Theory Talks

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THEORY TALK #65

JORDAN BRANCH ON GOOGLE MAPS, STATE FORMATION, AND THE INTERNATIONAL POLITICS OF CARTOGRAPHY

Theory Talks

is an interactive forum for discussion of debates in International Relations with an emphasis of the underlying theoretical issues. By frequently inviting cutting-edge specialists in the field to elucidate their work and to explain current developments both in IR theory and real-world politics, *Theory Talks* aims to offer both scholars and students a comprehensive view of the field and its most important protagonists.

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JORDAN BRANCH ON GOOGLE MAPS, STATE FORMATION, AND THE INTERNATIONAL POLITICS OF CARTOGRAPHY

The territorial underpinnings of international politics are as familiar as they are contested within the discipline of International Relations. While the presumed 'territorial trap' of the discipline has been attacked from many sides (see, for instance, *Theory Talk* #4), Jordan Branch is more interested in turning the question around. His work has carefully addressed the historical constitutive effects of mapping practices and technologies on the subsequent transformation of practices of, and ideas about, rule and the international system. In this fascinating *Talk,* Branch, amongst others, discusses the significance of cartography for international politics, explores the effects that contemporary digital mapping might have on political spaces, and illustrates how innovations in mapping impacted on rule with the historical example of France.

What is according to your view the most important challenge facing global politics and what is/should be the central debate in the discipline of International Relations (IR)?

While there are many different debates going on at the same time within the discipline, the one that has interested me most is the relationship between ideas and practical or material factors. There is a very simplistic version of this dichotomy that has been debated to death in the constructivist versus rationalists debates, particularly in the American field of IR—an over-drawn distinction, as many have pointed out. I am more interested in actual explanations for the process, outcome, or phenomenon we're looking at. Rather than separating them out, I am interested in how the ideational and material relate to one another, how they fit together.

This relationship poses questions for my specific interest in technological change. We are experiencing fast-paced technological changes—for example, the information technology revolution—which can yield a natural yet incorrect assumption, namely, that this change will inevitably have some kind of major effect on, or interaction with, politics and, specifically, with international relations. This may be true, but it is too often assumed. Indeed, this raises another problem. Even if there is such an effect, is it something we'll be able to observe, let alone predict or explain, as it is happening? From my historical work on the role of maps in state formation, for example, it is quite evident that for people at the time, there was no way to see the impact maps had on the political/spatial/ideational constitution of the state.

The information technology (IT) revolution is the most obvious current example of dramatic technological change. Although it has been playing out for the last 20 or 30 years, it only continues to accelerate. Over the past couple of years, a lot of discussion has focused on 'big data' and what it implies for business, financial analysis, and the like. Of course, it also presents possibilities as a new tool for social science. But there is a danger here. There is a tendency of seeing new technological phenomena only in their material contexts, specifically focusing on possibilities for measurement, for example, thereby neglecting to think about the ideational. How

do ideas about collecting and using data actually play into the collection and analysis itself? So while they are in practice always entangled, analytically, I find the distinction between the ideational and the material a very fruitful one, not so much as a debate between opposing fields, but as way to think about technological change.

How did you arrive where you currently are in your thinking about these issues?

It is funny—people often ask this sort of question, and I did not necessarily see a natural trajectory for my thinking or work until I began to look and think back. This interest in connecting technological and political change goes as far back as my undergraduate time at Stanford University, where I initially majored in mechanical engineering, and later switched to International Relations. While technology remained an important preoccupation, I became more interested in politics, history, and theory. So the interest formed into questions about the political implications of phenomena like technology. But this didn't happen instantly. Just before beginning my PhD at the University of California, Berkeley, I was planning to do comparative work on regime change and democratization. Then my older brother (Adam Branch), who is also a political scientist, gave me a copy of Hendrik Spruyt's *The Sovereign State and its Competitors* (1994), and he said: 'Hey you might like this!' So, I literally read that on a beach the summer before starting grad school—which may sound funny, but I sat down, read it, and found it fascinating. Yet I didn't immediately start thinking about these questions then. It took a year or two, when I started really thinking about what I wanted to work on. I came back to this work and realised these were the kind of questions I was interested in: the origins of the territorial state and its characteristics.

The interest in the state as a concept had been with me for slightly longer. As an undergrad my first introductory course to IR was taught by Stephen Krasner (*Theory Talk* #21). Krasner has strong views, and the class was very rigorous. A lot of his work focuses on the state and I think his framings influenced me early on. I don't entirely agree with some of Krasner's arguments about sovereignty, but these disagreements are more about the specifics of salient time periods or cases. Other work which influenced me early on was that of John Ruggie on territoriality. Indeed his approach became central as I was developing these questions myself. I also discovered a host of literature in political geography that turned out to be very interesting and useful.

So, one could say that my trajectory was really more focused on understanding the historical outcome of the territorial state than on what role technology, specifically maps, played in this process. The focus on technology, while existent from my engineering days, really began to materialize as a link missing from existing explanations of state formation. I was thinking about how we might be able to find some additional traction on these questions by including technology more prominently. It has certainly been part of some scholarship on state formation, as in Charles Tilly's work or William McNeill's on technological change and warfare. Surely, technology has always been in there, but the discussion has been centered on war fighting technology and maybe on transport, and only to a lesser degree on communication technology in the broader sense.

Another piece of work which triggered my focus on the relationship between the ideational and the material was Ron Deibert's book *Parchment, Printing and Hypermedia* (1997, read the 1995 PhD thesis that became the book here, pdf). He talks about internet communication technology but also about the printing press and the impact it has on the global distribution of power. Yet, only when I read this book for the second or third time just as I was finishing up my dissertation did I realize how much his framing had shaped how I formulated my thesis. He does touch on the role of mapping, but it is his elaboration on the way in which media informs how people think about

the world which was spot on for me. For me, maps as a medium very importantly framed how people thought about and imagined the world in the past—but of course these questions about technology and its role in constituting the international political system, states, territorial boundaries, and so on are still relevant today.

What would a student need to become a specialist in global studies or understand the world in a global way?

I think it is important to be really excited and interested in your topic and what you want to do. The key thing is to enter a grad program that fits you in terms of your interests and to be willing to do whatever methodological training ends up being needed for your research project.

I think there's a tendency to look for a 'one size fits all' graduate training model, which does make sense at the initial level. Everyone should get a certain amount of background in a variety of methods, whether they'll end up using those or not. For example, I have not used quantitative methods in my own research, but I'm glad that I had to take classes on those methods in grad school. They give you the ability to understand work which may connect to your own but comes at it from a different angle. And you should always be open to a variety of methods. The key is to be able to understand a broad array of approaches, otherwise you won't be able to engage in broad conversations.

I also feel I gained a lot from exploring, and reading widely, from other disciplines such as history and sociology. I already mentioned political geography, which is really not too distant but, nonetheless, in the U.S. it sits in a different department. You might think that some work is 'on the other side of the fence' but it is important to be able to bring that work into your thinking.

The final thing is to be open and ready to change your mind, whether it is about the answer you're expecting to get to your question, or even changing the question itself. Obviously there is a certain point when you're almost done with a project where that might not be a good idea…. but if it is early on and it works and you can do it logistically, I think it is important to be willing to do that. Five years later you're going to be a lot better off.

So far, your work has been mainly historical. Can you explain the importance of 'looking back' for understanding contemporary international relations?

I think it is extraordinarily important and useful. A lot of us in this and other fields do see strong connections between today's politics and past events, institutions, and ideas. There is an important notion that we cannot engage meaningfully with the present if we do not understand its genealogy. That is certainly a driver for me in thinking about the origins of the state and territorial boundaries. It may help us to observe patterns we might see replicated or appear in some kind of altered yet recognizable form today. Indeed, it can help us think about where were might be headed.

Although I also hesitate here slightly: always looking to the past for the answers can be problematic. History can help us to observe patterns, dynamics, and maybe relationships that might tell us something about other periods or about contemporary international relations. But we should never do so thinking that the patterns are definitely going to be the same or are deterministic. I think one can look for patterns or relationships without automatically assuming that they have to apply everywhere.

Historical analysis can be problematic in its own right, because there is no way to discover or absorb the past 'as it really was.' All history is some kind of construction, whether it is based on contemporary or historical sources. Additionally, in the social sciences we often have to rely on secondary sources. That is not inherently a problem; this fact just introduces more variables to think about. Pure narrative purporting to capture 'what really happened' can be very problematic.

Given these disclaimers, it is useful to consider the past. I think what should be emphasized is that, specifically at the grad school level, students should be encouraged to dig a little deeper historically. They shouldn't hesitate to do that excavation work.

IR, it has been argued, rests firmly on a spatial or territorial understanding of politics. What constitutive role does territorial space play in IR and is that role based on historical fact or is it myth?

I like that question. I think it is actually both—sort of a myth and sort of a fact. In one sense, territory informs at least the state ideal (i.e., states as we think of them): it informs what the state is, the interests of states, and of course how we distinguish one state from another. And yet, while this is all inherently territorial, we also know that this is far from an accurate description of a lot of regions and places in the world. There are many different spatial ideas, practices, and organizations with political agency that are non-state or non-territorial.

But regarding the myth of state territoriality: I think it is important to point out there is a lot of detail in the 'conventional narrative' of the state, such as timing of when territoriality came about as pinpointed in Westphalia, that has been quite effectively debunked by a number of scholars in the last 10 or 20 years (scholars like Andreas Osiander or Benno Teschke, from different theoretical perspectives). This is a strongly supported finding. But it really hasn't penetrated the mainstream narrative very well. While we can gradually see a little more nuanced discussion in IR textbooks in the U.S., they more often than not will still start with 1648 and Westphalia.

We can now confidently say that states—states as we think of them now—did not appear in 1648, let alone earlier. This is especially true if we look at the specifically territorial or spatial aspects of statehood, which again are so central to how we think about the state internationally. The focus on defending cleanly demarcated linear boundaries and the idea of asserting absolute sovereign authority within those lines; this is really not consolidated until at least the 19th century. So, part of the myth is the timing and the how and why we have states.

But there still is a factual quality to territoriality in this story we tell ourselves about the foundation of the international system and the supposed creation of sovereign states. In a certain setting and for a certain period I think this describes the ideas and practices of international politics quite well. The most obvious example of this is 19th century Europe. While there are still ways in which it diverges from the ideals of the typical state system, in a lot of ways it actually did fit that. This happened at the same time as the development of modern Western historiography, and it was the setting for some of the traditional foundation of political science and IR. So we can see how one shaped the other: history-making and state-making. The singular territorial ideal of statehood from the 19th century has subsequently been applied to other issues, actors, and areas. Even if it does not fit exactly, it is applied today still and it is made to fit retrospectively much earlier periods, where it applied less well.

Ultimately, it is a powerful myth which has informed how we think about international relations to such a degree that we shouldn't just throw it out. Instead, we should think about exactly how it actually informs the way that international relations is understood *and* practiced. Practitioners and

officials don't exactly read IR journals and base their decision-making on our knowledge production, but the basic ideas of states, boundaries, and territory which inform the practice of international relations—as well as the study of it—should be our concern.

You have looked specifically at how mapping has contributed to imagining and formation of the modern state system. Could you elaborate more on how something as technical as cartography matters for international politics?

I've argued in my recent work that early modern mapping technologies were really essential to the consolidation of the territorial state, particularly the specific territorial features of states today. Maps, which have been a popular medium over the past few centuries, really do shape how people understand the world and their place in it. This gets us back to the connection between the material and the ideational.

In early modern Europe a revolution took place, first in mapmaking technologies and, slightly later, in the ideas and practices of political rule, especially as it relates to territory. I argue this was really not a coincidence. How rulers and subjects conceived of rule and how rulers conceived of their realms was really altered as they increasingly used maps that depicted the world in this one particular way. The key characteristics of modern statehood – at least of the ideal of modern statehood – such as linear boundaries between homogenous territorial claims, really appeared first in maps and only subsequently in political practices on the ground. Of course, there were existing authority structures, but these were not particularly spatial or were not spatial in this linear demarcated way. Subsequently, however, these authority structures were ignored or sometimes even actively renounced in favor of the kind of authority which could be literally shown and drawn on a map.

It is interesting because initially, maps were not predominantly produced by rulers, states, or officials. They were certainly involved in sponsoring some mapping projects, buying maps, and using them, but mapmaking was more of a commercial private scientific enterprise, if we can apply the label 'scientific' in the 16th and 17th centuries. These map-makers certainly didn't have any articulated goal of changing politics, at least not on this broad level. They were really concerned with making money, maybe creating art, and advancing what they thought was a growing science of cartography.

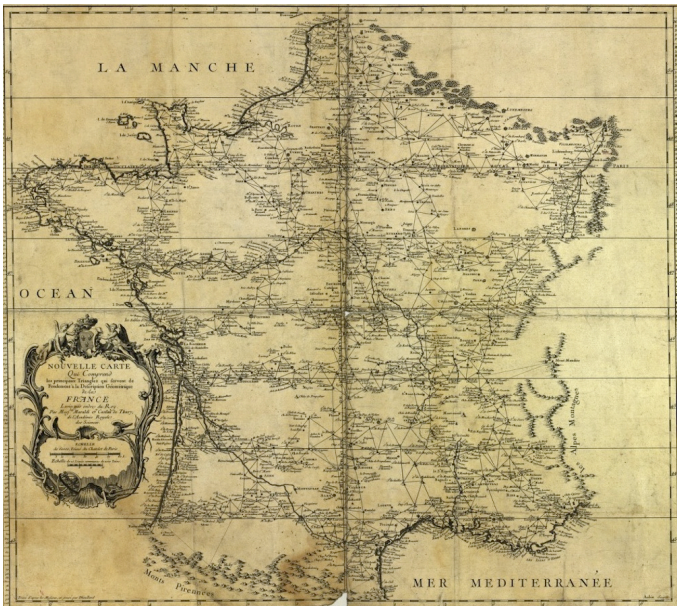
We can however see that the map, as a technological artifact—maps as actual things—had an impact on the practices of rule both between rulers and between rulers and their subjects. I argue that this process occurred quite broadly across the European development of the international system at that time. And you can see this sequence really clearly in a case like France.

Let me illustrate that. Here are three maps of 'France' ranging from the 1400s to the 1700s—the quotation marks are necessary because the notion of there being one entity called France across this whole period is more a matter of us labeling it as such rather than it being one recognizable entity.

The first map is from a 15th century manuscript about royal and noble genealogy in France. The image is purported to represent 'all the realm of France' and shows the country as a collection of what I would call places rather than a single linearly demarcated space. You do have the notion of spatial boundaries here, in terms of rivers as means for demarcation. Yet, very clearly, the visual language of this map focuses on towns. And this is how rule was practiced and operationalized as well: negotiations would be over places, or maybe collections of people based on identity, jurisdiction, or where they were allowed to reside, but not in term of linear demarcations between claims.

Now look at the second map, which is just from about 150 years later, from the 1590s. It is from an atlas by a follower of Mercator, and its label Gallia is the Roman designation for France. From our modern perspective we can recognize something that looks a lot like a modern map of France. Maybe even a state, although the boundaries are not exactly like we would expect them to be. But this is the visual language of mapping that we are familiar with: longitude, latitude, spatial expanses colored in, homogenous territorial claims—there is something about the space depicted that argues that it is all the same, that is all France.

And despite this familiarity, it was actually far from an accurate depiction of French rule. Not just in the actual placement of the boundaries, which are contestable, but in the discrete nature of the boundaries themselves. Along these frontiers, so clearly demarcated on this image, the claims of the French king were often unclear and overlapped with those of other rulers. This was even true for the interior of France during this period.



The third map is another 150 years later, from the 1740s. This is from a map showing the triangulation of the realm, undertaken by a group of geographers, known as the Cassini survey, as several generations of the Cassini family headed up this effort. The realm is being mapped explicitly using geometric tools with the important emphasis that the image is actually meant to represent reality. It is understood that way: it's supposed to measure reality, in order to enable the French king to better understand what he rules. Moreover, this mapping took place at the same time that rule was being implemented in practice on the ground in terms of spatial expanses as we think of them, in the form of demarcating boundaries with neighbors which had previously been unclear, overlapping jurisdictions.

Although maps of the second generation (i.e., the map from the 1590s) were 'inaccurate,' they were extremely influential. They were widely distributed and purchased by the elite, both inside and outside of government. Using these maps provided rulers with this particularly new territorial meaning to their centralizing and bureaucratizing efforts. As a consequence, the use of these maps as material tools of governing and negotiation really changed the language of rule. Rule becomes cartographic, at least in part. When two opposing sides come to the negotiation table, for example, they at the very least have already agreed, implicitly, that the division should be a linear boundary—it is just a question of where.

By the time the third map is produced, the government is much more directly involved in map production using accurate geometrical measurement. Yet the very desire for this mapping was shaped by the earlier use of those commercial maps that built up the visual grammar of geometric space. The French case is useful because it is very well documented, but we do see the same sort of process repeated either simultaneously or later throughout Europe and also elsewhere. In fact, there is a lot of interesting scholarship on the introduction of mapping and modern geographic thinking into regions outside the West. *Siam Mapped* (1994), a book by Thongchai Winichakul, is a fantastic study that I found really useful for my thinking about Europe, even though it deals with Siam (Thailand) in the late 19th and early 20th centuries.

This is my story about mapping and territory, but I think there is a broader frame to your question: do we want to bring in these sort of technical factors into explanations in International Relations? And while we don't want to be technologically determinist, there is some useful thinking around technology and its effects we should consider. The impact of maps has been so strong, and yet they are such common artifacts that they are largely conceived of as 'unremarkable' outside of geographic-oriented disciplines.

So can we juxtapose this insight that mapping practices precede the practice of rule and state formation to the anthropological present, that is, what do the contemporary, some say radical, shifts in mapping techniques entail for international politics?

Absolutely. When I initially present my work, there is often an assumption that I use GIS in my study. Instead, my work focuses on analyzing mapping itself—maps as historical artifacts, their effects and their interaction with political identities, interests, and organizations. But I think the ways in which methodology and the subject of study overlap on subjects like technology could potentially contribute to stretching the boundaries of IR. The big data question is both a question of studying what big data means for politics but also how we can use big data to study politics. The way in which new technologies can simultaneously play into our methods and into our answers or questions is a pressing and fascinating issue.

For instance, there has been a lot of back and forth on the question of whether more open-access mapping techniques entail some sort of democratization. While I think we have seen that more participatory forms of mapping are possible, we shouldn't think that this type of mapping is completely open, as no technological system is completely open to anyone and everyone at all times. But, indeed, there is a democratization of mapping under way. Authorship in a whole host of domains, including mapping, is opening up where there used to be a single authoritative voice or at least a single type of authoritative voice. So maps are an example of this opening up and collective authorship. At the same time, accommodating more voices also means that a lot of information is being shared without authority or attribution or what we think of as a legitimate source… When you open a map from Rand McNally or National Geographic, you know that specific cartographers thought this was accurate and you can blame or praise them. But when you

open up a layer of Google Earth that has been crowd-sourced you don't know who put that pin there, and you don't know why.

It's really interesting to explore a bit further how this is different from the recent past. In the 19th and first half of the 20th century, mapmaking was essentially state-led. The U.S. geological survey, the Ordnance Survey in Britain, or large mapmaking geographical institutions such as National Geographic represented the owners and producers. Mapping was so technical, so obviously technical that the everyday person would not be able to make a map to Rand McNally's standards. This has changed, and quite importantly so. Not only do we have the technology to do this, people are aware that they can use it as easily as opening a smartphone app, thereby incorporating more points of view. This is not necessarily good or bad. Politically, it does open up new possibilities. Maps have always been political, both implicitly and explicitly. It certainly opens up the possibility of some kind of broader shift in ideas about territory. Let me illustrate with an example. I haven't necessarily come across specific maps that present some completely novel visual grammar potentially reshaping the way we think about the world. But, an interesting example I like to bring to my students: there was aSeptember 2011blog post on Google's Lat-Long blog (which is the company's blog about Google Maps and Google Earth). Its headline read: 'South Sudan is now official on Google Maps,' and it displayed a screenshot of the new boundary.

They changed their base layer by adding a boundary between South Sudan and Sudan. This of course followed the referendum and the UN's recognition, and all the traditional precursors to official statehood. South Sudan became a recognizable entity on that blog. Google Earth, a non-governmental actor, indeed a huge corporate actor—and thus not necessarily democratizing—becomes part of the discourse of declaring South Sudan's official existence.

This is an example of how things might be going. Interestingly, the whole enterprise of mapping today actually resembles more closely that of the 16th and early 17th centuries then that of the 19th or early 20th century, not technologically but organizationally. The state-centric view of the world was enforced by the state-authored mappings of the 19th and 20th centuries. Now, by contrast, there is a kind of shared or unclear authorship, there is crowdsourcing, there are multiple sources of conflicting and quite openly unreliable or uncertain information. This environment of rapidly increasing distribution and use also describes the creation of the early atlases in the late 16th century and early 17th centuries, which involved the collation of all kinds of information from multiple sources.

And of course it was in the 16th and 17th century when this sort of non-state-controlled mapping presented innovative images of the world—those images that ended up shaping and consolidating the state form of territory. And so it was these new tools for understanding and acting on the world which gave the state its territorial shape. As key information-producing activities are being opened up, some forms of power are being redistributed. This certainly means that we need to widen our scope in terms of whom we consider to be a stakeholder or what sort of actors we want to study. We know that the dichotomy of state versus non-state is not sufficient. We need to be subtler in our inquiries. In IR, of course, the stereotypical over-

emphasis on states is being questioned, and this is really just one more sign that a piece of the power of the state, in this case map-production and distribution, is shifting elsewhere.

I recently had a conversation with students in my undergrad seminar on technology and international politics. I went into it saying: 'Hey, all this mobile mapping and GPS and Google Earth is totally revolutionary. This may change how we think about the world.' And they were all completely unconvinced, since they use these technologies all the time—to a bunch of twenty-year-olds these tools seem unremarkable. And maybe that is actually a more accurate analysis. But it is interesting how it is such a different analysis from that of my generation and anyone older, all of us who have spent a lot of time, for example, driving around without GPS. It is partly this perception and the 'unthinking usage' which make the relationship between technologies and social and political outcomes so difficult to observe. Our ideas may be changed, and especially the ideas of younger generations may be changed, without anyone particularly noticing how dramatic the changes might be. This also means that the connections, because they are 'unthinking,' can be quite foundational to people's ideas of social identities or political practices. They are tacit and embodied. That makes it both hard to observe but also an interesting puzzle. But it is worthwhile mentioning that the images presented by Google Maps and other digital mapping tools, particularly satellite imagery, might carry a greater legitimacy in terms of depicting 'the truth'. It looks like a picture of the world and therefore whatever is on it, even layered on data (like a new international boundary), must be true. It represents another apex of the scientific trajectory of mapping.

If it is just about adding a data layer on a base map that remains the same, does that then mean that ontologically this kind of mapping technology actually doesn't challenge territoriality?

That gets to an interesting point, which entangles with a lot of the more careful discussions of globalization and the state. One version of that is that the state is not dying, is not being destroyed. It is just that other things are being layered on top of it, and the state and its boundaries still remain and still matter for certain things. In this case, maps are perfectly capable of showing state boundaries—they look very fixed, very strong—but one can layer on top other types of information, maybe transactional flows or particular places that are connected in different ways.

I think that could be an interesting argument: these new mapping tools can really show so much, and it is matter of selecting what you want to show and unselecting things you don't want to show. Thus they don't do anything to undermine one particular view of the world. Now that is not necessarily a good or bad thing. If we look at the history of mapping and the origins of state territoriality, a key part of that was that it was really hard to depict medieval jurisdictional and personal notions of rule on early modern maps. Printing technology and mapping tools prescribed depiction in a certain way—drawing lines and coloring in spaces. Maps made it harder to show and thus think about the other forms of rule. If digital maps are still perfectly capable of showing states and their boundaries, they may do very little to undermine that notion of territory.

Finally, if we are interested in the politics of maps, to what extent do we need to study not only the maps as political artifacts but the mapmakers as political actors as well?

I think it is extremely useful to do both, and obviously if we study mapping today, we *can* do both. In terms of historical work, we can only rely on very limited sources, such as what mapmakers themselves wrote about what they were doing. We don't know a lot about their goals

or ideas about politics. I would have loved to have been able to read exhaustive memoirs by mapmakers such as Ortelius and Mercator. Of course, they might not have said anything about the questions we are interested in. On the other hand, a lot of map-makers today are involved in mapping for explicit political reasons: for example, Ushahidi-type collaborative mapping (www.ushahidi.com), or humanitarian and relief mapping. Here we can dig into the question of how the maps produced relate to specific objectives. That is a great way to get more analytical leverage on a lot of these questions.

Jordan Branch joined the Political Science department at Brown as an Assistant Professor in summer 2012. He received his PhD in Political Science at UC-Berkeley in 2011, and spent 2011-2012 as the Hayward R. Alker Postdoctoral Fellow at the Center for International Studies at the University of Southern California. His interests include international relations theory, the history of the sovereign state system, contemporary challenges to statehood, and the intersection of technological and political change. In 2014, Cambridge University Press published his book, *The Cartographic State: Maps, Territory, and the Origins of Sovereignty*. His research has also appeared in *International Organization* and the *European Journal of International Relations*.

Related links

- Faculty profile at Brown University
- Read Branch's *Mapping the Sovereign State: Technology, Authority, and Systemic Change*(International Organization 2011) here (pdf)
- Read Branch's *Colonial Reflection' and Territoriality: The Peripheral Origins of Sovereign Statehood* (European Journal of International Relations, 2012) here (pdf)