



**BORDERS IN
GLOBALIZATION**





Borders in Globalization Research Project 45

Geopolitics in the Anthropocene

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Draft paper for conference April 2016

GEOPOLITICS RETURNED?

Alarming headlines in 2016 suggest that violent rivalries are the order of the day. Discussions of migrations and boundary walls and fences, military interventions, and the use of nationalist tropes have raised the rhetorical temperature in international politics. Walter Russell Mead (2014) is concerned that antagonistic politics between at least some great powers suggests just such a return of geopolitics after a period in which it was apparently absent. If the term is used to refer to territorial disputes, and the use of military force or the threat thereof, then clearly the conflicts over Crimea, Ukraine, various islands disputed by China and Japan and by various states in the South China Sea, or Russian and Turkish actions in early 2016, suggest its utility given the belligerence in recent events. Opportunistic populist politicians frequently respond with xenophobia and threats of force rather than intelligent policy. Robert Kagan (2015) is worried that the 'weight of geopolitics' is now reducing the role of democracy in global governance as authoritarian states flex their political muscles.

In response, and in stark contrast, John Ikenberry (2014) is equally convinced that the liberal order of recent decades remains intact and that regional skirmishing and nationalist rhetoric isn't undermining globalization. Geopolitics hasn't returned apparently, at least not in the sense that force and great power rivalries are the most important matter in international politics. Nonetheless there is fractiousness to international politics recently, and nationalist logics and increased border controls are being used to reinforce territorial modes of power. Ominously, geographical verities are being invoked in the language of many nationalist politicians suggesting mobility and migrations are a threat to supposedly stable political entities. What really is alarming is the failure of contemporary modes of governance to deal with many complex interconnected changes in a timely fashion. This failure causes repeated crises to which simplistic 'geopolitical' solutions are frequently offered.

These political developments also occur in the context of the persistence of formulations that invoke classical notions of geopolitics, of the world arranged in particular geographical ways that shape if not determine the conduct of foreign policy. While Samuel Huntington (1996) gets pride of place in most such discussions with his infamous mapping of global culture regions, Robert Kaplan

(2012) and others also use geographical language to suggest that context determines destiny. The classical writings of Mackinder and Mahan are back in vogue in discussions of Chinese policy too in the United States.

Whether it is because of their simplicity and ease of intelligibility, or the rhetorical power of charismatic and idiosyncratic advocates, or simply their play to an audience receptive to reassurance and stasis in times of rapid change, these geopolitical visions refuse to dissipate. It is through underplaying the role of global trade and finance, a disregard for the multiple versions of sovereignty and power that exist in the world, and a denial of the possibility for alternative perspectives in world politics that have allowed Mackinder, Mahan, and Monroe back onto the centre-stage of the globalist regime. (Richardson 2015: 236)

In Europe too classical geopolitics has undergone a revival with political thinkers invoking geographical formulations as the context for policies (Guzzini 2012).

These intellectual and political developments fly in the face of much recent scholarship and commentary, by political geographers in particular, who emphasize the growing interconnectedness of the global economy and the dynamism, perhaps best called globalization, that repeatedly changes patterns of production and trade. The revival of concerns with geopolitical matters in scholarly investigations over the last few decades (O'Tuathail 1996; Dodds et al 2013), as opposed to just in the recent foreign policy commentaries, involves a more profound engagement both with the forms of geographical representation that structure policy discussion as well as with these rapidly changing geographies of global political economy.

But little of this discussion so far explicitly links up with matters of the rapid transformation of the environment, another pressing and directly related matter in global politics. Now, this paper argues, linking geographical representations, and the changing global political economy with discussions of the contemporary transformation of the earth system, focused in the rapidly growing debate about 'the Anthropocene' as a new human caused geological epoch (Purdy 2016), is necessary to grapple with geopolitical change. Geological language, as in the use of the term Anthropocene, may be helpful here not least because conventional forms of environmental governance have fallen so far short in tackling global change (Galaz 2014). Relying on traditional geopolitical thinking may have some considerable political utility for populist, nationalist and more expressly fascist politicians, but in so far as such notions structure policy by emphasizing separation, competition and conflict, they are making the dangerous global environmental transformations of our times much more difficult to address.

GEOPOLITICS REVISITED

Geopolitics has often been understood as the contextual matters shaping politics at the planetary scale, about struggles for power and the rivalries of big states and empires, which have played out over the last few centuries as the global economy grew and technologies ushered in new human possibilities (Agnew 2003). It is also

about the related attempts to politically divide the world into various spatial configurations, empires, blocs, and such things as the Grossraum formulations of Carl Schmitt (Minca and Rowan 2015). Schmitt may have been a more influential thinker in Nazi Germany than Karl Haushofer, who frequently gets the blame for introducing Adolf Hitler to Friedrich Ratzel's thinking, and the hence indirectly the pernicious ideas of lebensraum that informed Nazi ambitions for rearranging the map of Europe by force (Snyder 2014). Schmitt's *Nomos of the Earth* (2006) suggested various divisions of the world and the superiority of European modes of law and authority, but relied on an anachronistic fixed geography and a remarkably limited view of the transformative effects of the global economy.

Geographical scholarship of the last few decades often under the rubric of 'critical geopolitics' has investigated how geographical language has important in political consequences (O'Tuathail 1996). Even a fairly limited reflection on recent history suggests that geographical entities in global politics are not permanent and immutable but rather temporary, contingent and relational (Dodds et al 2013). However geographical representations frequently pass without this critical interrogation precisely because they are apparently obvious. This is both in terms of how geographical language frequently structures particular nationalist narratives of the homeland, but also in how such language shapes larger interpretative frameworks of grand strategy and justifications of the use of force in international affairs (Dalby 2010).

Such formulations often link to technological fantasies of geographical control, to territorial sovereignty and to the supposed sanctity of national boundaries. Linked to the invocation of martial vigor these are a heady brew in political rhetoric which links fear to the necessity of strength to provide security in troubled times. Invoking external threats to supposed internal stabilities is a powerful mode of geopolitical discourse that is repeatedly used in American politics (Dalby 2013), only most obviously recently in presidential candidate Donald Trump's rhetoric of wall building as a 'solution' to the supposed 'problem' of migration. Once these cartographic entities become the hegemonic assumptions of how the world is organized, frontiers appearing as 'natural' and permanent features (Fall 2010), then these geographical categories become powerful tools for policy makers anxious to emphasize differences and dangers on a variegated planetary surface.

In a similar manner Benjamin Ho's (2014) examination of Chinese exceptionalism points to the risks of assuming permanent fixed identities in geopolitical thinking there too and making assumptions that geography presents eternal verities. In a world of rapid change and globalization this assumption is likely to be misleading in many ways. The relations between places are crucial, and have been changing rapidly due to the processes of globalization that involve changing geographical patterns of manufacturing and trade linkages. These are much more important than the military rivalries that usually get so much attention in geopolitical thinking related to foreign policy. Yes, military conflicts matter, and Second World War vintage technologies were key to setting the contemporary acceleration of

globalization in motion. But military matters have been a minor factor in the overall pattern of the global economy although some regional industrial strategies were clearly involved in the cold war period on both sides of the iron curtain.

John Agnew's (2015) recent discussion of geopolitics and globalization is analytically helpful in explaining these important but much wider formulations. As with other scholars who have been back over the history of geopolitical thinking of late (Kearns 2013), Agnew notes that the early twentieth century formulations of geopolitics in terms of naturalized assumptions of spatially autonomous competing geographical entities obscured a larger body of historical thinking that emphasized the interconnections between places, the flows of resources from colonies to imperial centers, as well as larger concerns with geographical settings, trading arrangements and cultural exchanges. Looking back to Montesquieu and Voltaire's reconstruction of Alexander the Great's imperial efforts to enhance cultural interactions and trade among the regions he conquered, Agnew (2015) crucially argues that the narrow territorial sense of competing entities in late nineteenth century thinking obscured this larger sense of geopolitics, and in the process sets up a false dichotomy of geopolitics versus globalization.

This analysis shows that the processes of geopolitics are part and parcel of the growth of globalization over the last half century. US efforts to promote trade and investment in at least some parts of the global economy, a 'geopolitics of globalization', interacts with the very different colonial histories of various forms of statehood, a 'geopolitics of development', and most recently with the rising new international agencies in what he terms a 'geopolitics of regulation'. These processes have shaped how world politics operates. In Panitch and Gindin's (2012) terms American foreign policy has made the world safe for capitalism, and in the process greatly advantaged American based industrial and agricultural interests.

The Anthropocene formulation makes it clear that these globalizing forces of state and economic 'development' are also geomorphic and environmental forces rearranging landscapes, damming rivers and moving huge amounts of material to build roads, railways and cities, while connecting them into a 'global' economy. This transformation of the biosphere caused by the history of the expansion of European power over the last half millennium has only become clear in recent decades. Humanity has been remaking its planetary home on a more drastic scale than has been understood until very recently (Bonneuil and Fressoz 2016).

This transformation is now the new context for geopolitical thinking even if its profound consequences have been slow to challenge contemporary geographical imaginations (Dalby 2014). Anthropocene geopolitics is now much more a matter of the unfolding consequences of production decisions made by the dominant states and corporations in the planetary system than it is just a matter of territorial rivalries in a supposedly stable geographical configuration. Rapidly changing climate, rising sea levels and the melting of Arctic Ocean ice are only the most obvious symptoms, ones that have yet, despite progress in Paris in late 2015, yet to

be seriously tackled by the processes of global politics. All this has however made it abundantly clear that classical geopolitical thinking that suggested that climates in various parts of the world determined the fate of human communities living there is now backwards; geopolitics is now shaping future climates, not the other way round (Dalby 2015).

GEOPOLITICS AND GOVERNANCE

The most important point about contemporary governance and the geopolitical challenges of the present is so obvious that it frequently goes unsaid. That is the organization of the world into nearly two hundred supposedly sovereign territorial states (Jackson 2000), a matter that appears stable and fixed. The United Nations system is premised on this geographical division of the earth's terrestrial, and by extension, parts of its oceanic surface. This arrangement was to a substantial extent an effort to solve one of the key problems of European geopolitics – the long-standing pattern of using military force for territorial aggrandizement. Winners of European wars traditionally got territorial rewards as the spoils of victory, but in the process frequently sowed the seeds of future conflicts. Fixing the frontiers once and for all as the United Nations system did after World War Two, removed this temptation while making aggressive warfare international anathema. The apparent violation of this norm in the case of the Russian-Ukraine conflict in recent years is one of the reasons that it generates so much international attention.

Globalization is partly about accelerating interconnections, but frequently those interconnections are between the now relatively fixed spaces of territorial states and regional blocs enclosed by various rules, or forms of sovereignty (Agnew 2009). In the case of non-traditional security threats, such as diseases and environmental problems, states adapt to international arrangements in ways that frequently enhance the power of elites and leading sectors in their economies, a pattern that suggests once again that globalization favors well connected corporations and their local suppliers (Hameiri and Jones 2015). Simultaneously numerous complicated matters of international finance slip out of control of national governments but require their collective intervention when matters become too chaotic. Arcane technical specifications govern trading arrangements, and in many cases curtail freedom of action by governments, at least those who wish to remain within the more complicated structures of the international trading system. The territorial state is the dominant mode of administering these larger arrangements of political economy, and seen as such the proliferation of nation states, while apparently suggesting the supremacy of territorial rule and sovereign jurisdictions, in many ways simply operates as the local instantiation of larger globalization processes.

The scale of material transformation involved in the rapidly evolving global economy; the interconnected world that Montesquieu and Voltaire discussed, needs to be updated to include the transformation of the biosphere and the geophysical consequences that are manifested as climate change. Most terrestrial surfaces that are potentially useful for modern agriculture are now being exploited (Ellis 2011).

Rapid deforestation and the rise of plantations for such things as palm oil are emphasizing the point that environmental change is part of the growth of the global economy. Crucially the consumption of fossil fuels is both powering the industries of the global economy, often through the use of cheap coal, and by using petroleum facilitating the mobility of both commodities and people linking places in the processes of globalization. But it is precisely this consumption of fossil fuels that is a key factor in destabilizing the climate system and rendering the taken for granted geographies of the world increasingly anachronistic.

Trying to assert control over contemporary changes by using territorial strategies, only most obviously in case of the current migration crisis flies in the face of the basic processes of geographical change. In the case of environmental change the key mode of adaptation for most species is to move to more conducive climes. But where animals, four legged as well as two, encounter barriers in the form of fences and walls this most basic mode of adaptation is thwarted. The would-be migrants are rendered ever more vulnerable by their being hemmed in precisely when they need to move. Now as the geological scale of contemporary transformations becomes ever more clear this contradiction between geographical fixity and the need to accommodate rapid change has become acute. The governance arrangements to hand are increasingly inappropriate, and the situation is aggravated by attempts to use force to try to dominate matters in a badly divided world. Rethinking these contextual questions is now key to dealing with these counterproductive consequences of the 'return of geopolitics'.

WELCOME TO THE ANTHROPOCENE

The rapid proliferation of the use of the term Anthropocene in recent years suggests that it is becoming a synonym for the present, the latest stage of globalization, and one that brings with it threats to numerous aspects of the human condition. Much of the discussion seems, at least so far, to have underplayed the significance of the fact that this is a geological term (Crutzen 2002). The significance of this lies in the scale and longevity of the phenomenon. The implications of thinking in geological rather than environmental terms suggest much longer term and dramatic transformations are already afoot. Humanity is changing matters profoundly, moving the planetary system out of conditions that have pertained for hundreds of thousands of years and launching the planet into a new and as yet unknown configuration.

Just as the assumption of autonomous spaces is impossible so too is the modern assumption of humanity separate from nature. The Anthropocene makes this clear, but how to think of humanity as making new spaces isn't so easy. Related to this are the expanding processes of commodification and enclosure as the global economy incorporates ever more processes and products into its circulations; governance and property relations are increasingly commercialized. In the process boundaries and borders extend in new ways to privatize and hence price many things, change generates numerous new modes of bordering, incorporating and governing social and ecological processes (Dalby 2014). Hence the irony of a globalization process

that apparently crosses numerous boundaries but simultaneously involves numerous new rules, regulations and enclosures to function. Lengthy commodity chains are the new shape of global economy, ones that require modes of security that transcend territorial boundaries while incorporating their governance practices into commercial arrangements that cross many borders (Cowen 2014).

The planet is being remade by these contemporary production and commercial activities. Decision makers have been slow to grasp that crucial point. The aspirational statements in the Paris Agreements of December 2015 about limiting climate change to 1.5 degrees Celsius suggest that politicians are finally thinking about about how hot it should get. But the implications are not clearly in focus yet in a way that transforms how national economies are powered or terrestrial ecosystems rethought in terms of their abilities to buffer the worst excesses of climate extremes and facilitate species migration. The rich and powerful among us are in effect making decisions about the future configuration of the planet, how many polar ice caps the planet will have for millennia to come, and profound decisions as to which species will survive and which will not. We have entered the sixth major extinction event in the planet's history, one caused by humanity and its dramatic reworking of both terrestrial and marine ecosystems (Kolbert 2014).

The crucial insights of the new literature on the Anthropocene, and the earth system science research that drives the discussion, make it clear that the earth's biosphere is interconnected in numerous complicated ways, ones that render ontological formulations of relatively separate geographical regions of the planet redundant. While climate change gets much of the attention it is crucial to note that other phenomena are involved in this novel understanding of interconnectedness (Rockstrom et al 2009; Steffen et al 2015). The depletion of stratospheric ozone, understood as a global problem in the 1980s when the ozone layer repeatedly disappeared in winter over the polar regions, came as a nasty shock to policy makers and scientists, showed the importance of interconnections when an apparently innocuous industrial product turned out to have very dangerous consequences in a realm where its presence hadn't been considered.

Species loss as a result of the extraordinary expansion of agriculture and the destruction forests and other ecosystems have transformed terrestrial ecosystems so much that the nineteenth century mappings of the world in terms of biomes and 'natural regions' now need to be updated and the new ecological assemblages of 'anthromes' added to our understandings of the spatial arrangement of many things (Ellis 2011). The huge transfer of species around the world by human action, whether for agriculture, pets, or accidentally due to trading activities means that the planet now has terrestrial species mixed up in ways that may not have happened since the splitting up of Pangaea a couple of hundred million years ago at the beginning of the current cycle of plate tectonics (Kolbert 2014). The wholesale pollution and fishing of the oceans, simultaneously with the rapid acidification due to the rising levels of carbon dioxide in the atmosphere, means that ocean ecosystems are also being transformed with as yet unclear consequences.

Above all the matter of rapid anthropogenic climate change looms over international affairs, a key theme in the new geopolitics of our times. In Paris in December 2015, despite high profile terrorist attacks a huge conference led to an agreement on a number of measures to be taken to begin, belatedly, to tackle climate change. While this wasn't the binding treaty many hoped for, and the aspirational statements about keeping the average global temperature rise to close to 1.5 degrees Celsius were in stark contrast to the promised commitments to cut greenhouse gas emissions, nonetheless the meetings did convey a clear sense that major powers were at last beginning to think about how to craft a global arrangement to deal with the threat of increasingly severe weather events, rising sea levels and much more dramatic future disruptions to the existing planetary climate.

CLIMATE WARS?

President Obama elevated climate to the top priority for US national security in his speech at the Brandenburg Gate in Berlin in 2013, and then set in motion confidential negotiations with China to grapple with the issue. The deal between the United States and China in late 2014 made Paris possible; without such a meeting of minds the Paris Agreement would probably have accomplished even less. What it did do, by incorporating all the major states into a loose framework, was perpetuate the attempt at universal involvement in the United Nations Framework Convention on Climate Change. The United States insisted that nothing in the Paris Agreement was to be understood as an admission of responsibility for causing climate change and such language showed up in the final documents. This was one important factor that prevented a binding treaty from being the final outcome. In the process the US acted as a great power by dictating the terms of its accession to the arrangement. Nonetheless some notion of universal involvement in the process to grant it legitimacy was maintained. In terms of the climate change process the argument that geopolitics has returned appears at least partly inaccurate.

However the growing literature on climate security suggests that some of the more pernicious formulations of geopolitics are reappearing in ways that are dangerous to the formulation of intelligent policy (Chaturvedi and Doyle 2015). The climate justice arguments, heard repeatedly in Paris, and key to the justification for the aspirational statements to keep the average temperature rise to no more than 1.5 degrees Celsius, suggest that given the lengthy residence time of carbon dioxide in the atmosphere, the developed world with its long history of greenhouse gas emissions has primary responsibility for dealing with climate change. The ill fated Kyoto accord of the 1990s started on the premise that those who had caused the problem should take the lead in trying to deal with it. This garnered no support in Washington where congress voted in patterns that prevented the Clinton administration even trying to get the accord acceded to by the US. Television advertisements at the time showed the world map being cut into pieces with the implication being that all countries ought to be involved to deal with a global

problem. Equating un-equals isn't a new rhetorical strategy, but it worked effectively to obscure responsibilities in the 1990s well before the full weight of the climate denial movement was felt in American public discourse (Oreskes and Conway 2010).

Perhaps more worrisome than this blanket refusal to deal with questions of historical responsibility, beyond repurposing some aid budgets to deal with climate adaptation issues, is the portrayal of vulnerable places in the world in terms of persistent tropes of dangerous zones of violence and degradation in terms of places beyond the remit of civilization (Dalby 2013). The 1990s rhetoric of bifurcation, of a world of pacified zones and wild zones, only most famously in Robert Kaplan's (1994) dystopic warnings of 'a coming anarchy' has persisted through the war on terror and been updated in such formulations as Thomas Barnett's (2004) 'non-integrated gap' in the global polity. Now these ideas of wild zones are linked into Pentagon notions of failed states and forms of political instabilities for which climate change now acts as a 'threat multiplier'. Climate change is now upgraded to a 'catalyst of conflict' in the more recent formulations of the CNA Corporation (2014).

This 'threat multiplier' formulation has become widespread in the international security community. Climate change risks were elevated to the top of the list of global risks in the discussions at the World Economic Forum in Davos in January 2016 the contemporaneous *Munich Security Report* had similar concerns:

Climate change is a very particular kind of threat. For low-lying countries, it is an existential danger. To most societies, it is a threat multiplier: An increase in extreme meteorological events, droughts, and land degradation as well as the sea-level rise can and do exacerbate political fragility and resource disputes, increase economic hardship and mass migrations, and magnify ethnic tensions and civil strife. (*Munich Security Report* 2016: 44)

The dangers in such formulations are, as with the earlier formulations of environmental security after the cold war (Dalby 2002), that these geographical specifications of dangerous places disconnected from the larger transformations of geopolitics facilitate violent actions in the periphery in ways that perpetuate rather than ameliorate the disruptions set in motion by the interaction of changes in rural political economy in the global south with climate change. All of which may be aggravated by unilateral attempts by some states and corporations to reduce their climate risk and ensure food supplies by purchasing large tracts of land in the South to diversify their holdings and hence reduce climate vulnerabilities among those in the North regardless of the consequences in the South (Dabelko et al 2013).

Even more ominous are the warnings from scholars who link the historical concerns with Nazi geopolitics to the larger reasoning practices used to shore up its genocidal violence. Welzer's (2012) discussion of how the Nazi regime gradually changed laws and assumptions concerning what was considered 'normal' and how current

geographical formulations of wild zones and inevitable war in the South are shaping policy discourse, is a cautionary tale that needs to be taken seriously. Likewise Timothy Snyder's (2014) careful reconstruction of the political geography of the holocaust in his *Black Earth* points to the related dangers of geopolitical formulations of Lebensraum. Nazi interpretations of 'living room' liked both geopolitical claims on agricultural land in Eastern Europe and logics of consumerist aspiration and entitlement in Germany, at whatever economic cost this may have inflicted elsewhere in the continent. Discourses of consumer entitlement and fears of numerous environmental threats from external sources have been a persistent theme in recent American geopolitical discourses too as forms of 'inverted quarantine' structure the privatized security response in numerous commodified forms in attempts to, in Andy Szasz's (2007) terms 'shop our way to safety'.

Such formulations simultaneously rely on fantasies of non-porous borders (Kearns 2013) and the implicit assumptions that 'containment' or 'quarantine' are effective security strategies in a world where interconnections are the key to ecological and economic processes. This geographic assumption of separation is powerfully reinforced by claims to territorial jurisdiction, property boundaries, and sovereignty. It is epitomized by the penchant for wall building as a strategy to try to limit migration of various sorts, as well as discourses of invasive species as threats to various forms of farming and economic activity. Territoriality is a key strategy of control in many human affairs, demarcation, communication and enforcement being the key interrelated practices in Sack's (1986) classic discussion of the process, but its much less efficacious when it comes to either economics or ecology than its advocates often assume.

Nonetheless territorial strategies are being attempted by many states and politicians in an attempt to shore up at least a sense of being in control despite an obviously waning sovereignty (Brown 2010). Donald Trump made headlines during his campaign early in 2016 promising to build a wall across the American border with Mexico and force Mexicans to pay for it. Many such walls and fences are being constructed in the world, including along parts of the US-Mexican border, where relatively rich states are situated in close proximity to relatively impoverished areas (Jones 2012). They reinforce a carceral cartographic imagination, one where political borders often take on cultural significance as though these lines on the map were in some way 'natural' frontiers (Fall 2010).

GEOPOLITICAL VISION

All this is related to the larger questions of geopolitical vision, how the world is represented as an object to be struggled over, divided and dominated by great powers, or shared by an interconnected humanity inhabiting an increasingly artificial world. While Macdonald, Hughes and Dodds' (2010) series of essays on observant states emphasize the importance of scopic regimes, technologies of seeing, and the constitution of objects to be governed through these practices, the ability to see the globe as a whole, to use satellite imagery to imagine it is now also a

key part of the climate discussion. The “zoom in” functions literally contextualize new stories now; mere stationary contextual cartography is now largely passé! In similar mode “The Situation Room” on CNN long mimicked military presentations of a central control room monitoring from afar distant events that might have geopolitical repercussions, and used the modern scopic regime to imply a visuality that conveyed a superior panoptical surveillance vantage point on the world’s evolving political scene. But in doing so the connections between places are frequently implied rather than investigated; storms, floods and disasters are sometimes linked to climate change, but the larger context of a transformed world only sometimes structures these representations.

Frequently, what Donna Haraway (1988) famously called the ‘god trick’ view, denies the details of practical struggles related to climate change in particular places, reinforcing a sense of a global problem, a terrifying prospect that ‘requires’ big science and technocratic planning by great powers (Chaturvedi and Doyle 2015). This is the imperial administrator’s view of the world, not the view from the desperate refugee in part of the contemporary carceral archipelago built by metropolitan states on Lampedusa, Lesbos or Christmas Island. Viewed from there things are likely to look somewhat different; the fences and guard towers that supposedly provide security for residents of the prosperous suburbs of the Global North are precisely what prevent migrants from gaining access to health services, food, shelter and employment. Who has ‘human security’ is very much a matter of geography and how practical matters of bureaucracy play out at international borders in terms of who is admitted and who is not (Mountz 2010).

Failure to understand how geopolitics is shaping the future configuration of the planet both through processes of globalization directly, and indirectly by all the ecological and geophysical transformation the global economy entails, may indeed bring the world to future climate wars (Dyer 2008). But if this kind of geopolitics returns, with all the rhetorical force of the cartographies of enmity that it implies (Dalby 2013), it will be because of failures of geographical imagination to understand geopolitical forces in motion and the complex causalities of an interconnected global economy that has already set in motion very considerable geophysical transformations (Parenti 2011). Precisely because of these geophysical transformations discussions of solar radiation management and other attempted technical fixes to global warming are also being discussed. Given the failure, at least so far, to tackle the issues of climate change with the seriousness they need, then the possibilities of artificially adjusting the global temperature by engineering means are on the agenda (Burns and Strauss 2013).

Such attempts to artificially manipulate weather patterns in particular regions or the temperature of the planet as a whole have the potential to cause serious political conflicts. If attempts to change rainfall patterns by cloud seeding to enhance agricultural productivity in a particular region have trans-boundary effects then international politics will be engaged. Given the large uncertainties in weather system behavior it might be hard to prove that weather modification in one place is

related to droughts of storms elsewhere, but the perception that this is the case might be enough for serious political dispute. The potential for conflict is there, even if, given the interconnectedness of the global system, its clear that careful international cooperation would be essential for any scheme to possibly succeed (Horton 2013).

Once again such discussion emphasizes the importance of the contextualizations that structure geopolitical discussions. While the appearance of nuclear weapons and subsequently intercontinental ballistic missiles change the context of super-power rivalries, in the process dramatically heightening both the dangers of great power conflict and the speed with which crises could spiral out of control, this changed context has shaped practices of global security. Restraint is necessary, a matter of 'negarchy' in Daniel Deudney's (2007) terms, where security requires limiting the use of force and constraining the temptations to try to use war as a strategy of statecraft. Now the Anthropocene makes it clear that this understanding has to be extended to grapple with the transformation of the biosphere and the potentially destabilizing consequences of climate change in particular if land-use changes, methane leakages and other greenhouse gas emissions aren't dealt with in the immediate future. Restraint on these matters is now key in geopolitics for survival reasons in similar ways to the issue of nuclear weapons in the cold war period. International leaders have been slow to realize this, and alarmist stories of imminent disaster haven't lead to appropriate recontextualization in North American policy making circles despite President Obama's clear designation of these new climate dangers to global security.

The political economy of fossil fuel extraction in North America explains part of this; the enthusiasm for fracking in particular in recent years promised rapid wealth for those in the industry. This however has to be understood as related to the larger political campaign from the right wing in both Canada and the United States where corporations have lavishly funded political agendas anathema to the steps needed to constrain carbon emissions and move towards a new post-fossil fuel economy (Mayer 2015). The cultural politics of climate change denial involve the construction of various forms of othering in the anthropocentrism that underlies the refusal of environmentalist claims (Jacques 2009). Powerfully reworked in the climate denial movement, assumptions of an autonomous humanity, somehow separate from the surrounding context, are key to this rhetoric. Once again this is an explicit formulation of spatial separation, one that then invokes hostility and danger from outside, and physical force as the solution to problems that may result. The ecological interconnections that shape humanity's context are once again denied, as modernity in general and classical geopolitics in particular has so long done in the powerful dualisms that structure modern thinking (Kearns 2009). These include a separation of culture from nature, civilization from primitive barbarism, urban accomplishment from rural backwardness, industrial acumen from non-western tradition, and consumption 'here' from production and pollution 'there'.

The failure to see the interconnections across these supposed separations have long been the focus of environmentalist thinking, at least since Alexander von Humboldt took Goethe's insights about nature into the rainforests of South America and formulated the ideas of human induced climate change as he investigated the changing hydrologies resulting from deforestation (see Wulf 2015). The struggles over climate change link these long-term political struggles into recast discussions of responsibility and the attribution of blame and geopolitical arguments about peripheral dangers and metropolitan action that once again obscure the motive forces that matter in causing rapid change. Challenging these formulations remains a key task for scholars wishing to make a useful contribution to climate geopolitics, ones made all the more urgent as the earth system science of the Anthropocene charts the trajectories of transformation in ever increasing detail. The geographic context for politics in the future is being shaped by current decisions about political economy and energy systems in particular; that point is now unavoidable in any consideration of the future of geopolitics.

ANTHROPOCENE GEOPOLITICS

The Anthropocene, the new geological age we are living in, suggests that while technology is crucial to human changes it is also part of the overall transformation of the biosphere, the context for humanity that we are actively reassembling, often with disastrous consequences for other species and their habitats. Much more so than in the earlier age of science we now understand the interconnectedness of life, its various substrates, and its adaptations. We too understand that humanity has endangered its own existence in previously unimagined ways, and the political struggles are very much about reshaping the earth, material transformations designed to enhance particular modes of life and power and prestige among certain groups of humanity (Bonneuil and Fressoz 2016).

These efforts are having cumulative effects that amount to a new geological era, one in which the geophysics of the planet are interlinked in numerous ways with human activities, ones that are causing climate change, acidification of the oceans and mass extinctions simultaneously. All of which suggests that we need to add a specifically geophysical understanding to the operations of power, linking physical transformations of context into our understandings of power, prestige and the search for security of various types. We are, as the US military likes to put it, 'shaping the future'. But how that future is to be shaped is a matter of geopolitics, a matter in part of collective deliberations, and also the attempts by certain people to control the process and effectively decide on the physical configuration of the future biosphere and its components (Dalby 2016).

The longstanding suggestion from earth systems thinking that our conceptions need a second Copernican revolution where life is now understood part of the planetary system (Schellnhuber 1999), rather than a surficial afterthought, is instructive here now that industrial humanity is shaping the future of the planetary system. We are not 'on' earth. We are earth. We have reversed the geological processes of carbon

sequestration by our processes of combustion, and as such the key to both human powers and the earthly context in which they play out are tied to these geophysical transformations. The consequences for how we rethink geopolitics, and how we think about how to make a world for humanity that stays fairly close to the circumstances of the last ten thousand years of earth history that have facilitated the emergence of civilization, rather than accelerate the destabilization of the planetary system into something unpredictable and likely disastrous for much of humanity, is now the key task for intellectuals of whatever academic disciplinary background engaging geopolitics.

Geopolitics is now about how the world is being remade, and how the strategies to do this relate to the types of knowledge, representations and legitimations invoked in the arguments about who should rule and what kind of a future should be produced to whose advantage. Failure to think about this new understanding of the world and how it is being shaped by geopolitical choices may lead to the kind of future water wars that so worry the climate security analysts, and novelists like Paulo Bacigalupi (2015) in his depiction of violence in his imagined future of the American South West in *The Water Knife*. Such dystopic futures are avoidable if politicians tackle institutional problems appropriately. Making the rapidly changing geographies of the present the key point in geopolitical analyses is essential to both sensible scholarly analysis and appropriate policy advice. It requires directly challenging geographical formulations that inform populist and nationalist invocations of endangered 'here's and threatening external 'there's. Not least this is the case because it is the consumption of fossil fuels, historically mostly 'here' in North America that is now causing the increasing storms, floods, droughts and disruptions that set people 'there' in motion.

Geographical verities are not permanent; change is accelerating and our policies and our politics need to embrace these insights so that collectively we can shape a future conducive to human flourishing in a rapidly changing world. The task for scholars, analysts and policy advisors now is to work out how to share a crowded and rapidly changing world. Traditional geopolitics was about trying to dominate a divided world while ignoring the connections across the boundaries between supposedly autonomous regions, and in so far as such modes of thinking and action have returned, they make the urgently necessary tasks of constructing new institutions and practices for sharing a rapidly changing world all the more difficult.

ACKNOWLEDGEMENT

This research for this paper is supported by a Canadian SSHRC partnership research grant on 'Borders in Globalization': www.biglobalization.org/

REFERENCES

- Agnew, John (2003) *Geopolitics: Revisioning World Politics* New York: Routledge.
- Agnew, John (2009) *Globalization and Sovereignty* Lanham MD: Rowman and Littlefield.
- Agnew, John (2015) 'Understanding Geopolitics in an Era of Globalization' *Rev. Tamoios, São Gonçalo (RJ)*, 11(2). 4-21.
- Bacigalupi, Paulo (2015) *The Water Knife* New York: Knopf.
- Barnett, Thomas P. M. (2004) *The Pentagon's New Map: War and Peace in the Twenty-First Century* New York: Putnam's.
- Bonneuil, Christophe and Fressoz, Jean-Baptiste (2016) *The Shock of the Anthropocene* New York: Verso.
- Brown, Wendy (2010) *Walled States, Waning Sovereignty* New York: Zone.
- Burns, W. C. G. and A. L. Strauss, (eds) (2013) *Climate Change Engineering*. Cambridge: Cambridge University Press.
- Chaturvedi, Sanjay and Doyle, Timothy (2015) *Climate Terror: A Critical Geopolitics of Climate Change* London: Palgrave Macmillan.
- CNA Military Advisory Board (2014) *National Security and the Accelerating Risks of Climate Change*, Alexandria, VA: CNA Corporation.
- Cowen, Deborah (2014) *The Deadly Life of Logistics: Mapping Violence in Global Trade* Minneapolis: University of Minnesota Press.
- Crutzen, Paul J (2002) 'Geology of mankind – The Anthropocene' *Nature* 415: 23.
- Dabelko, G., Herzer, L., Null, S., Parker, M. and Sticklor, R. (eds.) (2013) 'Backdraft: The Conflict Potential of Climate Change Adaptation and Mitigation.' Washington DC: Woodrow Wilson Center Environmental Change and Security Program *Report* 14(2): 1-60.
- Dalby, Simon (2002) *Environmental Security* Minneapolis: University of Minnesota Press.
- Dalby, S. (2010) 'Recontextualising Violence, Power and Nature: The Next Twenty Years of Critical Geopolitics?' *Political Geography* 29(5): 280-88.

Dalby, Simon (2013) 'Challenging Cartographies of Enmity: Empire, War and Culture in Contemporary Militarisation' in Anna Stavrianakis, Jan Selby and Iraklis Oikonomou (eds) *Militarism and International Relations: Political Economy, Security, Theory* London: Routledge, 33-44.

Dalby, Simon (2014) 'Environmental Geopolitics in the Twenty First Century' *Alternatives: Global, Local, Political* 39(1): 3-16.

Dalby, Simon (2015) 'Environment: Determinism to the Anthropocene' in John Agnew, Virginie Mamadouh, Anna Secor and Jo Sharp eds *Wiley Blackwell Companion to Political Geography*, 2nd ed. Chichester: Wiley Blackwell. 451-461.

Dalby, Simon (2016) "Framing the Anthropocene: The Good, the Bad, and the Ugly" *The Anthropocene Review* 3(1): 33-51.

Deudney, D. (2007) *Bounding Power: Republican Security Theory from the Polis to the Global Village*. Princeton: Princeton University Press.

Dyer, Gwynne (2008) *Climate Wars* Toronto: Random House.

Ellis, Erle C. (2011) 'Anthropogenic transformation of the terrestrial biosphere.' *Philosophical Transactions of the Royal Society A* 369: 1010-1035.

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

Galaz, Victor (2014) *Global Environmental Governance, Technology and Politics: The Anthropocene Gap* Northampton, MA: Edward Elgar.

Guzzini, Stefano (ed.) (2012) *The Return of Geopolitics in Europe? Social Mechanisms and Foreign Policy Identity Crises* Cambridge: Cambridge University Press.

Hameiri, Shahar and Jones, Lee (2015) *Governing Borderless Threats: Non-Traditional Security and the Politics of State Transformation* Cambridge: Cambridge University Press.

Haraway, Donna (1988) 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective' *Feminist Studies* 14(3): 575-599.

Ho, Benjamin (2014) 'Understanding Chinese Exceptionalism': China's Rise, Its Goodness, and Greatness' *Alternatives: Global, Local, Political* 39(3): 164-176.

Horton, J. B. (2013) 'Geoengineering and the myth of unilateralism: pressures and prospects for international cooperation.' In Burns, W. C. G. and Strauss, A. L. (eds) *Climate change engineering*. Cambridge University Press: Cambridge, 168-181.

Huntington, Samuel (1996) *The Clash of Civilizations and the Remaking of World Order* New York: Simon and Schuster.

Ikenberry, John (2014) 'The Illusion of Geopolitics: The Enduring Power of the Liberal Order' *Foreign Affairs* 93(3): May/June. 80-90.

Jackson, Robert (2000) *The Global Covenant: Human Conduct in a World of States* Oxford: Oxford University Press.

Jacques, Peter J. (2009) *Environmental Skepticism: Ecology, Power and Public Life* Burlington VT: Ashgate.

Jones, Reece (2012) *Border Walls: Security and the War on Terror in the United States, India and Israel* London: Zed.

Kagan, Robert (2015) 'The Weight of Geopolitics' *Journal of Democracy*, 26(1): 21-31.

Kaplan, Robert D. (1994) 'The Coming Anarchy' *Atlantic Monthly* 273(2): 44-76.

Kaplan, Robert D. (2012) *The Revenge of Geography: What the Map Tells Us about the Coming Conflicts and the Battle against Fate*. New York: Random House.

Kearns, Gerry (2009) *Geopolitics and Empire: The Legacy of Halford Mackinder* Oxford: Oxford University Press.

Kearns, Gerry (2013) 'Beyond the Legacy of Mackinder', *Geopolitics*, 18(4): 917-932.

Kolbert, Elizabeth (2014) *The Sixth Extinction: An Unnatural History*. New York: Henry Holt.

Macdonald, F., Hughes, R. & Dodds, K. eds (2010) *Observant States: Geopolitics and Visual Culture* London: I.B. Tauris.

Mayer, Jane (2016) *Dark Money: The Hidden History of the Billionaires Behind the Rise of the Radical Right* New York: Doubleday.

Mead, Walter Russell (2014) 'The Return of Geopolitics: The Revenge of the Revisionist Powers' *Foreign Affairs* 93(3) May/June 69-79.

Minca, Claudio and Rowan, Rory (2016) *On Schmitt and Space* London: Routledge.

Mountz, Alison (2010) *Seeking Asylum: Human Smuggling and Bureaucracy at the Border* Minneapolis: University of Minnesota Press.

- Oreskes, Naomi and Conway, John (2010) *Merchants of Doubt* New York: Bloomsbury.
- Ó Tuathail, Gearóid (1996) *Critical Geopolitics: The Politics of Writing Global Space* Minneapolis: University of Minnesota Press.
- Panitch, L. and Gindin, S. (2012) *The Making of Global Capitalism: The Political Economy of American Empire* London: Verso.
- Parenti, Christian (2011) *Tropic of Chaos: Climate Change and the New Geography of Violence* New York: Nation Books.
- Purdy, Jedidiah 'The New Nature' *Boston Review* 11 January 2016
<https://bostonreview.net/forum/jedediah-purdy-new-nature>
- Richardson, Paul (2015) 'Blue National Soil' and the unwelcome return of 'classical geopolitics' *Global Change, Peace and Security* 27(2). 229-236.
- Rockström, J. et al. (2009) 'A safe operating space for humanity'. *Nature* 461: 472–475.
- Sack, Robert David (1986) *Human Territoriality: Its Theory and History* Cambridge: Cambridge University Press.
- Schellnhuber, H.J. (1999) 'Earth system analysis and the second Copernican Revolution' *Nature* 402 (Supplement) C19-C23.
- Schmitt, Carl (2006) *The Nomos of the Earth in the International Law of the Jus Publicum Europaeum* (G.L. Ulmen translator) New York: Telos.
- Snyder, Timothy (2015) *Black Earth: The Holocaust as History and Warning* New York: Duggan.
- Steffen, Will et al. (2015) 'Planetary boundaries: Guiding human development on a changing planet'. *Science* 637(6223): 10.1126/science.1259855.
- Szasz, Andrew (2007) *Shopping our Way to Safety: How we Changed from Protecting the Environment to Protecting Ourselves* Minneapolis: University of Minnesota Press.
- Welzer, Harald (2012) *Climate Wars: Why People will be Killed in the Twenty First Century* Cambridge: Polity.
- Wulf, Andrea (2015) *The Invention of Nature: Alexander von Humboldt's New World* New York: Knopf.