FUELING CULTURE Words for Energy and Environment

Imre Szeman Jennifer Wenzel and Patricia Yaeger, editors

Fueling Culture

101 Words for Energy and Environment

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FORDHAM UNIVERSITY PRESS NEW YORK 2017 licitly opposed sed in multiple al councils and grams), the ocd uniting these which the Boliof resistance. It is constituent tions—can and country, or antead insists that ties—the none—all of which in so doing, it

Whaling

D. Graham Burnett

Animal fats have served human beings as sources of ENERGY ever since humans merited the name. Crammed in the gullet, a little marbling or caul afforded early hominids the same kilocalories that such comestibles afforded any other creature equipped to function as a carnivore. And we can assume that whenever those restless hominids mastered the runaway oxidation reaction known as fire, they likely noticed that the white bits of their roasted meat flamed up impressively. Control over these little grease fires presumably followed, in the form of TALLOW lamps and candles.

There is no ANIMAL on Earth, and never has been, with as much fat as a mature blue whale (*Balaenoptera musculus*). All of the big cetaceans, equipped for mammalian life in cold oceans, pack on a considerable layer of blubber beneath their relatively thin skin. The history of whaling is the history of the pursuit of this layer, which nineteenth-century American whalemen took to calling the "blanket."

When did whaling start? Interpreted broadly, whaling is probably about as old as humanity—which is to say, prehistoric peoples who spent time near the seas would have had occasion to witness cetacean strandings. Who can doubt that a clutch of semi-starved hunter-gatherers would have gleefully thumped the remaining life out of such expiring creatures: stupefying, destiny-changing windfalls of meat, bone, and oil. Indeed, strong circumstantial evidence indicates that some of those hungry clans may have organized a more proactive form of scrounging. There were once gray whales in the Atlantic Ocean. These animals (which now only exist in the Pacific) have a penchant for shallow water

lagoons where they calve and mate. Although not yet confirmed by archaeological evidence, it seems probable that early humans helped to exterminate this archaic Atlantic population: the animals would have been relatively easy (and irresistible) targets, lolling in mudflats at low tide, or rolling in light surf. A single kill could have supported a medium-sized coastal settlement for an entire winter.

Later textual sources (from Scandinavia and elsewhere) show how this sort of windfall could galvanize a subsistence COMMUNITY. Strandings in the medieval period could still produce a charivari chaos at the margins of Europe: everyone in the surrounding countryside streamed to the coast armed to cut out some blubber, and, if necessary, cut their way through their neighbors to do so. Nor did such seafaring peoples content themselves with waiting for the rare good fortune of a stranding. Even before the formal, specialized pursuit of large whales solidified into a seasonal enterprise (which had certainly occurred in the Bay of Biscay by the eleventh century, and quite possibly earlier in Northeastern Asia, or among Pacific or Caribbean island peoples), the spearing or droguing of animals encountered in the course of other activities—like sealing or fishing—would have been relatively common. Such wounded animals might later wash up on the beach, particularly weakened or juvenile specimens.

Not until the nineteenth century, however, did the hunt for these great marine kegs of oil become a global, open-ocean, cosmopolitan affair. This is the era of "traditional" whaling, an open-boat chase that ended with cold steel harpoons and lances. This highly specialized, labor intensive expropriation of natural resources reached its apogee with Yankee whalers' pursuit of sperm and right whales in the 1840s and 1850s. Among its primary commercial products were lamp oil and spermaceti wax for fine candles (Burnett 2007). In fact, in much of nineteenth-century Europe and AMERICA, the finest domestic illumination was provided by whale products. This held true until the watershed mobilization of liquid fossil fuels in the late 1850s, a discovery that rapidly undermined the economics of the traditional whaling industry (Davis, Gallman, and Gleiter 1997).

But there was more to come. Around 1870, enterprising Scandinavians developed new technologies that catalyzed a new kind of whaling—one that could take species (like the larger, faster blue and fin whales) previously beyond the reach of even the most intrepid harpooner. The key was explosive cannons and steam- or diesel-driven catcher vessels, together with onboard air compressors with hypodermic attachments that could inflate the carcass of a dead rorqual, insuring that these dense and muscular animals did not go to the bottom before they could be dragged away for the flensers. Processing in modern whaling was industrialized as well, since whales thus secured were "tried out" as never before: rather than merely peeling the blanket layer, and setting the rest of the animal adrift to feed the sharks, gargantuan boiler technologies let whalemen wring a lucrative additional measure of oil from the meat of the carcasses themselves (Tønnessen and Johnson 1982). This system of hyper-intense harvesting—supplemented after 1923 by mobile factory vessels that could roam the open ocean, processing thousands of animals for months at a time—wrought staggering destruction on the world's whales for nearly a century.

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Significantly, however, modern whaling companies did not sell their barrels of whale oil for either heat or light. The highest quality product went largely into margarine for human consumption (never an important consumer item, whale meat represented a marginal aspect of modern whaling). Lower grades of oil, together with ground and dried meat-meal, supplemented the animal feeds essential to intensive production of supermarket chicken and beef—a macabre meat-economy that is still incompletely understood. Still lower quality output was saponified (i.e., made into soap; the byproduct of that process, glycerin, could be used in explosives). A variety of other industrial uses-including cosmetics, lubricants, and fertilizers—waxed and waned in significance across the fifty years that saw giant factory ships roam the high seas, grinding up and melting down the majority of the cetacean biomass of the global ocean (Burnett 2013).

A deep dive into the history of human utilization of cetaceans is not for the faint of heart or stomach. The archives seethe with an appalling chronicle of smoking entrails and mephitic wastes: factory vessels afloat in small seas of their own fetid excretion; men lost on deck under giant fetuses blasted from rot-swollen bodies; beaches so deep in a froth of flocculent, wind-churned organic DETRITUS as to be impassable even to draft animals. And from these scenes emerged such a queer array of emollients, combustibles, and consumer knickknacks: watch oil, coach-whips, transmission fluid, leather dressings, growth hormones, cattle feed. The bones of the giant whales killed in California, burned to rank CHARCOAL, whitened sugar on the plantations of Hawaii. English schoolboys, quite unknowing, spread a thickness of pulped Bryde's whale on their muffins. Russian silver foxes, locked in vast, stinking, Soviet fur farms, chomped on pellets of cetacean jerky, sourced in the icy waters of the Antarctic convergence.

In chapter 65 of Moby-Dick, the bottomless Bible of all things whale, Herman Melville depicts the second mate, Stubb, sitting down to a meal of fresh whale, even as the carcass lashed to the Pequod still seethes with sharks, slashing each other as they gobble at the offal. All the unholy circuits of immolation and consumption close upon this scene, where the hungry mate scarfs down a portion of the same creature that illuminates the repast. Here is Melville on this strange incest of eye and tongue: "That mortal man should feed upon the creature that feeds his lamp, and, like Stubb, eat him by his own light, as you may say; this seems so outlandish a thing" (1956, 238). And so it is, though perhaps not more so than the other scene of cyclical fueling that stands near the center of the book: the IMAGE of the whalemen feeding the fire under the try pots with the oil soaked bits of crispy whale skin they fish from the bubbling cauldrons themselves—a cannibal efficiency.

In these ways, and others, the great whales fueled the cultures that consumed them. See also: ANIMAL, FICTION, KEROSENE, TALLOW.