
Reflections

Michael Watts

Interviewed by Murat Arsel

Michael Watts is 'Class of 1963' Chair in Undergraduate Studies and Chancellor's Professor of Geography at the University of California, Berkeley. Born and raised in rural southwest England, Watts studied at University College London and completed his PhD in 1979 at the University of Michigan. Bringing long-term ethnographic research in Africa and critical engagement with Marxist political economy to bear on themes such as Third World poverty, food security, the agrarian question, oil-led development and violence, Watts has long been a leading figure in development studies and African studies as well as being instrumental in the development of the field of political ecology. Having published numerous articles in scholarly journals in geography and beyond, he is also the author and editor of several books including *Silent Violence* (1983), *Reworking Modernity: Capitalisms and Symbolic Discontent* (1992, with A. Pred), *Liberation Ecologies* (1996 and 2004, with R. Peet), *The Hettner Lectures: Geographies of Violence* (2000), *Violent Environments* (2001, with N. Peluso) and *The Curse of the Black Gold* (2008, with photographer Ed Kashi). He was director of the African Studies Centre from 2005 to 2008 and of the Institute of International Studies at Berkeley from 1994 to 2004. He has been named a Guggenheim fellow, a fellow at the Stanford Center for Advanced Study in Behavioral Sciences, and is currently completing a book on oil and insurgency in Nigeria.

MA: There is much written about the current global financial crisis, yet very little of it has focused on its impact on developing nations. Could you comment on how this crisis is affecting Nigeria where you have conducted extensive fieldwork?

MW: This question of how the financial crisis unleashes new strains, fissures and tensions across the global south — and Nigeria in particular — is, I think, very complicated. This complexity resides in part in the differential structures of national economies and their different exposures to, and dependencies upon, key Euro-American banking institutions (and the world economy more generally) and also in the temporal dynamics of the impacts which are both immediate and longer term. In the same way, the proximate effects of the 1997–98 Asian crisis were to throw millions of people into poverty across the region, but

it also had longer term structural effects on the character of development strategies — the model of development — among Asian states. There is in addition the analytical challenge of thinking through what the character of the ‘financial crisis’ actually is and what it represents. It is one thing to talk of the collapse of investment houses and the drying up of credit or the devaluation (or total loss) of investment funds held by the Ecuadorian state or prosperous Indian middle classes. It is quite another to trace how the deregulated speculative activities of the banks (and the monstrous failure — or should we say complicity — of the credit rating agencies and the financial oversight institutions) are inseparable from, first, their enormous speculative impact in various commodity markets upon which many developing states depend, and second, their relation to the operations of the black or illicit economy — particularly the explosion of high level corporate and governmental corruption. (In February 2009, for example, Halliburton was found guilty in a US Court of massive corruption in its operations in the Nigerian oil and gas sector.) Not least a financial crisis narrowly construed — a product of the development of financial instruments and forms of insurance which in practice generated enormous new risks — has now morphed into something like a generalized economic recession. At the time of writing, the US economy is shedding half a million jobs a month. In my own state of California unemployment is over 11 per cent, tent cities for the homeless in Sacramento and elsewhere resemble the Great Depression, a massive public educational system is in financial free fall, and rural unemployment in some of the agricultural counties is as high as 30 or 40 per cent. All of these phenomena are, in other words, of a piece, and need to be conceptually held together in thinking through the ‘impacts on developing nations’.

This approach might help us think about how the crisis is specifically being felt in Nigeria by considering its political economy and its hypertrophied form of oil dependency. Nigeria is the eleventh largest producer and the eighth largest exporter of crude oil in the world. National oil production (crude and natural gas liquids) is currently running at roughly 1.6 million barrels per day (b/d) — a significant decrease from a longer running average of about 2.3 million b/d — which reflects the devastating consequences of a home-grown insurgency that has emerged in the Niger delta since late 2005. It has crippled the industry. Nigeria also contains the largest natural gas reserves in Africa and is a global player in the production of liquefied natural gas (LNG). Oil has seeped deeply and indelibly into the political and economic sinews of Nigeria. In 2008 over 87 per cent of government revenues, 95 per cent of foreign exchange earnings, 96 per cent of export revenues and almost half of Gross Domestic Product (GDP) was accounted for by oil and gas. In 2008, with oil

prices way over US\$ 100 a barrel, the government pocketed perhaps US\$ 75 billion.

Nigeria is an oil-state driven by two cardinal political principles: how to capture oil rents and how to sow the oil revenues? In practice, the politics of oil capture and allocation have been utterly disastrous — it has generated nothing short of a failed and ruinous form of secular national development. To compile an inventory of the achievements of Nigerian petro-development is a salutary, if dismal, exercise: 85 per cent of oil revenues accrue to 1 per cent of the population. According to former World Bank President Paul Wolfowitz, around US\$ 300 billion of the US\$ 600 or so billion in oil revenues accrued since 1960 have simply ‘gone missing’.¹ Nigerian anti-corruption czar Nuhu Ribadu — a remarkable and brave, some would say suicidal, figure who oversaw the arrest of a number of hugely corrupt Nigerian state operatives and was recently hounded out of the country in the wake of his being fired from the Economic and Financial Crimes Commission — claimed that in 2003, 70 per cent of the country’s oil wealth was stolen or wasted; by 2005 it was ‘only’ 40 per cent. Over the period 1965–2004, the per capita income fell from US\$ 250 to 212, while income distribution deteriorated markedly. Between 1970 and 2000, the number of income poor grew 19 million to a staggering 90 million. Over the last decade GDP per capita and life expectancy have, according to World Bank estimates, both fallen. According to the UNDP, Nigeria ranks in terms of the Human Development Index below Haiti and Congo. It is not a pretty picture — whether viewed from the office of the American academy or experienced from the vantage point of the Lagos slum world.

But your question about the impact of the crisis must start from these sets of prior conditions I sketched which preceded the immediate effects of the financial meltdown as they gathered momentum in the middle of 2008. The reality was a remarkable run-up in oil prices — the third oil boom following the early 1970 and 1980 booms — which peaked at almost US\$ 150 a barrel in July 2008. The volatility of the oil market and the massive influx of petro-dollars to oil-states like Nigeria is conventionally explained in terms of the end of ‘easy and cheap oil’ to deploy the industry cliché (a variant of the Peak Oil scarcity argument), limited OPEC spare capacity, and most especially the demand-driven effects of the Chinese and Indian economic booms. But these forces cannot possibly explain the rapidity with which prices rose (and subsequently fell). As Randall Wray (2008) has brilliantly shown, commodity prices (especially food) were driven by a combination of market manipulation by traders and producers and

1. See: http://www.nigerianmuse.com/20080602232454zg/nigeriawatch/officialfraud/Corruption_has_ruined_Nigeria_APRM_report

by speculation in futures markets, especially by the rise of commodity indexes. Finance capital was driving the oil boom which, as a speculative bubble, was popped with the collapse of the banks in late 2008, but was also driven by the same forces which, over the course of 2008, were investing in commodities as the 'derivatives economy' began to unravel.

In the short term, the Nigerian government has been compelled to radically scale back its 2009 budget on the basis of expected lower oil proceeds. But even so the federal government will run a deficit of at least 5 per cent of GDP (and in the current account of over 11 per cent), perhaps much more if President Yar'Adua cannot restrain, as seems likely, popular pressures on his proposed cuts in subsidies and other popular programmes. *The Economist* (2008) points out that the crisis will have dramatic impacts on Nigeria's private sector and on its fiscal policy. The Nigerian Naira collapsed by almost 30 per cent in five months with further falls to come. The political pressures against reduction in public spending will be enormous — the oil workers unions have threatened strike action already over the insecurity in the delta and the layoffs within the industry — and by the same token the ability of Nigeria to operate within its OPEC quota under these conditions seems slight. Thus, the financial crisis is only now beginning to be felt in Nigeria (a reflection in part of the 'excess revenues' built up during the oil price increases) and the real test is to come: whether Yar'Adua, who will be increasingly concerned now with the run up to the next elections, will in conditions of considerable austerity over the next year, be able to keep a lid on the deep and contradictory forces of insurgency in the oil fields, popular resentments in the slums worlds where vast armies of the poor are barracked, and ferocious infighting among the political class jockeying for oil rents and a strategic position in the run up to 2011. The military assault — a massive counter-insurgency effort — launched on 13 May 2009 on militants operating in the oilfields is a measure of the gravity of the crisis.

There is also the related question of how the headlong rush into ethanol production propelled by the prior oil price boom ramifies through an import-dependent food economy. The global conversion to biomass for ethanol has, we now know, had important implications on the price of staple food prices. Nigeria imported US\$ 27 billion in foodstuffs in 2008 and currently only provides 20 per cent of its domestic rice needs. Popular resistance to this price volatility is already a political issue.

- MA: How does the spectacle of global financial collapse look from the vantage point of the Niger River Delta?
- MW: This is not an easy question to answer. Who in the Niger delta is looking at the 'spectacle' of financial collapse? The political class? The

oil industry? The armies of urban unemployed? The desperately poor women in the creeks? The insurgents? Let me start, however, with your reference to the financial crisis being a spectacle. This word carries a precise meaning for me and a collective I work with in the Bay Area (RETORT) — namely the idea associated with American empire (the ‘War on Terror’) of an image war (for example the American demand that Picasso’s *Guernica* be removed from the United Nations antechamber), a battle that Mr Rumsfeld, faced with the clever mediatic work of the likes of Messrs Zawahiri and bin Laden, felt the US was losing. Taken from Guy Debord, the idea was of new forms of state control and the colonization of everyday life in which the spectacle represented a new form of capital accumulation. It gave a name to the process by which ‘more and more facets of human sociability . . . [are submitted] to the deadly solicitations . . . of the market’ (RETORT Collective, 2005: 19). In this sense the collapse of, and the state response to, Bear Stearns and Lehman Brothers can be read in spectacular terms. The collapse is an image event — Wall Street operatives leaving their offices with cardboard boxes or papers, Ponzi schemers brought to trial, CEO of banks marched before Congressional committees — in which, in the desperate weeks of September and October 2008, Hank Paulson and friends held a gun to the heads of the US body politic and said that without US\$ 700 billion the world as we know it would implode. It is an image event but not *only* an image event, of course.

The state in particular — and the burden is now on the new Obama administration within its phalanx of advisors who were critical in the deregulation of derivatives markets at the end of the Clinton regime — must manage this crisis and especially their relationship with the power of US finance capital and the revolving door of the Wall Street–Treasury. It is one thing for the public to see finance capitalists force marched onto Capitol Hill, but quite another to have bailout packages used to pay huge bonuses to people who drove the credit default swaps in the first place. Until now the entire spectacle of financial crisis — which resembles nothing more than a mixture of organized crime and massive fraud (a rather different sense of the unleashing of ‘animal spirits’ than is the conventional wisdom on the crisis) — confirms nothing more than a culture of impunity. When will we see someone on our TV screens heading off to do time on Rikers Island or at San Quentin? (A culture of impunity, incidentally, added to by Obama’s recent decision, in the context of the disclosure of the torture memos, to not hold anyone accountable). There is a sense in which Obama has presided over the recomposition and consolidation of finance capital, funded with tax payer dollars and a culture of fear (‘too big to fail’).

So this is a spectacle of a particular sort, and indeed there is a sense too in which the Niger delta has its own spectacularized form of

accumulation through the oil and gas industry ('black gold', 'petrodollar development' and so on). This is the image world of the petro-state and the transnational oil companies, and of course, since 2005 the extraordinary ability of the militants — the Movement for the Emancipation of the Niger Delta (MEND) most obviously and its charismatic and articulate spokesperson Jomo Gbomo — to unleash their *own* barrage (images of hostages, exploding pipelines) in the image war.

So let me return to your question of how the financial crisis is being seen in the delta. First, there is a profound sense among Nigerian intellectuals of yet another US double standard. After two decades of having neoliberal governance talk and the need for transparency, accountability and good government forced down their throats by Bush apparatchiks and their multilateral allies like the World Bank, it turns out that the push toward financialization of the global economy has produced nothing more than the rankest forms of greed, venality, government failure, crony capitalism and outright fraud. From the vantage point of Nigeria — in which nobody doubts the depth of political and economic corruption and everyone fully understands that no politician, military official or high ranking businessman has ever been prosecuted for any form of malfeasance — it is mildly astonishing to see that this Wall Street crisis is protected too by a culture of complete impunity. It represents (even under Obama) a socialization of the costs of failure and malfeasance.

Second, there is the question of how this crisis is perceived in the creeks by the militants. In a nutshell, since early 2006 the insurgency has rendered the oil fields utterly ungovernable. Output has fallen and a number of construction and engineering companies have halted activity or withdrawn their operations. Some areas are under lockdown and the federal military forces patrol the creeks in a cat and mouse game with militants of varied stripes (some are organized criminals other promoters of a political project called 'resource control'). The political economy of what is now a well-armed insurgency is held together in part by oil bunkering (oil theft) in which there is complicity between the militants and gangs who patrol the movements of barges in the creeks and tapping of pipeline and manifolds, and the military and political class who oversee the trade. The financial crisis is felt among the ranks of the insurgents as a further deepening of the crisis of the oil industry. The likes of MEND are media savvy playing off their political demands against their ability to roil world oil markets by disrupting production. In this sense everyone benefits from high oil prices: the militants through bunkering, the oil companies who post record profits in spite of the increasing costs of doing business, and the government by pocketing 'excess crude revenues'. The financial crisis has detonated a global economic recession and the bursting of

the speculative oil bubble. Whether (as in the past) low prices will produce pressures to expand oil bunkering, or whether reduced oil revenues flowing through the region (through the revenue allocation process) will deepen existing resentments and tensions among and between contending political forces on the oil fields is hard to predict. It is interesting that the militants who have adopted a critical stance with respect to the international oil companies were very much aware, during the catastrophic events of late 2008 when Wall Street seemed to be on the point of imploding, of an important legal case brought against Chevron in the San Francisco federal circuit court by villagers from the Ilaje area in the delta who alleged human rights violations against their communities by the company. The decision when rendered went against the Ilaje plaintiffs and this decision was widely seen in the creeks as another instance of corporate impunity — consistent with a larger picture of business as usual in Nigeria and on Wall Street.

Third, the international oil companies, already feeling that their ‘social licence to operate’ has been compromised by the insurgency, see the collapse of the investment banks and the tumbling oil price as a source of enormous uncertainty for the industry as a whole given the contradictory pressures of OPEC (to reduce output to maintain prices), the credit crunch and their need to continue expensive and risky deep water offshore oil developments, and the imperative to shed workers in an industry already hemorrhaging huge amounts of money. The oil companies face a financial, operational and legitimation crisis — and in regard to the latter one wonders whether Shell’s decision in June 2009 to settle in the legal case brought to the southern New York Federal District Court was not a reflection of the fears of having another messy and public display of Big Oil corruption and influence peddling (rather than the worry of a legal defeat, which always struck me as unlikely).

Finally, there is the political class, a broad swath of politicians, high ranking civil servants and military who historically have had to balance feeding at the deep trough of oil wealth against the need to use oil revenues to purchase political consent in a highly competitive and unstable multi-ethnic post-colonial state (or perhaps we should say federal system) which has seen, especially since the return to civilian rule in 1999, three important processes at work: a significant decentralization of corruption to the states and local governments, a major enhancement of oil revenues to the oil-producing states through the principle of derivation, and not least the emergence of enormously powerful (and wealthy) governors and senior politicians and their political machines (known locally as ‘godfathers’) who have deployed armed thuggery to deliver votes. All of this has produced the democratization of the means of violence (of which the insurgency is part).

The question, then, is what the financial crisis might mean for the political class presiding over this rickety, contradictory and venal system — currently in the hands, once again, of the powerful north-erners but led by a weak, compromised and sick President Yar'Adua? Already the financial crisis has had ramifications throughout the oil-economy as I outlined earlier: the value of the Naira has crashed, an already rickety banking system is staggering under the weight of an international credit crunch, food prices in the cities are rising quickly, and the anticipated reduction in government revenues necessarily compromises the ability of the current administration to balance powerful regional and class forces. A sustained and deep global recession would, in short, be a massive perturbation to this system and the challenges to the ruling People's Democratic Party (PDP) government, in spite of its strength in a number of the states, would be profound. The sorts of political forces unleashed by such an eventuality — and the ramifications for both the US and the world of such an explosive scenario given the geo-strategic importance of oil and gas — might well be as combustible as oil itself.

- MA: Towards the end of your recent book with the photographer Ed Kashi (*Curse of the Black Gold*), there is a quote by the late Ken Saro-Wiwa from his 1990 article 'The Coming War in the Delta': 'The Delta people must be allowed to join in the lucrative sale of crude oil . . . only in this way can the cataclysm that is building up in the Delta be avoided. Is anyone listening?' (p. 217). To what extent would redistribution of oil wealth help cure the problems of Nigeria?
- MW: You mentioned Ken Saro-Wiwa, the great human rights and environmental activist and leader of the Movement for the Survival of the Ogoni people (MOSOP) who was hanged by a military tribunal in November 1995, so let me attempt to answer your question about the distribution of oil revenues by commenting on his political project and his own trajectory in moving from a well-connected civil servant and man of letters to an activist. The Ogoni struggle which Saro-Wiwa came to lead in 1990 became one of the iconic indigenous struggles of the late-twentieth century — the Chipko and Narmada movements in India and Chico Mendez's rubber tappers movement in Amazonia might be others — but it has also been mythologized in ways that occlude the complexity of the struggle and of Saro-Wiwa's own views. In many ways Saro-Wiwa's observation was prophetic, a premonition of what was to become by 2006 a full-blown insurgency; his non-violent tactics and popular mobilization as leader of MOSOP had been replaced by the AK-47s and RPGs (rocket-propelled grenades), the so-called 'typewriters of the illiterate'. The failure of his project — reflected both in the hanging of the Ogoni Nine and in the fact that internal struggles within the movement after his

death crippled MOSOP — provided the ground on which other ethnic movements from below, especially that of the Ijaw in the late 1990s, increasingly turned to a militant strategy against the slick alliance of the oil companies and the military state that Saro-Wiwa railed against.

We do well to remind ourselves of what Saro-Wiwa's 'coming war' actually looks like at present across the Niger delta oilfields which are, in effect, ungovernable. According to two reports released in 2009 (The Coventry Cathedral Report, 2009; UNODC, 2009) the value of oil that is stolen and shut-in (deferred as a result of insurgent attacks) amounted to US\$ 19 billion in 2007 and US\$ 33 billion in 2008, while in the first nine months of 2009 over 1,000 people were killed and 300 hostages taken. In the last three years, Nigeria has hemorrhaged oil revenues roughly equivalent to the GDP of the fifteen poorest countries in the world.

In fact Saro-Wiwa's gravest fears could not have anticipated the calamitous descent into violence over the last decade, culminating with the dramatic appearance of MEND with a massive attack on the Oporo pipeline in Delta State in December 2005. The *International Herald Tribune* (22 April 2007) captures vividly the brave new world ushered in by MEND:

Companies now confine employees to heavily fortified compounds, allowing them to travel only by armored car or helicopter . . . One company has outfitted bathrooms with steel bolts to turn them into 'panic' rooms, if needed. Another has coated the pylons of a giant oil-production platform 130 kilometers, or 80 miles offshore, with waterproof grease to prevent attackers from climbing the rig . . . 'I can't think of anything worse right now', said Larry Johnson, a former US Army officer who was recently hired to toughen security at a Nigerian site operated by Eni, an Italian oil producer. 'Even Angola during the civil war wasn't as bad'.

Shell alone, the largest operator accounting for almost half of all oil output, had lost US\$ 15 billion since late 2005. By any estimation, the costs of this oil insurgency are vast.

The genesis of the insurgency, led primarily by Ijaw youth groups of varying political (and sometimes criminal) persuasion speaks to some of the contradictions and tensions within Saro-Wiwa's own political project (incidentally a new novel by Richard Patterson [2009] entitled *Eclipse*, which is based on Saro-Wiwa and the Ogoni struggle, attempts, rather unsuccessfully in my view, to grapple with this complexity). He saw ethnic politics as the great stain on post-colonial Nigeria — the serial dominance of the ethnic majorities over the minorities — yet he deployed ethnicity as a way of doing politics himself. There was a genuine tension between what Ike Okonta has called his civic nationalism and his indigenous (ethnic) parochialism. Saro-Wiwa stitched together — constructed — a sense of Ogoni identity bursting at the seams with internal contradictions: among and

between elders and youth, ruling families and well-connected Ogoni politicians, women and men, and especially among and between the separate Ogoni kingdoms themselves. Containing these tensions — and at the same time projecting his movement outward to the likes of international organizations like Greenpeace and the UN — proved to be difficult (some might say futile) and faced with the massive violence meted out by President Abacha's military and security forces perhaps doomed to failure. The insurgency of which MEND is simply one part reflects precisely this political complexity and fragility (who exactly is MEND, for whom do they speak, what exactly is their political project, made in the name of 'resource control'?) and not least the challenges associated with your question of the redistribution of oil wealth.

MA: In view of these challenges, do you think a redistribution of oil wealth is possible given that both the Nigerian state and global capitalism are dependent on oil?

MW: In one sense there *has* been a redistribution of oil wealth. First, the indisputable fact is that the majority of revenues increasingly flow to the Nigerian Exchequer (when oil prices reach the sort of levels seen in 2008 the suspicion is that Nigeria pockets 80–90 per cent of the value of each barrel of Bonny Light). Second, let's recall that President Obasanjo upon coming into power in 1999 changed one of the principles of revenue distribution, the so-called derivation principle — that is to say the proportion of the revenues derived from a resource that are retained by the state in which it is located. Obasanjo increased derivation to 13 per cent (it had plummeted to 1 per cent by the early 1990s) and this had the effect (along with inflated world oil prices after 2001) of flooding the Niger delta states with huge quantities of petro-dollars. This has resulted in the parallel decentralization (and parcellization) of corruption to the state and local government levels. In turn this influx of money while adding almost nothing to human development has bankrolled the colossal wealth and power of regional political 'godfathers' and their venal machine politics.²

The derivation percentage continues to be an object of intense political struggle. In the debates surrounding constitutional reform the delta states have at various times demanded 25 per cent derivation, even 50 per cent. But even if the federal government were to increase derivation as a desperate sop to political stability — to attempt to purchase the insurgents' consent through revenue allocation — there

2. There is a recent television documentary by a US media group, Frontline, on corruption and the involvement of oil and oil-service companies in Nigeria which your readers may wish to see: <http://www.pbs.org/frontlineworld/>.

is absolutely no reason to believe that a tripling or quadrupling of allocation would have any positive development effects without a massive overhaul of state machinery including accountable state institutions and civil society organization with sufficient power, representation and civic depth (and participation) to exercise meaningful fiscal oversight. In this sense if resource control as a political programme simply translates into more money, the future of the Niger delta looks very bleak. But the reality is that the state cannot relinquish control over oil — it has a statutory monopoly over all mining rights backed up by about fifty pieces of legislation which institutionalize its control over the industry — for the simple reason that since the end of the civil war (1970) the ‘mere geographical expression’ otherwise known as Nigeria has only held together by virtue of the ability of the state to shovel huge quantities of money to powerful political constituencies most especially in the non-oil producing North. A radical decentralization of control over oil — resource control *à la lettre* — would be political suicide. And in the wake of the amnesty which ended on 4 October 2009 — and the decision by many of the militant leaders to accept the amnesty and disarm — the question of what the federal government is actually prepared to offer remains the fundamental question.

MA: What is the role of ‘Big Oil’ in this setting?

MW: The question of how all of this relates to corporate interests and to the geo-strategic significance of oil is intriguing. Big Oil has no interest in internal revenue distribution as a matter of corporate interest: it is concerned with profit. But profit can only be secured through what the industry calls the ‘social licence to operate’. At present that licence has eroded to the point where their ability to pump oil is utterly compromised (the costs of doing business are in other words enormous and they have no legitimacy as such). On the other hand if oil is US\$ 100 a barrel the grotesque and rickety structure of oil and gas can all stagger along and still make money (in mid and late 2008 corporate quarterly earnings of Chevron and Shell were at historic highs). At US\$ 40 a barrel it all looks rather different. To this extent peace — or a degree of stability — in the delta is very much in their interest. Partly by default and partly by design, the oil companies assumed a major developmental role in the delta through their community development efforts and the massive expenditures — called cash payments — that were made to chiefs, politicians, youth groups and so on in the vain hope that throwing money around would keep the oil flowing. It didn’t and as the companies have reluctantly acknowledged it contributed to the conflicts and violence across the oilfields. Big Oil, in short, is in a very tight spot. Walking away from multi-billion dollar investments is not possible and neither (as many thought) is hiding offshore on

deep water platforms — as the assault on the Bonga platform in June 2008 vividly showed.

- MA: How does the geopolitical and strategic significance of oil affect these dynamics?
- MW: Again, the US has no interest in internal revenue distribution. But in the background stand energy security policy, tight oil markets, and what President Obama no longer refers to as the Global War on Terror. African oil, especially since 2001, has become of considerable national strategic interest to the US. General James Jones, in testimony offered to the Senate Armed Services Committee in 2005, claimed that the US goal must be ‘to eliminate ungoverned areas, to counter extremism, and to end conflict and reduce the chronic instability’ because of Africa’s ‘potential to become the next front in the Global War on Terrorism’.³ A year later at the African Seapower Conference in Abuja, Admiral Harry Ulrich, the European Commander of US Naval Forces Europe and Africa in referring to Shell’s massive Bonga oil field — Nigeria’s largest oil field, lying within territorial waters — admitted that American ships were patrolling Nigerian oil fields within the 200 mile limit. In the wake of the establishment of an African Command in February 2007 — put on hold late in the Bush administration but revived by Obama — the US is now in search of a forward operating base capable of securing oil assets in the Gulf of Guinea. The perception that Nigeria is being squeezed from the north (the pan-Sahel, anti-terror initiative) and from the south (the militarization of the Gulf of Guinea) is likely to be a major source of tension and destabilization as the Nigerian government attempts to douse the flames in the Niger Delta.
- MA: My favourite picture in the *Curse of the Black Gold* is on pp. 20–21 showing women baking tapioca in the heat of a gas flare. To me the picture captures the essence of the field of political ecology in whose development you have been a key figure.
- MW: Yes, I admire that photograph too — but I suppose my own favourite (perhaps that is not quite the right word) is the series of images (pp. 121–7) in a Port Harcourt abattoir which conveys much of the apocalyptic character of lives shaped by oil and gas. Let me say firstly that the book you refer to was a five year collaboration with New York photographer Ed Kashi, and the experience of working with someone with vast international experience (Ed has worked extensively in the Middle East and has a more than passing familiarity with the oil and gas industry) and a sort of critical, visual sensibility was extremely

3. See ‘On the Petroleum Frontier’, 6 January 2007: <http://www.ludd.net/retort/msg00730.html>.

generative. I came to see the Niger delta through, as it were, a different lens, and especially to understand the landscape — and I should say that landscape studies have a deep history in my discipline of geography — through forms of scarification, sacrifice, abandonment, despoliation and erasure. The collaboration became for me at any rate an account of the aesthetics of the oil industry, but to place the aesthetics of the current moment on a larger historical canvas of world commodities and hyper-exploitation. The *longue durée* of the Niger delta — and this incidentally is why the book contains some extraordinary historical images unearthed from photographic archives around the world and powerful essays on this history by Ugo Nwokeji and Ukoha Ukiwo — demands that we see gas flaring and the violence of the oil industry as part of half a millennium of serial repetitions, or more properly, recursive primitive accumulation embracing the age of palm oil and slavery. The book tries to alert the reader to the historical continuity between the slave ship and the oil tanker — and more generally to the making of the Black Atlantic and modern trans-Atlantic capitalism. It was by working with Ed that I came to see the landscape in this way and to focus more carefully than I had previously on the detritus, the waste and the scars of a ruined landscape.

Your observation on the gas flares deployed as outdoor tapioca ovens — as a compelling if horrifying instance of political ecology — is surely right. Throughout its history Nigeria has been one of the largest (and through the 1990s, *the* largest) flarers of gas in the world. Almost 90 per cent of associated gas was flared. While the percentage of flaring has fallen, in absolute terms the flaring levels have remained the same for twenty years. In an aggregate sense, the Niger delta gas flares were estimated to be the largest point source of carbon emissions in the world. A Global Gas Flaring Reduction Programme initiated by the World Bank and the Norwegian government in 2002 attempted to place pressure on governments and companies to reduce flaring levels, but the 2008 deadline adopted by ‘stakeholders’ in Nigeria failed miserably and with much finger-pointing on both sides (the companies and the government) the zero-flaring date is now 2011.

The image depicts a woman cooking tapioca in close proximity to a horizontal flare in which the vented gas burns at terrifyingly high temperatures. The flares themselves burning, or more accurately roaring, twenty-four hours a day create a nightmarish toxic environment for communities located nearby. Some children living in the shadow of the enormous vertical flaring systems have never seen full darkness. It is a measure of the delinquency by companies and government alike that so little basic scientific research has been conducted on the health consequences of flaring and while environmental impact assessments (EIAs) are conducted in the course of all engineering projects for the

industry, the EIAs are rarely made public and are often of dubious scientific credibility.

The abject horrors of women cooking food — and in a sense incinerating themselves — must be positioned in relation to corporate and state conduct (to an ‘ethics’ of human disposability and abrogation of human rights). Associated gas can be captured and re-injected into reservoirs, it can be delivered to an end user (a gas turbine), or it can be liquefied. For decades none of these things happened on the grounds that there was no local market and because the companies could operate with impunity. The fact that Nigeria continues to empty massive quantities of gas into the atmosphere — perhaps one-quarter of the world flare emissions — after a half century of oil and gas operations is an abomination. But, and here we return to political ecology, it is a product of a particular political economy, of the dynamics of oil-based primitive accumulation and dispossession, and of the ‘slick alliance’ (the language was Ken Saro-Wiwa’s) that came to constitute the Nigeria petro-state.

Of course gas is consumed locally now. The largest liquefied natural gas plant in Africa (and one of the largest in the world) is situated on Bonny Island, south of Port Harcourt. Nigeria is, after all, seen by the industry as primarily a huge gas reservoir with some oil — which is to say the future of Nigeria from the vantage point of energy resides in gas. The massive infrastructure of the Bonny LNG plant — located on the site where slaves were gathered in the seventeenth century and oil palm exported in the nineteenth — has devastated the ecology of the island. Ruling families on Bonny fight among themselves as to whether they have legitimate dynastic claims to the vast rental and other payments made by the oil companies. Bonny LNG is now in effect a bunker: most local boat traffic is impossible, with workers flown in by helicopter to secured compounds confronting the force of MEND insurgents and pirates operating in the Cawthorne Channel. In February 2009 the former CEO of Halliburton/KBR, one of the contractors for the LNG plant, was found guilty by the US Securities and Exchange Commission of bribing Nigerian officials with payments of close to US\$ 200 million. So we are back to the political economy — and to the political ecology of the sacrifice of Bonny Island.

- MA: Broadening our discussion for a moment, could you tell us about your intellectual influences and how they’ve changed over time?
- MW: My own formation as regards political ecology emerged from a confluence of political and intellectual forces in the late 1960s and 1970s. One was left politics in the 1960s in London, another the study of the environment in geography (what was then called cultural ecology) at University College, London; and then, after a period of

working in West Africa where coincidentally both of these issues surfaced in the form of the Sahelian famine of the early 1970s, at the University of Michigan. I had certainly been influenced by Marxist theory (originally by reading Edward Thompson) and by an exceedingly immature involvement in local Trotskyist politics when I was in grammar school. But at Michigan I was confronted with some very important work being done in ecological anthropology and cultural ecology, which addressed the question of adaptability and resiliency in human-ecological (and typically) peasant systems, as well as the hard-edged Marxian political economy in which I was also immersed (at Michigan this included Mick Taussig, Eric Wolf and Frithjof Bergmann) including naturally the Althusserian modes of production, and *New Left Review* sorts of debates in and around European Marxism.

In other words I was shaped by the struggle to provide an account of the environment and biophysical processes that took the social relations of production, the agrarian questions and the logics of accumulation seriously. It was a research programme wrestling with whether ecological theory and the properties of systems could in some way be retained or integrated with a Marxian account of property, social relations, class and power. That for me at any rate is what political ecology in the 1970s and 1980s endeavoured to do — and I think succeeded admirably in the work of people like Susanna Hecht, Piers Blaikie and others. Of course, there were important differences within this body of work as regards what political economy entailed in conceptual terms — whether this was warmed-over world systems theory or structural Marxism — and as a result political economy sometimes oscillated between functionalist ecology and deterministic ‘logic of capital’ arguments. But this body of work provided a powerful critique of Malthusianism, of technological determinism and of the conventional wisdom that formerly self-equilibrating societies were losing their ability to adapt and regulate their environment because of the approach of ‘the market’. In this latter regard Bernard Nietschmann’s *Between Land and Water* (1973) — his study of commercialization along the Miskito Coast — was an important bridge (in effect a sort of Polanyian bridge) between the earlier cultural ecology and the more critical political ecology.

Political ecology of the sort I have described has deepened and in a sense fragmented — or at least met up with parallel theoretical developments in other fields. Within political economy there was a much deeper engagement with Marxist theory and Marx’s notion of metabolism as a way of thinking about society–nature relations — a project that ecological Marxism (one thinks of James O’Connor’s work on the second contradiction of capitalism) and David Harvey’s geographical historical materialism engaged with (as indeed did the

labour process approach of Ted Benton). But there was also a sort of threefold dispersal of the original political ecology research programme which, driven in part by post-structuralism, contained for example, the following: first, a broader sense of the forms of political contention entailed by political ecology (Nancy Peluso and Anna Tsing's important works, for instance); second, a focus on forms of knowledge, expertise and practice (this was of course inspired by Michel Foucault and what one might call 'green governmentality' but also encompassed work on regulatory institutions and the knowledge–power–practice seen vividly in Michael Goldman's 2005 book *Imperial Nature* on the World Bank); and third, a return to the cultural construction of nature pioneered by arguably Berkeley's greatest geographer Clarence Glacken (author of *Traces on the Rhodian Shore*, 1976) but with a much more robust sensitivity to Raymond William's historical semantics and the traffic between ideational and material worlds (I would point to Jake Kosek's book *Understories*, 2006, as a case in point). I like to think — immodestly — that Berkeley played a major role in the second phase of political ecology (even if political ecology lost some of its conceptual coherence): 'Berkeleyans' such as Judy Carney, Richard Schroeder, Jake Kosek, James McCarthy, Jesse Ribot, Julie Guthman, Scott Prudham, Karl Zimmerer, Rod Neumann, Donald Moore and Iain Boal have been central to this electricity within the field, and incidentally in shifting the geographical focus of political ecology to the advanced capitalist states, and especially the intersection of neoliberalism and the environment (see for example the new edited collection *Neoliberal Environments* by Nik Heynen et al., 2007).

I would be the first to admit that these sorts of theoretical excursions — propelled by Foucault, Latour, Serres, Callon and Law among others — have added considerable vitality to the field, but I have come to believe that it has passed over some of the knotty problems and theoretical potential within the political economy research programme. To that extent the work of Mike Davis — and his Olympian reach extending from famine to avian flu to fire ecology to the slum world — seems to me to point a way forward. I am not sure in that context how to answer your question about how my ideas have changed. Probably, alas, not very much. I still regularly return to the likes of Perry Anderson and the New Left-inspired works of the 1970s. For the past twenty-five years I have been part of a San Francisco Bay Area collective RETORT which is a motley group of 1960s types, some shaped by 'situationism', others by the US student Left (SDS) and anti-prison movement, others by anarchism and Marxism. This has been a lifeline for me and the fact that we have all, in different ways, circled around the question of what does the Left mean any more coupled with a politics of anti-enclosure has been enormously influential.

MA: Could you reflect on the contemporary relevance of geography as a discipline?

MW: This question is complicated because the discipline's relevance has a very different institutional resonance on each side of the Atlantic (to say nothing of across the global south). Geography is very weakly institutionalized in the US and indeed was by-passed in (and failed to capitalize upon) the opportunities presented by the 1960s and 1970s boom around environmental studies. This is quite the reverse, for example, in the UK where geography has emerged as a major academic industry with links to key labour markets outside the realm of the academy. But the core problems of the discipline — spatial knowledges and practice, and the nature–culture–power–economy nexus — seem to me to speak to the heart of the social sciences (and, if I may draw from Michael Burawoy's work on sociology, to a robust set of ideas speaking to public policy and critical geographies). Certainly the return of environmental crisis talk framed by global dynamics (global climate change among them) has reaffirmed the centrality of scale, location and network which are at the heart of the geographical lexicon. There is some enormously generative work around the intersection of territory, rule and identity (and again this is generative across a number of key disciplines including the works of 'crypto-geographers' like Bob Jessop, Saskia Sassen, Tania Li, Neil Brenner and Arturo Escobar). And I would be remiss if I did not refer to the exciting work on geographical knowledges, not only the sort of work on critical geographical information systems pioneered by John Pickles, but the powerful work on maps as technics of power central to state building (something gestured to by Ben Anderson in his account of nationalism) and to the birth of the modern itself (readers may wish to consult the works of Joe Bryan, Brian Harley, and the new book by Denis Wood and John Fels, *The Nature of Maps*, 2008). I'm a great fan of the discipline. It is frankly such an interesting intellectual space to occupy at the intersection of the social sciences, the biophysical sciences and the humanities. Don't take my word for it, go read David Harvey, Doreen Massey, Gillian Hart, Sharad Chari and Bruce Braun.

MA: You have written extensively about violence, particularly but not limited to the Nigerian context. How did your interest in the study of violence develop?

MW: The short answer, I suppose, is that I backed into it. I have always been envious of those scholars capable of laying out multi-year research programmes and doggedly working on them until completion. Virtually everything I have written over the last three decades has been as much a product of serendipity and chance as of deliberate planning and forethought. My interests in Islam were triggered by the emergence of a popular Muslim insurrection in Kano in the early 1980s

and by my old friend Paul Lubeck's exemplary work on the political economy of the changing political cartography of Islam in northern Nigeria; my incursion into the rice paddies of Californian agriculture was the product of a family friend who was an influential farmer near Davis, California; a paper on land reform and post-socialist reform in northern Vietnam emerged from an all too brief trip with some Berkeley colleagues to Vinh Phu province as part of an interuniversity exchange; my book on contract farming emerged from a telephone conversation with Peter Little and a grant from the Institute of Development Anthropology. All of these opportunities surfaced in the midst of doing something else. And not least, there have been two decades and more of working with RETORT which has been for me an intellectual and political lifeline, but it goes without saying that writing in small groups is rather like herding cats. Vast quantities of beer have been consumed over the years at the 'Pig and Whistle' in San Francisco lubricating conversations and writing projects many of which have yet to see the light of day. Indeed they never will see the light of day.

All of which is to say — and I shall return to your question about studying violence — is that I have often become enamoured with events and processes through coincidence and chance occurrence. But reliance upon the twist of fate as a research strategy comes with its own risks and burdens, and when coupled with my own limited attention span and dilettantish disposition, makes for a highly circuitous, uneven and discontinuous approach to research and to what in the US academe is referred to, in Taylorist fashion, as 'scholarly productivity'. There is another huge downside, too — namely that I have a mountain of unfinished papers (intriguing ideas, or so I thought) that came to naught and an unmatched track record in failing to ferry manuscripts through to some sort of finality or closure. In my defence I would acknowledge that I have been seduced into directing a wide assortment of programmes and centres at Berkeley (including a decade or more running the Institute of International Studies); in practice I have been administering some programme or other in all of my thirty odd years on campus. Perhaps these diversions are the cost of spending one's whole working life at the same institution. The upshot is that they have deepened my sense of failure, a feeling of never quite completing anything properly. As I sit in my office, I look with considerable scorn (and, it needs to be said, embarrassment) at the boxes of materials I laboriously and assiduously collected during my time in Kerala (India) in 1992 and from Mansajang in The Gambia (in the mid and late 1980s) about which I have written absolutely nothing. It's not pretty.

Studying violence was, in keeping with this serial serendipity, once again a by-product of something else. I had published a book twenty-five years ago entitled *Silent Violence*, an idea I took from the brilliant

work on food and famines by Pierre Spitz. In conducting fieldwork near Katsina in northern Nigeria, in the wake of the great Sahelian famines of the late 1960s and early 1970s, I grappled with the idea of ‘structural violence’ produced by the complex commodification of food systems in pre-colonial, colonial and post-colonial Nigeria. It was an analysis taken from the playbook of Karl Polanyi (and Jim Scott) but informed in my own case by the Marxist debates over structural and other approaches to modes of production and the cultural Marxism of the 1970s. Starvation was, as I saw it, produced by particular systemic forces, though the ‘violence’ inflicted upon starving bodies was not in any simple sense — and here lay the paradox — the product of state or other forms or coercion, and neither was the immiseration and starvation characterized by conflict, resistance or violence (whether banditry, food theft or attacks on state agents or institutions). In fact it was passivity and diffidence that marked these moments of subsistence crisis — starving people rarely rebel — and in this absence the forces of consent seemed overwhelming. Hence, the title of my book. If I had read Michel Foucault back then I might have been less confused but probably even more depressed.

Of course, the history of post-colonial Nigeria has been one of extraordinary and unrelenting violence. Almost immediately after the independence celebrations, violence marred the first (and subsequent) elections, and then came a string of military coups followed by ethnic and communal conflicts and a civil war of such abject horror that it became the touchstone for much of the humanitarian internationalism which came of age in the 1970s and 1980s. When I lived in Katsina town in the 1970s I discovered the remains, not far from my compound, of a building in which a number of Ibo had been slaughtered in 1966; in this centre of ruling class Hausa culture and civility, were these invisible ruins of unimaginable atrocity. So violence was certainly laden in the history of the region I studied and lived in during the heady oil-boom years of the 1970s. But it was the Muslim insurrection in Kano in 1980 led by a populist charismatic leader, Maitatsine, which drew me to a more sustained examination of violence and in this case the relations between political Islam and the urban political economy associated with the oil boom. In this instance the conflicts between a ragtag army of migrants in the old city and the state security forces were of less interest than the ways in which oil revenues had transformed the relations between state and society and city and countryside. It was another spasm of more sustained state violence — the militarization of the Ogoni regions and the hanging of the Ogoni Nine in November 1995 — which provoked me to contrast the Ogoni struggle in the Niger delta with the Muslim insurrection in the north. Petro-capitalism seemed to me to provide the ground from which these very different sorts of movements and conflicts were generated.

It was in fact the Ogoni struggle which drew me to start working on the oilfields of the Niger delta and to this extent my field work has documented a remarkable transformation: from Ken Saro-Wiwa's non-violent struggle — which was aborted by Abacha's henchmen in 1995 — to something like a full blown insurrection in 2009. To this extent my recent writing has been almost wholly concerned with violence and conflict, but this time at the very heart of the oil universe, on the oil fields themselves. This descent into the dark and dangerous world of petro-violence has taken me from warring youth groups in Nembe, to inter-ethnic violence in Warri, to inter-community struggles of oil-bearing lands to, most dramatically, the rise of a guerrilla struggle led by MEND (in effect a sort of franchise for a massive array of insurgent groups). The challenge has been to grasp the coordinates and the circumference of the wide social field of violence in the contemporary Niger delta while attentive to the specific and peculiar dynamics of particular conflicts — and all the while retaining a sense of the bigger picture, what I call the operations of the 'oil complex'.

The Niger delta is now entering a new and perhaps catastrophically dangerous period as state security forces embarked (beginning on 13 May 2009) upon a fully-fledged military assault on MEND forces in Delta State and are now (mid June 2009) extending their military operations — Operation Search and Rescue — to Rivers and Bayelsa States. In the Oporoza-Okerenkoko area — the homeland of the Gbaramantu clan and the military camp of the charismatic MEND leader Tompolo — hundreds of people have been killed and thousands of people displaced. When human rights and other civic groups are permitted into the region the full horror of the aerial bombardments will become clear. The blowback from the Ijaw militants will be ferocious. Which is to say that I fully expect to be writing about violence for some time to come.

MA: Your web page at Berkeley mentions that you are currently writing a book on poultry and capitalism. Could you tell us more about this project?

MW: Well, as I was saying . . . here's another project twenty years in the making. And still not a great deal to show for it! Its origins lay in my work on contract production in African agriculture, and specifically some work I conducted with Judy Carney of UCLA on the Jahally-Pachar project — a large-scale, intensive rice project in central Gambia in which smallholder growers were retained under contract. What was clear empirically was that the contracting of a grower — a purportedly autonomous and free peasant household unit of production — was in effect a regimented control of the domestic labour process in which a patriarchal head of household bore the responsibility of mobilizing

labour (junior sons and wives) to meet the demands of the project management. The contract inevitably confronted what Robert Brenner called the ‘solidity of pre-capitalist relations’ — in this case the social relation of control over property and labour. Meeting the demands of the contract turned in practice on whether the household head could deliver on labour (which was in reality the expertise of women rice growers) which in turn demanded a resolution of the loss of property rights incurred by women whose individual rice fields had been appropriated by the projects and designed as collective fields by the male head of household. In short, the domestic unit of production was converted into a theatre of struggle and conflict in which contract output and performance turned on the negotiations of the conjugal contract (what husbands and wives in particular could bargain for and achieve through force or consent).

Contract production in Africa was, during the 1980s, something of a new frontier for agrarian investment by public and private interests. Promoted by the World Bank and other development agencies, contract production was configured as a form of smallholder development in which productivity could be raised (in Jahally Pachar by centralized irrigation perimeters permitting double and triple cropping) and new niche markets opened up (especially in the case of fresh fruits and vegetables, such as green beans, cut flowers or melons, for European markets in particular). It seemed to me to be a twentieth century iteration of the classic agrarian question — a new route to agrarian capitalism in which peasants became what Lenin called ‘propertied workers’.

Much good work has now been conducted on contracting and contract growers and their relation to agribusiness. Contracting and related forms of vertical integration are now a staple in the analysis of what Phil McMichael, Harriet Friedmann and others call the global agro-food system. Some of this excellent research on contracting has appeared in *Development and Change* I might add. I was interested in two aspects of contracting. One was the ways in which contracting posed obvious parallels with the contracting and subcontracting in industrial manufactures (and relatedly the Fordist–post-Fordist debate). It seemed to me that agrarian contracts not only had a long and deep history — here I was deeply influenced by Douglas Holmes’ brilliant 1989 book *Cultural Disenchantments* on worker–peasantries — but also that complex forms of contracting in agriculture were forerunners of the sorts of decentralized sub-contracting systems which emerged within advanced capitalism during the 1970s and 1980s.

The second and related question was contract farming’s historical origins and genesis. This led me in the first instance to understand some of the large state-organized projects, often products of the colonial period, in which peasants or farmers were contracted (under more

or less forced circumstances). The Gezira Scheme in Sudan and many of the Japanese imperialist sugar schemes in Taiwan and Korea displayed such characteristics. However, all roads ultimately led back to the US poultry (broiler) industry which was revolutionized after the Great Depression from a dispersed small farm sort of enterprise to one dominated by integrators (large agribusiness concerns like Tyson's), many of whom backward integrated from feedstuffs into contract production, and contract growers who were contracted to grow out young chicks in specified houses and facilities which the grower provided. These large, integrated grow-out systems involving thousands of growers emerged in the US south and recruited from poor southern tenant farmers. The growers were indeed propertied (and often highly indebted) labourers and moreover were compelled to compete with each other (in so-called tournaments) as a basis of determining the prices they would receive for the broilers. All of this inevitably led into a detailed consideration of the contracts themselves and the sorts of power relations involved in the contract schemes and how the relation between grower and integrator was part of a larger poultry complex (I wrote on this topic with William Boyd, now a lawyer teaching at the University of Colorado, Boulder, and William's dissertation explored this question in more detail). The broiler complex, in sum, was a just-in-time production system before just-in-time (*kanban*) appeared care of Toyota and the Japanese motor industry. In fact I was astonished to discover that a group of Japanese capitalists who visited the US in the wake of the Japanese defeat in the Second World War were more interested in the US poultry industry than American Fordism!

So here was another diversion and serendipity. I came to learn about the US (and increasingly global) poultry sector which began with growers in the US south but ended up in the White House (some of the biggest contributors to Bill Clinton's campaign and presidency, given his humble origins in Arkansas — the heart incidentally of the US poultry industry — were the big broiler capitalists!). At the heart of the poultry industry was, it seemed to me, a much bigger story: how, as the chicken magnate Frank Tyson put it, the chicken came to control, 'the center of the American plate'. The poultry industry is arguably the most mechanized and industrialized of US agricultural commodities (a project in which state-backed research and science was harnessed to produce a chicken capable of maturing rapidly through the systematic applications of drugs and chemically manufactured feed and dietary supplements . . . and as the nightmare of mass confinement became clear, medication). The industrial chicken is transformed in a matter of weeks — the genome of the chicken was one of the first full genomic mappings — into a grotesque, steroid-enhanced creature carrying disproportionately large amounts of breast meat. The chicken is in other words a cyborg.

And of course chicken products — there are over 200 in their various fast food forms — were central to the changing US diet: that is to say, the decline of red meat and a concern with a healthier portfolio of food choices. Need I say that free range, organic chicken has also become a staple of the organics movement. All of which is to say that in the lowly chicken is a much bigger story of American capitalism, the relations between agriculture and industry, the mechanization of the natural world — as Seig Reid Geidion put it in *Mechanization Takes Command*, ‘what happens when mechanization confronts organic substance?’ (1948: 12) — the transformation of diet and its relation to the changing contours of class and identity, the political economy of the US state and big money politics, the US immigration question, and much else.

Since I first thought about this project there has been a huge boom in food studies, from the more popular work of Michael Pollan to detailed case studies of almost every agro-food commodity imaginable (from broccoli to strawberries). Steve Striffler (2005) has also written a terrific book on the US poultry industry from the vantage point of the processing plants, an industry which Human Rights Watch determined as one in which labour abuses and human rights violations were systematic and widespread. And I need not mention the animal rights movements and the question of the incarceration and torture of the chickens themselves (a sister institution of confinement is of course the zoo). But in a curious way the ‘big picture’ book — at least as I conceive it — has still to be written. Maybe I’ll get to it in my next life.

REFERENCES

- Coventry Cathedral Report (2009) ‘The Potential for Peace and Reconciliation in the Niger Delta’. Coventry: Coventry Cathedral. <http://www.coventrycathedral.org.uk/downloads/publications/35.pdf>
- The Economist* (2008) ‘Please Hurry Up’. *The Economist* 23 October 2008. http://www.economist.com/world/middleeast-africa/displaystory.cfm?story_id=12480913
- Geidion, Seig Reid (1948) *Mechanization Takes Command*. Cambridge, MA: Harvard University Press.
- Glacken, Clarence J. (1976) *Traces on the Rhodian Shore. Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century*. Berkeley, CA: University of California Press.
- Goldman, Michael (2005) *Imperial Nature: The World Bank and Struggles for Social Justice in the Age of Globalization*. New Haven, CT: Yale University Press.
- Heynen, Nik, James McCarthy, Scott Prudham and Paul Robbins (eds) (2007) *Neoliberal Environments: False Promises and Unnatural Consequences*. New York and London: Routledge.
- Holmes, Douglas R. (1989) *Cultural Disenchantments: Worker Peasantries in Northeast Italy*. Princeton, NJ: Princeton University Press.
- Kosek, Jake (2006) *Understories: The Political Life of Forests in Northern New Mexico*. Durham, NC: Duke University Press.

- Nietschmann, Bernard Q. (1973) *Between Land and Water: The Subsistence Ecology of the Miskito Indians, Eastern Nicaragua*. New York: Seminar Press.
- Patterson, Richard North (2009) *Eclipse*. New York: Henry Holt & Co.
- Peet, Richard and Micheal Watts (eds) (1996/2004) *Liberation Ecologies*. London: Taylor and Francis.
- Peluso, Nancy Lee and Michael Watts (2001) *Violent Environments*. Ithaca, NY: Cornell University Press.
- Pred, Allan and Michael Watts (1992) *Reworking Modernity: Capitalisms and Symbolic Discontent*. New Brunswick, NJ: Rutgers University Press.
- RETORT Collective (2005) *Afflicted Powers: Capital and Spectacle in a New Age of War*. London: Verso, p. 19
- Striffler, Steve (2005) *Chicken: The Dangerous Transformation of America's Favorite Food*. New Haven, CT: Yale University Press.
- UNODC (2009) 'Transnational Trafficking and the Rule of Law in West Africa: A Threat Assessment'. Vienna: UN Office for Drugs and Crime. http://www.unodc.org/documents/data-and-analysis/Studies/West_Africa_Report_2009.pdf
- Watts, Michael (1983) *Silent Violence: Food, Famine and Peasantry in Northern Nigeria*. Berkeley, CA: University of California Press.
- Watts, Michael (2000) *The Hettner Lectures: Geographies of Violence*. Heidelberg: University of Heidelberg.
- Watts, Michael (ed.), photographs by Ed Kashi (2008) *Curse of the Black Gold. 50 Years of Oil in the Niger Delta*. Brooklyn, NY: Powerhouse Books.
- Wood, Denis and John Fels (2008) *The Nature of Maps: Cartographic Constructions of the Natural World*. Chicago, IL: University of Chicago Press.
- Wray, Randall (2008) 'The Commodities Market Bubble'. Public Policy Brief No 96. Annandale-on-Hudson, NY: The Levy Economics Institute of Bard College.

Murat Arsel is a Lecturer in Sustainable Development at the Institute of Social Studies, PO Box 29776, 2502 LT The Hague, The Netherlands. He has a PhD in Geography from Cambridge and was a post-doctoral lecturer at the University of Chicago. He is currently working on the political ecology of natural resource use and agrarian development in Turkey and Xinjiang, China. His forthcoming co-edited volume on *Water, Environmental Security and Sustainable Rural Development in Central Eurasia* (with M. Spoor) will be published by Routledge. He can be contacted by e-mail: arsel@iss.nl