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Citation for final published version:

Harrington, John 2018. 'We can't wait for the bugs to spread': Rhetorics of time, space and biosecurity in global health law. *Transnational Legal Theory* 9 (2) , pp. 85-109. 10.1080/20414005.2018.1557395

Publishers page: <https://doi.org/10.1080/20414005.2018.1557395>

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“We Can’t Wait for the Bugs to Spread” Rhetorics of Time, Space and Biosecurity in Global Health Law

John Harrington¹

Abstract

Global health law has emerged as an area of study and practice over the last fifteen years. Studies of the field to date have largely proceeded on the basis of a diffusionist and functionalist model sees legal initiatives emerging from global ‘centres’, such as Washington or Geneva, in response to new disease threats and a lack of capacity at the ‘periphery’, say in Sierra Leone or southern China. This approach tends to neglect national institutions and contexts as decisive influences on the scope and nature of globalised health law and governance. Its universalist orientation also obscures the enduring influences of colonial and imperial forms on the relationship between the global north and other regions of the world. This paper proposes an alternative approach capable of accounting for these neglected dimensions. It argues that global health interventions are structured by a range of spatio-temporal figures (or ‘chronotopes’) which have persuasive force owing to their resonance with wider cultural and political forms. The potential of this approach is explored through a review of the 2010 United States initiative to support biosecurity at health research laboratories in East Africa. Led by (then) Senator Richard Lugar, this initiative responded to the perceived threat that unsecured pathogens could be seized and ‘weaponised’ by international terrorist groups. The Senator and his high-ranking team aimed securing both laboratory improvements and the required bilateral funding from US authorities. Their arguments were crucially shaped by a combination of spatio-temporal figures including the idea of Africa as a natural source of disease, the ‘regression’ of states in the region to failed status, and the ineffectiveness of national borders given the rapid spread of pathogens.

Keywords: biosecurity; chronotopes; global health; East Africa; nodal governance

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“We Can’t Wait for the Bugs to Spread”

Rhetorics of Time, Space and Biosecurity in Global Health Law

Introduction

Global health is overwhelmingly done in and to countries of the global south. But the concrete dynamics and historical context of this process are often neglected by legal scholars in favour of a functionalist and diffusionist model which sees it a largely abstract body of norms emerging from global ‘centres’, such as Washington or Geneva, in response to new disease threats and a lack of capacity at the ‘periphery’, say in Sierra Leone or southern China.² The particularities of the global north and its historic relationship with other regions of the world are obscured behind universalist discourses of science, public health and human rights.³ By contrast a critical approach would seek to make visible what has been obscured. Drawing on work at the intersection of cultural studies, constructivist international relations scholarship and socio-legal studies it would foreground the political and rhetorical contingency of global health law. It would use these analytical resources to connect current interventions in the field with their colonial precursors and the commonsense assumptions that framed and justified them. Without lapsing into mere denunciation it would reflect on the imperial present and well as the imperial past of global health. The present paper seeks to meet this challenge. It argues that a critical and contextual reading of global health law is possible given the strategic and rhetorical nature of interventions in the field. The discussion takes as its focus a moment in the shaping of health law and governance in two African countries, Kenya and Uganda, by a combination of international and foreign, here US, norms.

The paper is structured as follows. In the next section I critique briefly the universalist model of global health law which underpins the leading textbook on the subject. In its place I emphasize the dispersed and strategic nature of norm creation and implementation in global health. I propose a framework for studying this which combines insights regarding the heterogeneous and transnationalized nature of states in the global south, with the theory of nodal governance. I highlight the important role of persuasion within this framework: the imperative of convincing target nodes, such as funders in the global north and health institutions in the global south, of the need for specific governance measures. Successful persuasion is inevitably dependent on the successful use of appropriate cultural forms and the evocation of shared assumptions. In the rest of the paper I seek to specify this model by applying it to the efforts of a high-level US delegation which visited East Africa in late 2010. Its purpose was to gain domestic support for biosecurity improvements at health research laboratories in the region in order to stop unsecured pathogens being seized and ‘weaponised’ by international terrorist groups.

I argue that the visit was a ‘telling instance’ in the terms used by Peter Fitzpatrick: a situation ‘embedding a reiterative concern of the modern period’ marked by irresolution

² This problematic is well captured in Tarak Barkawi and Mark Laffe, ‘The Postcolonial Moment in Security Studies’ (2006) 32 *Review of International Studies* 329–352.

³ Sara Hodges, ‘The Global Menace’ (2011) 25(3) *Social History of Medicine* 719-728, 721.

and demanding resolution.⁴ The chief concern regarded the potential for bioterrorists to overcome spatial distance and to collapse temporal difference between African territories and the states of the global north. Spatio-temporal irresolution, associated in the popular mind with globalization seeks a resolution through improved security and capacity building, not just in the global north, but at key sites in Africa. While there have been no such attacks in the period since the visit, the threat of bioterrorism remains a matter of considerable concern to arms control experts and anti-terrorist police in the US and Europe.⁵ The World Health Organization renewed its Global Biosecurity Agenda in 2014, likewise the G8 Global Partnership against the was extended Spread of Weapons of Mass Destruction Taking the rhetorical nature of the delegation's efforts seriously, allows us to understand the recent past, but also the present of global biosecurity efforts. , visiting delegation by grasping the variety of time-space figures, or 'chronotopes', resonant with US audiences which it used to dramatize the danger to American national security from under-funded and disorganized laboratories in Africa.

Global Health and Nodal Governance

Global health law has developed as a field of study and practice over the last fifteen years. Its coming of age was marked by publication of the first textbook on the subject in 2014 written by Lawrence Gostin. He casts the significance of global health law in expansive moral and functional terms. It is underpinned, he argues, by a generous conception of global social justice which seeks a fair measure of health protection for each human being, including the reduction of in socio-economic disparities within and among countries.⁶ The juridical nature of global health law is rather more restricted in Gostin's account. He sees it, in essence, as a branch of public international law.⁷ This limits its subjects to sovereign states and its sources to treaties and official soft law measures either directly focussed on health or having a substantial impact on it. He is clear that this is limited range is unsatisfactory from an instrumental point of view. More effective governance will need to incorporate non-state actors and non-official standards and norms to its repertoire in addressing pressing health challenges.⁸

Even with this admission Gostin's analysis remains constrained however. In particular it pays relatively less attention to the crucial role played by national law in both the global south and north in realising health governance. This is a significant omission for three reasons. First, the normative output of international human rights and health agencies normally needs to be translated into constitutional provisions or domestic legislation to take effect in states. This contribution is not merely instrumental. National

⁴ Peter Fitzpatrick, *Modernism and the Grounds of Law* (Cambridge, Cambridge University Press 2001) 4.

⁵ For recent incident linked to the DAESH terror group, see 'Police Carry out More Raids in Cologne Germany after Biological Weapon Arrest', *Homeland Security News Wire*, 15th June 2018. The fatal use of the chemical weapon 'Novichok' in a British town in 2018 raises similar concerns.

⁶ Lawrence O. Gostin, *Global Health Law* (Cambridge [Ma], Harvard University Press, 2014) 13ff.

⁷ Lawrence O. Gostin, *Global Health Law* (Cambridge [Ma], Harvard University Press, 2014) 59.

⁸ Lawrence O. Gostin, *Global Health Law* (Cambridge [Ma], Harvard University Press, 2014) 64.

law-making processes may be sites of adaptation and resistance depending on the relative strength of, say, local and foreign lobbyists and the legal and political conjuncture within a given country. Second, we are not only concerned with the nations of the global south in tracing the dimensions of global health governance. The legislative output, diplomatic initiatives and financial support of foreign donor states, whether through direct, bilateral or multilateral engagement, exercises a crucial influence on health-related norms and institutions elsewhere. Third, it is important to note the process of foreshortening involved when we speak of ‘nation states’, since the latter are inevitably aggregates of diverse ministries and agencies. This heterogeneity is especially evident in countries of the global south as a result of their dependence on external resources since the period of structural adjustment programmes and their successors.⁹ According to Boaventura de Sousa Santos these processes have meant that national bodies may be differentially ‘transnationalised’ with some being more closely tied to corresponding international and foreign institutions in terms of ‘political cultures and regulatory logics’ than to other parts of the domestic state.¹⁰

The complex tangle of the international, the foreign and the national in global health law suggested by the foregoing discussion can be usefully mapped using the theory of nodal governance developed by Drahos, Burris and Shearing.¹¹ On their reading, official institutions, as well as non-state actors, are ‘nodes’ which pursue governance outcomes by ‘enrolling’ other nodes and leveraging their powers to that end. The capacity of a given node to enrol others depends on: 1) its institutional structure; 2) the material resources available to it; 3) the technologies which it can use to exert influence, such as publicity, but also its formal legal powers and rights; and 4) its characteristic ‘mentality’, ie. how it understands problems and communicates the importance of solving them.¹²

This model is useful to the project of developing a critical and contextual perspective on global health law in two ways. First, it captures the heterogeneous and dispersed nature of norm-creating and implementing powers in systems such as global health. Its ‘flat’ topology of nodes enrolling each other improves upon state-centric top-down designs by accounting for the contribution of non-state bodies, acknowledged by Gostin, and their capacity to ‘govern’ state nodes.¹³ It also moves beyond the centre-periphery model, discussed above, by reckoning in principle with diverse national institutions, both north and south, as authentic sources of global health governance. Moreover, it can help to account for the differential transnationalisation of the state by allowing us to track the direct connections between, for example, Kenyan research institutes and US public health agencies. Second, the emphasis placed by Drahos, Burris and Shearing on publicity, communication and the framing of problems, suggests that

⁹ Kanishka Jayasuriya, ‘Globalization, Law and the Transformation of Sovereignty: The Emergence of Global Regulatory Governance’ (1999) 6 *Indiana Journal of Global Legal Studies* 425.

¹⁰ Boaventura de Sousa Santos, ‘The Heterogenous State and Legal Pluralism in Mozambique’ (2006) 40 *Law and Society Review* 39.

¹¹ Peter Drahos, Clifford D. Shearing and Scott Burris, ‘Nodal Governance’ (2005) 30 *Australian Journal of Legal Philosophy* 30.

¹² Peter Drahos, Clifford D. Shearing and Scott Burris, ‘Nodal Governance’ (2005) 30 *Australian Journal of Legal Philosophy* 30, 37-9.

¹³ See Colin Scott, ‘Private Regulation of the Public Sector: A Neglected Facet of Contemporary Governance’ (2002) 29 *Journal of Law and Society*, 56 -76.

global health governance has an important discursive or rhetorical dimension.¹⁴ Nodes neither govern and nor are they enrolled solely by mechanical means, such as physical force or bribery, but also through plausible argument about law, science, policy and so on. What is plausible depends on the ‘regulatory logics’ of the particular nodes, but also on the on wider cultural assumptions, contemporary political contexts and historical trajectories of localised governance nodes.¹⁵

The discursive effort of enrolment is realized through rhetorical forms and figures, of time and space for example, whose resonance with the mentalities of specific audiences goes to determine their effectiveness. Interventions in the related fields of pathogen security and infectious disease control, which are the concrete focus of this paper, are no exception. As will be seen, nationally inflected conceptions of security and vulnerability, of development and regression, provide an important orientation for enrolment strategies directed at key nodes in both the global north and the global south. These conceptions and the mode of their articulation are no recent invention. Rather they draw on a long established cultural repertoire for representing the people, the states and the very terrain of Africa as a threat to Europe and its settler colonies.

Arms Control, Biological Weapons and Health

Global health law in countries of the global south is shaped, as I have noted, not only by international legal regimes, but also by the output of foreign legislatures, courts and executive bodies. European and North American institutions exert a crucial influence directly through funding and advising national ministries and other institutions, but also indirectly through their ability to leverage the normative output of multilateral bodies, such as the WHO.¹⁶ This specific mode of governance was evidenced by the visit to East Africa in late 2010 of a delegation led by Senator Richard Lugar under the auspices of the US Department of Defense Co-operative Threat Reduction Programme.¹⁷ Established in 1991 the CTRP originally worked with states in the territories of the former Soviet Union to secure and dismantle weapon stockpiles inherited from the Cold War period.¹⁸ Its extension to East Africa was motivated, as one of the delegation put it, by an urgent

¹⁴ See also John Harrington, *Towards a Rhetoric of Medical Law* (Routledge, London 2017).

¹⁵ John Harrington and Alasdair O’Hare, ‘Framing the National Interest. Debating Intellectual Property and Access to Medicines in Kenya’ (2014) 17 *Journal of World Intellectual Property* 16-33.

¹⁶ For a study of how strong intellectual property rights were globalized in this way, notwithstanding concerns about their effect on access to essential medicines, see Peter Drahos and John Braithwaite, *Who Owns the Knowledge Economy? Political Organizing Behind TRIPS* (Sturminster Newton, Corner House, 2004).

¹⁷ The programme is commonly named ‘Nunn-Lugar’ after its co-founders, Senator Lugar and Senator Sam Nunn.

¹⁸ John Felton, *The Nunn-Lugar Vision* (Washington DC, Nuclear Threat Initiative 2002).

concern with the likely nexus in that region between non-state terror groups, ‘ungoverned spaces, and human and animal health laboratories working on endemic diseases, some of which are rare and exotic’.¹⁹ Accompanied by senior officials from the Department of Defense,²⁰ the delegation visited the Kenya Medical Research Institute (KEMRI) headquarters in Nairobi and the Uganda Virus Research Institute (UVRI) in Entebbe inspecting facilities, paying particular attention to laboratory security and storage, and discussing resource needs with senior staff. The immediate objective of the trip was to move Congress to fund improvements at these laboratories in accordance with international standards and, thus, contribute to reducing the threat of biological weapons proliferation.²¹ In later sections I will examine the rhetorical dimensions of Senator Lugar’s intervention. Before that however, I wish to set out the background to the visit across three dimensions: 1) the changing multilateral arms control environment as regards biological weapons; 2) bilateral initiatives of the United States to promote biosecurity measures at key Kenyan health nodes; and 3) Lugar’s efforts to enrol US state nodes capable of funding these measures.

The Multilateral Environment

Senator Lugar’s visit manifested a broader shift in the US approach to biological weapons after the end of the Cold War. This followed on the perceived failure of government-focussed multilateral measures to address the threat of proliferation.²² Concerns had increased with the exposure of the Soviet Union’s secret biological weapons programme in 1991, the use of such weapons by Iraq against its Kurdish population in 1988 and isolated incidents where non-state actors attempted to use biological and chemical weapons, most notably the 1995 sarin gas attack by the Japanese cult Aum Shinrikyo.²³ The anthrax attacks on US government facilities, which followed shortly on the atrocities of September 11th 2001, gave these efforts further urgency. A ‘biodefense boom’ in spending on research and development was accompanied by new legislation to intensify regulation of the holding, use and transfer of dangerous pathogens, including laboratory safety and security standards backed up by criminal sanctions.²⁴ Most of these measures were domestically focussed, however, with relatively less attention being paid to

¹⁹ Andrew C Weber, quoted in Mike Pflanz, ‘Why Senator Lugar is Worried about Bioterrorism in East Africa’, *Christian Science Monitor*, 12 November 2010.

²⁰ Notably Andrew C Weber, Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs, Ken Handelmann, Acting Assistant Secretary of Defense, and Ken Myers II Director of the Defense Threat Reduction Agency.

²¹ It is important to distinguish in this context between ‘biosecurity’, which concerns the unauthorized or malicious misappropriation of dangerous biological agents from laboratories, and ‘biosafety’, which relates to the safety of laboratory workers themselves, see Christian Enemark, *Biosecurity Dilemmas. Dreaded Diseases, Ethical Responses, and the Health of Nations* (Washington DC, Georgetown University Press 2017) 51.

²² Alexander Kelle, ‘Securitization of International Public Health: Implications for Global Health Governance and the Biological Weapons Prohibition Regime’ (2007) 13 *Global Governance* 217-235.

²³ Christian Enemark, *Disease and Security. Natural Plagues and Biological Weapons in East Asia* (London, Routledge 2007) 107-110.

²⁴ Christian Enemark, *Biosecurity Dilemmas. Dreaded Diseases, Ethical Responses, and the Health of Nations* (Washington DC, Georgetown University Press 2017) 27; Public Health Security and Bioterrorism Preparedness Act 2002.

prevention abroad.²⁵

At the international level the US had previously looked to the Biological and Toxin Weapons Convention (1972) (BWC) which prohibits states parties from developing or using such weapons and from assisting other states to obtain or manufacture the necessary toxins or agents to do so (Article 3). However, the Convention suffers from two key deficiencies in the eyes of US policy makers.²⁶ First it focusses primarily on the actions of states rather than those of non-state actors. Second it lacks a legally binding mechanism to ensure compliance. The US pulled out of extended negotiations to create a binding inspections regime for the BWC in 2001, President George W Bush fearing that it would fail to catch non-state 'bioweaponeers', while being unable to keep up with scientific developments.²⁷ By 2007 Fidler and Gostin were able to argue that 'continued reliance on the BWC ... as a strategy for governing the problem of bioweapons is dead'.²⁸

Alongside the BWC, UN Security Council Resolution 1540 of 2004 (UNSCR 1540) obligates all UN member states inter alia to establish domestic controls for preventing the proliferation of nuclear, chemical or biological weapons, including criminalisation and enforcement provisions, and to report these to a dedicated UN committee. However, it too lacks an enforcement mechanism and in the period before Lugar's visit to East Africa US arms control experts had expressed concern about incomplete implementation of UNSR 1540 and inadequate reporting to its monitoring committee by states in the region.²⁹

The US had also pursued its non-proliferation objectives through the WHO, seeking to influence the terms of its International Health Regulations (IHR), under revision from 1995 to 2005. The old Regulations only required states to notify the WHO of infectious outbreaks in the case of six listed diseases.³⁰ In order to deal more effectively with novel threats, the list was replaced by a decision-matrix centred on the more open-

²⁵ A total of US\$40 billion was spent across federal departments and agencies on all measures addressed to the threat of biological weapons, such as research and development, between 2001-8. But in 2008 only 2% was dedicated to prevention at home or abroad: Barry Kellman, *Biological Terrorism: US Policies to Reduce Global Biothreats* (Washington DC, Partnership for a Secure America 2008) 23.

²⁶ David P. Fidler and Lawrence O. Gostin, *Biosecurity in the Global Age Biological Weapons, Public Health, and the Rule of Law* (Stanford [Ca], Stanford UP 2007) 49-53.

²⁷ Judi Sture, Simon Whitby and Dana Perkins, 'Biosafety, Biosecurity and Internationally Mandated Regulatory Regimes: Compliance Mechanisms for Education and Global Health Security' (2013) 29(4) *Medicine, Conflict and Survival* 289-232; Colin McInnes and Kelley Lee, 'Health, Security and Foreign Policy' (2006) 32 *Review of International Studies* 5-23.

²⁸ David P. Fidler and Lawrence O. Gostin, *Biosecurity in the Global Age Biological Weapons, Public Health, and the Rule of Law* (Stanford [Ca], Stanford UP 2007) 59.

²⁹ Brian Finlay, Johan Bergenas, and Veronica Tessler, *Beyond Boundaries in Eastern Africa: Bridging the Security/ Development Divide With International Security Assistance* (Washington DC, The Stimson Center and the Stanley Foundation 2011) 26, 30 = <http://www.stanleyfoundation.org/publications/report/EArpt311.pdf>

³⁰ See Lorna Weir and Eric Mykhalovskiy, *Global Public Health Vigilance. Creating a World on Alert* (London, Routledge 2010) 108ff.

ended concept of ‘public health emergencies of international concern’.³¹ The US argued that deliberately caused epidemics, including those caused by bioweapons, should be expressly included for notification within this matrix, allowing the WHO to gather information relevant to security as well as health. However, these attempts failed due to the resistance of countries in the global south, led by Pakistan and Iran.³²

US approaches to biological weapons proliferation from the 1990s were thus marked by a widening of the range of actors targeted and the modes of governance deployed. This shift was accompanied by an extension of thematic focus from traditional arms control to other sectors, particularly public health and the health sciences. International relations scholars and scientific experts argued that, given the nature of pathogens and how they spread, bioterrorist incidents would be more like natural disease outbreaks than conventional or nuclear attacks.³³ Planning and response measures could thus be assimilated to (improved) infectious disease control strategies. Equally the infrastructure of medical research was itself a crucial site for non-proliferation efforts, given the potential for loss or theft of pathogens themselves and for bona fide research findings to be used for malign purposes.³⁴ This thematic widening was supported by a convincing case that the norms established in the BWC, UNSCR 1540 and the IHR all extend to scientific research.³⁵ Review Conferences of the BWC have affirmed the importance of national legal measures in this regard and the WHO has promulgated non-binding guidance on laboratory biosecurity.³⁶ However, to reiterate, the shortcomings of these largely state-focussed, multilateral regimes as regards enforcement meant that US ambitions for global biosecurity could only be realized by a more direct, bilateral enrolment of scientific institutions in other countries.

³¹ For a discussion of the Regulations as adopted, see David P Fidler and Lawrence O Gostin, ‘The New International Health Regulations: An Historic Development for International Law and Public Health’, 34(1) *Journal of Law, Medicine and Ethics* 85–94 (2006).

³² Alexander Kelle, ‘Securitization of International Public Health: Implications for Global Health Governance and the Biological Weapons Prohibition Regime’ (2007) 13 *Global Governance* 217-235, 227.

³³ See the discussion by the author himself, and the quotation from David Heyman of the WHO, in Christian Enemark, *Disease and Security. Natural Plagues and Biological Weapons in East Asia* (London, Routledge 2007) 73.

³⁴ David P. Fidler and Lawrence O. Gostin, *Biosecurity in the Global Age Biological Weapons, Public Health, and the Rule of Law* (Stanford [Ca], Stanford UP 200) 67-87.

³⁵ Judi Sture, Simon Whitby and Dana Perkins, ‘Biosafety, Biosecurity and Internationally Mandated Regulatory Regimes: Compliance Mechanisms for Education and Global Health Security’ (2013) 29(4) *Medicine, Conflict and Survival* 289-232.

³⁶ Seventh Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction GE.12-60060 Geneva, 5–22 December 2011 BWC /CONF.VII/7 p.11; WHO, *Risk Management: Laboratory Biosecurity Guidance* (October 2006) WHO/CDS/EPR/2006.6.

The US engagement with individual states and their scientists was not intended to replace multilateral biological weapons control systems. Rather it sought to leverage them by deploying its preponderant material resources and scientific capacity to shape the infrastructure and normative environment of medical research facilities in the global south. A good example of this ‘full spectrum science and technology collaboration’ is provided by the proposed Global Pathogen Surveillance Act, drafted in consultation with the US Department of Defense and the WHO.³⁷ It was introduced by Senator Lugar in 2002 and passed by the Senate in 2005. The Act would have earmarked funds of over \$150 million to support technical assistance to laboratories in the global south and created a programme for relevant staff to train in the United States or locally under the direction of US Centres for Disease Control and Department of Defense units. In return it laid down pre-requisites for the receipt of aid, most importantly duties to participate in US disease surveillance networks, to implement the IHRs and to comply with obligations under the BWC.

Even though the Global Pathogen Surveillance Act ultimately failed to pass the House of Representatives, its purposes were the same as those of the Co-operative Threat Reduction Programme and of Senator Lugar and his team during their visit to East Africa in 2010. As we will see in later sections, its proponents drew on the same stock of spatio-temporal figures regarding the threat posed by Africa, its people and its laboratories to global and especially American biosecurity. In any case the Act, to a significant degree, would have formalised already existing collaboration in matters of health security and medical research with countries in the global south. In Kenya, for example, KEMRI has long depended on substantial foreign support and co-operation, including that of US public health and defence institutions.³⁸ It works closely and shares facilities with the Centers for Disease Control and the US Army Medical Research Unit.³⁹ These links form part of a much broader US involvement in and financial contribution to Kenya’s public health system.⁴⁰ They are nested furthermore within a close strategic military relationship between the two countries dating back to the Cold War period.⁴¹ In addition scarcity of

³⁷ See Barry Kellman, *Biological Terrorism: US Policies to Reduce Global Biothreats* (Washington DC, Partnership for a Secure America 2008) 11

³⁸ Cheryl Pellerin, ‘New Defense Department Command Targets Health Issues’, *AFNWS*, 21st October 2008.

³⁹ Statement of Dr. David Tornberg, MD, MPH Deputy Assistant Secretary of Defense (Health Affairs) to House Subcommittee on National Security, Emerging Threats, and International Relations, Hearing on Homeland Security: Improving Public Health Surveillance, 5th May 2003; ‘US Army Medical Unit in Kenya Stands Ready’, *States News Service*, 22nd June 2009.

⁴⁰ For example, in 2016 the US the President’s Emergency Fund for AIDS Relief (PEPFAR), supplied 64% of Kenya’s total expenditure in response to the HIV/ AIDS epidemic, with only 21% coming from the national government: Health Policy Project, *Health Financing Profile. Kenya. May* (Washington DC, USAID 2016).

⁴¹ Kenya remains one of the largest recipients of US military and law enforcement assistance in Sub-Saharan Africa, see Lauren Ploch, *Countering Terrorism in East Africa: The U.S. Response* (Washington DC, Congressional Research Service 2010) 50-51.

local resources for health means that the promise of material support is a highly effective means for US nodes, such as the CTRP, to mobilise Kenyan counterparts. During Lugar's visit KEMRI director, Dr Solomon Mpoke noted, for example, that the incineration and storage facilities in Nairobi had been built 42 years previously 'without consideration for biosafety' and as a result were now 'overwhelmed'.⁴²

Beyond meeting material needs, successful enrolment also depends, as I suggested in section 2 above, on appealing to and developing shared problem-solving 'mentalities' at the target node. In response to the perceived failure of multilateral approaches to bioweapons control, discussed above, initiatives like the Global Pathogen Surveillance Act and Co-operative Threat Reduction Programme sought to enrol individual scientists and laboratory directors to the cause of biosecurity by promoting detailed technical standards and ethical codes of conduct.⁴³ For example, a workshop on these questions held in Nairobi some months before Senator Lugar's visit brought together US government and military officials and the staff of international organisations with representatives of 19 African countries.⁴⁴ The latter provided updates on their countries' implementation of UNSCR 1540 and in return received one-on-one consultations regarding issues from legal regulation to the equipment and routines necessary to secure laboratory environments. US officials explicitly highlighted that effective and efficient laboratory practices were obligated by the Resolution, but they also strove to promote a 'culture of increased accountability and compliance'.⁴⁵

Enrolling US Nodes

While laboratories at KEMRI and elsewhere in East Africa were the ultimate object of Senator Lugar's concern, the primary audiences for his report and conclusions were American. In particular, Congress would have to vote in favour of allocating specific funds for strengthening laboratory security in East Africa within the budget for the Cooperative Threat Reduction Programme. This was no automatic process. The case for significant investment had to be made notwithstanding the fact that, at the time of the visit, only 5 people worldwide had been killed with biological agents taken from a

⁴² Mike Pflanz, 'Why Senator Lugar is Worried about Bioterrorism in East Africa', *Christian Science Monitor*, 12 November 2010. A subsequent review of capacity to implement the IHRs which scored Kenya at only 65% on indicators such as the implementation of biosafety and biosecurity practices: World Health Organization, *Implementation of the International Health Regulations (2005) Report by the Director-General*, Executive Board EB132/15, 132nd Session, 21st December 2012.

⁴³ Ronnie Faircloth, 'Nunn-Lugar Global Cooperation' (2009) 2(4) *DTRA Basic and Applied Research Program Newsletter* 1.

⁴⁴ Diana Berardocco, 'New Approaches to Global Security. Engagement Aims to Reduce Threats', *US Africa Command Blog*, 8th April 2010 = <https://africom.wordpress.com/tag/nunn-lugar-global-cooperation-nlgc/>

⁴⁵ Diana Berardocco, 'New Approaches to Global Security. Engagement Aims to Reduce Threats', *US Africa Command Blog*, 8th April 2010 (emphasis added) = <https://africom.wordpress.com/tag/nunn-lugar-global-cooperation-nlgc/>

laboratory, whereas millions of lives had been lost in the HIV/AIDS pandemic.⁴⁶ Academic commentators, like McInnes and Lee, argued that the growing focus on bioterrorism represented the triumph of selfish, northern-centric perspectives in global health.⁴⁷ Even within the specific context of arms control, experts pointed out that laboratory biosecurity only offered limited protection against weaponisation, since most of the pathogens were available in nature anyway.⁴⁸ Resources might be more effectively dedicated, it was argued, to systems for disease surveillance, treatment and response extending well beyond the laboratory.⁴⁹ Where terrorists did obtain pathogens from unsecured laboratories, they would normally lack the scientific know-how to weaponise this material and would expose themselves to considerable risk in trying to do so.⁵⁰

‘Using their Imagination’: Cultural Dimensions of Enrolment

Since there was ‘no actionable intelligence’, much less a clear example of bioterrorist action, Lugar was required on his own admission to help US audiences ‘to use their imagination’ in order to justify the provision of material support for East African laboratories.⁵¹ In studying this rhetorical effort we reconnect with insights from nodal governance theory concerning the cultural and situated nature of enrolment, discussed above. Warrant for a culturally-informed approach in the specific context of biosecurity is provided by work in security studies and international relations. By ‘scaremongering abroad for the sake of political gain at home’, as one critic put it,⁵² Lugar was seeking to ‘securitize’ laboratory facilities procedures in East Africa. Such ‘securitization’, according to Buzan, Wæver and de Wilde, is achieved through a ‘speech act’ designating

⁴⁶ Thus, Milton Leitenberg, senior research scholar at the Center for International and Security Studies at the University of Maryland, quoted in Jason Strazusio, ‘US Team on Africa Bioterror Prevention Tour to Study Ways to Stop Future Attacks’, *Associated Press*, 12th November 2010.

⁴⁷ Colin McInnes and Kelley Lee, ‘Health, Security and Foreign Policy’ (2006) 32 *Review of International Studies* 5–23, 15.

⁴⁸ In this respect it was argued that a false analogy had been drawn with nuclear weapons, where the relevant material does not exist outside the laboratory: Marc L Ostfield, ‘Pathogen Security: the Illusion of Security in Foreign Policy and Biodefence’ (2009) 12 *International Journal of Risk Assessment and Management* 204–221, 209.

⁴⁹ Gregory Koblenz, ‘Biosecurity Reconsidered: Calibrating Biological Threats and Responses’, (2010) 34(4) *International Security* 96–132.

⁵⁰ See the comments of Noel Stott, South African Institute for Strategic Studies, quoted in Jason Strazusio, ‘US Team on Africa Bioterror Prevention Tour to Study Ways to Stop Future Attacks’, *Associated Press*, 12th November 2010.

⁵¹ Emeka Gekara-Mayaka, ‘US wants Top Security for Kenya’s Germ Labs’ *Daily Nation* 12th November 2010; Mike Pflanz, ‘Why Senator Lugar is Worried about Bioterrorism in East Africa’, *Christian Science Monitor*, 12th November 2010.

⁵² Anonymous quoted in ‘A Bug's Life: How Safe are Health Laboratories in Developing Countries?’ *The Economist*, 6th January 2011.

an existential threat to the state which entails certain emergency measures.⁵³ While this model properly emphasizes the performative nature of securitization, it has been criticized for limiting itself to the abstract and rule-bound form of speech acts.⁵⁴ Rather, as Balzacq has argued, such interventions are locally situated and open-textured discursively.⁵⁵ Instead of simply doing securitization by speaking, they seek to persuade concrete audiences at a given historical moment of the nature of the threat and the necessity for urgent action.⁵⁶ In our case Senator Lugar does more than incant an established form of words in the manner of a religious rite or a standard form contract. Rather, in the manner identified by Jutta Weldes, he conjures up the US national interest in global health and dramatizes the threat posed to it by putative bioterrorists, drawing on a dense array of historically informed, ‘cultural, linguistic and institutional resources’.⁵⁷ In doing so he creates and confirms the identity of his domestic readership and of the American state itself.⁵⁸ A critical reading of global health requires us to identify the ‘cultural raw materials’ out of which such cases are made, paying careful attention to rhetorical forms and figures used, and widening our critical repertoire beyond speech and text, to include images, symbols and tangible forms.⁵⁹

The range of relevant rhetorical figures which could be considered in such a critical study is great. But, for purposes of this discussion, I wish to focus on images of time and space, particularly in combination. Brief reflection suggests that key problems in global biosecurity and in global health are commonly articulated in these terms: the ‘re-emergence’ of certain infectious diseases in Africa, the spread of contagion from global south to north, the increased risk of such spread posed by accelerating trade and international travel, the demand for real-time notification of disease outbreaks and so on. Critical scholars have examined the spatial and temporal aspects of these discursive

⁵³ Barry Buzan, Ole Wæver and Jaap de Wilde, *Security: A New Framework for Analysis* (Boulder [CO], Lynne Rienne 1998).

⁵⁴ Michael C. Williams, ‘Words, Images, Enemies: Securitization and International Politics’ (2003) 47(4) *International Studies Quarterly* 511-553, 526.

⁵⁵ Thierry Balzacq, ‘The Three Faces of Securitization: Political Agency, Audience and Context’ (2005) 11(2) *European Journal of International Relations* 171-201.

⁵⁶ That is, they have ‘perlocutionary’ as much ‘illocutionary’ effects. This distinction and the notion of speech acts more generally is taken from John L. Austin, *How to do Things with Words* (Oxford, Oxford University Press 1962).

⁵⁷ Jutta Weldes, *Constructing National Interests. The United States and the Cuban Missile Crisis* (Minneapolis [Mn], Minnesota University Press 1999) 12.

⁵⁸ David Campbell, *Writing Security. United States Foreign Policy and the Politics of Identity* (Minneapolis [Mn], University of Minnesota Press 1992) 13; Scott Watson, ‘Back Home, Safe and Sound: The Public and Private Production of Insecurity’ (2011) 5 *International Political Sociology* 160–177, 161.

⁵⁹ Jutta Weldes, *Constructing National Interests. The United States and the Cuban Missile Crisis* (Minneapolis [Mn], Minnesota University Press 1999) 13, 110; Michael C. Williams, ‘Words, Images, Enemies: Securitization and International Politics’ (2003) 47(4) *International Studies Quarterly* 511-553, 524.

phenomena separately.⁶⁰ Less attention has been paid to their interrelated nature.⁶¹ The rhetorical potential of such ‘chronotopes’, and the need for critical scholars to attend to them, was first suggested by the Russian critic Mikhail Bakhtin.⁶² Chronotopes, such as the ‘threshold’ and the ‘passage’, are pervasive in literature and popular culture. They attest to the fact that time is inevitably represented in space (eg. the crossing of the physical threshold as the passage from one phase of life to another) and space is produced through time (eg. the transportation of slaves across the ocean to America).⁶³ Each contributes to the aesthetic appeal and moral force of texts, helping to identify them with specific genres (eg. nostalgic ‘storyscapes’ of childhood in modern African fiction).⁶⁴ Social practices too can also be grasped as chronotopes whose moral significance is articulated through their aesthetic form. The queue outside a polling station moving slowly in space and time, for example, may be understood alternatively as an emblem of democratic transformation or chronic maladministration.⁶⁵ As this example suggests, chronotopes are not simply products of imagination. They emerge from an iterative reaction of cultural ideals on physical forms and vice versa.⁶⁶

Chronotopes are pervasive in law too, as Mariana Valverde has recently shown.⁶⁷ Legal doctrine creates its own spatio-temporal figures, for example, the standard lease over defined property for a fixed term.⁶⁸ Equally developments in law are shaped by social chronotopes, such as the ‘family home’ passing down the generations. As in literature, the value of legal and social chronotopes comes from their formal and substantive appeal to readers and audiences. The ‘family home’ is a neat, bounded and graspable figure, well anchored in the wider culture. A judicial decision in its defence will be plausible to that extent. Chronotopes, thus, contribute to the persuasiveness of

⁶⁰ Leading examples include: Nicholas B. King, ‘Security, Disease, Commerce: Ideologies of Postcolonial Global Health’ (2002) 32(5/6) *Social Studies of Science* 763-778; and Melinda Cooper, ‘Pre-empting Emergence. The Biological Turn in the War on Terror’ (2006) 23(4) *Theory, Culture and Society* 113–135.

⁶¹ For an insightful exception, see David Reubi, ‘Temporal and Spatial Imaginaries of Global Health. Tobacco, Non-Communicable Diseases and Modernity’, in Clare Herrick and David Reubi (eds), *Global Health and Geographical Imaginaries* (London, Routledge 2017) 22-35.

⁶² Mikhail Bakhtin, *The Dialogic Imagination: Four Essays* (Austin [Tx]: University of Texas Press 1996) 84.

⁶³ Esther Peeren, ‘Through the Lens of the Chronotope: Suggestions for a Spatio-Temporal Perspective on Diaspora’ (2006) 13 *Thamyris/ Intersecting* 67-78, 69. Paul Gilroy, *The Black Atlantic: Modernity and Double-Consciousness* (Cambridge [Ma], Harvard University Press 1993) 4.

⁶⁴ Christopher EW Ouma, ‘“Countries of the Mind” – Space-Time Chronotopes in Adichie’s Purple Hibiscus’, in Ogaga Ougade (ed) *Tradition and Change in Contemporary West and East African Fiction: Matatu 45* (Amsterdam, New York, Rodopi 2014) 167-185.

⁶⁵ Joe Moran, ‘Queueing Up in Postwar Britain’ (2005) 16 *Twentieth Century British History* 283.

⁶⁶ State borders, identified on maps and achieved through fences ‘on the ground’ are one example: Ian Klinke, ‘Chronopolitics a Conceptual Matrix’ (2012) 37 *Progress in Human Geography* 673-690, 674.

⁶⁷ Mariana Valverde, *Chronotopes of Law: Jurisdiction, Scale and Governance* (Routledge, London 2015).

⁶⁸ The examples in this paragraph are taken from Mariana Valverde, *Chronotopes of Law: Jurisdiction, Scale and Governance* (Routledge, London 2015) 169ff.

arguments in and about law, not only in domestic legal systems, but also in the case of global law, including global health law. In particular, the model of nodal governance outlined above suggests that culturally specific spatio-temporal figures are a significant feature of rhetorical enrolment strategies in international, as well as national fora. They provide ‘an ideological index’ helping to locate texts and other interventions with reference to historical influences and contemporary asymmetries of power.⁶⁹ In this respect, however, it is important to note, along with Bakhtin, that chronotopes are plural.⁷⁰ They are articulated (in both senses of the word) contingently in any given speech with greater or less persuasive effects. They cannot be reduced one to the other. There is no master chronotope for an era or a mode of governance which somehow expresses a pre-determined economic or political base.

The following and penultimate section of this paper develops a chronotopical analysis of Senator Lugar’s 2010 visit to East Africa, as a notable moment in the realization of global health governance through bilateral north-south engagement. This is pursued by way of a close reading of the official report, along with contemporaneous newspaper articles. The substantive and explanatory text for the Global Pathogen Surveillance Act, proposed, but not passed by the US Congress, is also considered. This analysis picks out a number of resonant spatio-temporal figures which shaped the case made by Lugar and his high-level team for the material support of laboratories like those visited in Uganda and Kenya. While the separate dimensions of each – ie. time and space - are specified, it will be seen that much of their rhetorical power derives from their mutually reinforcing nature. The distinctiveness of each chronotope will be taken seriously in other words. In each case I probe the resonances of the given figure, pointing to parallels and overlooked contexts in the post-war US history and in European representations of African contagion and lawlessness. In this respect I move beyond Bakhtin, who identifies specific chronotopes with distinct phases in literature. I argue instead that, in legal and policy debates, chronotopes are both plural and informed by historic spatio-temporal figures. Drawing on Valverde I augment this integrated analysis by attending to the additional, affective dimension of chronotopes. Figures, such as the ‘family home’ or the ‘national territory’, she argues, call forth a distinctive ‘governance moods’ (eg. nostalgia, pride, anxiety) which inform and justify specific jurisdictional strategies.⁷¹ Thus, as Stern has shown, policies of preparedness in anticipation of bioterrorism, the intentional spread of pathogens over time and across space, are suffused with dread.⁷² The evocation of governance moods through the elaboration of specific chronotopes corresponds to the production of feeling, or ‘pathos’, in classical rhetoric. As such it contributes to the persuasiveness of interventions for global health and biosecurity.

⁶⁹ Alexander Ganser, Jutta Pühringer and Markus Rheindorf, ‘Bakhtin’s Chronotope on the Road. Space, Time and Place in Road Movies since the 1970s’ (2006) 4(1) *Facta Universitatis: Linguistics and Literature* 1-17, 2.

⁷⁰ Mikhail Bakhtin, *The Dialogic Imagination: Four Essays* (Austin [Tx]: University of Texas Press 1996) 150.

⁷¹ Mariana Valverde, *Chronotopes of Law: Jurisdiction, Scale and Governance* (Routledge, London 2015) 78.

⁷² Jessica Stern, ‘Dreaded Risks and the Control of Biological Weapons’ (2002-2003) 27(3) *International Security* 89-123.

The Senator Comes to East Africa: Chronotopes of Biosecurity

The Inspection Tour

Lugar's visit itself, proceeding from Kenya, to Uganda and on to Burundi, is presented through the chronotope of the investigatory tour. Moving along the periphery, the inspector observes potential threats and the strength of defences, the ramparts at the edge of empire, as it were. He reports back to authorities at the centre on how things really are and what should be done about them. The opening section of a contemporaneous New York Times piece on the trip, quoted in the official report, participates in this mode of mobile observation. It has a filmic quality which calls Lugar into being as the investigating subject and us, as audience, moving with him:

The laboratories of Uganda's Ministry of Agriculture, Animals, Industry and Fisheries sit on the top of a quiet hill on a turnoff near the airport, behind an eroded fence. At the end of a hallway is a room with an unlocked refrigerator.

That is where the anthrax is kept.⁷³

Images in the report sustain this mode of visibility.⁷⁴ The Senator peers at unidentified bacteria through a microscope in KEMRI Nairobi. He gazes over the fence that surrounds the facility. He stands looking at a pile of decommissioned explosives in Burundi.⁷⁵ Usually he is flanked by unnamed East African scientists and officials. They are formally dressed, in suits or lab coats, while the Senator and fellow team members appear workman-like in casual wear.

Peripatetic observation discharges a governmental function, aiming to keep the edge under control by the centre. The reality of the latter is evoked by the physical presence of the investigator. The atmosphere is one of sober recording. This chronotope also recalls colonial expeditions, aimed at mapping the landscape of the African interior and the disease threats it contained. Latterly it is evident in the circulation of foreign observers through East African countries at election time and also in the visits of officials monitoring national compliance with the prescriptions of the international financial institutions. This involves not merely mechanical control through conditionalities imposed on aid and debt-relief, but also the fostering of governance mentalities in key nodes, such as the finance ministry or central bank, allowing self-discipline consistent

⁷³ Josh Kron, 'Uganda Seen as a Front Line in the Bioterrorism Fight', *New York Times*, 11th November 2010.

⁷⁴ Anon, 'Countering More Threats, Faster', *Nunn-Lugar Global. The Africa Mission*, November 2010, 1-5, passim [copy on file with author]. References in brackets in the text are to pages in this report.

⁷⁵ Senator Lugar also visited Burundi on his trip, but only concerned himself there with conventional arms control.

with global financial orthodoxy.⁷⁶ Lugar's inspection visit to the laboratories of East Africa partakes of this mode.

The Continent and the Petri-Dish

Within the text of Lugar's report itself the first identifiable chronotope evoked is that of Africa as a natural source of infectious diseases. The spatial dimension of this chronotope is defined by the limits of the continent itself, which is repeatedly referred to as such, notwithstanding that the investigation was limited to Kenya and Uganda. The land of Africa itself is the source of the threat: pathogens 'originate on African soil', pandemics 'emanate from there' and 'lethal disease' is naturally prevalent 'in African nations' (5, 1). The temporal mode of this chronotope is the eternal, as evidenced by the use of the present continuous in the text. Temporal and spatial dimensions reinforce each other. The continent is identified with a pre-social, unchanging nature outside of history. Its biological resources are open, available for appropriation and use by outside malefactors as well as benevolent explorers.⁷⁷ During the cold war, Lugar notes that 'the Soviets obtained many samples [there which they] used for biological weapons' (1). The force of the threat is augmented by the specifics of climate. Reporters following the Senator's trip described Uganda as 'warm, wet and on the Equator'; its laboratories located in 'a warm sleepy city'.⁷⁸ Africa was described in microcosmic fashion as 'a natural petri dish for some of the most deadly diseases on the planet' (1).

This chronotope of Africa as an unchanging and self-contained incubator of disease forms part of a wider imaginative geography which David Arnold has labelled 'tropicality'.⁷⁹ For scientists, geographers and explorers, from the colonial period onwards, to call

a part of the globe the tropics [was] a western way of defining something environmentally and culturally distinct from Europe while also perceiving a high degree of common identity between the constituent regions of this tropical world.⁸⁰

The tropical other could be fixed positively as an Edenic zone of exuberant fertility, but it was as likely to be denominated negatively.⁸¹ The temporal dimension here is one of

⁷⁶ See Celine Tan, *Governance through Development. Poverty Reduction Strategies, International Law and the Disciplining of World States* (London, Routledge 2011).

⁷⁷ Abena Dove Osseo-Asare, *Bitter Roots. The Search for Healing Plants in Africa* (Chicago, University of Chicago Press 2014) 109.

⁷⁸ Josh Kron, 'Uganda Seen as a Front Line in the Bioterrorism Fight', *New York Times*, 11th November 2010.

⁷⁹ See generally, David Arnold, *The Problem of Nature. Environment, Culture and European Expansion* (Oxford, Blackwell 1996).

⁸⁰ Felix Driver and Brenda SA Yeoh, 'Constructing the Tropics. An Introduction' (2000) 21(1) *Singapore Journal of Tropical Geography* 1-5, 1.

⁸¹ See the discussion of 20th century French geographer Pierre Gourou in David Arnold, "'Illusory Riches". Representations of the Tropical World 1840-1950' (2000) 21(1) *Singapore Journal of Tropical Geography* 6-18.

timelessness, stasis, Africa outside of history in Hegel's notorious formulation.⁸² Imperial theorists of racial hierarchy, thus, claimed that over-abundance removed the necessity for indigenous peoples to labour, innovate or delineate individual property holdings. This left Africa and equivalent regions stuck in the 'childhood of man', unable to develop the level of order and productivity which, it was claimed, marked the world's temperate zones.⁸³ 19th century pioneers of international public health too argued that the tropics were inevitably pestilential, their climate and geography generating poverty and disease in and of themselves.⁸⁴ Negative tropicality underpinned isolationist and segregationist infectious disease control strategies, both as between African colonies and the European metropolises, and within colonies themselves, as between settlers and the indigenous population.⁸⁵ Though long augmented and partly eclipsed by other governance discourses, particularly developmentalism, the chronotope of the tropics continues to function as a rhetorical resource for global health interventions, for instance during more recent outbreaks of ebola and zika (named respectively after locations in Zaire and Uganda).⁸⁶ If the jurisdictional move licensed by tropicality is one of separation, the related governance mood is one of fatalism about the possibility of ever overcoming the problems posed by the continent's inherent nature.⁸⁷

The Slum and the Failed State

The threat posed by Africa as a whole was crystallized in the report by the fact that the laboratories visited were contiguous to lawless spaces, characterized by an uncontrolled mobility, both locally and regionally. Most proximately, it was noted that 'squatters live in abandoned buildings on the grounds' of one of the Ugandan laboratories with their broken windows and ripped fences (4). KEMRI in Nairobi is bordered by the massive Kibera slum, 'a barely policed square mile of tin-roofed shacks' some built 'literally up against the wall of the lab' where the Al-Shabaab terrorist group 'was known to recruit' (5). It had also been the site of massive civil conflict in the aftermath of Kenya's disputed

⁸² Georg WF Hegel, *Lectures on the Philosophy of History* (New York [NY], Dover 1956). This notion was reiterated by the French President Nicholas Sarkozy in a speech in Dakar 2007, for a summary and criticism, see MAR Habib, *Hegel and Empire. From Postcolonialism to Globalism* (London, Palgrave 2017) 49-64.

⁸³ Felix Driver and Brenda SA Yeoh, 'Constructing the Tropics. An Introduction' (2000) 21(1) *Singapore Journal of Tropical Geography* 1-5, 1.

⁸⁴ Roxanne L. Doty, *Imperial Encounters. The Politics of Representation in North-South Relations* (Minneapolis [Mn], University of Minnesota Press 1996) 66.

⁸⁵ Nicholas B. King, 'Security, Disease, Commerce: Ideologies of Postcolonial Global Health' (2002) 32(5/6) *Social Studies of Science* 763-778, 772.

⁸⁶ See for example a report regarding these later outbreaks, filed from one of the laboratories visited by Senator Lugar in 2010: Josh Kron, 'In a Remote Ugandan Lab, Encounters with the Zika Virus and Mosquitoes Decades Ago', *New York Times*, 6th April 2016. On the part-supersession of tropicality, see Gregory Bankoff, 'Rendering the World Unsafe: "Vulnerability" as Western Discourse' (2001) 25(1) *Disasters* 19-35.

⁸⁷ Guillaume Lachenal, 'Lessons in Medical Nihilism. Virus Hunters, Neo-Liberalism and the AIDS Pandemic in Cameroon', in P. Wenzel Geissler (ed), *Para-States and Medical Science: Making African Global Health* (Durham [NC], Duke University Press 2015) 103-141.

2007 Presidential election, not long before Lugar's visit, 'when roving mobs ruled the streets'.⁸⁸ The laboratory would be 'vulnerable to such upheaval' again in the future, it was claimed, since only 'a four-foot wall topped by barbed wire' stood in the way of the terrorists entering KEMRI and acquiring anthrax, ebola or other potentially deadly agents' (5).

This description was reinforced by a picture of Senator Lugar looking out over a rudimentary barbed wire fence at the expanse of tin roofs in Kibera (3). In form the image evokes those of earlier US politicians at the Berlin Wall, such as that of Robert Kennedy in 1962.⁸⁹ In both cases the travelling statesman stands on friendly territory (the laboratory, West Berlin), looking at a zone of threat beyond the perimeter. The differences between the images, understood in chronotopical terms, are indicative of the shift in how America's strategic interests have been defined since the end of the Cold War. That shift is reflected in the changing focus of bioweapons control efforts, discussed above, from state to non-state sources and from Central Europe to the Global South, in the same period. Thus, there is a clear contrast between the highly-governed space of the former German Democratic Republic, penned in by a wall so secure that it temporally immobilized those within, and the presumptively ungoverned space of the Nairobi slum which permits unchecked mobility.⁹⁰ If the danger in the former case is unitary and somehow predictable, the latter is marked by 'polymorphous threats', only partially apprehended.⁹¹ This distinction is amplified by the stealthy and unobserved nature of any possible bioterrorist attack, which involves a process of diffusion rather than the use of discrete weapons, as would have been the case with the kind of nuclear conflict expected during the Cold War.⁹²

The changed geopolitical configuration was evoked still more directly by the report in its description of the regional context. Just like the KEMRI laboratory, the Kenyan state itself was presented as enclave and frontline due to its 'close proximity' to countries 'which were known terrorist recruiting grounds' (3). A map showed East Africa, the Horn of Africa along with the southwestern corner of the Arabian peninsula. The Senator drew particular attention to the 'long and porous border' which separated Kenya from 'Somalia where Al Qaeda-linked Shebaab insurgents control large territories'.⁹³ A contemporaneous survey for the US Congress on counterterrorism in the region echoed this concern and also highlighted the internal decay of neighbouring states. These had been undermined by 'weak law enforcement and judicial institutions, pervasive

⁸⁸ Jason Straziuso, 'US Team on Africa Bioterror Prevention Tour to Study Ways to Stop Future Attacks', *Associated Press*, 12th November 2010.

⁸⁹ Robert Kennedy, then US Attorney General, pictured with Willy Brandt, then Governing Mayor of West Berlin, 22nd February 1962 = http://travelingboy.com/ed/berlin_wall4.jpg

⁹⁰ See Ian Klinke, 'Chronopolitics a Conceptual Matrix' (2012) 37 *Progress in Human Geography* 673-690, 682.

⁹¹ Stephen J Collier, Andrew Lakoff and Paul Rabinow, 'Biosecurity: Toward an Anthropology of the Contemporary' (2004) 20(5) *Anthropology Today* 3-7, 3.

⁹² Sonja Kittlesen, 'Conceptualizing Biorisk: Dread Risk and the Threat of Bioterrorism in Europe' (2009) 40(1) *Security Dialogue* 51-71, 68.

⁹³ 'US Senator Voices Bioterrorism Fears Over E.African Labs', *AFP*, 12 November 2010.

corruption, and in some cases complicity with terrorist activity'.⁹⁴ Again Somalia's '20-year absence of central authority' furnished the ultimate exemplar.⁹⁵

The mood of anxiety here is sustained by frequent evocation of the tropical imaginary of malign profusion which I have discussed above. The security threat is again seen as endogenous to Africa as whole: 'the world's soft underbelly for terrorism' in the words of former US Ambassador to the United Nations Susan Rice.⁹⁶ The 'burgeoning populations' of states contributed to their vulnerability according to the report (5), a point echoed by then Secretary of State Condoleezza Rice, speaking in support of the Global Pathogen Surveillance Act.

One of the true "nightmare" scenarios—of a bioterrorist attack or a naturally occurring disease—involves a contagious biological agent moving swiftly through a crowded urban area of a densely populated developing nation.

These interventions are marked by what Sundhya Pahuja has described as the fear of a 'reversion to the primordial' on the part of states in the global south.⁹⁷ The spatio-temporal form here is the spectrum: discrete nation-state units make progress along a developmental continuum with the likes of Somalia at one end and the states of north western Europe on the other. This progress has been the aim of development policies since the late colonial period.⁹⁸ But, as Pahuja suggests, it is always uncertain, reversible. Thus, policymakers and experts in development economics and international relations from the 1980s onwards worried that the sovereignty gained by African and other states on decolonization was a sham, a purely juridical artefact, wholly dependent on outside support and the norms of international law, rather than a consequence of states being able to assert themselves 'empirically' at the frontier and throughout their own territory.⁹⁹ In reality, they claimed, most African states were potentially failed states, always capable of reverting to their true, ungoverned nature and thereby undermining the global order. In economic terms, the risk of sovereign default by such states endangered the entire world financial system. In security terms, state collapse risked regional and global stability.

⁹⁴ Lauren Ploch, *Countering Terrorism in East Africa: The U.S. Response* (Washington DC, Congressional Research Service 2010) 3.

⁹⁵ Lauren Ploch, *Countering Terrorism in East Africa: The U.S. Response* (Washington DC, Congressional Research Service 2010) 6.

⁹⁶ Quoted in Lauren Ploch, *Countering Terrorism in East Africa: The U.S. Response* (Washington DC, Congressional Research Service 2010) 3, 11-14.

⁹⁷ Sundhya Pahuja, 'Technologies of Empire: IMF Conditionality and the Reinscription of the North/South Divide' (2000) 13(4) *Leiden Journal of International Law* 749-813, 794.

⁹⁸ See further, Arturo Escobar, *Encountering Development. The Making and Unmaking of the Third World* (Princeton [NJ], Princeton University Press 1995) c.1.

⁹⁹ Robert Jackson, *Quasi-States: Sovereignty, International Relations and the Third World* (Cambridge, Cambridge University Press, 1993); Jeffrey Herbst, *States and Power in Africa: Comparative Lessons in Authority and Control* (Princeton [NJ], Princeton University Press 2000).

The Shrinking Globe

The tropical continent and the ungoverned slum, on the one hand, and the American homeland, on the other, were drawn into proximity by the contemporary process of time-space compression or what we might call the chronotope of the 'shrinking globe'. Thus, Lugar noted the danger from global pandemics, like the outbreak of swine flu (H1N1) in 2009, which had 'spread across the world in 96 hours' (5). That threat was even greater where diseases were deliberately transmitted. In the same vein, the preamble to the Global Pathogen Surveillance Act stated that:

A contagious pathogen engineered as a biological weapon and developed, tested, produced, or released in a foreign country could quickly spread to the United States... in a matter of days, before any effective quarantine or isolation measures could be implemented.¹⁰⁰

The rhetorical force of this chronotope comes from the widespread apprehension, as Nicholas King notes, that distance no longer matters.¹⁰¹ The cordon sanitaire around the richer regions of the world has been abolished, it is feared, by the speed at which pathogens can now travel. Space has been overcome by time.¹⁰² The reification of economic globalization as an implacable reconstructive force finds equivalent expression here in combined health and security discourses.¹⁰³

At least two responses to this spatio-temporal compression in health and more generally are possible: an embrace of the cosmopolitan, which accepts the new spatialization; or a restoration of the national, which attempts to restore the old. The first is found in much academic work on global infectious disease control. Writers commonly frame the spread of contagious diseases in the idiom of waning territorial control and limited state sovereignty. Bugs 'don't carry passports' nor do they 'recognize the boundaries set by national borders'.¹⁰⁴ Public health responses equally need to transcend the nation state. The SARS outbreak in 2003, which saw a secretive Chinese government outflanked by on-line notification systems fed by unofficial sources, was accordingly described by David Fidler as 'the first Post-Westphalian' contagion.¹⁰⁵ Many of these texts call forth a new post-national subject which faces and responds to 'global health

¹⁰⁰ Section 2(5) *Global Pathogen Surveillance Act* 2005. 110th Congress, 1st Session, 21st December 2005.

¹⁰¹ Nicholas B. King, 'Security, Disease, Commerce: Ideologies of Postcolonial Global Health' (2002) 32(5/6) *Social Studies of Science* 763-778.

¹⁰² See generally, David Harvey, *The Condition of Postmodernity* (Oxford, Blackwell 1989).

¹⁰³ Melinda Cooper, 'Pre-empting Emergence. The Biological Turn in the War on Terror' (2006) 23(4) *Theory, Culture and Society* 113-135, 128.

¹⁰⁴ Obijiofor Aginam, 'Between Isolationism and Mutual Vulnerability. A South-North Perspective on Global Governance of Epidemics in an Age of Globalization', 77 *Temple Law Review* 297-312, 303 (2004).

¹⁰⁵ David Fidler, 'SARS: Political Pathology of the First Post-Westphalian Pathogen', 31 *Journal of Law, Medicine and Ethics* 485-505 (2003).

challenges'.¹⁰⁶ This subject often goes by the name of 'the international community' or 'humanity' *tout court*.¹⁰⁷

An obvious alternative to abolishing national space in this way would be to make it matter again. The extract from the Global Pathogen Surveillance Act, quoted above, suggests as much by specifically naming the United States, rather than the world at large, as the potential target of long-range bioterrorism and equally as the agent of its own self-protection. Lugar too took care to highlight the specific risk to the homeland, calling up the spectre of what he called 'agro-terrorism':

The intentional introduction of a disease such as hoof and mouth ... [which] could derail American agriculture, leading to quarantines, trade barriers, and damage to the reputation of American products (5).

This particularistic concern is more than territorial in scope, however. It extends beyond the physical space of the United States, to include individuals from the global north circulating as travellers in Africa. Official reports on the work of US medical installations in Kenya, for example, point out the double benefit which they confer: not only on the local population, but crucially also on American soldiers posted in the region and at risk from endemic diseases.¹⁰⁸ The report also references another mobile and vulnerable figure of globalization, the tourist, noting the case of a Dutch citizen infected with Marburg fever after visiting a cave in a national park in Uganda (4).¹⁰⁹ These two examples make clear that the national interest can no longer be asserted through a simple hardening of the domestic frontier. The demands of economic globalization suggest that recreating the sharply segmented national time-spaces of the Westphalian order is unthinkable. Ultimately for Lugar,

the safety and health of Americans requires partnerships here, in Africa, on African soil where the pathogens originate. We can't wait for the bugs to spread (4).

The Laboratory and the Chain

The partnerships recommended by Senator Lugar and the funding he sought from Congress were to be focussed on the final and most urgent site of vulnerability: at the micro-scale of each laboratory and its immediate surroundings. The report, as well as related newspaper articles, provided extensive detail on the actual state of the installations inspected. They observed 'the broken windows, simple padlocks, lack of entry monitoring, and close proximity to water and air access points' of the Ugandan unit (3). Text and photographs highlighted that rooms storing sensitive material were 'padlocked

¹⁰⁶ See Lorna Weir and Eric Mykhalovskiy, *Global Public Health Vigilance. Creating a World on Alert* (London, Routledge 2010) 108ff.

¹⁰⁷ Thus, "the world" is the primary constituency of public health and humanity (human life) the endangered species that it seeks to conserve': Obijiofor Aginam, 'Between Isolationism and Mutual Vulnerability. A South-North Perspective on Global Governance of Epidemics in an Age of Globalization', *77 Temple Law Review* 297-312, 308 (2004).

¹⁰⁸ See for example, Rick Scavetta, 'Making an Impact Through Research' (2010) 65 (2) *Soldiers* 8.

¹⁰⁹ On the distinction between privileged tourists and discouraged vagabonds in globalization, see Zygmunt Bauman, 'Reconnaissance Wars of the Planetary Frontierland' (2002) 19(4) *Theory, Culture and Society* 81.

only, [with] freezers chock full of samples ... stored only in plastic bags too many of which were unidentified' and 'cooler bags of disease samples ... stockpiled in corridors' (3). Rooms where researchers diagnosed haemorrhagic fevers, like Ebola and Marburg, were easily accessible. There were no incinerators to destroy samples, with waste left 'lying around' in garbage bags next to a storm drain instead.¹¹⁰ Systems for inventorying pathogens, as well as staffing levels were also found wanting. A picture showed that the relevant 'log book' at Entebbe was in fact a school jotter with a list of events entered in biro, including, as the text noted, a 'suspected case of ANTHRAX [sic] outbreak' (4). Where once this '1920s-era' research facility 'was teeming with staff', its funding had dwindled and it 'now has just 11 technical staff attempting to meet the demands of the entire country' (4). The lead scientist, was depicted in terms, both diminutive and pathetic, as 'a gregarious woman known as Dr Rose' who used 'a simple camera held up to a microscope to identify and share her findings' (4).

In this account the East African laboratory is itself a chronotope with interdependent spatial and temporal aspects. Spatially it is figured as a zone of disorder. Things that matter, like security measures, records, staff and pathogens themselves, are either out of place, unaccounted for, absent or unseen. This disorder means that, temporally, the laboratory has fallen behind. It is no longer able to perform and monitor scientific routines to the international standard needed for effective infectious disease control. As former Senator Joseph Biden put it when introducing the Global Pathogen Surveillance Act, the 'weak medical infrastructure [of] developing nations' is one of 'the weak links in global disease monitoring and surveillance'.¹¹¹ The imagery here implies that US biosecurity depends on the simultaneous strength of all the links in a worldwide chain of laboratories.¹¹² Like the domino theory popular in US security discourses during the Cold War, this further chronotope presents the vulnerability of the smaller unit as a threat to the whole.¹¹³ Unlike that theory, it widens the focus of concern beyond the various nation states, to all sources of weakness, state and non-state alike.

The mood of anxiety about falling behind in laboratory practice is felt by local scientists as much as by security experts in the global north. Thus, the lead Kenyan pathologist at the time of the visit told Lugar that

Our facilities were built 42 years ago without consideration for biosafety or security. We want to do the right thing. We need an upgrade (5).

¹¹⁰ Jason Strazusio, 'US Team on Africa Bioterror Prevention Tour to Study Ways to Stop Future Attacks', *Associated Press*, 12th November 2010.

¹¹¹ Quoted in Julie Rovner, 'US Bill takes Aim at Global Disease Outbreaks', *Reuters Health E-Line*, 10th April 2003.

¹¹² David P. Fidler and Lawrence O. Gostin, 'The New International Health Regulations: An Historic Development for International Law and Public Health' (2006) 93 *Journal of Law, Medicine and Ethics* 85-94, 93.

¹¹³ See Jutta Weldes, *Constructing National Interests. The United States and the Cuban Missile Crisis* (Minneapolis [Mn], University of Minnesota Press 1999) 13-14.

That claim is rooted in the history of the laboratories visited, which is one of colonial foundation, followed by expansion and Africanization after independence in the 1960s.¹¹⁴ Investigators in Kenya, Uganda and in many other new states in that period saw themselves as working to build new nations by participating as equals in a universally defined science.¹¹⁵ With adequate facilities and funding their research would be ‘synchronous’ with that conducted in the former imperial metropolises.¹¹⁶ For such scientists, as Warwick Anderson has put it,

the laboratory represented an exemplary space of control, purity and precision, a model disciplinary site.¹¹⁷

But economic decline and structural adjustment in the 1980s pulled apart the temporal and spatial coordinates of this aspiration. Drastic cuts in staffing and budgets helped to create the disorder documented by Lugar’s report. Laboratory facilities disintegrated and African scientific research was re-localized and relegated to a backward state.¹¹⁸ At least some of the appeal of US biosecurity discourses to East African scientists lies, in a desire to re-establish synchronicity and to reconnect the physical places of local laboratories with the international space of the biosciences.

Conclusion: Space, Time and the Imperial Present

This paper is intended as an invitation to take seriously the situated and rhetorical nature of global health law, as modelled by nodal governance theory. The field is currently dominated by two analytics: an instrumentalist concern with security on the one hand and a strongly normative humanitarianism on the other.¹¹⁹ Each is underpinned by a model of norm diffusion, which as I have argued neglects the cultures and capacities of the diverse national nodes, institutions and fora, which resist, implement, transform and initiate global health governance. Each also reproduces and is legitimated by a chronotope of universality, beyond time and the particularities of place, where all of humanity faces the threat of contagion and is challenged by the suffering of afflicted individuals regardless of nationality. The governance mood is one of anxiety, chased with optimism about the

¹¹⁴ See Kenneth Ombongi, ‘The Historical Interface Between the State and Medical Science in Africa: Kenya’s Case’, in P. Wenzel Geissler and Catherine Molyneux, *Evidence, Ethos and Experiment. The Anthropology and History of Medical Research in Africa* (New York, Oxford, Berghahn 2011) 353-372.

¹¹⁵ P. Wenzel Geissler, ‘Parasite Lost: Remembering Modern Times with Kenyan Government Medical Scientists’, in P. Wenzel Geissler and Catherine Molyneux, *Evidence, Ethos and Experiment. The Anthropology and History of Medical Research in Africa* (New York, Oxford, Berghahn 2011) 297-332.

¹¹⁶ Such expectations and their subsequent frustration are sensitively documented in Noemi Tousignant, ‘Broken Tempos: Of Means and Memory in a Senegalese University Laboratory’ (2013) 43(5) *Social Studies of Science* 729–753.

¹¹⁷ Warwick Anderson, ‘Making Global Health History: The Postcolonial Worldliness of Biomedicine’ (2014) 27(2) *Social History of Medicine* 372–384.

¹¹⁸ See generally, John Iliffe, *East African Doctors. A History of the Modern Profession* (Cambridge, Cambridge University Press 1998) c.6.

¹¹⁹ Andrew Lakoff, ‘Toward a Genealogy of Global Health Security’, in Bruce Magnusson and Zahi Zalloua, *Contagion. Health, Fear and Sovereignty* (Seattle [Wa], University of Washington Press 2012) 44-70, 51.

capacity of technocrats, philanthropists and scientists to find effective solutions.¹²⁰ The jurisdiction claimed is global, beyond the nation state and the limitations of Westphalian international law. The effect is that of a ‘soothing balm through which difference is incorporated into sameness’ and historic inequality elided.¹²¹ That this moralistic universalism is in good faith, that it seeks a better world, should not be denied. But it does not arrive into a world innocent of empire, of racial hierarchy and domination. Concentrating on biosecurity, I have sought to show that contemporary articulations of global health are likely to be marked by the traces of colonial thought and practices.¹²² These practices are revealed by a close reading of persuasive efforts like that of Senator Lugar in East Africa, paying attention to the concrete forms and imagery used, as well as the audiences at which it they are directed. As Roxanne Doty suggested, earlier encounters between Europeans (understood broadly) and Africans ‘continue to be implicated in the representational practices by which boundaries are drawn and international identities are constructed’.¹²³

Spatio-temporal figures were seen to be key in this review, not primarily due to their categorical nature, but because of their observable role in defining the scale and extent of relevant jurisdictional claims. The developmental state, with its forward-looking time, limited by national boundaries, had been challenged in the context of health and scientific research, by a fragmentation of space and a chaotic pluralization of temporalities in the period of structural adjustment. To the American observer, border regions and enclaves, like slums and laboratories, had escaped the control of central authorities and thus, also the forward drive of responsible national development. However, global health security does not seek to respond by restoring segmented national times, subject to the direction of post-colonial states.¹²⁴ Its ambition is not to rehabilitate the states of the global south *in toto* as autonomous actors in health and other sectors. Rather it wishes to build the discrete capacity needed to allow ‘real time’ notification of outbreaks, whatever their source and wherever in the world. Towards that end, and in the effort to secure pathogens against acquisition by terrorists, it looks physically to reconstruct sites, such as laboratories, and to stimulate self-discipline by key actors, such as researchers, through financial incentives and the promulgation of ethics codes. An extended genealogy of these strategies, though worthy of further study, is beyond the

¹²⁰ Johanna Tayloe Crane, *Unequal ‘Partners’*. *AIDS, Academia, and the Rise of Global Health* (2010) 3 *Behemoth: A Journal on Civilisation* 78-97.

¹²¹ For a mordant critique, see Sara Hodges, ‘The Global Menace’ (2011) 25(3) *Social History of Medicine* 719-728, 723.

¹²² See further, Obijiofor Aginam, ‘The Nineteenth-Century Colonial Fingerprints on Public Health Diplomacy: a Postcolonial View’, (2003) *Journal of Law, Social Justice & Global Development* 1: <http://elj.warwick.ac.uk/global/02-1/avakian.html>

¹²³ Roxanne L. Doty, *Imperial Encounters. The Politics of Representation in North-South Relations* (Minneapolis [Mn], University of Minnesota Press 1996) 72.

¹²⁴ I have taken this insight from Noemi Tousignant, ‘New Scales of the Moral: The Postcolonial Global and Health Research at the WHO in the 1970s’, paper presented to conference *Mapping Morality in Global Health*, Centre for Research in the Arts, Social Sciences and Humanities, University of Cambridge, 26th June 2018.

scope of this paper.¹²⁵ What can be noted, along with Alison Bashford, are the affinities between this mode of contemporary post-national, global health governance and the network of surveillance facilities and communications systems typical of imperial health in the first half of the 20th century, the attempt to bypass the local and the national in the name of the universal.¹²⁶

¹²⁵ On the potential contribution of national and post-colonial histories of science in this regard, see Warwick Anderson, 'Making Global Health History: The Postcolonial Worldliness of Biomedicine' (2014) 27(2) *Social History of Medicine* 372-384.

¹²⁶ Alison Bashford, 'Global Biopolitics and the History of World Health' (2006) 19(1) *History of the Human Sciences* 67-88, 73.