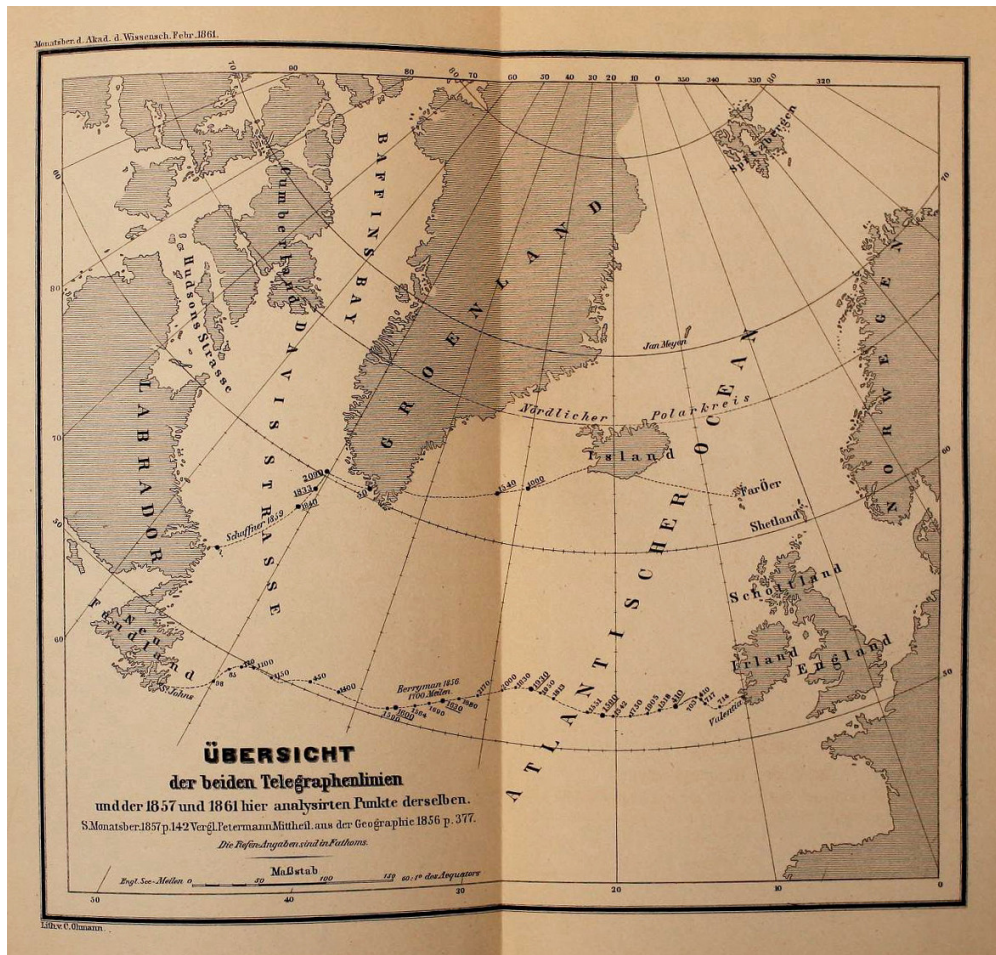


Finding Cycladophora

From telegraphs to samples



- Article type: story
- Author: Filippo Bertoni
- Text license: CC BY-SA
- DOI: 64y2-m311/11

A map of the surveys for transatlantic telegraph lines in 1861, published by Christian Gottfried Ehrenberg.¹

Like many other species, scientists did not become aware of *Cycladophora davisiana* during a scientific expedition, but its scientific description was the by-product of a different kind of venture. On 29 August 1859, the *Wiman*, a small sailing bark of 197 tons, set sail in the harbour of Boston and headed to London. Chartered by Colonel Taliaferro Preston Shaffner – a lawyer, entrepreneur, and engineer from Kentucky, the ship was carrying him, along with his wife, their entire household and staff, to Denmark, by way of England. This move was part of Shaffner's venture to establish a North Atlantic telegraph line that would connect Europe to North America.² While a direct line between Newfoundland and Ireland had already been laid at great cost only the year before, that first transatlantic connection had been marred by a weak signal, and eventually failed after only a few weeks of transmissions.³ This failure only strengthened

Shaffner's resolve, who had foreseen this problem. To overcome it, his telegraph line was to proceed on land across Greenland, Iceland, and the Faeroes Islands, promising a much more consistent signal. So, as Shaffner moved to Europe to find backing for his proposal, he instructed the crew to survey this alternative route. Along the way, he had them observe and collect samples and data to support his proposed route, confirm its feasibility, and add a more scientific character to the whole enterprise. It was in one of these samples, collected from the ocean floor in the Davis Strait off the coast of Greenland, that the first specimen of *Cycladophora davisiana* to bear this name was found.

This story is merely a marginal episode in the 19th century history of how the planet grew (and continues to grow), wrapped in complex networks of communication and exchange.⁴ Telegraphy was only one of the forms of communication; over the course of the 19th century, railways, steamships, and roads raced all over the world next to telegraph lines. In turn, these infrastructures and channels also facilitated and influenced professional, financial, political, and scientific international networks, see also [Moving Horseshoe Crabs](#) and [Logistical Metabolisms](#).⁵ *C. davisiana* travelled along some of these routes, for instance, when Shaffner arranged for his samples to be sent to the Zoological Museum in Berlin – with the help of the German industrialist Werner Siemens,⁶ a fellow telegraphy expert and inventor, – to be analysed by the famous naturalist [Christian Gottfried Ehrenberg](#). Some other networks had already contributed to Ehrenberg's success, who had built his reputation on scientific expeditions in his youth, and relied already on a global network of correspondents – including some of the most celebrated naturalists of the time, from Humboldt to Darwin. So, even if the North Atlantic line envisioned by Shaffner was never laid, the survey trip of the *Wiman* was going to continue to play a role in this broader history of planetary interconnectedness – albeit an unexpected and inconspicuous one. It inaugurated and shaped the history of [Cycladophora davisiana](#), partaking in turning a shapeless lump of oceanic sediment into a sample for scientific analysis. [Classifying Cycladophora](#) was the next step in this story, and it was going to take place, largely, in what was to become the Natural History Museum Berlin.

Footnotes

1. Christian Gottfried Ehrenberg. "Übersicht über die Tiefgrund-Verhältnisse des Oceans am Eingange der Davisstrasse und bei Island". *Monatsberichte der Königlich Preussischen Akademie der Wissenschaften zu Berlin* (1862): 293. <https://www.biodiversitylibrary.org/item/111883#page/293/mode/1up> (03.01.2022). ↵
2. Most information available on the North Atlantic telegraph line and on Shaffner can be found in Steven Roberts. "The Northern Line – The Arctic Cables". *History of the Atlantic Cable & Undersea Communications*, 29.09.2020 (first publ. 2009). <https://atlantic-cable.com/CableCos/NorthernLine/index.htm> (03.01.2022). The website <https://atlantic-cable.com> is an incredible resource to explore for anyone interested in the sociotechnical history of telegraphy. For further information, see also Philip Allingham. "The Electric Telegraph: Telecommunications Wonder of the Railway Age, 1791 to 1852". *The Victorian Web*, 10.05.2011. <https://victorianweb.org/technology/telecom/telegraph.html> (03.01.2022). ↵
3. Allison Marsh. "The First Transatlantic Telegraph Cable Was a Bold, Beautiful Failure". *IEEE Spectrum*, 31.10.2019. <https://spectrum.ieee.org/tech-history/heroic-failures/the-first-transatlantic-telegraph-cable-was-a-bold-beautiful-failure> (03.01.2022). ↵
4. More about the connections between 19th century telegraphy and contemporary submarine cables and infrastructure, see "The Cables That Connect Our World". *London Science Museum*, no date. <https://www.sciencemuseum.org.uk/cables-connect-our-world> (03.01.2022); Sean Trainer. "What the Digital Age Owes to the Inventor of Morse Code". *TIME*, 27.04.2016. <https://time.com/4307892/samuel-morse-telegraph-history/> (03.01.2022). ↵
5. But the impact of telegraphy didn't stop at that. Importantly, the conjunction of the telegraph and the railroad was instrumental in the standardisation of time, which still regulates our rhythms. See "Standardising Time: Railways and the Electric Telegraph". *London Science Museum*, 4.10.2018. <https://www.sciencemuseum.org.uk/objects-and-stories/standardising-time-railways-and-electric-telegraph> (03.01.2022). ↵
6. More about the incredibly consequential life of Werner Siemens in Johannes Bähr. *Werner von Siemens*. Berlin: Siemens Historical Institute, 2016. https://assets.newsiemens.com/siemens/assets/public/1506341669_aa87da6d048c9a60c037d5771ceded36576c39a5.085-shi-communication-lifelines-5-werner-von-siemens-2016-web-e.pdf (03.01.2022). ↵