Toward Post-Sovereign Environmental Governance? Politics, Scale, and EU Water Framework Directive

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ABSTRACT: The EU Water Framework Directive (EUWFD) of 2000 requires that all EU member states "protect, enhance and restore" rivers to attain good surface water quality by 2015. To achieve this mandate, member states divide themselves into watershed basins (River Basin Districts) for the purposes of monitoring and remediation, even if those districts cross international borders. This paper examines three key elements of the rescaling of governance along watershed lines. First, I draw on a cross section of literatures on territoriality of the state and the changing regulation of nature to argue that analyses of the EU tend to privilege the nation-state as an ontological starting point. Second, the EUWFD as a rescaling of environmental gCorey Johnsonvernance is explored. The third element of the paper considers the relationship between the de- and re-territorialisation of environmental governance on the one hand, and the changing character of sovereignty in the EU on the other. On this basis, the paper argues that the EUWFD represents a hybrid form of territoriality that is changing the political geography of the European Union and that the redrawing of political-administrative scales along physical geographical lines provides evidence of the emergence of a new, non-nested scalar politics of governance in Europe.

KEYWORDS: Transboundary river basins, scale, political geography, governance, European Union

INTRODUCTION

> (T)he intense public debates on the Constitutional Treaty in France, but also in the Netherlands, clearly marked a watershed in the process of European integration (Beck and Grande, 2007).

Attempting to understand European integration by means of metaphors – as James Sidaway points out in his paper titled "On the nature of the beast" – is nothing new (Sidaway, 2006). It is perhaps only in the worlds of animals or geophysics where we could find comparators worthy of the profound socio-spatial transformations and political geographic dislocations that constitute the Europe of the post-war era. Such comparisons have only intensified since the "legitimacy crisis" of the early 2000s (Gualini, 2004) and the economic crisis of the last few years, which have provided fodder for nearly non-stop discussions about the European Union's future. Beck and Grande, writing before the global economic crisis, are certainly correct about a watershed moment, but only insofar as European integration has been a steady stream of watershed moments (pardon the puns). Without wishing to sound overly optimistic about the EU's future, particularly as the Union is facing its most serious crisis in decades, it is nevertheless worth noting that in a six-decade project filled with watershed moments, the water has almost unfailingly flowed towards more, not less, consolidation of decision making at the scale of the EU.

But what of 'real' watersheds? While media and the political establishments across Europe have fixated on institutional and legal aspects of integration – an "institutionalist preoccupation" in the words of Murphy (2008) – in other policy realms key aspects of state sovereignty are being unbundled

without fanfare. The environment is one such realm, and the specific area of water quality management in the EU since the release of the Water Framework Directive in 2000 is a good example of how the role of nation-states can be de-emphasised in decision-making arrangements (Lagacé et al., 2008).

My focus in this paper is not on the science of river basins or water quality, but rather on the EUWFD as a hybrid form of territoriality (Sidaway, 2006) that is changing the political geography of the European Union. This paper examines the management of water resources in the EU as a potential form of "post-sovereign environmental governance" (Karkkainen, 2004), and in so doing draws on conceptualisations of sovereignty from legal studies as well as the social sciences. This argument has implications for how we understand questions of sovereignty, territoriality, and subsidiarity in the EU context. I also wish to build on Murphy's (2008) call for a more geographical – as opposed to International Relations (IR) or intergovernmentally framed – understanding of the multilevel governance manifest in shared governance regimes such as the EUWFD. By bringing governance ideals of EU politics, particularly the ideal of subsidiarity, into dialogue with the governance scales posed by the EUWFD, it becomes increasingly clear that the ways in which current political geography scholarship attempts to ask nature-governance questions are highly inadequate in certain contexts.

Novel governance arrangements for the environment are no less important, arguably, than a common judiciary or security policy in shaping the future of a post-sovereign Europe. Rivers, lakes, seas, underground aquifers, and freshwater marshes stubbornly ignore the increasing impermeability of European sovereign state boundaries over centuries. Wars were waged, and the Rhine and Danube meandered their way obliviously across the multicoloured patchwork of the Westphalian political map of states, even when those states were fraught with ethno-territorial turmoil. While the reductive logic of nation-state container-spaces increasingly captivated the imagination of European citizenries over time, and political borders were demarcated amid green fields to signify belonging and foreignness, the logics of nature proceeded relatively unimpeded (although attempts to regulate nature often ran up against international borders). Perhaps unsurprisingly, then, given a natural environment that both preceded a nationalised Europe and remains in an increasingly post-national Europe, these natural geographies of water are forming the locus for new political geographies of regulation within the context of the EU.

Against a backdrop of introspection over just how novel European integration is, and the sometimes shrill nationalist tones still commonplace in political discourse across European space, it is worth taking a step back and examining the EU as a heterogeneous political-territorial construct and not just as a sum of intergovernmental arrangements. Any analysis that considers Europe institutionally and intergovernmentally, but fails to take into account how these arrangements manifest themselves geographically across European space, is bound to be a partial rendering (Johnson, 2009).

I therefore examine the rescaling of decision making associated with nature by looking at one example of environmental governance in Europe, the EU Water Framework Directive (EUWFD). In this paper, I explore three key elements of the relationship between environment and sovereignty. First, I draw on a cross-section of literatures on territoriality of the state and the changing regulation of nature in order to argue that analyses of the EU tend to privilege the nation-state as an ontological starting point, even those analyses that explicitly have the environment as their focus. This will lay the background for the second part of the paper, in which the EUWFD as an environmental governance regime is explored. The third element of the paper considers the relationship between the de- and reterritorialisation of environmental governance on the one hand, and the changing character of sovereignty in the in the EU on the other. The redrawing of political-administrative scales along physical geographical lines, as in the case of transboundary river basin districts, represents a post-sovereign politics of nature – and a largely unnoticed politics of scale – that should be brought to the fore of intellectual debates about political geography in Europe along with such well-known topics as monetary policy, social issues, migration, and citizenship.

Before continuing, it is important to provide a caveat about the EUWFD. Although it represents an important step toward a type of post-sovereign environmental governance, the EUWFD has not negated the importance of the individual member states of the EU on water policy. Transboundary water regimes need to be examined by critical scholars asking the same questions that are asked about any state attempt at social or political engineering (e.g. Sneddon and Fox, 2006). Moreover, water quality is important, but there are also competing uses for water bodies where even transboundary river basin governance regimes will have a hard time competing with the power of sovereign states. The 2002 floods along the Elbe in Saxony, Germany, and in the Czech Republic, for example, continue to be a source of conflict between these two EU member states over the appropriate ways to dredge and dam the river for economic benefit. Indeed, economic arguments are often brought to bear, and often these arguments assume the traditional state-to-state roles well known from the past. As debates over climate change illustrate, states matter, even when there is widespread recognition of an environmental issue the science of the problem does not adhere to the scale of the state. The case being made here is not that the state is no longer important, but rather that the reflexive nod to the state as the appropriate and natural place where decisions are made is being challenged and that there are lessons from this particular example that may be instructive elsewhere.

WHY WATER? ON NATURAL BORDERS AND POLITICAL GEOGRAPHY

Little attention has been paid in political geography to the question of what the EUWFD means for the political organisation of space in Europe, and it is to this question the paper now turns. Within political geography, there is a rich, sometimes sordid, history of examining human relations with the environment (Elden, 2009). Recently, political geography and geopolitics have increasingly been informed by examinations of ecology and politics; "critical hydropolitics" (e.g. Sneddon and Fox, 2006); the "environmental dimensions of geopolitics" and the nexus of security and environment (Dalby, 2009, 2010); nature as a means of addressing ethno-territorial conflict (Cohen and Frank, 2009); and nature's role in questioning the ontological status of nation-states (Harris and Alatout, 2010). For water specifically, political geographers have been exhorted to bridge the gap between political ecology and political geography:

> Water makes an excellent area for political geographic exploration because of the way in which it challenges human political boundaries, forms unlikely and highly fluid coalitions of constituents, creates incentives for international conflict and negotiation, and provides an opportunity to examine property, ideology, and law in the landscape over the long terms (Robbins, 2003).

Yet this view is not uniformly accepted among geographers. Recent work by Fall (2010) offers a critique of natural political borders, which are "based on the assumption that political scenarios are inscribed in the material physicality of the world by God, Providence, Fate, or Nature". She continues in her critique of positivist work on the correspondence between 'natural' borders and conflict:

> Thus, without overstretching the point, I would argue that the fundamental basis for calling upon the material reality of the world as a basis for politics, within topography, rivers and coasts and so on, is doubly problematic: not only is it intellectually spurious to claim that rationality and objectivity lie within nature, in other words that natural boundaries are somehow out there ready to be discovered, it is also profoundly questionable to claim there is such a thing as an uncontroversial materiality to nature to begin with (ibid: 6).

As the example of the EUWFD suggests, however, the natural boundaries of river basins *are* in fact there waiting to be discovered. This does not mean that all of nature is somehow materially manifest, waiting to be identified so that we can move on to the important stuff of governance. Clearly, the choice of natural boundaries is inherently political (e.g. Blomquist and Schlager, 2005). But it does suggest that certain elements of the natural world lend themselves better to the inscription of politics

on territory than others. Does this mean that the management of water resources, because the basic areal delineations are relatively straightforward, is accomplished *ipso facto* more readily and with less controversy than the management of, for example, biospheres? This would be a difficult argument to sustain, since water is one of the most controversy-rife resources in the world. But at least in the case of EUWFD, the delimitation of European space into river basins by means of identifying watersheds was likely the least controversial of the negotiations comprising water policy. While Fall (2010) would ask us to "(re)think boundaries through the triad of reification, naturalisation, and fetishisation", there are limitations to this as an ontological position or an operational guide. If, for example, environmental managers were instructed to assume that nature is borderless, i.e. humans are not in a position to 'discover' natural boundaries, seemingly nothing else remains except the existing map of sovereign states as the de facto political geography of environmental management. The example of EUWFD suggests that the picture needs to be complicated; critiquing the notion of *les limites naturelles* (ibid; see also Pounds, 1951, 1954) should not blind us to environmental management practices that have shaped progressive, new political geographies out of the environment in Europe and elsewhere.

There are precedents worth noting in Europe and beyond. Prior to European integration, waterways posed an interesting challenge to conventional notions of territorial sovereignty. As Schmueli (1999) pointed out over a decade ago,

> The doctrine of territorial sovereignty over international rivers has never been a generally recognized principle of international law. However, the idea of sovereignty affects the initiation of basin-wide programs, and is a major obstacle to achieving integrated development of international rivers. Many treaties divide ownership of, and jurisdiction over, otherwise indivisible waterworks.

Moreover, Europe is not the only place where transboundary river basin management is occurring. Recent work has examined the role of transboundary river basins in Southeast Asia, particularly the Mekong (Bakker, 1999; Sneddon and Fox, 2006). In the context of North America, a recent paper provides a critical examination of regimes of river basin scale governance along the Canada-US border (Norman and Bakker, 2009), where at issue was not so much the scale of river basins as an appropriate regulatory geography but rather the assumption that smaller scale governance necessarily equates to empowerment for local actors. In this context, it is appropriate to note that the relatively novel character of the EU (i.e. a suprastate with extensive policy competencies) makes the reorganisation of governance along watersheds more immediately possible than in some other political contexts, and indeed the EUWFD underscores that the EU cannot simply be viewed as collection of independently acting nation-states. The fact that there are no active armed conflicts in the EU makes comparison with other parts of the world difficult. In certain quarters of Africa, where resource scarcity and live armed conflicts vastly complicate environmental cooperation, cross-border cooperation along these lines would appear unlikely in the near term (e.g. Gleditsch et al., 2006). While natural borders are not a panacea, the EUWFD offers possibilities for political action that escapes the 'territorial trap' beyond Europe.

TERRITORIALITY, THE EU, AND THE PERSISTENCE OF NATION-STATES

The concept of state sovereignty, or the notion that the ultimate authority for internal order and external relations rested in the hands of the state, was treated as the beginning and endpoint for all serious consideration of political – and indeed economic, social, and environmental – affairs. A vast literature in international relations and political geography has considered the effects of European integration on the distribution of governance among different levels of state actors (Hooghe and Marks, 2003; Gualini, 2004; Schott, 2007; Menon, 2009). During the 1990s, a series of seminal works began to break down the ingrained territorial assumptions that shaped social science inquiry, and indeed broader understandings of the nature of political space. Our Western "spatial imaginaries", argued Murphy (1996), had been co-opted by the territorial state, which had become (and arguably still is) "the

privileged unit for analysing most phenomena" while at the same time such a privileging seemed to prevent any serious consideration of the nature of the territorial state itself (Murphy, 1996). Thus, our understanding of nearly any issue in which the state played a role was seriously impoverished (see also Agnew, 1994; Taylor, 1994). Treatment of the EU in International Relations/political science, and to some extent in geography, has shown the bias of this "territorial trap" (Agnew, 1994): the a priori assumption is that sovereign states are handing off or parcelling off certain aspects of sovereignty to another political entity that itself is still entirely subject to the whims of its sovereign state masters. There has been extensive revisiting of this problematic assumption during the past two decades, as in a growing body of literature on multilevel governance, both within the context of the EU (Hooghe and Marks, 2003; Murphy, 2008). Nevertheless, as is perhaps best illustrated by recent debates over the rescaling of state power under conditions of neoliberal globalisation, the case for the continuing primacy of the sovereign state as mode of analysis and locus of power is still powerful, even if its power is articulated in different forms than in the past (Brenner, 1997, 2003).

These bodies of literature are well known to political geographers, and the argument that our overall understanding of a variety of complex issues remains incomplete as a result of the primacy of the sovereign state as a methodological framing device enjoys widespread acceptance. The EU is different in many respects from traditional sovereign states, but somewhat paradoxically, state container-space thinking continues to play a dominant role in many readings of European integration. In the same paper quoted at the outset of this paper, James Sidaway asks "what is the nature of the beast" – the beast being the EU and the nature meaning specifically the "complex territorial configurations of authority" inherent to the integration project (Sidaway, 2006). He reviewed some of the important scales of political power of the EU and concluded that "neither the state, nor the union, the region or third level or the network are ontological fundamentals or intrinsic truths" (ibid, 10). Of the spatial categories mentioned – polycentric urban regions, networks, levels, regions – nature is nowhere to be found, and thus an incomplete picture is rendered. Indeed, this omission is common, particularly in the social sciences (Fall, 2010). I propose that while the 'nature of political space' has received thorough treatment in the EU context, the 'political space of nature' is still not well understood. When one considers the many scales and shapes of environmental space (macro- and microclimates, oceans, biosphere, etc), the need to address the environment as political space becomes obvious, and the applications extend well beyond river basins in Europe.

The environment is an arena that could prove fruitful in seeking to understand the ways in which European integration challenge state-centric notions of sovereignty. Bulkeley (2005) points out that the main approaches to the spatiality of environmental governance all in some way privilege the scale of the state in all questions. Governance regimes that combine state and non-state actors, or those that are spatially organised outside the dominant framework of states, are simply left out or at least their novelty is dismissed by these approaches (Furlong, 2006). Bulkeley (2005) calls for a "new spatial grammar" of environmental governance that more explicitly engages the rescaling of governance happening in a variety of contexts (for example, urban politics of climate change).

ENVIRONMENTAL GOVERNANCE IN THE EU

At their zenith, European nation-states were arguably most effective in shaping social affinities and containing economic activity. In light of this, it comes as little surprise that the dismantling of some elements of state-centrism through the project of European integration would focus primarily on two projects: the encouragement of social relations and the encouragement of economic development at scales above and below that of the state. Environmental degradation was not central to the European Commission at its inception in 1957, a reflection no doubt of broader societal trends in Europe and elsewhere (Jordan, 2005). Beginning in the 1970s, however, environmental issues became more important to the process of integration (McGlade, 2002), as awareness of the fundamental tension between the dominant regulatory-political spatial scale at which environmental rules are made (i.e. the

state) on the one hand, and the non-conformance of nearly all natural/environmental phenomena to state borders on the other, became institutionalised (Shafer and Murphy, 1998).

The past decades have witnessed a remarkable Europeanisation of environmental policies within the EU (Thiel, 2009; Bukowski, 2011). Sustainable development and environmental protection are enshrined in the Treaty of Amsterdam (a major 1997 treaty clarifying the roles of the European Commission), along with economic growth and social cohesion, as the bases of the financial instruments of the EU (Moss and Fichter, 2003). Disbursement of structural funds through regional policy is contingent upon the applicants showing they are meeting the objectives of creating jobs, stimulating development, and combating social exclusion, all while respecting the environment (Moss and Fichter, 2003). The text of the Lisbon Treaty indicates in general terms the codified role environmental protection (such as the 'precautionary principle') currently has in the EU (EU, 2010).

Two types of policy-driven reterritorialisation away from the nation-state with respect to environmental governance in Europe can be identified. The first is the harmonisation of environmental regulations and standards, primarily as a result of the European *acqui*s *communautaire* (the regulatory harmonisation across member states achieved by required adoption of European rules and regulations). In this scaled-up regulatory environment, states adopt environmental standards in order to comply with EU guidelines (see Turnock, 2001). This reterritorialisation-by-harmonisation suggests a partial transfer of sovereignty in determining environmental policies within a state's territorial borders. The second type of reterritorialisation, and the more overtly geographical of the two, relates to regionalisation schemes organised around relevant environmental or 'natural' spaces, or in other words a specific territorialisation of environmental policy as in the EUWFD described more below.

With respect to the first type (i.e. reterritorialisation through harmonisation), directives are the most common regulatory mechanism for standardizing environmental regulations across the EU (e.g. Water Framework Directive and Habitats Directive). In the last four decades, the EU has adopted more than 200 directives and other types of regulations in the environmental policy realm (Beunen et al., 2009). These include directives on bathing water, drinking water, urban wastewater, nitrates, and sewage sludge (EC, 2008). As the name suggests, directives require that member states' individual parliaments enact national laws compliant with general guidelines and within a specified timeline (McGlade, 2002).[1] The Habitats Directive (Diaz, 2001), which establishes protected sites and lists of protected species, is perhaps the best-known example. Natura 2000 reserves, an important component of the Habitats Directive, seek to protect regional biodiversity by establishing a "coherent ecological network of sites that play host to protected habitats and species" (Diaz, 2001). Also falling under this first category, member states have implemented networks of environmental monitoring systems that aim to harmonise fragmented approaches to gauging certain environmental variables. Examples here are the Eurowaternet (similar to the US Geological Survey's flow monitoring stations) and comprehensive remote sensing of landcover changes, forest types, etc, across Europe (Vogt et al., 2004).

Under the second category of reterritorialisation (i.e. regionalisation schemes organised around relevant environmental or 'natural' spaces), regionalisation schemes under the regional development arm of the EU are the most obvious example. But predating INTERREG, several ad hoc transboundary arrangements had challenged the notion that nature and natural phenomena can be cocooned by state borders. The Upper Rhine region, where the borders of Germany, France, and Switzerland meet, is one example. Projects in this highly developed region include initiatives to clean up the Rhine and coordination of clean power projects (hydroelectric). A bit further to the east, lake Constance is the site of one of the world's first cross-border water conservation programs, and the *Umweltrat Bodensee* (Environmental Council Lake Constance) wields substantial power in the trilateral administration of that large body of water bordering Germany, Switzerland, and Austria (Blatter, 2004). In fact, prior to 2000,

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[1] The example of directives, which must be implemented by national parliaments, helps illustrate to what degree European states are still active players in this, and that their power is rearticulated, or reterritorialised.

most international river basins in Europe had some sort of bilateral or multilateral treaty structure in place, but these varied widely in their effectiveness and depth.

International law has also contributed to both types of reterritorialisation. Under the auspices of the United Nations Environmental Program (UNEP), the Carpathian Convention between the governments of the Czech Republic, Hungary, Poland, Romania, Serbia and Montenegro, Slovak Republic, and Ukraine has identified an 'ecoregion' centred on the Carpathian mountains. As Fall and Egerer (2004) put it, this was a direct result of international efforts to "(…) to graft a legal identity onto a portion of space defined by biophysical and socio-economic factors". They analyse the interstate wrangling that occurred in an attempt to define the geographic extent of 'the Carpathians'. Another international effort in this regard is the Biosphere Reserve Program designated by UNESCO (Fall and Egerer, 2004). The first of these, from 1992, were in Eastern Europe between Poland and Slovakia (Tatry/Tatra reserve) and between Czech Republic and Poland (Krkonose/Karkonosze reserve).

In the case of biosphere reserves, as Fall persuasively argues, the inherent difficulties in agreeing on the boundaries of 'natural' spaces result in part from different regulatory and planning traditions, but it also reflects "misunderstandings between natural scientists working for 'nature conservation' and social scientists seeking 'sustainable development' within a shared area" (Fall, 2003).[2] This may also offer some insight into why the environment to date has played at most a modest role in creating new geographies that create a transboundary 'we feeling' (Kepka and Murphy, 2002; see also Keating, 2003). But one of the key differences between the types of arrangements examined by Fall and others and river basins as regulatory political geographies is that river basins areal delineation is fairly straightforward; there is seldom any serious debate about where a river's waters come from, although there can be difficulties in determining which boundary to use (Blomquist and Schlager, 2005; Cohen and Davidson, 2011). Nevertheless, there are widely accepted geomorphologic and hydrologic norms for delineating river basin boundaries (e.g. Rhoads and Thorn, 1996).

EUWFD AS A FORM OF DE- AND RETERRITORIALISATION

The EUWFD is a hybrid form of the two forms of reterritorialisation described above. During the 1990s, the European Union embarked upon a project to create uniform standards for water quality among member states. This process resulted in the EU Water Framework Directive of 2000, which requires that all member states "protect, enhance and restore" rivers to attain good surface water status by 2015 (Raven et al., 2002). The first task was for all member states to identity their surface water bodies; more than 70,000 surface water bodies were inventoried, and of those some 80 percent are rivers, 15 percent are lakes, and 5 percent are coastal or transitional water bodies (EC, 2008). Through the same process, states were required to assess qualitatively the status of their water bodies – high, good, moderate, poor, and bad – and categorise them as being 'at risk' of not achieving a 'good status' by 2015 (ibid). Water quality was to be assessed by means of three types of monitoring: *surveillance* (tracking changes over time to the health of water bodies), *operational* (for unhealthy water bodies, assessing progress in remediation efforts), and *investigative* (collecting other types of data not available through regular surveillance) (EC, 2008). The goal of these monitoring procedures was to gauge human impacts on the hydromorphology of European rivers systems (ibid). Once rivers were identified and assessed, river basin management plans (RBMPs) were required, which were to include a variety assessments of the river basin district's condition, targets for improving the environmental condition, and operational plans (EC, 2008).

From many perspectives, the passage of EUWFD marked a major step forward for European water policy. From an environmental protection standpoint, EUWFD is notable because it established the environment as a consumer of water alongside human economic uses (White and Howe, 2003). EUWFD

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[2] I do not wish to dismiss the argument that natural boundaries are socially constructed, but rather suggest that watershed boundaries are in fact less problematic in their initial delimitation than other so-called natural spaces (Fall, 2005).

called on member states to incorporate an economic analysis of water resources into their policy and on consumers to pay the full costs of the water they use (EC, 2008), while at the same time recognising that water is not a commercial commodity in the same sense of other resources (Boscheck, 2006). The World Wildlife Fund announced that the EUWFD, if enacted as proposed, had the potential to be the EU's first "sustainable development" directive (cited in Carter, 2007). From a geographer's standpoint, EUWFD was interesting because it approaches rivers as complex systems that require multi-scalar approaches (cf. Whitehead, Jones and Jones, 2007). Whereas previously rivers in most European contexts were treated as stable channel forms, based on engineering and hydrological principles, EUWFD integrates geomorphology and is at least in principle more sensitive to "the inherent dynamism of fluvial systems" (Clarke et al., 2003). This shift means that small scale, local contexts of sediment transport and deposition, which can create "chaotic, unpredictable dynamics", be considered alongside the larger-scale systems view of a river basin (Newson, 2002; see also Church, 1996). The goal of integrating scale-sensitive geomorphological principles into EUWFD was to avoid unintended consequences and environmental damage brought about by engineered responses to floods and droughts that fail to consider ecosystem and fluvial processes (Mance et al., 2002).
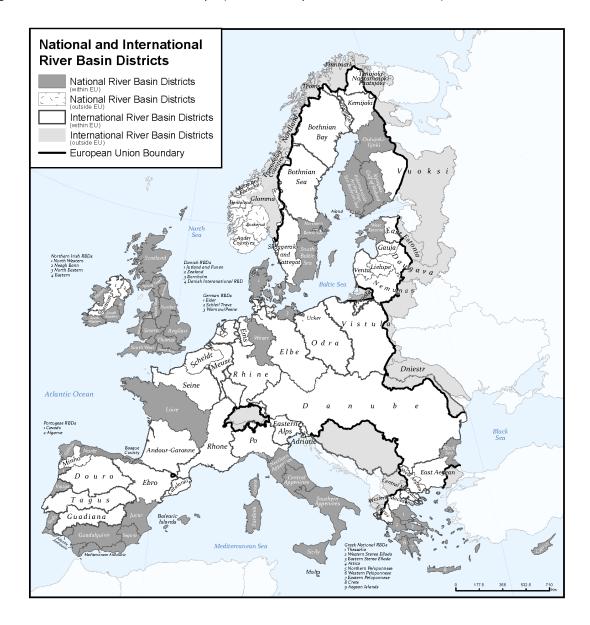
Yet the reviews since implementation of EUWFD have not been uniformly positive. Boscheck (2006) argues that EUWFD, for all its promise, is "built on vague objectives and unclear monitoring criteria, it is a compromise that risks diluting pre-existing regulatory norms, invokes national discretion to close EU legislative gaps, and for all practical purposes may be unenforceable". Despite its lofty goal of replacing piecemeal water regulations with one act that commits member states to implementing in a timely manner uniform policies at the scale of the river basin, EUWFD's effectiveness suffers under appeals to voluntarism and various opt-out clauses that make some aspects of water quality assurance even weaker in some instances than what preceded it (Boscheck, 2006). This view is echoed by Brian Moss (2008) who in spite of its "ground-breaking" potential as a "red hot and revolutionary" new approach to water management through informed science, sees instead so far only a "small revolution", again, largely due to lack of precise definitions of what constitutes the status categories set forth in the directive and the difficulties of enforcement (see also Rettman, 2007). Moreover, as previously mentioned, states still retain considerable power in the monitoring and implementation of the directive, as they do in all aspects of EU legislating.

The lacklustre response among the academics cited above and environmentalists to the progress made in implementing the EUWFD is certainly warranted. The slow progress is partly a reflection of the directive's 'revolutionary' ambition in how waters in Europe should be managed in light of the realities of such things as resource limitations, EU and national parliamentary compromises, and weak enforcement mechanisms. None of these, incidentally, are unique to environmental policies in the EU, but rather extend to all policy areas where the EU attempts to effect change. Moreover, some of the shortcomings can be addressed through aggressive use of the EU courts, which have more enforcement powers than the Commission and its Environment Directorate. Despite its shortcomings, the attempt to "introduce an integrated approach to water resource management at the river basin level" (Medd and Marvin, 2008) is a significant step forward in water management and offers lessons to policy makers elsewhere on the melding of science and policy, and the often-conflicting policy goals of ecological protection and economic progress.

To followers of the European integration process, moreover, EUWFD marks an achievement no less notable than a series of other barrier-breaking events in recent decades by mandating that member states divide themselves into watershed basins ('watershed' being the topographical line separating drainage basins, where water on either side of the line flows in opposite directions), even if those districts cross international boundaries (see figure 1). In fact, of the 4.4 million square kilometres of river basin area located within the European Union as of 2010, about 67 percent of land area lies in river basins that cross an international border (author's calculations). In such international cases, neighbouring states are responsible for developing a common vision for the river basin for implementing EUWFD directives. Early empirical work on the level of cooperation in international river

basin districts suggested that the greatest level of cooperation was found in the larger river basin districts of western and central Europe (Nilsson et al., 2004).

Figure 1. River basin districts in Europe (source: European Commission 2010).

NESTED SUBSIDIARITY OR A NEW SCALE OF ENVIRONMENTAL GOVERNANCE?

On the surface, EUWFD represents a transition in decision making about environmental governance from strong, centralistic, Keynesian states to more "fragmented decision making clusters" (Kaika, 2003). The mechanics of this rescaling of transboundary water management (Norman and Bakker, 2009) carries with it consequences for how we understand European politics beyond environmental governance. In this section, some of the implications of European environmental governance for the modern system of territorial rule in Europe are examined. Specifically, I propose that the EUWFD provides evidence of a new, non-nested scalar politics of governance in Europe. Some of the potentially far-reaching consequences of EUWFD can be summed up as follows.

The change in analytic scale of a problem is a major step forward. Previously, states, because of their hegemonic position in the political organisation of space, were the basic unit of analysis for framing governance responses to large-scale challenges or issues. Thus, the EUWFD challenges the pervasiveness of nation-state-centric view of environmental phenomena. Second, even when the state was not recognised as the appropriate scale of analysis, one of its nested units typically was. In the EU, the Matryoshka-doll-like logic of "nomenclature of territorial units for statistics" (NUTS), divided European states into neat packages well suited to their purpose of collecting statistics, but it also reflected a rigid nation-centric view of EU space in that none of these territorial units crossed international borders. The division of Europe along geomorphological watershed lines fundamentally challenges this previous order by adhering to nature. Perhaps illustrative of the novelty of this form of rescaling is that, unlike other aspects of transboundary regionalism in the EU that have purposefully, and illogically, excluded non-member state neighbours from new regional constructs (Scott and van Houtum, 2009), the EUWFD has attempted to incorporate non-members wherever one of the international river basins lies partly in EU territory (e.g. in the Danube basin).

At this point, it is instructive to consider the normative role of 'subsidiarity' as a defining feature of EU governance and ask how this relates to EUWFD. Subsidiarity is the norm of governance that problems should be addressed at the lowest level possible to successfully address them. In the EU context, subsidiarity generally suggests a set of 'nested' spatial scales, with the member states representing the most important point of reference as the appropriate level (i.e. all else being equal, the scale of the state is de facto the lowest level appropriate to address a problem). The nested spaces of EU governance are typically non-overlapping and exclusive. While it is true, as Jupille (1998) argues, that political authority under this principle may be geographically overlapping, in practice in the EU subsidiarity organises political power in a territorially nested manner. Increasingly, the Union is seen as the most appropriate scale at which to address certain environmental issues, such as water quality, and this is suggested in the Lisbon Treaty itself (EU, 2010). The important point, however, is that the previously available political geographies were woefully inadequate to implement comprehensive policies on water quality due to nation-state boundaries being the common frame of reference. So while the power of member states is being rearticulated at a different spatial scale, what is new is that river basins are not simply nested within the existing EU → member state → subnational unit framework. It is rather an environmental scale of river basins that wholly ignores extant political geographical lines. River basins as a political geographical scale "attempt to achieve an appropriate spatial fit between institutional boundaries and resource management" (Medd and Marvin, 2008), and in so doing they challenge conventional understandings of spaces of governance.

TOWARDS A NEW COSMOPOLITICS OF NATURE?

In a seminal contribution on territoriality nearly two decades ago, John Gerard Ruggie summarised the modern system of territorial rule as being mainly about "the consolidation of all parcelised and personalised authority into one public realm" (Ruggie, 1993). In this system, the exercise of rule proceeds in "territorially defined, fixed, and mutually exclusive enclaves of legitimate dominion" (ibid). Ruggie also described the (then) European Community as "the first 'multiperspectival polity'" to have emerged in the modern era, in that the process of differentiation between member states that resulted in "separate, single, fixed viewpoints" – which had previously been the basis for the exercise of international relations – was giving way to a system in which each member state increasingly takes into account the perspective of the other members (Ruggie, 1993). At that time he was vague (perhaps necessarily) about how this manifested itself in practice. But Ruggie (1993) alluded in his paper to the "transformative potential" of new ways of scalar thinking in ecology (what he called "global ecology") that are relevant here. It is instructive to quote from this piece extensively.

> The human environment is of central importance for future planetary politics from many perspectives. Central among them is its potential to comprise a new and very different social episteme – a new set of spatial, metaphysical, and doctrinal constructs through which the visualization of collective existence on the planet is shaped. This episteme would differ in form from modern territoriality and its accoutrements insofar as the underlying structural premise of ecology is holism and mutual dependence of parts.

He singles out "international custodianship" for additional examination, which I liken to the experiences with EUWFD and river basins:

> Under [international custodianship] no other agency competes with or attempts to substitute for the state, but the state itself acts in a manner that expresses not merely its own interests and preferences but also its role as the embodiment and enforcer of community norms – a multiperspectival role, in short, somewhat in the manner of medieval rulers vis-à-vis cosmopolitan bodies of religion and law (ibid).

Ruggie was sketching out the possibilities for an emergent cosmopolitan territoriality, and he did not specifically bring natural spaces such as river basins into his discussion. But he well could have. The somewhat abstract 'unbundling' of state territoriality that he and other authors have described (see also Anderson, 1996) is resulting in "new and hybrid" forms of territoriality (Sidaway, 2006), such as "unusual regions" (Deas and Lord, 2006). It is time to add nature into this mix, where a post-sovereign spillage of the EU across boundaries – and the carving out of new administrative spaces – constitutes a partial realisation of the new "social episteme" Ruggie described over a decade ago. Indeed, Ruggie foreshadows the possibility of this, when he speaks of "the transformative potential of global ecology" into "an episteme … [based on] holism and the mutual dependence of parts" (Ruggie, 1993).

CONCLUSION: POSSIBILITIES FOR POST-SOVEREIGN ENVIRONMENTAL GOVERNANCE

In this paper I have argued that the EUWFD marks an important milestone in how environmental governance is operationalised in Europe. This has implications for how we understand questions of sovereignty, territoriality, and subsidiarity in the EU context. Processes of European integration afford new opportunities for challenging the theoretical and regulatory scales that we lay over nature (e.g. Natter and Zierhofer, 2002). If this is the case, what lessons can we learn from this reterritorialisation of environmental policy?

First, nature warrants the attention of political geographers seeking to understand the de- and reterritorialisation of the state in Europe and beyond what has been done in the past. To date, much research on the deterritorialisation and rescaling of state power (reterritorialisation) in Europe has been dominated by an econocentric thread, which focuses our attention on new forms of economic interaction not contained by national boundaries, and a sociocentric thread, which seeks to analyse emergent social formations that transgress state boundaries. Nature promises many fruitful avenues for geographers to expand our understanding of the ways in which state power is being rearticulated in Europe.

Second, post-sovereign environmental governance is possible, though it is by no means already realised. At this point in time, such governance will necessarily be messy and the power of states will continue to be seen and felt. But the possibility of a reconceived sovereignty as proposed more than a decade ago by Shafer and Murphy (1998), one that prioritises environmental rights and concerns above parochial state concerns, is at least in part realised in the EUWFD. This is again not to suggest that this environmental regime has rendered states irrelevant; implementation, data gathering, and monitoring are largely still enacted by the member states.

Third, there are lessons here for other environmental regulatory regimes. One such lesson is that scale matters in carving out possibilities for sustainable environmental governance. The regional scale of river basins – a territorialisation that is readily observable and logical to political participants – is far

more practical and palatable than, for example, the global scale that debates over climate change so often appeal to (Benson, 2010).

If we assume environmental policies are "fundamentally shaped by… underlying geographical ideas and assumptions", (Shafer and Murphy, 1998) and the nation-state is still the assumed relevant scale in Europe, then how can the EUWFD represent such a profound shift? Indeed, as Beck and Grande (2007) point out,

> In historical comparisons in political science, the modern state is treated as the superior form of political rule for good reasons. It clearly won out over its competitors, the late medieval city-states and alliances (e.g. the Hanseatic League), not least because (and only because!) it succeeded in establishing the optimal balance between financial and military costs of exercising sovereignty over a territory, on the one hand, and the promotion of public welfare, on the other.

But perhaps the greatest step forward in the EUWFD is that it does challenge the underlying geographical assumptions of how environmental regulation is achieved. There is widespread recognition that better aligning the scale of analysis of a problem to the regulatory scale at which decisions are made is a major step forward. Previously, states were considered the basic unit of analysis for practically any large-scale challenge or issue for which intervention of the state was necessary. Even when the state was not viewed as the appropriate scale, the subsidiarity principle generally assured that one of its nested units was. This is seriously called into question by using watersheds.

The environment was largely absent from the conversation about Europeanisation and sovereignty, even though in some senses nature would seem the most obvious portal into understanding how *un*natural the historical European nation-states are. In spite of very promising work on the role of nature in the political geography of Europe, there remains a curious bias in the literature towards other policy realms. And in spite of the fact that environmental quality is a realm that reveals most acutely the illogic of the sovereign territorial state system (Lipschutz, 2000), scholars have not interrogated the consequences of new forms of environmental governance on notions of sovereignty. Indeed, the 'promise' of the EU comes in moving past the "territorial rigidities of the modern state system" (Murphy, 2008); at least in the realm of nature, events on the ground have surpassed our theoretical understanding of the very nature of European integration.

ACKNOWLEDGEMENTS

REFERENCES

Agnew, J.A. 1994. The territorial trap: The geographical assumptions of international relations theory. *Review of International Political Economy* 1(1): 53-80.

Anderson, J. 1996. The shifting stage of politics: New medieval and postmodern territorialities? *Environment and Planning D-Society & Space* 14(2): 133-153.

Bakker, K. 1999. The politics of hydropower: Developing the Mekong. *Political Geography* 18(2): 209-232.

Beck, U. and Grande, E. 2007. *Cosmopolitan Europe*. Cambridge, MA, US: Polity Press.

Benson, M.H. 2010. Regional initiatives: Scaling the climate response and responding to conceptions of scale. *Annals of the Association of American Geographers* 100(4): 1025-1035.

Beunen, R.; van der Knaap, W.G.M. and Biesbroek, G.R. 2009. Implementation and integration of EU environmental directives. Experiences from The Netherlands. *Environmental Policy and Governance* 19(1): 57-69.

Blatter, J.K. 2004. From "spaces of place" to "spaces of flows"? Territorial and functional governance in cross-border regions in Europe and North America. *International Journal of Urban & Regional Research* 28(3): 530-549.

Blomquist, W. and Schlager, E. 2005. Political pitfalls of integrated watershed management. *Society & Natural Resources* 18(2): 101-117.

Boscheck, R. 2006. The EU Water Framework Directive: Meeting the global call for regulatory guidance? *Intereconomics* 41(5): 268-271.

Brenner, N. 1997. State territorial restructuring and the production of spatial scale: Urban and regional planning in the Federal Republic of Germany, 1960-1990. *Political Geography* 16(4): 273-306.

Brenner, N. 2003. Rescaling state space in Western Europe. In Berezin, M. and Schain, M. (Eds), *Europe without Borders,* pp. 140-166. Baltimore, MD, US: Johns Hopkins Press.

Bukowski, J. 2011. Sharing water on the Iberian peninsula: A Europeanisation approach to explaining transboundary cooperation. *Water Alternatives* 4(2): 171-196.

Bulkeley, H. 2005. Reconfiguring environmental governance: Towards a politics of scales and networks. *Political Geography* 24(8): 875-902.

Carter, J.G. 2007. Spatial planning, water and the Water Framework Directive: Insights from theory and practice. *Geographical Journal* 173(4): 330-342.

Church, M. 1996. Space, time and the mountain – How do we order what we see? In Rhoads, B. and Thorn, C. (Eds), *The scientific nature of geomorphology,* pp. 147-170. New York, NY, US: John Wiley.

Clarke, S.J.; Bruce-Burgess, L. and Wharton, G. 2003. Linking form and function: Towards an eco-hydromorphic approach to sustainable river restoration. *Aquatic Conservation: Marine and Freshwater Ecosysyems* 13(5): 439-450.

Cohen, A. and Davidson, S. 2011. The watershed approach: Challenges, antecedents, and the transition from technical tool to governance unit. *Water Alternatives* 4(1): 1-14.

Cohen, S. and Frank, D. 2009. Innovative approaches to territorial disputes: Using principles of riparian conflict management. *Annals of the Association of American Geographers* 99(5): 948-955.

Dalby, S. 2009. *Security and environmental change*. Cambridge, UK: Polity.

Dably, S. 2010. Recontextualising violence, power and nature: The next twenty years of critical geopolitics? *Political Geography* 29(5): 280-288.

Deas, I. and Lord, A. 2006. From a new regionalism to an unusual regionalism? The emergence of non-standard regional spaces and lessons for the territorial reorganisation of the state. *Urban Studies* 43: 1847-1877.

Diaz, C.L. 2001. The EC habitats directive approaches its tenth anniversary: An overview. *Review of European Community and International Environmental Law* 10(3): 287-295.

Elden, S. 2009. Reassessing Kant's geography. *Journal of Historical Geography* 35(1): 3-25.

EC (European Commission). 2008. Waternotes. http://ec.europa.eu/environment/water/participation/notes_en.htm (accessed 13 January 2012)

EU (European Union). 2010. Consolidated versions of the treaty on the European Union and the treaty on the functioning of the European Union. *Official Journal of the European Union C* 83(53): 1-388.

Fall, J.J. 2003. Planning protected areas across boundaries: New paradigms and old ghosts. *Journal of Sustainable Forestry* 17(1-2): 81-102.

Fall, J.J. 2005. *Drawing the line: Nature, hybridity, and politics in transboundary spaces*. Aldershot, UK: Ashgate.

Fall, J.J. 2010. Artificial states? On the enduring geographical myth of natural borders. *Political Geography* 29(3): 140-147.

Fall, J.J. and Egerer, H. 2004. Constructing the Carpathians: The Carpathian Convention and the search for a spatial ideal. *Revue de Géographie Alpine / Journal of Alpine Research* 92(2): 98-106.

Furlong, K. 2006. Hidden theories, troubled waters: International relations, the 'territorial trap', and the Southern African Development Community's transboundary waters. *Political Geography* 25(4): 438-458.

Gleditsch, N.P.; Furlong, K.; Hegre, H.; Lacina, B. and Owen, T. 2006. Conflicts over shared rivers: Resource scarcity or fuzzy boundaries? *Political Geography* 25(4): 361-382.

Gualini, E. 2004. Integration, diversity, plurality: Territorial governance and the reconstruction of legitimacy in a European 'postnational' state. *Geopolitics* 9(3): 542-563.

Harris, L.M. and Alatout, S. 2010. Negotiating hydro-scales, forging states: Comparison of the upper Tigris/Euphrates and Jordan River basins. *Political Geography* 29(3): 148-156.

Hooghe, L. and Marks, G. 2003. Unraveling the central state, but how? Types of multi-level governance. *American Political Science Review* 97(2): 233-243.

Johnson, C.M. 2009. Cross-border regions and territorial restructuring in Central Europe: Room for more transboundary space. *European Urban and Regional Studies* 16(2): 177-191.

Jordan, A. 2005. *Environmental policy in the European Union*. London; Sterling, VA: Earthscan.

Jupille, J.H. 1998. Sovereignty, environment, and subsidiarity in the European Union. In Litfin, K. (Ed), *The greening of sovereignty in world politics,* pp. 223-254. Cambridge, MA, US: MIT Press.

Kaika, M. 2003. The water framework directive: A new directive for a changing social, political and economic European framework. *European Planning Studies* 11(3): 299-316.

Karkkainen, B.C. 2004. Post-sovereign environmental governance. *Global Environmental Politics* 4(1): 72-96.

Keating, M. 2003. The invention of regions: Political restructuring and territorial government in Western Europe. In Brenner, N.; Jessop, B.; Jones, M. and Macleod, G. (Eds), *State/space: A reader,* pp. 256-277. Malden, MA, US: Blackwell.

Kepka, J.M.M. and Murphy, A.B. 2002. Euroregions in comparative perspective. In Kaplan, D.H. and Häkli, J. (Eds), *Boundaries and place: European borderlands in geographical context,* pp. 50-69. Lanham, MD, US: Rowman & Littlefield.

Lagacé, E.; Holmes, J. and McDonnell, R. 2008. Science-policy guidelines as a benchmark: Making the European Water Framework Directive. *Area* 40(4): 421-434.

Lipschutz, R.D. 2000. Crossing borders: Global civil society and the reconfiguration of transnational political space. *GeoJournal* 52(1): 17-23.

Mance, G.; Raven, P.J. and Bramley, M.E. 2002. Integrated river basin management in England and Wales: A policy perspective. *Aquatic Conservation: Marine and Freshwater Ecosysems* 12(4): 339-346.

McGlade, J.M. 2002. Governance of transboundary pollution in the Danube River. *Aquatic Ecosystem Health & Management* 5(1): 95-110.

Medd, W. and Marvin, S. 2008. Making water work: Intermediating between regional strategy and local practice. *Environment and Planning D-Society & Space* 26(2): 280-299.

Menon, A. 2009. Empowering paradise? The ESDP at ten. *International Affairs* 85(2): 227-246.

Moss, B. 2008. The Water Framework Directive: Total environment or political compromise? *Science of The Total Environment* 400(1-3): 32-41.

Moss, T. and Fichter, H. 2003. Lessons in promoting sustainable development in EU structural funds programmes. *Sustainable Development* 11(1): 56-65.

Murphy, A.B. 1996. The sovereign state system as political-territorial ideal: Historical and contemporary considerations. In Biersteker, T.J. and Weber, C. (Eds), *State sovereignty as social construct,* pp. 81-210. Cambridge, UK: Cambridge University Press.

Murphy, A.B. 2008. Rethinking multi-level governance in a changing European Union: Why metageography and territoriality matter. *GeoJournal* 72(1): 7-18.

Natter, W. and Zierhofer, W. 2002. Political ecology, territoriality and scale. *GeoJournal* 58(4): 225-231.

Newson, M.D. 2002. Geomorphological concepts and tools for sustainable river ecosystem management. *Aquatic Conservation: Marine and Freshwater Ecosysyems* 12(4): 365-379.

Nilsson, S.; Langaas, S. and Hannerz, F. 2004. International river basin districts under the EU Water Framework Directive: Identification and planned cooperation. *European Water Management Online*: 1-19.

Norman, E.S. and Bakker, K. 2009. Transgressing scales: Water governance across the Canada-US borderland. *Annals of the Association of American Geographers* 99(1): 99-117.

Pounds, N.J.G. 1951. The origin of the idea of natural frontiers in France. *Annals of the Association of American Geographers* 41(2): 146-157.

Pounds, N.J.G. 1954. France and 'les limites naturelles' from the seventeenth to the twentieth centuries. *Annals of the Association of American Geographers* 44(1): 51-62.

Rettman, A. 2007. Brussels names and shames EU water laggards. *EU Observer*, 22 March 2007.

Rhoads, B.L. and Thorn, C.E. (Eds). 1996. *The scientific nature of geomorphology*. New York, NY, US: Wiley.

Robbins, P. 2003. Political ecology in political geography. *Political Geography* 22(6): 641-645.

Ruggie, J.G. 1993. Territoriality and beyond: Problematizing modernity in international relations. *International Organization* 47(1): 139-174.

Schott, M. 2007. Geopolitical imaginations about the European Union in recent political discussions. *Tijdschrift voor Economische en Sociale Geografie* 98(2): 284-295.

Scott, J.W. and van Houtum, H. 2009. Reflections on EU territoriality and the 'bordering' of Europe. *Political Geography* 28(5): 271-273.

Shafer, S.L. and Murphy, A.B. 1998. The territorial strategies of IGOs: Implications for environment and development. *Global Governance* 4(3): 257-274.

Shmueli, D.F. 1999. Water quality in international river basins. *Political Geography* 18(4): 437-476.

Sidaway, J.D. 2006. On the nature of the beast: Re-charting political geographies of the European Union. *Geografiska Annaler, Series B* 88(1): 1-14.

Sneddon, C. and Fox, C. 2006. Rethinking transboundary waters: A critical hydropolitics of the Mekong basin. *Political Geography* 25(2): 181-202.

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

Thiel, A. 2009. Europeanisation and the rescaling of water services: Agency and state spatial strategies in the Algarve, Portugal. *Water Alternatives* 2(2): 225-244.

Turnock, D. 2001. Cross-border conservation in East Central Europe: The Danube-Carpathian complex and the contribution of the World Wide Fund for Nature. *GeoJournal* 54(2-4): 655-681.

Vogt, J.; Puumalainen, J.; Kennedy, P. and Folving, S. 2004. Integrating information on river networks, catchments and major forest types: Towards the characterisation and analysis of European landscapes. *Landscape and Urban Planning* 67(1-4): 27-41.

White, I. and Howe, J. 2003. Policy and practice: Planning and the European Union Water Framework Directive. *Journal of Environmental Planning and Management* 46(4): 621-631.

Whitehead, M.; Jones, R. and Jones, M. 2007. *The nature of the state: Excavating the political ecologies of the modern state*. Oxford, UK: Oxford University Press.