

Title: “The Brutal Logistics of Revolution”

Author: Michael Truscello

Should radical anti-capitalists focus their efforts on sabotage and other forms of rupture designed to interrupt the flows of global capitalism, as many insurrectionary anarchists advocate? The Invisible Committee, for example, points to the "nodes that must be undone in order to interrupt circulation," in order for "something to rise up in the midst of the metropolis and open up other possibilities" (61). Or should more emphases be placed on engaging assemblages of debris from what Alberto Toscano describes as “the dead labours which crowd the earth's crust in a world no longer dominated by value” (Toscano 2011: 40)? Toscano, following Mike Davis, decidedly argues for the latter. Davis eloquently describes the challenge for revolutionaries in a dying world dominated by capitalism: “Since most of history’s giant trees have already been cut down, a new Ark will have to be constructed out of the materials that a desperate humanity finds at hand in insurgent communities, pirate technologies, bootlegged media, rebel science and forgotten utopias” (Davis 2010: 31). To sabotage, or to scavenge? These options have been foregrounded in much of the radical Left literature on industrial collapse.

But there is also a third major movement related to the collapse of industrial capitalism and ecosystems worldwide, in addition to this dichotomy of sabotage or scavenge: living off the grid. The grid, the consummate symbol of modernity, is what materially and symbolically perpetuates the project of modernity, and while some radicals equate human survival with annihilation of the grid and the sociotechnical assemblages it enables, and others ask what can be salvaged from the components of the grid, a smaller group of radicals (as well as right-wing militias and religious fundamentalists) believe the only way to survive the collapse of industrial civilization is to leave its grid structures behind. I want to complicate all three scenarios – sabotage, scavenge, off-grid – by suggesting that a planet now dominated by hyperobjects such as global climate change, nuclear contamination, and noxious industrial drift is a planet that is always already toxic and so haunted by the remainders of modernity no matter what we do—sabotage the grid, recover and reassemble the debris, or simply *bug out*. I want to shift the focus from the tactic of sabotage to the context in which sabotage has become an essential tactic, a context I am calling infrastructural brutality.

Infrastructural brutality is an aesthetic, a political program, and a psychological and material condition. The central paradox of infrastructural brutality is this: industrial capitalism incurred the sixth mass extinction event in the history of the planet;¹ overfished the oceans and acidified them, similar to the phenomenon that killed off 90% of ocean life 252 million years ago;² assaulted coral reefs to the extent that 40% are in decline worldwide;³ cut down almost half of the trees (and cuts down another 15 billion every year);⁴ cultivated every space on the planet to the point that there is no longer such a thing as “pristine” land untouched by humans;⁵ ignited catastrophic runaway global climate change that, unchecked, will produce an estimated warming of 6 degrees Celsius above baseline by the end of this century;⁶ produced 250 billion tonnes of chemical substances annually, leading scientists to declare the earth a “toxic” planet saturated with 144,000 human-made chemicals;⁷ produced 8.3 billion tonnes of plastic since the 1950s, and could produce an estimated accumulation of 34 billion tonnes by 2050;⁸ and pushed the planet into a new geological epoch termed the Anthropocene to reflect the impact of human

beings being the equivalent of a geological force;⁹ the scientific evidence that describes this condition is overwhelming; and yet, despite the obvious state of global ecological collapse that is clearly underway, substantial numbers of industrial capitalist societies are actually escalating the urbanization project, building engineering megastructures at an accelerated rate, instead of slowing the pace of industrialization, or even reversing it. With human extinction on the horizon, capitalists have accelerated the construction of the infrastructure that enables ecological devastation at an unprecedented pace in human history. According to a Princeton University study, to avoid catastrophic climate change and keep global warming below 2 degrees Celsius, the world must stop building new oil infrastructure by 2018;¹⁰ a climate study from the UK determined that the world must reach zero carbon emissions many years in advance of 2040, to avoid the IPCC's target of global warming no more than 2 degrees Celsius above baseline;¹¹ but in 2015, the world consumed more oil and gas than at any time in human history,¹² and recently breached the carbon dioxide intensity of 410 ppm, a concentration on track to create a climate not seen in 50 million years.¹³ The consumption of coal receded recently, but still remains well over nineteenth-century rates of consumption, even though the "era of coal" is supposedly long over; in fact, it is estimated that coal will remain the second-most consumed source of energy until 2030, and will average an increase in consumption of 0.6% from 2012 to 2040.¹⁴ Concomitant with a global industrial capitalist system that has not slowed its voracious pace of destruction, climate feedback loops appear to be accelerating the ecological collapse; methane, a greenhouse gas that traps heat at approximately 30 times the rate of carbon dioxide, is being released from melting permafrost in the Arctic, which could create a catastrophic positive feedback loop.¹⁵

Despite the comprehensive scientific consensus on these issues, expanding carbon-intensive infrastructure continues to be a priority for global capitalism. Several countries are building new "mega" airports: the Al Maktoum International Airport in Dubai will cost \$32 billion and carry an estimated 160 million passengers every year; the Beijing Daxing International Airport is expected to cost \$11 billion and handle 120 to 200 million passengers annually; Hamad International Airport in Doha expects to service 92 million passengers annually.¹⁶ The Panama Canal, now over a century old, recently completed a \$5.25 billion expansion of its locks to accommodate new container ships known as neo-Panamax, which can carry twice as many containers as the old ships; Panama also spent billions on new metro lines, a massive new bridge over the canal to connect car traffic and trains, and it doubled the size of its existing airport.¹⁷ In early 2016, the Benjamin Franklin, the largest container ship ever to dock in the United States, arrived in the port of Los Angeles, which had been modified to accommodate the vessel that departed from China.¹⁸ A 2009 study determined that only 15 of the largest container ships at the time created as much pollution as 760 million cars, and pollution from the 90,000 cargo ships in circulation at the time lead to 60,000 premature human deaths every year.¹⁹ Of course there are many more such examples. Infrastructural brutalism is therefore not only an historical legacy of modern state capitalism, it is also a continuing production that over the next twenty years will either be reversed in aggregate, in what might be termed a Great Deceleration, or it will be a central feature of mass, and eventually human, extinction.

Instead of seeing urban spaces as atomised blocks of petromodern ruins, we could use the concept of assemblage to understand “the spatially processual, relational and generative nature of the city, where ‘generative’ refers both to the momentum of historical processes and political economies and to the eventful, disruptive, atmospheric, and random juxtapositions that characterize urban space.”²⁰ Thus, the city becomes “a place that is not just inhabited but which is produced through that inhabiting,” a constitution of urban space that McFarlane calls “dwelling.”²¹ Urban space in the context of collapse, especially, is invested with fluid potentialities, such as urban gardening, scavenging or squatting, radical orientations to the city that do not privilege assigned neoliberal purposes but rather destabilise those purposes through new forms of “cofunctioning.”²² Assemblage theory applied to an anarchist politics of infrastructure suggests, therefore, a more radical ontology than lists of static features of technologies appropriate for a liberated society. It “implies a greater conceptual openness to the unexpected outcomes of disparate intentions and activities,”²³ juxtaposed with expectations of unproblematic social reconstruction with “appropriate” technologies. In particular, assemblage thinking emphasises “the depth and potentiality of sites and actors in terms of their histories, the labour required to produce them, and their inevitable capacity to exceed the sum of their connections.”²⁴ This “depth,” especially in terms of the legacies of technological systems, will be particularly important in the age of collapse, because it offers a better understanding of the materialities and capacities of systems that break down, and open up possibilities of re-use, salvage, and reconstitution which will become all-important under rapidly deteriorating conditions.

Bio: Michael Truscello is an Associate Professor in English and General Education at Mount Royal University in Calgary. He is author of *Infrastructural Brutalism* (MIT Press, Forthcoming) and co-editor of *Why Don't The Poor Rise Up? Organizing Twenty-First Century Resistance* (AK Press, 2017). He is a member of the Petrocultures research cluster at the University of Alberta. In 2013, he co-edited with Uri Gordon a special issue of *Anarchist Studies* on anarchism and technology. In 2012, he explored The New Topographics, Dark Ecology, and Energy Infrastructure in the journal *Imaginations*. His analysis of the materiality of the road in the Road Movie genre appears in the 2012 anthology from McGill-Queen's University Press, *Hit The Road, Jack: Essays on The Culture of the American Road*. In 2011, he released the documentary film *Capitalism Is The Crisis: Radical Politics in the Age of Austerity*. He is currently developing a short film on suicide and politics, based on an interview with Franco "Bifo" Berardi.

¹ Elizabeth Colbert, *The Sixth Extinction: An Unnatural History* (New York: Henry Holt & Co., 2014).

² Steve Connor, “Ocean acidification killed off more than 90 per cent of marine life 252 million years ago, scientists believe,” *The Independent*, April 9, 2015. Available online: <http://www.independent.co.uk/news/science/ocean-acidification-killed-off-more-than-90-per-cent-of-marine-life-252-million-years-ago-scientists-10165989.html>.

³ Carl Zimmer, “Ocean Life Faces Mass Extinction, Broad Study Says,” *The New York Times*, January 15, 2015. Available online: <https://www.nytimes.com/2015/01/16/science/earth/study-raises-alarm-for-health-of-ocean-life.html>.

⁴ T. W. Crowther, H. B. Glick, K.R.Covey, C. Bettigole, D. S. Maynard, S. M. Thomas, J. R. Smith, G. Hintler, M. C. Duguid, G. Amatulli, M.-N. Tuanmu, W. Jetz, C. Salas, C. Stam, D. Piotta, R. Tavani, S. Green, G. Bruce, S. J. Williams, S. K. Wiser, M. O. Huber, G. M. Hengeveld, G.-J. Nabuurs, E. Tikhonova, P. Borchardt, C.-F. Li, L.

W. Powrie, M. Fischer, A. Hemp, J. Homeier, P. Cho, A. C. Vibrans, P. M. Umunay, S. L. Piao, C. W. Rowe, M. S. Ashton, P. R. Crane & M. A. Bradford, "Mapping Tree Density at a Global Scale," *Nature* 525 (10 September 2015): 201-205.

- ⁵ Ada Carr, "'Pristine' Landscapes No Longer Exist and Haven't For Thousands of Years, Study Says," *Weather.com*, June 7, 2016. Available online: <https://weather.com/science/environment/news/pristine-nature-humans-global-biodiversity-landscape-ecosystems-earth#!/>. "These findings suggest that we need to move away from a conservation paradigm of protecting the earth from change to a design paradigm of positively and proactively shaping the types of changes that are taking place," lead author Nicole Boivin told The Post. "The reality is that there are 7 billion people living on an already heavily altered planet. It is a pipe dream to think that we can go back to some sort of pristine past."
- ⁶ Joby Warrick and Chris Mooney, "Effects of climate change 'irreversible,' U.N. panel warns in report," *The Washington Post*, November 2, 2014. Available online: https://www.washingtonpost.com/national/health-science/effects-of-climate-change-irreversible-un-panel-warns-in-report/2014/11/01/2d49aeeec-6142-11e4-8b9e-2ccdac31a031_story.html; Jeremy Lovell, "Clean Energy Lags Put World on Pace for 6 Degrees Celsius of Global Warming," *Scientific American*, April 26, 2012. Available online: <https://www.scientificamerican.com/article/clean-energy-lags-put-world-on-pace-for-6-degrees-celsius-of-global-warming/>.
- ⁷ "Scientists Categorize Earth as a 'Toxic Planet,'" *Phys.Org*, February 7, 2017. Available online: <https://phys.org/news/2017-02-scientists-categorize-earth-toxic-planet.html>.
- ⁸ Matthew Taylor, "Plastic pollution risks 'near permanent contamination of natural environment'," *The Guardian*, July 19, 2017. Available online: <https://www.theguardian.com/environment/2017/jul/19/plastic-pollution-risks-near-permanent-contamination-of-natural-environment>.
- ⁹ Damian Carrington, "The Anthropocene Epoch: Scientists Declare Dawn of Human-Influenced Age," *The Guardian*, August 26, 2016. Available online: <https://www.theguardian.com/environment/2016/aug/29/declare-anthropocene-epoch-experts-urge-geological-congress-human-impact-earth>.
- ¹⁰ Stephen J. Davis and Robert H. Socolow, "Commitment Accounting of CO₂ Emissions," *Environmental Research Letters* 9.8 (26 August 2014): 1-9.
- ¹¹ Ian Johnston, "World Must Hit Zero Carbon Emissions 'Well Before 2040,' Scientists Warn," *The Independent*, April 13, 2017. Available online: <http://www.independent.co.uk/environment/world-zero-carbon-emissions-before-2040-two-decades-climate-change-global-warming-greenhouse-gases-a7682001.html>.
- ¹² Robert Rapier, "World Sets Record for Fossil Fuel Consumption," *Forbes*, June 8, 2016. Available online: <http://www.forbes.com/sites/rrapier/2016/06/08/world-sets-record-for-fossil-fuel-consumption/>.
- ¹³ Brian Kahn, "We Just Breached the 410 PPM Threshold for CO₂," *Scientific American*, April 21, 2017. Available online: <https://www.scientificamerican.com/article/we-just-breached-the-410-ppm-threshold-for-co2/>.
- ¹⁴ U.S. Energy Information Administration, "International Energy Outlook 2016," May 11, 2016. Available online: <https://www.eia.gov/outlooks/ieo/coal.cfm>.
- ¹⁵ John Abraham, "Methane release from melting permafrost could trigger dangerous global warming," *The Guardian*, October 15, 2015. Available online: <https://www.theguardian.com/environment/climate-consensus-97-per-cent/2015/oct/13/methane-release-from-melting-permafrost-could-trigger-dangerous-global-warming>.
- ¹⁶ Kelsey Campbell-Dollaghan, "6 New Mega-Airports That Will Compete For the Title of World's Busiest," *Gizmodo*, November 25, 2103. Available online: <http://gizmodo.com/6-new-mega-airports-that-will-compete-for-the-worlds-b-1470892771>.
- ¹⁷ Steven Mufson, "An Expanded Panama Canal Opens for Giant Ships," *The Washington Post*, June 26, 2016. Available online: https://www.washingtonpost.com/world/the_americas/an-expanded-panama-canal-opens-for-giant-ships/2016/06/26/11a93574-37d1-11e6-af02-1df55f0c77ff_story.html.
- ¹⁸ Rebecca Wright and Matt Rivers, "En Route from China, This is the Biggest Container Ship Ever to Dock in the U.S.," *CNN Money*, February 1, 2016. Available online: <http://money.cnn.com/2016/01/31/news/economy/china-container/>.
- ¹⁹ John Vidal, "Health Risks of Shipping Pollution Have Been 'Underestimated'," *The Guardian*, April 9, 2009. Available online: <https://www.theguardian.com/environment/2009/apr/09/shipping-pollution>.
- ²⁰ Colin McFarlane, "The City as Assemblage: Dwelling and Urban Space," *Environment and Planning D: Society and Space*, vol. 29 (2011): 650-651.
- ²¹ McFarlane, 651.

²² McFarlane, 653.

²³ McFarlane, 654.

²⁴ McFarlane, 654.