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## Attention to infrastructure offers a welcome reconfiguration of anthropological approaches to the political

## Article (Accepted version)
## (Refereed)

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Attention to Infrastructure offers a welcome reconfiguration of anthropological approaches to the political

The 2015 meeting of the Group for Debates in Anthropological Theory (GDAT)

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Debaters:

Proposed by: Laura Bear and AbdouMaliq Simone

Opposed by: Laura Rival and Sian Lazar

**INTRODUCTION: PENNY HARVEY**

As you would expect of an event where the aim is to polarise rather than to reach agreement, and where the capacity to multiply the possible meanings of the motion are the stock in trade of seasoned debaters, 'infrastructure' served as a target for both trenchant critique and for creative analytical possibility. In the debate, as you might also expect if you are familiar with the ways in which these very particular conversations unfold, infrastructure was dismissed as both too specific and coherent an entity (unwelcome for the way in which it erases and side-lines other concerns), and as far too vague and open-ended (infrastructure can refer to so many different things that it holds neither conceptual worth nor analytical purchase). Nevertheless it produced a great topic for debate because people were moved to react. This capacity to enthuse and infuriate is quite recent and seems to respond to the rather sudden appearance of 'infrastructure' on the anthropological agenda. When Hannah Knox and I began our research on the roads of Peru in 2005, the concept was not particularly visible. The subsequent ubiquity of AAA panels, workshops, special issues and edited collections had not taken off. By the time we published the work in 2013, infrastructure had acquired such a presence in both academic and political debate that to write about roads without addressing the growing literatures on infrastructure would have appeared perverse. At the very least we would have had to explain why we didn't find the concept useful. Concepts that appear to arrive out of the blue often excite and repel in equal measure. The 'turn' from one concept to another always stands in danger of simply re-naming, or reinventing previous analytical possibilities and losing the value of such alternatives in the process. Conceptual histories are an invaluable resource to counter that tendency, and luckily these are beginning to appear (see Carse 2016).

Whatever opinion one might hold on the generative possibility of the concept for anthropological theory, there is no doubt that infrastructure demands our attention in a variety of ways. However it is not always easy to establish what kind of attention this might be. The term invokes quite different relational fields for different people. One core tension that tends to emerge in discussions of infrastructural politics is that between the material form (the 'thing' and its constitutive relations) and the connective capacity of such forms that are built to enable circulation or to sustain particular life projects (the structuring effects of infrastructural forms). Awareness of the tension between these two possible approaches has been extremely generative for ethnographic study. A road invites us to explore its constitutive relations: the materials, the finance arrangements, the politics, the dreams of progress, the design (which could be meticulous but might be inadequate) and the force of contingent events that routinely disrupt the best laid plans. It also invites us to explore the emergent effects, the ways in which specific material transformations shape social worlds, and create new environments. Here the question is less about how a system comes into being, than it is about the life worlds that such systems sustain and/or destroy. If we take this understanding of infrastructure as the material conditions of possibility for human or indeed for other than

human life, then infrastructures offer specific ways of thinking and of investigating human worlds without embracing human exceptionalism, or relying on singular definitions of the human, the natural, or the cultural. And herein lies the theoretical interest for contemporary anthropology as we try to contribute to debates about environmental futures, climate change, energy, food, and water.

Analytically then, infrastructures are increasingly approached as ecological forms, not single built structures but the material conditions of possibility for life. Such conditions are differentially distributed. Infrastructures involve categorical distinctions, but like all ecological systems their effects are non-linear, their outcomes uncertain, their boundaries blurred. Feedback loops continually modify structures, and allow researchers to find plasticity in systems that might otherwise appear obdurate. An infrastructure from this perspective is a relational space of investigation, where researchers can explore fluctuations, or trace the dynamic shape of what thrives and what dies.

And what of the politics? The debate generated less discussion of the political than it did of the infrastructural – but politics are central to infrastructural concerns. And politics have propelled infrastructures into the limelight in recent years. Human beings are busily building and designing their way into the future, working with a notion of infrastructural investment that becomes increasingly contentious. Across the planet we can see infrastructural responses to environmental threats. Many of these infrastructures support the promise of economic growth *and* are needed to respond to the unplanned consequences of previous investments. As investments increase so too does awareness of unreliability, of destructive outcomes and differential value. As the material conditions of possibility for industrialisation begin to age and to fail, infrastructures appear as both problem and solution. As such they emerge as self-evidently political, as sites of struggle.

Whether such appearances reconfigure anthropological approaches to the political is another matter. The participants to the debate are required to come to different conclusions – and the final vote in turn requires the audience to decide one way or another. Taking up the luxury of an introduction to a debate that has yet to unfold, I would add one consideration that disturbs the need to polarise – and that is the recursive quality of infrastructural relations. In their elaboration of the notion of 'infrastructural inversion', Bowker & Star (1999) asked us to take the 'infra' quality of infrastructural relations seriously. They suggested that there was much to be learned by working out how things got to hang together in particular ways, by unpicking the process. Working with the understanding of infrastructures as the ground on and through which other things take place, and other relations play out, Bowker & Star effectively posited a method of figure/ground reversal for bringing infrastructural relations into view. However, by interrogating the conditions of possibility of particular infrastructural forms (as manifest in both their constitutive relations and their structuring effects), this method also reveals that an infrastructure that comes fully into view loses something of its infrastructural force. A spectacular new motorway disrupts the figure/ground relation just as surely as pot-holes, cones and traffic jams do. They direct attention to the taken for granted, and by doing expose the relational infrastructural fabric to interrogation, and thus to politics. Connections appear as contingent, even fragile.

In this debate we were asked to evaluate the current anthropological attention to infrastructures. Some were frustrated by infrastructures' capacity for relational proliferation, others found this generative capacity to be the most fascinating feature of infrastructural relations. Either way infrastructures emerge as classic anthropological entities, relational distributed things that are also and simultaneously relations between things. They can be simultaneously visible and un-noticed, they are the objects of design and yet always

ultimately unknowable as their potential relational fields are only ever partially realised. The extent to which these relational entities reconfigure anthropological approaches to the political will thus depend on how we situate both the infrastructures and the political. These questions may or may not be welcome, but they will surely engage us for some while to come.

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**THE PRESENTATIONS**

**LAURA BEAR PROPOSING THE MOTION**

**For a Materialist Analysis of the Political**

It was not hard to give attention to infrastructure in the month leading up to this debate. A UK national infrastructure commission was formed that promises to take the politics out of infrastructure & direct superabundant forces of capital. George Osbourne proudly declared in his spending review that the UK topped the global list of places for profitable infrastructural investment and that 'we are the builders' (Crace 2015). Narendra Modi announced new international private instruments, "masala bonds" for the Indian railways issued in the city of London (Gov. UK 2015). And into my inbox dropped unsolicited the details of a global campaign group against the construction of megacity airports or aerotropolis. Starr has suggested that infrastructure is mundane even boring (1999). This most likely has never been true, but it certainly isn't now. Infrastructure is spectacular, vast in its potential for good or evil & demands our attention. It is what Barry calls an abductive example or sign that a transcendent force is present (2013). It also makes enchanting social promises as Harvey and Knox argue, even of the end of politics (2012). And it amplifies the agency of politicians, technicians and companies as they reach inside our life worlds via intermediary networks both promised and real. We are the builders they tell us—gigantic men with vast psychic interiors and reach with life-giving, and as Scarry reminds us, life-destroying powers such as those of nucleur weapons (2014).

How can we as anthropologists understand this demand for attention; estrange it with our own kind of analytical attention, which could reconfigure our approaches to politics? This seems a difficult, even impossible question to answer given the diversity of concrete infrastructure. How could electricity, railways, roads, water supply systems, rivers and oceans, ports, public toilets, nucleur bombs, cinema halls and phatic connections all be accounted for through a single explanatory approach? How could these all be about politics in the same way? We have come up against the paradox of a materialist metaphysics --how can we find the life-essence of concrete non-human things that are in form all distinct? But this is precisely the point and where we can make the link between infrastructure and politics. There is no shared essence of these networks of circulation of resources, people, commodities and capital because they are not all the same. They are historical products of economic governance and particular political situations. They are oriented to diverse materialist metaphysics or conducts of productivity. They create different kinds of amplified agency and

relations of citizenship. Once we acknowledge this diversity it becomes clearer how anthropologists could pay attention to infrastructure in order to reconfigure approaches to the political. We could focus on the current attempts to gather together the material world into circulatory networks as a very particular kind of economic governance. One that has as its explicit telos the creation of something known as infrastructure. This is a historically emergent form that is quite different from say, the colonial railways in India.

The Indian railways were a bio-moral project designed to distribute people according to their natural capacities for labour and reproduction (Bear 2007). They ensured the regenerative flow of life & capital through the racialized body politic. They were supported by a despotic form of shareholder financing brokered by the British government. Indian tax revenues were used to guarantee a regular return of 3% on investments if the railways did not generate enough profit. Since none of the Indian railways were ever profitable taxpayers paid a fixed tribute to metropolitan shareholders. There was no affected public in their property regime, which assumed the preeminent right of the colonial state to seize land. They were public works for the material and moral progress of a subject nation. They emerged from and generated a particular political situation. Protest against them focused on moral critiques of the health of the body politic that fused caste and race. These included middle class nationalists drain of wealth theory of a blood-sucking imperial metropole and protests against the immorality of the spaces of modernity in the railway carriage by protesting rape cases, thereby calling a respectable middle class public into being. Workers and unions forged links in protests over the immorality, corruption and scarring degenerative violence of British officers. The Indian railways were not infrastructure and certainly Indians were not demanding the right to infrastructure. They demanded the right to a regenerative national circulatory system coursing with capital figured as healthy blood.

So when and how was infrastructure born and what is its history? We can't fully tell its story by following Collier's strategy of tracing rationales of rule and biopolitics derived from the economics of public goods (2011). Its birth and history is dispersed, full of dissenssus and heavy with the weight of archives and physical forms. If we look at the reports of international organisations we can trace its life. Infrastructure was born in the last years of the second world war as experts gathered in the League of Nations to imagine forms of long-term planning and the reconstruction of a social contract out of the violence and ruins. Its telos was peace-making, prosperity, abundance and the unification of geographic areas and people as equivalently valuable. It then coupled with development in the new Bretton Woods institutions and UN understood as the construction of vast physical things and connections. It was funded by debt relations between the World bank and national governments as a political gift of time for development, which was connected to a realpolitik of forging alliances in the cold war period. In the late 70s to 80s it entered a period of crisis and took on a securitized, social, emergent and financialized form (Bear 2015). No longer simply a thing-world of physical circulation it becomes a dispersed form of sociality similar to complex systems models of the economy or even Hayek's networks of entrepreneurial knowledge . Military reports traced the hidden webs of Viet Kong and PLO infrastructure. Development agencies sought out the social infrastructure through which post-Soviet Eastern Europe could be rebuilt. Financial infrastructure arrives in World Bank discussions of financial crisis in African countries such as Nigeria. At the same time planners tried to fold its dispersed forms into calculative frames that aim to trace its economic impact and prevent the decline of the fabric of the nation. They begin to propose its privatization and decentralization according to an economized public good. By the mid 1990s this fabric is precious, emergent, privatized and vulnerable (Lakoff 2007, Masco 2014). As the U.S. President's Commission on Critical Infrastructure Protection 1997 puts it

"By *infrastructure ...* we mean a network of independent, mostly privately- owned, man-made systems and processes that function collaboratively and synergistically to produce and distribute a continuous flow of essential goods and services". ( 3, US Government 1997).

By the 2000s it is fully financialized and has become speculative, since 2008 with an austerity telos. National governments and international organizations guarantee the profits of private companies building and running infrastructures. Governments back the income derived from infrastructure bonds and their derivatives issued through special purpose vehicles. To achieve this they disestablish public resources selling these off, cut public welfare budgets and divert public sector pension funds. Now almost anything can be called into being as infrastructure from social housing, to solar batteries, to informalised economies to internet communications. Once a thing or segment of a circulatory network comes under this economic governance it is directed towards financialisation, speculation and securitisation. It as infrastucture, can then spectacularly demand our attention, as in the examples I opened my talk with. It is suddenly vital, an abductive sign of a productive force and inhabits a vast scale. A promise of prosperity to come in spite of the ruins around us. This infrastructure comes with its own political situation; as an emergent synergy for the public good it can be challenged on ethical grounds as Barry has shown (2013). Or it can form the basis for assertions of the right to infrastructure as Corsen Jimenez has illustrated (2014). If it is everywhere and everything that connects us in cooperation—we can claim a right to it and contribute to its greater goodness. So importantly attention to infrastructure as a historically emergent form reconfigures our approach to the political. It reveals the dominant forms of contemporary economic governance. It makes visible the conduct of productivity, vectors of accumulation and political situations in which we live.

Yet, attention to infrastructure, I would suggest, offers a further perhaps even more significant reconfiguration of the political, one that has not yet been fully developed in our analysis of it. The anthropology of politics has long used spatial metaphors as the underpinning for its theories. Public spheres, class wars of position, counterpublics, commons, networks all reflect this. Politics it seems is an act in, and in relation to spaces in which we encounter other humans. But politics takes place in, and is generated from experiences of timespaces (Bear 2014, 2015).  Specific circulatory networks of capital, resources, information and people, including those that we now call infrastructure, provide the non-human ground for such experiences. Current forms of this or infrastructure materialize vital circulations giving permanence or, by its decay, impermanence to political relations. These circulations carry objects, capital, information and events, converting these into political or depoliticized forms, conjuring publics into being and then dissolving them. Infrastructure makes durable in its forms specific materialist ethics allowing people to claim a right to res publica or public things. Through it the amplified agency of specific people comes close and then disappears into the background. The uneven pulses of capital, goods, people, resources and information along it generate experiences of certainty and uncertainty that is a key dimension of class inequality and flashpoint for social movements. In short, attention to infrastructure brings into view how politics emerges from timespaces. It fundamentally challenges our spatial imagining of politics and citizenship. Instead we can explore the pulses of duration and evanescence and certainty and uncertainty from which we are currently forging political identities and movements.

I would like to end by suggesting that attention to infrastructure is important not just for anthropologists. As the dominant form of economic governance and the pulsing non-human ground for politics we need to look beyond its spectacular claims for our attention as a transcendent productive force. Otherwise organisations such as the National Infrastructure Commission will achieve their aim of making infrastructure 'beyond politics' and we will

have truly entered a post-political world of good governance and expertise (Swyngedouw 2011). The anti Aerotropolis movement accidentally encountered on the internet suggests a different path (GAOA 2015).

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**LAURA RIVAL OPPOSING THE MOTION**

**The political beyond infrastructure**

Many of you may be wondering why I agreed to be the devil's advocate. Who in their right mind would fail to appreciate that the rich ethnographic and conceptual attention infrastructure has attracted in recent years has made us rethink the way we engage politics and write about power?

For many urban anthropologists documenting neoliberalism in the neighbourhoods where poor citizens struggle to survive, whether in Soweto (von Schnitzler 2008), on the margins of

deindustrialized clusters (Bear 2015), or in the heart of the decaying West (Wacquant 2009, 2008, 2002), infrastructure seems to reveal politics in action. Von Schnitzler (2008), for example, forcefully argues that both Apartheid and Anti-apartheid are 'about infrastructure.' Surely, the power to materialize environments that enable a better life is what politics is all about, whatever else it might be.

A focus on things and their taken-for-granted powers of mediation allows us to imagine how the past may be linked to the future in unpredictable ways (Anand 2011). By paying attention to the ways in which media connect people while facilitating relations with and between a wide range of things (Fennel 2011), new light can be shed - we are told - on the politics of time (Gupta 2015). Infrastructure depends on long-term investments, including investments in care and repair (Jackson 2014, Houston et al 2016). Where would Europeans be today without the amazing road networks (e.g. Chevallier 1976) and water systems[1] they have used and maintained since Antiquity?

The connective fabric afforded by a globalized economic order promises to make new forms of exchange possible. Will infrastructure, once singled-out as *the* backbone of economic development, be recast as the projective materialization of this promise? Will infrastructure reveal the structuring force of capital or of labour? And will it be open to new types of empirical evaluation? If we accept that globalisation is about infrastructure, what are the politics of globalisation, then?

What I find politically interesting in this burgeoning literature is that everyone seems to agree about the unpredictability and uncertainty of infrastructural outcomes. Wittfogelian determinisms are ridiculed, if evoked at all. As is often the case, though, wheels are being re-invented through neglect of previous work or ignorance of past debates. For instance, two essential authors are missing from Larkin's (2013) review: Bryan Pfaffenberger and Pierre Lemonnier. Their seminal works (Pfaffenberger 1993, Lemonnier 1993) were widely discussed twenty years ago. It is my contention that Pfaffenberger's cultural theory of peripheral industrialization and Lemonnier's technological choices have both reconfigured anthropological approaches to the politics of infrastructure in ways that have not been superseded by the more recent literature evoked earlier. I have found inspiration in both Pfaffenberger and Lemonnier (as well as in Gudeman 1992). Their theoretical frameworks and analytical tools made it easier to perceive in Huaorani technical choices the connections between culture making and the making of material value (e.g. Rival 1996). Current concerns with the power asymmetries that constitute the choices embedded within infrastructure development make Pfaffenberger and Lemonnier more relevant today than ever. As Virginia Nazarea (1995: 189) reminds us, "the least affected by the choice are responsible for determining that choice, while those who are forced to live with the technology have the least to say in the matter."

The few infrastructure anthropologists who, like Appel and Kumar (2015), direct our attention to global finance and the logic of 'economic growth' are blind neither to conjuncture, nor to lessons learnt from earlier critiques of functional adaptations or historical materialism. Their warning about the politics of infrastructure financing resonates with a report produced last summer (July 2015) by the Oxford International Infrastructure Consortium (OXIIC) and by the Infrastructure Transition Research Centre (ITRC). This

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[1] See for instance the website < http://www.hydriaproject.net>, accessed on Thursday, 12 May 2016. Echoing Ferguson (2005), Filip de Boeck (2012) shows that the politics of care and repair works differently in urban Africa. In a city like Kinshasa, for instance, poor people's social struggles lead them to exploit the affordances of active disrepair.

report (OXIIC 2015) points to the magnitude of the asset class in the making. Emerging markets and developing economies (EMDEs), where the number of people living in cities is expected to double by 2030, are facing a massive infrastructure deficit. The urban population is expanding rapidly and the demand for basic services (water, power and transport) rising exponentially. The authors of the report have calculated that these economies now spend around US$1 trillion a year on infrastructure. In order to maintain current growth rates and meet future demands, EMDEs will need to invest an estimated additional US$1 trillion a year until at least 2020. World Bank figures are cited in support of the thesis that infrastructure demand from industry and households in EMDEs is such that governments will need to attract private capital to complement public funds. The report also discusses the new multilateral financial institutions[2] that have been created in recent years to mobilise global multinational enterprises and institutional investors for infrastructure investment. Finally, the report explores the crucial role that academics must play in "demonstrating successful case studies" and "testing out new ways of thinking."

Given the short time imparted, I will not explore the narrative underpinning the global rise of infrastructure finance in the age of climate policy; nor will I dwell on the proposed enrolment of academics as providers of guidance, reason, and containment in the context of 'the biggest investment boom in history' (Flyvbjerg 2009). Research on perverse incentives, cognitive biases, and miscalculation (the vast underestimation of costs and exaggerated overestimation of benefits), as well as conclusions regarding the need to "get the governance right" by changing "the power relations that govern forecasting and project development" (Flyvbjerg 2014) all offer a wealth of data for anthropological analyses of risk. A scant review of the literature on megaprojects suggests that the current perception of heightened risk and uncertainty in infrastructure finance is directly linked to political factors that are all too familiar to anthropologists of development: investment opportunities are located in the 'South,' where transparency and accountability are said to be lagging behind the 'North' (e.g. Annamalai et al 2012).

Today - as yesterday - human progress in the form of infrastructure development cannot be coherently asserted as a broad social aim without asking: progress of what, for whom, developed in whose interests, and born out of what externalities? When applied to the region of the world I know best, the Amazon basin, the megaproject approach reveals whose risks are being worried about. The business case for damming the Amazon River or criss-crossing thousands of kilometres of tropical rainforest with all-weather roads is examined purely in the light of *risk to investments*, including the risk incurred through stranded assets (Ansar et al 2014). Once a giant infrastructural project (i.e. one that costs at least US$ 1 billion) is found to be economically unviable, there is no need to examine the politics of valuation (what is good? for whom? at what cost? and at the expense of whom?).

Latin American social scientists who write about infrastructure development tend instead to look at it through a political lens. When they write about their countries' infrastructural needs or about the prospect of physical integration through infrastructure development,[3] they offer political analyses that speak to unfinished nationalist projects, alternatives to modernity, and Bolivarian regionalisms (e.g. Harvey and Knox 2012). Path dependency, boom and bust

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[2] These comprise: the World Bank's Global Infrastructure Facility [GIF], the Global Infrastructure Hub [GIH], the New Development Bank [NDB] and the Asian Infrastructure Investment Bank [AIIB].

[3] See in particular the Initiative for the Integration of the Regional Infrastructure of South America, IIRSA, or, in Spanish, *Iniciativa de Integración de la Infraestructura Sudamericana*.

cycles, and bonanza mentality are some of the recurring tropes. For the Peruvian scholar Marc Doureaujeanni, the large-scale investments forecasted for the Amazon region do not respond to the necessities or the interests of the Peruvian people. Inversions are disproportionate to rural health and education demands and other local development needs, as well as to wise natural resource management (Doureaujeanni et al 2009: 83). Designed centrally for the needs of powerful international players, IIRSA transnational roads benefit illegal rather than legal economic actors (Little 2014: 32). Projects are rushed and legislation violated; no one knows for certain how much it will cost and who will pay (Doureaujeanni et al 2009: 84). Built where there is not enough demand for them, these megafacilities (pipelines, airports) will not be turned into profitable economic assets; they will instead become financial liabilities. Accused of being 'enemies of the state' or 'enemies of progress' (Doureaujeanni et al 2009: 87), IIRSA opponents retort that megaprojects do not help national integration, but reinforce the dominance of hegemons (Doureaujeanni et al 2009: 117). Some opponents prefer to cast their opposition in terms of 'internal colonialism.' If national governments plan inter-oceanic highways and construct intra-continental electricity transmission lines with a vision of the Amazon basin as a global perennial resource frontier, Amazonian citizens, by contrast, come together as *bosquesinos* (forest dwellers, Gasché Suess and Vela Mendoza 2012), who defend an 'Amazoncentric' form of development (Little 2014, Sachs 2008).

An infrastructure anthropologist could, of course, interpret this forest dwelling perspective as evidence that, in this particular context, it is the forest (and its affordances) that functions as infrastructure. But would such an analysis take seriously what *bosquesinos* say about their livelihoods and their aspirations to defend forest life from destruction? Some thinkers come close to recasting nature as part of the infrastructural fabric (Carse 2014), but such a logic of equivalence is highly contested in the Latin American context (Rival 2010), where counter-narratives articulated around notions of incommensurability tend to prevail. Unsurprisingly, these counter-narratives grant central importance to indigenous ways of knowing (e.g. Escobar 2008, de la Cadena 2015), or to religious spirituality (e.g. Harvey and Knox 2015). A popular joke in Ecuador today tells of a private meeting between President Correa and Pope Francis, in which the latter warns the former that if God forgives all, nature does not. Moreover, Latin American intellectuals and national elites increasingly accept that their long-term common interests will eventually align with those of the rest of humanity along low carbon pathways, which alone promote forest conservation and respect for the ecological functions that support water, food, and energy security (e.g. Refkalefsky Loureiro 2009).

Efforts to grasp the implicit meanings of local categories have forced me to realise that I have been unduly influenced by economic notions with an air of political neutrality. No matter how phronetically inspired, the economic reasoning built-in the megaproject approach remains economistic, that is, blind to the realities of the biophysical world. To take one example among many, the language of trade-offs does not take into account the physical fact that a series of small dams (cheaper to build) may have cumulative effects that surpass those of megadams (Macedo and Castello 2015: 33). Moreover, the megaproject approach fails to explain as phronetically rational Bolivia's decision to finance its infrastructure needs through state debt rather than through Public Private Partnerships (Little 2014). Seduced as I have been by the language of phronetic economics, I have struggled to figure out that economic viability is not a language used by the social actors who dispute the value of infrastructural projects in the Amazon region. It has also taken me a very long time to appreciate fully the depth of the Ecuadorian political message regarding the country's resource curse, and, more generally, Latin America's path dependency predicament (Rival et al 2015). It is only after

having watched several times the wonderful animation on the Yasuní Intiative[4] by the young Ecuadorian architect Santiago del Hierro that I have finally understood its message about the Yasuní being a resource to think and to act differently in the world. It is so easy for us inhabitants of densely urbanized and industrialized nations to interpret the non-development of resources as anti-development.

What is at stake, as John O'Neill has convincingly argued, is that reasonable economic and social choices cannot be founded on purely monetary valuations (e.g. O'Neill and Uebel 2015). Moreover, if economies represent "unstable combinations of trade and mutuality," each with their respective regimes of incommensurability (Gudeman 2008: 159), it follows that politics will inevitably involve having to decide what we should produce and distribute through the market, and what we should not. Furthermore, if we live in a world characterized by the emergence of the market as the most politically significant institution of valuation (Gregory 2004), a world now under the aegis of financialization (e.g. Epstein 2005), our anthropological questions regarding infrastructure investments will have to probe the politics of financing more systematically.

I am arguing against the motion on the ground that 'infrastructure' does not exist as a coherent concept, and that more satisfactory theories of material culture are to be found in Lemonnier's mundane objects (2012, 2014) and technological choices (1993), as well as in Pfaffenberger's social anthropology of technology (1992) and cultural theory of peripheral industrialization (1993). While Pfaffenberger's analysis of the economic dependency and political alienation perpetrated by out-of-place technology illuminates the South American political discussions briefly alluded to above, Lemonnier's insistence that material actions reveal the 'blending power of things' (2014) allows us to apprehend the cardinal social relations and values underlying *bosquesino* daily life in all their subtle complexity.

I am also arguing against the motion on the grounds that we have yet to reach the point of being able to reconfigure the political dimensions of infrastructure development from an anthropological perspective. Some of you may opine that everything I have said so far speaks to Andrew Barry's (2013) 'material politics,' and that I have done no more but illustrate the discursive nature of financialization and securitization. In order to convince you that the Amazonian politics of infrastructure development have more to do with the materiality of living nature than with the power of abductive inference, I must introduce briefly two of the many campaigning movements in the region, Ecuador's *Yasunisados* (We are Yasuní)[5] and Peru's *Amo Amazonia* (I love the Amazon).[6] I invite you to 'research' them on line, using your ethnographic imagination. It will soon become apparent to you that their struggles make no sense unless you are prepared to redefine 'social persons,' 'living entities,' 'rights,' *Madre Tierra* (Mother Earth), and so forth. You will also quickly realise that the stuff their politics is made of far exceeds the Machiavellian dialectics of likely victories or inescapable defeats. These Latin American ontological campaigns, I wish to argue, are best approached using Andrew Pickering's (2015) analysis of nonmodern phenomenological experience and advocacy, at least for the time being.

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[4] Last accessed at <https://www.youtube.com /watch?v=IOX9rGaNpec> on Thursday, 12 May 2016.
[5] See < https://yasunidosinternational.wordpress.com>, last accessed on Wednesday, 11 May 2016.
[6] See their short FaceBook video at < https://www.youtube.com/channel/UCJ0jS2hF379bG8bi5qjS8_Q>, last accessed on Wednesday, 11 May 2016.

As western scientists and policy makers coalesce around the notion that about 80% of coal, 50% of gas and 30% of oil reserves would need to remain below the surface of the earth if the world is to limit an increase in global mean temperature to 2º C, the Ecuadorian intellectuals, scientists, government officials, and activists who defended the Yasuní Initiative against all odds may wonder about the dynamic processes through which their political vision has morphed into a global campaign to leave oil in the ground, now paired with an equally global campaign to divest from fossil fuels.[7] The Yasuní Initiative opened the human imagination to novel dances of agency, radically different forms of scientific knowledge and engineering practice, and alternative ways of being in the world that Pickering (2013) would find politically attractive. Attractiveness may be alright as a starting point, but nothing much will change unless attraction coalesces into collective determination. The politics and economics of divestment, in which universities are playing a key role, make for rich ethnographic terrain. Signatories of the fossil fuel divestment campaign state that "it is both unethical and untenable for universities around the world to continue to invest in fossil fuel companies whose plans to prospect for more oil, coal and gas endanger future global prosperity." Anthropological approaches to the political can only be reconfigured in the fire of coalition building. I thus urge you not only to join me in opposing the motion in debate today, but also to consider supporting the divestment campaign. THANK YOU.

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[7] 'Fossil Free' is a project of the environmental campaigning organisation 350. See <http://350.org> and <http://gofossilfree.org/what-is-fossil-fuel-divestment/>, accessed on Thursday, 12 May 2016.

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## ABDOUMALIQ SIMONE PROPOSING THE MOTION

### Infrastructure as instigation

*Political intensities and the doubleness of infrastructure*

Varying distributions of capacities—to affect and be affected, to bring things into relationship, to navigate actual or potential relations—are political matters. These are matters about who gets to acquire particular emotional patterns, thresholds, and triggers, and they are connected to a complex virtual field of differential practice, what John Protevi (2009) calls *bodies politic*. What he means by *body politic* is the unfolding of a history of bodily experience, of specific modulations on ongoing processes of people and things encountering each other. As Michael Dutton (2012) point out, the political is always a potentiality, expressed through the flows of affective intensity, buried within the circuits of power. The machinery of politics draws out and then channels this flow from heterogeneous trajectories and compositions into the realm of the homogenous and rational.

As such, what we might think as the *virtual* is not some hidden potential that informs what a person's life could mean or the potentials lying in wait in any event. Rather, the virtual is the way that any encounter spins off into all kinds of directions and inclinations, as that encounter has enfolded different kinds of desires and perceptions to begin with (Hansen 2012). The question is where does this spinning off take someone, what will they make it of it, what other encounters will be sought out, avoided or accidentally impelled. This activation of the virtual—all of the encounters a person has inside and outside the house, at work, in the streets, in institutions--informs what a body is able to do at any particular time, where s/he does it, and what it is possible to perceive and pay attention to in a given environment, as each body acts on, moves through other bodies.

This notion of *bodies politic* is important because it shows how the functioning of any social entity, of different kinds of people, backgrounds and activities, does not work by residents forging some sense of community or that collaborations amongst them are primarily honed through a consensus of interests, division of labor, or proficient organizing techniques. Rather, things work out through an intensely politicized inter-mixing of different forces, capabilities, inclinations, styles, and opportunities that stretch and constrain what it is possible for residents of any given background or status to do (Massumi 2014). That no matter what formal structures, stories, powers, or institutions come to bear on what take place, no matter how they leave their mark, that there is a constant process of encountering, pushing and pulling, wheeling and dealing, caring for and undermining. As Dutton (2012)

emphasizes, in the capitalist system, the channel is limited to an understanding of energy flows as only those things that are channeled toward profitable expenditure and rational discourse.

The political entails the excess intensity of affect required to inhabit and rework temporalities of imposition and erasure, such as colonial wounds, partly exemplified through the chaos that occurs in shamanic sessions that attempt to release the political, where it not clear what belongs to whom. From whose orifices do what substances appear; what are the boundaries between persons and non-persons—it is not clear. Healing emanates from the often violent opening up trauma that is not specifically personal, social or historical, deploying counter-practices that entail all of the body's sensory machinery, supplemented with psychoactive substances.

Another example of such affective intensity might be the way in which the tropes of extinction—uncontrollable rising sea levels, extreme weather, rapid desertification, the immanence of the uninhabitable—become shrouded warnings about the inadequacies of machinic infrastructures of all kinds—including states, moral and regulatory institutions—to stem the "tidal bore" of the political. As such, the assumption is that this state of the "uninhabitable", far from being an anticipated horizon or something left behind, is the default condition of the present, the occasion for elaborating an anterior future where the past and the future ceaselessly rewinds in the present.

Infrastructure then becomes that which channels, defines, contains, capitalizes the always excessive flows of affective intensity, an intensity materialized in various substances and compositions. Infrastructure can be read as the embodiment of specific instantiations of capital flows, the aspirations of various kinds of articulation, the concretization of accords, as strategic devices for socializing bodies and places, and as technologies for "throwntogetherness" (Massey 2005). Infrastructure embodies particular dispositions (Easterling 2014), particular capacities to operate on and effect users in specific ways as a kind of power in readiness. It lures and inclines, and we, in return are inclined toward it so that a holding takes place. So captivation can become capture, and we are subject to the extraction of our attention and energies.

Yet equally importantly infrastructure can be seen as a gesture toward the uncertain stabilities that exist in and as a result of the territorialization of space into discernible points, units, tangents, and vectors. Instead of a constantly expansive hardwiring of metabolism, atmosphere and geomorphology, infrastructure is also an increasingly frenetic signaling of volatility. Each suture, hinge, circumvention or agglomeration is insufficient to the uncertainty infrastructure both registers and constitutes.

Creative destruction makes infrastructure a plaything in the recalibration of value; exhaustion acts as a crisis that prompts repairs and renovation, and aesthetic incompatibility to prevailing sentiments subjects infrastructure to radical makeovers. But from its inception infrastructure seems to point to the simultaneous presence of many temporalities—all of the actions never quite constelled as event, all of the intersections and transactions that either could have happened somewhere but didn't or that did but didn't go anywhere specific or didn't leave enough of a tangible trace to point back to or move on from.

Our everyday routines and itineraries constantly skirt on the interface between habituation and improvisation, where improvisation entails knowing from where we set off from but always raises that question about how to get "home." Imagine how it is possible to leave your house and set off and keep going without having any destination in mind other than the next step. If you are sufficiently funded you can keep on going indefinitely. Without map, plan, or

anticipation, the itinerary becomes an entanglement of memory, impulse, desire, and calculation. To continue constantly without a destination in mind is the implicit premise of infrastructure. Even as it orders and structures discernible courses of action and conveyances of cause and effect, it also seems to set things loose, pointing to how turbulent whatever seems stable actually is.

Confronted with a world of impersonal forces indifferent to our existence and forces propelled as the unforeseen consequences of prior actions we largely navigate this world indirectly, rather than confronting such forces head-on. Infrastructure itself tries to elide and circumvent these same forces, constituting a bet that by enfolding materials, places, and bodies into various connections the responsibilities for engaging these forces are reciprocally distributed. That as recipients of what infrastructure does we become complicit with the bet that we can dodge bullets coming from unseen directions. By offering to tie things down, to make things relate, to bring what is far near and to transport what is near to further regions, infrastructure becomes a confidence game.

*Instigating Infrastructure and the Rush to Build*

So here, I want to emphasize how infrastructure enacts a seemingly contradictory "doubleness" of temporality: it attempts to stabilize the volatility of the present *and* instigate a volatility of the future. I also suggest one "popular" response to this process that entails the replenishment of a "past."

It is a now well-established notion that infrastructure is not simply the roads, the buildings, the pipes or the wires. It is also a particular formatting of stability, a means of coagulating liquid relationship among materials and objects with apparent solidity and definition. Particular materializations act more as modulations than impositions of definitive form. Infrastructure is a locus for both the empirical and experimental in that infrastructure exists as a constellation of heterogeneous entities and forces that exert specific dispositions and possibilities as well as being an assemblage of intra-action that constitutes the very possibility of delineating such entities. As Jensen and Morita (2015) indicate, the intentional working through infrastructural development to invest sites with particular forms of politics and morality takes place on the same plane as multiple and variously formed entities transforming these sites through the ways in which they apprehend and relate to each other. Both maneuvers exist in a kind of *generic instability* (Laruelle 2009).

Infrastructure always seems to promise something, and so often it seems as if it is a promise intended to be broken. Whether this is a matter of intended deceit or an ingenuous miscalculation as to how infrastructure will actually be used and the costs entailed to keep it going, those responsible for its care often run to keep up or simply disappear from view. Public housing for example has long seemed to promise that even the poor could have access to a livable environment, and no matter how much residents may take pride in their surroundings and learn to manage seeming unworkable densities of occupation, housing authorities ended up being the actors that underestimated the work involved, or more maliciously sought to constrain the potentials of their own creations.

Infrastructure really can't delivers on any promises. For, even as it emplaces capital flows, the specificities of materials, actors, and technicities are not constelled into definitive patterns or evidence of macro-structural maneuvers. They are also their own things and constitute their own *alliances* (de Castro 1992). While urban domains are certainly the products of particular structures operating across different registers of life, generic instability refers to the ways in which the apparent systematicity of cities is in large part a process of "one thing leading to another." Things "come and go", shifting the work they do in a

seemingly endless process of readjustment and recalibration. There are many rhythmic modulations and material of the relationships between capital, power, policy, and popular practices. As such, infrastructural developments are informed and enacted within multiple aims, temporalities and atmospheres.

Across the region of Jakarta there is a rush to build. Politicians, developers, investors, bureaucrats, and ordinary residents seem to talk of little else but the need to build things—from new freeways, transit systems, luxury sub-cities, flood canals to thousands of small houses and commercial buildings.

While infrastructural products may be replete with technical specifications, the enactment of infrastructure entails a complex process of assembling sentiment, authorization, finance, and labor. It has to disrupt and implant, anticipating as much as possible the ramifying implications of this duality. As an assistant to one of Indonesia's major property developers aptly puts it, "it is a constant effort to keep things from slipping away." Urban infrastructural development not only constitutes a guess on where the city is "going", it also elicits the possibility of being part of a cascading and lateral chain of significations and realignments not necessarily imprinted with the weight of particular causations or history.

But it also instigates a temporality "set loose" from calculation—a process of associating place, people, institutions, finance and politics that ramifies in unanticipated ways (Parisi 2013). This instigation can be materialized as the disentangling of landscapes, ecologies, and territories; it can be materialized as the regeneration of places otherwise considered dissolute or beyond repair; it can be materialized as the redemption of past efforts and histories, the realization of long-held aspirations, or the concretization of the possibility of another way of living.

This instigation is something that encompasses and exceeds speculation, for it not only operates within the rubrics of the financialization of risk—of leveraging the future as a means of hedging a multiplicity of probable futures for how a specific infrastructure will operate and the value it will have. But this instigation also aims to posit infrastructure as *detached from reason,* within a scenario that cannot be fully calculated now, and which imbues it with an adaptability to futures where no matter what happens there is possibility of recouping something which itself cannot be specified.

Even if contracts, policies, projects, technicities, and brute force hold the constitutive components of roads, rails, housing developments, flood mitigation conduits, water reticulation, or sanitation treatment systems in place, each of these components are also enmeshed in a plurality of other relationships and statuses. In Jakarta, and in many other cities of the so-called "South", the rush to build tries to outpace escalating land prices, labor shortages, changing policy frameworks, cost overruns and widening disparities in interest rates incurred by borrowing in different currencies. It tries to outpace a creeping diversification of options in the housing market as both available and anticipated stock remain unaffordable to 70% of the population looking for accommodation.

In the commercial property market, developers try to outpace the intense competition waged at the level of occupancy rates, a byproduct of which is for owners to offer attractive long-term leasing arrangements or leases with flexible escape clauses, but which are paid for in U.S. dollars. As many new commercial buildings are being built on the sites of a first generation of office towers, the rush to build also tries to maximize the locational advantage of no longer appealing, half-empty commercial stock. But in order to do so, developers face the prospect of waiting out long leases to existing tenants or compensating for early termination. The rush to build is also rooted in the fact that almost all developers have to

offer their own so-called "cheap payment" plans because of prohibitive bank mortgage rates. These payment plans require a nominal down payment and anywhere from 12-48 subsequent monthly payments prior to the completion of the project, money that is immediately re-invested in new construction projects. As the value of an apartment appreciates on average 30-35% between the time of sale and its completion, many sources of financing are applied to the acquisition of such property in order to attain eventual rental income or simply play the game of capital appreciation. While real demand seems to be sustained, developers still rush to outpace possible bubbles and oversupply.

The rush to build is also shaped by the recent opening up of perpetual leaseholds to foreign investors at the high end of the housing market, which has the effect of extending the territory of the luxury property market into solidly entrenched working class districts. The rush to build also is related to the fact that only a minority of new apartment owners actually occupies the premises, instead renting them out in all kinds of tenancy arrangements.

The initial round of providing so-called affordable vertical living has demonstrated the complex everyday politics that can ensue as a large base of heterogeneous residents with no prior history with each other try to consolidate particular spaces and styles of operation. It is not clear what kind of contested or accommodating atmospheres this is going to produce in the long run, so developers rush to build before particular negative impressions take hold. All of this rush to build, in aggregate, creates the very conditions that developers seek to outpace. In their very efforts to stabilize they introduce intensive instabilities in the system that has to be continuously reformatted. At a broader level there is the widespread conversion of residential into commercial property, but largely under the radar, so there are efforts to stabilize this trend without prompting rezoning or commercial licensing that would increase costs, and these efforts entail maintaining the accouterments of a residential façade. Older, largely vacant commercial buildings are surreptitiously refurbished as large-scale rooming houses in order to maintain some viable income flow.

Variegated and rapidly shifting land use patterns, speeded up circulation of residents across different housing locations, the formation of growth boundaries in the form of massive industrial land estates at the urban periphery, the youth demographic that floods the market with new workers every year, the accelerated roll-out of flyovers, bypasses, and rail systems, the uncertain morphological and ecological implications of massive concentrations of new developments in particular parts of the city—all impact upon each other in ways that amplify the sense of exigency to deploy infrastructure as a marker of stabilization.

But this deployment requires its own twists and turns. It entails complicated negotiations as to the extension of road widths, the re-emplacement of hundreds of thousands of workers who use roads, sidewalks, verges, riverbanks, rail lines, and underpasses as places of residence and employment. It entails the consolidation of land replete with various histories, ownership structures, entitlements, and functions. It entails negotiations with different kinds of authorities who derive their power from the mobilization of different interests and constituencies frequently living and operating side by side, but often in very different worlds. It means responding to the demands of a more politically involved middle class that wants a better quality of life and the realization of particular imaginaries about what a functional city looks like.

It means staying under the threshold of potential antagonisms that might slow down progress of projects producing the prospect of substantial financial loss. It entails trying quickly to establish particular facts on the ground, which even if deemed to be violations later on are too sizeable to be removed or substantially altered. So infrastructure here is a politics of

modulation, of bringing volatility to a workable standstill so that particular projects can materialize.

*Slowing things down*

In the midst of these infrastructure projects, we have to remember that sometimes urban residents don't want to be connected, or don't want to buy into the package of compensations on offer or behaviors expected in order to more substantially articulated to whatever development dreams are being pursued at the moment. Here a sense of futurity is sought in an enactment of the present in multiple "guises," as a strategy for slowing down the rush to build.

For example, from my own work in the urban core of Jakarta, there are many districts of seemingly depreciated, dilapidated commercial activities, a jumbled mix of built environments and residential status.  Here, the dominant actors forego making money in order to retain a sense of power.  This sense of power is built upon "choreographing" oscillating relationships among religious associations, district defense committees, commercial networks, formal and informal local authorities, youth gangs—to cite a few— whose members usually circulate among these, on the surface, discrete organizations.

These districts are trying, at least implicitly, to detach themselves from the onslaughts of massive redevelopment, or at least slow them down. It is not always possible to assign a particular role or value to a particular person because they wear different "hats" at different times.  A religious leader also is an entrepreneur and a politician and runs a local recreation club. A housewife that organizes savings groups is also a prominent religious figure and also a local government official who also runs a number of stalls in the local market.


Residents participate in very different kinds of associations and ways of being with each other, taking on different roles, behaviors, aspirations.  They make different kinds of claims. These claims are not usually claims for citizenship, although they might be. Rather, claiming becomes a means of configuring different vantage points on what is going on, different kinds of access to resources and opportunities, and a way to open up new kinds of networks. These openings keep important information flowing about what is taking place in the larger city. But importantly, they also make it difficult for "outsiders" and those who would try to appropriate large chunks of the district for mega-developments to read exactly what is going on, slowing down whatever maneuvers they have to bring about wholesale changes.
And so these districts of Jakarta operate as a series of parallel formations, where residents and operators do not feel they have to know everything about what everyone else is doing, where there is a limited sense of exclusion, where people can pursue highly particular agendas through provisionally connecting with all of these different kinds of collective formations, but without a sense of owing anything, or aligning agendas.     It doesn't mean there is not conflict. But what usually happens is that particular "projects"—economic activities, uses of facilities, streets, and labor-- spin off in different directions. This is made possible by the built environment itself. Not only was the physical demarcation of plots, households, and functions often intentionally made ambiguous but the intensive compactness of the distribution of built forms with their wildly divergent materials, angles, architectural vernaculars, and uses rendered whatever took place intensely public and singular at the same time.
This reiterates the importance of the question about who makes the city, rather than simply the imposition of formats and standards, and the role of infrastructure as political action. This making entails the continuous and intensive interactions among things, materials, and bodies that don't "stand still", always responding and recalibrating, mutually unfolding different configurations and possibilities, and thus generating new and enduring skills based on

multiple relations and different ways of "doing reality." As such, who can do what with whom, where, and when remain a constant and open question for many inhabitants of Jakarta and perhaps for cities everywhere.

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## SIAN LAZAR OPPOSING THE MOTION

### A *welcome* reconfiguration?

I want to argue that a focus on infrastructure might reconfigure anthropologies of the political, but that I don't think it's terribly welcome how it does so. And that is mostly because I think a lot of aspects of the political - of what is encapsulated in a good notion of the political - get missed out. So, in this presentation, I want to give you an impression of non-infrastructural aspects of the political that I think it's important for anthropologists to pick up on. But, in addition, I would argue that what a focus on infrastructure does is that it brings a focus to government or governance. Laura (Bear) told us infrastructure sparked economic governance, that the study of infrastructure reveals economic governance. This is correct, and in this context it is important not merely to discuss government by the state, but to expand our understanding of government. But anthropologies of infrastructure seem to turn on *government* itself nonetheless, and 'government' is viewed as provision of services, through whichever infrastructure those services are organized and brought to people. So in fact, just how much of a reconfiguration of dominant notions of the political actually is afforded by the new emphasis on infrastructure? Because it doesn't seem so different from how development has been seen since at least the 1940s.

First of all, though, let me take you to El Alto in La Paz, in Bolivia, where I went in October 2015, my first trip in around six years. The changes were amazing. The city now has the *teleférico*, a cable-car that connects El Alto to the central and southern parts of the city of La

Paz, 800 metres below in altitude. That cable car system runs from the wealthy areas at the bottom of the crater in which La Paz sits, up to the centre of La Paz itself and then up the sides of the crater where the poorer parts of the city are located, to finish at the city of El Alto on the plain at the top. A new fleet of buses, called the '*puma katari*' also drives up through the city from the south to the centre of La Paz. They both compete with the common but less formal systems of transport in minibuses (which can take up to 14 people on each trip, but have defined routes, organised by the drivers' unions). I was talking with my friend who said to me, of the *puma katari*: "it's amazing! You know, we've got this incredible bus that takes you all the way up. You know, this is a rediscovery of the public! This is the new form of transport, against the neoliberal privatization of transport!" And I thought: "I'm supposed to argue against infrastructure in a few weeks, what will I do?"

Then another friend told me that one of the things he thought was that his friends liked the *puma katari* bus because, they said, they can read on it. They can go up to the centre of the city and they can read. You can't really read when you are sitting in minibus vans with 9, sometimes even 11 people crammed in the back. What this amounted to, though, was that his friends like the *puma katari* because it is modernity, because it's middle class, because it's separating them from the dirt and the smell of the indigenous peoples, ultimately.

I then went on to Argentina, where elections were taking place that month. Elections are archetypal political space, and I do want to argue for an expansion of the political outside of formal normative notions of the political. But for now let me talk about how a political act, a political event, can be so much more than infrastructural, even though it's got to do with infrastructure as well.

This was a presidential election. Daniel Scioli was the official candidate; Mauricio Macri the challenger. In the August primaries Scioli had led by about 8%, and Macri was second. In the first round of the elections, which were held at the end of October 2015, Scioli beat Macri, but this time only by somewhere between 2 and 3 points, which then subsequently gave Macri the momentum. And I'll give you the spoiler: Mauricio Macri won in the second round. But I want to tell you about what happened in between.

You could call this election a debate about infrastructure. For example, what was quite interesting was that the official candidates lost the vote in the province of Buenos Aires, in part because they put up a very unpopular candidate for governor there, in part because of the attractiveness of the other candidate. Yet one of the reasons for Scioli's unpopularity was because when he'd been governor of the province of Buenos Aires, he had failed to be present and deal with the floods that had happened across the province in the previous year. So, his electoral defeat in the province could be a story about infrastructure, about the political failure to put in place proper infrastructure. It could also be about the fact that Scioli went on holiday to Italy during the time of one particular set of floods, and had to be brought back, apparently very reluctantly, so people told me. They felt that he had not really acknowledged the need to be present, to deal with things, to take charge of things. And so, this could <u>also</u> be a story about leadership.

Furthermore, one of the features of Mauricio Macri's campaign was ringing people on the phone with a recorded message that said: "hola, soy Mauricio!", "hello, I'm Mauricio, I'm calling to talk with you about the elections!" It was very very personal, very interesting the way he approached people, in this one-to-one sort of way. His main campaign strategy was to talk about change, and his coalition was called 'Cambiemos', 'Let's Change'. Macri had previously been the governor of the city of Buenos Aires, and people argued that he had not done anything there by way of infrastructure, public health, and so on. So in the matter of infrastructure, he was not, in the end, that different from Daniel Scioli, who had – people

thought – not done enough for the infrastructure of the province of Buenos Aires, including with respect to public health and education. Infrastructure alone does not explain the electoral result.

There were also a whole series of other issues and processes that went on when I was there, in response to the first round electoral results. I spent time with trade-unionists, public sector workers, and academics in the University of Buenos Aires, most of whom supported Scioli, even if reluctantly. Both groups talked to me about their shock at the surprising electoral result and the anxiety that they felt about the future, if Macri were to win. A few weeks later and they're still talking about that anxiety, especially those with public sector jobs who have real concerns about policy and the vision of the future that Mauricio Macri represented. Their fear was of a return to the 1990s.

The 1990s in Argentina is associated with really extreme neoliberal structural adjustment. Mauricio Macri is associated with that particular economic perspective. So people with public sector jobs were very worried about what's going to happen. They were looking to who Macri's advisors are: Chicago boys, Harvard educated economists, the usual suspects. They read the emphasis that things 'will change' as 'will return'. So this trope of the return to the 1990s, this kind of historical fear was present. They responded not only with shock, anxiety and fear, but also with effervescence. One friend told me that there had been a 'real effervescence of militancy' after the first round result, by which he meant that people went to the streets, and turned to activism. For example, a huge public meeting was called to try to prevent a second round electoral victory for Macri. It was held in the *Parque Centenario*, a park in the centre of Buenos Aires which has a history as a highly important place where lots of neighbourhood assemblies took place in the immediate aftermath of the economic crisis of 2001. So, people were gathering in the place strongly associated with a crisis that was seen by many as the culmination of the 1990s economic policies. Their terror of a return to the 1990s is a terror of a return to that economic crisis.

Furthermore, people gave me a class-based analysis of the vote. Many said to me that it was the middle classes who voted for 'change', and in doing so, they often expressed a kind of disgust with the middle classes for voting for Macri[8]. But on the other side, on the part of Macri and his voters, many people felt disgust with the incumbent president and therefore with her candidate. It reminded me of that film, 'Inside out', which depicts anthropomorphic renditions of joy, anger, fear, disgust and sadness in a girl's head.

What emerged for me was a psychological narrative about politics, about disgust, fear, change, and so on. That has much to do with the fact that it was in Buenos Aires where many have a therapist and they talk frequently in a sort of therapeutic language. But it also indicates that politics, the political, the political sphere, is so much more than governance.

Beginning with infrastructure does lead us to focus on government or governance, as you can see in much of the literature. The good thing about that literature is that it brings in the whole set of infrastructure of government here, that's to say, not only the state but also the private sector. And yet, I'm not so sure that it's that different from the kind of dam building and road building of the 1950s, which is still dominant today, as you can see with integration projects like the building of the Nicaraguan canal. And there's a side problem I think, which is the danger inherent in the potential for shifting the political into technical questions, the classic anti-politics machine (Ferguson 1990), with the risk that infrastructural approaches might

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[8] The actual vote is more complicated than that. See (Lazar 2016) for more discussion of the election.

even de-politicize what are actually highly political questions, as in the current World Bank infatuation with the theme.

What the emphasis on government misses is in the examples I've given you: emotions, hopes and visions of the future, of the past, moral evaluations, class, ethnicity, gender narratives, the middle class bus, identification, symbolic readings. I think it misses what to me is the essence of the political. I think infrastructure has become a monster that devours all the political, all the anthropological approaches to the political. I want to draw on Chantal Mouffe to tell you what I think the political is. She says:

> "by the political, I mean the dimension of antagonism which I take to be constitutive of human societies. While by politics, I mean the set of practices and institutions through which an order is created, organizing human coexistence in the context of conflictuality provided by the political" (Mouffe 2005: 9).

So, "the political" she says "is an ever present possibility of antagonism" (ibid., 17), and you will know she makes the distinction between agonistic versions of antagonism and adversarial ones, but antagonism is key. It's an extension of the Schmittian notion of the political as the friend/enemy distinction. I also want to give you a quote from *Hegemony and Socialist Strategy*, written with Ernesto Laclau, where they say:

> "When we speak here of the political character of these struggles, we do not do so in the restricted sense of demands, which is situated at the level of parties and of the state. What we are referring to is a type of action whose objective is the transformation of a social relation, which constructs a subject in a relationship of subordination. (…) We might also say that our task is to identify the conditions in which a relation of subordination becomes a relation of oppression, and thereby constitutes itself into the site of an antagonism." (Laclau and Mouffe 1985: 137)

So, it's not about just the identification of a fight against relations of subordination, or exploitation and oppression, but also the creation and maintenance of those relations. All of these fall within the realm of the political, and it's difficult to approach them analytically merely or solely through infrastructure. So, to give you the example of the employer/employee relationship. One thing Mauricio Macri was accused of saying was that he thought that collective bargaining was fascistic, and that each employee should have the right to negotiate with his or her individual employer about his or her employment conditions. This is why unionists are frightened: he apparently thinks that people should negotiate with their own employer, on their own, about their employment conditions. And in the unionists' reaction to this statement is encapsulated also a more long-standing fear of the danger of speaking out, of fighting collectively, engaging in collective activism, the danger of state repression of demonstrations, of assassinations of activists.

I also want finally to point briefly to broader inequities of power and more intimate ones, gender being a fantastic example, because it is broad and it is also incredibly intimate. Could we really talk about gender relations and the political nature of those with respect to infrastructural questions? We can, but it is so much more! Can we talk about the pink for girls and blue for boys as a question of infrastructure? And, can we understand things like, "love, yes! Macri, no!", which was the slogan of the meeting in the *Parque Centenario*? Or the fact that on the eve of his election Macri played a sports game that was strongly associated with the 1990s structural adjustment, right when people were worried about a return to 1990s economic policy making? Can we talk about all these kinds of things through a language of infrastructure? I think that all sorts of things are political, from intimate relations to visions of the future and interpretations of the past, to desires, values, actions, and symbols. It's

important, I argue, to fully humanize anthropology and politics. That is, to appreciate the full extent and range of the humanity of any given situation. I really think that's what anthropology, including political anthropology, does best.

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**THE DEBATE**

Soumhya Venkatesan (Manchester): At the end of the four presentations, the sense that I came away with is that infrastructure can be necessary as a way of engaging with the political, but is not sufficient. Would that be a fair summary?

Lazar: Yes!

Rival: not quite, for we still need to identify something specific. If you say 'life form' you know there are trees, or 'fish,' and so forth. The problem with the way infrastructure is being used is that it covers such a great range of heterogeneous things and processes that it is difficult to talk about it as a coherent whole to which the political would equally apply.

Bear: I'd like to return everybody's attention to what the motion was, because the motion wasn't that attention to infrastructure is sufficient or insufficient to the understanding of the political. The motion was about whether attention to infrastructure *reconfigures* our understanding of the political, of what the political might be and the grounds for the political. And I think that it does do that. We are not making an argument that "all of politics is encompassed through attention to infrastructure". What AbdouMaliq and I are arguing is that by paying attention to infrastructure we see the kind of trans-individual ground from which politics emerges, for what counts as politics and what doesn't count as politics. It's not that every kind of politics is encompassed within attention to infrastructure.

Richard Werbner, Manchester: To me, the word *reconfigure* must be at the heart of whatever you say, and I accept the point that Laura made as she tried to do that. Are we facing something radically different or are we not? So I would say, let's hear from the panel how they take a stand with regard to the long-term attention which anthropologists have paid, for example to dams. Where is the historic attention to reconfiguring the political in your argument, both sides.

Bear: thank you Richard. I think there's very little disagreement between you and me on this, which is why I gave a kind of historical perspective on the emergence of different kinds of circulatory systems with different sorts of financial arrangements, which generate different kinds of political possibilities and different kinds of volatilities as well. So, while I think that the Kariba dam in Zambia, for example, was infrastructure in that moment of World Bank loans as a political gift of time, and it generated a particular kind of boom of the copper

industry, which had a kind of longer term boom than the sorts of infrastructure and the finance instruments that back them now. There has been a historical shift between that moment of infrastructure and the contemporary moment. And that historical shift involves a different conceptualization of what infrastructure is. Infrastructure is now seen as all of these social networks, as emergent relations within the city that can be capitalized in new ways, that can have new sorts of property relations. And the sorts of lending structures now that exist are totally different from these World Bank lending structures, and they generate different kinds of volatility and different kinds of possibilities for politics. The lending relationships now are entirely marketized relationships. So it's not just that infrastructure has been partly built by private agencies, which was true of the Indian railways. What's happened in fact is that there are these special-purpose vehicles that are developed and in which people can invest, in infrastructure bonds and their derivatives, which institute new kinds of credit rating systems in the loans…so everything is driven by a much more marketized short-term speculative volatility. This hollows out the possibility for governments to take political decisions about the economy in a way. These relations didn't exist when the Kariba dam was build. So I really welcome your question because I think it gets to the heart of what I was trying to express: that infrastructure *is* historically emergent, and attention to the forms of infrastructure that we have now reconfigures our understanding of the political. This is because the kinds of infrastructure that we have now hollow out the possibility for political decision-making on the economy.

Rival: my paper too tried to deal with history and the unique conjuncture in which we find ourselves today. In fact, I have thought more than once that I could have equally argued in favour of the motion! Understanding the environmental crisis we are going through and being conscious of the seriousness of the ecological problems we are facing should lead us to renewed political engagement. Look for instance at this short video by and about Ecuadorians trying to find a political solution to the problems that their country's dependence on oil is causing.

[Rival shows a video on Ecuadorian Yasuni-ITT initiative, which seeks compensation for avoiding pollution by leaving oil untapped: https://www.youtube.com/watch?v=IOX9rGaNpec ]

Too much, I think, has been written on the commodification of nature and not enough on the value of nature and the politics of these values. The Ecuadorian Yasuní-ITT Initiative was presented at the COP 15 (Conference of the UN Framework Convention on Climate Change) in Copenhagen in 2009, but people today have forgotten that this politically daring proposal first came from a small country in Latin America, Ecuador. At the COP 21 in Paris tomorrow (six years on), the idea of keeping the oil underground indefinitely will be debated. It is no longer taken to be a utopia! The point, however, is that it will be negotiated as part of a different political agenda by other political actors; it will be presented as a gift to the world from the North, and not as an illuminated proposal from the developing South.

Lazar: when I saw the motion I initially didn't question the reconfiguration part of it. My problem is whether it is a *welcome* reconfiguration of politics. That's why I differ from Laura [Rival]. I agree that it brings in an extra element. Perhaps before, people might have thought about development of infrastructure, and I'm talking of dams and roads and cables and pipes and electricity and telecommunications, that kind of physical infrastructure. I think the debate used to be about the state, and the people, the state and the citizens. It's brought in other actors, but it's still about governance and provision of services in my view. And I think the political itself is about very much more than the kinds of claims we can make upon different actors for resources or services. It's got to do with all sorts of different kinds of antagonisms.

My answer to Soumhya was kind of flippant, but you could do an anthropology of the political that doesn't include infrastructure at all. So, in that sense it's not necessary. I just think that if we focus on the materiality and infrastructure than we start to miss things. That is why I think it's not welcome. I'd actually want to go back to all the anthropologies of the political that are so much about relations in between people, for instance kinship, childrearing, these kinds of things. The kind of old-fashioned anthropology.

Simone: and that's fine! I mean, if we asked the question: what is it that we can do together, right now? If we're going to address what is it possible that we can do together right now, we have to consider: well, what is there between us? What's between us can be the fact that most of us are anthropologists, I would presume, and people come from particular kinds of universities, and there's a lot of ways in which we can elaborate the notion of that relationship. But what is also between us is something very material. We're sitting in this room, we're sitting up here, there's a table here, you're sitting behind these tables lined up in particular kinds of rows…we're speaking…you [the audience] don't do most of the talking…there's something very physically, materially between us and what is between us has a lot to do with what it is that we can do together. So if what it is we can do together is a question of the political, then we always ask that question being situated in some kind of infrastructural environment, which gives us particular ways of seeing each other, particular ways of being proximate to each other, of smelling each other. We're not obviating all of the other ways in which we are connected to each other. But we are trying to find the way in which to bring in another modality, another locus, through which we can raise the question: what is it possible for us to do together?

Bear: can I answer Sian's point about understanding politics through kinship? Sian's point gets us to the point of you would miss if you didn't take into account infrastructure. It is this missing element that AbdouMaliq has just spoken about very evocatively too. Let's take the case of kinship and politics: what would you miss, for example, amongst the working class families  that I worked with in Howrah (Kolkata, India),. What would you miss about their kinship relations and politics if you didn't take into account infrastructure? What you would miss is the central process that's disrupting their strategies of accumulation by care within their households. Because what's going on around them is the seizing of public land by agencies such as the Port Trust, the flattening of their houses, the building of middle class housing (which enables another kind of kinship) and the disruption of these families. As a result of these changeswomen then have new gender relations, new relations with their children because they are separated from their husbands, their homes are flattened, they have to seek charitable relations…It's a whole reconfiguration of kinship, and if you  didn't pay attention to the infrastructural elements of this, the fact that physical houses are being flattened, new networks of capital are being invested, there are debt relations between the Port Trust and the central state that flows of capital are moving  along for the repayment of central government debts…if you didn't pay attention to infrastructure in relation to these transforming kinship relations, I'd say you would understand very little about them or the political relations they are connected to.

Rival: I do not disagree at all with you, AbdouMaliq or with you, Laura, for that matter. What I am disagreeing with is the idea that the theories that are brought into our discipline today via the anthropology of infrastructure allow us to understand the material in its relationship to the social in a way which is novel, and which allows us, therefore, to reconfigure the political. Not at all! The link between the material and the political was already there in the writings of Marcel Mauss. This tradition has lived on in France through the work of André Leroi-Gourhan, Pierre Lemonnier, and others. It remains our best starting point. Bruno Latour too comes from this tradition, but he seems to have missed bits of it on the way, so I prefer

not to engage with his work directly, and go back to the Maussian roots instead. There are fertile roots in the North American cultural anthropology tradition too. We could go back to Leslie White, but suffice it to say that if we open a popular textbook from the 1970s such as Marvin Harris' *Culture, People, Nature*, we find entire sections titled 'infrastructure,' 'structure,' and 'superstructure.' Anyone revisiting Harris' materialism in the light of Pierre Lemonnier's discussion of the material dimensions of life, will quickly realise that there are still untapped treasures in Durkheim, Mauss, White and other early anthropologists and archaeologists. Recent studies in the anthropology of infrastructure, no matter how accomplished, pale in comparison to these treasures.

Maria Lourdes Salazar (Manchester): I think it is important to notice a difference between infrastructure in each particular context and how anthropological project developed in each particular context. So, in Mexico, anthropology is much more politically engaged than in England. Also, are we now moving away from a focus on culture to one on infrastructure?

Bear: Yes, it would be very interesting to have a longer conversation about the history of infrastructure as a historically emergent project within Mexico versus within London. That would be an important conversation to have as part of attention to infrastructure. I don't think either AbdouMaliq or I are claiming that there's a kind of single understanding of infrastructure that is at work in all of these situations. In India, for example, there is still a public works department. So there's obviously a historical layering of an older style of infrastructural project that has been sustained through the Nehruvian period and post-liberalization In terms of political engagement: you're suggesting there is a greater possibility for a political alliance between anthropologists in Mexico and social movements there whilst there isn't here. I would beg to differ. There's a very interesting group that is part of the LSE anthropology department that's organizing a free university of London in some of the housing estates that are currently threatened by privatization, by the selling off of land, and I think that there are equal possibilities for engagement around these political issues.

Jeanette Edwards (Manchester). I found Sian's engagement with the non-infrastructural aspects of the political quite compelling in the sense that I found myself thinking through gender, class, sexuality; and she gave us a very evocative example of the white, suave, smiley, politician in Argentina who generates fear, disgust, anxiety, shock. Those kind of emotional resonances or responses, Sian seems to be suggesting, are not infrastructural. They are part of the non-infrastructural. So using that example and suggesting that a focus on infrastructure would divert us from attention to that kind of politics of antagonism, shock, fear, disgust. I'd like the proposers of the motion to pin down briefly and clearly why they think that infrastructure can address those aspects of the political.

Simone: In Jakarta, between now and the next five years, a half a million units of purportedly affordable housing are going to be provided. This is an enormous volume of infrastructure. And the modality in which this infrastructure is being presented assumes a particular kind of imaginary about how that infrastructure is going to be inhabited. These are vertical towers, projects of 17000 units in one place, 16 square meter studios and at most 42 square meter two-bedroom apartments. The imaginary of who inhabits these places is one of a kind of scaled-down nuclear family, or individuals. In order to make these units affordable, this is the way they are going to be built. But no one building them assumes that this is the way in which they're going to be occupied. So then in some ways, the modality of affordability and how that is materialised in actual infrastructure introduces a disjunction in terms of how the finance is actually raised, the kinds of social forms through which the finance is raised and then actually, how these things are inhabited. So you have a kind of querying of the residential base of these new infrastructures. Because they end up being inhabited not by

individuals and scaled-down nuclear families, but a rearranged sociality whereby different kinds of people collaboratively get together and assume control over perhaps nine to ten contiguous units. So, in some sense it requires a whole new reworking of what a household is, what an extended family is, what the kind of gender relationships are within a form of inhabitation which, in some ways, is occasioned by a particular kind of process of infrastructural development, but not inhabited in that way. What kinds of words do we have to talk about this sociality? What kinds of concepts do we have to think about what is the notion of coherence? So it does address issues of gender and affect and how relationships are managed within everyday life.

Bear: We inhabit bodies, to state the obvious, and as Susan Buck-Morss has pointed out, our sensation of being in our body is generated from the atmosphere around us, and it's generated from the experience of moving through spaces, of what happens in and to the spaces around us. For that reason, I don't see any separation between the infrastructural and the affective. As AbdouMaliq put it earlier the infrastructural is everything that is between us, it's making us feel the way we feel, maybe a bit tired at this moment in the room or whatever else. Our experiences are generated in part by the aisthesis that come out of infrastructures. Now, to give you a very concrete example of this... Sian didn't tell us about politics, actually. She told us about voting behaviour. And I think AbdouMaliq and I have a much more interesting definition of what the political is than just voting behaviour. But, to give an example of voting. In Howrah where I worked with these working class families, one day I was shocked to see in the newspaper that a whole section of the slum had burnt down just next to where I was doing my fieldwork. It was during an election, and suddenly spectacularly, a whole range of politicians including very famous ones descended down onto these ashes and ruins. Their images were then broadcast through media infrastructures showing their concern, carrying out charitable acts in relation to the people who had lost their homes…and what was very interesting to me was that that collapse, that kind of disappearance, that sudden disappearance of that physical infrastructure generated a kind of political capital for these leaders. But not only that, it created an atmosphere of fear, of a sense of the riskiness of your life as a working class person living in this area, that your house could suddenly disappear around you, which then influenced the result of the municipal election. Now, this is politics as lived in an atmosphere and in an environment as a form of aesthetic that is generated by the presence and absence of infrastructural forms.

Lazar: I want to come back on the accusation of not talking about politics, but about electoral politics. I want to do that by saying that surely, there's something political about the kind of adversarial structure of this argument, the way we're all set up opposing each other, not in the Mouffian sense of the political as a kind of an antagonism, but literally a debate with a motion that you argue against, and you have to put yourself in a particular position, and my own desire to meet in the middle! All I want to do is say: "yes, I agree with you on this but I slightly disagree with you on this, and I think we're kind of agreeing on this particular issue." And I think both that desire to meet in the middle, which I think is a really gendered desire and it's in my conditioning - maybe you could talk about it as infrastructural, these kinds of questions, these kinds of setups…But does it help to do that? And I just don't think it does. We have other languages, is what I am saying.

Michal Murawski (UCL): I want to bring up another long-standing understanding of the term "infrastructure", which I think has been on the background of many of the presentations. This is the Marxist understanding of infrastructure as a more or less determinant base, on which some kind of superstructure arises, or which over-determines this kind of superstructure. I was at the AAAs just now and there were 13 panels on infrastructure there. And in many of these panels, the only context in which the Marxist understanding of infrastructure was

mentioned was people disassociating themselves from it by saying, for instance: "I'm not talking here about infrastructure which is causally prior, or which is deterministic, or which is Marxist. I mean infrastructure as assemblage; infrastructure as a bundling of agencies or a flat infrastructure." Surely, this is somewhat curious. To me, the potential of infrastructure for thinking about the political is that allows us to think about not just emergence but also about effective causality, and to not necessarily have a dichotomy between these two things. So, I just wanted to ask both sides of the debate whether a Marxist, let's say over-determined rather than deterministic, notion of infrastructure is incompatible with a political notion of infrastructure; whether it is obsolete; whether perhaps this is the time to bring Marx back into the debate and let the elephant into the room.

Bear: I suppose more than anybody else, I'm influenced by Marx in my approach to infrastructure, in particular *Capital* volume 2, which is all about circulation and exchange and the movement of capital around these circuits of exchange. It's a fabulous book for capturing the forms of exchange, the circulatory systems that existed at that point in the 19th century and there are these wonderful sections on the workers' relation to the machine, on railways, on how the capitalists deal with decay in their machines... So I'm centrally inspired by that and I think that it goes very well, as many have people pointed out, with an anthropological perspective, because anthropologists focus on the concrete, that's how we use our case studies and our examples. We use them in a particular way, the way that Andrew Barry says metallurgists use their examples, as these really vital things. What I would say is that Marx didn't live now, and his *Capital* volume 2, following these circuits, would look very different now. And I guess what I'm trying to do is I'm trying to capture these circuits now.

Rival: Infrastructure is about the material world, so we are talking about material culture, but material culture in a way that forces us to re-engage with the "infra" part of the term 'infrastructure.' What do we mean by 'infra'? Of course, you're absolutely right that Marxist understanding forces us to think about effective causality rather than emergence. I totally agree with you, but, like Laura, I would also say that Marx did not live in the 21st century, and that we have to reinterpret him in the light of a crucial issue: the dualism of nature and culture. Was Marx really thinking along western lines, dividing humans from the rest of nature? He was, and he was not. Parts of his work were along these lines; others were not. This is why we now have a rich tradition of Marxist ecology, which is revisiting Marx's subject-object dialectic. This is also why Pierre Lemonnier (a former student of the French Marxist anthropologist Maurice Godelier) thinks that being a true materialist involves paying serious attention to materiality and to what he calls 'technical choices.' In a recent article in which he talks about the debates that were taking place in France in the late 1970s and the early 1980s, he laments the fact that all French Marxist anthropologists were structuralists with little interest in the concreteness of things.[9] Lemonnier says: "It was horrible, it was terrible! They all said they were materialists but the only things that really interested them were empty, abstract categories. The only material aspects that really interested them were the productivity of labour and the social relations of labour. All other aspects of work and activity normally present when humans engage their lives materially had completely disappeared from their analysis." The sensory, the affective, or the spiritual are very much part of the Maussian tradition of habitus, though. These are the dimensions that attach us to the world. So, yes, we have to reengage with Marx, but in doing so we need to get to the

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[9] 2011. "Fallait-il en passer par là? Du grand silence des forces productives en anthropologie marxiste aux joies de la technologie culturelle rénovée." In *Penser le concret: André Leroi-Gourhan, André-Georges Haudricourt, Charles Parain* (eds) Noël Barbe and Jean-François Bert, 81–88. Paris: Créaphis Éditions.

materiality of things in a way that does not reproduce the dualism of nature and culture or assume that society has no environment. We need to overcome our social bias. The social is neither completely separate nor totally autonomous.

Lazar: I think that the Marxist notion of infrastructure is much better than much of the anthropology of infrastructure that I see happening, including as you say in the AAAs. It is this kind of tentacled monster that just took over everything. And I think that's what I'm uncomfortable with, that voraciousness of a single concept.

Ben Campbell (Durham): as an anthropologist who thinks about the politics of sustainability, I'd like it if you could see to what extent this motion helps us understand infrastructure as something that is more politically accessible to people who would have an infrastructure other-wise, with an other kind of wisdom, with other kinds of relationality, with another kind of way of making communities and social relations. I think we've heard the powerful argument that infrastructure has a certain historical specificity, but, despite the use of terms like diversity, it is a very monolithic, tentacled kind of thing. I would read a lot of that as congruent with Timothy Mitchell's work on carbon democracy. If we're going to move to a low-carbon democracy, which would be about decentralized energy (would we call them infrastructures?), which would be more autonomously regulated and serving people's needs as defined by communities themselves with some sovereignty over the materialities of their social worlds…I'd appreciate your thoughts on that possibility.

Simone: than the question becomes how do you work through that? Habitat 3 is coming up next October, and the discussion goes like this: since there is no redistribution project on the horizon, if ever, then how do you use the exigency of infrastructural adaptation as a way to try to sneak redistribution through the backdoor? That is in some sense you give up the political project, of trying to, within cities, within states, have a redistribution project and use the imminence of extinction, that in some sense, cities are going to have to invest an enormous amount of money into infrastructural recalibration within the next coming decades or those cities are gone. Period. They are gone. How do you decentre provisioning systems within multiple sovereignties, within a single administrated ambit, and what does that mean? So you have one community, might be a very poor community, that now is in charge of providing for themselves with some subsidies, with some kind of technical assistance, living in the same city with someone who has a very very different system right next door! So the city becomes a multiplicity of different provisioning systems. What is that as a kind of political entity? How do you think about the notion of a political cohesiveness in that? And we have to take that on, because that is what the discussion is, at least in terms of urban development. You forget about redistribution and you think about a kind of implicit equalization through decentralized provisioning systems.

Lazar: I think that is really worrying actually. To me the political project of redistribution and of fighting against exploitative power relations is still utterly crucial. And I mean in the sense that's why I think it is an <u>unwelcome</u> reconfiguration, because what you're talking about feels to me like giving in and accepting these kinds of horrible inequalities on the basis of this kind of decentring of provisioning. But I also think that in some parts of the world, for example in Latin America, there are still really strong political projects based on redistribution, but not entirely and always infrastructural projects. So in answer to the question itself, I think the fact that we're accepting the need to move to a kind of an infrastructural other-wise is a political move and a political process in and of itself. The fact that we're in that situation is something that I still want to rage against.

Bear: I think Sian is doing something slightly unfair which is that she's associating our analytical deconstruction of the infrastructural moment that we live in with the infrastructural

moment, when precisely what we're trying to do is to understand how inequalities are generated through this infrastructural moment; and we are critiquing the forms of accumulation that are going on behind the scenes. We are also critiquing many of the forms of politics that emerge from that. I think both AbdouMaliq and I are looking for a different kind of social calculus by which we might measure our public things, our *res publica*. We're not taken in by the infrastructural moment that we live in at all. I just think the difference is that Sian seems to think that we can ignore it and that we can just re-centre on the human without doing a deconstruction of what the vectors of accumulation are, and the world that we live in.

Rival: Having listened carefully to my three debating partners talking here, it seems very, very clear to me that the difference between the two sides of the table should be looked at as a regional difference as well. As anthropologists we are bound to think theoretically through years of acquaintance with particular regions of the world and their different styles of world making. AbdouMaliq and Laura have years of field experience in Asia, so I am not surprised to hear their position on infrastructure. Sian and I are Latin Americanists. This project of sustainability, if you want to look at it on a global scale, it is a project of making other worlds possible. In French we call it "altermondialité." The Zapatista movement for indigenous autonomy calls it '*otro mundo de posibles*' ('an other world pregnant with many possible worlds'). People are dreaming and materialising 'other possibles' all over the planet; you will find pockets of other-worlds-making all over. There are good historical, cultural and political reasons why Latin America has been a driving force in the political imaginary of alter-globalization. I cannot envisage the political potential of infrastructure without dissociating myself from this Latin American intellectual heritage. I am inspired by the political culture of Ecuador, a country where I have worked for nearly thirty years. I accepted to join the technical team that was to develop the Yasuní Initiative during Correa's first presidential term, and I learned a lot. Government officials thought they needed my expert knowledge on Huaorani culture. The Huaorani ethnic reserve overlaps with the Yasuní National Park, and the 'tribe' includes 'clans' that are living in hiding, refusing all contact with 'civilization.' It is common in Ecuador to refer to the expansion of the oil industry in the Amazon as having caused acculturation, if not ethnocide, and even genocide. I accepted the challenge with the desire to show that there is more to anthropology than ethnographic knowledge of forest tribes. I had extremely rich conversations with my colleagues. We came to the conclusion that Ecuador's political project is anthropological; we even coined a new term, '*yasunizar la antropologia*' ('yasunize anthropology'). These conversations have grown increasingly uneasy since the government decided to no longer support the Yasuní Initiative (in August 2013). Ecuadorians are polarised politically, as they disagree on the exact meaning of 'the good life' ("*el buen vivir*"), their paradigm of sustainable development. Similar political disagreements are occurring in other Latin American countries, in particular Bolivia. Even a superficial look at these political struggles indicates that infrastructure plays at least a triggering role. See the case of the TIPNIS highway through indigenous land and the Isiboro Sécure National Park in Bolivia, for instance (see for instance Nicole Fabricant and Nancy Postero. 2015. Sacrificing indigenous bodies and lands: the political-economic history of lowland Bolivia in light of the recent TIPNIS debate. *The Journal of Latin American and Carribean Anthropology* 20(3): 452-474). In Brazil, there are urban movements that welcome infrastructural development, but question the type of urbanization promoted by the government. Activists I have spoken with ask: 'Why should we go for megacities?' and remark: 'Yes, the world is becoming more urban but the great majority of people live in small or medium size cities.' Their politics consist in reorganizing the world of the city in relation to the rural areas that surround it so that people can move freely from one place to another without unbalancing the flows of exchange between urban and rural areas. The world that

makes sense to them is a world in which the urban and the rural are rearticulated. Instead of encouraging rural/ urban re-articulation, mega infrastructural projects disarticulate these areas even more. What matters to people, then, what is important to them is the materiality of the world. People are articulating worlds. They are enacting or defending worlds in which they can live the good life they want to live. This leads to a great diversity of projects. To conclude, my answer to your question, Ben, is that sustainability politics is going to mean something very different in the plural world that many scholars and intellectuals call the 'pluriverse,' a term with added ontological connotations, but that's another debate…

Bear: can I ask Laura (Rival) a question? Is there room in your political pluriverse for urban working class people? Where would they fit?

Rival: What is meant by the working class in Latin America, where there is structural mass unemployment? Wage earners do not necessarily identify themselves as 'workers,' let alone collectively as 'working class.' People work a great deal, of course, and what we call 'nature' is central to their livelihoods, but not many of them are formally employed. In the poor neighbourhood of São Paulo where I have been working in recent years, a number of people have started to think seriously about leaving the megacity to move to much smaller cities where they have relatives who seem to fare better. Although this research is not sufficiently developed ethnographically to form an authoritative judgment, it does not seem that the sugar cane cutters interviewed by one of my students identify as 'working class.' Many lost their jobs when the company producing bio-ethanol mechanized its operations. A significant number decided against moving to São Paulo where opportunities have grown scarce. Instead, they chose to create a livelihood in small towns or in rural areas where their families have retained some land. In one of our case studies, it took ten years of collective effort to recreate some sense of meaningful regional economy and reverse rural migration. Your idea of *res publica* is beautiful, but if you agree with me that Marx needs updating, so it goes for *res publica* and the concept of nation-state. The pluriverse requires new types of polities and a new kind of policy thinking. Globalization may have slowed down, but it will not stop making issues of State, citizenry, and nation-state increasingly more complex. Political anthropology must keep up with the political and economic creativity of communities around the world. Theories such as multi-level governance and polycentricity have been somewhat helpful, but they are not sufficient. People are taking stock of the fact that they won't have a working class job, that they will spend most of their lives unemployed, and that they have to create new livelihoods for themselves. Such awareness is part and parcel of their politics.

Bear: interestingly that sounds a lot like the communities in Howrah as well. I'm interested in the kinds of judgements that are being made about good and bad politics, because in a sense, what AbdouMaliq and I are trying to do is to look at, in part how some of these judgements are made by institutions, which might also include the Ecuadorian government that has now included the non-human in the constitution. We are interested in how the field for the political is generated and how judgements are made. I think that we need to take that into account when we're thinking about the political. I was very interested that, in a sense, you are telling me that my working class people were profoundly different from yours and had a different politics, and somehow a lesser politics.

Karen Sykes (Manchester): The attention to infrastructure seems to continue asking a particular kind of political question, that is the assumption that, somehow or another, if we ask how we join together we're asking the political. There has been a persistent question in political anthropology about what is the difference that makes the difference. What is it that drives us into relationships of differentiation and inequality? And that kind of question is a very different one from the one that the infrastructural predilections necessarily project us

into. I would like to suggest that perhaps the debating proposition doesn't give us enough latitude to rethink the political at all.

Nick Long (LSE): the proposition told us in their very first speech that infrastructure could help us reconfigure the political, because it revealed the dominant mode of economic governance, which was then explained as being financialization and securitization. I thought that was persuasive, and the example of the rush to build was very good. But I was wondering where actually is the intellectual work in the reconfiguration taking place in that kind of analysis, because it seems to me that it rests with our understanding of finance and our understanding of securities rather than infrastructure specifically. Infrastructure is just the example, it's the way in but it doesn't do very much to actually reconfigure our understanding of the political beyond a general attention to speculative capital. I would like the proposition them to show what it is that infrastructure specifically, in this financial moment, allows us to see about political processes, that other processes of financialization and securitization, other kinds of rush, don't manage to do.

Name unclear (Quatar university): What is it exactly about infrastructure, is it the infrastructure that is a productive ethnographic object, or is it the "infra", is it "structure" that invites reconfiguration? Because we haven't been talking about how exactly infrastructure drives the attention. Attention is one of the words that hasn't been debated so far even though it is in the motion. And, do all these different things about the infrastructure drive attention in the same ways or not?

Bear: Karen's question was about inequality and how attention to infrastructure might help us to understand relations of inequality. My argument in the second half of my presentations was an argument about how certain kinds of inequalities that are intensifying in the contemporary moment are only visible if we look at people's positioning within timescapes, and their experiences of security and insecurity…so I see class relations as being very centrally structured now around the possibility or the impossibility of planning a life for yourself and your community. And, for me, again from my fieldwork experiences, one of the key things that makes a difference to the degree of security that you feel, is your relation to the circulatory networks that are part of this whole knowledge regime of infrastructure, and that it's these circulatory networks that centrally structure relations of inequality. To answer the third question, this is both a method and an analytical prism, and that's why I think is very interesting. Because I can methodologically follow these knowledge networks, follow these circuits of capital in exactly the way that Marx would have done. And I can see this as a kind of telos for all sorts of people's kinds of social actions. So I would say it's both. Nick's question was about why can we not explain infrastructure just by talking about financialization. I would argue that the conscious telos of these projects of financialization and securitization is the creation of infrastructure, and that if we don't look at that we're missing something central about the conduct of productivity at work here.

Simone: And also the sense that things don't have to be what they are. Infrastructure is not just simply about the emplacement of capital, it is not just simply about speculation. Cities are littered with all kinds of apparently failed projects. So, when you look at the acquisition of land, this piece of land as opposed to that piece of land, when you look at the mobilization of labour, when you look at how you get certain kinds of things approved, when you look at how the materials go in to a particular kind of construction, when you look at the kinds of temporal framework involved, when you look at all these things that have to be in some way sutured together, it is a very fragile operation, because every one of those components can be part of something else which can in some ways tip the thing out of the possibility of its realization. So you work through the structure of infrastructure, you work through its

composition, you work through how it, in some ways, materializes itself to find points of entry, find points to better understand where the hinges, where the kinds of suturing is, where things could possibly be reconfigured in ways that don't have to be that particular kind of materialization.

Penny Harvey (Manchester): My critique is for the opposition but I want to start with Laura Bear's distinction between public works and the infrastructure project, because for me that was the most deliberate attempt to say what infrastructure might be. But at the same time I don't think it exactly fits with the proposition of the anthropology of infrastructure, which is much more than that. And I think that is where the strength of the proposition lies. I would suggest that this idea that the shift from public work to infrastructure isn't exactly what happens. There's not some lag, it's the fact that the infrastructure project, as Laura Bear describes it as the circulation of capital, is actually irretrievably wedded to the public work, because the public work is its vehicle. The example I was going to give is this study that Hannah Knox and I did of a road (the Interoceanic highway) in Peru. The road was a public work, and what was really interesting is by the time they had finished building this road, there was another proposition on the table that this road was actually going to be flooded, and a massive dam was going to be built over the middle of it. The road was going to be part of another totally different capital project. We suddenly had this weird sensation that maybe it was never a road, maybe it was always a way of getting a bigger capital project underway, but you start with a small one. But, of course the road didn't go away. Laura Rival's opposition to the motion is that the object doesn't really stand up, the infrastructure keeps changing and you can't get hold of it and it is not a proper thing. For me what makes the anthropology of infrastructure interesting is this relationship between what Laura Bear is calling infrastructure and public work and how what seems to be a tangible project ends up being, not abstract, but incredibly elusive. They are really difficult to track, they are really difficult to know and then they suddenly appear in the most strange guise but they will appear in the guise of a public work. Laura Rival, you yourself have made an argument that, because in fact what they do is combine all these different disjunctive scales, that they require a different kind of politics. Sian says that not everything has to be infrastructural, and I completely agree, but that's not the motion. If we were to do an anthropology of infrastructure, which would require us to think about the collapse or the kind of parasitical relation of infrastructure and public work, then that does reconfigure the political. Because we have to think of a politics that is intrinsically disjunctive and it requires collectives that are not straightforward, they are not in the same place and they are not necessarily even in the same time.

Rival: Penny, I appreciate the point you're making. However, what troubles me is that it is public work, but in public-private partnerships, and so, have we got enough ethnographic evidence of that PPP? And also, how do people perceive it: do they perceive it as something public or not? I just remember the very big conflict in Ecuador, when the pipeline called OCP was built. There were different reasons why various political actors, social actors, indigenous people were mobilizing against it. But the fact that it was a PPP, in fact meant it was privately financed, even if it was associated with the name of the president who was in power at the time. In that particular case, what was the worst is that there was not enough oil to make the pipeline viable. It then drove attempts to get more oil. But there was no oil, and the only oil they found (and that was why the Yasuni initiative had some rationality to it) was so heavy that they could not put it in the pipeline. The oil is so heavy that it will have to be liquefied in a costly and environmentally damaging mega-electric plant, as well as mixed with lighter oil imported from older fields to the north. I understand your reasoning on public work, and agree with your assessment that the state becomes visible to citizens via public works. For

many Latin American citizens, though, especially those directly impacted by mega-project development, there is more than just the question of visibility. Their right to their way of life and to a safe and healthy environment is compromised. Moreover, many of these state commissioned infrastructure projects are left unfinished. We thus have to include issues relating to the politics of 'the unfinished.' I don't know whether this answers your question, but when it comes to analysing citizen mobilisation, we see that people have to defend what they have as well as their right to something that was promised to them, but not delivered. Politically speaking, infrastructure as public work does not add anything new: people mobilise to defend the world they want to live with, including gaining access to new rights and services.

Lazar: You're talking about public works being the vehicle of infrastructure, but there are maybe other kind of vehicles. You said that these financial relations are materialized in the guise of public work, and in fact that's precisely my concern with anthropologies of infrastructure, because I think that's still a kind of government, and so, actually I'm not convinced that there's much of a reconfiguration here. It's just not entirely the state. We'd have to actually question whether it was always purely a state providing public works in the past. I think what the anthropologies of infrastructure do is they do amplify the notion of where these public works come from. I'll grant that. But I still think the notion of the political that operates here is one about government and the provision of services. That's where I think it's not so much of a reconfiguration. That's why I would attack the motion as such. To return to Karen's point, this question of infrastructures, how we join together, and of circulations, that's the converse of 'what's the difference that makes the difference'. Asking precisely that question is why I wanted to turn to Chantal Mouffe, because I think that sometimes it's quite hard to think about what do we actually mean by the political. I do think that Mouffe and Laclau [in *Hegemony and Socialist Strategy*] and Mouffe [in *The Return of the Political*] come up with a really nice, clear, workable definition of the political…this question of unequal correlations of power. I agree with Nick that infrastructure and anthropologies of infrastructure can be a way into these relations of power, but I think that the all-encompassing nature of infrastructure itself as a thing, and also various academic approaches to infrastructure have the effect of closing off other ways in.

 Edlyne Anugwom (University of Nigeria). What exactly are we talking about when we say "infrastructure", as anthropologists, not as political scientist, not as planners or financiers? And I'm also worried, when we want to romanticize Marx and are beginning to talk about deterministic nature of infrastructure: is that really anthropology? To what extent can we claim Marx, in that sense? Maybe I'm old school, but I'm thinking that when you talk anthropology the call for emphasis is going to be on values, traditions and norms, which, in this case, underlie infrastructural development. Even within the context of the emergent political we need to watch the historical tangent to the discussion. For example, if you look at the whole question of public works, which is a colonial baggage actually, the British colonies had what they called the public works department, which in the 60s and 70s were vehicles or the process through which infrastructure and amenities were brought in. So, different settings if you like, have different implications in terms of how we theorize infrastructure. But I want us also to look more at the whole issue about how infrastructure within the context of the new politics reshapes and redefines community interactions and relations? The financial and political drives, which today empower infrastructure…to what extent are these interfaced with the collective experience and lived-in experience of the people themselves and their aspirations? We have cases, especially in Africa, where infrastructure has been brought in, physical, material culture, but we should know that there's also a relationship between the immaterial and the material. And the non-material actually is faster than the material. So you

have situations where these infrastructures are taking place and it hasn't met the aspirations of the people, and they've been rejected. If you come to my country, we have housing units, beautiful houses that are occupied by lizards. There were built for people. What has happened? What picture, what scenario will you capture from this, especially from a core anthropological perspective?

Madeleine Reeves (Manchester): I want to focus on three moments when both sides appear to talk past each other. First, the question of scale. It is interesting that when particular infrastructures have been named or been visualized, it has been the big mega-projects, it has been the dams, roads, speculative housing construction. To me what emerges in terms of the difference between the proposition and the opposition in terms of the possibilities or not of infrastructure as an approach to rethinking the political, in part hinges on the question of how we think about that question of scale in relation to infrastructure. Because I think the proposition, AbdouMaliq especially, are suggesting we think of infrastructure as this in-between, which allows us to draw towards each other or draw apart from each other, and therefore it is profoundly political. It really foregrounds the question of hierarchy and inclusion and exclusion and so forth. Whereas I think the opposing team has been approaching infrastructure as something separate from the domain of politics, or non-reducible to the domain of politics. They seem to conceive of instrastructure as a kind of finished entity rather than the relation of relations. Second, is whether we take infrastructure as an object of analysis or the object of enquiry; What are we talking about when we're talking about the potentialities of infrastructure for thinking about what the political is. Are we thinking about infrastructure as a perspective, as an analytic, as a method? Third, the relationship between infrastructure and how we think about what politics is, or where politics is and where politics is located. And that's the one that I found most interesting, because I think the opposition seems to be working with a conception of politics where the question asked is: "what is the politics that the infrastructure is a manifestation of? And if we focus on infrastructure, does this exclude other forms or ways of thinking about politics actually, that are non-reducible to this?" So the affective, the other dimensions of politics. Whereas, I think the proposing team is suggesting, and this is what I've also found personally generative about thinking about the relationship of the infrastructure and politics, is that an attentiveness to the unboundedness of these infrastructural interventions allows a way of thinking about the kinds of unexpected political configurations that these interventions produce that are non-intentional and non-reducible to a politics of intentionality.

**Final summaries by speakers**

**Laura Bear**

I think that attention to infrastructure really reconfigures the political in two clear ways: first of all, it reveals the forms of economic governance in the political situations that we live within; and it also makes visible the timescapes of inequality from which political acts and movements are generated. Turning first to this theme of economic governance and political situations, what I was arguing and what I've continued to argue through the discussion is that infrastructure, as we know it now, is a historical product of particular conducts of productivity, of national government projects, private investors' projects, the projects of international organizations. And it began as this project of peace making out of ruins, it took on this form of development or planning, and long-term debt relations. But now it has become securitized, financialized, emergent and complex. And one of these forms doesn't wipe out the other form, as Penny was pointing out, there is a kind of layering of these forms and a layering of expectations around people's relations with their physical environment. Importantly, I think, to call something infrastructure really brings it under governance and

creates a particular political situation. And the clear example to me at the present moment is actually social housing in the UK, which has recently been named under the remit of the national infrastructure commission. And really what that initiates is a social struggle over the nature of social housing that we've seen playing out in places like the Aylesbury estate, and the whole notion of militant care. And really naming something infrastructure and starting to gather knowledge about it and knowledge forms around it initiates these social struggles over what can and what can't be political. And it also generates particular kinds of vectors of accumulation. So this is why attention to infrastructure now is vitally important, because it's reconfiguring around us our understanding of what's political and what is not. And it creates knowledge also, if we follow it, of how the political is bounded, and it shows us methodologically a particular kind of political economy as well. What we are arguing for, AbdouMaliq and I, is not the anthropology of infrastructure as it was in the 13 panels of the AAA, we're really making an argument for *attention to* infrastructure. So I think attention to infrastructure makes visible the timescapes of inequality from which these political acts and movements are generated. In particular, it allows us to understand the experience of timescapes that are built from and emerge from this vibrant, rhythmic infrastructure around us. I invoked this idea of Susan Buck-Morss of aesthesis, of the sensation of the world and its atmosphere. And I would argue that to be and to feel a particular kind of human emerges now from a kind of infrastructural experience, and from unequal infrastructured experiences. And our political identities emerge in relation to that, in particular of time, security and insecurity, and also acts of collective politics. But these timescapes of inequality around us that produce these infrastructured selves are also filled with pulsations of the political, the formation and dissolution of publics. So how finally does attention to infrastructure reconfigure our understanding of politics? Quite simply what it does is it allows us to see the trans-human around us that makes the human political relations, that separate us and join us. And I guess now we need to ask ourselves if in Britain we are the builders, what kind of trans-human world for politics do we want to make?

## Laura Rival

In the same way as Monsieur Jourdain in Molière's *The Bourgeois Gentleman* discovers that he has been speaking prose all his life without realizing it, anthropologists concerned with the materiality of the world have talked about infrastructure all along. So, in that sense, you have forced me to realize that I have always cultivated an interest in infrastructure without being aware of it. However, this debate has made me particularly conscious of the fact that I am not able to confront issues of infrastructure politics in the way Laura and Abdul have; I am no urban anthropologist. Laura and Abdul refer to access to public services in the swelling urban sprawls of the globalizing South, and to the inequalities woven into that urban fabric. Their views are informed by the fact that rising inequalities and injustices linked to faulty political exchange characterise the decaying cities of the over-developed North as well. There is no doubt that the built environment is at the core of infrastructure politics. However, an anthropologically informed approach will have to scrutinize the hegemonic narrative about the transition towards a predominantly urban world. As I have tried to argue in the context of Brazil, infrastructure politics must be looked at in specific instances within a comparative analytical framework. What could be considered politically successful in a mega-city like São Paulo would not work in a small provincial town from the Nordeste, or in the growing towns of the still heavily forested state of Amazonas. In getting acquainted with the literature on infrastructure in preparation for this debate, I have been stuck by the absence of critical engagement with the urban transition narrative. Filip de Boeck and Marie-Françoise Plissart's remarkable *Kinshasa, Tales of the Invisible City* (2013. Leuven: Leuven University Press) stands out as an exception to this trend. I have worked almost all my life in the tropical rain

forest and am still wondering what I can contribute to this year's GDAT debate! In the Amazon, at one level of analysis, it is not impossible to say that the forest constitutes the infrastructure people need. It takes no effort to imagine the water flowing in the rivers through which canoes wander or the paths on which hunters follow peccaries and other animals as 'infrastructure.' This analogy may even have been used in representation of forest peoples' interests or in defence of forest livelihoods. Researchers will perhaps find recordings of political speeches about the world forest peoples wish to continue to live in, and about the fact that in such inhabited worlds, infrastructure does not come in the material shape of pipelines, electric grids, or tunnels. And this is fine. There should be room in the world for other worlds. Not all societies need to follow a linear trajectory of expansive modernist engineering. Not all societies need to become intensively wrought with built infrastructure in order to be considered developed, as Singapore is - just to take an extreme example of infrastructural involution. In other words, many ways of humanizing the natural environment should be allowed to exist. Looked in this way, 'infrastructure' would just be another term for 'affordance,' and infrastructure politics would be subsumed under the politics of dwelling (as Tim Ingold argues in 'Designing Environments for Life' in *Anthropology and Nature* (ed.) Kirsten Hastrup, 233-245. New York and London: Routledge). The issue, though, is that political speeches do not take place in a vacuum, but are part of an evolving discursive vortex. What gives infrastructure its political force as a trope today is the fact that it is inseparable from what many refer to as the financialization of the world economy. The World Bank may have closed its Global Environment Facility programme and replaced it with the Global Infrastructure Facility, but the idea of financing a global economy based on natural capital and green infrastructure is far from outmoded. The Natural Capital Declaration was launched at Rio+20 in 2012, followed by the official launch of the TEEB (The Economics of Ecosystems and Biodiversity) for Business Coalition in Singapore in November 2012, which became the Natural Capital Coalition in 2014. This coalition is working with the UK government through the Natural Capital Committee, while the European Investment Bank (EIB), which has established the Natural Capital Financing Facility (NCFF), now funds green infrastructure development in the rest of Europe. These frameworks, instruments, and tools will soon determine how engineers may collaborate with ecologists to develop nature-based infrastructures in the future. What is meant by natural capital, though, has never been more indeterminate. Who will be in charge of maintaining, restoring and managing natural capital, and through which mix of taxes and incentives is not clear either. What is clear, however, is that the economic valuation of nature, once financialized, will further threaten and marginalise the values of nature that are not expressed in monetary terms, as well as all that is deemed unfit or unprofitable under the big investment economy paradigm. Will anthropology be able to reconfigure its approach to the political in this context? Yes, if we succeed in developing a new conceptual language that speaks about ecosystems, their biophysical properties, and their usefulness to human life, while, at the same time, opening spaces for other-than-modern ideas about materiality and politics.

**Simone**

How is the collective will enacted? This is, I think, an open-ended question. If we believe UN Habitat, 35% of all urban space in the southern latitudes was auto-constructed, constructed by residents themselves. So what kinds of constellations of effort and mobilization of resources were enacted in that? How did they do it? How did they manage to inhabit cities which required them to exceed what they knew about themselves? Well, they had to experiment. And what was the locus of the experimentation? The locus of the experimentation was primarily on the built environment. They made things; they made things with each other, separately from each other, but the built environment became the locus of a kind of collective

experimentation. So working on each other was primarily through working through the built environment, which is why, in some sense, when you look at these auto-constructed areas that still survive, every place looks different. You have this kind of intensive contiguity of different designs, different materials, different pipes, different ways…all within relationship to each other, a kind of choreography of experimentation. A choreography of experimentation, which is essentially political, but you don't get at that without folding in the kinds of things that they experimented on, the locus through which these experiments took place. So in some ways, the focus on infrastructure allows us to see the kinds of relational knowledges that are at work, that are under threat, that are vulnerable today, and that if we don't think of this through infrastructure, we can't really get at that. We can't understand, for example, the expulsion of collective black life in the US without considering the demise of public housing. If we consider logistics to be the operating code of infrastructure today, we must keep in mind that logistics depends on a kind of diffracted knowledge.  In other words, it depends on a process of disembedding particular nodes, transit and processing sites, from the specificities of the relationships to particular locales, demographic composition, social and economic histories, and cultural practices. So to understand the politics of place requires an open-ended sense of how these sites now acting as nodes could be articulated in new and various ways. This is the kind of process of disembedding which reiterates the fundamental instability of connections. So how then is the collective will enacted? Do we still think about politics only in terms of the organization of people in place, the success or demise of particular kinds of social movements? What happens when the experiments undertaken by people to change their lives ends up complicating their relationships with the local conditions that have previously sustained them, how, then, do we look for emergent forms of the political? How do we look through the articulations amongst people across different kinds of spaces, to elicit new kinds of economies, new forms of transnational kinds of cooperation? This require focusing on things like the circulation of waste, crude ships, jiggered software, vague spaces, empty buildings…Infrastructure becomes a way to now try to look for the emergence of a new kind of enactment of collective will that ensues from the end of the post-colonial compact. The post-colonial compact where the state basically said: "ok, we'll take care of you if you behave yourself." That compact is long over. People, like logistics, are being set loose to sort of look after themselves, but how are they being rejiggered, refigured, re-associated in ways that cross recognizable boundaries, and that requires folding in and emphasis on infrastructure, otherwise we don't see these kinds of emergences.

**Lazar**

At the outset, I do want to say I'm not arguing that we should look away from infrastructure or ignore or discount it. I'm simply arguing, really, for a different starting point and that's what I will finish on. I want to say one thing about scale… I think actually it is a really interesting question, this question of scale, and of where we are seeking the political, thinking through questions of scale. There are questions of scale that infrastructure doesn't really help us with very much. It can be a way in, but I think there are many more ways in that would give a more rounded understanding. And I think that pertains largely to the very intimate, the internal to the human kind of relations, not the relations between relations between relations, but literally a much more intimate, close idea of relation. Number one. And number two: the world-systems thing. I was thinking about global inequalities and the way that global inequalities are structured. Yes, you can see that through infrastructure, but there's also really important questions of geopolitics, of war… So, I think that's one issue about scale, and the other more important thing I want to say about scale: Laura said that infrastructure allows us to see the trans-human around us. We have heard about infrastructure as relations between relations and what I feel about this is that we're struggling with the notion of infrastructure

because either it is so generalist as to be everything, it is how we all relate to each other and the material. So, it sort of becomes everything. Or it's cables and pipes and very specific notions of infrastructure. And I think that's one of the problems with the concept of infrastructure and so I want to suggest that maybe in the way we're talking about infrastructure now, it's not the new culture but it's the new society. I mean it becomes everything, has become another word for everything that connects us. And in that sense, anthropologists have been trying to get at that for decades, so there's not much of a reconfiguration going on there, we're just calling it something different. I just don't think we are doing much that is very different. Then, I want to answer AbdouMaliq's question: how do we look for emergent forms of the political? And the implication is that we don't get them if we don't look at infrastructure. And I want to suggest that, yes, infrastructure is one way of looking for them, for emergent forms…although I don't think it is a reconfiguration…but what I want to propose is that we actually look at the social struggles, we look at what people are mobilizing about. This is very much because I've been working in Latin America, because one of the most brilliant things about doing research in Latin America is that people actively, collectively get together to mobilize for things that they care about. And so, with Laura's [Bear] example of the social housing, yes, you can start from the public housing question, but you could also start from the women, the Focus-E15 mothers, from the groups of people who are getting together, from the actual social struggles themselves. That may bring in infrastructure, but it does bring in plenty of other kinds of questions, all of which, I think, are part of the political. So I agree that infrastructure is not reducible to the domain of politics, and politics is not reducible to the domain of infrastructure. I think probably nobody would disagree on that. I want to simply argue for a much more open conception of the political, grounded in actual relations of power that people create and contest. Infrastructure would be part of that, but I think there's much more.

**THE VOTE**

The motion: Attention to infrastructure offers a welcome reconfiguration of anthropological approaches to the political.

For the motion: 26 votes.

Against the motion: 30 votes.

Abstentions: 5.

**Author biographies**

**Laura Bear** is Professor of Social Anthropology at the LSE. She is the author of *Lines of the Nation: Indian Railway Workers, Bureaucracy and the Intimate Historical Self* (Columbia 2007) and *Navigating Austerity: Currents of Debt Along a South Asian River* (Stanford 2015), as well as of seventeen articles and book chapters on the themes of time, bureaucracy, infrastructure and the public good. She is a founder member of the GENS Collective for the feminist study of capitalism ( http://culanth.org/fieldsights/650-generating-capitalism*).*

**Penny Harvey** is Professor of Social Anthropology at the University of Manchester. She is the author of *Roads: An Anthropology of Infrastructure and Expertise* (with Hannah Knox, 2013: Cornell University Press).

**Sian Lazar** is a Senior Lecturer in Social Anthropology at the University of Cambridge. She is the author of *El Alto, Rebel City: Self and Citizenship in Andean Bolivia* (Duke, 2008), and editor of *The Anthropology of Citizenship: A Reader* (Wiley, 2013). Recently, she has published several articles on the topic of public sector unionism in Buenos Aires, Argentina.

**Laura Rival** is Associate Professor at the University of Oxford. Her research interests

include Anthropology and interdisciplinarity; Amerindian conceptualizations of nature and society; historical and political ecology; development, conservation and environmental policies in Latin America; sustainability in the Anthropocene; indigenous peoples and theories of human development. Her latest book is *Huaorani transformations in 21st century Ecuador. Treks to the future of time* (2016: University of Arizona Press).

**AbdouMaliq Simone** is Research Professor at the Max Planck Institute for the Study of Religious and Ethnic Diversity, and Visiting Professor at Goldsmiths College and the African Centre for Cities, University of Cape Town.

**Soumhya Venkatesan** is a Senior Lecturer in Social Anthropology at the University of Manchester. She has been organizing GDAT since 2008.