French made their first treaty of territorial partition in West Africa, on the northern border of Sierra Leone.³⁹ It left the specifics in the hands of a boundary commission, but made clear that Britain was to have 'complete control' over the Scarcies River, and France over the Mellicourie River. It said nothing about the boundary past the sources of these rivers. In 1889 this was replaced by a general Anglo-French partition of West Africa. Compared to the treaties through which Sierra Leone and Gold Coast annexed neighbouring territories, it was relatively detailed. For example,

To the north of Sierra Leone, in accordance with the provisions of the Treaty of 1882, the line of demarcation, after having divided the basin of the Mellicourie from that of the Great Scarcies, shall pass between Bennah and Tambakka, leaving Talla to England and Tamisso to France, and shall approach the 10th degree of latitude, including in the French zone the country of the Houbbous, and in the English zone Soulimaniah and Falabah.⁴⁰

Moreover, this was accompanied by an appendix which gave line-by-line interpretations, ensuring, for example, that 'the expression "the line of demarcation shall pass between Bennah and Tambakka" shall be taken literally'.⁴¹ Afterwards, however, the line simply stopped at a point with given latitude and longitude. A further agreement, then, followed in 1895 which

³⁸ Edward Hertslet (ed), *A Complete Collection of the Treaties and Conventions, and Reciprocal Regulations at Present Subsisting between Great Britain and Foreign Powers, Vol. XII* (London: Wyman and Sons, Ltd., 1905), 1194.

³⁹ Edward Hertslet (ed), *The Map of Africa by Treaty, Vol. II* (Harrison and Sons, 1894), 554.

⁴⁰ *Ibid.*, 559.

⁴¹ *Ibid.*, 566.

continued the line but also qualitatively represented another great increase in detail, beginning, 'The boundary starts from a point on the Atlantic coast north-west of the village of Kiragba, where a circle of 500 metres radius, described from the centre of the village, cuts the high-water mark'.⁴² The boundary commissioners then made an even more detailed description of the boundary, having demarcated it. The line was split into four sections, and each of the four sections was made up of 66, 21, 8, and 89 beacons, respectively, the location of each of which was meticulously noted, with a few exceptions.

These types of boundaries, which were carefully surveyed, became common throughout the African continent, in a process which was set in motion during the 1880s. Broadly speaking, then, we see a sudden change from European empires relying on treaties with African polities to define their territorial extent in a number of different ways with varying degrees of linearity, towards surveyed inter-imperial boundaries with strict linear definitions.

What could have been behind this dramatic change from simply mentioning names of forts to be exchanged, as late as 1850, to the need for boundary agreements individually locating hundreds of territorial markers, before the end of the century? Changes in territorial practices, of one kind or another, may have been inevitable as a result of the larger transformations of European colonialism, particularly but not only in Africa, in the 1880s and 1890s. Whereas West African colonies had previously confined their direct influence closely to the coastline, the colonial powers in the later decades of the century became more willing to take on more extensive commitments. Explaining these transformations has been the subject of extensive historical debate elsewhere. According to one influential account, for example, the shift was triggered in large part by national movements of the 1880s in Ireland, Egypt, and South Africa, each key strategic locations of the British Empire, and the interventions launched in response.⁴³

No doubt the projection of direct imperial influence far from coastal regions contributed to the shift in territorial practices. However, the move towards boundary demarcation did not quite occur simultaneously. Serious Anglo-French conversations about a rationalization of their territorial arrangements in West Africa were well underway in the 1870s, at which point a total partition of the African continent was still hardly thinkable. Both British and French officials were already discussing proposals by the early 1860s, particularly for Britain to give up the mouth of

⁴² Edward Hertslet (ed), *The Map of Africa by Treaty, Vol. II* (Abingdon, UK: Routledge, 1967), 757.

⁴³ Ronald Robinson, John Gallagher, and Alice Denny, *Africa and the Victorians: The Official Mind of Imperialism* (London: I.B. Tauris, 2015).

the Gambia River in exchange for compensation elsewhere, as this British colony was surrounded by French influence.⁴⁴ At that point reasons against giving up existing colonies were at that point too strong, but in 1870, a British proposal was sent to France for a northward expansion of Sierra Leone to the Dembia River, in exchange for abandoning all claims north of that, including the Gambia. This proposal would have had good chances of going through, had it not been for a small but considerable lobby of Gambia merchants protesting, among other things, that British subjects should not be placed under French rule against their will. The agreement, if passed, could have looked much like the Anglo-Dutch agreement of 1867, starting at a particular point on the coastline and following a compass direction inland, without any particular endpoint. After another abortive attempt in the mid-1870s, what finally led to a limited boundary agreement was a series of local escalations which threatened to turn violent in the debatable area between Sierra Leone and Senegal. While France would have preferred a comprehensive agreement along the lines of the previously proposed exchanges of colonies, Britain insisted on limiting the agreement to a formalization of existing arrangements.⁴⁵ In the early 1880s the conventional British imperial policy of avoiding territorial expansion still applied, and grand schemes of exchange seemed to imply too much annexation.

The 1882 Anglo-French convention, then, which was the first step towards further definitions of Anglo-French boundaries in West Africa, was not the same as the later annexationism that characterized both French and British colonial policies. The process of linearizing inter-imperial boundaries was already showing early signs before the weight of British and French policy was behind territorial expansion. Particularly for British officials, boundary negotiations with the French, into the 1880s, were more often about consolidating and simplifying territories than expanding them. In order to explain this process, then, we cannot simply refer to the 'Scramble for Africa' as a self-evident starting point, or look just at the geopolitical factors that caused it, but we must look at the wider context of how the relationship between territoriality and society were understood by those conducting territorial agreements. In the next section, then, I look at this question from the perspective of international law.

⁴⁴ J.D. Hargreaves, *Prelude to the Partition of West Africa* (London: Macmillan, 1963), 126-128; 136-143.

⁴⁵ Robinson et al., *Africa and the Victorians*, 164.

‘Civilized’ Land-Appropriation: Social Theory and the Emerging International Legal Profession

In the previous chapter the discussion of linear boundaries has dealt mostly with the technological aspects of borders and the politics surrounding them. International law was not a primary factor in the scaling up of private property boundaries, as it proceeded first through layers of intra-imperial governance, within which an imperial Crown remained the arbiter. In nineteenth-century colonialism in Africa, however, international law played a greater role, with the colonial powers using it to portray themselves as civilized and orderly, not only in dealings with colonized peoples, but particularly in their dealings with each other. This section discusses the way in which linear borders came to be articulated with that vision of civilization, in legal, social-theoretical, and geographical discourses.

Fairness and legality in dealing with native peoples had been strategically performed by European empires previously in the colonization of the Americas, but in nineteenth-century Africa inter-imperial agreements began to take on a larger importance, along with changes in the scope and significance of what Western empires considered ‘civilization’. If Carl Schmitt was right that the purpose of amity lines had been to uphold a peace within Europe unencumbered by what might happen between imperial agents far from metropolitan control, that system was reversed in the late nineteenth century for exactly the same purpose.⁴⁶ In order to prevent colonial conflicts from becoming European conflicts, rather than agreeing to cast a blind eye on the periphery, the imperial powers insisted on the exact opposite: precise lines demarcating their respective spheres. Thus the argument here is not that the imperial powers sought to adhere to international law more closely in the nineteenth century, and thus more precise boundaries were drawn. Rather, it is that through changes in the basis of international law itself we can see how notions of civilization shaped both the moral and the strategic field within which European empires contended for colonies in Africa. ‘Civilization’ was, of course, used as an excuse for one of the largest and most rapid land-appropriations in history, and thus in order to be legitimate, it had to appear as an orderly process without violence between those partaking in it. But more fundamentally than that, insofar as the superiority of Western institutions was taken for granted, it created the perception that such a ‘civilized’ cooperation, even in the limited form of agreeing on how to divide spoils, was possible in the first place and could limit great power warfare. Through the 1880s, the colonial powers were hesitating to draw lines on

⁴⁶ Carl Schmitt, *Nomos of the Earth in the International Law of the Jus Publicum Europaeum*, trans. G.L. Ulmen (New York: Telos Press, 2006), 92.

maps through areas they knew little about, but the idea of 'civilization' gave them the confidence to do so anyway.

For British international lawyers of the late nineteenth century, civilization and law were not simply related but in fact the two concepts verged on becoming identical.⁴⁷ Legal positivism and the increasingly popular idea that law, strictly speaking, could only come from an authority capable of enforcing it, was profoundly threatening to the existence of international law, especially through the work of John Austin and JS Mill, who did not regard international law as really 'law'. But the one concept that late nineteenth century scholars found most useful for grounding international law was civilization. Unlike religion or what had previously been known as natural law, civilization did not appear to contradict the scientific aspirations of scholars of the time. At first, then, there were attempts such as William Whewell's to study morality through the natural sciences. But it was the theory of evolution, through the work of natural scientists such as Charles Darwin, and social theorists such as Auguste Comte and Herbert Spencer, which made possible a more durable grounding for empirical study. By demonstrating through historical research that human societies developed a greater sense of order and rationality over time, it could be proven scientifically that international law had the potential to develop, as long as it could be argued that it was still in a very early stage at the time.

Inspired by the German Historical School of jurists, and their argument that law was not simply derived from reason but changed with historical and local circumstances, legal evolutionism found its way into international law through the work of Henry Sumner Maine. In a study of *Ancient Law: Its Connection with the Early History of Society, and Its Relations to Modern Ideas*, Maine theorized that law tends to evolve through stages from status, myth, and fiction towards contract, codification, and written law. International law was like ancient law, in some respects admirable, but at the same time unhistorical and *a priori*, which to a Victorian audience meant it needed to be reformed. The optimism of legal evolutionism made it possible to juxtapose a positivist approach to law with a respectable, scientific study of international law; nations still went to war with each other, but if private war had successfully been abolished by the law of the sovereign state, perhaps international war could be abolished too someday through international law.

⁴⁷ Casper Sylvest, 'International Law in Nineteenth-Century Britain', *The British Yearbook of International Law* 75:1 (Jan. 2005), 9-70; Antony Anghie, *Imperialism, Sovereignty and the Making of International Law* (Cambridge: Cambridge University Press, 2004), ch. 2.

This vision began to materialize in practice in the 1870s, with the beginnings of an identifiable profession of international law.⁴⁸ Germany and Italy achieved national unification, and it seemed international society was also coming together with the first meeting of the *Institut de Droit International* in Ghent in 1873, which was called ‘the legal consciousness of the civilized world’ and is usually referred to as the first modern professional association of international lawyers.⁴⁹ Displaying the influence of the Historical School, these jurists conceived of themselves not as legislating but merely codifying and putting into practice a will to civilize the interactions of nations which sprang organically from the particular experience of the West. Yet while often insisting that their inquiries were based on actual facts rather than utopian thinking, some ambitiously imagined the progress of these institutions towards something like a world state.⁵⁰ The Berlin West Africa Conference of 1884-5 should thus be seen not only in the context of the Concert of Europe which saw efforts to coordinate anti-radical policies in Continental Europe since the end of the Napoleonic Wars but also in light of this sudden late nineteenth century increase in faith in Western civilization to bring order to the world through what was seen as its particular brand of law.

Over the course of the nineteenth century, this idea of the progress of civilization came to be articulated with survey rationality and a concern for precise borders. As previously seen, up through the eighteenth century, Western empires did not generally define precise boundaries between each other, with a few exceptions, but after this, boundary commissions became more frequent. The idea that clearly and precisely demarcated boundaries promoted peace had existed at least since Vattel:

It is necessary to mark clearly and with precision the boundaries of territories in order to avoid the slightest usurpation of another’s territory, which is an injustice, and in order to avoid all subjects of discord and occasions for quarrels.⁵¹

In the nineteenth century, however, border demarcations began to take on new meanings. Part of this can be seen as an outcome of social theories which associated fixed territoriality with higher stages of civilization. This could be seen, for example, in Henry Sumner Maine’s *Ancient*

⁴⁸ Martti Koskenniemi, *The Gentle Civilizer of Nations: The Rise and Fall of International Law, 1870-1960* (Cambridge: Cambridge University Press, 2004), ch. 1.

⁴⁹ Andrew Fitzmaurice, ‘Liberalism and Empire in Nineteenth-Century International Law’, *The American Historical Review* 117:1 (Feb. 2012), 122-140.

⁵⁰ Koskenniemi, *The Gentle Civilizer*, 193.

⁵¹ Peter Sahlins, *Boundaries: The Making of France and Spain in the Pyrenees* (Berkeley: University of California Press, 1991), 93.

Law, referred to above. Part of the shift from ancient personalized rule to abstract modern rule was the move away from rule of people towards rule of territory.

When the feudal prince of a limited territory surrounding Paris began, from the accident of his uniting an unusual number of suzerainties in his own person, to call himself *King of France*, he became king in quite a new sense...The kingship of our Anglo-Saxon regal houses was midway between the chieftainship of a tribe and a territorial supremacy; but the superiority of the Norman monarchs, imitated from that of the King of France, was distinctly a territorial sovereignty.⁵²

Because modern societies recognized rule by contract rather than status, states governed territories rather than people. While not specifically referring to the demarcation of boundaries, Maine saw territory as a key component of a modern rule of law which transcended particular personal relationships.

For Friedrich Ratzel, writing in 1885 on the eve of the partition of Africa, 'Want of defined frontiers is in the essence of the formation of barbarous states. The line is intentionally not drawn, but kept open as a clear space of varying breadth'.⁵³ Later, Ratzel explained further that this was because primitive societies did not value land, quoting from an 1885 British account of colonial practices in Transvaal, 'The rights of property of the chiefs among the primitive peoples generally overlap'.⁵⁴ The conclusion from this was that attempts by colonial powers in Africa or US authorities to define precise boundaries around their native populations was a 'mania' which led to 'the most arrant misunderstandings'. Or, according to American geographer Ellen Semple's 'translation' of Ratzel's work into her own national context, in 'savage and barbarous' societies,

The low valuation [of land] is expressed in the border wilderness, by which a third or even a half of the whole area is wasted; and also in the readiness with which savages will often sell their best territory for a song. For the same reason they leave their boundaries undefined; a mile nearer or farther, what does it matter?...Owing to these overlapping boundaries—border districts claimed

⁵² Henry Sumner Maine, *Ancient Law: Its Connection with the Early History of Society, and Its Relation to Modern Ideas* (London: John Murray, 1876), 108.

⁵³ Quoted in Jens Bartelson, *War in International Thought* (Cambridge: Cambridge University Press, 2018), 124.

⁵⁴ Friedrich Ratzel, 'The Laws of the Spatial Growth of States', trans. Ronald Bolin, in Roger Kasperson and Julian Minghi (eds), *The Structure of Political Geography* (London: University of London Press, 1970), 24.

but not occupied—the American colonists met with difficulties in their purchase of land from the Indians, often paying twice for the same strip.⁵⁵

This formulation thus built off of the Lockean labour-mixing theory of property but updated it for contemporary considerations of boundaries between racial units. Ultimately the followers of Ratzel did not see linear borders as ‘true’ borders but only as superficial manifestations of a more fluid and deeply contested site of difference. But a closely related line of thought, which was more common among British writers, drew on Ratzel’s evolutionary thought on borders but was more faithful to Vattel’s idea that precisely defined borders promoted peace. The clearest expression of this line of thought was argued in George Curzon’s Romanes Lecture at Oxford University in 1907, which set out a vision of frontiers as ‘the razor’s edge on which hang suspended the modern issues of war or peace’, and described a number of ways ancient and modern polities had arranged their frontiers.⁵⁶ For Curzon, demarcated boundaries were essentially a modern concept, and one which Eastern peoples apparently had difficulty grasping. He gave the example of the Ottoman-Persian frontier which, despite the best efforts of mediating Western powers, the ‘Asiatic countries’ had ensured would remain poorly defined:

There, unmaterialized and unknown, it has lurked ever since, both Persia and still more Turkey finding in these unsettled conditions an opportunity for improving their position at the expense of their rival that was too good to be surrendered or curtailed. In Asiatic countries it would be true to say that demarcation has never taken place except under European pressure and by the intervention of European agents.⁵⁷

Yet Curzon insisted that it was ‘incontestable’ that progress was occurring in the delimitation of frontiers, as ‘The primitive forms...have nearly everywhere been replaced by boundaries’ which are guaranteed by treaties and international law, and are thus ‘an agency of peace’.⁵⁸

It was because it was thought that higher stages of civilization were better able to peacefully agree formally on fixed borders that that it made sense to view peacefully respected boundaries between Western empires with cultural pride and as evidence of superior institutions. Srdjan Vucetic argues that ‘gentlemanly’ boundary arbitrations between the US and Britain, in particular, can be attributed to the popular narrative that the two countries together formed

⁵⁵ Ellen Semple, ‘Geographical Boundaries—I’, *Bulletin of the American Geographical Society* 39:7 (1907), 396.

⁵⁶ George Curzon, *Frontiers* (Oxford: Clarendon Press, 1907), 7.

⁵⁷ *Ibid.*, 49.

⁵⁸ *Ibid.*, 48.

the vanguard of civilization.⁵⁹ Yet these boundary arbitrations also worked, in turn, to promote that narrative. In the context of the Anglo-Saxonist movement, which promoted a racialized idea of closer cooperation between and potentially a union of the United States and the British Empire, 'enlightened arbitration' was an important political tool. Anglo-Saxonists could insist on the Anglo-Saxon or American origins of arbitrations, and point to the success of US-UK boundary arbitrations between Venezuela and British Guyana and on a variety of segments of the US-Canada boundary.⁶⁰ Not always, but most of the time, boundary disputes took centre stage among these arbitrations. Anglo-Saxonism did not lead to political union, but it did lend support to the Olney-Pauncefote Treaty, signed but not ratified, which would have sent to an arbitral tribunal every dispute between the US and Britain which diplomacy failed to resolve.⁶¹ Events such as this treaty's signing, or the conclusion of boundary arbitrations, were hailed by proponents as transcendent moments in the history of civilization which set an example for all nations to follow.

Later, 'the world's longest undefended border' would become a slogan, with a Peace Arch monument built along the border between British Columbia and Washington, displaying the text: 'Children of a Common Mother', '1814 Open One Hundred Years 1914', and 'A Lesson of Peace to All Nations'.⁶² The Peace Arch and its inscriptions are a popular topic for diplomatic speeches, such as Ronald Reagan's 1987 address to the Canadian Parliament, which imagined a time 'when all borders become what the U.S.-Canadian border so long has been: a meeting place, rather than a dividing line'.⁶³ The International Boundary Commission, an international organization which has since 1908 maintained the now thousands of monuments linearizing the US-Canada border, sees itself as the inheritor of this tradition.⁶⁴ It began one of its recent annual reports with a famous quote from Curzon's *Frontiers* lecture, saying that 'The Commission

⁵⁹ Srdjan Vucetic, 'A Racialized Peace? How Britain and the US Made Their Relationship Special', *Foreign Policy Analysis* 7 (2011), 414.

⁶⁰ Edward Kohn, *This Kindred People: Canadian-American Relations and the Anglo-Saxon Idea, 1895-1903* (Quebec City: McGill-Queen's University Press, 2004), 196; William T. Stead, *The Americanization of the World, or The Trend of the Twentieth Century* (New York: Horace Markley, 1901), 248-254; John Dos Passos, *The Anglo-Saxon Century and the Unification of the English-Speaking People* (New York: The Knickerbocker Press, 1903), 172, 207, 221.

⁶¹ Michael Blakeney, 'The Olney-Pauncefote Treaty of 1897—The Failure of Anglo-American General Arbitration', *Anglo-American Law Review* 8:3 (1979), 175-190.

⁶² Richard Clark, *Sam Hill's Peace Arch: Remembrance of Dreams Past* (Bloomington, IN: AuthorHouse, 2006).

⁶³ Ronald Reagan, 'Address to a Joint Session of Parliament in Ottawa, Canada, April 6, 1987', in *Public Papers of the Presidents of the United States: Ronald Reagan, 1987* (Washington: US Government Printing Office, 1989), 338.

⁶⁴ International Boundary Commission, *Joint Annual Report 2013*, 2013 ([http://www.internationalboundarycommission.org/uploads/joint%20annual%20reports/jar_2013_en_\(web\).pdf](http://www.internationalboundarycommission.org/uploads/joint%20annual%20reports/jar_2013_en_(web).pdf))

instituted in 1908 responded effectively to the concerns expressed by Lord Curzon, which were doubtless shared by the political class of the day, and has since maintained a clear and well demarcated boundary, contributing to peace and prosperity of both countries'.⁶⁵ Echoing Reagan's remarks, it gave as 'proof of its success' the assertion that 'the Commission is regularly cited as an example the world over, especially in Africa, where serious efforts are being made now to define and demarcate the boundaries between several countries'.

These expressions of civilizational superiority through boundary agreements intensified with the proliferation of imperial boundary-drawing in the late nineteenth century, but the potential for productive relations between the legal fixing of linear boundaries and Anglo-American solidarity had long been available. In 1842, for example, while the US-UK boundary dispute over the Oregon Territory was growing, the president of the Royal Geographical Society published a pamphlet dramatizing the long history of the ongoing Northeastern boundary dispute as a polite gentlemanly debate between 'John Bull' and 'Jonathan':⁶⁶

J. B. Well, Jonathan, how are you going on? how are all friends on the banks of the Potowmack?

Jon. Very bad.

J. B. How so? What's the matter?

Jon. These eternal misunderstandings between our two Governments...we have told you where the real boundary is, and we have had it surveyed...

J. B. But the treaty is in English, and we both speak the same language; where's the difficulty?

Jon. There is no difficulty at all, if you will but read the words and interpret their meaning...

J. B. Well, where is this Treaty? Let us read it over quietly by ourselves...

With this, John Bull proceeds to gradually win over Jonathan through almost comically extensive knowledge of the relevant events, treaties, and geographical features, and finally reassures him that 'as you are so very civil, I won't be hard upon you: and if you keep to your word, I think there is a fair chance of our continuing to be very good friends'.

Boundary agreements were also invested with meaning through the science and technology which was required for implementing them, and the performance of demarcations as adventurous exercises in taming the wilderness.⁶⁷ The narrative of Samuel Anderson, Chief

⁶⁵ Ibid., 2.

⁶⁶ W.R. Hamilton, *No mistake, or, A vindication of the negotiations of the Treaty of 1783* (London: William Nicol, 1842).

⁶⁷ Michael Adas, *Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance* (Ithaca: Cornell University Press, 1989).

Astronomer for the survey of the US-Canada boundary from the Lake of the Woods to the Rocky Mountains, published in the *Journal of the Royal Geographical Society*, provides an illustrative example.⁶⁸ Consisting of six British officers, a contingent of Canadian surveyors and assistants, forty-four of the Royal Engineers, a surgeon, a veterinary surgeon, and a geologist, the British commission was greeted at their initial camp on the Red River Prairie by a 'violent snowstorm, from the north-west, which raged with great violence for three days'. They found that in fact they could only survey this area during the frost, as the company and their transport animals could not wade through the continuous swamps when unfrozen. Anderson wrote,

Although the cold was at times intense, the thermometer often showing 40° below zero, and on one occasion 51° below zero, the working parties were for the most part protected in camp by the woods, and as long as the air was still, no great discomfort was experienced.

Yet they could not touch metal with bare hands, and occasionally found their eyelids frozen to the eyepieces of their instruments. The adventure narrative was followed by a technical appendix, heavy with jargon, detailing the commission's methodology. While they had been careful to take into account the curvature of the earth in laying out the 49th parallel, the main technical difficulty was the uneven gravitational pull of the earth, which affected the plumb-line used to take astronomical readings of latitude. The solution agreed upon by both sides was to accept the readings of the instruments as correct at the astronomical stations, and then to set up intervening boundary marks on 'lines connecting the adjacent astronomical stations having the same curvature as the 49th parallel of latitude, but not necessarily parallel to the Equator'.

Control over nature in the time of what James Scott calls 'high modernism' was seen as integral to the project of statecraft.⁶⁹ But from an international perspective it was also a key component of the standard of civilization.⁷⁰ International organizations formed in the nineteenth century to manage rivers such as the Danube and make them safe for commerce seemed to demonstrate that control over nature could be a basis for an emerging form of global governance by the

⁶⁸ Samuel Anderson, 'The North-American Boundary from the Lake of the Woods to the Rocky Mountains', *Journal of the Royal Geographical Society* 46 (1876), 228-262. See also various similar adventure narratives of boundary demarcations: E. G. Squier, 'Observations on the Geography and Archaeology of Peru', *Journal of the American Geographical Society of New York* 3 (1872), 253-282; Oliver St. John et al., *Eastern Persia: An Account of the Journeys of the Persian Boundary Commission, 1870-71-72* (London: Macmillan, 1876); Thomas Holdich, *The Indian Borderland, 1880-1900* (London: Methuen, 1901).

⁶⁹ James Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998).

⁷⁰ Joanne Yao, "'Conquest from barbarism': The Danube Commission, international order and the control of nature as a Standard of Civilization', *European Journal of International Relations* (Apr. 2018), doi:10.1177/1354066118768379.

‘civilized’ nations. The role of boundaries, especially colonial boundaries in Africa, was very similar to this. A formal institutional structure similar to the Danube Commission was only pursued in a few particular cases, such as the US borders with Canada and Mexico. But maintaining the fixity and certainty of linear borders despite the harsher conditions of nature was potentially a necessity anywhere in the world where those conditions existed, and boundary commissions contributed to a sense of ‘civilized’ cooperation in a similar way, but on a more *ad hoc* basis.

These boundary narratives drew on the wider late nineteenth century practice of mountaineering performances which affirmed a ‘manly’ imperial dominance.⁷¹ Halford Mackinder, for example, who was instrumental in the establishment of the discipline of geography, could show he was not ‘a mere arm chair geographer’ by journeying to British East Africa to climb Mount Kenya. At a time when geographers were still struggling to demonstrate the discipline’s relevance, Mackinder made much of the fact that he had beat the German climber Hans Meyer to the summit. As a theorist of international relations he stressed the importance of force and ‘man-power’, and mountaineering allowed him to demonstrate to his peers that he took his principles seriously. For George Curzon, a Viceroy of India famous for his use of elaborate imperial rituals, it was crucial that the English, as ‘the first mountaineering race in the world’, be allowed to demonstrate their empire in the Himalayas.⁷² Mountain climbing, for Curzon and many others, was not just a scientific or recreational activity but a geopolitical act which demonstrated national power and ‘virility’. It was this heroic dominance over nature and colonial spaces which diplomats made possible by drawing boundaries across maps, regardless of what mountains, snows, or jungles they might traverse, and which boundary commissions of the late nineteenth century sought to perform. Thus, while at first, ignorance of the terrain constituted a reason to hesitate before drawing boundaries in the African continental interior, it could later be portrayed as a welcome challenge, which in a smug nonchalance, the British Empire would gladly accept, as suggested by Lord Salisbury’s remark that Europeans

have been engaged in drawing lines upon 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 exactly where the mountains and rivers and lakes were.⁷³

⁷¹ Peter Hansen, ‘Vertical Boundaries, National Identities: British Mountaineering on the Frontiers of Europe and the Empire, 1868-1914’, *The Journal of Imperial and Commonwealth History* 24:1 (Jan. 1996), 48-71; Gerry Kearns, *Geopolitics and Empire: The Legacy of Halford Mackinder* (Oxford: Oxford University Press, 2009), ch. 4.

⁷² Hansen, ‘Vertical Boundaries’, 63.

⁷³ Quoted in Adekunle Ajala, ‘The Nature of African Boundaries’, *Africa Spectrum* 18:2 (1983), 180.

It was constantly implied in their interactions with people along the way that the boundary-demarcating activities of the commissioners were understood as particular to their culture, for example, at a difficult mountainous section, 'the Indians were of opinion that we should fail in our attempt to survey and mark the boundary in a continuous line across the mountain. The difficulties pointed out by the Indians were not exaggerated...' Yet the commissioners persisted, taking a whole summer season to trace the boundary through 24 miles, and using triangulation rather than the usual method of direct chaining. Later, in the middle of a semi-desert, they came across a particularly good campsite called Woody Mountain, which 'does not appear to have been visited by any travellers competent to determine its geographical position', despite that it was only thanks to a party of Sioux that they had found it, and that it had been 'for a few years the winter residence of about 80 families of half-breed hunters'.

The racialization of linear boundaries was perhaps most apparent in British India, where Indians were often employed as surveyors. It was a matter of some debate whether 'native' surveyors could be trusted to do work of the same quality as European surveyors. This was situated within wider ambiguities over the extent to which European knowledge and technological rationality could be diffused to the rest of the world.⁷⁴ The eighteenth-century notion of the unity of humankind later conflicted with the influence of evolutionary biology, leading to critiques of attempts to educate colonial subjects. An effort to expand the ranks of surveyors in India by opening recruitment beyond the few available Europeans began in the 1820s, alongside a host of reforms which included the beginnings of English-language higher education.⁷⁵ Surveys of areas outside British political control often could not be done by Europeans out of fears for personal safety, and were done instead by 'pandits' dressed as Buddhist pilgrims.

In the early nineteenth century, as colonial difference was understood in terms of a difference in education, climate, or system of government, the British tended to assume there was a 'kernel of truth' in all empirical observations, and that it was the job of the rational observer to mediate between conflicting sources. Yet in part due to the influence of evolutionary theories later on, training Indian surveyors became more controversial, for example, for Henry Rawlinson, President of the Royal Geographical Society in 1873: 'The native surveys, for settlement purposes and for the measurement of fields, are useless for geographical purposes. But the professional revenue surveys are most valuable and accurate...It is very satisfactory to find that

⁷⁴ Adas, *Machines as the Measure of Men*, ch 5.

⁷⁵ Edney, *Mapping an Empire*, 81-85.

the system of prosecuting the revenue surveys on strictly accurate principles in all their details, and of entirely getting rid of the old inaccurate native measurements, is to be introduced'.⁷⁶ By the 1890s, even Thomas Holdich, who argued strongly in favour of adopting a survey system in Africa based on 'native labour' along the lines of British India, on the grounds of 'cheapness and general efficiency', agreed that 'the chief failing in natives...is a want of method and acuteness in general observation', although it was outweighed by other inherent attributes, such as an ability to pick up languages and endure extreme climates.⁷⁷

Colonial Treaties: Necessary but No Longer Sufficient

While clearly defined territory became more closely associated with higher civilization in the nineteenth century, treaties made by European empires with native peoples they encountered and colonized meanwhile constituted an already existing territorial order which was in many cases resistant to precise territorial definition. This section examines how linear inter-imperial borders came to be layered on top of that pre-existing order, ultimately becoming more important for colonial geopolitics, but without completely erasing it. With a growing concern for keeping imperialism 'civilized', and thus avoiding territorial confusion and potentially disastrous warfare, the colonial treaty system came into crisis, never being completely discarded, but still making plain to imperial officials the need for a new, more coherent system of inter-imperial borders by the 1890s.

In the context of growing adherence to evolutionary social theories, locating the limits of civilization and, by extension, international law, became a topic of public debate in a way that it had not been previously.⁷⁸ If international law had no other basis for existence than the distinctive history of Europe, with the collapse of the metaphysical laws of nature, it was no longer clear who was able to participate in it. As JS Mill wrote in 1859, to 'characterize any conduct whatever towards a barbarous people as a violation of the law of nations, only shows that he who so speaks has never considered the subject'.⁷⁹ The many treaties which were being

⁷⁶ Henry Rawlinson, 'Address to the Royal Geographical Society', *Proceedings of the Royal Geographical Society of London* 43 (1873), 291.

⁷⁷ Thomas Holdich, 'African Boundaries, and the Application of Indian Systems of Geographical Survey to Africa', *Proceedings of the Royal Geographical Society*, 13:10 (Oct., 1891), 605.

⁷⁸ Jennifer Pitts, 'Boundaries of Victorian international law', in Duncan Bell (ed), *Victorian Visions of Global Order: Empire and International Relations in Nineteenth-Century Political Thought* (Cambridge: Cambridge University Press, 2007).

⁷⁹ *Ibid.*, 67.

negotiated each year with 'barbarous' people, then, became subject to serious criticism. To the extent that the concept of sovereignty, for example, was viewed as an exclusive inheritance of Europe, it could not be created or transferred by non-Europeans. In the context of West African colonialism, this view meant in practice that treaties conducted with local rulers were suspected of various kinds of fraud. As the British Colonial Office complained to the Foreign Office about the French and German practices of treaty-making, a trader typically

obtains from a native Chief or king, probably in consideration of a bottle of rum or a trade gun and some powder, his signature to a document which, even if it is ever read over to him, he does not understand, and then sends this paper home to France, saying that he has obtained a cession of the country. Without inquiry, the so-called Treaty is accepted, a French man-of-war proceeds to the place and hoists the French flag, and the annexation is accomplished.⁸⁰

Yet however controversial they became, colonial officials continued to seek them out in the late nineteenth century, and collecting them was often an early stage of extending colonial rule. Some maintained that in fact colonial treaties were in fact indispensable for legal title.⁸¹ Many took intermediate positions, that the treaties were not, strictly speaking, within the scope of the law of nations, but they may be politically expedient, or they may be evidence that an occupation was done peacefully, or that they granted ownership over the land, if not sovereignty, or that a responsible sovereign was morally obliged to deal fairly with its native population. Casting the colonial treaties outside the pale of strict international law only created an ambiguity around their meaning and legal necessity. Virtually the whole range of available legal positions could be reconciled with colonialism; either African rulers were able to, and had fairly granted some kind of authority to the colonizers, or their approval was not necessary. Evidence of how widespread the practice was exists not only in the hundreds of treaties left behind but also the narratives of officials racing to quickly sign as many as possible. For example in 1884 a German official won a race with the British official when the latter ran out of blank treaty forms.⁸² British administrator Frederick Lugard remarked that since

⁸⁰ R. J. Gavin and J. A. Betley (eds), *The Scramble for Africa: Documents on the Berlin West African Conference and Related Subjects 1884/1885* (Ibadan: Ibadan University Press, 1973), 64.

⁸¹ Koskenniemi, *The Gentle Civilizer*, 136-143.

⁸² Koskenniemi, *The Gentle Civilizer*, 137.

treaty making occupies a large place in most modern works of African travel, and since there are different methods of treaty making...I am anxious to explain...the proper procedure followed by responsible and duly accredited diplomats in that continent.⁸³

The colonial treaties are quite important for understanding the linearization of borders in Africa in the late nineteenth century because they had previously provided a basis for colonial territorial division which was not necessarily linear. As seen in the previous section, the colonial treaties often had no geographical references, other than the name of the polity to be ceded or the name of its ruler. This was not simply an oversight, as illustrated by Lugard, who, as mentioned above, considered treaty-making a crucial practice in imperial expansion. Based on his account of the 1892 British treaty signed with the Kingdom of Uganda, all the formalities down to the King's signature on the document were of utmost importance:

Then the king told some one to sign for him. I would not have this, and insisted on his making a mark. He did it with a bad grace, just dashing the pen at the paper and making a blot ; but I made him go at it again, and on the second copy he behaved himself and made a proper cross.⁸⁴

Despite portraying himself, in explaining this interaction, as the bringer of law and order to a realm of arbitrary despotism, no negotiation over any particular territory appears, either in Lugard's account or in the treaty itself.⁸⁵

A major reason why colonial treaties were signed, despite coming under scrutiny, was that they had provided the basis of the territorial order before large scale colonial annexations, particularly in West Africa. The colonial powers needed some way to legitimate territorial control and to distinguish which territory belonged to which power. In contrast to the colonization of the Americas in previous centuries, at some level this was assumed by all the colonial powers and not seriously challenged. The reason for this was explicated most bluntly by the American delegate at Berlin, warning against the wars which plagued American colonial history:

⁸³ C. H. Alexandrowicz, 'The Role of Treaties in the European-African Confrontation in the Nineteenth Century', in David Armitage and Jennifer Pitts (eds), *The Law of Nations in Global History* (Oxford: Oxford University Press, 2017), 282.

⁸⁴ Frederick Lugard, *The Rise of our East African Empire*, vol. 2 (London: Blackwood, 1893), 39.

⁸⁵ Edward Hertslet (ed), *A Complete Collection of the Treaties and Conventions, and Reciprocal Regulations at Present Subsisting between Great Britain and Foreign Powers, Vol. XIX* (London: Butterworth & Co., 1895), 5-7.

The present condition of Central Africa reminds one much of that of America when that continent was first opened up to the European world. How are we to avoid a repetition of the unfortunate events to which I have just alluded amongst the numerous African tribes?...As regards their usefulness in time of war, what would be the good of possessing for the purpose of military operations abroad, a dependent Colony above the falls of Yellala...The revenues which it would bring in to the mother country would never be equal to the expenses which its maintenance would require...If we take no precaution against this danger, we shall have cause to regret the incomplete character of our work. But if, on the other hand, we were able to establish guarantees against the danger of being drawn into conflicts between the interests of foreign Powers, and further even against local strifes which might eventually arise in regard to the delimitation of territory and of the rights of possession, our work would be indeed complete...They should pledge themselves to submit to arbitration, in accordance with the modern customs of civilized nations, any point of dispute which might arise between them in regard to rights of possession and territory...⁸⁶

In other words, the whole effort to colonize Central Africa would be wasted if it became heavily militarized. Unlike previous eras of colonialism, this one would have to be 'civilized' and would thus require formal procedures for claiming territory which could be understood and recognized as legitimate by the other colonial powers. Yet from this, we can see that the problem extended beyond the realm of legitimacy, indulgence in self-congratulation, and appeasement of powerful constituencies at home, although these factors no doubt played a role. The participants in the Berlin Conference, far more than in previous colonization movements, viewed their task as to achieve a degree of coordination with other powers not simply because they believed in the inherent value of what they called 'civilization'. Aside from this, 'civilization' also served their purposes of securing trade interests and maintaining or improving their status against their rivals, without risking an expensive militarization, which would defeat the purpose of economic expansion, or a conflict which could upset the balance of power.

The American delegate had articulated these political motives behind the appeal for a 'civilized' colonialism more candidly than many of the other delegates, perhaps because many of the others were more concerned with appearing interested in the conference's expressed values of abolitionism and free trade, or because referring to a possible militarization might be misinterpreted as threatening. But the avoidance of conflict through territorial order was one of the central threads running through the international legal discourse surrounding the Berlin Conference and the creation of the International Association of the Congo. In an 1883 paper, Émile de Laveleye, the co-founder of the Institut de Droit International, argued that European

⁸⁶ Gavin and Betley, *The Scramble for Africa*, 220.

rivalries should be prevented from affecting Africa through a neutralization of the Congo basin. The ongoing expedition of Pierre de Brazza to consolidate French control in the area worried him 'no longer as a lone explorer, but as a representative of France and having gunboats and several hundred soldiers at his disposal'.⁸⁷

If the explorers of other nations imitate the example of M. de Brazza and plant their national flags on the stations they establish, we will soon have on the shores of the Congo French, English, German, Portuguese, Italian, and Dutch territories, with their frontiers, their forts, their cannons, their soldiers, their rivalries, and possibly someday their hostilities. Is it not already enough to see our rivers of Europe bristling on both sides with formidable armaments? Is it necessary to reproduce this deplorable situation in the middle of Africa, and to give to the negroes, whom we claim to be civilizing, the lamentable sight of our antagonisms and quarrels?⁸⁸

Central Africa, for de Laveleye, represented a unique opportunity for the newly emerging institutions of international law to show their significance and to demonstrate the real potential of Europe to deliver peace and order in a region which was still mostly isolated from Europe's own less appealing attributes. 'Territories are badly delimited in this part of Africa', agreed Gustave Moynier, co-founder of the International Committee of the Red Cross.⁸⁹ 'I now consider urgent a precise determination of the rights that each nation can claim in these far-off places...The most important thing would be that an accord should first be established between the civilized races, which would then agree to bring the natives into the arrangement'.⁹⁰

Before the 1880s, it was the colonial treaties, not inter-imperial treaties, which had provided this order. Inter-imperial treaties did exist, but they were relatively few in number, and their geographical references were normally limited to islands and coastal points. Efforts to delineate boundaries between British and French areas surfaced in the 1860s and 1870s but did not result in anything until the 1880s. When territorial disputes arose, the usual method of defending territorial claims had been to refer to colonial treaties. For example, in 1860 Liberia seized two vessels belonging to a British trader operating in a disputed area without having paid Liberian customs, and in response the British navy stormed Monrovia and retook the vessels, demanding

⁸⁷ Émile de Laveleye, 'La Neutralité du Congo', *Revue de Droit International et de Législation Comparée* 15 (1883), 255.

⁸⁸ *Ibid.*, 256.

⁸⁹ Gustave Moynier, 'Lettre-circulaire de M. Moynier à messieurs les membres et associés de l'Institut de droit international', *Annuaire de l'Institut de Droit International* 7 (1883), 239.

⁹⁰ Gustave Moynier, 'Mémoire lu à l'Institut de droit international, à Munich, le 4 septembre 1883, par M. Moynier', *Annuaire de l'Institut de Droit International* 7 (1883), 251-6.

compensation.⁹¹ The Liberian government, however, produced treaties signed with the local rulers of the disputed area, and the British Foreign Office agreed to recognize those treaties. By failing to recognize these treaties, the British would risk delegitimizing their own colonies. When colonial treaties were dismissed as proper evidence of a title, the justification for doing so was usually not that non-state entities, in general, did not possess the capacity to enter into such treaties, but rather that the specific treaties being used did not apply, either because the ruler's authority did not extend far enough, or because the language of the treaty was missing key technical terms such as 'sovereignty'.⁹²

Thus, while the colonial treaties became questionable legally and morally, they could not be abandoned for political reasons. Yet they came under significant pressure by the 1880s, with officials increasingly unable to resolve territorial disputes this way. They reported that colonial treaties were not able to give them enough specificity to be reliable tools in defending territorial interests: 'The tribes themselves have as a rule no idea of territorial limits, their locations are constantly changing, and there exist small tribes between the large ones which owe allegiance sometimes to the one and sometimes to the other'.⁹³ Increasingly popular ideas about the uniqueness of Western civilization no doubt had much to do with this, as illustrated by the comments of one British official in Sierra Leone that 'to anyone conversant with these natives', treaties are worth 'nothing':

They consider that the signing treaties has ever been accompanied by presents and are quite ready to affix their names to anything. When the terms afterwards are distasteful to them they are ready to say 'they no make that book.' Of course to a European this view of things seems impossible and improbable, yet as a fact the people who sign are mostly absolute pagans, without one shred of civilisation or sense of truth and honour.⁹⁴

The tension between reliance on colonial treaties as evidence in cases of territorial dispute, on one hand, and their perceived unsuitability for doing so, on the other, was a potentially explosive

⁹¹ Yekutieli Gershoni, 'The Formation of Liberia's Boundaries Part I: Agreements', *Liberian Studies Journal* 17:1 (1992), 27.

⁹² See also the Island of Bulama Arbitration: John Basset Moore (ed.), *History and Digest of the International Arbitrations to Which the United States has been a Party*, vol. II, (Washington: Government Printing Office, 1898), 1916.

⁹³ J.D. Hargreaves, 'The Berlin Conference, West African Boundaries, and the Eventual Partition', in Stig Förster, Wolfgang Mommsen, and Ronald Robinson (eds), *Bismarck, Europe, and Africa* (Oxford: Oxford University Press, 1988), 319.

⁹⁴ Trina Leah Hogg, "'Our Country Customs': Diplomacy, Legality, and Violence on the Sierra Leone Frontier, 1861-1896", PhD Dissertation, New York University, 2013, 258.

issue. At Berlin, the American delegate made an argument in favour of formally requiring treaties to be made with locals before territory could be claimed, but the president of the conference shut down this discussion before it could be had, saying that it 'touched on delicate questions, upon which the Conference hesitated to express an opinion'.⁹⁵ A legal debate about the inherent significance of treaties with non-state entities not only could have derailed the work of the conference but could also have led the participants into a chain reaction of accusations that each other's territorial claims were based on treaties which were coerced, bought with 'a pair of boots, or a few bottles of gin',⁹⁶ or invalid because the local rulers who had signed it did not possess the sovereignty being ceded. Because it was unlikely that any 'amicable' agreement could be reached on the issue, the conference tacitly affirmed the status quo, meaning that imperial officials would continue to collect treaties without formal international oversight.

The main alternative to colonial treaties, as a way of ensuring an orderly process, at the Berlin Conference was not a wholesale partition of the African continent through linear inter-imperial borders. Instead, the principle of 'effective occupation' was more frequently discussed. Avoiding the embarrassing contradictions of the colonial treaties, international lawyers in the 1870s began shifting the focus to actual occupation, which they claimed was a much more rational basis for legitimate empire than the classic Spanish and Portuguese claims through right of discovery and symbolic annexation.⁹⁷ Legal positivists could hardly argue with this, as occupation was closely linked to the coercive power of sovereign statehood. Moreover, the theory of effective occupation opened the way for dissatisfied empires to delegitimize the vast territorial claims of others which they viewed as unsubstantiated. Effective occupation was thus written into the Berlin Treaty as a condition for new claims on the coast of Africa.

As a comprehensive system for dividing up colonial spoils, however, effective occupation fell short. Amidst the rhetoric of eradicating the slave trade and protecting free trade which permeated the Berlin discussions, and which was not easily separable from the participants' general aspirations to a civilizing mission, none of the colonial powers were eager to take on potentially expensive military and administrative commitments. While the Berlin Conference did much to enshrine effective occupation as a principle of territorial claims, formally it was only required for new coastal claims, and by this time there were few points on the coasts of the

⁹⁵ Gavin and Betley, *The Scramble for Africa*, 240.

⁹⁶ Frederick Lugard, *The Dual Mandate in British Tropical Africa* (London: Blackwood, 1922), 16.

⁹⁷ Koskenniemi, *The Gentle Civilizer*, 148-149.

African continent which were not claimed by one or another of the conference participants. It would have been difficult for many of the delegates to argue at the conference that a requirement of effective occupation would be too much to ask, after criticizing each other's states for empty territorial claims. But the objection to extending the rule of effective occupation beyond the coasts, as it was voiced by France during the conference, was that it necessarily implied a precise delimitation of territory, which would be difficult in the interior, where the conference had little geographical knowledge of actual conditions.⁹⁸ The delegates were divided on the issue of whether delimitations would prevent or create disputes, and the discussion of formally extending effective occupation to the interior ended there.

As late as the 1880s, the Western empires were still not entirely convinced of the necessity or desirability of delineating fixed inter-imperial borders. In fact, the original purpose of the Berlin Conference, according to Bismarck at its opening session, was to extend to Africa 'The plan followed for a number of years in the dealings of the Western Powers with the countries of Eastern Asia', which 'up to now has given the best results'.⁹⁹ While Bismarck recognized that some differences between Africa and Eastern Asia would have to be recognized, the contemporary model of colonialism in China involved vaguely indicated spheres of influence, rather than precisely demarcated territory. Many observers by then were anticipating the partition of the African continent, but this was by no means inevitable at this point, as many also predicted a partition of China that never occurred.¹⁰⁰ Whether to fix boundaries remained a topic of debate both at the level of colonial officials and at the diplomatic level. There were both advantages and disadvantages to defining boundaries, and colonial administrators recognized that in some situations it was useful to be able to deny knowing whether or not a particular place was within a British protectorate, and in other circumstances it would be embarrassing not to be able to offer a clear answer.¹⁰¹ At the diplomatic level, Portugal was as late as 1883 maintaining that drawing boundaries in the interior, where colonial control was unclear, presented 'invincible practical difficulties'.¹⁰² The British foreign secretary, on the contrary, insisted that 'A claim to extend jurisdiction arbitrarily...could not be entertained. In the interests of civilization a geographical definition is indispensable...'¹⁰³

⁹⁸ Gavin and Betley, *The Scramble for Africa*, 246.

⁹⁹ *Ibid.*, 129.

¹⁰⁰ Hargreaves, 'The Berlin Conference', 320.

¹⁰¹ R. B. Bening, 'Internal Colonial Boundary Problems of the Gold Coast, 1874-1906', *Journal of African Studies* 8:1 (Spring 1981), 5.

¹⁰² Gavin and Betley, 7.

¹⁰³ Gavin and Betley, 4.

The transition, then, from local, ad hoc agreements, mainly involving colonial treaties which did not involve specific boundaries, towards linearized inter-imperial boundaries that would later be surveyed and demarcated, was slow and reluctant. It could not proceed fully until all alternative methods of achieving colonial aims of maintaining commercial interests and avoiding inter-imperial conflict had been exhausted. While fixed boundaries, particularly in the continental interior, were seen as a last resort, however, we must consider how the system of basing territorial claims on colonial treaties became insufficient and how linear borders came to occupy this default position.

Conclusion

This chapter has examined the process of linear borders historically becoming articulated with the idea of civilization in colonial discourse and practice. This occurred along with new conceptions of law, society, territory, and history which surfaced over the course of the nineteenth century. The particular kind of law and order that defined civilization, according to these new lines of thought, was not laid down by a creator or self-evident in nature, but instead came from the historical evolution of societies. The possibility of kinds of rationalities which diverged from that defined by Christian, European, or Western civilization, but were nevertheless natural or human, was excluded ever more sharply. Territories which were not just separate areas of sovereignty but also tracts clearly defined by linear borders, became an important part of this law and order because they were based on abstraction rather than personal relations, contractual agreements rather than custom, and took advantage of the technological capacities supposedly possessed by higher civilizations.

In keeping with the concept of articulation, which stresses that relations between certain social formations are not logically necessary but historically emergent, this version of the idea of civilization was historically particular, and any analysis of its political consequences has to be empirically grounded in the relevant historical context. These trends in Western social and legal thought can in certain ways be traced back further than the late nineteenth century. But it was only in the 1860s and 1870s that these ideas began to affect the colonial order in West Africa, at both of its two sharply distinguished levels. On one hand, colonial treaties were delegitimized by the particular kind of colonial difference which was imagined as a result of evolutionary social thought, and particularly as a result of evolutionary thought's influence on international legal doctrine. Societies that did not organize themselves on a clear territorial basis, according to

nineteenth-century legal innovation, were not members of the community of nations, and as such, treaties made with them were not part of international law. On the other hand, many were optimistic about the possibilities for international law between sovereign states, and the idea of 'civilization' gave the emerging international legal profession a new foundation and purpose. This conception of an exclusive European community of nations reshaped the moral and geopolitical field within which European states competed in the late nineteenth century. Solutions to the problem of the colonial treaties which were conceptualized *a priori*, such as a free-trade zone or the principle of effective occupation, failed as a comprehensive system for land-appropriation. But this did lead to a search for a way to manage the colonization of Africa in an unambiguous way, avoiding a colonial great power war which would be costly in both material and prestige terms. A wholesale linear territorialisation of the continent was then carried out, despite contradicting most of the colonial aims of 1880, as linear boundaries had increasingly become identified with 'civilization' over the course of the century.

Seeing the linearization of borders in West Africa this way, as an articulated part of modern imperialism rather than a logical necessity, gives us a different picture from the common assumption that 'New Imperialism' or the Berlin Conference brought sharply defined territoriality to Africa. The two are related closely, but under close examination, that relationship does not appear straightforward. On one hand, signs of the process can be seen before the imperial centres had fully committed to aggressive policies of securing protectorates in the continental interior, particularly in Anglo-French diplomatic correspondence. On the other, the question of whether or not the European empires should define all their boundaries precisely was still left open at the Berlin Conference, and was not decisively resolved until the 1890s, when it was recognized in practice that no other system was workable.

The Techno-Politics of Territory

Up until now the thesis has been concerned with the historical origins of linear borders as a relatively autonomous system of governing space in international politics. Rather than being simply a second-order derivative of centralized authority (sovereignty) or rule specified by geographical area (territory), linear borders required substantially different preconditions. In particular, the previous two chapters went into detail on the way in which capitalism and 'civilization' in specific contexts came to require survey rationality and the linearization of borders. But if I am right that linear borders constitute a relatively autonomous system, they must also make a difference in international politics that cannot be reduced to structures such as sovereignty or territory. Demonstrating this is the aim of this chapter and the next. In this chapter I show how linear borders affect the politics of geographic knowledge production, and in the next, I examine the role linear borders play in the proliferation of territorial partitions since the eighteenth century.

Survey rationality, having emerged as it did in interconnected, yet particular histories, consists of specific types of knowledge which have become increasingly complex since the eighteenth century. At one time amateur surveyors in the British American colonies could often find their way through the practice, and landowning in many cases relied on some knowledge of surveying. But today, the engineering of linear borders without relying on people with a great deal of specialized knowledge, which is mediated by formal institutions like universities, is hardly thinkable. This has significant implications for the possibilities of border-drawing. In simple terms, the ability to use or call on the purveyors of this specific set of knowledge in some sense determines who is able to participate in territorial politics today. Thus one of the effects of the linearization of borders on international politics is to empower certain kinds of experts and the states that employ them.

This chapter illustrates that theoretical argument about the particular kind of power made possible through linearization by using it to make, in parallel, a historical argument. It examines the origins and impact on international politics of a body of knowledge now known as Border Studies which, especially in the late nineteenth and early twentieth centuries, epitomized the kind of scientific knowledge which underpins and is made necessary by linear borders. Border

Studies today encompasses a wide range of different types of inquiry, but its early lineage is typically thought to include works by colonial geographers such as Thomas Holdich and George Curzon which were primarily concerned with determining the conditions for the creation of stable, precise borders during that period of global history when this process was approaching a kind of universality, and during the redrawing of the borders of Europe following the First World War.¹ In particular, I trace the changing meanings of the concept of the 'scientific frontier', which was at the centre of some of the earliest debates of the field.

According to conventional narratives, the ideal of self-determination was achieved at the 1919 Paris Peace Conference, and later spread to the rest of the world through decolonisation.² This chapter complicates these narratives, arguing that the 'scientific' basis of borders drawn at Paris entailed a reflection of colonial practices back on Europe. The increasing preoccupation with territorial precision as a means of pursuing geopolitical stability was a major factor in the expansion of the discipline of geography, according to colonial officials-cum-geographers such as Thomas Holdich and Lord Curzon. With the outbreak of WWI, however, geographical discourse shifted its orientation towards Europe, and was utilised to legitimate the exclusion of Eastern Europeans from the post-war redrawing of the European map. While the new scientific geography appeared to be mobilizing on behalf of oppressed peoples, it was in fact being used to reconceptualise territorial borders based on a discourse and data which could only be accessed by a technocratic elite. This argument therefore both reverses the temporal logic of standard narratives and exposes the imperialism of Wilsonian 'national self-determination'.

In the first section I briefly retrace the colonial origins of the concept of the 'scientific frontier'. Second, I show how this concept became a respectable one in the context of an expanding academic field of geography, through colonial border-drawing practices. The third and fourth sections examine some of the ways in which linear and scientific borders affected the colonial politics of territory. Fifth, I show how the idea of the scientific frontier became generalized and applied in Europe at the Paris Peace Conference. In the final section, I offer an extended case study of one specific part of the Conference's work, in determining the boundaries of Italy, showing in more detail the impact of colonial knowledge.

¹ Vladimir Kolossov, 'Border Studies: Changing Perspectives and Theoretical Approaches', *Geopolitics* 10:4 (2005), 608.

² Eg. J. Samuel Barkin and Bruce Cronin, 'The state and the nation: changing norms and the rules of sovereignty in international relations', *International Organization* 48:1 (Winter 1994), 107-130; Christian Reus-Smit, 'Struggles for Individual Rights and the Expansion of the International System', *International Organization* 65:2 (Apr. 2011), 207-242.

The Colonial Origins of the Scientific Frontier

At the Paris Peace Conference, convened in 1919 to determine a settlement in the aftermath of the First World War, the American delegation arrived with a remarkably novel conception of how to proceed with reordering Europe and much of the world beyond, inspired by ideas associated with President Woodrow Wilson.³ Rather than the back-room diplomacy and balance-of-power politics that had characterized European politics, the Wilsonians thought, the new map would be based on knowledge, science, and expertise, and would thus be rational, logical, and just. Nations such as Poland would be reconstituted, out of their former imperial subordination, by scientifically examining the geography of their lands and peoples and taking this into account when drawing the new borders.

Like previous European settlements since the 1815 Vienna Congress, the outcome of the Paris Conference was a series of treaties defining territoriality in a particular way, as bounded by precise lines of no width. Unlike at the Vienna Congress, however, the very principles underwriting the new peace would depend far more fundamentally on the concept of the linear border, and thus the run-up to the Paris Conference provides us with a useful case study in which to demonstrate the constitutive effects of linear borders. In particular, the new borders were to be 'scientific' and required the involvement of geographers and other scientists at high levels. The question of nationality, rather than being obscured as it was in the post-Napoleonic conservative restoration, was to be put front and centre. The well-known difficulties of drawing precise lines around national groups of people, far from making it impossible to imagine linear borders, made it all the more important to involve geographers in this task, which was assumed to be the only way of apportioning territory.

Scientific frontiers had already been drawn before, however, in the colonized world. The idea of a scientific frontier was first popularized in the late 1870s within the debates around the northwest frontier of India. Associated with the 'forward' policy of Benjamin Disraeli's Conservative government and his Viceroy, Lord Lytton, it was 'a strategic concept that

³ Neil Smith, *American Empire: Roosevelt's Geographer and the Prelude to Globalization* (Berkeley: University of California Press, 2003); Jeremy Crampton, 'The cartographic calculation of space: race mapping and the Balkans at the Paris Peace Conference of 1919', *Social & Cultural Geography* 7:5 (Oct. 2006), 731-752; Lawrence Gelfand, *The Inquiry: American Preparations for Peace, 1917-1919*, (London: Yale University Press, 1963).

attempted to define the most effective arrangement of forces in order to ensure the defence of north India'.⁴ The existing frontier of India, Disraeli argued in 1878, was 'haphazard',

And, my Lords, what is a scientific Frontier compared with a haphazard one? Why, it is, as a military authority has said, this—a scientific Frontier may be defended with a garrison of 5,000 men; while, with a hap-hazard one, you may require for its defence an army of 100,000 men, and even then not be safe from sudden attack.⁵

Yet at first, while it drew on the symbolic capital of 'science' for the rhetorical purposes of drumming up support for a more militarily active policy in Afghanistan, in practice, it had relatively little to do with academic geography or any cartographic technology.⁶ While it was in part concerned with the location of a boundary, the concept could be appropriated for various uses. For William Patrick Andrew, a key developer of railways in India, for example, the frontier was unscientific because, without roads running along it, and without a bridge over the Indus River, it was inaccessible to the military. 'Thus the frontier righteously deserved the appellation "a haphazard one," not by reason of its natural configuration so much as by reason of our neglect to improve it'.⁷ Nor was the success of this rhetorical strategy a foregone conclusion. Liberal MPs derided the idea as a 'hazy phantom', for which 'the Government have not vouchsafed to us at present any definition of what they understand by it'.⁸ They ridiculed the 'military authority' the Prime Minister had cited, 'a scientific soldier writing about a scientific Frontier from a scientific club' who actually had no experience in India. In reality, military opinion was at best divided as to whether expenses could ever be spared simply by 'placing behind our backs a range of mountains 100 miles broad, 13,000 to 17,000 feet high, and swarming with turbulent and faithless mountaineers'. In fact, a mountain boundary 'is the very worst and most dangerous line to defend. You have not only to protect your main Passes...you have to watch and block every mule track, and even foot track, by which Infantry could pass in order to take your garrisons in the rear'.⁹

In this time and place, then, when the word 'imperialism' was beginning to appear in British politics as a pejorative description of Disraeli's aggressive policies and fondness for Napoleonic

⁴ Martin Bayly, *Taming the Imperial Imagination: Colonial Knowledge, International Relations, and the Anglo-Afghan Encounter 1808-1878* (Cambridge: Cambridge University Press, 2016), 252.

⁵ House of Lords Debate (HL Deb) 10 Dec 1878, 514.

⁶ Jonathan Parry, *Benjamin Disraeli* (Oxford: Oxford University Press, 2007).

⁷ William Andrew, *Our Scientific Frontier* (London: W.H. Allen & Co., 1880), 13.

⁸ House of Commons Debate (HC Deb) 9 Dec 1878, 386-387.

⁹ HC Deb 9 Dec 1878, 372-373.

pomp, the imperialist undertones of the 'scientific frontier' concept were not lost. For one Liberal MP, a 'scientific rectification of the Frontier' meant, 'in other words, an absolutely unjust and criminal invasion of another's territory, in order to obtain property which does not belong to us'.¹⁰

But the imperialism of this concept, however obvious in the 1870s, would become obscured by the time of the Paris Peace Conference, by the increasingly prevalent belief that a scientific frontier was actually possible. An important part of what changed during these decades was in the use of science and technology on the frontier. Survey technology had, of course, long been used to facilitate imperial control over India.¹¹ What was novel in the late nineteenth century was the routine frequency with which boundary commissions were sent to demarcate borders in even the most difficult of terrains, and the faith invested by British officials in the geographic certainty they engendered to uphold inter-imperial peace and the pacification of peoples on the frontier. This change in practices resulted in two things: first, the development, out of a rhetorical device originally intended to justify imperial expansion, of a whole discourse of scientific frontiers which genuinely and literally aimed at finding international stability in the use of the scientific method applied through the concepts and technology of geodesy. Second, as a corollary, rather than having to simply carry out the orders of politicians, geographers would, perhaps for the first time, necessarily have to be involved in the drawing of borders, and would be given more political significance than ever before.

Thomas Holdich and the Transformation of the Scientific Frontier through Survey Practices

While politicians debated over the merits of a possible scientific frontier, geographers were working to put it into practice, which in time changed the meaning of the concept. While in the 1870s, the whole idea of a scientific frontier could be challenged as a fanciful politician's conjecture, by the turn of the twentieth century, geographers generally recognized it as a serious concept, and debates were generally limited to whether or not a particular frontier was scientific or not. This section shows how geographical fieldwork served to make this concept a serious one.

¹⁰ HC Deb 24 Apr 1879, 999.

¹¹ Matthew Edney, *Mapping an Empire: The Geographical Construction of British India, 1765-1843* (Chicago: Chicago University Press, 1997).

For geographers such as those of the Royal Geographical Society, the Russo-Afghan Boundary Commission (1884-1886) which emerged as a response to the instability on the frontier was a watershed moment in boundary demarcation. In 1930 its work was 'still reproduced in textbooks, as an example of how such survey should be carried out'.¹² No expenses were spared in terms of personnel: 'the total strength of the Commission mounted up to a figure which certainly seemed disproportionate to the object in view...there must have been between two and three thousand members of the British Commission in Turkestan, without reckoning the small army of local employés...'.¹³ The utmost precision was attempted in maintaining the commission's location at all times, always measuring angles and distances using multiple methods, including timed telegraphs, theodolites, astronomical observations, and perambulators.¹⁴ Series of triangulations were done from Quetta in British India, through southwestern Afghanistan, to Mashad, inside Persia, the location of which was checked using a telegraph and chronometer to measure the distance to Tehran, which had already been linked to Greenwich. Proceeding from there along the new border with Russia, the triangulation series was then extended across northern Afghanistan, then towards Kabul, to link up with surveys done during the Second Anglo-Afghan War, proving mathematically the accuracy of the whole endeavour. At this point, the account of Thomas Holdich, the head of the surveying team, provides a glimpse into what has been termed the commission's 'epistemophilia (i.e., the fetishization of the acquisition of knowledge)' when this mathematical link was established:¹⁵

There was joy in the camp of the surveyors when they met again in the general gathering up of the Commission at Kabul, and found that all the great mass of patchwork fitted together with satisfactory exactness, and that the work of two years was closed with no displacement, and no corrections necessary in our geographical maps.¹⁶

In 1887 Holdich received the Gold Medal of the Royal Geographical Society for his services on the boundary commission, and soon found himself the society's expert on borders, becoming in 1892 the Superintendent of Frontier Surveys.¹⁷ It was by drawing on this experience and prestige that, shortly thereafter, he began to argue a point which he would continue to argue for

¹² Kenneth Mason, 'Colonel Sir Thomas Hungerford Holdich, K.C.M.G., K.C.I.E., C.B.', *The Geographical Journal* 75:3 (March 1930), 212.

¹³ Thomas Holdich, *The Indian Borderland, 1880-1900* (London: Methuen and Co., 1901), 99.

¹⁴ James Hevia, *The Imperial Security State: British Colonial Knowledge and Empire-Building in Asia* (Cambridge: Cambridge University Press, 2012), 98-103.

¹⁵ Hevia, *Imperial Security State*, 103.

¹⁶ Holdich, *Indian Borderland*, 164.

¹⁷ Mason, 'Thomas Holdich', 212.

decades, and which would provide a compelling rationale for a generalized scientific study of borders: borders drawn by politicians alone were unscientific and needed input from geographers.¹⁸ While the expansion of geographic study had long been associated with imperialism in the general sense that knowledge facilitated control, Holdich was making a more specific case that greater scientific attention to borders would help politicians to draw more permanent and more effective borders and therefore serve the cause of empire. The problem was one which received much more attention later, during the period of decolonization: the straight-line boundaries being drawn in Africa ignored local realities. Drawing boundaries 'crossing the lines of drainage and dividing the main arteries of a country, jump[ing] from ridge to ridge' was 'unscientific, for it is the application of an absolute quantity to what is really a differential problem'.¹⁹ For a young discipline just becoming established in British universities, Holdich's case for greater national investment in geography was politically relevant, directly applicable, and well-timed.

After then serving on the Afghan-Indian—or 'Durand Line'—Pamir, and Perso-Baluch Boundary Commissions, Holdich re-articulated his argument, stressing that 'Misunderstandings, delays, expense, and mutual international mistrust have over and over again arisen from quite insignificant causes connected with inattention to exactness in geographical definitions'.²⁰ He gave multiple examples of catastrophically imprecise phrases found in boundary treaties, such as 'the foot of the hills' or 'in an easterly direction'. The Himalayan mountains made an excellent border, 'provided we do not define it as the watershed between India and Tibet...What is true of the Himalaya is true of nearly all the great mountain systems in the world, *i.e.* the watershed of the system is beyond, and apart from, the highest mountain chain'.²¹

What was most important about Holdich's line of argument was that the stakes of making borders scientific went far beyond the frustrations of an insignificant survey officer tasked with delimiting an impossible boundary. Far from remaining a problem of the survey officer on the ground, the difficulties encountered by the surveyor rebounded back into the political sphere and risked violent confrontation. 'The first rock upon which delimitation treaties split', as he put

¹⁸ Thomas Holdich, 'African Boundaries, and the Application of Indian Systems of Geographical Survey to India', *Proceedings of the Royal Geographical Society* 13:10 (Oct. 1891), 596-607.

¹⁹ Holdich, 'African Boundaries', 599.

²⁰ Mason, 'Thomas Holdich'; Thomas Holdich, 'The Use of Practical Geography Illustrated by Recent Frontier Operations', *The Geographical Journal* 13:5 (May 1899), 467.

²¹ Holdich, 'Practical Geography', 469.

it, was 'the want of geographical knowledge.'²² Indeed, he claimed that the highest political consequences attended on unscientific boundary agreements:

It is, perhaps, in those international negotiations and agreements which concern the political status of great countries, and determine their boundaries and the respective limits of their responsibilities, that the danger of inaccurate geographical knowledge is greatest, and the results of it are the most disastrous...[L]ooking back over the boundary episodes of the last twenty years...the greater part of the political difficulties which have arisen in connection with boundary demarcation have been due to a want of appreciation of the necessity for a sound geographical basis to the text of treaties and agreements.²³

In effect, Holdich was calling upon politicians to cede ground to scientific geographers, in the interest of better politics. In direct terms, Holdich's argument was heeded to some extent, gaining some followers within geography. As Edmond Hills put it,

[W]e have at this moment in Africa alone about 5000 miles of frontier common with France...[which] contain the germs of future misunderstandings. To avoid and guard against such misunderstandings is the function of the diplomatist and to aid him in this task he must call to his assistance the scientific geographer...to uphold the interests of our country and to safeguard the peace of future generations.²⁴

Holdich went on to be frequently referred to as the ultimate expert on borders, or according to Francis Younghusband, one of the more prominent frontier officers, 'the greatest authority in the world on the practical work of demarcation of frontiers'.²⁵ When Britain arbitrated a Chile-Argentina border dispute, then, he was asked to lead a boundary commission which became a textbook case in political geography, and is a crucial illustration of the steady encroachment of experts on politics through the science of border-drawing.²⁶ As usual, Holdich's observation about the Chile-Argentina dispute was that it was fundamentally based not on a power-political clash of interests but rather on a defective understanding of geology. It had been previously assumed that the watershed boundary and the highest crest of the Andes mountains were one

²² Thomas Holdich, 'Geographical Problems in Boundary Making', *The Geographical Journal* 47:6 (June 1916), 424.

²³ Holdich, 'Practical Geography', 467.

²⁴ Edmond Hills, 'The Geography of International Frontiers', *The Geographical Journal* 28:2 (Aug. 1906), 154.

²⁵ Holdich, 'Geographical Problems', 436.

²⁶ S. Whittmore Boggs, *International Boundaries: A Study of Boundary Functions and Problems* (New York: Columbia University Press, 1940), 91; Stephen Jones, *Boundary-Making: A Handbook for Statesmen, Treaty Editors and Boundary Commissioners* (Washington, DC: Carnegie Endowment, 1945), 99.

and the same. But anyone familiar with as much practical experience of boundary demarcation in mountain ranges as Holdich had accumulated on the frontiers of India, he suggested, would know that this is almost never the case in reality. This would make him, rather than a diplomat or a legal expert, or anyone with direct knowledge of South America, the best person to secure peace between the two countries.

When Holdich returned from the commission, which determined a line which was agreed upon by the Chilean and Argentinian governments, it was widely hailed as a success, and the stability of the border thereafter was attributed to Holdich's expertise. According to Douglas Freshfield, the President of the Royal Geographical Society, the Chile-Argentina delimitation

by Sir Thomas Holdich and his colleagues, has been the means of preventing a war which threatened to be long and ruinous to two young and growing States. So highly was their work appreciated in South America that when a similar dispute arose between Peru and Bolivia the statesmen on both sides applied for the help of British officers, with this difference—that instead of appealing to His Majesty's Government they came to the Council of the Royal Geographical Society and begged us in the final resort to act as arbitrators.²⁷

By bypassing the British government and going straight to the RGS, Peru and Bolivia demonstrated to the geographers that their influence had, at least in this case, surpassed that of political authorities. Holdich himself went even further in estimating the importance of this knowledge. For him, the success of the Chile-Argentina delimitation was just an illustration of the progress of geographical science in limiting warfare through the global process of the linearization of borders.

This is an age of boundary making, of partitioning and dividing up territory, and it has by no means come to an end yet. It may well continue as long as the world endures...All sorts of countries, under all sorts of governments, from the black barbarism of Central Africa to the hot-house civilization of South America, have been subjected to the process, and of all of them may the same thing be said, i.e. that the process of frontier defining has resolved itself into a strictly geographical problem. It must always be so.²⁸

Being reduced from power-politics to a 'strictly geographical problem', scientific borders would tame the instabilities of even the most warlike and irrational civilizations by removing one of the

²⁷ Holdich, 'Geographical Problems', 439.

²⁸ Ibid., 424.

main causes of war, geographical ignorance. While the geographical education of statesmen had only fifty years earlier been almost non-existent, he argued, recently,

many boundaries have been settled in many quarters of the globe (especially in Africa and in South America) which have led to no disastrous disputes whatever, and have called for no arbitration. This is a satisfactory proof of the gradual development of geographical teaching for which the Royal Geographical Society may fairly claim a share of credit.²⁹

It is important to remember that statements such as these were always aspirational, and should be considered as part of a process rather than taken seriously as declarations of success. Holdich realized this as well as anyone, by acknowledging that the age of boundary making 'has by no means come to an end yet', and 'may well continue as long as the world endures'. Borders in all parts of the world, including British India, continually required further bordering efforts into the twentieth century. Historians have rightly stressed the fractured nature of the colonial state's spatial projects, characterizing them as 'contested and fragmented zones of variable state penetration, knowledge, and interest, which only intermittently and in limited respects held together as coherent wholes'³⁰

But the important point to take from these efforts of Holdich and other geographers was a dramatic widening of the idea of scientific boundary-drawing from what could otherwise have been considered minor technical issues on the frontiers of British India to an explanation for the general lack of inter-imperial conflict in the ongoing worldwide scramble for colonies. In effect, he was arguing against what would become the realist approach of International Relations, or the idea that only centralized state power could determine war and peace. It was not the security dilemma or competition for resources that would cause war, but simply ignorance of the contours of the earth's surface. Yet neither was it common economic interests, international law, or supranational governance that would provide the basis of a more peaceful international system. It would fall to scientific geographers to specify increasingly closely and more carefully the geographical confines of the territory of each nation and each empire which would function as barriers against warfare. True knowledge, rather than power, self-interest, or common humanity, would secure a territorial peace.

²⁹ Ibid., 432.

³⁰ Thomas Simpson, 'Bordering and Frontier-Making in Nineteenth-Century British India', *The Historical Journal* 58:2 (2015), 515; see also Lauren Benton, *A Search for Sovereignty: Law and Geography in European Empires, 1400-1900* (Cambridge: Cambridge University Press, 2010).

From Reason of State to Reason of Science: The Politics of Scientific Geography

Whether due to the persuasive power of Holdich's articles in *The Geographical Journal* themselves, or simply because of a larger shift in British geographical discourse, the increasing usage of a scientific logic in imperial frontier politics was a theme of the pre-WWI decades. From the beginning of the inter-imperial confrontation on the Northwest Frontier of British India, the discourse of power politics had always been a recurring frame for British understandings of the region, whether this was in terms of maintaining the prestige thought necessary for continued control over India, or in terms of playing a 'Great Game' with Russia for the inner Asian continent. As is well known, power-political discourse flourished in Western understandings of the world more generally in the late nineteenth century, with the growth of social Darwinism, and the beginnings of geopolitics as a distinct mode of thought, via Friedrich Ratzel, Ellen Semple, and Halford Mackinder.³¹ Less well-known, however, is the branch of colonial frontier science which, in parallel to European geopolitics, developed from the work of frontier officers such as Holdich. This can be seen in many of the issues of *The Geographical Journal*, the journal of the Royal Geographical Society, in the decades prior to the First World War.

While informed by, and occasionally in conversation with the promoters of geopolitics, these frontier geographers, in contrast, aimed to remove political contestation from its central role in compartmentalizing the not-yet-colonized world, and replace it with a scientific logic. One way this was done was by attributing conflict not to contradictory imperial interests and goals within a particular region but instead simply to geographical ignorance, perhaps inspired by Thomas Holdich's many articles on this line of argument. On the Nigeria-Cameroon boundary, for example, the contest was not between Britain and Germany but between the dangers of ignorance and the stability to be gained through co-operation and knowledge, according to one frontier commissioner:

The whole demarcation had been carried out on the give-and-take principle, within the limits laid down, neither side gaining or losing any appreciable amount of territory...It is hoped that this demarcation will be final, and that this, the least-known and most mountainous frontier in West Africa, which has taken so many years to determine, is now permanently established. There should

³¹ Gerry Kearns, *Geopolitics and Empire: The Legacy of Halford Mackinder* (Oxford: Oxford University Press, 2009); Geoffrey Parker, *Geopolitics: Past, Present and Future* (London: Pinter, 1998).

be no local frontier difficulties, as the officials on both sides are now furnished with an identic map, whereas hitherto they have had no maps at all.³²

The important assumption to recognize here is that any 'frontier difficulties' would arise from frontier officers lacking specific cartographic information about their responsibilities. The absence of this information would either result in accidental territorial transgressions or provide a cover for ambitious officers looking to advance their frontier. The 'give-and-take' of the boundary commissioners, then, unlike politically engaged frontier officers, transcended the geopolitical goals of their respective empires and worked cooperatively to make the world safe for a more cosmopolitan colonialism.

At the same time, of course, despite the apparent cosmopolitanism of this international regime of knowledge and science, only certain people could possess this knowledge, and only certain kinds of knowledge mattered. Earlier boundary commissions, and especially those in Asia rather than Africa, had taken an arguably much broader range of types of information, such as the Goldsmid Mission which arbitrated between Persia and Afghanistan in 1870-72.³³ They had followed a pattern more akin even to early boundary missions in France in the early seventeenth century, in that gathering information from locals by word of mouth was integral to the process.³⁴ This included, for example, genealogical, legal, and historical evidence which helped the commission to linearize and fix boundaries that already existed but in a vague and fluctuating condition.

By the time the 'scramble for Africa' was clearly underway, however, the narratives written by boundary commissioners stuck strictly to scientifically verifiable facts. In particular, geological knowledge appears increasingly, such as the following:

It appeared to me that the whole region lying along the frontier from the Niger to the bluffs near Bussa and the Duchin Zana, extending to the north as far as Tawa, or even further, and possibly to the south as far as Sokoto, had, some time after the deposition of the shale above the chalk, been covered with a sheet of lava, of which the laterite is now the remains. The portion of this sheet

³² V.W. Nugent, 'The Geographical Results of the Nigeria-Kamerun Boundary Demarcation Commission of 1912-13', *The Geographical Journal*, 43:6 (Jun., 1914), 648.

³³ Benjamin Hopkins, 'The bounds of identity: the Goldsmid mission and the delineation of the Perso-Afghan border in the nineteenth century', *Journal of Global History* 2:2 (July 2007), 233-254; Oliver St. John et al., *Eastern Persia: An Account of the Journeys of the Persian Boundary Commission, 1870-71-72* (London: Macmillan, 1876).

³⁴ David Buisseret, 'The Cartographic Definition of France's Eastern Boundary in the Early Seventeenth Century', *Imago Mundi* 36 (1984), 72-80.

lying east of the line Illela-Tawa must have become subject to subaërial denudation for some long period before the westerly portion, to account for the very much greater depth of the valleys. Probably, therefore, when the lava flowed over the bottom of the shallow waters in which the shales were being deposited, the earth-crust in this region was undergoing a gradual upheaval, the eastern portion rising before and higher than the western.³⁵

Unlike genealogical information, for example, locals appeared to have little to contribute to this type of newly important knowledge. This is not to say that the surveyors could afford to ignore them in the process of boundary-drawing. The desirability of drawing borders following the contours of existing political units was never completely lost on them, and rather than falling out of the picture entirely, local political units simply blended into the naturalized landscape from the perspective of colonial geography. As the mountaineer and later RGS president Douglas Freshfield put it, 'no line can be satisfactory that bisects the Ruwenzori range, the intricate valleys of which are inhabited by closely connected tribes...as a general rule, a frontier region is peculiarly liable to disorders where among primitive peoples it runs through the heart of a chain'.³⁶ Maintaining good relations with the locals they encountered was apparently a central consideration commissions made:

I invariably sent on a messenger overnight from each village to my next halting place, after he had seen me pay the headmen of villages for goods received. This went a long way towards promoting a proper understanding with the inhabitants of the country; it is so often due to a most trivial misunderstanding that regrettable incidents occur, sometimes causing delay, or even failure, in many of the not unimportant undertakings of the work of a Boundary Commission...[Native servants] can help or hinder equally well; it is so easy to spoil them, yet any show of mistrust is equally fatal.³⁷

Indeed, boundary commissions met some of their greatest obstacles in local resistances.³⁸ In India as well, as Matthew Edney shows, survey workers were often opposed by those inhabiting the land under surveillance.³⁹ For boundary commissions on the frontiers of India, military escorts could number in the thousands. In Africa they were generally smaller, with the escort of

³⁵ G.S.McD. Elliot, 'The Anglo-French Niger-Chad Boundary Commission', *The Geographical Journal*, 24:5 (Nov., 1904), 513.

³⁶ Douglas Freshfield, 'Ruwenzori and the Frontier of Uganda', *The Geographical Journal* 28:5 (Nov. 1906), 486.

³⁷ C.B. Simonds, 'With the Anglo-French Niger-Chad Boundary Commission', *Journal of the Royal United Service Institution* 55:1 (Jan. 1911), 475.

³⁸ For another example, see G.F.A. Whitlock, 'The Yola-Cross River Boundary Commission, Southern Nigeria', *The Geographical Journal*, Vol. 36, No. 4 (Oct., 1910), pp. 426-438.

³⁹ Edney, *Mapping Empire*, 326-331.

the 1907 Anglo-German Nigeria-Cameroon boundary commission, for example, at its largest, consisting of 101 soldiers of the Southern Nigeria Regiment. The geographical and geological descriptive narratives of commissioners were seamlessly interwoven with episodes such as the following: 'The attitude of the natives was friendly to the Commission throughout, except in the Sonkwala valley. This valley is inhabited by Bassas, who are cannibals', which was the only given explanation for why the commission was attacked, killing one Southern Nigerian soldier. After retreating, the commission acted quickly in retaliation:

Fortunately, at this time Oberleutnant Von Stephani, who had taken over the duties of German Commissioner, was expected at my camp, so, knowing that the inhabitants of the Sonkwala valley numbered 2500 men, and that it was doubtful how far the hostility had spread, I asked him if he would assist us...Bika and the surrounding villages were attacked, the natives not making much resistance, and a couple of Maxim guns being brought into action at about 5000 feet above sea-level completed the rout. This put an end to the actual resistance.

Unlike the information-finding and -sharing between colonial powers that was crucial for effectively fixing boundaries, then, it was necessary to maintain a distance from the 'natives', from the perspective of boundary commissioners, or even to conceal information about the boundaries being drawn around them:

In those days we just took a blue pencil and a rule, and we put it down at Old Calabar, and drew that blue line up to Yola...I recollect thinking, when I was sitting having an audience with the Emir, surrounded by his tribe, that it was a very good thing that he did not know that I, with a blue pencil, had drawn a line through his territory.⁴⁰

Here the structure of knowledge production has been entirely reversed from the old model of a boundary commission as essentially an exercise in asking locals where the boundary is. Instead of providing the key source of knowledge, the locals are more likely to be considered a threat to the entire project of the boundary commissions to secure a territorial peace, and if anything, information is to be kept from them rather than gained from them. Of course, the knowledge of colonized peoples was usually crucial in the construction of empire, but imperial officials were at pains to obscure this fact.⁴¹

⁴⁰ Claude MacDonald, 'The Geographical Results of the Nigeria-Kamerun Boundary Demarcation Commission of 1912-13: Discussion', *The Geographical Journal* 43:6 (June 1914), 649.

⁴¹ Christopher Bayly, *Empire and Information: Intelligence Gathering and Social Communication in India, 1780-1870* (Cambridge: Cambridge University Press, 1996).

Viewing the 'scramble for Africa' with a focus on the boundary commissioners who physically enacted the re-division of the continent, then, reveals a picture quite different from a group of national representatives sitting around a map in Berlin. Rather than a process of negotiation between competing national interests on a Bismarckian geopolitical chessboard, the surveyors reveal a struggle between 'scientific' knowledge on one hand, and on the other hand a vast array of other types of knowledges. As can be seen from this section and the previous section, scientific geographers waged this knowledge war on two fronts. On one front, using discursive methods vis-à-vis political officials and diplomats, they began to establish their exclusive claim to know the terrain being divided up, and to know how to divide it up in a way that would minimize interstate warfare. Whether consciously and actively in cases such as Thomas Holdich, or simply by contributing to the same corpus of geographical knowledge and expertise, they worked to delegitimize traditional methods of territorial appropriation as ignorant, irresponsible, haphazard, and impermanent. By promoting friendly 'give-and-take' with boundary commissioners of other empires and settling borders by mutual agreement, they sought to limit the potentially dangerous activities of frontier officers, who were either hot-headed or without sufficient information, and ultimately to colonize the world in a 'civilized' and orderly fashion.

On the other front, they fought in a more physical and direct way the 'natives' who stood in their path. Yet the theodolites, perambulators, and chains that the surveyors carried with them were just as essential as weapons as their Maxim guns. Rather than try to infiltrate, co-opt, and reshape already existing knowledge networks, boundary commissions were increasingly used to replace them with more 'accurate' and 'scientific' knowledge. Despite the cosmopolitan appearances of boundary commissions, and the universal pretensions of the knowledge they applied, this shift precipitated by geographers away from understanding boundaries in local terms towards a technical application of scientific knowledge cannot be understood without referring to the colonial context in which it developed. The cultural differences perceived between colonizer and colonized were crucial in setting up the distinction between the valid knowledge of the surveyors and the supposed indifference or hostility to knowledge of the 'natives', which necessitated the development of a whole new apparatus for establishing territorial boundaries. Without the opening of this gap between knowledge systems, there could hardly have been such a great need for a geographical discourse which required no input from locals.

Holdich's argument in favour of better geographical knowledge in frontier regions was made through articles in *The Geographical Journal*, but its significance was by no means limited to academic circles. In 1907, having returned from his position as Viceroy of India after resigning in disgrace over a dispute with his Commander-in-Chief Lord Kitchener, Lord Curzon delivered a Romanes Lecture at Oxford University, on the subject of frontiers, which would be both applauded by ardent imperialists and long remembered in the field of Border Studies.⁴² The basic point was that in order to further the imperial civilizing mission, the British Empire needed to pay more systematic attention to its frontiers:

Frontiers are the chief anxiety of nearly every Foreign Office in the civilized world, and are the subject of four out of every five political treaties or conventions that are now concluded...as a branch of the science of government Frontier policy is of the first practical importance, and has a more profound effect upon the peace or warfare of nations than any other factor, political, or economic...⁴³

Curzon went on to argue that much of human history, in any time and in any place, could be interpreted as a history of border struggles:

In our own country how much has turned upon the border conflict between England and Scotland and between England and Wales...The Roman Empire, nowhere so like to our own as in its Frontier policy and experience - a subject to which I shall have frequent occasion to revert - finally broke up and perished because it could not maintain its Frontiers intact against the barbarians.⁴⁴

This was Curzon's particular interpretation of both history and of contemporary international relations, but it was not extremely far removed from the conversations happening in British imperial circles at the time. The debates over establishing conscription and reorganizing the War Office, for some, hinged on Britain's conterminous frontiers. For example, Lord Rosebery, who was not in favour of conscription, called it

a melancholy and arduous burden laid upon the great European States by reason of their conterminous frontiers, and by their mutual armed exertions. This nation, which has not these frontiers, would never undertake that burden...⁴⁵

⁴² George Curzon, *Frontiers* (Oxford: Clarendon Press, 1907).

⁴³ Curzon, *Frontiers*, 4.

⁴⁴ Curzon, *Frontiers*, 8.

⁴⁵ HL Deb 24 Mar 1903, 19.

Yet in response to such arguments Prime Minister Arthur Balfour retorted, just as Curzon would later argue in his Romanes Lecture:

[N]o man can blind himself to the fact that the whole trend of circumstances in the East is to make us a Continental Power conterminous with another great military Continental Power, and that is the dominating circumstance which we have to take into account in framing our Army Estimates.⁴⁶

One speech, by the conservative imperialist Lord Meath, particularly closely prefigured Curzon's frontiers lecture. Arguing that 'some form of universal military training [was] necessary for the safety of the Empire', it was the great extent of frontiers across the world that was the primary factor to be considered:

We have an ever-increasing Empire with extensive land frontiers, and I am afraid there are many who do not appreciate the extent of those frontiers. For so long in our history were we an island kingdom that we have got accustomed to think that we still are more or less an island Empire...If we look into the matter, we find that our Empire has extensive frontiers conterminous with the United States, France, Germany, Russia, Spain, Portugal, Holland, Belgium—if the Congo Free State be considered as practically administered by Belgium—Italy, Turkey, China, Persia, Siam, Mexico, Venezuela, and Guatemala...the land frontiers of our Empire are probably more extensive than those of any other Power in the world.⁴⁷

A paraphrased version of this speech was Curzon's starting point in his 1907 lecture:

I wonder, indeed, if my hearers at all appreciate the part that Frontiers are playing in the everyday history and policy of the British Empire. Time was when England had no Frontier but the ocean. We have now by far the greatest extent of territorial Frontier of any dominion in the globe...We commonly speak of Great Britain as the greatest seapower, forgetting that she is also the greatest land-power in the Universe.⁴⁸

Whether or not one sees linear borders when one looks at politics will necessarily depend on one's perspective. The imagery of the line may or may not be a relevant reference point, depending on one's lived experiences and the symbols that one is exposed to. But for rationalizing global empires increasingly interested in totalizing geopolitical theories, it was convenient to think of the world in these terms, which seemed just as valid in the 'empty spaces'

⁴⁶ HC Deb 9 Mar 1904, 624.

⁴⁷ HL Deb 20 Feb 1905, 543-544.

⁴⁸ Curzon, *Frontiers*, 8.

of Africa as they were in the middle of European 'homelands'. Given that space is assumed to be universally divisible by lines into discrete territories, borders can act as a kind of lowest common denominator for thinking about international politics, and virtually any political problem can seem to be addressed by moving a boundary or drawing a new one. Under conditions of formal rationalization, where a premium is placed on the methodical application of universal rules, such a reductionist view of politics is in high demand.

Over the course of the late nineteenth and early twentieth centuries, the faith of certain influential geographers in their ability to address political problems such as the problem of war with the concepts, theories, and practical experience of their own discipline suddenly increased. In particular, the idea took hold among many that border-drawing between territories was a process which crucially involved a heavily technical component, and was thus a threat to international stability when left solely in the hands of politicians and diplomats. While British geography had always been implicated in the colonial project, its political implications had been largely implicit in the mid-nineteenth century. To some, geography's political implications were simply accidental. The idea of a 'scientific' frontier meant little more than a secure one, or a well-designed one, and for opponents of a forward policy on the Afghan frontier, it amounted to a thin disguise for a dangerous expansionism.

To a large extent this shift can be attributed to events and experiences of colonial relations. The origins of the phrase 'scientific frontier', for example, were in the policy debates over the Northwest Frontier of British India and the relations of the British Empire with Afghanistan. It later became a key term of the early debates in border studies primarily through the writings of Thomas Holdich, one of the more prominent frontier officers of British India, and a key factor in the persuasiveness of Holdich's arguments were his experiences in border drawing from India to South America. The great many border commissions implemented in the decades leading up to WWI, mostly in the colonial world, were also a significant factor in consolidating the confidence of geographers in their ability to stabilize international politics through the application of technical expertise. Since no major colonial war had broken out, the narrative went, amidst the colossal re-appropriation of the earth's surface that was nearing its end, border commissions must have been doing their job well.

Colonial Reflection: Scientific Frontiers at the Paris Peace Conference

The idea that a border could be ‘scientific’, which emerged in late nineteenth- and early twentieth-century debates, at first primarily in the context of the expansion and rationalization of British imperial rule, had far-reaching consequences. This section explores how this idea underwrote the Paris Peace Conference of 1919, which, in contrast to previous comparable settlements such as the Vienna Congress of 1814-1815, relied heavily on experts such as geographers. At Vienna, the goal of many of the leading diplomats had been to achieve a balance of power after the chaos and transformation brought by the Napoleonic and French Revolutionary wars.⁴⁹ Populations and territories were beginning to be counted and tabulated to some extent, but reliable figures and exhaustive cadastral mapping were not quite yet available. Moreover, what was most important was that the settlement would be legitimate—in a conservative sense of the word—and would contain safeguards against the rise of another Napoleon, particularly through a balance of power, by then an old, traditional concept. ‘The balance of power was not to be simply a territorial arrangement; it was, more importantly, a strategic and military balance. It could not be weighed precisely, and was not measured or calculated to leave each of the five powers with an equal share’.⁵⁰

At Paris, by contrast, much of the territorial content of the resulting treaties were processed by experts, rather than simply politicians or diplomats. The Paris Peace Conference of 1919. Bringing the First World War officially to a close, the Paris Conference was centrally concerned with territorial changes in Europe, drawing three thousand miles of new borders. With the collapse of the major continental European empires, the victorious Allies sought to balance resurging national aspirations against each other, along with their own interests, in a turbulent context of revolution and scattered continuing warfare. The difficulties of drawing linear borders cartographically separating intricately intermixed national groups were well known, but the institution of linear borders was never seriously questioned, resulting in an advantage to those who could best manipulate them. Thus in a certain respect, the basic logic of the peace process resembled more closely the colonial boundary-drawing of the late nineteenth century and early twentieth centuries than the Vienna Congress. While there had been some precedent for peace preparations during wartime, this was done during WWI to a far greater extent than before, by France, the British Empire, and the US. The Americans at Paris believed that all sorts of

⁴⁹ Mark Jarrett, *The Congress of Vienna and its Legacy* (London: I.B. Tauris, 2013), 85.

⁵⁰ Tim Chapman, *The Congress of Vienna: Origins, Processes, and Results* (New York: Routledge, 1998), 19.

information had to be compiled, from ethnic and linguistic demography to history to economic data, and processed together by appropriate experts, into the end product: maps with certain linear borders. It was this scientific process, more than any traditional concepts such as the balance of power, which would legitimate the peace. At Vienna, delegates had aimed at a general balance of population sizes, but at Paris, the nationality of populations down to the village level was hotly contested.

Despite increased scholarly attention to the topic, the concept of the scientific frontier did not become any clearer, and differing definitions proliferated rather than becoming consolidated. In some cases, the imprint of the colonial boundary-drawing experience is more or less directly observable, which I deal with later in the chapter. But the new map of Europe drawn at Paris was not always a direct implementation of any of the particular ideas of Holdich or Curzon, although the geographers consulted were undoubtedly familiar with their work. More importantly, it is the idea that the 'scientific frontier', once Benjamin Disraeli's much-mocked, thinly veiled justification for imperial expansionism, could be genuinely put into practice in the first place, and on a global scale, that is owed to their careers as geographers, and which forms a link between Holdich's imperial 'boundary-making era' of the late nineteenth century and the scientific peace of the early twentieth century.

The Generalized Scientific Frontier

The possibility of recognizing a scientific boundary or frontier anywhere, as opposed to the earlier use of the phrase 'scientific frontier' in its specific context of the British India frontier debates, can be observed before the First World War in the work of Ellen Semple, the first female president of the Association of American Geographers. In an influential book which adapted Friedrich Ratzel's environmental determinist human geography, or 'anthropogeography', for introduction to an Anglophone audience, Semple defined a 'scientific boundary' as 'Any geographical feature which...presents a practically uninhabitable area'.⁵¹ This was 'not only because it holds apart the two neighboring peoples and thereby reduces the contact and friction which might be provocative of hostilities, but also because it lends protection against attack'. Examples included the Appalachian Mountains to the west of the Thirteen Colonies and the Scandinavian Mountains between Norway and Sweden. While scientific boundaries were often

⁵¹ Ellen Semple, *Influences of Geographic Environment: On the Basis of Ratzel's System of Anthropo-Geography* (New York: Henry Holt and Co., 1911), 215-216.

mountains, they could also potentially be rivers, in the presence of ‘some physiographic feature which makes the stream an obstacle to communication’, such as the lowest portion of the Danube, ‘strewn with swamps and lakes, and generally unfit for settlement’.⁵² Semple was not the first to use the phrase, but she may have been the first to give it this particular definition, and the first geographer to discuss the concept theoretically. Ratzel theorized ‘geographical’ or ‘natural’ frontiers as obstacles to human movement or habitation, but used the phrase ‘scientific frontier’ rarely, in quotation marks, and in a very different way, referring the entrenched, fortified boundaries of old states rather than geophysical features.⁵³ As Semple drew extensively on Holdich’s and similar work, it is likely that mountain barriers came through as such an effective ‘scientific boundary’ here in large part because of the importance of mountain boundaries for British India and, by extension, Anglophone geography, rather than because of Ratzel.

But the real moment for a generalized scientific approach to borders in geography came with the outbreak of the First World War, when the question of the future boundaries of Europe was posed virtually as soon as the war began. In this context Holdich, as the designated boundaries expert among British geographers, became associated with the concept after he argued for a generalized ‘scientific boundary’ using mountain chains and watershed boundaries.⁵⁴ Showing the extent to which his background in colonial surveying shaped his view of boundaries, Holdich continued to point to the Himalayas as the absolute ideal frontier. Lionel Lyde, on the other hand, made an internationalist argument against Holdich’s boundaries of separation: ‘The insistence on physical barriers and purely military frontiers denies alike the fundamental economic unity of the world and the dawning political comity of Man.’⁵⁵ Instead he favoured river boundaries for purposes of assimilation; ‘In a navigable river’, he argued, ‘we have a feature encouraging a maximum of peaceful tendencies’.⁵⁶ Economist Simon Patten, moreover, argued that economic progress made it inevitable that states would conform to large economic zones. ‘Scientific boundaries could easily be arranged that would bind together the people within them’, while a small state like Belgium, for example, ‘is an artificial state created out of the whole

⁵² Semple, *Influences of Geographic Environment*, 361.

⁵³ Friedrich Ratzel, *Géographie Politique*, trans. Pierre Rusch and Charles Hussy (Geneva: Éd. Regionals européennes, 1988), 345; *Politische Geographie* (Munich and Berlin: R. Oldenbourg, 1903), 560.

⁵⁴ Thomas Holdich, ‘Political Boundaries’, *Scottish Geographical Magazine* 32:11 (1916), 497-507; Albert Brigham, ‘Principles in the Determination of Boundaries’, *Geographical Review* 7:4 (April 1919), 205.

⁵⁵ Lionel Lyde, ‘River-Frontiers in Europe’, *Scottish Geographical Magazine* 32:12 (1916), 545-555.

⁵⁶ *Ibid.*, 555.

cloth with no regard to social or economic condition'.⁵⁷ Societies such as the RGS were concerning themselves with Europe as they never had before.

Running through the whole discourse was the question of national boundaries and whether they should become political boundaries after the war. While many agreed that states should be conterminous with nations as an ideal, while not necessarily practicable in reality, geographers such as Leon Dominian argued that it was the only way to curb warfare:

The European war is no exception to the fact that almost every conflict of magnitude has been due, in part, to ill-adjusted frontier lines...The part played by language during [the nineteenth and twentieth centuries] is of tantamount importance to the religious feeling which formerly caused many a destructive war.⁵⁸

Yet while Dominian disagreed with Holdich on the importance of nations, he held the same belief in scientific boundaries, holding that 'Never has it been realized better than at the present time that an ill-adjusted boundary is a hatching-oven for war. A scientific boundary, on the other hand, prepares the way for permanent goodwill between peoples'.⁵⁹ The reason for the particular focus on languages, rather than nations more broadly, was methodological: 'Having developed naturally, they correspond to national aspirations. Such being the case, the task of frontier delimitation can be made to assume a scientific form'.⁶⁰ The stage was set, then, for the rationalization of Europe, using the practical geographical knowledge gained and practices developed in the British Empire from the rationalization of imperial peripheries.

The Inquiry

The discourse on scientific boundaries ended up having an important influence on the Paris Peace Conference, most notably through the United States. The US was not the only involved power that was able to use this particular type of knowledge to its advantage, but it did so perhaps more clearly than any other party, through its specially designed body of experts, called

⁵⁷ Quoted in Brigham, 'Determination of Boundaries', 215.

⁵⁸ Leon Dominian, *The Frontiers of Language and Nationality in Europe* (New York: Henry Holt and Co., 1917), 328-342.

⁵⁹ *Ibid.*, vii.

⁶⁰ *Ibid.*, 332.

‘The Inquiry’.⁶¹ President Woodrow Wilson set up the Inquiry in 1917, only a few months after the American declaration of war, bringing together a large group of mostly academics from various disciplines. The Inquiry was a secretive organization separate from the State Department and answerable only to President Wilson, through Edward House, Wilson’s right-hand man, and Sidney Mezes, a philosopher of religion and House’s brother-in-law. It incorporated academics from a wide variety of disciplines, but geographers in particular exerted a strong influence over the activities of the organization, much of which consisted of making maps and reports on particular boundaries. Isaiah Bowman, who since 1915 had been reenergizing the American Geographical Society as Director, relaunching its journal as the *Geographical Review* and doubling membership, arguably emerged as the *de facto* leader and policymaker of the Inquiry.⁶² Bowman and the human and cartographic resources of the AGS, which he brought along with him, were seen by the Inquiry’s leadership as crucial for their efforts.

It was an unprecedented effort, in type and scale, to compile and process scientific knowledge, before the beginning of the negotiations, to put the US delegation in the best possible position. Conceived essentially as a human computer, it was intended to be able to supply US negotiators with data and maps at a moment’s notice in order to support the American position. Obtaining copies of the ‘Black Book’, which contained the Inquiry’s key maps and desired European boundaries, was reportedly a goal of other delegations. Unmatched by any of the other delegations, the US was the only party to the conference that was able to assemble a concrete set of proposed borders for the whole of Europe in the early stages of the negotiations. But more than that, Wilson relied on the members of the Inquiry, who were constantly referred to casually as ‘experts’, for rationally defensible political goals which would free Europe from the petty and antiquated balance-of-power politics which Americans assumed was the cause of the war. Wilson himself had outlined the ‘Fourteen Points’, but it was up to the Inquiry to apply the Wilsonian vision in practice by filling in every minute detail. As Wilson said to Bowman, ‘Tell me what’s right and I’ll fight for it. Give me a guaranteed position’.⁶³

Members of the Inquiry working on boundary issues were well aware of, and in several cases participants in, academic discussions using and debating the concept of the scientific frontier. Ellen Semple, a decade before the Inquiry, had already been using the concept to mean a

⁶¹ Lawrence Gelfand, *The Inquiry: American Preparations for Peace, 1917-1919* (New Haven: Yale University Press, 1963); Volker Prott, *The Politics of Self-Determination: Remaking Territories and National Identities in Europe, 1917-1923* (Oxford: Oxford University Press, 2016).

⁶² Smith, *American Empire*, 88.

⁶³ *Ibid.*, 161.

strategic barrier, or line of separation, in the fabric of human geography, usually one which was conditioned by non-human forces, such as geology or climate.⁶⁴ Leon Dominian, a staff member of the AGS before the Inquiry, had published an article in 1915 in the AGS Journal on 'Linguistic Areas in Europe' which argued that the course of recent history had been towards the formation of distinct areas of nationality defined by language, allowing the use of the science of linguistic geography to determine 'valid and practicable' boundaries.⁶⁵ While he did not use the exact phrase 'scientific boundary' then, by the time he had been working for the Inquiry and enlarged this article into a book, he did call boundaries 'scientific' when they had been determined with reference to linguistic areas, suggesting that this parlance may have come to him through collaboration at the Inquiry.⁶⁶ Inquiry member Douglas Johnson, additionally, who had worked with the US Geological Survey between 1901 and 1905, and had taught physiography at Columbia, published an article on boundaries in 1917 in the AGS Journal.⁶⁷ As Thomas Holdich's conception of boundaries as strategic barriers, utilizing topographical features like mountain ranges, was probably dominant among Anglo-American geographers, Johnson began with Holdich. The work of British colonial officials, particularly Thomas Holdich and Lord Curzon, in one way or another, shaped the way in which all three of these members of the Inquiry viewed boundaries.

The Inquiry, and other efforts like it, had an important impact on the outcome of the conference. Without this supply of facts and expertise to counter opposing claims and arguments, Wilson's much-ridiculed project of a just and fair settlement could easily have been marginalized by the conference. As a historian of the Inquiry put it,

It is virtually inconceivable to think of the peace treaties of 1919 assuming the form they did without benefit of the enormous preparatory effort exerted by the Allied governments and the United States...Perhaps there is no better measure than the work of the Inquiry to indicate that the United States by 1917 had reached the status of a great power.⁶⁸

In practical terms, the expectation that precise borders would have to be agreed on at the conference created a demand for a particular kind of knowledge, which the US was able to

⁶⁴ Semple, 'Geographical boundaries-I', 394.

⁶⁵ Gelfand, *The Inquiry*, 60; Leon Dominian, 'Linguistic Areas in Europe: Their Boundaries and Political Significance', *Bulletin of the American Geographical Society* 47:6 (1915), 401.

⁶⁶ Dominian, *The Frontiers of Language*.

⁶⁷ Gelfand, *The Inquiry*, 67; Douglas Johnson, 'The Role of Political Boundaries', *Geographical Review*, 4:3 (Sep., 1917), 208-213.

⁶⁸ Gelfand, *The Inquiry*, 333.

supply. The large number of borders that had to be drawn and the great detail required in delimiting the contours of boundaries mandated the input of geographical facts. As noted by Isaiah Bowman, the head of the Inquiry, 'Unfortunately, nations cannot be separated approximately. A boundary has to be here, not hereabouts'.⁶⁹ Command over socially privileged forms of geographical knowledge were particularly determining in areas of Europe such as the Balkans, where the most powerful states were not highly invested in any particular outcome, as long as agreement on borders could be reached. These time-consuming tasks were usually handed down to territorial commissions, where experts—some taken directly out of the Inquiry—had almost free reign to draw borders. But even in more widely contentious areas, such as Poland, Inquiry experts had a decisive influence on the outcome. According to one observer, 'most of the articles in the treaties were taken bodily without change from the reports of the commissions'.⁷⁰

In terms of legitimation, moreover, the message of Wilsonian self-determination risked perceptions of naïveté at the negotiating table unless it could be backed up with cold, hard 'science'. As Wilson and Bowman both understood well, maps always made political choices in terms of what to include or exclude, but could be very persuasive by taking on an appearance of neutral objectivity. As Bowman put it, 'A map was as good as a brilliant poster, and just being a map made it respectable, authentic. A perverted map was a life-belt to many a foundering argument'.⁷¹ Bowman ensured that maps would always be at the ready for the American delegation. Despite inexperience and internal divisions, it was this cartographic virtuosity, necessitated by linear borders, for which the US drew praise from other delegations.

Italy's Scientific Frontiers

One of the most intractable areas dealt with by the Peace Conference was the delimitation of the Italian borders with the successor states of the collapsed Austro-Hungarian Empire, and it is this set of problems which perhaps best illustrates the way in which the politics of expertise influenced the outcome. In the 1915 Treaty of London, Italy had been promised territories by the Triple Entente, in the Austrian Alps and scattered along the eastern Adriatic coast, in

⁶⁹ Quoted in Jordan Branch, *The Cartographic State: Maps, Territory, and the Origins of Sovereignty* (Cambridge: Cambridge University Press, 2014), 140.

⁷⁰ Smith, *American Empire*, 150.

⁷¹ *Ibid.*, 147.

exchange for joining them and ending its alliance with Germany and Austria-Hungary. As a member of the winning alliance, Italy might have been expected to receive this compensation, which was mostly in former enemy territory, without much trouble.⁷² Italy was also a member of the Council of Four, along with Britain, France, and the US, and so based on the structure of the negotiations, its views should have been privileged over those of the weaker and brand new states of Austria and Yugoslavia. On top of this, Italy had managed to achieve an armistice line with Austria along nearly the same line as the Treaty of London, and had occupied these territories with minimal allied participation in the last moments of the war.⁷³ Weighing against Italy, however, was number nine of Wilson's Fourteen Points, delivered in January 1918, which read as follows: 'A readjustment of the frontiers of Italy should be effected along clearly recognizable lines of nationality'.⁷⁴ Britain and France, not eager to revisit their promises to Italy but wanting to stay on good terms, decided strategically to avoid major roles in the negotiations. In the end, the 1919 Treaty of Saint-Germain-en-Laye gave Italy almost precisely the territories it was promised on the Austrian frontier. However, it gained little of the Adriatic coastal area it had hoped for, with the Yugoslav border remaining unsettled until the bilateral 1920 Treaty of Rapallo, after the end of the Peace Conference.

⁷² Albania, which did not officially enter the war, was also promised to Italy as a protectorate.

⁷³ Ivo Lederer, *Yugoslavia at the Paris Peace Conference: A Study in Frontiersmaking* (New Haven: Yale University Press, 1963), 54-58.

⁷⁴ Woodrow Wilson, 'Address of the President of the United States Delivered at a Joint Session of the Two Houses of Congress, January 8, 1918', *Foreign Relations of the United States* (hereafter *FRUS*), 1918, Supplement 1, *The World War*, vol. 1, 15.

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Figure 3: Lines Proposed in the Tyrol, 1914-1919⁷⁵

[This map has been removed as the copyright is owned by another organisation]

Figure 4: Lines drawn in the Adriatic, 1915-1920⁷⁶

⁷⁵ René Albrecht-Carrié, *Italy at the Paris Peace Conference* (Hamden, CT: Archon Books, 1966), 92.

⁷⁶ *Ibid.*, 305.

No explanation of the marked variation between the Italo-Austrian and Italo-Yugoslav outcomes can avoid referring to the politics of expertise. While the Inquiry was impressive and ground-breaking in some ways, its level of expertise and knowledge on the incredibly vast array of different parts of the world it aspired to was, at best, varied.⁷⁷ The Inquiry possessed several staff members with extensive knowledge of a particular country or region, both first-hand and through university training. Its ranks included natives of Canada, Poland, Romania, Russia, and Turkey, and members who had studied in Austria-Hungary, Belgium, France, Germany, Greece, and Russia. In many cases, however, their expertise on the questions they were assigned to research was academically questionable. For example, most of the members producing reports on parts of the Ottoman Empire were classicists. On Italy, in particular, the Inquiry's expertise was near non-existent. It had two 'experts' assigned to Italian issues, one of which was a professor of English history who had picked up 'some' Italian while researching medieval Anglo-Papal relations. The other was also an instructor of medieval history, but had no knowledge of Italian at all. As Gelfand concludes, this arrangement of personnel 'was either an indication of some gross underestimation as to the huge dimensions of the Italian question in the peace settlement or of the inability of the Inquiry to find a qualified student of modern Italian history in the United States'.⁷⁸ Indeed, one staff member remarked, 'It is exceedingly difficult to find a historian who is not already engaged in one form of war work or another who has knowledge of Italian'.⁷⁹

In the absence of much specialist knowledge on Italy, the Inquiry's thinking on Italy's Austrian border, and thus Wilson's position, was strongly influenced by the concept of the scientific frontier, which repeatedly was shown to contradict the nationality principle. Discussion of the future Italo-Austrian border among geographers went back at least to 1915, when Douglas Freshfield, then President of the RGS, in a paper read to the society, had advanced Ratzel's argument that the Italian Alps, despite being largely within Austria, were geographically 'wholly Italian'.⁸⁰ Freshfield was a mountaineer *par excellence* of his time, presenting himself as an expert on the area who had climbed its tallest mountain, and concerned himself with mountains in his political interventions, having favoured boundaries along mountain ranges in his earlier work on the Uganda frontier.⁸¹ He advocated for the accepting Italy's claimed frontier, which

⁷⁷ Gelfand, *The Inquiry*, ch 2.

⁷⁸ *Ibid.*, 58.

⁷⁹ *Ibid.*, 70.

⁸⁰ Douglas Freshfield, 'The Southern Frontiers of Austria', *The Geographical Journal* 46:6 (Dec. 1915), 414-433.

⁸¹ See note 36 above.

bisected the crucial Brenner Pass, despite acknowledging that Bozen/Bolzano, one of the two largest cities included in the Italian claim, was 'undoubtedly Teutonic in its language and its architecture, if not in its landscape'.⁸² Douglas Johnson, two years later, agreed with Freshfield in an article in the AGS journal. Unlike Freshfield, Johnson considered the Austrian counter-offer to be closer to the linguistic boundary than the Italian claim, yet as an 'impartial observer' still supported the latter on strategic grounds, since it would allow Italy access to the key mountain passes. Holdich was undoubtedly an influence here, not just because the article had begun with Holdich's theory of boundaries, but also because it was a 'strategic' frontier, meaning one which would serve as an effective barrier to either side, which Johnson favoured in the end, over the nationality principle.

Within the official activities of the Inquiry, there was only one report on the Italo-Austrian border, written by Ellen Semple. Semple had previously written a chapter in her book, *The Influences of Geographic Environment*, on mountains as a barrier to human movement, using Holdich's writings on the Himalayas and Hindu Kush, as well as the Alps, as some of the most prominent examples.⁸³ It was no surprise, then, that her report for the Inquiry concurred with Johnson and Freshfield on the justice of the Italian claims, arguing that in order to prevent Italy from having to fight a literally 'uphill battle' in the future, the boundary should be adjusted from the perspective of strategic needs as well as nationality.⁸⁴ By the time of the Peace Conference, an additional reason to view the frontier from a military-strategic point of view had appeared, as the collapse of Austria-Hungary had reopened the German Question and made Austria's unification with Germany a real possibility and clear threat to Italy's future.

As of 21 January, 1919, the Intelligence Section of the American delegation submitted tentative recommendations for the boundaries of Europe and the Ottoman remnants, giving an Italo-Austrian frontier 'midway between the linguistic line and the line of the Treaty of London, 1915'.⁸⁵ The recommended line did not give Italy all it wanted, but it clearly bore the stamp of Holdich's line of thinking, as the fact that it was beyond the linguistic line was justified in that it 'is a good line from the geographical standpoint, follows natural lines of demarcation and coincides with the marked topographical barrier between regions climatically dissimilar'. Yet in the end, Italy received all of its northern demands, even including some it had made after the Treaty of London. According to Johnson, who was present at many high-level discussions as the

⁸² Freshfield, 'Southern Frontiers', 420.

⁸³ Semple, *Geographic Influences*, ch. 15.

⁸⁴ Gelfand, *The Inquiry*, 222.

⁸⁵ David Miller, *My Diary at the Conference of Paris*, vol. IV (New York: Appeal Printing, 1924), 240.

US representative on the Subcommittee on Territorial Questions,⁸⁶ this significant amendment of Wilson's earlier concern with the nationality principle was because:

In the opinion of the American specialists, to push the frontier northward only so far as the ethnographic frontier would still leave Austria, or Germany and Austria combined in case of their future union, in possession of very great strategic advantages over their Latin neighbour, advantages which might invite aggression. To push the boundary farther north, to the natural topographic boundary referred to above, would give reasonable protection to Italy by making invasion from the north so difficult as to be highly improbable...⁸⁷

Wilson himself, in a memo to the Italian Prime Minister, said of the Italian territorial questions, 'There is no question I have given more careful or anxious thought than I have given to this'.⁸⁸ The result of this careful thought appears to have been a complete acceptance of the American experts' position on the Austrian portion of the Treaty of London frontier, which would establish 'an absolutely adequate frontier of safety for Italy against any possible hostility or aggression...'

In contrast to its Austrian border, Italy did not achieve its aims with regard to its Yugoslav border. Based on advice from the American experts, Wilson did not accept the validity of the Italian arguments here, and the border could only be settled outside the context of the Peace Conference, after it had finished. In large part this was because, despite its relatively weak military position and the precarious condition of its recently formed state, Yugoslavia had a stronger hand than Italy in terms of the politics of expertise. This was already true to some extent before the beginning of the conference, as a result of the professional connections existing between Yugoslav academics and American geographers and members of the Inquiry. Historian Robert Kerner, for example, whose special assignments within the Inquiry emphasized nationalisms within Austria-Hungary, knew all the main Balkan languages and had written a book on *The Yugoslav Movement*.⁸⁹ In an article, 'The Foundations of Slavic Bibliography', he noted that 'an increasing interest has been manifested in the history, languages, and literatures of the Slavic people', and made it his mission to organize into a bibliography the existing 'scientific information about the almost unknown Slavic people', revealing a detailed knowledge of

⁸⁶ Directories of the Paris Peace Conference, 'III. Territorial Questions', *FRUS, 1919, The Paris Peace Conference*, vol. 3, 117.

⁸⁷ Douglas Johnson, 'Fiume and the Adriatic Problem', in Edward House and Charles Seymour (eds), *What Really Happened at Paris: The Story of the Peace Conference, 1918-1919* (New York: Charles Scribner's Sons, 1921), 116-117.

⁸⁸ Albrecht-Carrié, *Italy at the Paris Peace Conference*, 445-6.

⁸⁹ Gelfand, *The Inquiry*, 57.

scholars from the region.⁹⁰ Kerner was regarded by many in the Inquiry as being strongly biased towards Slavs, but objections to his membership of the Inquiry were overruled because of his knowledge of languages.⁹¹ An important part of the Inquiry's knowledge of Yugoslavia was thus situated within a broader emergence of 'Slavonic Studies', as evidenced by new academic institutions such as King's College London's School of Slavonic and East European Studies (SSEES), founded in 1915 by Tomáš Masaryk, a sociologist and later first Prime Minister of Czechoslovakia.⁹²

But probably no one did more to both increase the academic visibility specifically of Serbia and Yugoslavia, or for that matter to coordinate the technical aspects of the Yugoslav position at the Paris Peace Conference, than Jovan Cvijić, professor of geography and rector of Belgrade University.⁹³ Cvijić founded the Geographical Society of Belgrade, along with a journal, and according to SSEES's journal, 'Cvijić's advent marks the beginning of Serbian geographical scholarship and foreshadows the end of the Austrian propagandist patronage of the subject states'.⁹⁴ He conducted fieldwork in the Balkans every year from 1888 to 1915, the results of which were published in British, French, and American journals, among others, including the AGS journal under Isaiah Bowman's leadership.⁹⁵ In addition to being known through his work, he was personally well-connected with Western academics, having travelled through Western Europe on a two-month-long collective geological fieldwork exercise with a team of prominent geographers such as Lucien Gallois and William Davis, as well as future Inquiry chief cartographer Mark Jefferson.⁹⁶ Cvijić had also been invited to Paris to teach at the Sorbonne by French geographer Emmanuel de Martonne while Belgrade was occupied during the war.⁹⁷ De Martonne, in turn, was the son-in-law of Paul Vidal de la Blanche, the preeminent geographer in France at the time, and worked for the Comité d'Etudes pour la Paix, the French counterpart of the Inquiry. Thus, thanks to Cvijić and his colleagues and students at Belgrade, if Americans

⁹⁰ Robert Kerner, 'The Foundations of Slavic Bibliography', *The Papers of the Bibliographical Society of America* 10:1 (1916), 3-39.

⁹¹ Gelfand, *The Inquiry*, 57.

⁹² I.W. Roberts, *History of the School of Slavonic and East European Studies 1915-1990* (London: School of Slavonic and East European Studies, University of London, 1991). SSEES became independent from King's College in 1932 and is now part of University College London.

⁹³ Crampton, 'Cartographic Calculation', 740-743; Lederer, *Yugoslavia at the Paris Peace Conference*, 93.

⁹⁴ 'Obituary: Jovan Cvijić, 1865-1927', *The Slavonic Review* 6:16 (June 1927), 195.

⁹⁵ 'Jovan Cvijić', *Geographical Review* 17:2 (April 1927), 340; 'Dr. Jovan Cvijić's Researches in Macedonia and Southern Albania', *The Geographical Journal* 16:2 (Aug. 1900), 215-219; Jovan Cvijić, 'Remarques sur l'Ethnographie de la Macédoine', *Annales de Géographie* 80 (March 1906), 115-132; Jovan Cvijić, 'The Geographical Distribution of the Balkan Peoples', *Geographical Review* 5:5 (May 1918), 345-361.

⁹⁶ William Davis, 'A Geographical Pilgrimage from Ireland to Italy', *Annals of the Association of American Geographers* 2 (1916), 73-100.

⁹⁷ Crampton, 'Cartographic Calculation', 741.

generally felt less than familiar with the people and geography of the Balkans, the Inquiry at least was by no means hindered from seeing Serbian perspectives on the region.

At the Conference itself, Yugoslavia's ability to take control of the areas Cvijić insisted were inhabited by Yugoslavs was by no means guaranteed. Officially the Kingdom of Serbs, Croats, and Slovenes, it came to the conference as an unrecognized state, having just been proclaimed in December 1918, and had had just a month to prepare, at a time when "'Serbia" and "Croatia" were uneven quantities and largely unknown to each other'.⁹⁸ It could count on its neighbours in all directions disputing its borders, especially Romania and Italy, who had ended the war on the winning side. Moreover, the Russian Revolution had removed from the Paris Peace Conference the major traditional ally of Serbian Radicals, who made up an important part of Yugoslavia, leaving the new country diplomatically isolated. Wilson's Fourteen Points, which had promised the peoples of Austria-Hungary 'the freest opportunity to autonomous development', gave the Yugoslav officials hope, but not quite confidence.⁹⁹ Many peoples in other parts of the world were soon deeply disappointed by how limited the eventual application of Wilsonian self-determination was, and indeed at the start of the Conference Wilson had intended to break up Yugoslavia into two or three units, which might be governed by the League of Nations as mandates.¹⁰⁰

A comparison of the Yugoslav and Italian delegations exhibits an important contrast in terms of formal qualifications and expertise. The Italian delegation, on one hand, included three members noted as academics, including two law professors and one historian of Italian unification.¹⁰¹ It included many of the typical categories among its 'Technical Experts', such as 'Political and Diplomatic Questions', 'Labor Questions', and 'Colonial Questions', made up of politicians, diplomats, and colonial administrators. It did not have a section dedicated to geography, ethnography, or cartography. Yugoslavia, on the other hand, had 29 delegation members listed with academic positions, most of whom were professors. It had a 23-strong section dedicated to 'Ethnographical and Historical Questions' led by Cvijić. This was one of the

⁹⁸ Lederer, *Yugoslavia at the Paris Peace Conference*, 81.

⁹⁹ Wilson, 'Address of the President', 15.

¹⁰⁰ Erez Manela, *The Wilsonian Moment: Self-Determination and the International Origins of Anticolonial Nationalism* (Oxford: Oxford University Press, 2007); Albrecht-Carrié, *Italy at the Paris Peace Conference*, 88.

¹⁰¹ Conference delegates are listed in 'Composition and Organization of the Preliminary Peace Conference, April 1, 1919', *FRUS, The Paris Peace Conference, 1919*, vol. 3. Page numbers are as follows: Czechoslovakia, 54-56; Italy: 20-25; Poland 42-45; Romania, 47-49; Serbia, 49-53. Yugoslavia was officially known as Serbia at the conference, despite the non-Serbs among its delegates, as Yugoslavia was not a recognized state at the beginning.

largest such delegation sections at Paris, although Poland, Romania, and Czechoslovakia also had smaller versions. Czechoslovakia, for example, had an eight-member section for 'Geographical, Ethnographical and Statistical Questions', mostly professors, in addition to three professors in charge of 'Cartographical Questions', and one politician member specifically for 'Questions Relating to the Affairs of Teschen and of the Rectification of Frontiers of Czech Silesia'. But Italy had none. Thus, in addition to Cvijić's professional reputation and connections, and the already existing validation of his perspective by Western academics, Yugoslav expertise at the Peace Conference in general, at least on paper, was overwhelmingly greater from a scientific perspective. This does not mean that Italian perspectives were not represented at all in academic circles. In fact, just while the negotiations at Paris were beginning to escalate, the RGS hosted a lecture by one Commander Giovanni Roncagli focusing on discrediting Cvijić's geographical arguments on the Italo-Yugoslav border, which found a not unsympathetic audience.¹⁰² But at this point it was too late, and in any case British politicians were less likely than Wilson to be swayed by expert opinion.

Unlike the Austrian frontier, then, which was quickly agreed upon amongst the American delegation, and then the Conference itself, the Yugoslav frontier opened up deep divisions on the American side, and no treaty was able to settle it during the Conference. On one hand there were American experts such as Douglas Johnson, who met with Cvijić in 1918 and 1919 to discuss the matter, and were convinced that the preponderance of 'Jugo-Slavs' in the disputed areas meant that they could not go to Italy.¹⁰³ Their report accepted unproblematically the existence of a 'Jugo-Slav' people, which for example 'have been settled in Dalmatia for twelve centuries', showing the influence of a particular perspective shared by Cvijić, who had been referring to them as a historical people in his AGS journal articles.¹⁰⁴ On the other hand, some Americans situated themselves closer to Italy, such as Edward House, the president's right-hand man, Sidney Mezes, the side-lined nominal leader of the Inquiry, and George Louis Beer, the expert on colonial affairs. Their thinking was one of the clearest manifestation of opinion on the American side against the predominant fixation with science and expertise; as Beer put it, 'the world is really waiting for a solution until Johnson can be brought to make some compromise between geography and politics'.¹⁰⁵ But he also captured the group's broader sentiments in

¹⁰² Giovanni Roncagli, 'Physical and Strategic Geography of the Adriatic', *The Geographical Journal* 53:4 (Apr. 1919), 209-223.

¹⁰³ Crampton, 'The cartographic calculation of space', 743; Albrecht-Carrié, *Italy at the Paris Peace Conference*, 426-428.

¹⁰⁴ Cvijić, 'Geographical Distribution'; 'The Zones of Civilization of the Balkan Peninsula', *Geographical Review* 5:6 (June 1918), 470-482.

¹⁰⁵ Smith, *American Empire*, 165.

lamenting that 'Germans, Magyars and Italians were being sacrificed to people whose cultural value was infinitely less...It is far preferable to have Poles under Germans and Jugo-Slavs under Italians than the contrary, if there is no other good alternative'.¹⁰⁶ Thus the debate within the American delegation was framed as between the authority of scientific geography and expertise on the Yugoslav side, and superior civilization and sober geopolitics on the Italian side.

With the debate framed explicitly in this way, Wilson could only side with the former. While Wilson was away from Paris, House began to cede negotiating ground significantly to the Italians, backed by his brother-in-law Mezes as head of the Inquiry, and they reported to the President that the specialists supported them.¹⁰⁷ But Bowman, Johnson, and others had sent Wilson an 'experts' letter' confirming that they had done no such thing. Wilson's trust in House was irrevocably severed by this revelation. He thoroughly entrenched himself on the Yugoslav side, driving the Italians to walk out of the negotiations, and the end, it was up to the Italians and Yugoslavs to sign a treaty largely of their own making over a year later. Fiume/Rijeka, which had been the focus of the struggle, was made a free state, and while Italy received all of the Istrian peninsula, it failed to gain any part of the former Austrian province of Dalmatia outside the city of Zara/Zadar, nor did it receive any of the major islands it claimed to the south of Dalmatia. Italy's insistence on territorial expansion, to the point of walking out of negotiations, coupled with its powerful military position, was far from inconsequential, as Italy was able to gain Istria. But the fact that Italy did not achieve the commanding position over the rest of the Adriatic that it had hoped for, and for which it had entered the war, was in large part due to the politics of expertise, within which Yugoslavia had better chances than Italy.

Conclusion

Linear borders are constructed through and make possible certain historically particular kinds of knowledge. The possibility of making this knowledge seem authoritative, objective, and neutral, rather than political, is what distinguishes it as a particular political tool. This had been an aspiration in the Thirteen Colonies, where institutions were set up to try to regulate settlers' land claims in order to secure private property, and to deny Native American claims to those lands, by implementing survey rationality. The creation of a technical sphere of society including

¹⁰⁶ Albrecht-Carrié, *Italy at the Paris Peace Conference*, 119.

¹⁰⁷ Smith, *American Empire*, 159-168.

surveyors enabled colonial governments, and later, the federal government, to control the settlement of the frontier while at the same time presenting themselves as simply liberal protectors of private property. It was only through the assertion of a separation between politics and the realm of technical knowledge that this system was possible. In the eighteenth century, this technical knowledge was often passed down orally through apprenticeships, and since the translation of the basic geometrical principles of surveying into vernacular languages, it had retained a certain separation from the higher arts and sciences, although some political and legal theorists recognized its importance. Yet in the late nineteenth-century context of the construction of disciplines and scholarly associations, the technical expertise of boundary surveyors found a niche in the academy itself, and Border Studies came to exist as a subfield of geography. Thus emerged the boundary expert, who could advise diplomats and politicians on the best location for a border. Having no especially deep knowledge of the people or the place of any particular border area, what was important for the boundary expert was an understanding of the technical process of creating boundaries in general, and of abstracted geographical factors on human societies. As part of a broader faith in scientific expertise in the early twentieth century, these boundary experts played important roles in redrawing the boundaries of Europe after the First World War, both directly as commissioners formulating policy positions, and more diffusely as part of the foundations of the legitimacy of the Wilsonian approach to international politics.

The emergence and evolution of the concept of the 'scientific frontier' illustrates these points. In its original context of the British India frontier debates, the scientific frontier simply meant a strategic optimization of the Northwest Frontier of India. While it was a rhetorical device which took advantage of all that 'science' meant in an industrializing society, its meaning included the arrangement of forces, the building of railroads, and anything else that might bring security. In this sense it was a particular problem looked at from a general perspective. With the systematisation of boundary surveying knowledge in the form of Border Studies that began in the late nineteenth century, along with the consolidation in practice of the global linearization of borders, the scientific frontier became a general problem seen from a particular perspective. Instead of involving a variety of components, the scientific frontier came to be concerned strictly with the placement of a clearly defined line onto a landscape, and, no longer confined to the Northwest Frontier context, it could be applied anywhere, whether South America or Europe. Yet although the concept was now applied universally without always remembering its origins, it remained tied to its original context. Whether it was abstracted as a fortification or wall, better natural but potentially artificial, or as any landscape whose geography conditioned separation

between societies, the concept had been constructed so as to single out the frontiers of British India as some of the best there were. Thus one of the clearest impacts that Border Studies had on the Paris Peace Conference was in the extension of Italy's Austrian frontier to the Brenner Pass despite the predominance of Germans on both sides, or in other words, the establishment of a scientific frontier on the model of India's, regardless of anyone's nationality.

Chapter Seven

A Genealogy of Partition

A recurring phenomenon in modern international politics is what is known as territorial partition. Various definitions of partition exist, but I understand it here as a new political separation of a territory into two or more territories, typically, but not necessarily, along newly demarcated lines.¹ While this concept of partition could potentially be a useful one in analysing territorial politics of any time and place, it is only since the eighteenth century that it has been used as such.² Several IR scholars have noted that since the late nineteenth century states have decreased in size on the whole, reversing a previous trend of increasing state sizes, and have tried to explain this pattern.³ Partition is a significant part of this. At certain points in recent decades, the various communal conflicts for which it has routinely been proposed as a solution have appeared to be a defining feature of politics in the post-Cold War world.⁴ A vast literature within IR has attempted to address the question of whether or not partition is an adequate response to these instances of violence.⁵

In chapter three I briefly outlined several reasons why the linearization of borders is important for understanding why, by various measures, partition seems to be increasing in relevance for international politics, in terms of the *longue durée*. First, space becomes divisible in new ways,

¹ For example, quite often partition is defined in the literature so as to exclude relatively historically distant partitions which do not seem to follow today's patterns, such as the various treaties and agreements referred to historically as the 'partition of Turkey', or what is still today called the 'partition of Poland'. For example, Brendan O'Leary defines a partition of a country as being drawn through its national homeland, excluding Ottoman Turkey. Brendan O'Leary, 'Analysing partition: Definition, classification and explanation', *Political Geography* 26 (2007), 886-908. Robert Schaeffer considers partition to involve some kind of devolution, excluding Poland. Robert Schaeffer, *Warpaths: The Politics of Partition* (New York: Hill and Wang, 1990), 5.

² Not counting the first Partition Treaty of 1698; discussed below. T. G. Fraser, *Partition in Ireland, India and Palestine* (London: Macmillan, 1984), 4.

³ Ryan Griffiths, *Age of Secession: The International and Domestic Determinants of State Birth* (Cambridge: Cambridge University Press, 2016); David Lake and Angela O'Mahoney, 'The Incredible Shrinking State: Explaining Change in the Territorial Size of Countries', *Journal of Conflict Resolution* 48:5 (Oct. 2004), 699-722.

⁴ Allan Buchanan in the 1990s proclaimed 'the age of secession', later modified to 'the age of wars of secession'. Allan Buchanan, 'Self-Determination, Secession, and the Rule of Law', in Robert Kim and Jeff McMahan (eds), *The Morality of Nationalism* (Oxford: Oxford University Press, 1997), 301.

⁵ Chaim Kaufmann, 'When All Else Fails: Ethnic Population Transfers and Partitions in the Twentieth Century', *International Security* 23:2 (Fall 1998), 120-156; David Campbell, 'Apartheid cartography: the political anthropology and spatial effects of international diplomacy in Bosnia', *Political Geography* 18 (1999), 395-435; Reece Jones, 'The false premise of partition', *Space and Polity* 18:3 (2014), 285-300;

as a technically infinite number of possible divisions can be traced over any given territorial area, even as the requirement of precision establishes new limitations. Second, the concrete abstraction of linear borders, and the appearance of precision and measurability makes it possible to territorialize and spatialize in new ways conflicts and divisions which might not otherwise have a strong spatial aspect. Third, linear borders and the abstraction of territorial division from other forms of division give partition the appearance of being fundamentally the same everywhere, allowing new transnational connections to be made in discourses and practices.

In this chapter I focus specifically on the third of these claims, and illustrate it through an analysis of a broad range of what has been called partition since the term came to be applied to politics. The existing literature on partition tends to look at individual partitions as cases of a general trend or universal potentiality, or to make comparisons between them.⁶ In contrast, this chapter emphasizes the connectedness of partitions and the thick set of social relations that make up the international.⁷ Thus this chapter examines partition as one object of analysis, greater than the sum of its parts. Partition is not only a concept that objectively describes certain kinds of territorial changes which have the potential to appear in any historical time or place, nor is it simply the logical outcome of an international environment where nationalisms play a significant role. Partition, rather, is also a discourse and a set of practices which have a history.

Benedict Anderson argued that nationalism is a 'modular' phenomenon, or in other words, it is 'capable of being transplanted, with varying degrees of self-consciousness, to a great variety of social terrains, to merge and be merged with a correspondingly wide variety of political and ideological constellations'.⁸ Beginning with the anti-colonial movements of the Americas, nationalisms in certain places had international significance because the content of those

⁶ Much of the literature on partition falls into George Lawson's category of 'history as scripture', in that it mines history as data from which to draw inferences that can be abstracted from history, rather than taking seriously the uniqueness of events. George Lawson, 'The eternal divide? History and International Relations', *European Journal of International Relations* 18:2 (2012), 203-226. For general accounts of partition with a greater focus on, in Lawson's terms, context, eventfulness, and narrative, see Fraser, *Ireland, India, and Palestine*; Schaeffer, *Warpaths*; and Radha Kumar, *Divide and Fall? Bosnia in the Annals of Partition* (London: Verso, 1997). Constitutive and causal connections between partitions, however, do not feature prominently in any of these.

⁷ Arie Dubnov gestures towards a similar approach to partition history in 'Notes on the Zionist passage to India, or: The analogical imagination and its boundaries', *Journal of Israeli History* 35:2 (2016), 177-214. Sanjay Subrahmanyam, 'Connected Histories: Notes Towards a Reconfiguration of Early Modern Eurasia', *Modern Asian Studies* 31:3 (July 1997), 735-762; Tarak Barkawi and Mark Laffey, 'Retrieving the Imperial: Empire and International Relations', *Millennium: Journal of International Studies* 31:1 (2002), 109-127.

⁸ Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso, 2006), 4.

movements found resonances and were politically useful elsewhere. This chapter builds on that argument, by showing partition as a series of events transnationally connected by the borrowing and adapting of concepts and tropes from other parts of the world. Using tried concepts and tropes from other contexts can be a powerful technique not only because it builds on the discursive work of articulation done by others but also because it can lead to certain expectations of success, given a certain interpretation of what the results of that articulation were elsewhere. As a framework for imagining and analysing events which can appear natural, perennial, or inevitable, 'partition' can also serve to limit the range of actions and outcomes that seem possible or plausible.

This does not mean that partition does not change. Partha Chatterjee has argued that Anderson's modular nationalisms write a script which leaves nothing left for the rest of the world to imagine, consigning those in the postcolonial world to be perpetual consumers, and not producers, of modernity.⁹ My intention here is not to describe such a script which would explain the outcomes of partitions, or to establish a general pattern which they all tend to follow, beyond the very loose way in which I define the concept. The argument is simply that territorial division, when it relies on linear borders, opens up the possibility of making discursive connections with other territorial divisions, and that these connections can prove important in the way in which partition unfolds in particular contexts. Such connections are not always made, and there is no determinism here. This becomes clear early on, for example, as connections made in the nineteenth century between partition in the colonial sphere and partition in Europe were denied validity, on the basis that breaking up an entity which had no sense of nationhood was not the same thing as the partition of a 'civilized' nation. Moreover, the meaning of partition has changed considerably over the centuries, particularly in terms of its connotations and associations. In this chapter I focus on three variants, the emergence of which were due to historically particular constellations of forces, but which nevertheless influenced each other.

Partitions of Cooperative Territorial Expansion, 1772-1904

In tracing its historical emergence, partition as a particular set of possibilities should be distinguished from a more general notion of territorial division, for which the only real precondition is territorial rule itself. An example of territorial division which is not the kind of

⁹ Partha Chatterjee, 'Whose Imagined Community?', *Millennium: Journal of International Studies* 20:3 (1991), 521-525.

partition this chapter is interested in would be the division of the Roman Empire, which was effected in different forms from 285 until the collapse of the Western empire in the late fifth century.¹⁰ These divisions were territorial in the sense that co-emperors took administrative charge of particular geographical areas, but in terms of imperial ideology, the Roman Empire remained one entity. Co-emperors recognized each other's status by issuing coins depicting both rulers together or by reckoning dates in terms of the year of each of their reigns, rather than by emphasizing a territorial division.¹¹ In the official conception of this division, what was important was less the geography of it and more the extent to which the co-emperors ruled jointly as colleagues, or alternately, sought to delegitimize each other by referring to each other as usurpers.

In estate law, the concept of 'partition' has a complex history which stretches back many centuries.¹² In this context it has usually referred to the dividing up of lands among inheritors after the owner's death. The legal ability, or inability, of inheritors to partition land among themselves had an important impact on society in that unlimited partitions could easily dissipate a landed family's fortune after only a few descents. British parliamentary records as early as the sixteenth century reveal frequent debates about estate 'partitions'.¹³ It was in this proprietary sense that the Spanish Empire, made up of disparate holdings across Western Europe and overseas, was the object of the three 'Partition Treaties' of 1668, 1689, and 1700, in a failed attempt to avert a major European war following the king's death.¹⁴ Partition, then, did not come from nowhere. Yet it makes sense to begin in the late eighteenth century because, while sovereignty has never completely shed its associations with private property, partitions created at that point much more clearly carried the sense of drawing lines through homogenized territories, than the sense of apportioning out the earthly belongings of a dying patrician.

The dismembering of Poland among Prussia, Austria, and Russia, begun in 1772 and completed in 1795, was rooted in a long process of weakening relative to its neighbours for at least a century.¹⁵ Many observers at the time blamed Poland itself for its constitution, which

¹⁰ Fraser, *Ireland, India and Palestine*, 3.

¹¹ Clifford Ando, *Imperial Ideology and Provincial Loyalty in the Roman Empire* (Berkeley: University of California Press, 2000), 249-250, 270.

¹² William Lloyd, 'Partition', *University of Pennsylvania Law Review* 67:2 (1919), 162-190.

¹³ Early parliamentary records are available at *British History Online*, Version 5.0, Institute of Historical Research, accessed 28 December, 2018 (www.british-history.ac.uk).

¹⁴ Frederik Dhondt, 'From Contract to Treaty. The Legal Transformation of the Spanish Succession 1659-1713', *Journal of the History of International Law* 13:2 (2011), 347-375.

¹⁵ Jerzy Lukowski, *The Partitions of Poland: 1772, 1793, 1795* (New York: Addison Wesley Longman, 1999), ch 1.

encouraged political paralysis through the *liberum veto*, the right of any single nobleman to block any law claimed to be 'harmful to the Commonwealth', but this situation had long been carefully maintained by outside powers such as Russia. In the process of the three partitions, the divisions became more cartographically scientific, with an 'Acte Définitif' signed in 1797 between the three powers specifying the exact locations of boundary markers and triangulation instructions, in response to disputes over boundaries of previous partitioning.¹⁶

The partitions of Poland were a major part of the migration of the concept of partition out of estate law and explicitly into the realm of geopolitics, and evoked responses that locked Poland into the memory of politicians and diplomats. The way in which the partition cut through Poland was memorialized in illustrations that almost invariably depicted lines representing the new borders. In a particularly influential allegory drawn by Nicolas Noël le Mire and Jean-Michel Moreau le Jeune, the monarchs of Europe tore up pieces of a map of Poland, each taking their bit.¹⁷ Depicting the partition as a somehow shameful and damaging, if not violent, act, the image must have provided some audiences sympathetic to Poland with a compelling visualization, as it was copied numerous times by other illustrators.¹⁸



Figure 5: *The Twelfth Cake, Le gâteau des rois*¹⁹

¹⁶ Lukowski, *Partitions of Poland*, 181.

¹⁷ Steven Seegel, *Mapping Europe's Borderlands: Russian Cartography in the Age of Empire* (Chicago: University of Chicago Press, 2012), 24.

¹⁸ Ruth Dawson, 'Eighteenth-Century Libertinism in a Time of Change: Representations of Catherine the Great', *Women in German Yearbook* 18 (2002), 74.

¹⁹ *Ibid.*, 75. Image in public domain.

Almost as soon as references to the partition of Poland begin to appear in parliamentary debates, it began to be applied to other contexts. Perhaps the first of these was Mysore, a kingdom in India which was proving to be a major source of resistance to the East India Company's drive towards hegemony in South Asia. With it, the concept of partition took a negative connotation of territorial greed in debates over the activities of the Company. For example, within the charges Edmund Burke laid out against the leader of the Company in 1786 was included

That the Object of this fraudulent Policy (*viz.* the utter Destruction of *Hyder Ally*, and a Partition of his Dominions)...was incompatible with the Treaty of Peace, in which *Hyder Ally* was included, and contrary to the repeated and best-understood injunctions of the Company...'20

Or to take another example, Lord Loughborough in 1791 declared the 'unpardonable guilt' of Britain in entering 'into a treaty with the Marattas and the Nizam, to exterminate Tippoo Sultan, and to make a partition of his country...Could we expect...to be suffered by enlightened Europe to proceed in this course?'21 In response to such arguments, a proponent of the Company was careful to portray Tipu Sultan himself as having 'a restless desire of conquest'.22 Far from being treacherously expansionist, the Company's partition of Mysore would bring back the princes who were the rightful rulers:

It has been said that another motive of the war was, to divide his territories.—Such a partition among the Princes who now languished under his tyranny, would be an event highly desirable...it would certainly appear as an act of justice to restore the native Princes...

If a similar moral rejection of partition in both the Polish and Mysore contexts seemed natural to some in the late eighteenth century, this connection had to be unlearned in the nineteenth century, when a distinction between relations among 'civilized' nations and among other nations was drawn more sharply. For the most part this was done implicitly, but occasionally there were explicit arguments that colonial partitions should not be considered as part of the same category. For example when in 1855 Lord Robert Cecil (later Lord Salisbury) argued against coming to the aid of Poland,

²⁰ *The Journals of the House of Commons*, Vol. 41 (London: House of Commons, 1803), 653.

²¹ *The Parliamentary Register*, Vol. XXX (London: J. Debrett, 1791), 67.

²² *The Parliamentary History of England*, Vol. XXVIII (London: T.C. Hansard, 1816), 1330.

The partition of Poland had been called a scandalous violation of public law, and a great public crime; but was the hon. Gentleman prepared to justify his doctrine on that point, as of universal application...There was not a quarter of the globe in which England had not increased her territory by precisely the same process of aggression.²³

Prime Minister Lord Palmerston replied that 'the progress of the British arms in different parts of the world' was morally an entirely different matter from 'the different partitions of the independent kingdom of Poland'. The former conquests were 'made against great and powerful enemies', and 'to talk of the nationality of conquered colonies taken either from France or Holland, or from any other power with which we were engaged in war, is really a total misapplication of the term'. With regard to India, it had been a 'blessing to them to be relieved from the tyranny of some of those native chiefs under whose oppression they had previously groaned'. Instead, partitions occurring in India were usually referred to in this era in much the same way as property partitions were, as a morally neutral question of establishing technically correct legal procedures. In Julian Go's work on the intersection of postcolonial thought and social theory, Go argues that much of modern social theory is encumbered by a fallacy he calls 'analytic bifurcation', or the a priori separation of the social relations of the colonizer and the colonized and the obscuring of their mutual constitution.²⁴ Arguably, this can be said not only of academic theory but also the discourses of imperialism themselves which provided the background for much early social theory, and it is surely apparent in these parliamentary discussions of partition.

The question of whether or not it was appropriate to see a particular context through the lens of 'partition', and thus to read into it all manner of preconceptions taken from previous experiences, was a highly political issue. Whether in non-Western contexts like India, or in Western contexts like Belgium, it mattered greatly whether or not it was appropriate to make comparisons with Poland, or other partitioned entities. Even following the Holy See's appointment in 1850 of Catholic diocesan bishops in England for the first time in centuries, implying that England would be divided up into dioceses, one MP referred to the action as potentially 'the first partition of England'.²⁵

Yet the importance of the transferability of preconceptions from context to context is perhaps clearest in the way in which the debate over the imminent partition of the Ottoman Empire in

²³ House of Commons Debate (HC Deb), 27 March 1855, 1185§-1187.

²⁴ Julian Go, *Postcolonial Thought and Social Theory* (Oxford: Oxford University Press, 2016), 83-91.

²⁵ HC Deb, 4 February 1851, 72.

the second half of the nineteenth century was, unlike most colonial contexts, deeply shaped by the romanticized infamy of the Polish partitions. British policies intended to 'regenerate' the Ottoman empire were aimed at keeping such strategic positions such as the Bosphorus and the Nile out of Russian or French hands, which were perceived as more threatening. But it was believed essential that such policies, if they were to be successful, did not appear as crude *realpolitik* to British public opinion.²⁶ Differentiating British policy with regard to the Ottoman Empire from the Polish partitions, and showing an awareness of the lessons to be learned from them, then, became rhetorically necessary. In this context it made sense for an MP in 1854, during the Crimean War, to accuse the Times at length in the House of Commons of publishing a 'feeler to see how far a plan for the partition of Turkey would be accepted by the public in this country'.²⁷ When he declared that, 'to such a partition of Turkey as might be imagined by those who had taken part in other partitions, England would never be a party', it was clear which other partitions he was referring to. With Polish uprisings occurring throughout the nineteenth century, the guilt of having allowed the heinous act of partition in Poland was a common theme in Parliament, and it was all too easy to apply the lessons and morals of the Polish partition to the imminent partition of the Ottoman empire.

The link between partitions was created not only by the word itself, and associated concepts, but also by visual means. An early re-use of the cake-cutting metaphor was in James Gillray's depiction of Britain and Napoleonic France dividing the world up.²⁸ But it continued to be relevant into the late nineteenth and early twentieth centuries in imagining colonialism in Africa and China. The cake in these illustrations was homogenous and ready to be carved up into any combination or arrangement of pieces, depending solely on the appetites of the attendees of the feast. It was because of the way in which linear borders altered the apparent divisibility of space, obliterating feudal entailments and cultural discrepancies, that this was an appropriate metaphor. Regardless of place or context, any area or part of the world could be a cake and could be apportioned out as such. One example, in *Puck* magazine, made this point particularly well, in which Britain defended the United States against the disapproval of the other major powers for its imperialist stance towards Puerto Rico and the Philippines. The American cake, in its sphere of influence, was no different from the Chinese cake that Britain and its rivals were

²⁶ Steven Richmond, *The Voice of England in the East: Stratford Canning and Diplomacy with the Ottoman Empire* (London: I. B. Tauris, 2014), 231.

²⁷ HC Deb, 31 March 1854, 204-228.

²⁸ Jos Gabriëls, 'Cutting the cake: the Congress of Vienna in British, French and German political caricature', *European Review of History: Revue européenne d'histoire* 24:1 (2017), 132.

about to divide among themselves. The homogenization of these spaces, through the linearization of the divisions being made, is what made this type of comparison possible.



Figure 6: James Gillray, 'The Plumb-pudding in danger', 1805²⁹

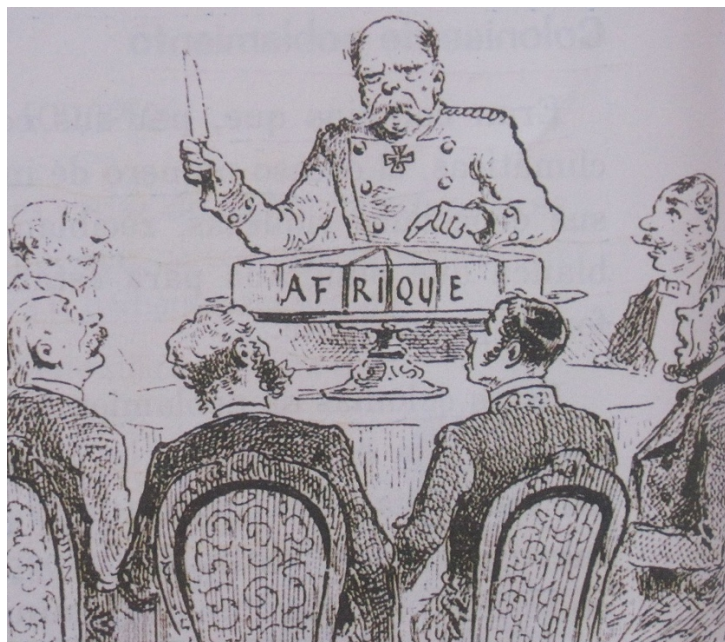


Figure 7: L'illustration, 'A chacun sa part', 1885³⁰

²⁹ James Gillray, *The plumb-pudding in danger: -or- state epicures taking un petit souper*, reproduced with permission from the National Portrait Gallery.

³⁰ 'Découpage de l'Afrique à la conférence de Berlin', *Journal L'illustration*, image available at https://commons.wikimedia.org/wiki/File:IMGCD82_-



Figure 8: Louis Dalrymple, 'No chance to criticize', 1898.³¹

Caption: No Chance to Criticize. John Bull (to the Powers)—What are you mad about? We can't grudge him a light lunch while we are feasting! [The bottle is labelled 'Porto Rico', and the decanter 'Philippine Islands']³²

Cultural representations of partition, however, were not limited to Western powers, but travelled across contexts. One context where this was particularly true was in China, beginning especially in the late nineteenth century.³³ Poland remained a focal point in certain discussions of partition which took many elements from history and geography texts written by European missionaries for Chinese audiences. For this reason, narratives of Poland's internal weakness, its neighbours' greed, and Polish resistance to Russia were familiar in China even before a 'partition of China' became widely discussed. Yet combining these with Chinese elements was important. Rather than the 'plumb-cake' metaphor which had surfaced in European cartoons, the term *guafen*, or 'cutting up like a melon', which had long existed but was previously a rare term, came to be the common translation of 'partition'. Chinese history, moreover, enabled some to come

³¹ _Caricatura_sobre_conferencia_de_Berl%C3%ADn_1885.jpg, under Creative Commons license (CC BY-SA 4.0); Gabriëls, 'Cutting the cake', 146n.

³² Louis Dalrymple, 'No Chance to Criticize', *Puck*, 43 no. 1107 (1898), https://commons.wikimedia.org/wiki/File:No_chance_to_criticize_-_Dalrymple._LCCN2012647567.jpg, image in public domain.

³³ Rudolf Wagner, "'Dividing up the [Chinese] Melon, guafen 瓜分": The Fate of a Transcultural Metaphor in the Formation of National Myth', *Transcultural Studies* (2017), 89.

³⁴ *Ibid.*, 11-24.

to very different conclusions from the problematic of partition debated in the British parliament. For example, a Chinese diplomat in Japan wrote the following in 1887:

I therefore think that as to being partitioned and split apart, with arms and turmoil everywhere, nothing compares to the “seven heroes” of the Warring States period, but this was the time of the greatest blossoming of ethics and model conduct...

He believed that the best theories of ‘*dao* and ‘*de*’, ‘heterodox teachings’, agricultural and craftsmanship techniques, medicine, and in short, ‘human talent was at such a peak’ during China’s division into multiple polities that this Warring States period produced ‘the founding fathers of all later professional specialties’.³⁴

A more influential Chinese narrative than this was that which critics of the Chinese court articulated with the intention of prompting it to take action against encroaching Western powers. One element of this which arose in response to the Western narratives was indignation against being bullied and humiliated:

The Westerners’ ridiculing of China is really going too far. When they want to wipe out a state belonging to others, they inevitably bring this up in their parliament and publicize it in the newspapers, talking every day about the abysmal quality of its governance, the chaos in its social order, and the officials’ wanton abuse of power.³⁵

Another point that was often stressed, through learning explicitly from the Polish example, was the urgency of the need for ‘self-strengthening’ in order to stave off a partition.

If one wants to do reforms for purposes of self-strengthening, it is best to go about it as early as possible...Liaodong peninsula, which belongs to our homeland, now *de facto* under Russian power, is due to its being lost because of the [Trans-Siberian] Railway, and this year we have handed over Lüshun and Dalian, at every step there are obstacles... We ourselves truly are Poland!³⁶

Partition discourse in China reached a peak around the turn of the twentieth century, when ‘Poland’ itself became a metaphor for partition, or ‘Polandization’.³⁷ It was at this point, Rebecca

³⁴ Ibid., 34.

³⁵ Liang Qichao, ‘On China’s Future Strength’, quoted in *ibid.*, 58.

³⁶ Kang Youwei, ‘Record of Poland’s Partition and Demise’, quoted in *ibid.*, 66.

³⁷ Rebecca Karl, *Staging the World: Chinese Nationalism at the Turn of the Twentieth Century* (Durham, NC: Duke University Press, 2002), ch. 2.

Karl argues, that Chinese intellectuals began to fashion, albeit with an ambivalent distaste for the masses, a concept of 'the people' or 'the social' which could be a basis for the rejuvenation of the Chinese polity. Poland provided a key example, as a state which was lost, but a nation which was still alive in its literature and consciousness. The example of Poland appealed to the masses as well as the gentry in Shanghai, where in 1904 a play by opera reformer Wang Xiaonong was staged in front of a large crowd, entitled *Guazhong Lanyin*, or 'Seeds of the Melon, Cause of the Orchid'. While *Gua* recalled the familiar melon to be cut up, *Lan* was not only the word meaning 'orchid', but also alluded to *Bolan*, or 'Poland'. The play, written and performed as Russia's and Japan's armies clashed in Korea, involved a war between Poland and Turkey, ending in Poland's defeat and partition. The implication that China could be next loomed in the background.

[This image, a drawing of a man dreaming of a pig being eaten by a group of men, has been removed as the copyright is owned by another organisation]

Figure 9: Marumaru Chinbun, "Ketōjin no negoto"

毛唐人の寐言 [A Foreigner Talks in his Sleep], 1884.³⁸

³⁸ Ibid., 86.

[This image, a drawing of a group of men about to slice a giant melon with a giant knife, has been removed as the copyright is owned by another organisation]

Figure 10: Minquan huabao 民權畫報 [Popular Rights Illustrated] “Guaxi” 瓜戲 [Melon Theater], 1912³⁹

Partition, 1905-1948: Divide and Federate

The second type of partition, proceeding chronologically, is the type more often referred to as historically paradigmatic in the partition literature, including the early twentieth-century partitions of Ireland, Palestine, and India. It is sometimes called ‘divide and quit’, as it is conceived as a last-ditch effort to quell communal conflicts ahead of an imperial withdrawal. This is somewhat historically misleading, as it obscures the ways in which these partitions were intended to salvage imperial influence in the aftermath of partition, rather than simply to end violence for its own sake, and thus their connectedness with the broader phenomenon of partition. As Radha Kumar notes, the phrase ‘divide and quit’ was coined by a former colonial administrator who was consciously alluding to the idea of ‘divide and rule’.⁴⁰ While these partitions were intended to extricate the colonial power from direct rule, the overall purpose was to preserve the empire in whatever form was still possible, not to dissolve it.

³⁹ Ibid., 107.

⁴⁰ Kumar, *Divide and Fall?*, 6.

'Divide and rule' was exactly what the British were accused of in the first example of a 'partition' which gained extensive attention in parliamentary debate which did not follow the pattern of cooperative territorial expansion. Originally conceived as a measure to increase administrative efficiency, the 1905 partition of the Bengal Presidency was enacted in large part because of a British perception that the educated Hindu Bengali community and the Indian National Congress were exercising too much influence on the government. As one administrator put it, 'This is the Congress point. Bengal united is a power; Bengal divided will pull several different ways. This is perfectly true and is one of the great merits of [partition]'.⁴¹ This was not the first time the British Empire had subdivided its colonial units, calling it 'partition', but it did create a new kind of outrage which forced public attention onto the government at home.⁴²

There, parliamentary debate revealed that the term was still controversial due to its associations with Poland, and led to a certain amount of reflection on the meaning of the word. Lord Curzon, who as Viceroy took much of the blame for the results of the partition, in defending his actions, argued that 'Partition, I think, is in itself an inapt and undesirable phrase. It suggests a forcible dismemberment of the country, much as Poland was torn to pieces by its avaricious neighbours'.⁴³ The forcible nature of the partition of Bengal was, of course, visible in the volume of protest against it, and no one would disagree that Bengal had been split up. But even the liberal Secretary of State for India who took over after the conservative government came to an end that year had to come to the same conclusion on the inapplicability of the term, while still criticizing the policy:

The word "partition" I am afraid is rather misleading, and we are apt to think of Poland and other nefarious transactions of that kind. I should be very sorry to admit that this was a partition in that sense. But it was, and remains, undoubtedly an administrative operation which went wholly and decisively against the wishes of most of the people concerned.⁴⁴

Surely if MPs were so keen to disavow any connection between Poland and Bengal, it was because they understood the political danger of allowing the connection to be made. Yet these comments reveal that a kind of analytical bifurcation still stood in the way of rhetorically

⁴¹ Z.H. Zaidi, 'The Political Motive in the Partition of Bengal, 1905' *Journal of the Pakistan Historical Society* 12:2 (1964), 131.

⁴² Eg. the partitions of Zululand in the 1870s and 1880s. 'The Restoration of Cetewayo', *The Manchester Guardian*, 25 July, 1883.

⁴³ House of Lords Debate (HL Deb), 30 June, 1908, 510-511.

⁴⁴ HC Deb, 26 February, 1906, 843.

effective comparisons being made between partitions of cooperative territorial expansion and the new type of partition that was taking shape in Bengal. This changed as proposals for the partition of Ireland took centre stage in the early 1910s. At this point both Poland and Bengal acted as warnings against repetition in Ireland for opponents of partition such as conservative Lord Killanin:

[I]f you are going to have a partition of the United Kingdom I say that, if you ignore Ulster, your partition will meet with the fate of the Partition of Bengal, and you will have to revoke or reshape it as soon as it is done.⁴⁵

These kinds of comparisons were made frequently between the cases of Ireland, Palestine, and India, and between these nascent partitions and other historical and ongoing events. By the 1940s, with the Republic of Ireland still protesting partition, and India and Palestine contemplating a prospect of partition, not to mention the aftermath of the 1939 Nazi-Soviet ‘fourth’ partition of Poland and countless other potential and actual partitions, each began to blend easily into the other in parliamentary discourse, as in the following examples:

We certainly in this House have no excuse whatsoever for ignoring the dangers of the evil of partition—we who have on our own doorstep and under our very eyes the sad and sorry result of the bitter experiment of partition in Ireland. No man in his sane senses would like to see a Stormont erected on the hills outside Jerusalem.⁴⁶

I am also told that if the troops are brought away from India the Muslims and Hindus will slaughter one another. The same in Ireland, if the partition is removed Catholics and Protestants will tear one another to pieces.⁴⁷

If we were to accept partition for Palestine it would be difficult, from a logical, fair, and just point of view, to refuse Pakistan to India.⁴⁸

I also happen to have served in [Ireland] at the time of the Sinn Fein troubles. The problem in Palestine now, with the terrorists, is almost identical with the problem that had to be solved from 1918–20 in Ireland.⁴⁹

⁴⁵ HL Deb, 29 January, 1913, 685; for comparison with Poland, see eg. HC Deb, 22 March 1917, 2138§.

⁴⁶ HC Deb, 31 July, 1946, 989.

⁴⁷ Ibid., 1038.

⁴⁸ HC Deb, 25 February, 1947, 1988.

⁴⁹ Ibid., 1978.

Having created [India], we must see that nothing is done which alters the process of history by supporting any line which would lead to the partitioning of the country...that would be regarded as an attempt to pepper India with about 300 Ulsters.⁵⁰

The parallels appeared so close and self-evident that a level of detail could be reached without much explanation. Ulster was Pakistan, Palestinian ‘terrorists’ were Sinn Féin, and Catholic-Protestant violence was Muslim-Hindu strife. What made this possible was that partition had become a modular phenomenon. All of these situations had been defined in terms of two communities which were not only territorialized in a broad sense but could also be split apart, if it came to it, by a line drawn in one specific place or another. That such a line could be constructed was not questioned, even if the wisdom of doing so was debated. Once used in Ireland, partition by means of linear borders had become part of the imperial repertoire.

Federalism: Transforming Partition from Imperial Expansion to Retrenchment

One way we can examine in greater depth the transnational links made possible by partition in the British Empire is through the system of ideas known as imperial federalism. While partition, as seen above, by now had a long history, it became entangled with imperial federalism, another discourse which, like that of partition, made sense of imperial affairs in different parts of the world by linking them together. Federalism reveals not only relatively diffuse linkages between partitions, such as the drawing of inspiration from the memory of one partition for motivating emotional reactions to another, but also relatively direct connections, such as the involvement of particular individuals in the practice of partitions in disparate locations. Federalism was the system of ideas which, for imperial officials, most coherently placed these various partitions into one logic, and individual federalists did much of the practical work of articulating these connections.

The territorialisation of communities and pursuit of spatial homogeneity, of course, is a recurrent feature of Western modernity, and these partitions within the British empire bear a family resemblance with other colonial policies, such as the French-mandated Syrian federation.⁵¹ But the policies of partition enacted in Ireland, Palestine, and India are so similar

⁵⁰ HC Deb, 5 March, 1947, 539.

⁵¹ French practices of federation in Syria were also modelled after perceived past successes elsewhere in the empire, specifically in Morocco. Daniel Neep, *Occupying Syria under the French Mandate: Insurgency, Space and State Formation* (Cambridge: Cambridge University Press, 2012), 31-32.

in certain respects that they constitute a pattern that begs explanation. In all three cases, the British government reluctantly favoured, after drawn-out communal violence and political deadlock, a territorial separation between two communities understood as both ethno-national and religious units, in order to salvage some degree of its declining influence in the area, with support from leaders of one of the two communities.

Originally conceived in the late nineteenth century as a way to halt the growing independent-mindedness of the British settler colonies by converting the empire into some kind of global state, imperial federalism after the turn of the twentieth century boiled down to the idea of saving the empire through devolution.⁵² Federalism was not a well-defined theory, and federalists sometimes disagreed bitterly, but the basic idea uniting them was that something needed to be done to tie together the empire before it fell apart. It was developed by a well-organized and well-connected pressure group with a distinct sense of purpose, first as the 'Kindergarten', and later as the Round Table Movement.⁵³ At first, federalists met regularly and devoted much time to developing their ideas through memoranda, by travelling throughout the empire, and by lobbying politicians. By mid-century, little was left of the federalist aspiration, and they found themselves limited to different ideas of what form the Commonwealth could take and how to justify it as a moral force for international cohesion. There has been debate over the extent to which they continued to meet in secret and coordinate policy long afterwards.⁵⁴ At the very least, the members of the movement continued to share an interest in applying a distinctive style of historical reasoning to the practical challenges of the British empire's decline, and the movement's journal, *The Round Table*, continues to be published today.

Reginald Coupland was a member of the Round Table movement and editor of the *Round Table* from 1917 to 1919, and thus firmly committed to the goal of rejuvenating the British Empire through federalist ideas. Coupland made clear his positioning within imperial federalism in his 1921 inaugural lecture as Oxford's Beit Professor of Colonial History, in which he argued that the first of 'two paramount political problems of our time' was 'the problem of nationality'.⁵⁵ The First World War had been caused in part by 'the shallow nineteenth-century doctrine that ideally

⁵² Duncan Bell, *The Idea of Greater Britain: Empire and the Future of World Order, 1860-1900* (Princeton: Princeton University Press, 2007).

⁵³ Vineet Thakur, Alexander Davis, and Peter Vale, 'Imperial Mission, "Scientific" Method: An Alternative Account of the Origins of IR', *Millennium: Journal of International Studies* 46:1 (2017), 3-23.

⁵⁴ Carroll Quigley, *The Anglo-American Establishment* (New York: Books in Focus Inc., 1981).

⁵⁵ Reginald Coupland, *The Study of the British Commonwealth* (Oxford: Clarendon Press, 1921), 8-10.

all states should be uni-national', and nationalist movements worldwide were being encouraged by the new fallacy 'that every nation has a positive right to be a state'. Against these ideas he argued, 'there can be little peace or prosperity on earth until certain truths concerning nationality are understood...that somehow the ideal of national freedom must be harmonized with the ideal of international unity'. Coupland's international unity was the British Empire, which, following leading federalist Lionel Curtis, he had begun to call a 'Commonwealth', or 'an endeavour to keep a motley company of nations living together both in freedom and in unity; a unique experiment in international relations'. These nations could either follow a civilized path to co-existence in multi-national units such as Britain, Canada, or South Africa, or 'tragic' paths to communal strife as in Ireland. While an Alexander Hamilton or a Round Table Movement could provide study and careful constitutional crafting to smoothen the process of union, nations could not be coerced into unions against their organic free will. As had been the case in most British political thought since the nineteenth century, the nation was supposed to be a step on the way to the universal, not the particular. Only defective nationalities required separation from other nations.

The ideas of federalism and the activities of federalists played an important role in making partition ultimately a palatable option in Ireland, Palestine, and India. Federalists did not start from the premise that partition was the only way to end communal violence, nor did partition enter their discussions until the Irish crisis of the 1910s. Their ideas, though, did lead some to see partition as a last resort, and partition came to be bound up in the politics of federalism. Federation, in the context of decentralization, did not seem possible without some kind of partition, nor did federalists try to think of ways to accomplish federation without some kind of territorial differentiation. As such, partition came to be a modular solution applicable to very different problems, but nonetheless still reliant on the same fundamental aspect of abstract territoriality as in the nineteenth century, its apparently universal applicability. Before partition was seriously contemplated in all three cases, federalist discussions had already connected them together as examples of communal strife. Thus part of what was imagined as modular was also the national community itself, as logically prior to the partitioning of national units. But through federalism, the meaning of partition was changed, and the concept of partition began to appear with a whole new set of associated ideas.

In the nineteenth century, partition usually referred to cooperative efforts among empires to acquire and share new territory, and federalism referred to the formation of a union between two pre-existing territorial entities. In the twentieth century, partition came to refer to the splitting of what was one political entity through the territorialisation of a communal conflict within it. These partitions were sometimes conceptualized through the lens of federalism because of the potential to retain an existing but failing union.

While the partition of Bengal was in some respects a precedent, federalists began to conceptualize partition with Ireland. Many federalists were initially opposed to Irish partition because they were opposed to Irish home rule in general, and because thus far federalism had meant an association between pre-existing units, not partition.⁵⁶ But ultimately federalism made a key contribution to partition in Ireland by helping make partition acceptable to unionists. British unionists, in particular, cared more about maintaining the United Kingdom than protecting Irish Protestants from Catholic rule. They had adopted an approach emphasizing the injustice of including loyal Ulster Unionists in a home-ruled Ireland against their will simply because earlier approaches arguing that the Irish were racially unfit appeared outdated and unconvincing.⁵⁷ Through federalism, however, it became imaginable that a partition might actually strengthen the United Kingdom. In fact, some federalists were proposing 'Home Rule All Round', or in other words, devolution of power over local issues to several parliaments within the UK, of which Ireland might have one or more.⁵⁸ Winston Churchill, a unionist, was persuaded by members of the Round Table to make such a proposal, and while he did not say how many parliaments Ireland would have, his speech was widely interpreted as advocating partition, and contributed to the Ulster Unionists' acceptance of home rule given the exclusion of Ulster.⁵⁹ As Austen Chamberlain put it, "'Federalism' makes the 'exclusion' of Ulster easy'.⁶⁰

The radical scheme of home rule all round never caught hold, but federalism did leave its mark on the Government of Ireland Act 1920 and the Anglo-Irish Treaty of 1921. The former, largely the work of the federalist MP Walter Long, assigned home rule parliaments separately to

⁵⁶ John Kendle, *Ireland and the Federal Solution: The Debate over the United Kingdom Constitution, 1870-1921* (Buffalo, NY: McGill-Queen's University Press, 1989).

⁵⁷ Goddard, *Indivisible Territory*, 84.

⁵⁸ Kendle, *Federal Solution*.

⁵⁹ *Ibid.*, 154-155.

⁶⁰ *Ibid.*, *Federal Solution*, 169.

Northern and Southern Ireland, as well as a Council of Ireland, which it was hoped would lead to unification. With the Irish Republic in open war against the UK, the act was not applied in the South, but in the Treaty of 1921, republican leaders accepted dominion status in the British Empire, and Northern Ireland was given the option to join. As *The Round Table* put it,

It was and is partition for unity's sake. Nothing has yet happened to invalidate the belief inspiring the policy, that...fixed severally with responsibility for their areas, the two majorities in Ireland must face the necessity of coming peaceably to terms...the period through which Ireland is passing would sufficiently prove it, if proof were needed, one country.⁶¹

Northern Ireland, in the event, declined to join the Irish Free State, but the British seriously hoped that it would. What followed was essentially a struggle over symbols and technicalities more than substance, as the Irish leaders had to sell the treaty in Ireland to a republican audience, and the British to Tories concerned with the integrity of the Crown. In an act of faith, the British did everything they could to make sure constitutional procedures were followed, and that no symbolic act of revolution could have been committed, enlisting Lionel Curtis, a prominent member of the Round Table Movement, to mastermind the government's legal implementation of the treaty.⁶² The main purpose of Curtis's effort to apply federalist principles to the Irish settlement was to keep Ireland in the Empire by making it as palatable to Irish republicans as possible, in its new guise as the 'Commonwealth of Nations'. But the federal structure of the Empire held out a certain appeal even to republican leaders because it made reunification more likely.⁶³ Despite the unlikelihood, in retrospect, of either Irish reunification or the UK maintaining meaningful sovereignty over the South in the long term, it was the federal idea that made all of this seem just plausible enough in London to work there as a politically feasible settlement.

Palestine

Federalism and federalists also played an important role in making this new type of partition transferrable to new contexts, by favouring it as also a solution for Palestine, through the work of Reginald Coupland and the 1937 Peel Commission. Before 1937, partition had been proposed

⁶¹ 'Ireland at the Cross-roads', *Round Table* 12 (1921-2), 524.

⁶² John McColgan, 'Implementing the 1921 Treaty: Lionel Curtis and Constitutional Procedure', *Irish Historical Studies* 20 (Mar. 1977), 312-333.

⁶³ Kumar, *Divide and Fall?*, 14.

by some individual Zionist activists and others outside the Palestine administration, but only 'cantonization' on a Swiss model had been debated within the administration, and this had been effectively rejected.⁶⁴ But in response to a major surge in violent clashes between Arab and Jewish communities in Palestine, the British government established a Royal Commission under Lord Peel to investigate its causes. Going beyond the limits of the League of Nations Mandate, and in disagreement with the consensus of British administrators, the Peel Commission recommended an outright partition. Reginald Coupland, as a member of the Commission, is usually credited with a leading or even determining role in swaying his peers towards this conclusion, and with Lord Peel severely ill, Coupland wrote most of the report himself.⁶⁵

It is impossible to determine to what extent Irish politics, or federalist thought on Ireland, influenced Coupland to make the decisive push towards partition in Palestine. Some have speculated that it was primarily Ireland that convinced him that some nationality conflicts were irresolvable. Others, however, have argued that the significance of his having edited the *Round Table* during the Irish War of Independence, having visited Ireland and commented on Irish partition before participating in the Peel Commission, are more apparent than real.⁶⁶ More easily substantiated, however, is the idea that the same imperial federalist understanding of nationality which led to the creation of a devolved government of Northern Ireland and a Council of Ireland also led the Peel Commission to recommend partition in Palestine. He was an admirer of Lionel Curtis's work, hoping to 'follow up and spread abroad the principles' of his teaching, and credited Curtis with giving him the 'key to confused situations' which he applied in Palestine: 'As soon as I asked myself what the end was, it was harmony between Arab and Jew and the first step towards that end was Partition'.⁶⁷

⁶⁴ Penny Sinanoglou, 'British Plans for the Partition of Palestine, 1929-1938', *The Historical Journal* 52:1 (Mar. 2009), 131-152.

⁶⁵ According to one historian, the partition recommendation was 'entirely owing to the analytical powers and forensic skill' of Coupland, the Commission's 'most forceful member'. Fraser, *Ireland, India and Palestine*, 130-3. See also Itzhak Galnoor, *The Partition of Palestine: Decision Crossroads in the Zionist Movement* (Albany, NY: State University of New York Press, 1995), 56-60, 70-74.

⁶⁶ For the former view, see T.G. Fraser, 'A Crisis of Leadership: Weizmann and the Zionist Reactions to the Peel Commission's Proposals, 1937-8', *Journal of Contemporary History* 23:4 (Oct. 1988), 659; Rory Miller, '"An Oriental Ireland": Thinking about Palestine in Terms of the Irish Question during the Mandatory Era', in Rory Miller (ed), *Britain, Palestine and Empire: The Mandate Years* (Farnham, UK: Ashgate, 2010), 175. Ex-colonial official J.S. Bennett argued the latter: see Alvin Jackson, 'Ireland, the Union, and the Empire, 1800-1960', in Kevin Kenny (ed), *Ireland and the British Empire* (Oxford: Oxford University Press, 2004), 144.

⁶⁷ The 'key to confused situations' was as follows: 'a path through the thickets of life can always be found by first deciding what is the ultimate goal we are trying to reach'. Lionel Curtis, *Civitas Dei: The Commonwealth of God* (London: Macmillan, 1938), 833; Deborah Lavin, *From Empire to International Commonwealth: A Biography of Lionel Curtis* (Oxford: Clarendon Press, 1995), 272.

On one hand Coupland admitted that 'One of the finest and most characteristic features of the British Commonwealth...has been the manner in which the conflicting claims of nationality have been reconciled within its borders', but on the other hand he recognized that

where the conflict of nationalities has been overcome and unity achieved—in Britain itself, in Canada, South Africa—one of the parties concerned was English or British, and that, where that has not been so, as in the schism between the Northern and Southern Irish or between Hindus and Moslems in India, the quarrel, though it is centuries old, has not yet been composed.⁶⁸

Coupland thus linked the activities of the Commission both to his earlier work on nationalities and to the two other cases of communal violence which were eventually addressed with partition. For federalists, the mark of a civilized nation was that it was able to associate with other nations, in particular through the Commonwealth. They could not be forced to do so, but had to do so of their own free will, with elites and intellectuals only able to guide the process. This had been the basis of the preoccupation with avoiding the 'coercion' of Ulster into a Home Rule Ireland. Partition, federalists hoped, would dissipate the perception of coercion and allow for a more organic and meaningful union. Thus Coupland insisted that most Englishmen would stand by the King's wish, expressed in a speech at the opening of the Belfast parliament, that the ceremony would be 'the prelude of a day in which the Irish people North or South, under one parliament or two as those parliaments may themselves decide, shall work together in common love for Ireland'.⁶⁹ The substance of the speech, unsurprisingly, had been written by a prominent imperial federalist: the South African General Jan Smuts, whom the *Round Table* described as its 'Oldest Friend'.⁷⁰

These same federalist ideas necessitated partition similarly in Palestine. In its official diagnosis, the Peel Commission accused the Mandatory Government of overly segregationist policies which 'could scarcely have been better calculated than it is to keep the races apart'.⁷¹ Yet it also blamed Arab and Jewish nationalism for being 'intense and self-centred'.⁷² In particular, it noted

⁶⁸ *Palestine Royal Commission: Report*, Presented by the Secretary of State for the Colonies to Parliament by Command of His Majesty (London: His Majesty's Stationery Office, 1937), 375.

⁶⁹ Reginald Coupland, *The Empire in These Days: An Interpretation* (London: Macmillan & Co. Ltd., 1935), 62.

⁷⁰ Deirdre McMahon, 'Ireland and the Empire-Commonwealth, 1900-1948', in Judith Brown and William Roger Louis (eds), *The Oxford History of the British Empire, Vol. IV: The Twentieth Century* (Oxford: Oxford University Press, 1999), 149; 'Jan Christiaan Smuts: The Round Table's Oldest Friend', *The Round Table* 41 (1950), 3-21.

⁷¹ *Palestine Royal Commission*, 137.

⁷² *Ibid.*, 136.

that Jewish nationalism seems to reject 'the very idea of a real Palestinian community' and that Arabs were irrationally disinterested with the objective material improvement brought by the Jews: 'though the Arabs have benefited by the development of the country owing to Jewish immigration, this has had no conciliatory effect'.⁷³ As the *Round Table* put it in defending the Peel Commission plan, the mandate had things backwards when it assumed that the Palestinian Arabs would behave as 'our own classical political economists' imaginary *homo economicus*' while remaining 'immune from the nationalism of our Occidental *homo politicus*'.⁷⁴ The reason for this, the Commission believed, was that Jewish immigration had been forced on the Arabs against their will.⁷⁵ The essence of the problem, then, was that 'to maintain that Palestinian nationality has any moral meaning is a mischievous pretence. Neither Arab nor Jew has any sense of service to a single state'.⁷⁶ The difference was that Palestine constituted a complete failure to achieve cohesion, while the partition of Ireland retained some hope of future reunification. Otherwise, from the perspective of Coupland's federalist approach, the two were fundamentally alike in terms of the ends and available means of imperial policy.

India

In India partition took centre stage in political debate not because of a Peel Commission, but instead mainly due to the campaigns of Indian politician Muhammad Ali Jinnah. Rather than imperial federalism, Jinnah took his inspiration from scholar and reformer Syed Ahmad Khan, who had been at the forefront of promoting Indian Muslim consciousness in the late nineteenth century, and from poet and philosopher Muhammad Iqbal.⁷⁷ If federalism had any influence on this, it was most likely by way of the Peel Commission's 1937 recommendation of Palestine's partition, which many Indian Muslims, including Iqbal, vigorously protested against as an injustice to Arab Muslims. Jinnah had previously promoted cooperation among Hindus and Muslims, and had even been a member of the largely Hindu Congress party before later joining the Muslim League, which advocated for safeguards for Muslims from what it saw as a nascent Hindu rule. But it was right at the time that partition came to the forefront of Palestinian politics that this began to change, as Iqbal and Jinnah began corresponding in 1936 on how to expand mass support for the Muslim League and developing a separate Muslim consciousness. Jinnah

⁷³ Ibid., 119; 363.

⁷⁴ 'The Palestine Report and After', *Round Table* 27 (1937), 745.

⁷⁵ *Palestine Royal Commission*, 124.

⁷⁶ Ibid., 371.

⁷⁷ Fraser, *Ireland, India and Palestine*, 72-73.

gradually moved towards Iqbal's position, and by 1940 he was advocating for a completely separate Pakistan.

The timing of Jinnah's shift was primarily due to a need to change the League's political message in order to attract new supporters, but other partitions may have been an influence as well. It would have been unlikely for Iqbal and Jinnah to use explicitly the Peel Commission's recommendation as a precedent for their demand for Pakistan, given the unpopularity of the Peel Commission among Indian Muslims. Jinnah did, however, use Ireland as a precedent, and was clearly aware of the discourse of federalism which frequently referred to the multinationalism of the British Empire. In the *Manchester Guardian*, he wrote to the English people that they should not draw parallels too closely with

the experiments tried in Canada and Australia, where after all the foundations of government are suited to the genius of the people, mainly British in stock. It is very doubtful as to how it will work in South Africa where there are two powerful rival communities like the Boers and the British, and even here the differences between them are not so fundamental as between Hindus and Muslims. Even Ireland, after decades of union, did not submit to the British Parliament in spite of the close affinity with the English and the Scot.⁷⁸

Jinnah even drew on the rhetoric of the Ulster Unionist leader Edward Carson, who was asked by an Irish nationalist leader why he wanted to separate from Ireland: 'What was Carson's reply? "I do not want to be ruled by you". My reply to Mr Gandhi is, "I do not want to be ruled by you"''.⁷⁹

Federalism, however, was yet again in India an important basis of British policy, as Round Table member Leo Amery was now Secretary of State for India, and Amery relied at key moments in the early 1940s on Coupland for advice, having admired Coupland's work in the Peel Commission. In 1942, the fall of Rangoon and Singapore to Japan suddenly introduced a certain seriousness in British efforts to secure Indian participation in the war through promises of political change.⁸⁰ It was through Amery's insistence that this took the form of a declaration which specified that India would become a federation which no province would be forced to

⁷⁸ Quoted in Jamil-ud-din Ahmad (ed) *Some Recent Speeches and Writings of Mr. Jinnah* (Lahore: Muhammad Ashraf, 1942), 87.

⁷⁹ Quoted in T.G. Fraser, 'Ireland and India', in Keith Jeffery (ed), *'An Irish Empire'? Aspects of Ireland and the British Empire* (Manchester: Manchester University Press, 1996), 91.

⁸⁰ Fraser, *Ireland, India and Palestine*, 85-87; Anita Inder Singh, *The Origins of the Partition of India, 1936-1947* (Oxford: Oxford University Press, 1987), 76-77.

enter. Inspired by Canada and Australia, Amery's goal was not partition but a voluntary union, because 'once the freedom of choice is conceded, I believe they will all come in'. Both the Viceroy and the Commander-in-Chief disagreed, believing that, on the contrary, this would open the door to Pakistan, as it would be the first time Britain publicly admitted the possibility of partition, overturning the previous promises in the Act of 1935. Coupland, who had gone to India as 'an informal Royal Commission of one' on Amery's behest, provided support for Amery's push for a federal framework. Like Amery, Coupland believed that Muslims should be given the chance to join the federation of their own volition, and so 'the first means of preventing Pakistan is not to rule it out'.⁸¹ Rather than taking sides publicly for or against partition, Britain should act as an impartial mediator, despite the fact that the government agreed union was the better option.

The relationship between federalism and partition was thus crucial but paradoxical. The goal of the imperial federalists was to provide a new moral purpose and more durable structure to the British Empire-Commonwealth. They intended to create unity by binding the various nations of the Empire-Commonwealth to the Crown, not disintegration, the particularism of which they associated with narrow-minded nineteenth-century nationalism. The basic theory had already been conceived as part of imperial federalism, long before it evolved into partition, as stated by Charles Dilke in his treatise on *Greater Britain*: 'the strongest argument in favour of separation is the somewhat paradoxical one that it could bring us a step nearer to the virtual confederation of the English race'.⁸² But by conceiving of the nation as a self-evident unit with one cohesive will, and by arranging imperial policy so as to act as an impartial arbiter between subject nations, without appearing to 'coerce' them, they achieved exactly the opposite of what they understood to be their own goals: divide and rule. As the Irish nationalist politician William Redmond put it,

[T]he defect is writ in one word, and that is "partition." The idea of thinking that by dividing a country into two units and setting up two executive authorities you are then going to bring it together again is surely a rather muddleheaded Saxon way of dealing with a problem of this kind.⁸³

⁸¹ Kathryn Seygal Patterson, *The Decline of Dominance: India and the Careers of Lionel Curtis, Philip Lothian, and Reginald Coupland*, PhD Dissertation, Bryn Mawr College, 1989, 374-387. See also Coupland's public views, which are similar but less transparent: Reginald Coupland, *The Future of India* (London: Oxford University Press, 1943).

⁸² Quoted in Bell, *Greater Britain*, 106.

⁸³ HC Deb, 8 March, 1922, 1410.

The Cold War Partitions: Germany, Korea, Vietnam

Studies of partition often distinguish the Cold War partitions of Germany, Korea, and Vietnam quite sharply from other historical phenomena that have been referred to as partitions. Partitions that are today considered typical tend to involve separation on the basis of long-abiding differences of identity, whereas few would make the argument that partitions in Germany, Korea, or Vietnam were made on that basis. Instead, these are attributed to the Cold War, whether this is understood as an ideological confrontation or a global power bipolarity, and territorial divisions in those places are seen as individual, concrete manifestations and reflections of a larger, more abstract world division. When, unlike most existing studies, we view partition as a discourse and as a modular political technology rather than as an analytical framework, this distinction appears at first not completely without merit. Those who planned and put into practice these partitions did not tend to make explicit comparisons to, for example, the partitions of India or Poland; the relative distinction of this group of partitions is not a scholarly invention but was also assumed to a certain extent by decision-makers at the time. In fact, a potential partition of Germany was perhaps more often referred to as a 'dismemberment' than a 'partition', although both terms were used. During Allied planning for the aftermath of WWII, a potential German partition was more often seen by its champions, such as FDR, and by those less enthusiastic about it, such as George Kennan, as a return to Germany's pre-Bismarck past rather than as a transplantation into Germany of a policy worked out elsewhere.⁸⁴ And after the end of the war, Germany, Korea, and Vietnam became comparison cases for each other, rather than India and Palestine, where partition occurred very nearly contemporaneously.

Yet the Cold War partitions, just as much as any others, show the importance of examining linkages between partitions. In the case of Germany, even though such links were rarely made explicitly, the history of partition was nonetheless present in the form of the wide range of maps and plans made for partitioning Germany, and in negative connotations of the word 'partition' which were linked ultimately to Poland and the colonial partitions. The transnational impact of Korean partition can then be seen by 1950, as the strategic field in partitioned Germany appeared differently in light of the invasion of South Korea. Finally, the partitions of Germany and Korea set possibilities and expectations for Vietnam. The idea of partition might not otherwise have been posed as a solution to the Indochina War, and the repeated pattern of an unintentional slide from a temporary military partition into a permanent political division,

⁸⁴ John Harper, *American Visions of Europe: Franklin D. Roosevelt, George F. Kennan, and Dean G. Acheson* (Cambridge: Cambridge University Press, 1994).

observed in Germany and Korea by many, was almost a self-fulfilling prophecy in Vietnam. As with the partitions of cooperative territorial expansion, as well as the partitions of imperial federalism, the parallels made obvious by the apparently universal applicability of linear partition exerted a transnational influence.

Germany

Whether or not Germany was to be partitioned at the end of the war was one of the first questions to be considered by American planners. Winston Churchill may have suggested partition to Roosevelt in December 1941, the month the US entered the war, but by early 1942 the partition question was firmly on the agenda of the State Department's Advisory Committee on Postwar Problems.⁸⁵ While the State Department itself was against partition on economic grounds, the Advisory Committee was mired in endless debates, and President Roosevelt was for it, proposing at the Tehran Conference in 1943 a division into five states and two international zones. Unlike perhaps any previous partition, the primary aim of partition would be to reduce Germany's military capacity, as many feared it could bring about a third world war. For Roosevelt, this was couched within a broader view that Europe's time at the centre of world affairs was over, and that its ideal replacement would be a collection of small states, or as one historian put it, 'an Indian Raj writ in European terms'.⁸⁶ The Big Three's interest in partitioning Germany became an intention at the Yalta Conference in 1945, when they decided that accepting Germany's surrender would mean reserving the right to take steps including 'the disarmament, demilitarization, and dismemberment of Germany'.⁸⁷ With Western media closely following the evolution of partition plans, a variety of official and unofficial maps proliferated, resembling somewhat the partition cartoons of the long nineteenth century. Using the cartography of linear borders, anyone with a map and a pencil was capable of making their own post-war plan for Germany to rival these.

⁸⁵ Philip Mosely, 'Dismemberment of Germany: The Allied Negotiations from Yalta to Potsdam, *Foreign Affairs*, 28:3 (Apr., 1950), 488.

⁸⁶ Harper, *American Visions of Europe*, 89.

⁸⁷ Mosely, 'Dismemberment of Germany', 492.

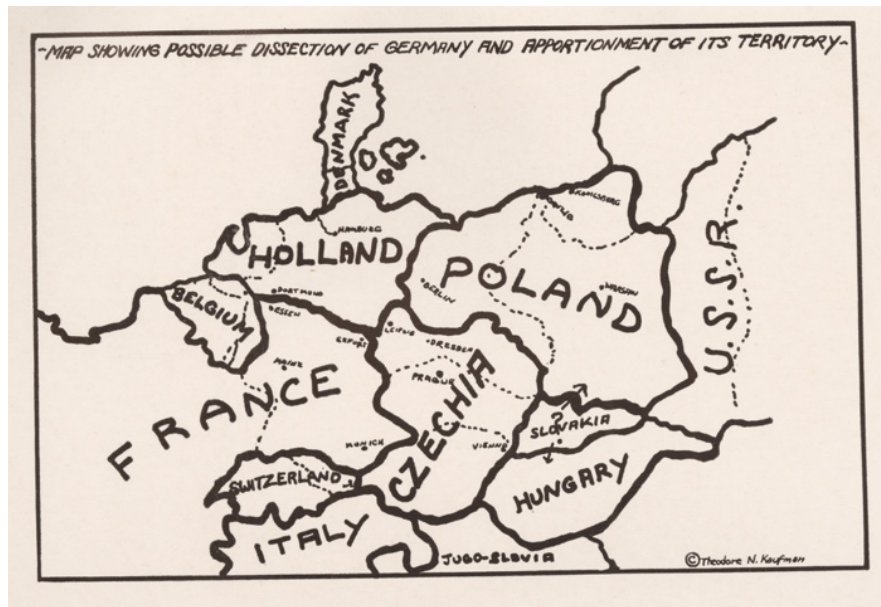


Figure 11: Theodore Kaufman, map from *Germany Must Perish!*, 1941⁸⁸

[This image, a map of Germany divided into Eastern, Southern, and Western Germany, has been removed as the copyright is owned by another organisation]

Figure 12: *Life Magazine*, based on plan by Sumner Welles, 24 July, 1944⁸⁹

⁸⁸ Theodore Kaufman, *Map Showing Possible Dissection of Germany and Apportionment of Its Territory*, 1941, Cornell University, PJ Mode Collection of Persuasive Cartography, image available at <https://digital.library.cornell.edu/catalog/ss:19343277>, under Creative Commons License (CC BY-NC-SA 3.0).

⁸⁹ Nick Ottens, 'How Germany Was Divided: A History of Partition Plans', *Atlantic Sentinel*, 31 May, 2016 (<https://atlanticsentinel.com/2016/05/how-germany-was-divided-a-history-of-partition-plans/>).

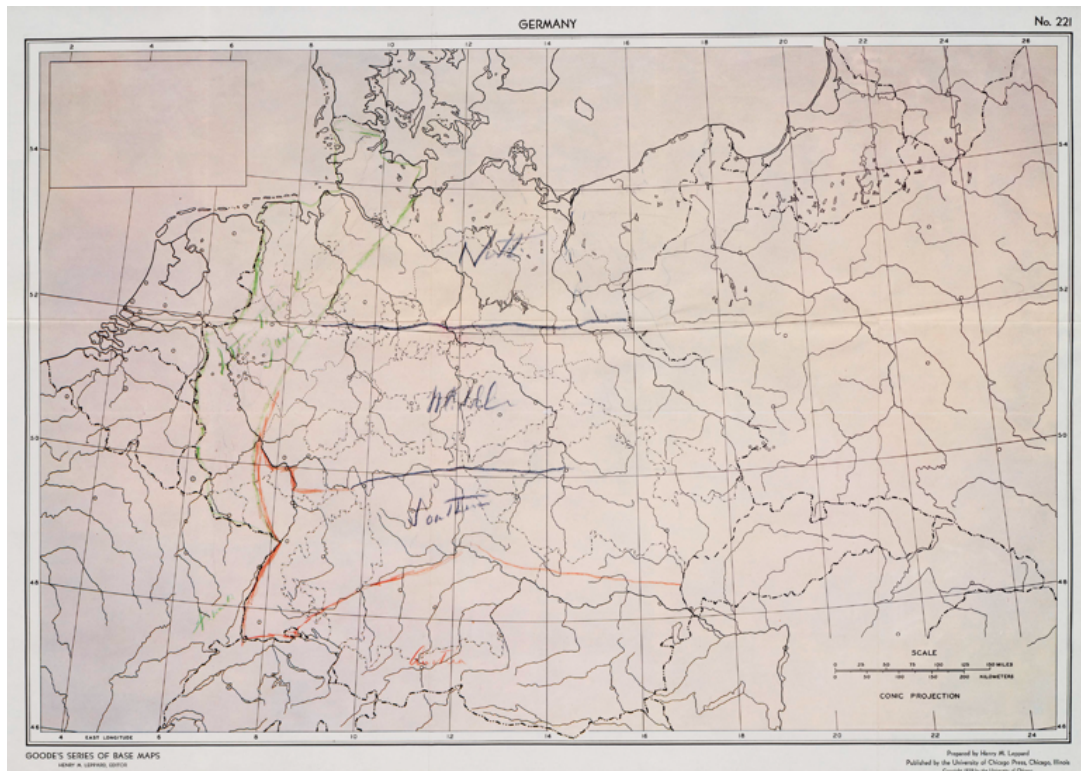


Figure 13: A suggestion by President Roosevelt for the postwar partition of Germany, September 1944⁹⁰



Figure 14: Zones of occupation in Germany as approved at the Second Quebec Conference, September 1944⁹¹

⁹⁰ Franklin Roosevelt, Memorandum, September 20, 1944, *FRUS, 1944 Conference at Quebec, 1944*, 392. *FRUS* is in the public domain.

⁹¹ Combined Chiefs of Staff to Roosevelt and Churchill, September 16, 1944, *FRUS, 1944 Conference at Quebec, 1944*, 476.

One unofficial plan, created by Theodore Kaufman, a Jewish theatre-ticket agency owner in New Jersey, was to not only partition Germany amongst its neighbours but also to sterilize all Germans, with the object of exterminating them within two generations.⁹² It would likely have been inconsequential had it not been picked up by the German press and came to the attention of the Nazi party leadership soon after Germany invaded Russia and its propaganda focus shifted towards the Jews as the coordinator of the Allied plans to destroy Germany. Joseph Goebbels noted, 'This Jew did a real service for the enemy [German] side. Had he written this book for us, he could not have made it any better'. Goebbels ordered a pamphlet summarizing the partition and sterilization plan, and had five million copies printed. The Kaufman plan, which was alleged to have emerged from the Brain Trust of President Roosevelt himself, became the centrepiece of the Nazi propaganda effort to make Germans fearful of the consequences of defeat and to justify the mass murder of Jews.

If Kaufman's plan was far too radical to be endorsed by US government officials, it nevertheless illustrates a certain element of thinking about partition as a national punishment which was widespread in a more subdued form. Anglo-American publicists in the early 1940s debated prominently whether it was the German leadership or the German nation as a whole which was responsible for the war, and while Kaufman's explicit anti-German racism was relatively marginal, many people such as Lord Vansittart blamed 'centuries of misteaching' for the Germans' willingness to 'follow any Fuehrer, cheerfully and ferociously, into any aggression'.⁹³ For Roosevelt himself, Germany could not be 'restored just as much as the Netherlands or Belgium', and instead 'It is of the utmost importance that every person in Germany should realize that this time Germany is a defeated nation' and 'have it driven home to them that the whole nation has been engaged in a lawless conspiracy against the decencies of modern civilization'.⁹⁴ Moreover, in these early stages of planning, it was through personal suffering that Roosevelt wished for the Germans to realize the extent of their guilt and its consequences.⁹⁵

⁹² Randall Bytwerk, 'The Argument for Genocide in Nazi Propaganda', *Quarterly Journal of Speech* 91:1 (2005), 37-62.

⁹³ Richard Merritt, *Democracy Imposed: U.S. Occupation Policy and the German Public, 1945-1949* (New Haven: Yale University Press, 1995), 28.

⁹⁴ Quoted in James McAllister, *No Exit: America and the German Problem, 1943-1954* (Ithaca: Cornell University Press, 2002), 52.

⁹⁵ John Chase, 'The Development of the Morgenthau Plan Through the Quebec Conference', *The Journal of Politics* 16:2 (May 1954), 349.

This desire for a national punishment of the Germans was undoubtedly a major part of the reason why Roosevelt endorsed the plan of Treasury Secretary Henry Morgenthau for partition, which would have decimated heavy industry and left two primarily agricultural German states. A 'complete shutdown of the Ruhr' industrial area, according to the plan, would necessitate either evacuating large numbers of inhabitants or feeding them from army soup kitchens.⁹⁶ When the plan leaked to the press, however, Roosevelt backed away, and while not giving up his preference for German partition, he shied away from its more controversial aspects. While there was widespread American support for a 'tough' peace, the draconian Morgenthau Plan engendered fierce debate over how best to prevent another world war, and with the 1944 election nearing, Roosevelt had no interest in taking up a new controversy.

The *fait accompli* of the partition of East and West Germany as it ultimately emerged must, of course, be understood against the backdrop of the growing mistrust and animosity between the US and the Soviet Union, which made the fusing together of the two Germanys unworkable. But the origins of German partition, which began to surface far from Cold War logics of bipolarity and well before many in the West were thinking seriously about a post-war Soviet threat, instead as a way to humble and subdue Germany is important for our purposes in drawing out the significance of Germany for a genealogy of partition. The Allies did eventually agree to work together towards a unified Germany, after the Morgenthau plan lost favour, and as fears of a resurgent Reich began to fade. Their failure to achieve unification out of their separate occupation zones was in large part due to mistrust between the West and the Soviet Union. But the separation of the various occupation zones was a decision made during the war, at a time when Churchill, Roosevelt, and Stalin were committed to partitioning Germany to weaken it. This division was by no means inevitable, and in fact a member of the British Foreign Office in 1943 proposed an 'interlarding', or dispersed occupation.⁹⁷ If this proposal had been accepted, the division of Germany might have been avoided altogether, but the decision to keep separate occupation zones, which was made before the breakdown of the wartime alliance, was a major factor in the partition which later endured for decades.

Seen as an outcome of the Cold War, German partition is remarkable as a historical break with the past that set the scene for the decades-long world division which followed. But seen instead as a diluted version of a certain kind of national extermination attempt, it follows more closely

⁹⁶ McAllister, *No Exit*, 54-55.

⁹⁷ Philip Mosley, 'The Occupation of Germany: New Light on How the Zones Were Drawn', *Foreign Affairs* 28:4 (July 1950), 589.

in the pattern set by the partitions of Poland and Mysore, as well as the partition of the African continent. Most partitions from Poland to Africa were not, like the Kaufman plan, conceived directly or primarily for the purpose of eradicating pre-existing polities, but those consequences were well known to the partitioners, whether they lamented those polities as collateral damage or eagerly anticipated their demise. During the deliberations over the post-war administration of Germany, explicit comparisons to other partitions were not particularly common, but those that were made are revealing, such as this passage from Henry Morgenthau's defense of his partition plan, which was reminiscent of Curzon's earlier attempt to get away from 'partition' as 'an inapt and undesirable phrase' in defending the partition of Bengal:

Partition has a rather ugly sound to free men. It recalls the various dismemberments of Poland by predatory nations. It recalls the ruthless way in which European powers split up most of Africa among themselves with little regard to the inhabitants...Actually, the partition of Germany would have nothing in common with these examples of a discredited imperialism. There is no intention of making the two separate segments of the German state a part of an alien community, nor of parceling them out under the overlordship of different masters. Each of the two would have as much independence and freedom as the single Germany could be permitted, perhaps more since they would not be so dangerous.⁹⁸

The absence of Ireland, Palestine, and India, potential or already accomplished partitions which were being hotly debated in the 1940s, is striking, and suggests that the divide-and-federate partitions had not yet made their mark on the concept of partition itself. Instead, it suggests that the memory of the Polish partition and its widely negative moral significance lay in the background for those arguing against Germany's partition. This memory was, after a century and a half, still being kept alive, as Poland's borders were yet again up for negotiation, and after the 1939 German-Soviet Pact assigning spheres of interest in Eastern Europe was aptly referred to as the 'Fourth Partition of Poland'.

While the partition of Germany was often seen at the time as an event without comparison, parallels were later drawn from the outside. Notably, Irish-West German relations in the 1950s turned crucially on the issue of the two countries' parallel partitions.⁹⁹ Ireland had refused to join NATO, in protest against continued UK control over Northern Ireland, or against 'partition', as it was often referred to, yet still strongly and unconditionally supported German reunification.

⁹⁸ Henry Morgenthau, *Germany is Our Problem* (New York: Harper & Brothers, 1945), ch. 12.

⁹⁹ Mervyn O'Driscoll, *Ireland, West Germany and the New Europe, 1949-1973: Best Friend and Ally?* (Manchester: Manchester University Press, 2018), 50-53.

Portraying partition in general as problematic, using the German case, was seen as a way of making its case for Irish reunification more persuasive and visible. As Irish diplomat John Belton noted in 1950, for example, 'no country in Europe can appreciate the evils of partition better than the Germany of today. It is my consistent experience that it is pushing an open door to explain to Germans how the Irish people feel about the partition of Ireland.'¹⁰⁰ Belton may not have been exaggerating; despite receiving most of its information from British press agencies, the West German press was generally sympathetic to Ireland. For example, in 1950 one Berlin periodical published an article on the tiny Irish town of Pettigo, which it claimed called itself 'The Berlin of Ireland'.

The official West German response was complicated because it appreciated all the international support for its reunification it could get, without having a seat of its own at the UN, yet it was unwilling to offend the UK, whose troops it needed to keep in Germany. It needed to avoid being drawn into the Anglo-Irish controversy, which it had no intention of trying to solve, through the partition parallel. The West German ambassador to Ireland in 1960 was instructed to 'practice restraint with regard to occasional Irish comparisons of the partition of the Irish and German peoples'.¹⁰¹ The best that could be done was to point out the differences between the two partitions, as Northern Ireland, unlike any part of Germany, had chosen partition in a referendum, and that living conditions in Northern Ireland could not be compared to those in East Germany.

Korea

The impact of partition parallels was particularly strong in Germany after the onset of the Korean War, which shocked many and prompted reassessments of the nature of the global Cold War. Struggling to comprehend the North Korean invasion of South Korea, which was assumed to have been directed by the Kremlin in spite of the fact that it did not consider Korea of primary strategic importance for the Cold War, the US searched for a new logic behind Soviet strategy.¹⁰² Rather than rely on its own military to achieve its expansionary aims, the US concluded that the USSR had achieved a new capability of using satellite forces instead. With partition a central feature of both German and Korean politics, the new logic was instantly applied to Germany.

¹⁰⁰ Ibid., 51.

¹⁰¹ Ibid., 52.

¹⁰² David Coleman, 'The Berlin-Korea Parallel: Berlin and American National Security in Light of the Korean War', *Australasian Journal of American Studies* 18:1 (July, 1999), 19-41.

Until the Korean War, the main threat according to US strategic thinking was a crisis similar to the Berlin Blockade of 1948. Such a threat would be dangerous but manageable and relatively limited in scope. After the invasion of South Korea, however, the main threat in Europe became the *Volkspolizei Bereitschaften*, the East German paramilitary force, which would have launched a military action on West Berlin or West Germany. This was a much more serious danger and required a fundamental change in the US approach to European security. As top US officials in Germany put it in 1950,¹⁰³

The most significant change in the Berlin situation has been the growing capability of [East Germany] to attempt a coup in the Korean pattern. Heretofore, it has been felt that the Soviets would not risk war over Berlin and that 'war over Berlin' connoted the use of Soviet troops against Allied troops...Influenced by the foregoing reasoning, the Allies have been satisfied with maintaining military forces in Berlin capable of doing little more than putting down civil disturbances...[R]egardless of the validity of the former reasoning, a new threat has arisen through the increased capabilities of [East Germany]...[T]he outbreak of hostilities in Korea...reveals a pattern which the Soviets may follow with respect to Berlin.

The Korean War had a great impact on many aspects of the Cold War more generally, as well as specifically in Germany, shifting the political climate in the US towards allowing a vastly increased defence budget and reconciling US allies with German rearmament, as direct military action in Europe became much more plausible.¹⁰⁴ No doubt the Korean War would still have had a similarly important impact on the perceived possibility of limited war if it had consisted of, for example, a Chinese attack on an unpartitioned Western-allied Korea. But it is likely that the similarity between the partitions in Korea and Germany made much more realistic and imaginable a repetition of the North Korean invasion of South Korea in an East German invasion of West Germany.

Vietnam

As war in Indochina between France and anti-colonial fighters increased in the early 1950s, and the US pursued a settlement on good terms for France, the Korean and German partitions also

¹⁰³ John McCloy, Gen. Thomas Handy, and Maj. Gen. Maxwell Taylor, 'A Review of the Berlin Situation', 29 August, 1950, *FRUS* 1950, vol. 4, 876-877.

¹⁰⁴ McAllister, *No Exit*, 183-192; Robert Jervis, 'The Impact of the Korean War on the Cold War', *The Journal of Conflict Resolution* 24:4 (Dec., 1980), 563-592.

began to affect a third region. In fact, Indochina had already been conceptually linked to Korea at least since the end of WWII by General Order No. 1, issued directly following the Japanese surrender, which partitioned each of them with a numerical line of latitude:¹⁰⁵

a. The senior Japanese Commanders and all ground, sea, air and auxiliary forces within China, excluding Manchuria, Formosa and French Indo-China north of 16° north latitude, shall surrender to Generalissimo Chiang Kai-Shek.

b. The senior Japanese Commanders and all ground, sea, air and auxiliary forces within Manchuria, Korea north of 38° north latitude and Karafuto shall surrender to the Commander-in-Chief of Soviet Forces in the Far East...

This order, in one stroke, laid the groundwork for partition in both Korea and Vietnam at the same time. It created the partition between Soviet-occupied northern Korea and US-occupied southern Korea, which became the border between North and South Korea when efforts towards a unified Korea collapsed. Along a different parallel, it also created a partition between Chinese-occupied northern Indochina and southern Indochina, which would be occupied by British and French colonial troops. As Chinese troops withdrew from Indochina in 1946, leaving France to attempt to recover its pre-war colony, the partition was temporarily ended. At the 1954 Geneva Conference, however, after nearly a decade of colonial warfare, as France searched for a way to avoid complete defeat, partition returned as a solution which was supposed to separate the belligerents in Vietnam, with the Viet Minh in the north and the French in the south, until elections could be held for all Vietnam.¹⁰⁶ While the 16th parallel was not precisely followed in the 1954 agreement, as it was in 1945, it was the starting point for the Geneva negotiations.¹⁰⁷ In the end, it was very broadly similar, and was commonly referred to as 'the 17th parallel'.¹⁰⁸ With both the Korea and Vietnam partitions being, in a sense, outcomes of General Order No. 1, it is possible to see how the similarities between them were not simply due to the globalization of a bipolar international structure but also owe much to the availability of partition as a political technology which is treated as transferrable and applicable to any part of the world.

¹⁰⁵ 'Revision of General Order No. 1', 11 August, 1945, *FRUS* 1945 vol. 6, 636.

¹⁰⁶ Frederik Logevall, 'The Indochina Wars and the Cold War, 1945-1975', in Melvyn Leffler and Odd Arne Westad (eds), *The Cambridge History of the Cold War, Vol II* (Cambridge: Cambridge University Press, 2010), 281-304.

¹⁰⁷ Joint Chiefs of Staff to Secretary of Defense, 'Preparation of Department of Defense Views Regarding Negotiations on Indochina', *FRUS* 1952-1954, vol. 16, 473.

¹⁰⁸ Forrest Pitts, 'The "Logic" of the Seventeenth Parallel as a Boundary in Indochina', *Yearbook of the Association of Pacific Coast Geographers*, 18 (1956), 42-56.

Without the recent proliferation of other partitions, perhaps including the British divide-and-federate partitions, but especially the German and Korean partitions, as well as the temporary post-war military partition of Indochina, partition might have been an unlikely proposal at the 1954 Geneva Conference. The military positions of the opposing sides were so intermixed that a simple separation into two territorial halves was far from self-evident as a solution. As a State Department report noted, partition's 'first problem would be to achieve any basic line of demarcation'.¹⁰⁹ If 'an attempt was made to freeze the zones of control along lines coinciding with present military occupation, the result would be an impossible patch of enclaves, of pockets within pockets, with the advantage clearly with the Viet Minh'. Considering only the contemporary situation of Vietnam, in isolation from all the partitions that had recently occurred, there was no obvious dividing line, as the memo put it, only 'a ubiquitous and indeterminate bamboo curtain'.

Partition made sense as an option in Vietnam for outside officials because it had been done elsewhere. By 1954, there existed a wealth of precedents that could be drawn on, although Korea was by far the most common, and lessons of the Korean War were frequently referred to. Partition continued to be seen in negative light and as something generally done to a people from the outside. For the French-supported government of Vietnam, this was a central consideration, as it could not under any circumstances support a partition of the country, and demanded a written promise from France that the latter would not agree to a partition.¹¹⁰ The US, in turn, had to limit any semblance of imperialism that might result from appearing to impose partition from the outside. As US Secretary of State John Foster Dulles mentioned to the Vietnamese foreign minister Nguyen Quoc Dinh, in searching for ways partition might be proposed, there was hardly a case in history where the people of a country had themselves proposed or agreed to territorial partition.¹¹¹ US officials knew that the Vietnamese 'would fear the transformation of their country into another Korea' in case of a partition.¹¹² This was also true of the Democratic Republic of Vietnam, whose leadership believed, from the beginning of the Geneva conference, before partition had been decided on, that 'the plan of the enemy was indefinite partition of the country like in Korea'.¹¹³

¹⁰⁹ Edmund Gullion to Robert Bowie, 'Negotiations on Far Eastern Questions at Geneva', 24 February, 1954, *FRUS* 1952-1954, vol 16, 421-422.

¹¹⁰ Douglas MacArthur II, Memorandum of Conversation, 2 May, 1954, *FRUS* 1952-1954, vol 16, 667.

¹¹¹ Walter Smith to the Department of State, 'Dulles-Dinh Meeting', 4 May, 1954, *FRUS* 1952-1954, vol 16, 666.

¹¹² Gullion to Bowie, 'Negotiations on Far Eastern Questions at Geneva', 419.

¹¹³ Pierre Asselin, 'The Democratic Republic of Vietnam and the 1954 Geneva Conference: A revisionist critique', *Cold War History*, 11:2 (May 2011), 177.

But beyond this, one of the main lessons that could be taken from both Korea and Germany, was that temporary partitions intended originally as zones of military occupation could very easily become permanent and political territorial divisions. Because of the experiences of recent partitions, any hint at a clear-cut territorial division, no matter how much it was claimed to be a temporary expedient aimed towards a unified Vietnam, risked being seen by the Vietnamese government as a slippery slope to a permanent division.¹¹⁴ As the State of Vietnam noted at Geneva,

Although this partition is only provisional in theory, it would not fail to produce in Vietnam the same effects as in Germany, Austria,¹¹⁵ and Korea...the state of Vietnam renews its proposal for a cease-fire without a demarcation line, without partition, even provisionally...the chief of state of Vietnam once more places the independence and the unity of his country above any other consideration, and that the national government of Vietnam would prefer this provisional UN control over a truly independent and united Vietnam to its maintenance in power in a country dismembered and condemned to slavery.¹¹⁶

This statement, which is almost unintelligible except in the context of the history of partition, was the basis of its reasoning for not signing the final agreement. The US took a similar stance; in a press conference a State Department official said the following when asked whether the US could accept a temporary partition:

Even that I would hesitate to subscribe to because once you draw [a] line, divide [the] country and provide what you might call [a] demilitarized zone in between, you have in effect partitioned it...what we witnessed in Korea is not in any way encouraging to [the] thought that there could be [a] reasonably prompt, political formula which would resolve it and prevent it from being dismembered or partitioned.¹¹⁷

Instead, a cease-fire to be implemented before attempting a political solution appeared better at this point. In response, a press agent noted, 'that in itself will involve some sort of *de facto*

¹¹⁴ 'Seventh Restricted Session on Indochina', Geneva, 27 May, 1954, *FRUS* 1952-1954, vol. 16, 946.

¹¹⁵ In 1954, Austria appeared to be following the same pattern, being split into Soviet, American, British, and French occupation zones. Following the Austrian State Treaty of 1955, Allied troops left Austria that year. Nonetheless, the mentioning of Austria along with Germany and Korea illustrates the perceived strength of this pattern of temporary partition becoming permanent against prior intentions.

¹¹⁶ Proposal by State of Vietnam, quoted in US Delegation at Geneva to Department of State, 19 July, 1954, *FRUS* 1952-1954, vol. 16, 1464-1465.

¹¹⁷ US Delegation at Geneva to Department of State, 2 June, 1954, *FRUS* 1952-1954, vol. 16, 1006.

revision of forces which could be [the] beginning of partition, even unintentionally. Most of our partitions started off that way in other countries'. The State Department was satisfied that withdrawing troops into a series of enclaves and disarming 'irregulars' in between would not lead to a general partition of the country. But it is clear from this exchange that the examples of Korea and Germany loomed large, and that a clear-cut line of division was thought almost destined to become permanent. Partition did become the basis for the agreement that was reached at Geneva, with China and the Soviet Union pressuring the Viet Minh into accepting it, arguing that once elections were held all of Vietnam would certainly be under Viet Minh control, as most observers agreed that any elections held would be won by the Viet Minh. But the State of Vietnam refused to sign the agreement and did not hold the elections stipulated by it, laying the groundwork for the Second Indochina War. It may have been unlikely that the State of Vietnam would have signed any agreement promising its own demise through elections, but the obvious parallel with Germany and Korea clearly created a strong impression that partition could not be truly temporary.

Beginning with WWII, then, a new chapter had unfolded in the history of partition. Unlike previous partitions, those in Germany, Korea, and Vietnam involved neither territorial acquisition by imperial powers nor justification based on separate identities. Instead, all three of them had evolved from military zones which were intended to be temporary but became permanent political divisions within the logic of the Cold War. While some links were forged with previous partitions, such as between Germany and Ireland, partitions that had a Cold War logic set them apart as a new paradigm, for many observers, and they tended to be the key cases of comparison for each other. Yet this does not mean the legacies of partition, such as imperialism and national catastrophe, no longer had meaning. From the desire to punish Germany through partition to the Vietnamese fear of ending up divided like Korea, policymakers drew on and learned from a history which may have led explicitly through Korea and Germany but also led implicitly back to the partitions of Africa and Poland.

More importantly, however, the relative distinction of the Cold War partitions from other partitions, as they were imagined at the time, does not detract from the point that territorial partition along linear borders enables comparison, connection, and the learning of certain historical lessons due to its seemingly universal applicability. Despite any inherent differences between the logic of the Cold War and the logic of divide-and-quit, in both groups of partitions, comparisons constantly lay in the background of decision-making and frequently came to the foreground, in very similar ways. With partition in India and Palestine following closely together

temporally from the late 1930s through the late 1940s, and partition in Germany, Korea, and Vietnam occurring almost in lockstep with each other from 1945 to 1954, it was almost inevitable that conceptual linkages between circumstances would be made, if not actually enable the transplantation of partition from one place to the next. Made possible by the abstract precision of linear borders, Cold War partition became a political technology that could operate independently of local conditions, in any country that both the US and its enemies could not afford to lose. The repeating pattern of partition, in a sense, became a defining feature of the Cold War independently of any particular partition.

Conclusion

The discourse of partition as one broad, coherent pattern of history, which is made possible through the linearization of borders, persists today, but only to a certain extent. Tellingly, for example, the UK's plans to leave the European Union have rarely been referred to as a 'partition'.¹¹⁸ Those who have seen 'partition' as a relevant concept in the context of Brexit tend to do so from the position of knowledge or experience of a particular historical partition, such as Joya Chatterji, a prominent scholar of Indian partition.¹¹⁹ With the end of the Cold War, and with formal territorial acquisition now a rarity, partition in two of the three senses explored in this chapter are now difficult to see as anything other than historical.

In terms of scholarly literature, in one respect, the global homogenization of territory has enabled an equally homogenizing discourse of 'partition theory' in international relations.¹²⁰ For most of the time examined in this chapter, the historical particularity of each individual partition, and the historical particularity of each type of partition within temporally specific global political circumstances, whether cooperative territorial expansion, divide and federate, or Cold War partition. In much recent IR literature, however, partition becomes generalized as a scientifically demonstrable solution to a generic problem of ethnic civil war. In a context of state breakdown, the argument goes, the already ahistorical idea of the security dilemma

¹¹⁸ Some would object to calling Brexit a partition, which is sometimes held to mean demarcating an entirely new border. This intuitive distinction, however, did not prevent observers from referring, for example, to the 'partition' of Germany, which was conducted along already existing boundaries of states within Germany.

¹¹⁹ Thomas Hunt, 'Brexit compared to the violent partition of India in astonishing BBC Newsnight outburst', *Express*, 16 August, 2017.

¹²⁰ Kaufmann, 'When all else fails'; Carter Johnson, 'Partitioning to Peace: Sovereignty, Demography, and Ethnic Civil Wars', *International Security* 32:4 (Spring 2008), 140-170.

begins to apply to ethnic groups within, rather than merely between, states, and the intermixing of ethnic groups intensifies this security dilemma to the point where war can become practically inevitable until the groups are separated.¹²¹ While the wars occurring in the wake of Yugoslavia's collapse spurred this turn in the debate, the applicability of its insights to any ethnic conflict in the world, unlike many of the debates examined in this chapter, is not a major topic of discussion and is largely assumed. Quantitative indexes of variables such as ethnic homogeneity, and statistical methods, moreover, make comparison particularly unremarkable and seemingly natural. It was this incarnation of partition theory, along with practitioners having gained experience in the partition of Bosnia-Herzegovina, which formed the basis of then-US Senator Joe Biden's attempt to 'soft partition' Iraq into three autonomous regions in the 2000s.¹²²

At the same time, however, the universalizing perspective on partition that is prevalent in the partition literature stands in contrast to the approach here, which is to examine the changing meaning of partition since the eighteenth century. Seen in this broader perspective, partition as a solution to ethnic conflict appears as only a very particular usage of practices of partition, with cooperation around territorial expansion, or the political and ideological bipolarity of the Cold War being other prominent historical usages. The broader historical perspective taken here is important not just because it reveals the connectedness of these different discourses and practices, but also because it sheds new light on the origins of what is now known as 'ethnic' partition. Rather than a potential solution to a universal condition of a humanity divided into clearly identifiable ethnic groups, which is likely to become a violent problem wherever groups are intermixed and state authority is weak, partition along communal lines became a modular practice through imperial federalism as a historically specific set of ideas. The aim, contrary not only to the results of actual practice, but also to the stated aims of today's partition theory, was to strengthen the British Empire by giving it a new federal form. 'Soft partition', then, may just be a reformulation of ideas tracing their lineage to the decline of Western imperialism. It was, after all, 'unity through autonomy' which Joe Biden advocated for in Iraq, a paradox which advocates of federalism in India or of 'Home rule all round' for the UK would have had little trouble in grasping.

¹²¹ Barry Posen, 'The Security Dilemma and Ethnic Conflict', *Survival* 35:1 (Spring 1993), 27-47.

¹²² Joseph Biden and Leslie Gelb, 'Unity through autonomy in Iraq', *New York Times*, 1 May, 2006; Edward Joseph and Michael O'Hanlon, 'The Case for Soft Partition in Iraq', The Saban Center for Middle East Policy, The Brookings Institution, Analysis Paper No. 12, June 2007.

Conclusion

This thesis has been an inquiry into the origins and consequences of ideas and practices of bordering territory which are historically specific and emergent, but nevertheless global and globalizing. From our standard maps and atlases to boundary monuments and the professionals who build and maintain them, modern international politics has been conditioned by the hegemonic idea, and the widespread practice as if territory is always, regardless of context, bounded by precise lines connecting a series of points on the earth's spherical surface. I qualified this impression by characterizing borders, rather than statically linear in the way they appear on maps, as instead historically subject to an uneven process of linearization which began centuries ago, crystallized globally around the late nineteenth century, and is in some ways continuing. I defined survey rationality as a perspective from which the linearization of borders is rational and is valued as an end. With the help of historical investigation, I concluded that survey rationality has been relatively weak as a political motive on its own, and that the most fruitful way of theorising its role in global modernity would be to see it as something which has achieved importance through articulation with other rationalities.

I left open the possibility of many different rationalities here, but focused on two in particular: capitalism and 'civilization'. Capitalism in itself, whether as a mode of production, a relation of production, or as the 'spirit of capitalism' in Weber's sense, does not necessitate survey rationality in any pure logical sense, and has existed without any particular affinity for linear borders. Capitalist private property did, however, historically become articulated with survey rationality in certain times and places, because surveys and precise borders have the potential, depending on the context, to solidify or extend claims to land. In order to illustrate this argument I used the example of the North American colonies, where the surveying of property boundaries necessitated a similar approach to political boundaries. It was there that linear borders first became systematically surveyed and demarcated, as an outcome of that articulation of survey rationality and agrarian capitalism. The idea of 'civilization' is another such rationality. During the nineteenth century in particular, 'civilization' became associated with linearly defined territory, and increasingly dramatic boundary surveys enabled a performance of mastery over both nature and colonized peoples. I used the example of West Africa in the late nineteenth century to demonstrate this point, where an older spatial order of colonial treaties broke down

as it was unable to satisfy the perceived need for a more rational system of land-appropriation which would prevent a major war. While imperial officials were reluctant to draw linear borders, it became the only imaginable alternative, over the course of the later decades of the century.

The impact of this division of global space into discretely drawn territories is not reducible to a combination of the ways in which modern international politics are shaped by sovereignty, nationalism, or the nation-state. I demonstrated this in two ways. First, the linearization of borders has a distinct effect on the politics of geographical knowledge production because assuming borders to be linear limits the kinds of knowledge that appear useful or important. When borders are linear, opportunities are created for experts such as Thomas Holdich to make a case for being taken seriously in the negotiation and drawing of borders. Second, the linearization of borders accelerates a global proliferation of partitions. Ruling out other forms of geographical ordering makes it possible to imagine any area or territorialized community being partitioned via any combination of connected geometrical points, regardless of specific characteristics. Partition can thus become an imperial repertoire of power, with the circumstances of its usage in one context conditioning the possibilities imaginable in the next.

The Contributions of the Thesis

In conceiving of borders as being subject to a global historical process of linearization, with distinct conditions of possibility and effects, the thesis has offered a perspective on the international politics of space which differs in important respects from established IR theories. Conventional IR theories such as realism, liberalism, and Wendtian constructivism tend to see territory, throughout history, as a constant which serves as a basis for, or measure of state power and legitimate authority claims, and as a container of people, natural resources, and other geostrategic features. More historically-minded IR theorists have also considered the extent to which a polity is 'territorial' to be important as a marker of modernity, and many have sought to explain the transition from 'non-territorial' polities to 'territorial' states. Yet territoriality, without specifying beyond Robert Sack's useful and widely accepted definition as rule over some particular geographical area, regardless of the particular way in which it is defined, provides only a partial understanding of what is particular to *modern* territoriality, let alone of the particular spatial arrangement of the current international system. Territoriality in general has existed in many times and many places, but the assumption and practice of linear borders has never been more widespread globally than in recent times. In response, this thesis

has argued that in order to understand how global modernity has historically been constituted, we should understand the history of borders as separate but related to territoriality.

In doing so, the thesis has revealed the global linearization of borders as a process heavily tied up in imperial relations from the beginning, rather than as a phenomenon internal to Europe subsequently imposed outside Europe. On one hand, colonies in North America began serious efforts to survey and demarcate linear borders well before such practices were common in European states. On the other hand, the avoidance of linear borders in West African colonies until the late nineteenth century shows that the linearization of borders has to be understood through the dynamics of colonialism, rather than by assuming linear borders followed Europeans wherever they went. It was only in the late nineteenth century, as a result in the changing nature of colonialism, that linear borders came to be seen as a necessary component of territoriality, regardless of local context and conditions.

Furthermore, while IR theorists have occasionally acknowledged that the manner in which territory is delimited is historically changing, they have typically suggested that it is not necessary to understand such dynamics in order to understand international relations.¹ Conventional IR theories mainly see territory in terms of the movement of territories from one state's control to another's, and the acquisition of territory either as an end in itself or a means to other types of gains. This thesis, in contrast, has shown how concerns typical of IR, such as territorial partitions and peace settlements, are affected by the way in which territory is demarcated. The post-WWI peace settlement, in particular, was decided in large part by the distribution of power between the participants, but the capabilities possessed by the participants were not only defined in terms of national populations and absolute amounts of territory occupied but also in terms of an ability to manipulate a particular, scientific kind of geographic knowledge that linear borders make possible. Territorial partitions, similarly, should not be conceived of entirely apart from the kind of delineation used, if the linearization of borders is itself part of the conditions of possibility for the particular pattern of modern partitions we can observe globally.

¹ Alexander Wendt, *Social Theory of International Politics* (Cambridge: Cambridge University Press, 1999), 211.

Further Research: Rationalities and Effects of Linear Borders Beyond This Thesis

The thesis has not been intended as a total history of linear borders, nor as exhaustive of the different factors leading to the origins of linear borders, or of their political consequences. The main argument of the thesis is that the linearization of borders is a historical process which is an articulated part of global modernity. The chapters on capitalism, 'civilization', geographical expertise, and partition are intended as key illustrations of this overall argument. This leaves open the possibility of further research investigating other origins and other consequences.

Linearization in Western Europe: Bureaucratic Rationality

To find, as part of the origins story, an alternative rationality other than the two I have explored here, we could investigate the conditions of possibility for Emerich de Vattel's contention in 1758 that

It is necessary to mark clearly and with precision the boundaries of territories in order to avoid the slightest usurpation of another's territory, which is an injustice, and in order to avoid all subjects of discord and occasions for quarrels.²

This was one of the first instances of a kind of survey rationality being written into an international law text, and it was at this point in the eighteenth century that interstate borders in Western Europe were first being demarcated, for example in France with the *traités de limites*.³ How can we characterize the rationality that was being articulated in this particular context with survey rationality? To some extent, capitalist private property and 'civilization' likely come into play here, especially when we consider that the boundaries Vattel had in mind as not being precise enough were in North America. The Seven Years' war between Britain and France, which ended in the collapse of New France, Vattel argued, had been set in motion by a failure to specify colonial boundaries clearly. The *traités de limites* in France may have been motivated, as in the border surveys of the Thirteen Colonies, in part by a desire to end property disputes among boundary inhabitants. As historian Peter Sahlins notes,

² Peter Sahlins, *Boundaries: The Making of France and Spain in the Pyrenees* (Berkeley: University of California Press, 1991), 93.

³ Peter Sahlins, 'Natural Frontiers Revisited: France's Boundaries since the Seventeenth Century', *The American Historical Review*, 95:5 (Dec., 1990), 1423-1451; George Clark, *The Seventeenth Century* (Oxford: Clarendon Press, 1947), 143.

[T]he point was to "determine the boundaries in a manner most clear and most evident for the respective subjects, and in the most permanent way possible, so as to destroy all objects of dispute among frontier inhabitants." Indeed, many of the delimitation treaties were drawn up in attempts to resolve specific disputes—not just between customs guards or soldiers of neighboring states but among inhabitants on opposite sides of the boundary. Pastures, waters, and usufruct rights on opposing mountain watersheds and riverbeds themselves were the objects of local quarrels: the state believed that its failure to define its exact territorial extension led to an escalation of local conflicts.⁴

But aside from this, there may also have been a separate logic at work at the same time, not explored thus far in the thesis, which we might call bureaucratic rationality. In the sixteenth century, the government affairs of France had been assigned not based on a distinction between foreign and domestic, but according to different, and varying geographical divisions.⁵ Around 1567, for example, Nicolas de Neufville, seigneur de Villeroy, was placed in charge of the kingdom's business in Spain, Portugal, Flanders, Picardy, Guyenne, la Rochelle, and some central provinces, while Claude de l'Aubespine was given the Holy Roman Empire, Champagne, Burgundy, and Metz, and so on. Jurisdictions we might now be tempted in retrospect to call 'domestic' were thrown in with the putatively 'foreign' ones without much differentiation. One of Cardinal Richelieu's policies, then, in the following century, was to ensure the ministerial unity of foreign affairs, and its separation from other affairs. This paved the way for further specialization in the eighteenth century within a centralized bureaucracy.

That century saw a move away from *ad hoc* dealings over territory with neighbouring polities towards officials specifically taking on the task of boundary negotiations. The question arose of whose responsibility it was to know or find out which localities were part of France or not, and the lack of a clear answer became unsatisfying. In 1746 a fund was established for this work on boundaries, and by 1773 one sieur de Comarieu was given special authority to conduct boundary negotiations 'sovereign to sovereign'. The bureaucratization of government, then, created an environment where work on very specific tasks over a period of time was increasingly sought after. The practice of the treaty of limits entered the state's repertoire and could be repeated in

⁴ Sahlins, 'Natural Frontiers', 1439-1440. See also Jens Bartelson, *A Genealogy of Sovereignty* (Cambridge: Cambridge University Press, 1995), 182.

⁵ Daniel Nordman, *Frontières de France: De l'espace au territoire : XVIe–XIXe siècle* (Paris: Gallimard, 1999), 295-302.

various places on all sides of the kingdom. In this sense, the extension of survey rationality along many of France's borders may have resulted from a kind of bureaucratic rationality.

Linearization Continues: Within and Beyond Land-Space

There are also consequences of the linearization of borders which were left out of the main remit of the thesis. Analysing the consequences here is particularly important because without doing so, there is a risk that based on the material examined in the thesis so far, the linearization of borders might be mistaken for a purely historical process which has waning relevance for IR scholars interested in the present. This section, by way of concluding, addresses this by focusing briefly on one more consequence which has clear relevance in today's world.

It is important to remember that the linearization of borders is an ongoing, never-completed process. That is why in 2007 the African Union set up a Border Programme oriented primarily towards delimiting and demarcating borders whose locations still had not been quite made completely certain.⁶ In 2011 it had set 2017 as a deadline for finishing all African boundaries, but in 2016 the deadline was extended to 2022. Even the borders examined early on in the thesis, between the United States, are still not in a completely settled state. As mentioned above, the disputes in the Maryland-Pennsylvania-Delaware area, which were already old by the 1760s, when the Mason-Dixon Line was commissioned to solve them, were still being worked out until 1921. Yet the litigation around these colonial borders had to be dug up yet again in the twenty-first century when the oil company BP sought to build a liquefied natural gas unloading terminal extending from New Jersey's shore into the Delaware River.⁷ When Delaware refused to allow the pipeline, New Jersey filed a Supreme Court suit against Delaware, arguing it had jurisdiction to regulate improvements extending from its shore. The court decided in favour of Delaware, however, because a 1934 decision had confirmed Delaware's sovereignty all the way up to the low-water mark on the New Jersey side. That decision, an exception to the norm of river boundaries following a course through the middle or deepest channel of the river, upheld Delaware's territorial claim which it traced to a 1682 deed of feoffment and lease from the Duke of York to William Penn.⁸ The 1934 decision had appeared to establish a clear borderline which

⁶ African Union, 'Meeting of Ministers on African Border Issues concludes with the adoption of the Addis Ababa Declaration on AUBP', Press Release, Addis Ababa, 7 October 2016 (<http://www.peaceau.org/uploads/pr-aubp-meeting-of-ministers-3-to-5-oct-2016.pdf>).

⁷ U.S. Supreme Court, *New Jersey v. Delaware*, 552 U.S. 597 (2008).

⁸ U.S. Supreme Court, *New Jersey v. Delaware*, 291 U.S. 361 (1934).

would solve any further dispute. Yet in the absence of total knowledge of the world, such a final decision is impossible. Linearizing borders always involves a continual process of mediating between legal-political judgement and the unexpected which can never be ultimately resolved.

The linearization of borders is perhaps most noticeable, in media reports today, outside the realm of land borders. Since the mid-twentieth century, the increasingly common practice of drawing boundaries not only on dry land but also in the sea has opened up a vast new realm of spatial uncertainty which it is now thought possible to resolve. Ocean space has, of course, long been regulated in a number of ways, in various places. Efforts to organize the law of the sea into a coherent, universal system of positive law, however, began in the late nineteenth century, intensified after the foundation of the UN, and culminated with the UN Convention on the Law of the Sea (UNCLOS), signed in 1982.

One practice that has been made possible by the attempt to introduce scientific precision into the regulation of ocean areas is the freedom of navigation operation, exemplified by the US Navy. The US Navy's Freedom of Navigation (FON) programme, formally initiated by President Jimmy Carter in 1979, is distinct from previous efforts simply to justify free navigation on the high seas.⁹ Unlike previous practices, it is crucial for the FON programme to precisely specify maritime claims that are being protested as illegal, to apply a consistent interpretation of international law to each sovereign state in doing so, and to violate only those illegal claims. FON is based theoretically on a conception of customary international law presupposing that if a state does not continually use its rights, this can potentially be taken to indicate that the state consents to the lapse of that right, and conversely, rights can be maintained through their use. Thus a consistent usage of rights is essential.

This was the reason given in 1982 when the FON programme planned for the Black Sea was expanded to include a transgression of not just Bulgarian claims but also Soviet claims. Challenging excessive Bulgarian claims without challenging Soviet claims, according to this view, would actually reinforce the latter, and would therefore be counterproductive. In 1988, then, an incident ensued in which Soviet ships deliberately collided with two US ships asserting a right of innocent passage through Soviet territorial waters. The collisions took place 10.5 and 10.6 nautical miles respectively from the Crimean coast, just within the territorial waters, which were claimed up to 12 miles from the coast. While the introduction of linear boundaries into the Black

⁹ William Aceves, 'Diplomacy at Sea: U.S. Freedom of Navigation Operations in the Black Sea', *Naval War College Review*, 46:2 (Spring 1993), 59-79.

Sea did not cause the collision, it did make the precise location of ships within the Black Sea into a crucial factor in the Soviet decision to strike the US ships.

FON operations today equally rely on navigational precision because of the precision of maritime claims, particularly in the South China Sea, where FON operations are one of the main US responses to China's militarization of the area. The US currently conducts regular FON operations in the South China Sea, and has been met with defiance by the Chinese military, up to the point where a Chinese ship nearly collided with a US ship near the Spratly Islands in October 2018.¹⁰ The possibility of crafting complicated routes, in conformance with the various zones generated or not generated by maritime features under the US interpretation of international law, bolsters the law-abiding image that the US Navy seeks to create.

To take for example the operation undertaken by the USS *Decatur* in the Paracel Islands on 21 October, 2016, the specific aim was to challenge the drawing of illegal straight baselines.¹¹ China measures maritime claims outwards from lines drawn between the Paracel Islands, as if it had been declared an archipelagic state by the UN, like the Philippines or the Bahamas. These baselines, if legal, would mean that only innocent passage would be a protected right, and challenging their legality would require conducting a non-innocent passage. The *Decatur* did this by entering the internal waters within the baselines, then loitering and conducting manoeuvring drills. At the same time, it carefully avoided going within 12 nautical miles of any features, demonstrating an acceptance that the features generate territorial seas, regardless of whether the Paracels are Chinese, Taiwanese, or Vietnamese.

These operations are meant to be carefully constructed to give precise signals. In the latter example, the US could have conducted innocent passage without notification all the way into the territorial waters of the individual Paracel Islands, but this was not the objective of that particular operation, which was instead to challenge illegal baselines. Moreover, it could have challenged China's claim to sovereignty over the Paracel Islands at all, as Taiwan and Vietnam also claim the Paracels. The consistency of the signal and its correspondence to the US interpretation of international law was considered integral to the action's effectiveness in

¹⁰ Brad Lendon, 'Photos show how close Chinese warship came to colliding with US destroyer', *CNN*, 4 October, 2018 (<https://edition.cnn.com/2018/10/02/politics/us-china-destroyers-confrontation-south-china-sea-intl/index.html>)

¹¹ Eleanor Freund, 'Freedom of Navigation in the South China Sea: A Practical Guide', Belfer Center for Science and International Affairs, Harvard Kennedy School, Special Report, June 2017 (<https://www.belfercenter.org/sites/default/files/files/publication/SCS%20Report%20-%20web.pdf>).

delegitimizing Chinese claims. In contrast, when the USS *Lassen* conducted an innocent passage transit by an artificial island constructed by China on Subi Reef on 27 October, 2015, analysts and scholars widely criticized the manoeuvre. By following the rules of innocent passage, it appeared to treat the area as territorial waters even though artificial islands do not generate territorial waters in international law, drawing accusations that although the operation challenged China's right to restrict innocent passage, it unintentionally affirmed China's ability to expand its territorial sea by building artificial islands.

[This image, a map showing the route taken by the USS Decatur around the territorial sea of, but between, the Paracel Islands, has been removed as the copyright is owned by another organisation]

Figure 15: FON in the Paracel Islands, 21 October, 2016¹²

It is the precision and linearity of maritime claims which allows navies to construct these signals in the first place. Clear and measurable definitions of maritime zones give navies a way of determining precisely which zones have been entered into or violated. The unambiguous transgression or respecting of these lines goes hand in hand with the perceived all-importance of delivering a clear message to the international community about adherence to international law. Naval officials are at pains to stress that FON operations are not a kind of bullying or performance of escalating tensions but rather a means of reinforcing the limits of established international law by carrying out actions, consistently over time, that are exactly at the limit of legality. 'We conduct routine and regular freedom of navigation operations, as we have done in the past and will continue to do in the future,' as one Navy spokesperson said after a US FON operation in Russian-claimed waters, which came less than two weeks after Russia seized three

¹² Freund, 'Freedom of Navigation', 38.

Ukrainian vessels trying to pass through the strait of Kerch.¹³ Freedom of navigation operations ‘are not about any one country, nor are they about current events. All freedom-of-navigation assertions are grounded in principle and the rule of law.’ The strictness with which the US Navy follows the law is what gives FON operations their legitimacy and perceived effectiveness, and linear boundaries make this possible.

FON operations, and the possibility of enacting a performatively strict adherence to law, are just one example of how linear maritime boundaries reshape ocean politics, but the implications of these new boundaries are arguably much broader. As Ken Booth has argued, ‘Some great paintings or pieces of literature encourage us to look at or think about the world in a different way. UNCLOS III has had such an impact on the way nations think about the sea’.¹⁴ The impact that linear zones have is not necessarily confined to the meanings intended by the authors of a treaty or agreed upon by the signatories. One example of this would be a CIA attempt in the 1970s to project what the world would look like with maritime space entirely divided up into national territories.¹⁵ The proliferation and increasing international legislation of zones in the sea appeared, at that time, to be a process with an uncertain end and unclear consequences, where agreeing to one kind of state jurisdictional expansion could easily lead to more.

[This image, a map of the world with all the ocean space divided up among states, has been removed as the copyright is owned by another organisation]

Figure 16: ‘World Lake Concept: A Theoretical Division of the Seabed’, CIA, 1971¹⁶

¹³ Christian Lopez, ‘US destroyer conducts freedom-of-navigation operation near Russia amid heightened tensions’, *Stars and Stripes*, 7 December, 2018 (<https://www.stripes.com/news/us-destroyer-conducts-freedom-of-navigation-operation-near-russia-amid-heightened-tensions-1.559618>).

¹⁴ Ken Booth, *Law, Force and Diplomacy at Sea* (London: Allen & Unwin, 1985), 376.

¹⁵ Philip Steinberg, *The Social Construction of the Ocean* (Cambridge: Cambridge University Press, 2001), 175.

¹⁶ *Ibid.*, 174.

Another example would be the 'security' dimensions of the Exclusive Economic Zone (EEZ). The EEZ was a completely new kind of jurisdiction created by UNCLOS stretching 200 miles from the coast, far more than the territorial sea, which UNCLOS set at 12 miles. The reason that the maritime powers could agree to its creation, after repudiating many states' earlier claims of territorial seas of up to 200 miles, was because jurisdiction in the EEZ was strictly limited to economic and scientific activities, and navigational and other rights of other states were guaranteed. Yet many states, in various ways, effectively treat the EEZ as a territorial sea, and since the signing of UNCLOS, such an interpretation has potentially been gaining ground in state practice.¹⁷ This gives states reason to invest in their mechanisms of legal argumentation, with China in particular adopting 'legal warfare', along with 'media' and 'psychological warfare' as part of its 'three warfares' strategy for achieving international influence.¹⁸ Of course, the fact that the US conducts FON operations in other states' EEZs raises the question of who is responsible after all for the militarization of the EEZ.

Moreover, while a given line in the ocean might have a technically defined meaning according to a particular interpretation of international law, simply drawing a line at all might also have meanings which cannot be understood through the language of law. As Booth argues, there is a 'psycho-legal' or affective quality to drawing maritime boundaries which makes them instruments of peacetime naval operations. Regardless of the technical details, having the warship of another state enter a zone designated as pertaining to one's own state is potentially threatening. 'The new boundaries, and the feelings they engender, will therefore increase the scope for naval strategists to manipulate military power in order to show displeasure or to demonstrate support.'¹⁹

During the First World War, Vladimir Lenin wrote that the 'characteristic feature' of the contemporary period was 'the final partition of the earth...in the sense that the colonial policy of the capitalist countries *has completed* the seizure of unoccupied land on our planet. For the first time, the world is now divided up, so that in the future *only re-divisions* are possible; i.e., a transfer from one "owner" to another, and not of unowned territory to an "owner."²⁰ While this may have captured something important about that moment in history, that moment

¹⁷ James Kraska, *Maritime Power and the Law of the Sea: Expeditionary Operations in World Politics* (Oxford: Oxford University Press, 2011), ch. 5.

¹⁸ Kraska, *Maritime Power*, 320.

¹⁹ Booth, *Law, Force and Diplomacy at Sea*, 388.

²⁰ V.I. Lenin, *Imperialism: The Highest Stage of Capitalism* (London: Lawrence & Wishart, 1934), 70.

certainly was not an endpoint for the expansion of linear borders. Lenin might have brushed off the African Union Border Programme, had he lived to see it begun in 2007, as a series of minor adjustments, although the African Union may deem it to promise major political implications. But ocean space, let alone air space or outer space, represents a vast area where political borders are only beginning to be subjected to the technical logic of points and lines. As long as states continue to look for ways to make their borders more precise, it is likely that they will continue to find them.

The central aim of the thesis in pursuing these arguments concerning the origins and consequences of linear borders, whether in terms of enclosure or partition, whether on land, on the sea, or beyond, has been greater than the sum of these particular arguments and historical narratives. It has been to theorize linear borders, as a bundle of ideas and practices, and the linearization of borders as the historical process to which these ideas and practices contribute, as a distinct component of global modernity. Conceptualizations of the international in IR and historical sociology have tended to understand the origins and consequences of modern borders through the lens of sovereignty, the state, national identity, or other structures. This thesis, by contrast, disassembled the connections between linear borders and modernity, and reassembled them through an analysis of historical processes.

Rather than seeing the establishment of precise borders as a logical outcome of modernity as progress, development, and civilization, along with Friedrich Ratzel, Lord Curzon, and many who were influenced by their writings, the thesis has argued that linear borders only came to be a part of global modernity through specific historical events and processes. Linear borders did not emerge first within Europe, to be exported later via imperialism. Instead, Western imperialism, in terms of the forms of settler agrarian capitalism it made possible, and in terms of the dichotomy between civilized and uncivilized societies it constructed, was always integral to the linearization of borders.

The importance of the particular character of modern borders is easy to overlook. What could be simpler than a series of straight lines? What is more interesting, it might seem, is the more varied reality which is obscured by an understanding of borders as lines, or new forms of political geography which might at some future point make borders irrelevant. But just because some scholars have attained a critical awareness to the contingency and non-linearity of borders does

not make linear borders disappear; 'Analysis does not make it go away'.²¹ As this thesis aimed to show, there is much to be gained from investigating the history of the basic spatial form that in many ways conceptually holds the international together. Far from a topic that should be delegated to an increasingly quantified political science, the account of the geographical lines constituted by borders unfolded in this thesis is indicative of the breadth and depth of the ground that historical IR has yet to cover.

²¹ Dipesh Chakrabarty, *Provincializing Europe: Postcolonial Thought and Historical Difference* (Oxford: Princeton University Press, 2008), 28.

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