

1 | Introduction

In the 1680s, King Louis XIV of France was presented with a new map of his realm, the product of decades of work using the most advanced scientific mapping techniques of the early modern period. Funded largely by government resources and based on the combination of trigonometric surveying and exacting measurements of latitude, the map showed the correct coastal outline of France, in contrast to where that coastline had previously been pictured as lying. (See Figure 1.1.) The updated image revealed that earlier maps had significantly overestimated the total area of France – with a difference of about 54,000 square miles – and Louis is reported to have expressed his dismay at this “loss” of territory, greater in size than any of his successful military conquests to date.¹

The map, of course, revealed that Louis had never ruled a territory that was as large as he had imagined it to be. The map itself changed nothing, other than the ruler’s idea of his realm – but the *idea* of what is ruled is central to how political actors pursue their interests. Since the early modern period, maps have continued to shape how rulers and subjects understand politics, defining everything from divisions between states to internal jurisdictions and rights. At the global level, the mapped image of the world dominates ideas of political organization: states are understood as territorial claims extending to a mapped linear boundary. Although this may appear perfectly natural to observers today, how we got here is anything but straightforward.

In other words, why is today’s world map filled with territorial states separated by linear boundaries? Answering this question is central to understanding the foundations of international politics. In today’s international system, all political units are sovereign territorial states,

¹ While the exact words of Louis’ reaction are unknown, when the map was presented to the Royal Academy of Sciences and members of the court, its implications were clear. See Konvitz 1987: 7–8; Petto 2007: 7.

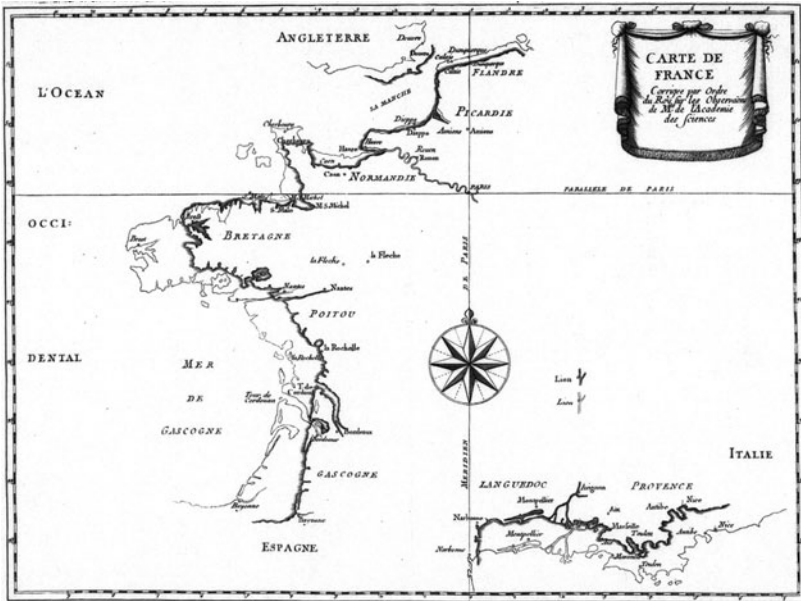


Figure 1.1 Map of the coastline of France, 1693

Note: This image is of a 1693 printed copy of the map, but an original manuscript version had probably been prepared in 1683. The coastline describing a larger expanse (drawn in a lighter outline) represented the earlier estimation from the mid 1600s, while the coastline depicting a smaller area (drawn in a heavier outline) was based on the new measurements (Konvitz 1987: 7–8; Petto 2007: 7).

defined by linear boundaries and with theoretically exclusive claims to authority within those lines. This provides the basis for international law and practice – the foundational terms for how states bargain with one another. Although the ideal may not describe reality in some parts of the world, it nonetheless shapes the goals toward which almost all political actors aspire. Yet this system is actually unique to our modern world and emerged out of a complex set of processes inside and outside early modern Europe – processes that we need to understand in order to grasp both the origins and the future trajectory of the sovereign state.

Asking why our maps look the way they do is more complicated – and more revealing – than we might think. The role of maps in the emergence of sovereign states was not merely to depict the political

world as it existed. Maps were fundamentally involved in producing this outcome as well. Maps have shaped, and continue to shape, how people understand the world and their place within it. Early modern Europe saw a revolution both in mapmaking technologies and in the ideas and practices of political rule. That was no coincidence: how rulers conceived of their realms was altered as they, and others, increasingly used maps that depicted the world in a new way. The origins of our international system of sovereign territorial states can be found at the intersection of cartographic depictions, political ideas and institutions, and the actions of rulers and subjects. That intersection is the subject of this book.

Evidence from the history of cartography, peace treaties, and political practices reveals how new mapping technologies changed the fundamental framework of politics in early modern Europe. Key characteristics of modern statehood – such as linear boundaries between homogeneous territories – appeared first in the representational space of maps and only subsequently in political practices on the ground. Authority structures not depicted on maps were ignored or actively renounced in favor of those that could be shown, leading to the implementation of linear boundaries between states and centralized territorial rule within them. For their part, mapmakers never intended to change politics. Instead, they were concerned with making money, creating art, and advancing the science of cartography. Furthermore, the European encounter with the Americas and subsequent competition therein required new means for making political claims – new means that were provided by mapping. These intertwined dynamics reshaped political organization and interaction, leading to the system of exclusively territorial states that has continued to structure international politics to this day.

Mapping and the emergence of the sovereign state

The territorial state is familiar to observers today, but the fundamental novelty of this form of political organization is often missed. The drastic nature of the early modern transformation of political rule is revealed when we look at changes in how political authority was conceptualized from the Middle Ages to the nineteenth century. For example, in 1086 a contemporary observer wrote as follows concerning the creation of

the Domesday Book, the inventory of William the Conqueror's rule in England:

Then sent he [King William] his men over all England into each shire; commissioning them to find out "How many hundreds of hides were in the shire, what land the king himself had, and what stock upon the land; or, what dues he ought to have by the year from the shire." ... So very narrowly, indeed, did he commission them to trace it out, that there was not one single hide, nor a yard of land, nay, moreover (it is shameful to tell, though he thought it no shame to do it), not even an ox, nor a cow, nor a swine was there left, that was not set down in his writ. And all the recorded particulars were afterwards brought to him.²

The passage illustrates the medieval tradition of claiming political authority over a collection of diverse persons and places, recorded in this case in an exhaustive written survey. Rule, in other words, was not about how extensive a territory was on a map, but instead concerned what and who exactly was under a ruler's authority.

After the introduction of new mapping techniques and their widespread adoption beginning in the sixteenth century, however, rule began to be understood differently. The change is evident in a passage from Christopher Marlowe's play *Tamburlaine the Great* (c. 1588), spoken by Tamburlaine on his deathbed:

Give me a map; then let me see how much
Is left for me to conquer all the world[.]³

A novel shift has occurred toward using maps to picture territorial authority as a spatial expanse – in the case of the fictionalized Tamburlaine, to lament all that remained unconquered at his death. He has no interest in seeing a list of his enemies' vassals, holdings, and manors.

Several centuries later, map-based political claims were no longer aspirational, but instead defined actual political claims on the ground.

² *The Anglo-Saxon Chronicle* (1912), entry for AD 1085.

³ *Tamburlaine the Great*, Christopher Marlowe, c. 1588. Available online at Project Gutenberg: www.gutenberg.org/etext/1589. This sixteenth-century play is a fictionalized account of the life of Tamerlane, or Timur, the fourteenth-century Central Asian conqueror.

For example, Article II of the 1815 General Treaty of the Congress of Vienna reads:

That part of the Duchy of Warsaw which His Majesty the King of Prussia shall possess in full sovereignty and property ... shall be comprised within the following line ...⁴

This post-Napoleonic treaty represents the culmination of centuries of change, as political rule is assigned as exclusive and complete sovereignty over a space defined by cartographic lines. Yet the careful delineation of boundaries in 1815 was revolutionary: only a century earlier, most negotiated settlements – as well as actual divisions – between European polities more closely resembled medieval lists of places and rights than they did modern linear boundaries.

This progression not only illustrates the epochal transformation of politics in early modern Europe – a shift from the complex authorities of the Middle Ages to the territorial exclusivity of the modern state – but also suggests the importance of mapping to this process. In early modern Europe, the rediscovery of key classical texts and contemporary technological innovations led to a revolution in the creation, distribution, and use of maps. Thanks to their wide dissemination, maps provided new tools for rulers to gather and organize information about their realms, but they also had far greater effects. New maps restructured the very nature of what it meant to “rule,” leading eventually to modern territorial states as we know them today. The impact of mapping on political ideas, practices, and structures is the focus of this book.

In short, maps were a necessary – though not sufficient – condition for the emergence of the sovereign-state system. The dynamics examined in this book, in other words, were one essential component in the centuries-long shift to exclusive territorial claims represented by the sovereign state, although they were not the only process at work. Numerous other social, political, and economic changes also drove the centralization of rule and the creation of states. Yet mapping and its effects were necessary for a key characteristic of the sovereign state as it emerged by the early nineteenth century: namely, the purely territorial and boundary-focused character of the authority claims made by

⁴ Article II; in Israel 1967: 520.

states. As the rest of this book argues, without maps of the type that appeared and were widely adopted in the early modern period, the expansionary and centralizing efforts of rulers could have taken on a fundamentally different form.

Near the end of the fifteenth century, the techniques of map creation, production, and distribution changed dramatically, resulting in the wide use of maps throughout Europe. Ptolemy's *Geography* was reintroduced to Western Europe and translated into Latin in the early fifteenth century, exposing humanist scholars to a set of mapmaking techniques unknown during the Middle Ages. Specifically, Ptolemy described how to use the celestial coordinate grid of latitude and longitude to define terrestrial locations geometrically and then to map such locations using mathematical projection methods. The geometric approach to the depiction of space, which diverged significantly from medieval techniques, has remained the foundation of cartography to this day. Fifteenth- and sixteenth-century innovations in printing and the expansion of a commercial market for books created an explosion in map production and use, spreading the new geometric means of depicting the world throughout European societies.

These new representational tools subsequently changed how rulers made political claims and thereby redefined the character of states and the international system. During the seventeenth and eighteenth centuries, rule was reconceptualized in exclusively spatial terms, with cartographic linear boundaries separating exhaustive claims to territorial rule. The shift was in large part the result of the increasing use of maps by political actors, particularly as a tool of negotiation and treaty-making. These cartographic tools enabled increased precision in boundary demarcation, but they also did much more. The way in which the world was depicted in maps reshaped actors' fundamental ideas about political rule, driving a change in how states were defined, internally and externally. In short, forms of authority not depicted in maps were undermined and eventually eliminated, while map-based authority claims became hegemonic. As rulers continued to centralize internally and compete externally, the changing ideas about how authority and rule should be defined gave a particular shape to political claims. International negotiations and treaties reveal this shift, as what was contested, traded, and seized changed from a listing of places and non-territorial jurisdictions to a careful delineation of spaces separated by discrete boundaries.

By the nineteenth century, rulers had put these new ideas into practice, projecting linear divisions on to the material landscape and reshaping their interactions to embody the new focus on exclusively territorial rule and sovereign equality among states. The transformation extended to the deep grammar of political rule, rather than merely affecting the surface level of particular political claims or boundaries. Traditional political goals, such as territorial expansion or defense, were redefined to fit with the cartographic ideal of rule as a linearly defined space rather than as a collection of places and jurisdictions. Conflicts over territory took on their modern form of conquering – and defending – spatial areas defined by discrete boundaries. The exclusive use of linear territoriality to define political rule is a unique feature of the modern state system, which was only fully consolidated in the post-Napoleonic reconstruction of European politics – not, as is often asserted, at Westphalia in 1648. (Settlements throughout the seventeenth century, in fact, continued to reveal persistently medieval notions of place-focused territoriality and feudal rule.)

The transformation, however, was not entirely internal to Europe: the early modern period witnessed a global expansion of economic exchange and military conquest, resulting in a new degree of interchange across regions. One of the most important dynamics of this period was colonial expansion, with similar processes occurring globally, including rapid growth of European maritime empires and territorial expansion and consolidation by the Qing emperors in China. Especially important for the territorialization of authority were the efforts of European rulers to assert political claims in the previously unknown spaces of the “New World” of the Americas, which made possible the application of novel ideas and practices of rule. Colonial expansion offered the first opportunities and incentives to implement cartographically defined territorial authority. Although contemporary practices within Europe still reflected medieval forms of rule, expansion to spaces previously unknown to Europeans demanded the use of new techniques and ideas. Spanish–Portuguese agreements of the 1490s, seventeenth-century North American charters, and eighteenth-century disputes among colonial powers were all structured by linear definitions of space. Claims were made from afar, with little or no actual information on the relevant places – the geometric division of space required only that the lines themselves be agreed upon. This use had repercussions within Europe, as the implementation of authority

claims in the colonial world based exclusively on territorial demarcation later reshaped intra-European practices along the same lines. In other words, expansion to the New World created a demand for new practices, a demand that was essential to driving – rather than just enabling – the shift to cartographically defined authority and modern territorial statehood.

Mapping, in short, was more than a tool enabling rulers to pursue their existing interests. While technological changes had direct effects on actors' capabilities – such as the ability to claim territory from afar or to delimit boundaries with increasing precision – there was more to this process. More fundamentally, mapping technology changed rulers' foundational norms and ideas about how politics *should* and *could* be organized, altering the conditions of possibility for political rule and interaction. The change in ideas also created new demands for the further development of those cartographic technologies that would later enable the implementation of an exclusively territorial form of rule. Out of the subsequent restructuring of political practices emerged a new international system composed exclusively of territorial states. Cartographic technology both enabled new capabilities and practices and simultaneously constituted new goals as legitimate.

This book thus reframes how we understand international systems in general and how we delineate the character, origins, and future trajectory of today's system of sovereign states.⁵ Territorial states have been seen as recurring patterns throughout history, as inventions of the late Middle Ages, or as constructs emerging only in the more recent past.⁶ A focus on the connection between representational technologies and the authoritative basis of political structures provides new traction on this problem. Considering how political authority is represented, understood, and operationalized, reveals the historical novelty and unique character of our sovereign-state system – in particular, the exclusive reliance on territorial authority and discrete boundaries

⁵ For a variety of theorizations of international systems, see Bull 1977; Buzan and Little 2000; Reus-Smit 1999; Ruggie 1993; Spruyt 1998; Waltz 1979; Wendt 1999; Wight 1977.

⁶ For the realist view that international structures are relatively static, see Fischer 1992; Gilpin 1981; Waltz 1979. For arguments that many key elements of territorial statehood emerged during the Middle Ages, see Krasner 1993; Spruyt 1994; Wight 1977. Finally, for the contention that states only emerged in the more recent past (a view also supported by this book), see Hall 1999; Hall and Kratochwil 1993; Osiander 2007.

to define the highest level of political organization. By establishing the historically unique character of statehood, we can more effectively consider the possibility of future change in the international system, an issue examined in this book's concluding chapter.

Changes in the fundamental character of political organization and interaction involve more than shifts in material resources or capabilities. Constructivist scholars in International Relations (IR) argue that ideas, beliefs, and practices are integral to political structures. Ideas and norms provide meaning to material facts and thus structure political behaviors and outcomes.⁷ Examining the ideational effects of material cartographic technology offers a useful means of studying technological drivers of change while acknowledging that the effects of such material factors are constructed by, and operate through, the ideas that give them meaning. This also illustrates the complexity of the relationship between agents and structures, in which actors promulgate structural conditions and simultaneously are constrained and driven by them.⁸ Furthermore, the importance of practices and habits as structural conditions is reflected in the particular ways in which maps – and the ideas both implicit and explicit in them – restructured political outcomes in early modern Europe.⁹ A mutually constitutive relationship exists among three relevant factors: representations of political space, the ideas held by actors about the organization of political authority, and actors' authoritative political practices manifesting those ideas. Exogenous sources of change act through this relationship: the cartographic revolution in early modern Europe created new representations that, first, led to changes in ideas of authority and, subsequently, drove a transformation in the structures and practices of rule.

Building on these foundations, this book examines the effect of cartography on the transformation in political authority – both in ideas and practices – that constituted the shift from complex medieval forms of rule to modern territorially exclusive statehood. A useful general framework relating mapping to social and political change is provided

⁷ See, among many others in this tradition, Kratochwil 1989; Onuf 1989; Reus-Smit 1999; Ruggie 1983, 1993; Wendt 1999.

⁸ Doty 1997; Giddens 1984; Wendt 1987; Wight 1999.

⁹ This builds on recent efforts to apply Pierre Bourdieu's "logic of practice" (Bourdieu 1990) to International Relations. See, in particular, Adler and Pouliot 2011; Hopf 2010; Jackson 2008.

by spatial and cartographic theory, and a few existing studies have begun to draw a connection between mapping and state formation.¹⁰ Building on these allows for a new, comprehensive analysis of the impact of cartographic technology on early modern political change. Mapping, in short, undermined medieval structures of rule while simultaneously suggesting new possibilities for political authority, shaping the emergence of sovereign territorial statehood as we know it today. The ideational effect of cartography explains why, in a period with a number of possible political structures, the particular model of the sovereign territorial state eventually came to be implemented as the *only* legitimate form of rule. Functional efficiency alone does not explain this outcome, unique to the modern international system.¹¹

Existing studies of early modern political change have focused on a wide range of causal factors and processes involved in the emergence of territorial statehood.¹² In spite of their variety, however, nearly all explanations have omitted the role played by cartography in the development of modern territorial statehood. In general, studies either emphasize material driving forces, such as military technology, organizational competition, property relations, and economic systems, or they rely on changes in ideas, including shifts in religious norms, new representational epistemes, and developments in political theory.¹³ All of these factors were undoubtedly involved in the complex process whereby the modern state was created.

¹⁰ The notion of the “social construction of space” builds on Lefebvre 1991. Broadly theoretical works on the ideational effects of mapping include, most prominently, Harley 2001; Pickles 2004; and Wood 1992, 2010. For other approaches to the directly political effects of mapping, see Biggs 1999; Neocleous 2003; Steinberg 2005; Strandsbjerg 2008. Bartelson 2009 also explicitly examines changes in cartographic and cosmological ideas and the effects of those changes on political ideas but focuses specifically on the notion of “world community” rather than territorial statehood.

¹¹ This contests the argument that territorial rule can be explained primarily as a practical, logic-of-consequences choice by rulers from a repertoire of acceptable principles (e.g. Krasner 1993). The way in which that repertoire was *reduced* over time to include only cartographic territorial claims – rarely with any direct connection to efficiency or practicality – is fundamental to the process examined in this book.

¹² For useful recent reviews of this literature, see Spruyt 2002 and Vu 2010.

¹³ For example, Anderson 1974; Downing 1992; Ertman 1997; Gorski 2003; McNeill 1982; Philpott 2001; Rosenberg 1994; Ruggie 1993; Skinner 1978; Spruyt 1994; Teschke 2003; Tilly 1992; Wallerstein 1974.