

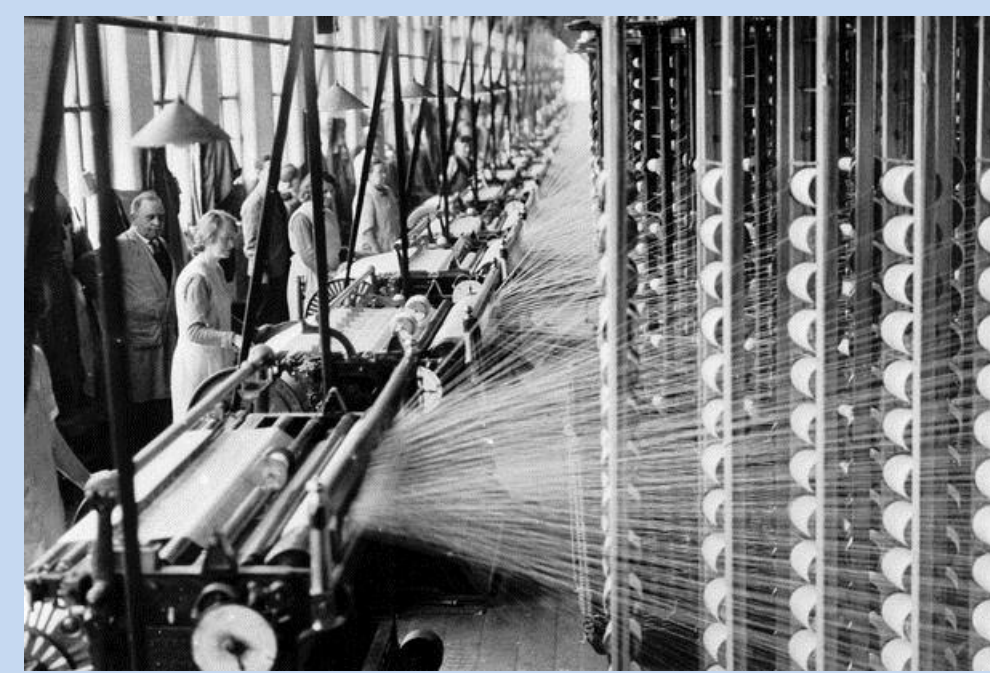
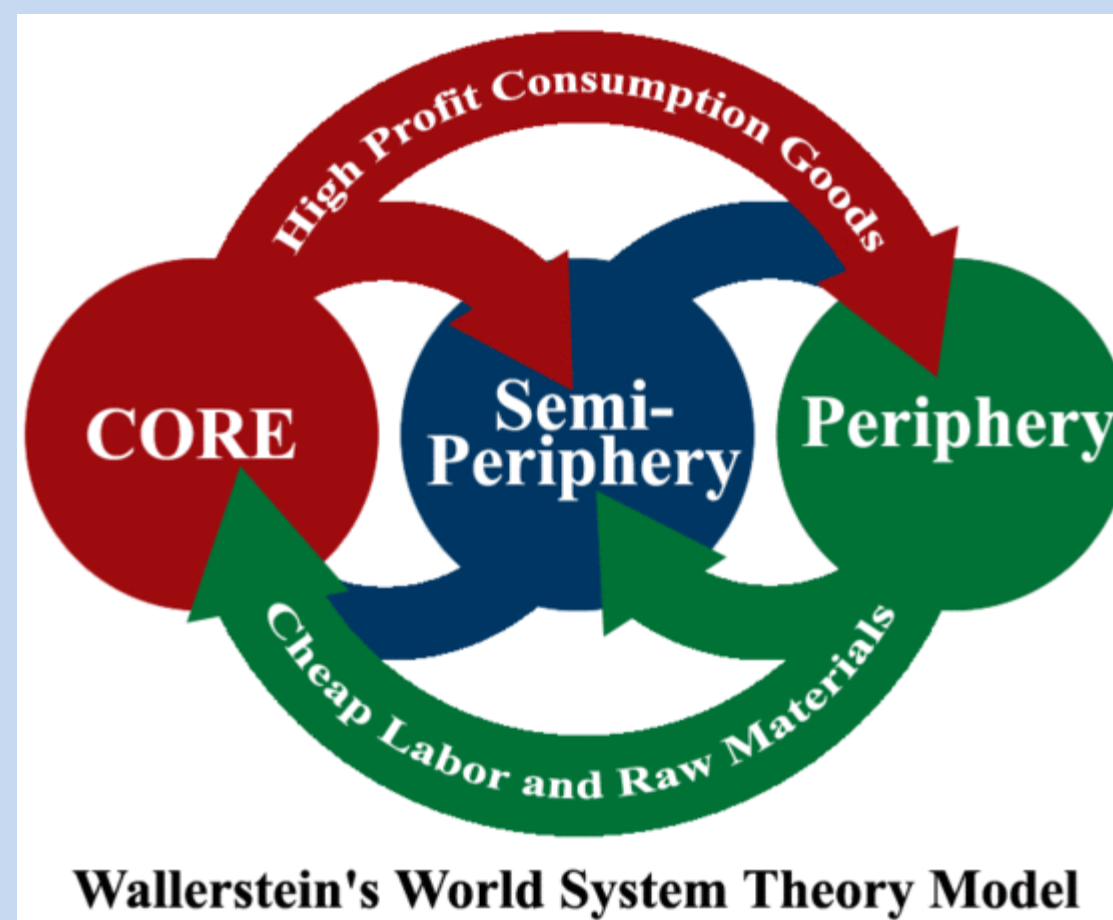
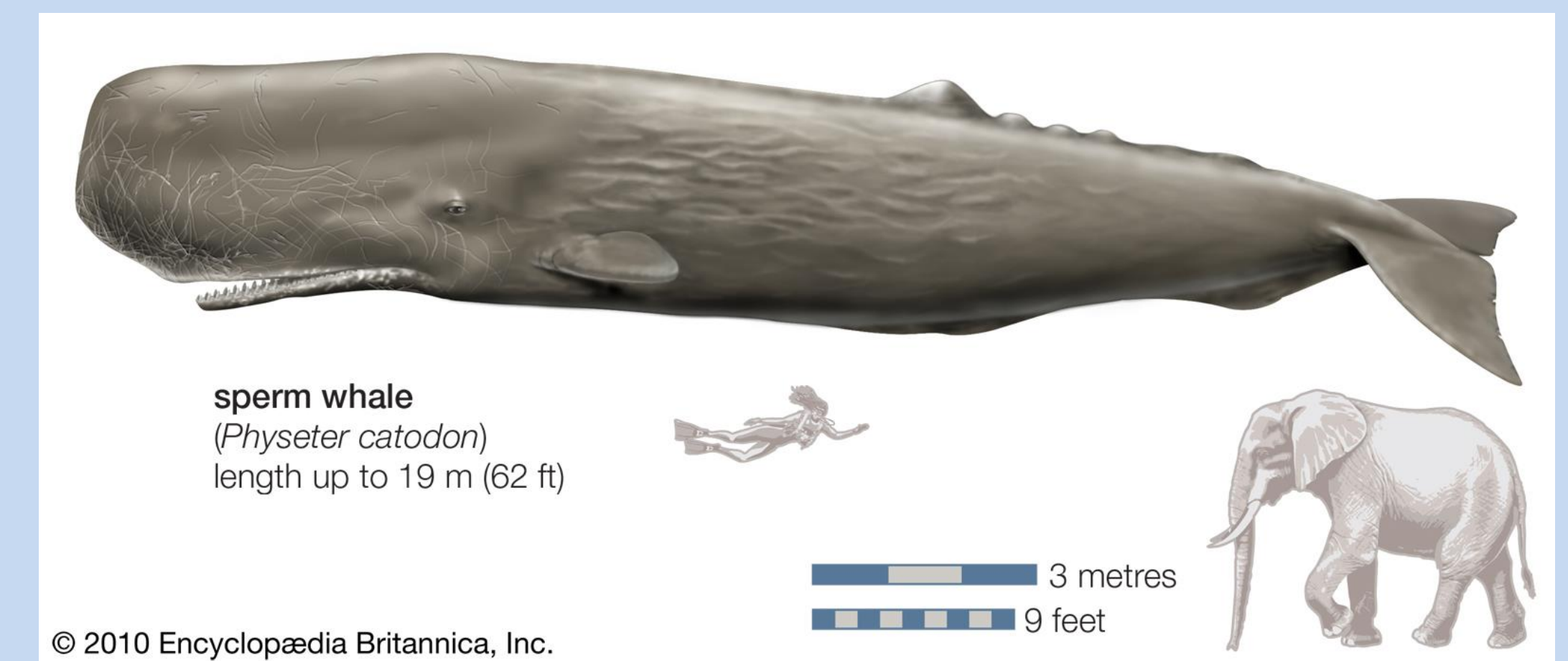
AMERICAN WHALING: THE LUBRICATION OF THE CAPITALIST WORLD-ECONOMY

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Introduction

Floating in the steel blue waters of the South Pacific, the crew of a 200-ton whaling ship hauls the 20-foot long head of sperm whale on-board to drain its precious head oil. Atop the ship's 'tryworks' (brick furnace), within a giant cast iron pot, renders the behemoths body blubber – destined to become spermaceti oil. On the other side of the world, an English industrialist watches as his cotton mill burns to the ground. What connects these two grim scenes that couldn't be physically farther away from each other? The world capitalist system would be a simplified answer. The industrial revolution created incredible demand for viscous lubricating substances to maintain its requisite fast moving machines. One of the highest quality lubricants available was sperm oil, which is a semi-solid wax procured from the head cavity and fatty body of the sperm whale (Cite Leviathans). Interestingly, sperm oil was not produced using fully industrialized and rationalized labour. It was what Anna Tsing call "pericapitalist", which is an industry that connects the fringes of nature to the central capitalist economy (Tsing, 2015: 63). This article makes the argument that sperm oil is an example of a semi-rationalized commodity that was necessary to maintain the growth and change of the industrial revolution. Simultaneously sperm oil became outmoded as a commodity at the peak of its demand in the mid-1800s because of its connection to a wild and irrational element of nature. An industry dependent on the 'leviathan' could only be domesticated so far.

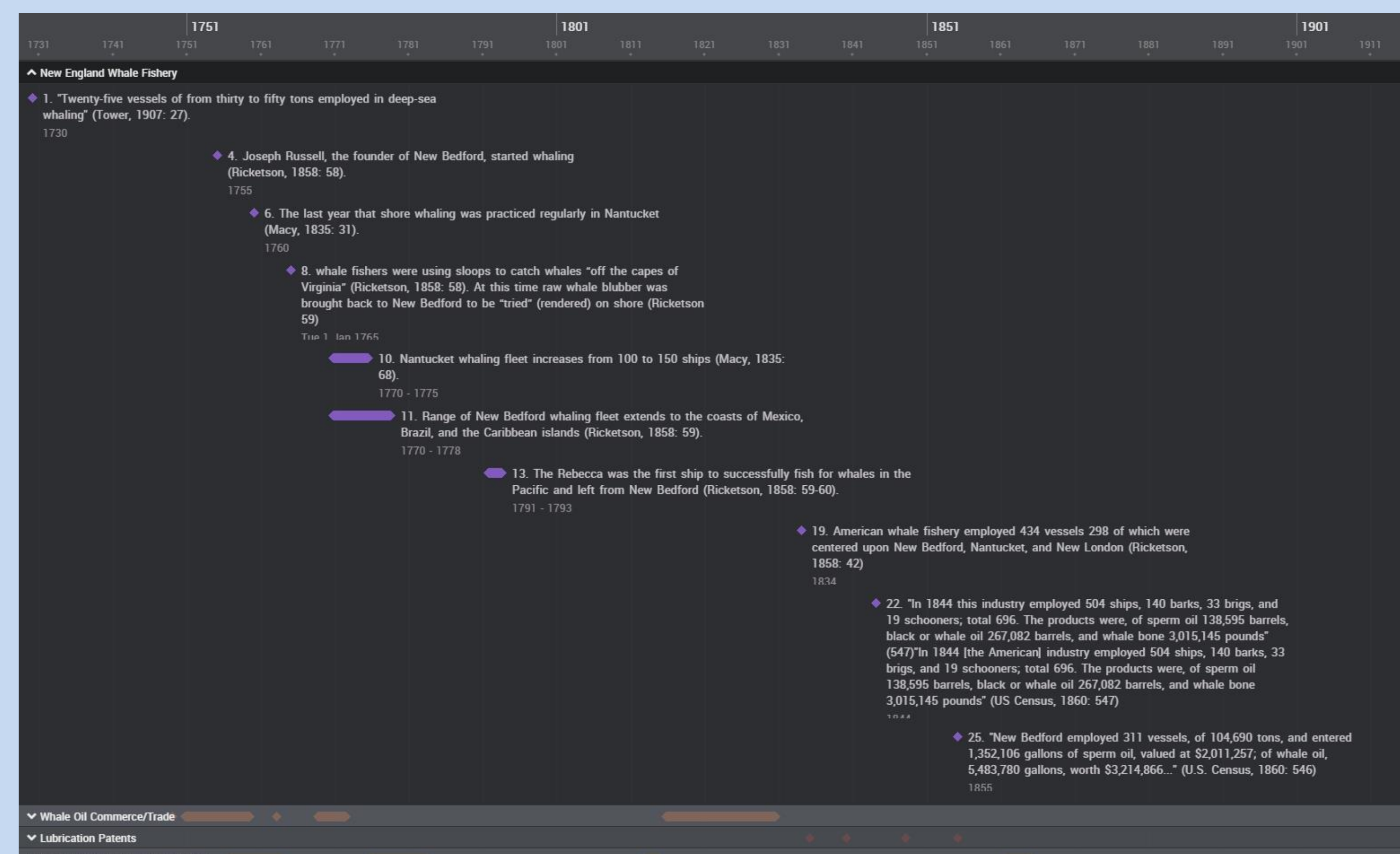


Theory

Conventional thinking about capitalism describes it as a discrete economic entity. As such, when theorizing historical change of this economic paradigm it is common to find descriptions of long periods of stasis followed by quick and dramatic periods of revolutionary transformation; like a butterfly emerging from its cocoon. Marx, for example, described this time as a transition in the "stages of development in the division of labour" (Marx, *German Ideology*: 151). The industrial revolution is the most recent of these theorized shifts. This bourgeois revolution and transition from feudalism is for Marx described as a sort of paradigmatic shift in the material conditions that determine the type of "connection of men with one another" (Marx, *C.L.: 157*), the class condition of man. To the reader of Marx, these stages appear as monolithic structures that must be smashed with a revolutionary hammer before a new monolith may take form. This kind of perspective, in which time is divided into neatly defined epochs, and in which complex processes may be described as events, is common in socio-historical analyses. This way of looking at history produces elegant and neat models, which are useful if looked at as a confluence of ideal types; however, we must be careful not to reify the parts of these theoretical models, because in doing so we may fallaciously see them as independent and lose sight of relational and processual details (Wallerstein, 1979: 3).

Concepts for Theoretical Holism

- World System Theory: A theoretical model produced by Emmanuel Wallerstein that sees the economy as an interconnected global enterprise that divides the world into three rough regional types: the core, semi-periphery, and the periphery (Wallerstein, 1979). A world-system most simply defined as "a single division of labor and multiple cultural systems" (Wallerstein, 1979: 5). This theory allows us to understand how the traditional model of capitalist economy is dependent on other economic modes.
- Assemblages: "An open-ended entanglement of ways of being" (Tsing, 2015: 83). This concept emphasizes that the economy is fundamentally intertwined with social, political, and environmental realities.
- Commodification: A Marxian concept that emphasizes the estrangement of a part of the material world from its materiality; the transformation of a thing of the world into a quantifiable unit of exchange (Marx, 1978: 308).



The Golden Era

The peace following the war of 1812 ended the near-eighty years of uncertainty in the whaling industry and heralded what's known as the Golden Age of American Whaling (Davis et al, 1997: 38). This era coincided with the industrial growth of Great Britain. Coal consumption was increasing dramatically, from 11 million tons in 1800 to about 44 million tons in 1845 (Landes, 1969: 97); cotton consumption followed a similarly staggering trajectory (Landes, 1969: 41-42). From 1815 to 1831 the American southern fishery went from producing 3944 barrels of spermaceti oil to producing 109200 barrels (Pitkin, 1835: table, 44). From 1835 to the 1860s, the fishery maintained a huge fleet with an average ship tonnage of close to 200,000 annually (Scammon, 1874: 243). By the 1820s the fishery had extended to all ends of the southern oceans, from the coast of Japan to the Indian ocean (Tower, 1907: 49).

Commodification

Spermaceti oil from the head and rendered from the bodies of these whales was actually a semisolid wax, which was further processed on shore and pressed into candles; the run-off from the candles produced (CITE from book cited in chapter [in ibid] on whale oil markets).

- Great Britain required so much lubricating oil during the 19th century that the market demand was almost certainly supplied by a variety of sources. The patent records show us this:
 - "The most appropriate oils for these purposes are... southern or Greenland whale oil, Gallipole oil, sperm oil, and palm oil" (Donlan, 1848: 2).
 - "The object of my invention... is to render certain oils, videlicet, whale, elephant whale, Newfoundland whale, seal, rapeseed, teel, olive, palm, cocoa nut, or any of the other common oils more useful... for lubricating machinery" (Bethell, 1840: 2).
- When sperm oil reached the shores of Britain it was transformed through mixing, blending, refining, and chemically adulterating into a more rational, marketable, and complete commodity form.

Despite this transformation at the end of a complex supply chain, sperm oil and other organic lubricants lost favor with the European markets and was replaced with a substance far more amenable to rationalization: petroleum.

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