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POST DATE

04/12/2018

ISSUE NUMBER

JEHRHE #1

SECTION

Reviews

KEYWORDS

Coal, Oil, Politics, Public
policy, Capitalism

DOI

in progress

TO CITE THIS ARTICLE

Béatrice Cointe, "Carbon
Democracy: Political Power
in the Age of Oil (Timothy
Mitchell, 2011)", *Journal of
Energy History/Revue
d'Histoire de l'Énergie*
[Online], n°1, published 04
December 2018, URL: [http://
energyhistory.eu/node/94](http://energyhistory.eu/node/94).

Carbon Democracy: Political Power in the Age of Oil (Timothy Mitchell, 2011)

Bibliographic reference

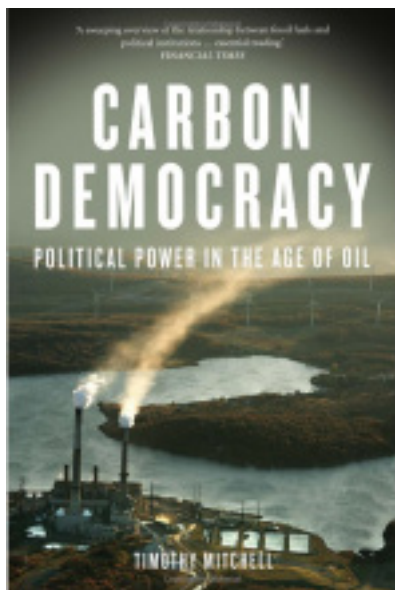
Timothy Mitchell, *Carbon Democracy: Political Power in the Age of Oil*
(London: Verso, 2011)

Abstract

Carbon Democracy is an inquiry into the relations between fossil fuels and political power. Timothy Mitchell analyses energy systems as political machineries that need to be considered in histories of democracy. To do so, he follows the connections and conversion that were engineered to extract, produce and distribute coal and oil, drawing together materialities, politics, and ideas.

Plan of the article

- The making of power
- Actor-network theory and performativity
- Coal and the possibility of modern democracy
- Oil and the limits of modern democracy
- Crafting the economy
- Re-opening energy systems



- 1 The intention of Timothy Mitchell in *Carbon Democracy* is quite straightforward, even though its subject matter is not: to investigate how democracy relates to fossil fuels. The book starts from a seemingly simple question: by retracing the history of the exploitation of oil and contrasting it with that of coal, what do we learn about the organisation of political and economic power? Mitchell answers with an invitation to revisit our conception of democracy, opening his book on the strong claim that “Fossil fuels helped create both the possibility of modern democracy and its limits” (p. 1). The implication is that the history of democracy and of its transformations during the 20th C. is inseparable from the history of fossil fuels -and, in particular, of oil. This does not mean that oil explains everything about the organisation of political power -indeed, Mitchell shuns technological determinism-, but rather that oil cannot be left out of the equation.
- 2 Mitchell’s account of the history of the intricate connections between oil and political power is too detailed to be summarized here—it spans a whole century, travelling from the Persian Gulf to Bretton Woods. Instead, the review focuses on how oil is included in the equation: how does Mitchell analyse “democracy as oil” (p. 5), and what does he say from there? I will first discuss the distinct perspective on energy history that Mitchell adopts, and then draw on his key arguments to show how he puts it to work.

THE MAKING OF POWER

Carbon Democracy is a striking demonstration that the history of energy is about much more than a history of resources and technologies: it shows how energy is intimately, crucially, linked to the making of political and economic power. Mitchell adds a layer to this argument: to deploy the full potential of such histories, we *need* to take resources and technologies seriously. The core ambition of the book is to follow oil and the sets of connections that were engineered in the process of extracting and distributing it. Mitchell looks into the very physical properties of oil and into how it is measured, extracted, shipped, consumed, and converted into money and power. Such things, he argues, are generally glossed over in traditional accounts about oil and power: they focus on oil money, ignoring the whole equipment and operations that went into converting oil into monetary flows. The argument extends to democracy, which Mitchell does not approach as a set of principles and ideals (or as, in his own words, an idea, that is something that stays the same, regardless of space), but as the engineered result of specific socio-technical arrangements. “Carbon democracy”, then, refers to the forms of politics that emerged from arrangements connecting fossil fuels, finance, and political power.

The book is thus about connections and conversions. Its strength lies in how it interweaves descriptions of the material (resources, infrastructures, technical devices), the political (imperial power, geopolitics, the constitution of Middle-Eastern states, contestations) and the history of ideas. This quality runs through Mitchell’s bibliography, and is a testimony to the contribution that actor-network theory and performativity studies can make to the study of energy (see Box below).

ACTOR-NETWORK THEORY AND PERFORMATIVITY

Mitchell introduces himself as a political theorist and historian, but his work takes part in Science and Technology Studies, and falls in line

with actor-network theory and performativity studies. *Carbon Democracy* builds on the work of Bruno Latour and Michel Callon who, as leading proponents of actor-network theory, have developed methods to bring nature and technology within the realm of social sciences and humanities and, thereby, to question the divide between nature and politics. Actor-network theory is characterized by its relational take on social processes, its inclusion of the non-human as social actors, and its attention to situations of controversies in which “sociotechnical arrangements” are put to the test and negotiated. It has also contributed to the study of economics and markets, with two major interests: first, the “performativity” of economics, that is to say, the distinctive ways in which economics knowledge relates to its objects and takes part in constituting the economy; and second, descriptions of the functioning of the economy and of markets focused on “market devices”, that is the sociotechnical devices, both material and conceptual, that organise it.

- 6 The influence of these perspectives notably shows in the way Mitchell interrogates the making and maintenance of the divide between the “natural” and the “political”¹ and of the particular domain of the “economy”, whose constitution in the mid-century is one crux in the series of events analysed in the book. These interrogations are formulated by considering the history of oil and power in terms of what scholars in actor-network theory have called “socio-technical arrangements”² (or *agencements*) -in other words, by analysing the relations between humans and non-humans, materials and ideas, or calculations and objects of calculation. And it is precisely the attention to these connections and assemblages which enables Mitchell to address the constitution

of such large entities as democracy, the economy or the market. These, Mitchell shows, are made of abstractions (calculations, theories, discourses) as much as of concrete, massive objects—pipelines, refineries, ships, weapons. The book moves seamlessly between detailed historical and geopolitical accounts of events related to oil and reflections on the making of doctrines and objects of government.

Tackling an issue so broad in scope and so fraught with power and violence as the history of oil is, at the same time, a challenge to actor-network theory, however well-equipped it is to disentangle situations of controversies and uncertainty. Mitchell faces giants—the oil infrastructure is massive and democracy is not the most easily circumscribed of notions. The vast and precise panorama he draws to tame them contrasts with the narrowly empirical perspective of most actor-network theory studies. It is a challenge to scrutinize the intricacies of socio-technical arrangements over a century, and across most of the globe, and the entities tackled sometimes remain hard to grasp. Despite the promise of the title and earlier chapters, democracy, for instance, is not seen at work consistently throughout the book, and in some parts it tends to retain a somewhat nebulous character. Other entities such as the economy, on the contrary, are deployed and dissected in great and powerful detail.

Two main threads of inquiry run through the book to build up the argument that equipping energy production is also, to varying degrees, equipping political power: the analysis of energy systems as political machines and that of the calculation techniques developed around coal and oil production. Two key chapters deserve closer attention as they lay out the bases for these two lines of reflection: Chapter 1, which analyses coal extraction as a political machine that equipped mass democracy and contrasts it with the oil industry; and Chapter 5, which is an account of the emergence of the “economy” as a governable entity and a central object of government.

¹ Bruno Latour, *Politics of Nature* (Cambridge, MA: Harvard University Press, 2004).

² Andrew Barry, “Technological Zones”, *European Journal of Social Theory*, vol. 9/2, 2006, 239-253; Andrew Barry, *Political Machines: Governing a Technological Society* (London: Athlone Press, 2001); Koray Çaliskan, Michel Callon “Economization, Part 2: A Research Program for the Study of Markets”, *Economy and Society*, vol. 39/1, 2010, 1-32.

COAL AND THE POSSIBILITY OF MODERN DEMOCRACY

9 Coal, Mitchell demonstrates in Chapter 1, was instrumental in the development of industrial democracy at the turn of the 20th C. The first step undertaken in *Carbon Democracy* is to introduce coal as a player in the history of modern democratic politics, to provide an account of how it played, and to contrast it with oil. The argument is not that democratic demands were a product of the increased use of coal as fuel, and much less that the extension of democratic rights was a necessary consequence of building energy systems based on coal. Far from positing that specific energy resources foster specific forms of politics, Mitchell describes how political agencies and demands pushing for mass democracy were assembled with, and within, the production and use of coal. To do so, he is particularly attentive to the material properties of coal and of the networks through which it circulated through industrial societies. These material properties go from the unprecedented quantity of energy concentrated in coal to the organisation of labour, expertise and distribution networks organised around coal. For instance, Mitchell shows how the increase in available energy transformed industries, trade and the spatial organisation of societies. However, his main contribution lies in his analysis of the forms of collective organisation that developed around coal flows: in his account, the coal industry appears as an equipment for political demands—a “political machine”, in Mitchell’s words (p. 12). The circulation of coal as the fuel of the burgeoning industrial society connected workers in different places and sectors. Collectively, coal workers—the miners, but also all those involved in the circulation of coal—could turn the “machine” they operated into a very powerful tool for political leverage. By exploiting coal dependencies and the vulnerabilities of coal extraction (dependent on underground expertise) and distribution (organised in large part around railways), coal workers were able to gain some control over energy flows, and, with this, political power that carried forward labour parties and drove a gradual expansion of democratic rights.

OIL AND THE LIMITS OF MODERN DEMOCRACY

10 This exploration of the links between coal and democracy provides the basis for the rest of the book. How did the “political machines” of oil contrast with those of coal? First, they connected the politics of industrialised countries with those of oil producing countries, and, second, to a large extent, they enabled limitations of democratic aspirations in both. To understand how that happened requires analysing how control over resources is gained, as the section on coal demonstrates. And controlling a resource implies controlling extraction, work-force, supply, flows, prices and demand.

11 The development of oil took shape in very different control patterns from that of coal. It occurred in regions remote from large populations and far from the industrialised places where oil would be used. It was much less work-intensive than coal, and work was above ground. Workers were imported and racially segregated, hindering collective organisation. Oil, as a liquid, was relatively light and transited in pipelines and on ships, travelling large distances on dendritic networks—meaning that two points could be connected by several routes. In the sociotechnical arrangements of oil production, firms held most of the control. They used it not as a tool to promote political demands, but to maintain scarcity. The mechanisms set up to produce scarcity acted on resources (securing access slowing down production), on distribution channels (controlling flows, restricting the development of alternative channels), and on demand (encouraging a shift from coal to oil, producing lifestyles relying on heavy oil consumption).

12 Mitchell then investigates the engineering and transformations of the mechanisms arranged to grasp and hold control over oil, as well as of the forms of politics and power that they enabled and maintained throughout the 20th century, with a focus on the Middle East.³ *Carbon*

³ Oil producing countries in South America are mentioned but not covered in as much detail as those in the Middle East. The book does not consider the arrangement of oil production in countries such as Norway and Scotland, leaving one to wonder to what extent they would constitute examples of alternative ways to assemble fossil fuels and democracy.

Democracy covers the seizing of Middle-Eastern oil resources by American and European firms in the early 20th C. and the strategies to contain production (Chapter 2); the mechanisms designed to keep control over oil in the transition from imperialism to self-determination and the links between the oil industry and democratic demands in newly independent Middle Eastern States (Chapters 3 and 4); the political struggles of these States to reappropriate their oil resources, the resistance of oil firms, and the doctrines and financial mechanisms set up to keep control over oil (Chapter 6); the contemporary imbrications between oil capitalism and political Islamism, labelled as “MacDjihad” (Chapter 8).

CRAFTING THE ECONOMY

- 13 A second thread runs through the book: that of the interrelations between fossil fuel production and economic life. It leads to some of the most original and convincing propositions of *Carbon Democracy*. Fossil fuels, Mitchell argues, did not only contribute to shape modern democracies; they also underlay the coining of a new entity, the “economy”. In Chapter 5, Mitchell demonstrates that the economy as it is understood today did not exist until the 20th C., when it gradually became an object of study for economists, and a key organising principle and object of government. He thus describes the crafting of this new space of intervention between nature and politics as another way in which fossil fuels were embedded in the organisation of democracy.
- 14 Mitchell’s take on the economy builds on his previous work. Throughout his career, Mitchell has investigated the production of the economy as an autonomous domain of expertise and policy.⁴ He has also explored how economics as a discipline “makes its world”,⁵ and how it relates to the objects it studies. Economic knowledge, he has shown, is not so much about representation

as about intervention: it takes part in constituting its objects, and produces arrangements that organise the world *and* establish economic facts.⁶ Following this line of thought, *Carbon Democracy* retraces how fossil fuels were incorporated in the economic system, that is to say in the very organisation of economic and financial life but also in the conceptual apparatus of economics. The strength of the account lies in its capacity to display the complexities and intricacies of the systems analysed, making them legible without simplifying them. Large parts of the book analyse calculation in the ages of coal and oil, and its links to the abundance of energy concentrated in fossil fuels and to the practical arrangements of economic, financial and political life that were engineered around coal, then oil.

The most elaborate analysis is that of the “Fuel Economy” in Chapter 5. Mitchell details the role of fossil fuels in the conceptualisation and organisation of national economies as measurable and governable entities liable to grow without material limits. He also situates this evolution in the history of economic thought. While the rearrangement of the international financial system after the Second World War (notably the end of the Gold Standard) based it upon the flow of oil, the discipline of economics abstracted its object from concerns over natural resources. As fossil fuels constituted seemingly inexhaustible amounts of energy, Keynesian economics were the first to consider that the availability of resources was no longer a threat, and that what mattered was the circulation of money. Economics became the science of monetary flows, whose main object was an aggregate of all monetary transactions within a given space, the “economy”. This new object, that statistical techniques developed in the age of coal helped measure, became a crucial focus of policy. The calculation techniques used to define the economy excluded nature and resources from economics and politics. They also limited democratic debate, because they defined the

⁴ Timothy Mitchell, “Fixing the Economy”, *Cultural Studies*, 12/1, 1998, 82-101.

⁵ Timothy Mitchell, “The work of economics: how a discipline makes its world”, *European Journal of Sociology*, vol. 46/2, 2005, 297-320.

⁶ Timothy Mitchell, “Rethinking economy”, *Geoforum*, vol. 39, 2008, 1116-1121.

object of politics as something to steer using economic expertise. Last, by coining the economy as something that could grow indefinitely, they contributed to orienting democratic politics towards the future as a limitless horizon of growth.

RE-OPENING ENERGY SYSTEMS

16 Like the analysis of coal production as a political machine in the first chapter, the account of the production of the economy provides a basis for further discussions of subsequent developments in the history of oil, energy expertise and democracy. Chapter 7 focuses on the multiple transformations that were bundled up under the “oil crisis” of 1973-74. Unravelling the so-called crisis, Mitchell encounters and opens up several entities that have now become self-evident in debates around energy – much like the economy has become an evident concern in politics: the environment, the oil crisis, limits, energy as a new domain of public intervention, or the market. In particular, he shows how the market as conceived by neoliberals came to supersede the Keynesian economy as a device for organising and regulating economic life. The very notion of the “oil crisis”, and more specifically the idea that the sudden increase in oil prices was a textbook example of the laws of supply and demand—hence that it was an issue of market regulation—then appears as related to the work devoted to pushing the market as a new principle of political organisation and regulation—and as a new set of techniques to contain democracy.

The concluding chapter pursues the investigation 17 of the calculation techniques that take part in constituting the worlds of oil. It posits that more transformations are underway with the end of the fossil fuel era on the horizon. Two related issues make it increasingly difficult to consider that oil does not count and does not need to be counted: the dwindling pace of discovery of new resources, and climate change. Oil can no longer be so easily extracted from the ground—in conceptual as well as in physical terms (tar sands or shale oil are much harder to extract than conventional oil and require direct intervention in the rocks). *Carbon Democracy* then ends on a note of cautious hope: the current situation, in which the uncertainties around oil production are becoming more visible, is an opportunity to reclaim the territory that calculative techniques of economics have established between nature and politics.⁷ The future of energy politics will not be determined by the forms of energy used; it will depend on how the connections between resources, politics, technologies, society and finance are arranged. Ultimately, *Carbon Democracy* is an invitation to continue opening up these arrangements and following these connections. In so doing, we can redefine energy as a sociotechnical matter that can be acted upon in more or less democratic ways, depending on how it is collectively seized. This claim makes *Carbon Democracy* a manifesto for the relevance of energy studies that do not shy away from analysing the making of power in every sense of the word.

⁷ Mitchell has discussed this further in an episode of the Cultures of Energy Podcast, produced by the Center for Energy and Environmental Research in the Human Sciences at Rice University. Cultures of Energy Podcast, Episode 57, <http://culturesofenergy.com/ep-57-timothy-mitchell/> (accessed 11/05/2018)

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