

[Bonus] AFD Ep 351 Links and Notes - The Ice Trade [Bill/Nate] - Recording Feb 15

- This month, with much of the continental United States plunged into sub-zero temperatures and ice skating returning to rivers and ponds like it's a 19th century novel, we thought it would be appropriate to talk on a bonus Patreon episode about an unusual industry from early American history before artificial cooling technology: The Ice Trade. Harvesting, storing, shipping, delivery, cold drinks, and preserved foods.
- https://en.wikipedia.org/wiki/Ice_trade
 - A huge economic force in early 19th century New England and upstate New York
 - "Ice cutting rights" like "water rights" became a thorny area of the law. Kind of amazing to consider that freezing ice, preserving it, moving it, and selling it is almost like printing money if you managed to get in on it. The water is free but the transport and preservation is expensive, yet the profits are much higher. Of course, at the time, tons of commodities like lumber were being treated as similarly infinite and thus cheap.
 - Also, this was perhaps the most sensitive natural resource in early modern North America to minor climatic shifts. If the ice in an area wasn't freezing to at least 18 inches thick, it was a no-go.
 - There were smaller competitors in Europe (Scandinavia, Alps) too
 - **Specific example near us: Fresh Pond in Cambridge MA**
<https://cambridgehistory.org/innovation/Ice.html>
 - An early monopoly (Tudor Ice Company of Frederic Tudor, Boston's "Ice King")
https://en.wikipedia.org/wiki/Frederic_Tudor
 - There was subsequently a diversification with competitors, but then later the giant corporate cartels predictably emerged again, carving up the US into dedicated regions for control, exasperating non-American companies and infuriating American consumers faced with extortionate prices
 - Shipping:
 - Allowed for the rise of international fresh fruit trade, with all those dietary and geopolitical consequences (United Fruit, Dole, etc.)
 - Initially the ice trade was oriented overseas from New England & New York because domestic transportation within the US was so bad until railroads came along (and even then trains were too slow and inefficient for ice freight until many years later)
 - New England's ice trade created a major market for "chilled drinks" (either stored in ice or served with ice in them) in both the United States and India (among the British colonizers, not as much among locals), much to the horror of continental Europeans and home island Britons
 - Allowed for domestic rail transport of chilled meat instead of live animals, starting in the late 1850s and taking off after the Civil War. This required 2 things:
 - First, it required improved "refrigerator car" technologies:
https://en.wikipedia.org/wiki/Refrigerator_car (initially "iceboxes on wheels") over the course of the 1850s through the 1870s -- Initially when the technology was refined enough to work reliably by the end of the 1870s, many railroads were reluctant to adopt it directly because they owned so many livestock cars for transporting living animals instead of chilled meat cuts. But more adventurous companies, especially railroads that didn't own stock cars, gave it a shot. Typically they used ice harvested from the Great Lakes since it was closer to the prairie loading sites for the eastbound cattle carcasses. (I assume they used eastern ice for westbound fruit cargoes.) Ice would have to be replenished during the trip at designated points. Cars were insulated with compressed cattle hair,

which was cheap but tended to rot and stink, until after World War II when synthetic insulations were invented, just ahead of electrically artificially refrigerated cars anyway.

- Second, viably transporting chilled meat by rail also required much faster freight movements, which like other factors pressured railroads in the post-Civil War period to standardize gauges (or use gauge adjusting tech on the freight cars) to reduce the number of stops to reload cargo.
- Also rail refrigeration was quickly repurposed for improvements to ship refrigeration, again dramatically increasing international food trade
- The ice trade created the “ice cream industry” instead of ice cream being a rare luxury
- Natural ice trade peaked in the 1880s/1890s as industrial production of cheap artificial ice began to come on line... but then industrial production of artificial refrigerants began to emerge, for transport use and then in 1913 home use. (However, artificial refrigerators for home use, especially ones with icemakers, did not overtake the ice trade until the 1930s. <https://en.wikipedia.org/wiki/Icebox> <https://en.wikipedia.org/wiki/Refrigerator#History>)
 - There was a huge battle between the “natural ice” & “artificial ice” vendors, often lying to the public about both safety & basic physics
 - Natural ice producers unsurprisingly lost the battle during and after World War I, but then the artificial ice industry faced a battle against artificial refrigerants. (Of course artificial ice is still produced in large volumes for sale to businesses and consumers who need to buy in bulk.)
- [https://en.wikipedia.org/wiki/Ice_house_\(building\)](https://en.wikipedia.org/wiki/Ice_house_(building))
- [https://en.wikipedia.org/wiki/Iceman_\(occupation\)](https://en.wikipedia.org/wiki/Iceman_(occupation))