

Remarks at the BPerkeley teach-in
Morgan Hall
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I would like first to thank you – Kamal and Lee and Hillary and your fellow students – for inviting me to this teach-in tonight on the Berkeley campus. We are here this evening to discuss the proposed deal between UC Berkeley and British Petroleum. I do so as a historian of science and technics, but also a student of the commons.

I should begin by saying that to understand the situation in which we find ourselves – with this extraordinary half billion solicitation by BP – we would have to discuss the capitalist firm, its nature and its history. That might take us back to the 17th century and to Lloyds coffeehouse, out of which emerged the joint stock company and instruments for the management of risk, the beginnings of the actuarial imagination, and eventually transnational corporations with their deathless, fictitious personality and limited liability. But rarely do we come together to discuss and debate - in all seriousness, as if it really mattered, as if we had a hand in our future - the dynamics of modernity and the causes of the great ongoing transformation in human history that has taken us from commoning and usufruct to commodity production and the neoliberal dreams embedded in this proposal.

Who knows how far we can get this evening. But perhaps the first task is to challenge the fable of *homo economicus*, of humans as utility-maximizing cost-benefit machines. This is a fairy story that naturalizes self-interest, and – I can say this having just read the proposal – deeply informs and underpins the UC-BP vision. It is perfectly clear that only research that points to patents for BP and their chosen UC scientist-entrepreneurs will be fostered and funded.

It is time to wake up from this version of the American dream - though, as George Carlin said, "It's not called the American dream for nothing - You have to be asleep to believe it". And you probably have to be asleep to believe, for instance, that BP is not engaged in a greenwashing exercise. Consider this: BP's net profit last year, in 2006, was \$22 billion - roughly \$600 per second. So the annual commitment to the

program represents 0.0005% of annual profits – which can be measured in hours. However, BP's biofuel interests are part of a picture of very large investment by oil companies in other fuels and the energy field overall (e.g. Shell investing in solar in China); this is why all the oil majors have these sorts of university relations around the globe (Stanford with Exxon etc); this is part of a much larger wave of such 'partnerships', mostly with private, that is publicly unaccountable, institutions. I leave it for others to compare BP with other corporate arrangements vis a vis this public university – both in terms of process and also structure of governance (say, Intel's deal at UC – with no intellectual property rights involved).

BP's track record does not bode well for this partnership or for free and open inquiry. Here are the words of Greg Palast of BBC *Newsnight*:

"BP, which owns 46% of the Alaska pipeline and is supposed to manage the system, had a habit of hunting down and destroying the careers of those who warn of pipeline problems. In one case, BP's CEO of Alaskan operations hired a former CIA expert to break into the home of a whistleblower, Chuck Hamel, who had complained of conditions at the pipe's tanker facility. BP tapped his phone calls with a US congressman and ran a surveillance and smear campaign against him. When caught, a US federal judge said BP's acts were "reminiscent of Nazi Germany."

This was not an isolated case. Captain James Woodle, once in charge of the pipe's Valdez terminus, was blackmailed into resigning the post when he complained of disastrous conditions there. The weapon used on Woodle was a file of faked evidence of marital infidelity."

No wonder they say that oil is a curse. Moreover, there is no chance that biofuels will supersede oil. And don't be confused by the word "alternative" in the phrase: alternative energy. It's alternative in the same sense that George Bush deployed the word when he spoke of "an alternative set of procedures" for use in Guantanamo. He was not talking about citizen-to-citizen diplomacy. What is on offer here is an approach to nature quite familiar to historians of Baconian science. Indeed, on what grounds could one expect anything else from a marriage between self-described legatees of the Manhattan Project and a global oil corporation?

In other words, it's business as usual. On a straightforward institutional analysis, how could a major oil company behave very differently than the way it currently is doing?

For starters, it would be a dereliction of their sworn obligation to stockholders. By the same token, should we be surprised that a governor with 8 Hummers is committing 40 million dollars of public funds to keep his vehicles running....on alcohol?

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Now what about the other party to the deal – the UC scientists and administrators who wrote this proposal? On the very first page of the document they invoke in the most effusive terms the Manhattan Project. In fact, the whole initiative is to be modeled on the Manhattan Project and the two local heroes – Oppenheimer and Lawrence – who were central to the making of the atomic bomb.

There are indeed some lessons to be learned from the Manhattan Project, but they are not those intended by the imagineers of the Biofuels Institute. Consider the initial experiment – Fermi's Atomic Pile Number 1. It was a bizarre site, to be sure, for such an important experiment in the Manhattan Project—an underground racquets court beneath the derelict west grandstand of Stagg Field, the University of Chicago's football ground which had been decommissioned by the president in an offensive play against jock culture. Fermi was anxious in case General Groves, the engineer who built the Pentagon and was in charge of the Manhattan Project, might decide simply to bypass the Chicago section.

Arthur Compton, the head of the Chicago group, had to make a “dreadful decision” whether to go ahead with Fermi's suggestion and build the secret reactor in the middle of the city. “I should have taken the matter to my superior. But this would have been unfair. President Hutchins was in no position to make an independent judgment of the hazards involved. Based on considerations of the university's welfare, the only answer he could have given would have been “no”. And this answer would have been wrong.” Compton explained: “We did not see how a true nuclear explosion, such as that of an atomic bomb, could possibly occur”; still, as the historian of the Manhattan Project put it, he was risking “a small Chernobyl in the midst of a crowded city.”

Fermi himself was confident that the critical experiment, crowning a long series of smaller “exponential” piles, could be controlled with a thirteen foot cadmium-covered wooden pole pushed in and out of the reactor by hand. To reassure the less confident, a three-man “suicide squad” was posted near the ceiling of the racquets

courts, armed with jugs of cadmium solution to toss over the graphite in order to damp a runaway reaction. Also at the ready was a physicist with an axe in hand; by cutting a rope tied to the viewing balcony railing more cadmium could be dropped quickly into the pile.

News of the self-sustaining chain reaction was conveyed to Washington in a coded exchange: "The Italian navigator has just landed in the New World". "Were the natives friendly?" "Everyone landed safe and happy." Leo Szilard, who in 1933 had been the first to conceive how it might be possible to "set up a nuclear chain reaction, liberate energy on an industrial scale, and construct atomic bombs", stayed behind on the racquets court balcony. "There was a crowd there and then Fermi and I stayed there alone. I shook hands with Fermi and I said I thought this day would go down as a black day in the history of mankind."

So it was a day only made possible through the series of secret, reckless, decisions taken by Arthur Compton in his Faustian pursuit of an atomic bomb made from plutonium, a new element which had just been discovered (or rather invented) on this hillside and was to be produced on an industrial scale by way of the transmutation of uranium in a Fermi pile. (Fermi, by the way, is long gone – he died fairly soon after the war of leukemia.)

Here, then, are some questions: What is modern science that its shining hour was the Manhattan Project, a secret project to build a weapon of mass murder? What is modern science that it flourishes in secrecy? What is it that the biofuel boosters here at UC Berkeley like so much about Lawrence and the atomic bomb project?

Well, here's one possible explanation: science – and by this I mean 'actually existing' science – is capital's way of knowing the world, and furthermore, science is the handmaiden of empire. It's no accident that ballistics and the development weapons of mass murder are at the heart of modern physics.

Now the cult of the atom is mirrored and even matched by the cult of the gene. So-called "synthetic biology" (actually "biotech" repackaged) borrows its rhetorical and ideological power from the scientific "success" story – as the drafters of the proposal call it – that culminated in Hiroshima. The gene-splicers share deep, reductionist, assumptions with the weaponeers and physicists who work in Strawberry Canyon.

It is our good fortune, nevertheless, to have on this campus, almost it seems now by accident, a few scientists who have in mind for biology something far different from what is being planned in the old nuclear reservation on this hillside. They are among us, in truth, not by accident but because of the fact that we are here in a public university where in principle the administration and the faculty still work at the pleasure of the people of California. That is the reason this campus attracts scientists such as Chapela and Altieri and Gutierrez, It should remind us that we are still a public institution, the home of Mario Savio, of the Third World Strike, of the divestment movement, and now of the defenders of the wildwood, sitting high in the trees of Oak Grove.

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I want to sound two notes of caution, which may be pertinent to our deliberations. They concern the dangers of the discourse of global warming and the widespread predictions of imminent global catastrophe. This is the language coming not just from religious salesmen of apocalypse, but from pundits and scientists and environmentalists everywhere – the Gores and Bransons and Blairs, and now the Bushes. And perhaps even from yourselves.

So, for example, here is Gore speaking the other day: "What we are facing is a planetary emergency. So some things you would never consider otherwise, it makes sense to consider." He is far from alone. In Britain and Germany nuclear electricity is on the agenda again. Horst Teltschik, former security adviser to Chancellor Kohl recently said: "It is a tragedy of every democracy that everyone can publicly represent their opinion.... In a dictatorship, this type of thing wouldn't happen."

The matter is complicated, right? On the one hand, "peak oil" has a plausible ring to it, but it is a mystification. We are not in fact going to be running out of oil in our lifetimes. (Sheikh Yamani, when he was head of OPEC, liked to say, "The stone age did not end for lack of stone".) The history of oil has never been one of scarcity, except locally or through the monopolistic actions of cartels. Rather it is a story of glut; the problem for the oil executives has always been how to create scarcity –

Enron learned much from BP about gaming the market. The timing of last summer's sudden inspection and fix of a decade-long problem has a suspicious smell. A precipitous shutdown in mid-summer, in the middle of Middle East war(s), is guaranteed to raise prices and reap monster profits for BP. The price of crude jumped \$2.22 a barrel on the shutdown news to over \$76. How lucky for BP, which sells four million barrels of oil a day. Had BP completed its inspection and repairs a couple years back — say, after a tenth warning — the oil market would have hardly noticed.

But \$2 a barrel is just the beginning of BP's shut-down bonus. The Alaskan oil was destined for the California market which now faces a supply crisis at the very height of the summer travel season. The big winner is ARCO petroleum, the largest retailer in the Golden State. ARCO is a 100%-owned subsidiary of ... British Petroleum.

Enron Corporation was infamous for deliberately timing repairs to maximize profit. Would BP also manipulate the market in such a crude manner? Some US prosecutors think they did so in the US propane market. The Commodity Futures Trading Commission (CFTC) charged the company with approving an Enron-style scheme to crank up the price of propane sold in poor rural communities in the US. One former BP executive pleaded guilty.

Lord Browne, the CEO of BP who has just resigned, apologized for that scam, for the Alaska spill, for the summer shutdown, and for the deaths in 2005 of 15 workers at the company's refinery operation at Texas City, Texas.

I have a second note of caution, which has to do with what might be called the politics of emergency. We live in a system that positively produces crisis and emergency and disaster. It is a system that even thrives on disaster. Naomi Klein calls it "disaster capitalism"; she notes it was very visible in New Orleans and now again in Iraq. Companies like Haliburton are the beneficiaries of the chaos. A profoundly undemocratic politics of emergency flows rather plausibly from the current climate of fear; it is on view every week on Fox TV's "24". As the result of a kind of "Jack Bauer effect" we are invited to believe that there is no time for deliberation, only for extreme measures...now.

We are further asked to believe that the same people who brought you the problem will bring you the solution. Just as the industries that bring you a breast cancer

epidemic are claiming to deliver the cure. What they won't bring you, we may be sure, is prevention. There's no profit in it. Just as obviously, British Petroleum will not be financing a critique of automobilism, nor will it foster a new critical urbanism, that links mobility, livelihood, habitation and space. The proposal that UC was "honored to submit" – and which it has delivered to BP cap in hand – is entirely complicit with the status quo ante.

By status quo I mean the neoliberal policies that now, through the WTO and IMF and US Treasury, dominate the global system and were hatched in the 70s thinktanks funded by big oil and big armaments. We can directly connect the world they have ushered in to the unfolding disasters in New Orleans and Mesopotamia – the gimcrack levees, the destruction by the oil companies of the buttressing wetlands, the intensity of hurricanes, the gutting of public health infrastructure, the privatization of war and emergency relief. And leading us again to the politics of emergency, even though the crises have been long in the making.

For example, the choking of funds to public education and research has a lot to do with this deal. And we can trace it directly to Proposition 13 in 1978 and the policies of Ronald Reagan starving the University of California. The current proposal will do nothing to strike at the roots.

Biomass-derived alcohol may fuel a few more hummers and "Ford Tough" trucks. Mostly it will fuel a lot more despair and insecurity, more degradation of communal lands; for sure it means a race to the bottom for the world's farmers who are heading in staggering numbers to the cities, where there is no work waiting for them. The two faces of global neoliberalism, fully supported, funded, endorsed by big oil and soon by UC Berkeley, are the obscene sumptuary playgrounds of Dubai and the complementary slumworld of Cairo and Delhi.

One last thought. We have another problem which urgently requires our attention: our masters have hijacked the language. It may well hamper our discussion this evening. What economists and what the drafters of this UC-BP proposal call the "market" is really the "anti-market". The capitalist "market" is about monopoly and crushing competition, and it always has been. Knowledge-making, however, which is the business of the university, depends on an economy of the gift, of collegiality and cooperation. This necessary sociality BP is going to exploit and to profit from. It will of course be massively compromised by the paraphernalia of security, passwords, "need to know" and secrecy. In the document there is talk about "flow" between open

and proprietary areas, but it's basically a lie. We know the direction of flow they really care about – from open to proprietary; coming in your direction (already, indeed!) expect a niagara of green hype from the BP marketers.

Their "market" bears the same relationship to the glory of a local brocante, agora, or *mercado* as Velveeta cheese does to Jose Bove's Roquefort. And the same goes for the bioscientific "disruptive technologies" (their term) in relation to a biology that all the world and the earth is crying out for. Where there is silence, it is only because the cries have been silenced. I am speaking of a critical, liberatory science rooted in an ethic of care and equity, in restorative justice and rightful reparation to the communities and natural systems worldwide which have been devastated in the deadly pursuit of private enrichment. A science, finally, that will be at home in a world no longer dominated by private tyrannies, one that partakes of an open, ample life in common.

Thank you.

