

The Titanic and the Stokehold: Fossil Capitalism, Climate Change, and the Sociology of Collapse



Charles asked me about a half a year ago at a conference that went by the provoking name “Nightmare Spaces/Uncanny Places” to say a few words about the Titanic. I plan to do that in due time, although we will be taking a few non-Titanic-related digressions along the way. (By the way, and simply as a matter of point, that conference we met at was put on by the clumsily named International Association for the Study of Environment, Space, and Place (or IASESP as its members fondly refer to it. Of course, I mention this only as an object lesson in the poor marketing, or is a type of cowardice (I don’t know), of us university professors as we announce our relevance to a neo-liberal world order that seems hell-bent on taking away our funding and depriving us of our livelihoods.) Anyway, when I met Charles, I was working on the popular subject of the Titanic as a case study in the material culture of life under fossil fuels, or what one historian, and we will get to this later, provocatively calls life under fossil capitalism. So... I have finished up that little project, and have brought it here for your pleasure or disdain, as it may prove to be. We will find out soon enough.

So as we gear up for this little relationship between us, let’s set start off on the right foot, so there are no illusions. I am not your usual Titanic fanatic. Unlike most Titanic aficionados, I am not rabid in the brain but rather more or less healthy. And I don’t take a lot of pleasure in chasing random facts down rabbit holes to resolve riddles with unclear moral purpose like whether or not, as the *New York Times* claimed recently, it was actually “weak rivets,” purchased from “substandard suppliers,” that burst under the context of frigid temperatures and the brute impact that sent passengers to what it called their icy “doom,”



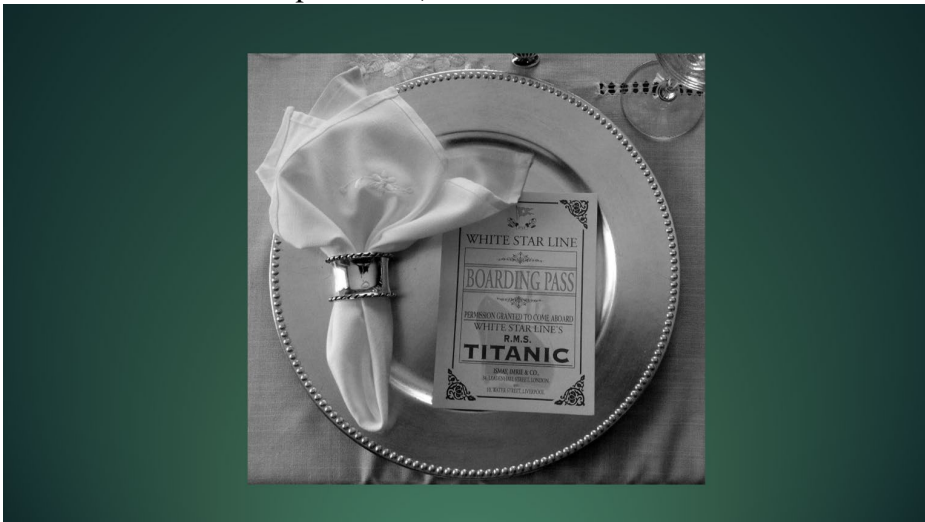
where a subset of the Titanic community wants to know whether or not a dog named Kitty owned by the New York billionaire John Astor survived the wreck (Of course, it didn't – although we can turn to an influential article entitled "Remembering the Dogs of the Titanic" to learn about the two Pomeranians and one Pekinese that survived collapse, and to let ourselves rest easy knowing that "it has been said the Titanic had excellent kennel facilities"),



where some of us want to know whether or not the textile heiress Charlotte Cardeza actually brought onboard with her 32 pairs of shoes in a Luis Vuitton trunk for the voyage (Of course, she did. What else would be in those trunks?).



Is it a little imprudent, when on grant money and limited academic leave time, especially when one has a 10-year-old child that should be noddled at every day or so, to lose one's life, lord knows for what reason, looking at engravings on first-class passengers' napkins (Do we do it as a form of class aspiration?),



trying to find an original photograph of the ship's pianos (about which online bloggers tell us, and I quote them, "many questions have been asked about these pianos and who played them"), or even tracking down the last night's dinner menu (Did they really serve Peaches in Chartreuse Jelly the night of the sinking? Is the taste of Chartreuse jelly, as one website asks, an acquired taste? And why was that jelly so fancy in the first place? Was it, as one blogger supposes, the heavy labor that went into rendering ligaments and tendons by hand to derive the required gelatin?) 4 minutes



Of course, I am lying to you, at least a little bit. This arcana, this impulse to antiquarian facticity, to bizarre lost facts retrieved from the depths, is actually a little pleasing, even rewarding, if you have the time, and it might be that the reading public is on to something. After all, once you hear the phrase “Peaches in Chartreuse Jelly,” once it wiggles its way like an ear worm into your brain, how can you not to be at least mildly curious about chilled glasses of candied peach teetering on white tablecloths of a sinking ship? After all, what even are Peaches in Chartreuse Jelly? And who, what class, what variety of people, eats this kind of stuff?

Let me give you a short caveat: one trick to this Titanic business is that as a field of study it is very messy. A person quickly gets caught up in an alt-universe of knowledge production that those of us who rely on reliable university databases would find, as I did, discombobulating at best. An offense to the enlightenment at worst. Almost no peer-reviewed books. Countless publications in presses you have never heard of. Books published, for example, by the Privateer Clause Publishing Company, which has published such best hits as *Thank God I Had a Handgun* and *The Concealed Handgun Manual*. Books that don’t have copyright dates or publishers listed, or even sometimes page numbers. Blog sites of descendants whose grandparents told them the real story of what happened, but who we can only trust on their word. Hundreds of amazing, probably true stories, written down a long time ago, but with no way to verify them. Relevant facts everywhere – citations nowhere. Moreover, the actual primary sources, that is the texts and artifacts, by which we can know the Titanic in a less mediated way (love letters sent by passengers at the first port of call, ship logbooks, interviews of survivors, ship construction plans, passenger lists, historic photographs) – these are all scattered maddeningly across the globe: some lying literally on the Atlantic seafloor, some sequestered, and inaccessible to us, in private collector’s homes, some held in a dozen or so different archives across Southampton, Belfast, Newfoundland, Washington DC, Queenstown, and some even available at auction on Ebay, making the historians’ job almost impossible without a small trust fund. It is, as I said, a very messy affair.

But this typhoon of disorganized intellectual energy, or maybe it is just peculiarly organized intellectual energy, presents us with an opportunity at an audience. And thus the task at the hand for the professional historian is to tap into that excitement and figure out how to turn it to some useful purpose – such as (is it possible?) using the Titanic to combat climate change, to interrogate what we think we know about modernity (challenging our received narratives), or maybe even to use it to raise awareness about the hidden infrastructures, the sublimated pains, of living in a world propelled forward by fossil fuels, by carbon combustion, a world that otherwise passes itself off as so alluring, even lovely.

That was, I am sorry I have to say this, a first pass at a thesis. But I promise not to be coy anymore but rather to be hard-boiled and direct as we get into the paper itself. 8 minutes

So in this awful age of get-to-the-pointedness, let me get to the point:

I have brought here with me this little chunk of coal from the Titanic that I bought a year ago on Ebay for \$24.95 one night. To be sure, this chunk of coal has spurious origins, it has a questionable genealogy. I was told from the seller it weighed $\frac{1}{2}$ a pound. I will let you be the judge of that.



This chunk of coal came into my possession a year ago late at night, when I convinced myself (I was at the time lying on my couch in silk pajamas (it could only be late at night in silk pajamas) with a credit card and a glass of Chardonnay (it could only be Chardonnay) that shopping on EBay might be equivalent to doing actual archival work -- that shopping on EBay was some new form of archaeology. That curious line of thinking got me into some trouble. I woke up in the morning, holding limp like a sad victory prize, not only this 100th anniversary commemorative edition chunk of coal from the Titanic, which would have been fine, but also a houseful of other fossil-related paraphernalia, including:

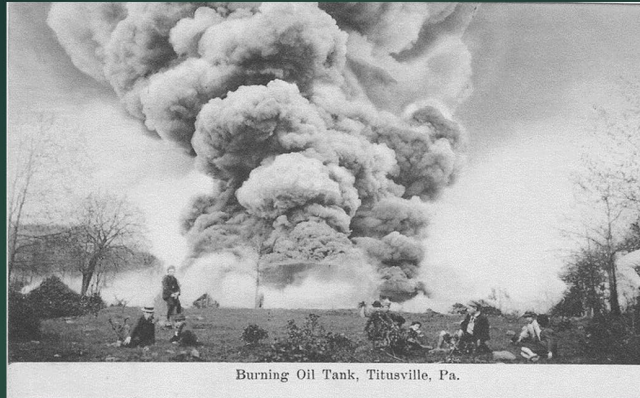
- a ten-can jigsaw puzzle of famous scenes in American history sponsored by the Humble Oil Corporation;



- a comic book of Texas history sponsored by the Gargoyle Oil Company;



- a postcard of an oil fire sent from Titusville, Pennsylvania, home of the nation's first oil boom, with this group of middle-class children posing in the foreground in boater hats and suit coats,

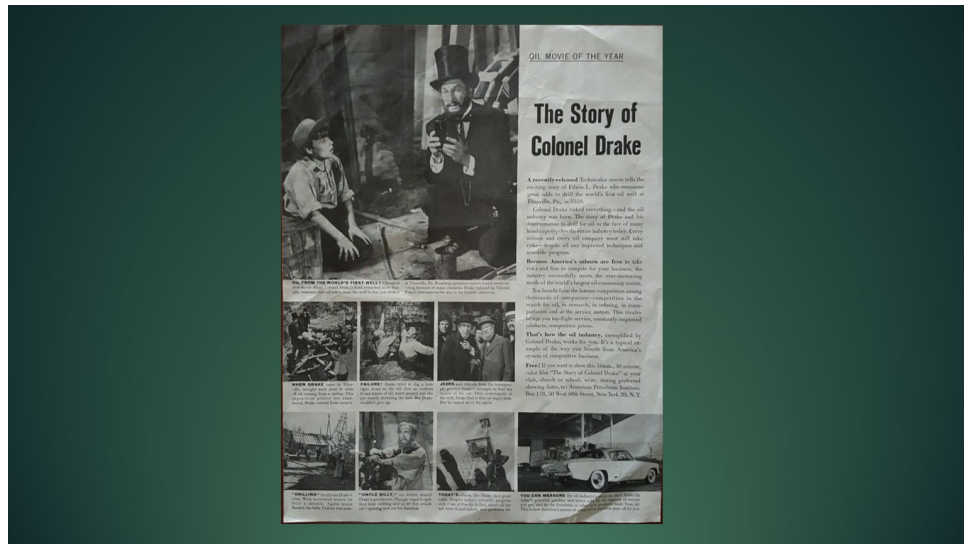


Burning Oil Tank, Titusville, Pa.

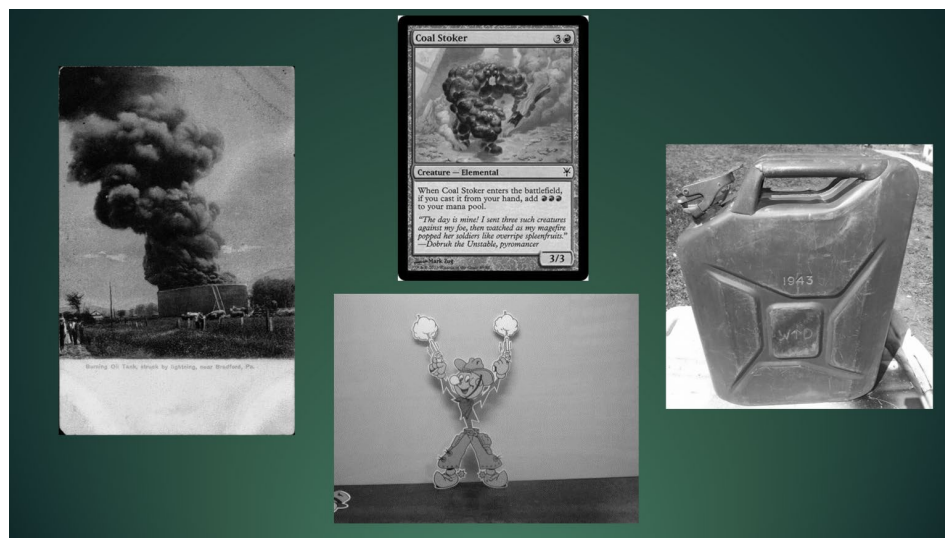
- this photograph of an upper-class lady swooning at the sight of a coal stoker in Eugene O'Neill's play *The Hairy Ape* down in the boiler room of a steamship,



- an API, or American Petroleum Institute, poster of Vincent Price reenacting the discovery of oil in Titusville where American freedom, we learn, was born; and



- a bunch of other carbon-related objects which now sit in my office, and in my 600-square foot home, with nowhere to go but back on Ebay.



2. Titanic as Microcosm of Fossil Capital

The game plan in the following forty minutes is to make the best of it by giving you a biography of this chunk of coal – by recreating one episode in what we might call, in a play on the theorist Arjun Appadurai, the *social life of fossil fuels*. To do that, I plan to follow this chunk of coal along the world's energy commodity chain from its extraction in the ghoulish working-class mines of South Wales to its combustion and enjoyment on the Titanic where it fueled various geographies of consumption that were enjoyed by the bourgeoisie, by the world's elite, and even by the third class, albeit in starkly stratified ways. 11 minutes

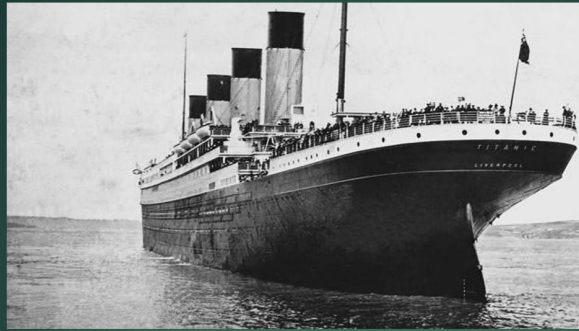
0. The Biography of a Chunk of Coal

- The Social Life of Fossil Fuels
 - To follow the energy commodity chain from mine mouth to modernity's geographies of consumption
 - To explore the class dialectic of pleasure and pain, security and risk, under fossil capitalism

This is one chapter from my book *Mineral Rites: An Archaeology of the Fossil Economy* in which I try to tease out how our bodies, minds, sense of self, nature, reason, and even faith are shaped by, choreographed by an infrastructure of carbon flows that imbue the body's sinews with muscle memory, that provide material for the mind's imagination and senses, and that even shape our expectations about what it means to be fully human in the 21st century. It is a small pass at writing an alternative history of modernity, or a genealogy of the modern self that sees fossil fuels as the absent center of modern life.

My proposition here is that the Titanic, this premier achievement of fossil capitalism, stood firmly, and essentially, on an infrastructure of coal, and that like the modern world, at large, the coal mine, the oil derrick, and the boiler room were its fulcrum, the material pivot point on which it was possible. I want to propose that we are coal to the core and that an infrastructure of carbon has birthed us into a second nature. Of course, this is a long, tediously extended, and not-so-subtle, metaphor for the world we live in – the Titanic standing in as a microcosm of fossil capitalism – a snow-globe replica of the western world in miniature.

0. Titanic as Microcosm of Fossil Capital



Titanic 1912: Fossil
Capital on
Display

Fossil Capital
=
the energetic basis
by which modernity
commands labor
and generates
surplus

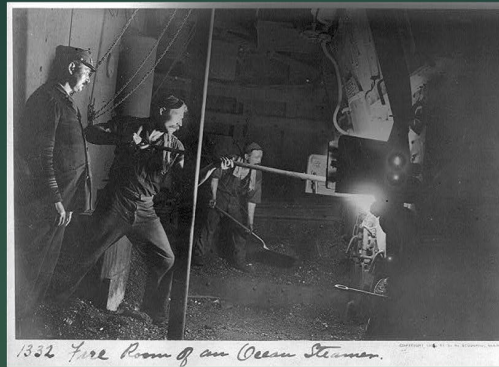
Citation:
Andreas Malm, *Fossil
Capital*

2. Titanic as Microcosm of Fossil Capital

My piece of coal presents us with a rare opportunity. While fossil fuels typically sit lumped together in the coal heap or oil tank, undifferentiated and unseen, this chunk of coal has a certain provenance to it. It is a relic, it is meant to be individuated, to refer us back to a story. And so our task is to ask: what is that story, or what is a story, of this chunk of coal?

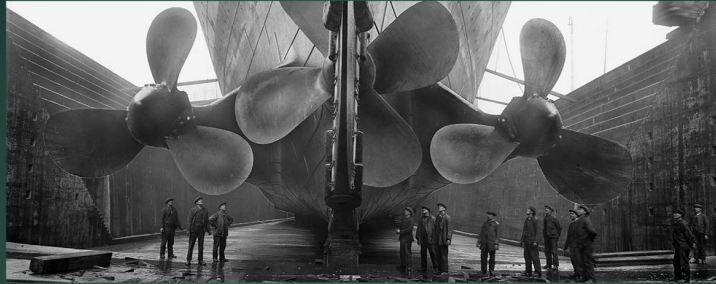
03266, that's its registration number according to the RMS Titanic Corporation, once rested inside the ship's thirty four coal bunkers alongside a whopping 850 tons of Best Welsh Coal. Best Welsh Coal is a high grade of sub-anthracite coal used for its clean burning properties. The Titanic, like you and I, sucked up coal with wild abandon. It had a whopping 159 furnaces that could generate a white heat of 2000° Fahrenheit, and that could put out (through its steam engines) an astonishing torque equal to about 46,000 horsepower, or, if we want to provide a human labor equivalent, the force of about half of a million men rowing their hearts out.ⁱ To accomplish that mechanical labor, to generate that thrust, required fleshy working bodies, and lots of them. To be precise, the Titanic's thrust required 77 coal stokers, greasers, and trimmers on each shift working and living in the basement of the modern world, shoveling coal day and night in what we might think as the world's underbelly.

0. Modernity's Furnace



But if the bulk of coal's business on the Titanic was propulsion, as you might expect, fuel is rarely only about brute force. We are often confused by what fuel does in the modern world, and this impedes our ability to address its utility or to face climate change squarely. Energy in the modern world – what makes it unique from other resources – is that it is Protean and can be commuted into multiple forms and put to multiple tasks. Thus after being pitched into the ship's front-loading Scotch boilers, my coal would have passed as steam through a low-pressure turbine where it fueled the Titanic's electric plant, two 400-kilowatt power generators, that could put out electricity equal to that of a small city. Turned into what we might call *coal by wire*, my chunk of coal would have next been distributed through 200 miles of hidden wires (just like in modern life at large) behind walls where it performed more delicate tasks (light, heat, ventilation, refrigeration, cooking, even electric lifts, or what we call elevators) – this electric infrastructure that gave to the Titanic its leisure and its high-class ambience – the sense of ease and exuberance, of sated and liberated bodies, that is, the type of rarefied experience which the White Star Line's passengers paid top dollar for in anticipation of eating, drinking, conversing, and making love at sea – all at 23 knots an hour and without a sweat.ⁱⁱ 16 minutes

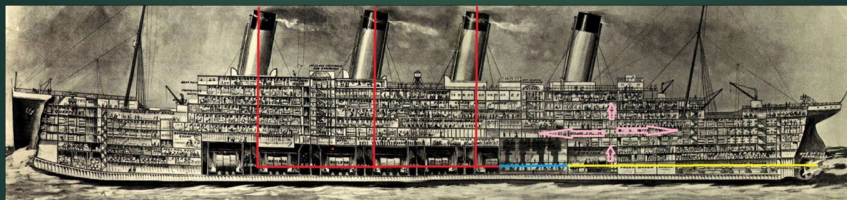
0. Propulsion



Coal was, we might say, exquisite on the Titanic.

So I want now to explore how coal had a specific social architecture to it on the Titanic – how it fueled a certain type of stratified social order where pleasure and pain, security and risk, were distributed with an almost Platonic class clarity to them.

0. Energy Saturation

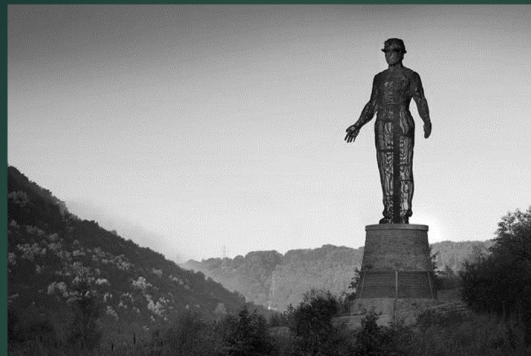


Let's follow this piece of coal on the energy commodity chain from its extraction in the coal mines of South Wales through its distribution in the ship's first class cabins.

3. Coal Mine, Six Bells

Our first stop is the Six Bells Mine, or the Arael Griffin Colliery, a mine sunk back in 1863 where, according to its Certificate of Authenticity, my piece of coal comes from. I have my doubts about that, but let us play along. Let us take this as an origin.

1. The Six Bells Mine



Guardian

Memorial to Six Bells
1960 Mine Explosion

45 Men and Boys
Lost

The Arael Griffin Colliery was one of 562 coal mines in south Wales, a titanic industry that, on the eve of the ship's launch, employed over 200,000 men and that had attracted a massive internal migration southwards looking for jobs on the Welsh mineral frontier. Need I say it: The Six Bells Mine, like nearly all of the world's coal regions, was a nightmare space defined by economic morbidity, inadequate wages, high injury rates, poor bathing and housing facilities, an insecure social net, and class bitterness – a sharp contrast to the plush high-energy comforts and complacency of the Titanic.ⁱⁱⁱ

In 1899, 1902, 1903, 1904, 1905, 1906, and 1909, local papers report that young miners in the colliery were crushed to death from falling slate, leaving behind children and wives to the prospects of poverty.^{iv} Similarly, in 1907, 1908, and again in 1910, miners in this pit were severely disabled or killed in other types of accidents, such as by run-away trams and steel chains snapping.^v Moreover, even when fit, workers at the Arael Griffin Colliery struggled to make ends meet and to provide something for their children, and they sought to leverage the modicum of power they had by unionizing and participating in loud, sometimes violent, objections, riots and strikes, to the inequality of fossil capitalism.^{vi} Six Bells was, after all, a place deep in the belly of the modern world where people still spoke in phrases like “masters and men” to signify the visible stratification of the world's class structure under fossil capital.^{vii}

That is, 03266 traces its origins back, like today's Navajo coal or China's coal frontier, to disability and disfigurement. It is the mineral trace in a commodity chain that binds the lives of the world's working poor – in networks that are socially invisible but materially tangible – to its first-class passengers sitting back, many miles away, to a hot therapeutic bath, a dessert of peaches in Chartreuse Jelly, all the while travelling at 23 knots an hour.

2. The Global Mineral Frontier



Martin County, Kentucky:
Mountaintop Removal,
2000s



Coal Mines:
South Wales 1931

Here is what we might call the fossil unconscious of modernity. 19 minutes

4. Mineral Frontier and Global Capital

But not so fast. Coal was a problem on April 10, 1912, the date of the Titanic's launch. A month-long national coal strike over wages had shut down the flow of carbon from mine mouth to Southampton. So we can't really know for certain, without doing a chemical sampling, if this piece of coal really comes from Six Bells. I don't much care if it does. But there is good reason to believe it doesn't.

So our second stop in this energy commodity chain is the cartelized marketplace of the early twentieth-century Atlantic world – and the global mineral frontier it pulled its fuel from.

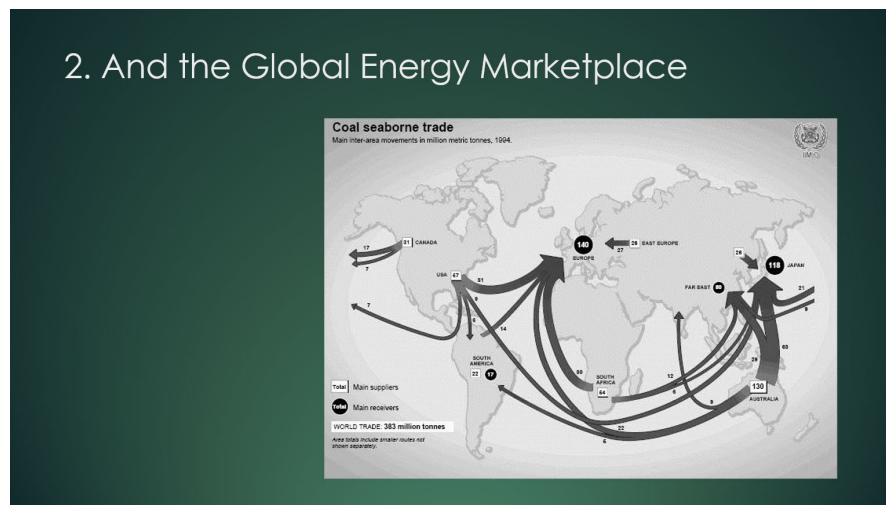
What we do know is that days before its launch the Titanic's bursars were busily trying to cobble enough coal together, 850 tons of it remember, to make sure that the Titanic, this monument to fossil capital, could launch on time. Because the Titanic was the crown jewel in a holding company recently capitalized by the New York banker JP Morgan (many of the names of the 1% do not change) at the equivalent of \$4 billion today, it was a symbolic priority for the company's image. Backed by the financial clout of the world's biggest carbon brokers – and the cartelization of the shipping industry – the Titanic had the power to tug on the chains of carbon to requisition coal from elsewhere – and in doing so to tug on working people's lives along the way.

The first source of coal derived from inbound ships arriving from the United States, ships like the *Oceanic* and the *Majestic*, which had bunkered extra coal while in port on the East Coast of the United States. That coal purchased on the other side of the Atlantic tied the Titanic into a global energy infrastructure that spanned at least two continents and that pit the interests of coal miners in West Virginia unwittingly against those in south Wales. Capital could do a run around during labor strikes by taking its coal from across the sea, by moving its sources of production.

The second source came from other company ships harbored in Southampton. The Titanic's owners had instructed the ship's commissaries to remove coal from lower-priority voyages, to "cannibalize" its other ships, so as to ensure that the Titanic ran on time.^{viii} We don't know, for sure, where that coal originated, but we can guess it came from one of the high-grade coal fields in Appalachia, south Wales, Newcastle, or the Scottish Black Country, thus tying the Titanic's launch to a small constellation of high-grade coal mines that made up the transatlantic mineral frontier.

So let us pause:

This other geography – the mineral frontier (the term is Robert Vitalis's) and the global energy marketplace – tied these demented spaces (where nature and society had been turned on their heads and where class insecurity defined working people's lives) to one another as mediated through the market and the machinations of a global financier class.



There is a lesson here too – about our embeddedness in other people's lives, about how the market mediates the dialectic of security and risk. 22 minutes

5. The Stokehold, the Titanic

Of course, the Titanic's paying passengers would have been, by design, all-but oblivious to my chunk of coal. It was cordoned off spatially so that they, like us, might sit to plum pudding in the third-class cabins or play squash in one of the first-class amenities without seeing or smelling coal's human and environmental costs. Yet, not far below, in fact, only feet away, in the stokehold, lived other men, less privileged ones, in another geography, where this men knew it intimately, as it sunk into the capillaries of their lungs, the pores of their necks, and the grooves of their hands.

So our third stop follows coal down into the boiler room where combustion meant lower-class men sweating out life for carbon consumers upstairs. This part of the ship was architecturally off limits to the Titanic's passengers, just as its laborers, known as the black gang (because of the coal that clung to their faces, clothes, and lungs), were also located out of sight. In fact, both the ship's crew and its passengers moved along

carefully scripted pathways, intersecting, when they did, in predetermined ways. No one with the exception of stokers, trimmers, and engineers entered, for instance, into the raw work space of the boiler room where my piece of coal once sat: that required special dispensation from the captain. But the ship's underbelly was a perfectly familiar space to these hardened men who moved in a closed circuit that ran from the firemen's quarters and its mess hall forward of the third-class cabins, down steel staircases to a special Firemen's Passage, and ultimately into the ship's noisy bunkers and boiler rooms.^{ix}

24 minutes

3. The Stokehold



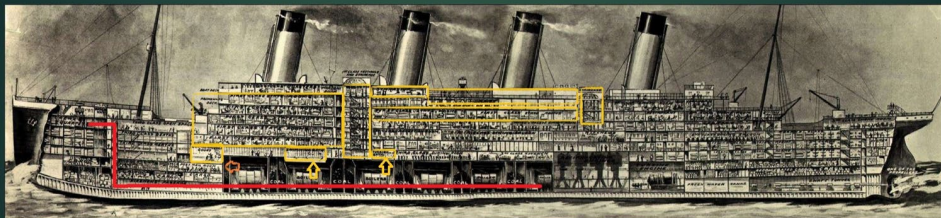
The Stokehold

The Black Gang



The symbolism of the ship's social architecture had, in fact, a Marxian clarity to it: low-wage labor, blackened by coal dust, passing daily underfoot of the ship's upper-class passengers who were (get this) quite literally reclining only a few feet above them in Turkish steam baths fed by the coal and the lives of these other men below.

3. The Stokehold



Passing Underfoot of the First Class

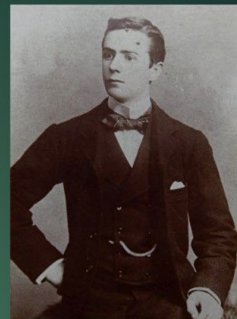
The Titanic, like modernity, did not advertise this space. In comparison to the sumptuousness of its more publicized upstairs, the stokehold was an austere space of congealed energy, of thick steel, without drapery to soften its edges, and characterized by the sounds of metal scraping, the texture of coal crunching, and the roar of the furnace's heat. This workscape also could feel brutal. For the Titanic to keep its needle "in the blood,"^x as it were, every four-hour shift, night and day, required that its cycle of 54 coal stokers, 24 trimmers, and 5 lead firemen all tend to multiple furnaces simultaneously. Heavy sweating was done here in the stokehold to the sonic boom and metronomic pace of industrialization – to a device called a Kilroy's Stoking Regulator that sounded off every ten minutes to alert coal stokers to reopen furnace doors and restart their fatiguing routine of slicing coal, raking out clinkers, and reloading the ovens, with such infernal tools as an iron rake called the "devil's claw" heavy in their hands.^{xi}

This contrast between modernity's basement and its living room could not be more striking. A gentleman in the first-class cabins was expected to answer to the dinner bugle each night, freshly bathed, *en regal*, wearing a black suit and a coat tie, while only a few flights below firemen answered to a more aggressive gonging, to a quicker pace, soaked in sweat, shirtless, or wearing coarse-cloth dungarees, cheese cutter caps, and hard clogs. In the stokehold, there were no mirrors for preening, no dressing hour, no extra accessories: life was intended for someone else's pleasure. **26 minutes**

3. The Stokehold and the First Class



The Black Gang



Black Tails

6. The First Class Suites: Habitat and Habitus

The life story of 03266 does not, however, end merely in exploitation and exhaustion. If it did, we would not be living under the terms of fossil capitalism. So our final stop on the ship itself are modernity's first-class suites: the habitat and habitus of its privileged participants.

Shoveling, sweating, stoking, and breathing in coal dust were simply the externalized costs of generating enjoyment, wealth, and security for someone else, somewhere else. Such is modernity's infrastructure – even if we would prefer to leave it sequestered out of

sight, to bury it symbolically in narratives of progress, to pat ourselves on the back for our individual accomplishments, our just desserts.

Coal is, as I said, exquisite if you sit on the right side of it – it is an erotic thing. And in this respect, class was arguably the key determinant on the Titanic. Edwardian culture reveled in the type of sharp social distinctions that today we brush under the rug. Not only did it have a first class. It had a second class and a third class, each of which had clearly demarcated spaces onboard the ship, policed by stewards, grilles, and social protocols. I want to focus on the First Class to round out our examination of the social architecture of the ship.

First, consider the social divide that stood behind the architectural one. The contrast between the black gang and those in black tails was nothing short of staggering. Coal stokers on the Titanic would have made about \$42 a day in today's terms without benefits, long-term health care, or security of employment. By contrast, to book the most exquisite first-class staterooms upstairs cost as much as \$56,000 in today's terms, or what would have amounted to about 3.6 years of labor for a coal stoker, that is, assuming he could find work, stay healthy, and could work 7 days a week.

Second, consider the class architecture of coal's eroticism on the Titanic. On the First-Class Promenade, in its Library, in its Palm Court Veranda, in its First-Class Dining Room, the Titanic's passengers would have felt coal not as violent but as a vibration, as a soft buzz, or a "throbbing," as one passenger described it. Here the habitus of first-class living, its embodied predispositions – its ambience and material culture – trace their origins back to my piece of coal just as surely as did the sights, sounds, and toxicity of the boiler room. Electric light dripping from cherub lamps and chandeliers. Ten-course hot meals of poached salmon, seared filet mignon, roast squab, warm bread baked in the ship's complex of electric stoves and ovens. Rum-spiked Punch Romaine of shaved ice from electric refrigeration. First-class elevators to lift the first-class body up flights of the ship without sweating. Hot water and hot baths pumped to one's feet. A heated swimming pool for the exclusive use of first-class passengers. **30 minutes**

4. First-Class Suites: Habitat and Habitus



Nowhere was the class dialectic of pain and pleasure, of unwanted sweating and therapeutic sweating, of health and disability, more direct than in the ship's First-class Turkish steam baths and its modern gymnasium. Here we see first-class bodies choosing to sweat – to soak up coal's heat therapeutically, rather than toxically, as they lounged half-naked ten feet above other sweating bodies in the stokehold in the ship's steam baths. Here they recharged these exuberant, surplus bodies in electric baths like today's tanning beds. Or perhaps, they had chosen, like we do today, to take a sweat, to counteract too much inactivity, by saddling up on the ship's electric camel, electric horse, and electric bike in the gymnasium.

4. First-Class Suites: Habitat and Habitus



Perhaps like me, you too will leave here a little haunted by the image of these leisured bodies, sitting in settees upstairs, gazing on fireplaces of ceramic, ornamental, coal, heated by actual coal down below – this whitewashing, this adorning, this sublimating, of modernity's origins – its human carnage, its emphysema, and its emissions heating up the world with each flick of the flame, each flick of the switch. **31 minutes**

8. The Bottom of the Atlantic, Earth 2.0

So a final stop on the energy commodity chain:

At twenty minutes to midnight on April 15, 1912 the Titanic hit an iceberg. Seconds later, its momentum carried it into a force bigger than itself – into nature's unpredictability. When collapse came it was nonlinear, rapid, and unavoidable. 2 hours and forty minutes later fossil capitalism, and its hubris, sank to the bottom of the sea floor.^{xii}

I want now to turn finally to the nature of collapse when the lights went out. Please humor me in an extended recreation of the Titanic's collapse as I think it might have something to say about where we could be headed:

"Ice right ahead!"

That was the message sent out from the Titanic's crow's nest at twenty minutes to midnight on April 14, 1912. The ship's watch had been on the lookout for growlers, ice bergs, and ice fields, common this time of year, but no one saw the one up ahead until it was too late. Seconds later, the Titanic ripped into that unseen iceberg.^{xiii}

Everyone, regardless of class and privilege, felt the impact. No one was immune to the pending catastrophe. Passengers in the forward first-class cabins described it as an abrupt jolt, a jerk, or a thud; and then it was over. Just as suddenly, the world became quiet again – “everything seemed normal.” Calm, clear, starlit. At least that is how some remembered it.^{xiv}

Perhaps that is what the eye of the storm might feel like in the future.

The impact was a lot more direct in the Titanic's boiler rooms below deck. Here the signs of impending system failure were almost immediately apparent. The iceberg had cut across 300 feet of the ship's hull, creating a series of gashes, with the largest occurring in Boiler Rooms #5 and #6. Working-class men, the coal stokers, in this section of the ship were the first to understand, that is, to really understand, what was happening to them, to comprehend what collapse might mean. **33 minutes**

George Cavell, a surviving trimmer, was working close to where the iceberg first struck in Boiler Room #4. He recalled that the impact caused a large pile of coal to fall on top of him. He struggled to unbury himself and clamber out of the storage room to figure out what had happened. Even closer to the impact was George Beauchamp, a coal stoker, who was working in Boiler Room #6 when the ship was struck. Beauchamp couldn't see the breach, but he did see its effect. Almost immediately, water came gushing into that hold; and by instinct, he and his coworkers ran out of the room to avoid being locked in to a watery grave by the ship's automatic doors. But seconds later they were ordered back at their station, to work amidst frigid waters that had risen up to their knees and waists as they attempted to draw out the furnaces. The breach took only ten minutes to reach a height of eight feet in the room, at which point that stokehold had to be abandoned. The same thing was happening in Boiler Room #5, only more slowly. The puncture in this hold was smaller and the sea came in as if by a firehose. The stream here was gradual, but inexorable. Of course, that room too ultimately gave way to the Atlantic.^{xv}

The Titanic's collapse – as it occurred in real time – was nonlinear, unpredictable, and, at some point, inevitable. Collapse always is. And yet, human resilience was strong in the face of disaster. Working men, for their part, struggled in the bottom of the ship, with valor and discipline, and with faith that a little human organization and a little human agency might stave off system failure. For an hour and forty minutes following the impact, and in some cases for as long as two and a half hours, amidst heavy steam, darkness, and waters rising, the black gang and the ship's engineers worked tirelessly together to save the ship. They bilged flooded chambers using hoses made of leather. They raked out furnace fires to prevent explosions in the remaining boilers. They kept the emergency generator running to maintain some semblance of safety and comfort. They scurried up and down ladders to deliver lamps to rooms where the lights had gone

out. And they worked to save their co-workers by picking up injured men and opening doors for trapped men. In fact, it wasn't until 1:20 a.m., two hours later, that they finally gave the ship up for gone; and, at that point, with only a few exceptions, left their stations to climb upstairs to what they hoped would be safety.^{xvi} Most of them, of course, never made it.

There is a curious fact about the sinking of the Titanic that draws considerable attention. The lights stayed on throughout the disaster. Electric lighting radiated from the ship until only two minutes before it foundered. Some even recalled that a patina of haze went down with the ship as it sunk. The reason the lights stayed on for so long is that the emergency generator in the stern of the Titanic (and the boilers located there) had remained watertight up until the last. That meant that the dynamo kept spinning away, as if by its own ghostlike power, while the tragedy played out.^{xvii} Modernity, civilization, as symbolized by this residual artifice of light, this vestige of the fossil order, proved persistent, that is, even in the face of failure. Of course, eventually the lights did give out when the ship cracked in half, exposing it to the sea, and opening up a vortex that sucked my piece of coal, and along with it most of the ship's passengers, down to the ocean floor.

Thereafter the world's energies became hostile, assembled against life itself; and survival became, once again, raw and primeval, coal-less, dependent only on starlight, on luck, and on the muscles of rowers. The fossil order had collapsed, and my piece of coal was no longer of use to anyone.

03266 sank to the bottom of the Atlantic with 1517 passengers. And there is considerable debate about who went down with it and why. What was the social composition of catastrophe in this instance? Who survived and who didn't? Who got a life vest and who didn't when the lights went out? And, more importantly, why?

Is this what the coming crisis will look like? **38 minutes**

5. The Sociology of Collapse



Conclusion

So I want to end with a few thoughts on the sociology of collapse:

To be sure, people of all classes, genders, and conditions survived the collapse. That much is known for certain. That might be true in the future. But, as we might expect, passengers did not all survive equally. Who you were and where you were when system failure came mattered. The social composition of tragedy was shaped by gender, class, and position.

In this respect, culture and character played a key role. We cannot be hard-headed materialists.

In an age of gender inequality and enduring Victorian values, more women survived proportionally than did men. That is because the ship's protocols, and its society's cultural mores, offered life vests and seats on lifeboats to women and children first – at least in most cases. A certain gender ethics, that is, shaped how lives were valued and sacrificed when the ship went down. But it also gets messy very quickly. Not all women and children made it into the lifeboats. First- and second-class women survived at the highest rates. Third-class women did not. The main reason for that divide is that the ship's officers and stewards had to make fast decisions as the ship went down, and they did what they thought was best to maintain order. One important decision they made was to keep lower-class men gathered in steerage near the back of the ship from moving up to the Boat Deck. That was a decision based on a class unconscious that assumed working men, and male ethnic others, were more prone to disorder and thus potentially “dangerous.” The consequence of that decision was that the third-class women and children behind them could not make it forward to the lifeboats, even as calls went out from the ship's staff for them. Nearly all of the ship's first-class women survived and all-but one first-class child survived, but less than half of the third-class women and fewer than one-third of their children made it to safety as a consequence.^{xviii}

Class and status also mattered; and to the extent that ethnicity correlated to class and condition in the third-class, it too mattered. First-class men survived at the highest rates.

40 minutes

Nearly one-third of the ship's wealthy men made it into lifeboats, even if most did not. In contrast, only one-tenth of the ship's second- and third-class men found a spot on those same boats. The reason as to why defies easy explanation in this case. Many of the ship's male survivors had simply found spots in the boats because the ship's officers assumed they were needed to row women and children to safety. Other men made it to safety because they were in the right place at the right time. They had shown up on Boat Deck when lifeboats were still available or they got lucky because no officer turned them back when they pushed through. In a couple of cases, men were simply strong enough to survive freezing water and climb into a lifeboat once they found one. One thing we know for sure is that most of the third-class men never got a spot in the lifeboats for the same reasons that their women and children didn't. The ship's authorities, in trying to maintain a semblance of order in the midst of collapse, had categorized them differently,

moved them to the back of the ship, and held them back from the boats. In the face of collapse, that is, unconscious prejudices mattered.^{xix}

Perhaps most haunting in this regard is the memory we have of a group of lower-class men, of coal stokers and trimmers, coming up from the boiler rooms after the ship had flooded. Having worked to save the *Titanic* from collapse and having arrived on the Boat Deck very late to the game – with lifeboats and preservers in short supply, with the ship foundering, and with preferences being given to others – these working-class men were turned back, and, as if by *fait accompli*, ordered below deck where they, as they must have known, descended to meet their maker.^{xx}

Collapse is, of course, not a pretty thing, even if some of the *Titanic*'s surviving upper-class passengers were committed to remembering it otherwise. We hear, for instance, a belief in the civility of tragedy in one survivor's claim that "everyone met death with composure," that the passengers were, as she said, "a set of thoroughbreds." That was a story oft-repeated.^{xxi} But, of course, narrative is one thing – the mess of reality another.

To understand what it meant to be there when fossil capitalism collapsed, we might tease out a different perspective from the memory of another survivor as she waited for the lifeboats. Standing with her husband on deck at a time when worry had not yet become calamity, she saw a coal stoker climb up from below. That changed her perspective.

[W]e saw a stoker come climbing from below. He stopped a few feet away from us. All of the fingers of one hand had been cut off. Blood was running from the stumps and blood spattered over his face and clothes.... I asked him if there was any danger. 'Danger,' he screamed at the top of his voice, 'I should say so! It's hell down below, look at me. This boat will sink like a stone in ten minutes.' He staggered away and lay down fainting with his head on a coil of rope. At this moment [she writes] I got my first grip of fear – awful sickening fear. That poor man with his bleeding hand and his speckled face brought up a picture of smashed engines and mangled human bodies."^{xxii}

Black coal, smashed engines, mangled bodies. Collapse – even in cultural memory – is never a pretty thing.

In other words, a tragedy is never just a tragedy. It is many things at once. It is a commentary on a people's values. It is a testament to their luck and misfortune. It is a drama of their resilience. And it is, above all, a judgment on who we are – on what holds us together, what divides us, and what we are willing to do for each other when the world turns dark. **44 minutes**

Today we again face crisis. Chunks of Greenland's ice shelf fall into the sea, broken off by climate change, drifting as icebergs towards dissolution in the lower latitudes. Tourists come to see them off the coast of Newfoundland not far from where the *Titanic* went down. But these are not the same icebergs. The disaster they portend is of a different character this time around. Sea lanes are opening up rather than shutting down. Sea

temperatures are rising globally rather than, as they were the night of the collision, falling locally.

Once again, we have our eyes trained on the ice. We know the path ahead is obscured and uncertain. Growlers, bergs, and ice sheets begin to surround us. And there is still no reason to believe that someone else is looking out for us.

Fossil capitalism is hurling us headlong into the ultimate nightmare place, into a final stop on this energy commodity chain – earth 2.0, a climate-changed earth, or what Bill McKibben calls the newly weirded place in which we now live Eearth – with an extra “a” tossed in for good measure. **45 minutes**



ⁱ David Hutchings and Richard P. De Derbrech, *RMS Titanic Manual, 1909-1912, Olympic Class* (Somerset, UK: Zenith Press, 2011).

ⁱⁱ Ibid., 73-74.

ⁱⁱⁱ This is taken from the broader portrait of the Welsh coal industry given by Chris William's in *Capitalism, Community, and Conflict: The South Wales Coalfield, 1898-1947* (Cardiff, UK: University of Wales Press, 1999). Conditions, of course, varied to an extent from place to place. See also reported incidents from Six Bells in footnotes 10-12.

^{iv} "Collier Killed at Six Bells," *South Wales Echo*, September 28, 1899, 3; "Man Killed at Abertillery," *Evening Express*, January 11, 1902, 3; "Inquest at Abertillery," *Evening Express*, September 8,

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- 1903, 3; "Fatality at Trebarris," *Evening Express*, May 24, 1904, 2; "Fall of Roof," *Evening Express*, November 24, 1904, 3; "Six Bells Colliery Fatality," *Evening Express*, February 10, 1906, 2.
- v "Perils of the Pit," *Weekly Mail*, June 27, 1908, 8; "At Lancaster's Six Bells," *Cardiff Times*, July 27, 1907, 7; "Fatal Fall of Roof," *Evening Express*, September 29, 1909, 2.
- vi "Miners and the L.R.C.," *Evening Express*, May 15, 1908, 3.
- vii "Masters and Workmen," *Evening Press*, December 16, 1902, 3.
- viii Stephanie Barczewski, *Titanic: 100th Anniversary Edition: A Night Remembered* (Bloomsbury): 257.
- ix Ibid. Also, the social architecture of the *Titanic*, including the location of the Black Gang's quarters, the Firemen's Passage, etc. are laid out in Hutchings and De Kerbrech's *RMS Titanic Manual*.
- x Hutchings and De Kerbrech, *RMS Titanic Manual* 86
- xi De Kerbrech, *Down Amongst the Black Gang*, 65-71.
- xii Nick Barratt details the sequence of events in *Lost Voices from the Titanic: the Definitive Oral History* (London: Arrow Books, 2010), 110-114.
- xiii Nick Barratt details the sequence of events in *Lost Voices from the Titanic: the Definitive Oral History* (London: Arrow Books, 2010), 110-114.
- xiv Ibid., 145-146.
- xv De Kerbrech, *Down amongst the Black Gang*, 132-141; Barratt, 126-130.
- xvi Ibid.
- xvii Barratt, 142, 152.
- xviii Gleicher details the survival rates by class and ethnicity and argues that a number of decisions were made to maintain order based on ethnic and class assumptions of steerage men being "dangerous individuals," 41-44, 277-278. This assessment also fits with Steven

Biel's contention in *Down with the Old Canoe: A Cultural History of the Titanic Disaster* (New York: Norton, 1997) that racial and class prejudices fundamentally structured how the disaster fit into public memory, 42.

xix Ibid.

xx Candee, 10.

xxi Behe, 134, 391. See also Biel who argues that gender and class myths of civility and danger have framed how this disaster was remembered after the fact as survivors struggled to make sense of acute trauma, 16, 27, 29.

xxii Barratt, 164.