Whaling intelligence: news, facts and US-American exploration in the Pacific

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Abstract. This paper investigates the history of a discursive figure that one could call the intelligent whaler. I argue that this figure's success was made possible by the construal and public distribution of whaling intelligence in an important currency of science – facts – in the preparatory phase for the United States Exploring Expedition (1838–1842). The strongest case for the necessity of the enterprise was New England whalers who were said to cruise uncharted parts of the oceans and whose discoveries of uncharted islands were reported in the local press. The document that stood at the core of the lobbying for an expedition was a table that newspaperman and public lecturer Jeremiah Reynolds had compiled after interviewing whaling captains in the country's principal whaling ports. Presenting whalers' experience in tabular and synoptic form, Reynolds's table helped forge the figure of the 'intelligent whaler', a mariner who had better geographical knowledge than other seafarers. By investigating the paper technologies that produced the 'intelligent whaler', this paper shows how Reynolds's translation of 'whaling intelligence' from news into facts marks the beginning of the intelligent whaler's long career in US-American debates about expansionism, exploration and science.

'For many years past the whale-ship has been the pioneer in ferreting out the remotest and least known parts of the earth. She has explored seas and archipelagoes [sic] which had no chart, where no Cook or Vancouver has ever sailed'. Thus spoke Ishmael in Chapter 24 of Herman Melville's Moby-Dick, published in 1851. Melville's narrator invokes a figure that one could call the 'intelligent whaler', borrowing a notion used by Benjamin Franklin in 1753 to refer to Timothy Folger, his cousin and a whaling captain who had helped him sketch the first map of the Gulf Stream, almost a century before Melville sent Ishmael a-whaling.²

'Intelligence' was defined in *The New and Complete American Encyclopaedia* in 1808 as the 'commerce of information; notice; mutual communication; account of things

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- 1 Herman Melville, Moby-Dick; or, The Whale. The Writings of Herman Melville. The Northwestern-Newberry Edition, vol. 6, Evanston, IL: Northwestern University Press/Newberry Library, 1988, p. 110.
- 2 For what came to be known as the Franklin-Folger chart of the Gulf Stream see Joyce Chaplin, *The First Scientific American: Benjamin Franklin and the Pursuit of Genius*, New York: Basic Books, 2006, pp. 196–200, pp. 209–212, 319–322; Chaplin, 'Knowing the ocean: Benjamin Franklin and the circulation of Atlantic knowledge', in James Delbourgo and Nicholas Dew (eds.), *Science and Empire in the Atlantic World*, New York: Routledge, 2008, pp. 73–96; Ellen Cohn, 'Benjamin Franklin, Georges-Louis Le Rouge and the Franklin/Folger chart of the Gulf Stream', *Imago Mundi* (2000) 52, pp. 124–142; Philip L. Richardson, 'Benjamin Franklin and Timothy Folger's first printed chart of the Gulf Stream', *Science* (1980) 207, pp. 643–645; Louis de Vorsey, 'Pioneer charting of the Gulf Stream: the contributions of Benjamin Franklin and William Gerard De Brahm', *Imago Mundi* (1976) 28, pp. 105–120.

distant or secret' and as 'understanding; skill'.³ It is along these lines that whalers have been described as intelligent not only in the age of the American Revolution and in Melville's whaling epic but also in more recent scholarly work. More than 150 years after the publication of *Moby-Dick*, maritime histories and histories of ocean science tell a similar story, according to which US-American whalers assumed the role of pioneers of American exploration in the Pacific. In a classic study from 1953, historian Edouard Stackpole listed more than a dozen cases in which Nantucket whaling captains, who began hunting for whales in the Pacific in the early 1800s, discovered or rediscovered Pacific islands.⁴ Until today historians of science attribute discovery and exploration, especially in the Pacific, to 'whalers searching for offshore species'. American whalers, writes historian of oceanography Helen Rozwadowski, 'followed their prey far from land and watched in amazement as harpooned whales pulled hundreds of fathoms of rope down as they sounded', and supplied US institutions with information about ocean currents and uncharted islands.⁵

Whalers as part of the 'vanguard of a vigorous oceanic empire', as Jason W. Smith recently put it, or as explorers and masters of nautical knowledge are a common trope in classic as well as more recent literature on the history of US-American whaling.⁶ It is not unusual in maritime history to consider the 'first thing worth mentioning' about American whalers in the Pacific to be 'the contribution they made to knowledge'.⁷ This contribution, one might add, is also worth investigating.⁸

In this paper, I want to suggest that one way to do so is by taking a step back from individual whalers and discoveries associated with them. Instead, this paper investigates

- 3 The New and Complete American Encyclopaedia: or, Universal dictionary of arts and sciences, vol. 4, New York: John Low 1808, p. 609.
- 4 Edouard Stackpole, *The Sea-Hunters: The New England Whalemen during Two Centuries*, 1636–1835, Philadelphia: Lippincott, 1953, Part II and Chapter 5.
- 5 Helen Rozwadowski, Fathoming the Ocean: The Discovery and Exploration of the Deep Sea, Chicago: The University of Chicago Press, 2008, p. 39, For one of the earliest enunciations of this narrative in the history of oceanography see Matthew Fontaine Maury, Abstract Log, for the Use of American Navigators, Washington, DC: C. Alexander, 1848. US histories of whaling have fed into this narrative from the very beginning; cf. Alexander Starbuck, History of the Whale Fishery from Its Earliest Inception to the Year 1876, Waltham, MA, Published by the Author, 1878. Later examples are Clifford Ashley, The Yankee Whaler, Boston: Houghton, 1926; Eric Jay Dolin, Leviathan: The History of Whaling in America, New York: W.W. Norton, 2007; Arrell Morgan Gibson, Yankees in Paradise: The Pacific Basin Frontier, Albuquerque: University of New Mexico Press, 1993; Jean Heffer, The United States and the Pacific: History of a Frontier, Notre Dame: University of Notre Dame Press, 2002.
- 6 Jason W. Smith, To Master the Boundless Sea: The U.S. Navy, the Marine Environment, and the Cartography of Empire, Chapel Hill: University of North Carolina Press, 2018.
 - 7 Heffer, op. cit. (5), p. 62.
- 8 The latter is done far less frequently. The only scholarly texts to question the story of whalers-as-explorers seem to be D. Graham Burnett's book chapters 'Hydrographic discipline among the navigators: charting an "empire of commerce and science" in the nineteenth-century Pacific', in James Ackerman (ed.), *The Imperial Map: Cartography and the Mastery of Empire*, Chicago: The University of Chicago Press, 2009, pp. 185–259; and 'Maury's "sea of fire": hydrography, biogeography, and providence in the tropics', in Felix Driver and Luciana Martins (eds.), *Tropical Visions in an Age of Empire*, Chicago: The University of Chicago Press, 2005, 113–34. For whalers' contributions to natural-historical knowledge see Burnett, *Trying Leviathan: The Nineteenth-Century New York Court Case That Put the Whale on Trial and Challenged the Order of Nature*, Princeton, NJ: Princeton University Press, 2007.

the history of the discursive figure that is the 'intelligent whaler'. As part of invented traditions, such as founding myths, it has always been closely intertwined with the history of the United States, and it continues to be so, as historical scholarship's deployment of the narrative demonstrates. One could therefore classify the 'intelligent whaler' as a historiographical figure. Located conceptually between the 'scientific self' or 'persona' – not an individual, but a type of scientist or a cultural identity – and the literary motif, the intelligent whaler was principally available as an identity to individuals, but whalers embraced or strived for this identity much less than it was, strategically, attributed to them in the accounts of scientists, politicians and historians. It is this historiographical figure's role that a critical history of the whalers' contribution to knowledge needs to take into account: what rhetoric was employed by whom, where, and to what ends, when whalers were – or are – portrayed as explorers in the Pacific?

Intelligent whalers came about as paper figures. This is the central claim of this paper and simultaneously an attempt to answer a second question: how are scientific selves or personae and historiographical figures made? A possible answer considered here is: by paper technologies. Paper technologies are understood as sets of procedures on and with paper, such as tables and lists, sorting or formatting; material operations underlying the classification, communication and control of knowledge as well as its production. They are, in Boris Jardine's concise definition, 'a material grid laid over the world, visible in itself'.¹⁰

In what follows, I will argue that the success of the intelligent whaler was made possible by the construal and public distribution of whaling intelligence in an important currency of science: facts. Printed in New England newspapers, reports about whalers' discoveries of islands in the Pacific turned the intelligent whaler into a public figure, which lobbyists for Pacific exploration could invoke when they presented whaling intelligence in administrative documents with factual brevity. As a historiographical paper figure, the intelligent whaler emerged from the page, when paper technologies such as tables or lists produced discursive figures. This is, then, a history of bureaucratic practices as much as it is one of bureaucratic subjectivities.¹¹

- 9 See, for the scientific persona, Lorraine Daston and H. Otto Sibum, 'Introduction: scientific personae and their histories', *Science in Context* (2003) 16, pp. 1–8; the 'persona' was substituted with the 'self' in Lorraine Daston and Peter Galison, *Objectivity*, New York: Zone Books, 2007, pp. 191–251.
- 10 The term 'paper technology' goes back to Anke te Heesen, 'The notebook: a paper-technology', in Bruno Latour and Peter Weibel (eds.), *Making Things Public: Atmospheres of Democracy*, Cambridge, MA: MIT Press, pp. 582–589. In the history of science (and medicine) it has most prominently been employed by Volker Hess and Andrew Mendelsohn, 'Case and series: medical knowledge and paper technology, 1600–1900', *History of Science* (2010) 48, pp. 287–314. For a recent review of scholarship about paper technologies, paper tools and a helpful disambiguation in terminologically mined territory see Boris Jardine, 'State of the field: paper tools', *Studies in History and Philosophy of Science Part A* (2017) 64, pp. 53–63, 56.
- 11 For work on paper technologies in state bureaucracies see, for example, Matthew Hull, Government of Paper: The Material Bureaucracy in Urban Pakistan, Berkeley: University of California Press, 2012; Nayanika Mathur: Paper Tiger: Law, Bureaucracy and the Developmental State in Himalayan India, Cambridge: Cambridge University Press, 2016. See also Friedrich Kittler, 'Das Subjekt als Beamter', in Manfred Frank, Gérard Raulet and Willem van Reijen (eds.), Die Frage nach dem Subjekt, Frankfurt am Main: Suhrkamp, 1988, pp. 401–420.

To make this claim, I will briefly discuss the birth of the intelligent whaler in the hydrographical writings of Benjamin Franklin. I will then focus on the intelligent whaler's role in the advocacy for an American exploring expedition into the Pacific and examine how, by the use of lists and tables, whaling intelligence was turned from news into facts. Proponents of US-American exploration in the Pacific employed whaling intelligence, regularly published in newspapers, to construct the intelligent whaler as a frontier figure, on the one hand whose knowledge could lead to discovery, and on the other who would profit from accurate charts and military protection. ¹² Specific writing procedures established credibility of information that was hard to verify on dry land, and they were crucial in making whalers not only 'intelligent' but also reliable informants. In the paper's final section, I will address the economic and social implications of whaling intelligence and its representation as facts. With the foundation of New Bedford trade paper Whalemen's Shipping List and Merchant's Transcript in 1843, whalers became not only providers but also objects of knowledge. Ultimately, I hope to show that paper serves not only as the data transport and storage device on which information is printed or science published, but also as a medium that creates the types who gather information, do science and become literary agents of the frontier narrative.

The invention of the 'intelligent whaler'

In 1768, when Benjamin Franklin was deputy postmaster general of British North America, Boston customs commissioners complained about time British ships wasted on the ocean. They had noticed that it took packets from Falmouth, Cornwall to New York an average of two weeks longer than it took vessels from London to get to Rhode Island, although both routes were roughly the same distance. Franklin consulted his whaling cousin who features in his hydrographical writings repeatedly as 'intelligent Whaleman of Nantucket', 'very intelligent Mariner' or 'Nantucket sea-captain of my acquaintance'; he was by no means surprised by the difference. British merchant captains, he told Franklin, were simply unaware of the Gulf Stream. Franklin in turn reported to the Postmaster General that 'Captain Folger[,] a very intelligent Mariner of the Island of Nantuckett in New England', had informed him

that the Whales are found generally near the Edges of the *Gulph Stream*, a strong Current so called which comes out of the Gulph of Florida, passing Northeasterly along the Coast of America, and then turning off most Easterly running at the at the rate of 4, 3½, 3 and 2½ Miles an Hour.¹⁴

¹² For the concept of frontier figures see Mary Luise Pratt, *Imperial Eyes: Travel Writing and Transculturation*, London: Routledge, 1992, p. 27.

¹³ Benjamin Franklin, 'Letter to John Perkins, 4 February 1753', in *The Papers of Benjamin Franklin*, vol. 4, ed. Leonard Labaree and Whitfield J. Bell Jr, New Haven, CT: Yale University Press, 1961, pp. 429–442, 431; Franklin, 'Letter to Anthony Todd, 29 October 1768', in *The Papers of Benjamin Franklin*, vol. 15 (ed. Willam Willcox, Dorothy Bridgewater, Mary Hart, Claude Lopez and G.B. Warden), New Haven, CT: Yale University Press, 1966, pp. 246–248, 246; Franklin, 'A Letter from Dr. Benjamin Franklin, to Mr. Alphonsus Le Roy, Member of Several Academies, at Paris: Containing Sundry Maritime Observations', *Transactions of the American Philosophical Society* (1786) 2, pp. 294–329, 314.

¹⁴ Franklin, 'Letter to Anthony Todd', op. cit. (13), pp. 246–247.

To avoid shoals off Nantucket and Cape Cod, English captains bound for Rhode Island sailed north of the forty-second parallel while ships on their way to New York stayed south of 40° north, steering straight into the Gulf Stream.

The whalers, Franklin continued, cruised along the edges of the stream 'in quest of whales' and thus 'bec[a]me better acquainted with the Course, Breadth, Strength and extent of the same, than those Navigators can well be who only cross it in their Voyages to and from America'. Even before Franklin had asked Folger 'to mark for me on a Chart, the Dimentions Course and Swiftness of the Stream', the whalers had informed the British captains that they were stemming a current. But, as Folger had told Franklin, 'they were too wise, to be counselled by simple American fishermen'.15

Folger's sarcasm reveals what was at stake: Franklin's informant, the 'intelligent whaler', was American; a white American whaling captain, to be precise, for the figure takes no account of the demographics of the crews that, throughout the nineteenth century, included Native Americans, former slaves and Pacific islanders. ¹⁶ The intelligent whaler made a more public appearance only a few years later in Edmund Burke's famous speech on conciliation with the American colonies, delivered in the House of Commons on 22 March 1775 and paying tribute to the 'spirit of Liberty'. Burke presented whalers as the prime example of American entrepreneurship. ¹⁷ From his portrait of this group, one can extract three central characteristics of the 'intelligent whaler' as part of what could be called a historiographical doctrine of figures.

The first characteristic of the intelligent whaler is his American citizenship, or, before a legal status of this kind existed, identification with the colonies rather than with the mother country. Burke speaks explicitly about New England whalers who 'owe little or nothing' to English support. A second characteristic is his ubiquity. According to Burke, one comes across American whalers on every ocean and in every climate:

whilst some of them draw the line and strike the harpoon on the coast of Africa, others ... pursue their gigantic game along the coast of Brazil. No sea but what is vexed by their fisheries. No climate that is not witness to their toils.¹⁸

While Burke was thinking of the whalers' ubiquity mostly in relation to the Atlantic, by the beginning of the nineteenth century it had extended to the Pacific. This indicates the third feature of this figure that has always-already travelled onward and forever continues to push further, merely pausing where others have reached their final destination:

¹⁵ Franklin, 'A Letter from Dr. Benjamin Franklin, to Mr. Alphonsus Le Roy', op. cit. (13), p. 315.

¹⁶ See Jeffrey Bolster, Black Jacks: African American Seamen in the Age of Sail, Cambridge, MA: Harvard University Press, 1997; Margaret Creighton, Rites and Passages: The Experience of American Whaling, 1840–1870, Cambridge: Cambridge University Press, 1995, pp. 41–57; David Chappell, Double Ghosts: Oceanian Voyagers on Euroamerican Ships, Armonk: M.E. Sharpe, 1997; James Farr, 'A slow boat to nowhere: the multi-racial crews of the American whaling industry', Journal of Negro History (1983) 68, pp. 159–170; Nancy Shoemaker, Native American Whalemen and the World: Indigenous Encounters and the Contingencies of Race, Chapel Hill: University of North Carolina Press, 2015.

¹⁷ Edmund Burke, Speech of Edmund Burke, Esq., on Moving His Resolutions for Conciliation with the Colonies. March 22, 1775, London: J. Dodsley, 1775, pp. 20–22.

¹⁸ Burke, op. cit. (17), pp. 211-212.

whilst we are looking for them beneath the Arctic circle, we hear that they have pierced into the opposite region of polar cold, that they are at the Antipodes, and engaged under the frozen serpent of the south. Falkland Island, which seemed too remote and romantic an object for the grasp of national ambition, is but a stage and resting-place in the progress of their victorious industry ...¹⁹

With reference to Franklin's account of the discussion with his cousin Timothy Folger, one can add a fourth characteristic to the figure that is not mentioned in Burke's speech, but an important aspect in narratives about American exploration in the Pacific and in whaling historiography, and of special interest for the historian of science: it is the navigational and oceanographic knowledge that the intelligent whaler possesses and that far exceeds that of other mariners, affixed to their usual courses. Moreover, and most importantly, it is a knowledge the intelligent whaler is willing to share. The adjective 'intelligent' is aptly defined in the *American Encyclopaedia*: '1. Knowing; instructed; skillful. 2. It has of before the thing. 3. Giving information'.²⁰

The whalers' advocate

The first New England whaler rounded Cape Horn in 1789. After the Pacific 'offshore grounds' had been discovered in 1818, half of Nantucket's whalers sailed towards the Pacific, which at the time had not been properly charted on the maps of European and American mariners.²¹ Although James Cook had proven on three voyages into the Pacific between 1768 and 1780 that no undiscovered continent existed, thereby refuting ideas of a *Terra Australis*, the Pacific Ocean remained cartographically unstable: islands were discovered, forgotten and rediscovered, and just as many 'island groups whose names shift around with every whim of cartographical fashion' could be found on mariners' maps in the first half of the nineteenth century as in the mid-eighteenth.²² Exploration of those seas, according to whaling historiography, happened on whaleships. Edouard Stackpole portrayed the nineteenth-century whaler as a 'pioneer

- 19 Burke, op. cit. (17), p. 21.
- 20 The New and Complete American Encyclopaedia, op. cit. (3), p. 609. Unusual today, 'it has of before the thing' was the common phrase in eighteenth- and nineteenth-century dictionaries to denote the preposition following adjectives that govern objective genitives, e.g. 'if there be no object of his intellect, he is intelligent of nothing, or not intelligent'. William Wollaston, *The Religion of Nature Delineated*, London: [s.n.] 1722, p. 29.
- 21 Stackpole, op. cit. (4), p. 145. For more on nineteenth-century whaling in the Pacific see Gibson, op. cit. (5), pp. 131–155; and Granville Allen Mawer, Ahab's Trade: The Saga of South Seas Whaling, St Leonards: Allen & Unwin, 1999; for Pacific exploration see Burnett, 'Hydrographic discipline', op. cit. (8); Ernest Dodge, Beyond the Capes: Pacific Exploration from Captain Cook to the Challenger, London: Victor Gollancz, 1971; Ralph Ehrenberg, John Wolter and Charles Burroughs: 'Surveying and charting the Pacific basin', in Carolyn Margolis and Herman Viola (eds.), Magnificent Voyagers: The U.S. Exploring Expedition, 1838–1842, Washington, DC: Smithsonian Institution Press, 1985, pp. 164–187; and David Igler, The Great Ocean: Pacific Worlds from Captain Cook to the Gold Rush, Oxford: Oxford University Press, 2013.
- 22 P.J. Marshall and Glyndwr Williams, *The Great Map of Mankind: British Perceptions of the World in the Age of Enlightenment*, Cambridge, MA: Harvard University Press, 1982, p. 260; Katherine Parker, 'Pepys Island as a Pacific stepping stone: the struggle to capture islands on early modern maps', *BJHS* (2018) 51, pp. 659–677.

voyager' who conquered for the United States a 'kingdom in the sea'.²³ When historians describe whalers as 'unofficial and nationally unrecognized explorers of their country' who were turning the Pacific into an 'American ocean', they relocate the frontier from the Western prairies to the sea.²⁴ Frederick Jackson Turner had famously declared in 1893 that the 'existence of an area of free land, its continuous recession, and the advance of American settlement westward, explain American development'.²⁵ He argued that the shifting frontier, separating 'civilisation' from 'savagery', was the source of American individualism, egalitarianism and democracy. Heroic tales of American whalers as agents of colonization in the Pacific find a useful emblem for Turner's frontier thesis in the intelligent whaler.

A kind of Frederick J. Turner of whaling and perhaps the greatest proponent of whaling intelligence was Jeremiah N. Reynolds. He was known as a notorious advocate for a Pacific exploring expedition in Washington and his strongest case was the New England whalers. Reynolds entered the public stage as a sidekick to John Cleeves Symmes, who toured the United States to give lectures on the hollow-Earth theory. According to Symmes's theory, based on a hypothesis Edmond Halley had made in 1692, the Earth was hollow and its interior accessible through great holes at the poles. Most scientists refuted this claim, but the two men spoke to large audiences in sold-out venues.²⁶ Reynolds remained sceptical towards the more extravagant parts of the theory and later fell out with Symmes, concentrating instead on the more widely accepted but no less fantastic theory of an open polar sea.²⁷ Common to his advocacy for both theories was his insistence on the necessity of a polar expedition to get to the bottom of the speculations. He petitioned Congress and the navy, and was eventually

- 23 Stackpole, op. cit. (4), Part II and Chapter 5.
- 24 Stackpole, op. cit. (4), p. 354; cf. the literature cited above in note 5; for a critical engagement see John Eperjesi, The Imperialist Imaginary: Visions of Asia and the Pacific in American Culture, Hanover: Dartmouth College Press, 2005; for histories dealing with the maritime frontier see John Gillis, The Human Shore: Seacoasts in History, Chicago: The University of Chicago Press, 2013, pp. 68–98; Stephanie LeMenager, Manifest and Other Destinies: Territorial Fictions of the Nineteenth-Century United States, Lincoln: University of Nebraska Press, 2004, pp. 109–135; Matt Matsuda, Pacific Worlds: A History of Seas, Peoples, and Cultures, Cambridge: Cambridge University Press, 2012; John Curtis Perry: Facing West: Americans and the Opening of the Pacific, Westport, CT: Praeger, 1994, pp. 66–70; Brian Rouleau: With Sails Whitening Every Sea: Mariners and the Making of an American Maritime Empire, Ithaca, NY: Cornell University Press, 2014, pp. 74–101. With regard to the history of science see Anthony Adler, 'The capture and curation of the cannibal "Vendovi": reality and representation of a Pacific frontier', Journal of Pacific History (2014) 49, pp. 255–282; and Smith, op. cit. (6).
- 25 Frederick Jackson Turner, 'The significance of the frontier in American history', in *Annual Report of the American Historical Association for the Year 1893*, Washington, DC: American Historical Association, 1894, pp. 199–227, 199.
- 26 Rosalind Williams, *Notes on the Underground: An Essay on Technology, Society, and the Imagination*, new edn, Cambridge, MA: The MIT Press, 2008, pp. 12–13; Hester Blum, 'John Cleeves Symmes and the planetary reach of polar exploration', *American Literature* (2012) 2, pp. 243–271.
- 27 Aaron Sachs, The Humboldt Current: Nineteenth-Century Exploration and the Roots of American Environmentalism, New York: Viking, 2006, pp. 121–125; William Stanton, The Great United States Exploring Expedition of 1838–1841, Berkeley: University of California Press, 1975, pp. 14–15. For the theory of the open polar sea see Michael Robinson, The Coldest Crucible: Arctic Exploration and American Culture, Chicago: The University of Chicago Press, 2006.

appointed special agent to the Navy Department and sent to the whaling captains of New England to acquire 'information' about the Pacific. What Reynolds presented to the House of Representatives in his report as special agent to the navy and in his Address on the Subject of a Surveying and Exploring Expedition to the Pacific Ocean and South Seas was a survey of American economic activity in the Pacific that grounded a demand for a federally funded exploring expedition.²⁸

To make his case, Reynolds painted an image of the history of the United States as a nation of maritime explorers that owed its economic success entirely to the whaling industry, which he portrayed as the cradle of the American fleet. By listing the whalers' provisions down to the individual item, Reynolds pointed toward the national significance he assigned to their enterprise:

every time our immense whale fleet puts to sea, there is required for victualling and outfit: flour, eighty thousand and forty barrels; pork and beef, seventy-nine thousand one hundred and twenty barrels; molasses, six hundred and twenty-one thousand gallons; coffee, five hundred and fifty-two thousand six hundred pounds; sugar, two hundred and fifty-six thousand eight hundred pounds; tea, one hundred and seventy-two thousand five hundred pounds; rice, one thousand three hundred tierces; duck, forty-six thousand four hundred and sixty pieces; cordage, eight thousand nine hundred and sixty tons; iron hoops, four thousand six hundred tons; copper, five hundred and fifty-two thousand sheets; (vessels coppered every voyage;) staves, ten million; whaling gear, consisting of harpoons, spades, cabooses, &c., one thousand dollars to each vessel, four hundred and sixty thousand dollars ...²⁹

Not only whalers and whaling towns were to profit from the whaling industry, but also the country as a whole: Reynolds argued that whaling reached 'the interest of every class of citizens in our country; their prosperity or adversity becomes that of our whole people'. He claimed that owners of woodland as well as shipbuilders and coppersmiths, rope makers and sailmakers, the cotton industry as well as the agricultural sector, 'all have an interest in this branch of national enterprise'.³⁰

The industries on which the whalers' expeditions depended, and which profited from their discoveries, thus grounded the argument of the chief lobbyist for an enterprise of this kind. Reynolds's glorification of the whaler was inspired not so much by Benjamin Franklin's report on the whaler's discovery of the Gulf Stream, but by the daily newspapers in which the intelligent whaler had been present since the turn of the century. This is a first, and quite literal, sense in which the intelligent whaler was a paper figure.

Whaling news

On 28 March 1825, the *Nantucket Inquirer* printed a letter by whaling captain Richard Macy, who reported a discovery near the 'Friendly Islands' (Tonga) in the South Pacific:

28 H.R. Doc. No. 88, 20th Cong., 1st Sess. (1828); Jeremiah N. Reynolds, Address on the Subject of a Surveying and Exploring Expedition to the Pacific Ocean and South Seas: Delivered in the Hall of Representatives on the Evening of April 3, 1836, New York: Harper & Brothers, 1836; Reynolds, Pacific and Indian Oceans: Or, the South Sea Surveying and Exploring Expedition: Its Inception, Progress, and Objects, New York: Harper & Brothers, 1841; Stanton, op. cit. (27), p. 16.

- 29 Reynolds, *Address*, op. cit. (28), pp. 44–46.
- 30 Reynolds, Address, op. cit. (28), p. 46.

On the 3d of February, 1824, I discovered three islands and as they are not laid down on my chart, or in any book I have on board, I believe them to be a new discovery: in consequence of which I have given them the following names: Viz. Elizabeth's Island, lat. 21 06 S. Ion. 178 36 W. Eunice's Island, lat. 21 52 S. Ion. 178 47 W. Macy's Island, lat. 20 52 S. Ion. 178 47 W. The land is very low and navigation dangerous, as they are surrounded with coral reefs which extend some distance from them. The islands are inhabited and are covered with coconut and other trees.³¹

As in Franklin's report of the mapping of the Gulf Stream, the whalers' interest in exploration and the mapping of islands in the Pacific emerged from the exigencies of their work. Much like James Cook's observations of nature, such enterprises were shaped by the imperative to maintain the livelihood of the ship that made them possible in the first place: determining the geographic position, navigability and anchorage of bays, as well as the flora, fauna and native population of islands along their routes, were necessary to keep the ship in shape and the crew fed, before they became questions of geography, hydrography, natural history or ethnography.³² When Cook embarked on his first voyage in 1768, he received additional and secret instructions by the Admiralty:

You are to employ yourself diligently in exploring as great an Extent of the Coast as you can; carefully observing ... Latitude and Longitude ... Bays, Harbours and Parts of the Coast as may be useful to Navigation. You are also carefully to observe the Nature of the Soil and the Products thereof; the Beasts and Fowls that inhabit or frequent it ... [and] the Genius, Temper, Disposition and Number of the Natives.³³

The orders whaling captains received were shorter and limited to the purpose of the voyage. New Bedford whaling agents Thomas Knowles & Company, for example, instructed the Captain of the *Isabella*

to write us every opportunity and inform us of any and Every thing of consequence pertaining to the voyage such as the quantity of oil you have on board the names of all the Crew that may have deserted or discharged or lost in any way ... & when you expect to be at home also where and when you wish to have letters sent to you.³⁴

Exploration was explicitly not a part of whalers' instructions. Whaleships lost or damaged in the process of examining an island forfeited their insurance.³⁵ But Macy,

- 31 Nantucket Inquirer, 28 March 1825, p. 3.
- 32 Richard Sorrenson, 'The ship as a scientific instrument in the eighteenth century', Osiris (1996) 11, pp. 221–236, 228.
- 33 'Additional instructions for Lt. James Cook, appointed to command His Majesty's Bark the Endeavour', in *The Journals of Captain James Cook*, vol. 1: *The Voyage of the Endeavour 1768–1771* (ed. John Beaglehole), Cambridge: Cambridge University Press, 1968, pp. cclxxxii–cclxxxiii; Sorrenson, op. cit. (32), pp. 227–228.
- 34 Thomas Knowles & Company to Capt. Orrick Smalley, 1 June 1852, New Bedford Whaling Museum Research Library and Archives, Knowles Family Business Records, Mss 55, S-g 2, Sr. H, S-s 1, vol. 1, agent/owner account book, 1852.
- 35 Insurance policy of the *Isabella* (New Bedford), 1853, New Bedford Whaling Museum Research Library and Archives, Knowles Family Business Records, Mss 55, S-g 2, Sr. H, S-s 1, Folder 6; cf. Reynolds, *Address*, op. cit. (28), p. 35; J. Vaucher, *A Guide to Marine Insurances; Containing the Policies of the Principal Commercial Towns in the World*, London: A.H. Bailly and Company, 1834, esp. pp. 44–48; Lance Davis, Robert Gallman and Karin Gleiter, *In Pursuit of Leviathan: Technology, Institutions, Productivity, and Profits in American Whaling*, 1816–1906, Chicago: The University of Chicago Press, 1997, p. 397.

like other whaling captains who anchored close to islands not recorded in their charts in order to take wood and food aboard or to set out hogs to breed, included information in his reports similar to that demanded by the Admiralty.³⁶ This was no coincidence, and nor was the printing of Macy's letter in a newspaper.

Going by the name of Gardner, Coffin, Starbuck or Macy, Franklin's intelligent whaler appeared regularly in the pages of local newspapers in New England whaling towns. The *Nantucket Inquirer*, keeping the islanders up to date with world politics since 23 June 1821, reserved its third page for 'shipping intelligence'.³⁷ In New Bedford, the *New-Bedford Mercury* had been 'published once a week, printed on good paper and in fair type', since 1807, and informed its readers in its 'Marine diary' about incoming ships in the local port.³⁸ It printed reports brought into town by incoming ships as well as news about deaths, desertions and encounters with other vessels: 'Jan. 28, lat. 26, lon. 22 ship Industry, [Captain] Coffin, 27 days from Nantucket, whaling; had caught nothing'.³⁹ Like Macy, many whalers regularly reported their geographic discoveries by sending letters or extracts from their logbooks to New Bedford or Nantucket newspapers.

Whalers were not only (re)discoverers of islands but, like other seamen, transmitters of news from overseas. The emerging American mass media knew how to make use of the increasingly global reach of seafaring activities. Before networks of correspondents were established abroad, newspapers that wanted to print news from overseas depended on seamen. Some of them allied in 1848 to found the Harbor News Association that telegraphed news brought over on European ships from the harbour of Halifax to New York. Before Newfoundland and Ireland were connected via the transatlantic telegraph cable, journalists prowled the harbours of Boston, New York or Philadelphia to pick up news from all over the world. The Harbor News Association, which gave birth to the Associated Press, the United States' first news agency, even had two boats of its own to collect 'ship news or other news' before the crews came ashore. A

In this respect, too, whalers' reports are part of the history of travel accounts written by the likes of James Cook. With Cook's second voyage around the world, the Admiralty abandoned the politics of secrecy that had surrounded exploring expeditions in the

36 H.R. Doc. No. 105, 23rd Cong., 2nd Sess. (1835), p. 17, reprinted in Reynolds, *Pacific and Indian Oceans*, op. cit. (28), pp. 193–233; Reynolds, *Address*, op. cit. (28), p. 66; Stackpole, op. cit. (4), pp. 281, 353. 37 *Nantucket Inquirer*, 23 June 1821, p. 1. For more on news and the public in the United States see Menahem Blondheim, *News over the Wires: The Telegraph and the Flow of Public Information in America*, 1844–1897, Cambridge, MA: Harvard University Press, 1994; Richard John, *Spreading the News: The American Postal System from Franklin to Morse*, Cambridge, MA: Harvard University Press, 1995; and Will Slauter, 'Forward-looking statements: news and speculation in the age of the American Revolution', *Journal of Modern History* (2009) 81, pp. 759–792. For the founding of newspapers in whaling towns see Leonard Bolles Ellis, *History of New Bedford and Its Vicinity*, 1602–1892, Syracuse: Mason, 1892, pp. 522–532; and Harry B. Turner's chapter on 'The newspapers of Nantucket', in Robert Alexander Douglas-Lithgow, *Nantucket: A History*, New York: Putnam's, 1914, pp. 329–339.

- 38 New-Bedford Mercury, 7 August 1807, p. 1.
- 39 New-Bedford Mercury, 3 March 1820, p. 3.
- 40 Rouleau, op. cit. (24), pp. 16-42, has pointed to the connection of maritime and mass media expansion.
- 41 Rouleau, op. cit. (24), pp. 28–29; Richard Schwarzlose, 'Harbor News Association: the formal origin of the AP', *Journalism and Mass Communication Quarterly* (1968) 45, pp. 253–260.

Enlightenment in favour of a publishing strategy that was concerned with the immediacy of research results. Cook came to be the first 'author–explorer' to publish his barely edited journals. ⁴² To 'publish' was to address the public in a literal sense: it was essential to the credibility of his report when Cook wrote in the introduction to his *Voyage towards the South Pole and round the World* that his account was 'submitted to the Public' with the very purpose of giving 'the Reader a clear idea of what has been done in it and to enable him to judge more accurately, how far the great object that was proposed, has been obtained'. ⁴³

Nineteenth-century newspapers not only publicized knowledge of geographic explorations but also turned the intelligent whaler into a public figure. In the eighteenth century, Benjamin Franklin, who rarely mentioned his cousin Timothy Folger by name, told his story in two letters, only one of which was meant for publication. In the *Nantucket Inquirer*, the *New-Bedford Mercury* and other newspapers, the story was now told to the reading public on a daily basis. The mariner as explorer became such a common *topos* that some newspapers seemed to grow tired of their own stories: once again, a 'bold Yankee navigator' had – as 'they have often done before' – discovered land.⁴⁴ By the beginning of the 1840s, newspapers thought the Pacific was mostly explored: 'As far as mere discovery goes there is little left to be done in the Pacific. Our whalers have cruised over, or crossed, nearly all the ground that had hitherto been untraversed'.⁴⁵

Factual islands and insular facts

Jeremiah Reynolds, from Wilmington, Ohio, remained unconvinced that there was nothing left to explore in the Pacific. This former newspaperman, of all people, seemed not to believe that newspaper coverage of what whalers had found and put down in their logs was particularly helpful: 'On their return to the United States, these discoveries generally formed a paragraph, which went the rounds of the press, and then sunk into oblivion'. ⁴⁶ To permanently store the whalers' knowledge, Reynolds believed, a more systematic form of notation was necessary. It was for the sake of creating one that Reynolds travelled to the coast of New England for an on-site visit as a

- 42 Philippe Despoix, *Le monde mesuré: Dispositifs de l'exploration à l'âge des lumières*, Geneva: Droz, 2002, pp. 86–89, 100–105. Herman Melville's narrator and (intelligent) whaler Ishmael in *Moby-Dick* claims that the 'adventures which Vancouver dedicates three chapters to, these men accounted unworthy of being set down in the ship's common log'. As far as the history of whaling intelligence is concerned, it was sufficient that they recorded certain geographical findings and reported them to the newspapers in their home ports. Melville, op. cit. (1), p. 110.
- 43 James Cook: A Voyage Towards the South Pole, and Round the World. Performed in His Majesty's Ships the Resolution and Adventure, in the Years 1772, 1773, 1774, and 1775, 4th edn, vol. 1, London: W. Strahan, T. Cadell, 1784, p. ix. On publishing and exploration see also Adriana Craciun, Writing Arctic Disaster: Authorship and Exploration, Cambridge: Cambridge University Press, 2016.
 - 44 Quoted in Rouleau, op. cit. (24), p. 29.
 - 45 Quoted in Rouleau, op. cit. (24), p. 29.
- 46 Reynolds, Address, op. cit. (28), p. 31. On Reynolds's interviews see also Burnett, 'Hydrographic discipline', op. cit. (8); Sachs, op. cit. (27), p. 128–131; and Stanton, op. cit. (27), pp. 17–19.

special agent to the Navy Department in 1828, 'where information might be found of the Pacific Ocean and South Seas'.⁴⁷ He called on 'every individual navigator of those seas who could be found at home' and asked the whaling captains for an interview.⁴⁸

The information I obtained was drawn from purely original sources. Nothing was taken at second hand. Log-books which had been thrown aside for years, were overhauled and examined anew. Many facts were received from several sources, each independent of the other; and by this coincidence, the truth of the statements was corroborated and confirmed. The whole were concisely and systematically arranged under appropriate heads ...⁴⁹

Like Franklin, Reynolds was of the opinion that his conversation with the whalers had yielded a hoard of priceless information. They were 'certainly better acquainted with those seas than any other people in this or any other country can be'. ⁵⁰ Reynolds consulted numerous captains, observed their logbooks and sea charts, and sent a long list of results to the navy. Among them were many, he claimed, 'that are not laid down in any chart'. ⁵¹ In his report for the navy, Reynolds not only stressed that whalers opened up whole new seas but also praised the whaling ship as a nautical training centre:

The whalemen are much advanced in mathematics and practical navigation beyond other navigators: for, on their long voyages out and home, the most intelligent officers assist the younger in their mathematical and nautical studies; and thus schooled, all come home improved in their branches, distinction in them being the direct road to preferment.⁵²

The result of Reynolds's research was a table, titled 'Islands and Reefs'. In 'as tabular a form as may be consistent with a clear view of the extent and importance of these discoveries' – that is, in four columns – the document listed the islands discovered by whalers and their geographical position, as to latitude and longitude. Reynolds's table resembled a preprinted form filled in over the course of his visit to New England's whaling towns. It registered and organized empirical evidence; its slot-and-filler structure only captured certain recurring parameters: islands' names, latitude and longitude, sorting them by ascending latitude.

Tables not only visualize order; they also establish it. Providing a defined location for each new entry, the tabular logic is indifferent to the question whether an entry's content is already known or yet to be found out. A table's blanks are not so much vacancies (they are most certainly there, or, as Lisa Gitelman puts it, 'Any space within the printed page is – effectively – printed') as they are pointers to what is, as yet, unknown.⁵⁴ Inscribed into the empty space of such blanks is the imperative to fill it with information. The

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47 H.R. Doc. No. 105, op. cit. (36), p. 1.
48 H.R. Doc. No. 105, op. cit. (36), p. 2.
49 Reynolds, Address, op. cit. (28), p. 32.
50 H.R. Doc. No. 105, op. cit. (36), p. 2.
51 H.R. Doc. No. 105, op. cit. (36), p. 2.
52 H.R. Doc. No. 105, op. cit. (36), p. 3.
53 H.R. Doc. No. 105, op. cit. (36), p. 3.
54 Lisa Gitelman, Paper Knowledge: Toward a Media History of Documents, Durham, NC: Duke University Press, 2014, p. 36.
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recursive structure of the table's epistemology allows it to simultaneously store what is, and refer to what will be, known.

Tables are intermediaries not only between the old and the new but also between two stages of recording, processing and presenting information. Once tabulated, information comes in standardized format, thus facilitating all subsequent operations such as computing or correlating and comparing particular records with each other. By placing individual information in the same category – that is, in the same location on the page – tables generate relationships of similarity. They tend to reduce the connection to the original context out of which the information was gathered to a minimal reference, or to conceal it altogether. Instead, the table itself, and its content, become each entry's new context.⁵⁵

This becomes most evident in the last column of Reynolds's table, where he marked whether the islands had been mapped on charts or whether they were identical with islands that had already been recorded in the table: 'See Cloud's island, 2 lines below'; 'A Repetition of Cooper's island'; 'See third line above'. The whaling intelligence is, on the one hand, fixed in the spatial organization of Reynolds's table. On the other hand, it is so only to remain available for further use, and thereby be transformed into different forms of presentation.

In several ways, this table that Reynolds sent to the Navy Department and referred to repeatedly in the following years formed the core of his lobbying for a Pacific exploring expedition. From this paper technology, a figure of the whaler emerged that had better geographical knowledge than other seamen, just like the one Benjamin Franklin had employed. However, whereas Franklin's intelligent whaler remained anecdotal and singular, Reynolds projected him – tabular, synoptic – as the outcome of a systematic survey.

In other words, in Reynolds's *Report* islands became facts. They were presented in the mode of an epistemic unit that was critical to the career of the intelligent whaler and that refers to a specific form of scientific description of the world that generates its own objects and comes along with distinct practices and methods. Historians have repeatedly pointed out that the fact has a history, not only as a word or a concept but also as a form of experience.⁵⁷ Facts need to be produced by epistemic practices such as observation or

55 My thoughts on tables are indebted mostly to Arndt Brendecke, 'Information in tabellarischer Disposition', in Frank Grunert and Anette Syndikus (eds.), Wissensspeicher der Frühen Neuzeit: Formen und Funktionen, Berlin: de Gruyter, 2015, pp. 43–59; see also Markus Krajewski, 'In Formation: Aufstieg und Fall der Tabelle als Paradigma der Datenverarbeitung', Nach Feierabend: Zürcher Jahrbuch für Wissensgeschichte (2007) 3, pp. 37–55. See further Jack Goody, The Domestication of the Savage Mind, Cambridge: Cambridge University Press, 1977, pp. 52–73; Birgit Schneider, Klimabilder: Eine Genealogie globaler Bildpolitiken von Klima und Klimawandel, Berlin: Matthes & Seitz Berlin, 2018, pp. 63–117; Cornelia Vismann, Akten: Medientechnik und Recht, Frankfurt am Main: S. Fischer, 2001, pp. 204–217. 56 H.R. Doc. No. 105, op. cit. (36), pp. 6, 7.

57 See especially Lorraine Daston, 'Baconian facts, academic civility, and the prehistory of objectivity', in Allan Megill (ed.), *Rethinking Objectivity*, Durham, NC: Duke University Press, 1994, pp. 37–63; Daston: 'Strange facts, plain facts, and the texture of scientific experience', in Suzanne Marchand and Elizabeth Lunbeck (eds.), *Proof and Persuasion: Essays on Authority, Objectivity and Evidence*, Brepols: Turnhout, 1996, pp. 42–59; Daston, 'Why are facts short?', in Lorraine Daston, Staffan Müller-Wille and H. Otto Sibum (eds.), *A History of Facts*, Berlin: Max-Planck-Institut für Wissenschaftsgeschichte, 2001, pp. 5–21.

experiment, and written down in forms of representation such as tables or lists.⁵⁸ With Lorraine Daston, one can speak of 'practices of the fact' that have served to constitute facts since their establishment as a category of experience in the seventeenth century. Precisely such practices were at work when Reynolds reported to the Navy about the knowledge of whaling captains: tabulation, authentication, formal disciplining.⁵⁹

One of the most important properties of facts is their format: they are brief. Typical facts, according to Daston, are units with a 'rounded self-sufficiency' that can be combined with each other and in this way add up to narratives (of, for example, a voyage), but that do not lose their atomic character. 'For that reason, factual narrations have a strong tendency to dissolve into tables and, above all, lists'.⁶⁰ With respect to the necessity of noting down facts in short form, Anke te Heesen writes, 'One has to be able to return to facts'.⁶¹ Reynolds's tabular itemization of the islands with northern latitude and eastern longitude – 'Reef seen by Captain Task | 2 40 | 178 50 | Not on charts' – was, against this backdrop, paradigmatically factual.⁶² The indication of latitude and longitude in whalers' logbooks, demanded by the Royal Society in travel directions ever since 1666, printed in the daily newspapers of whaling towns since the early 1800s, and now noted in Reynolds's table, provided the discovered islands with an address.⁶³ By giving their position relative to the prime meridian and to the North or South Pole, coordinates

For a history of facts in relation to commerce see Harold Cook, *Matters of Exchange: Commerce, Medicine, and Science in the Dutch Golden Age*, New Haven, CT: Yale University Press, 2007; see also Mary Poovey, *A History of the Modern Fact: Problems of Knowledge in the Sciences of Wealth and Society*, Chicago: The University of Chicago Press, 1998; and Barbara Shapiro, *A Culture of Fact: England*, 1550–1720, Ithaca, NY: Cornell University Press, 2000.

- 58 Ludwik Fleck, Genesis and Development of a Scientific Fact, Chicago: The University of Chicago Press, 1979. For the mediality of facts see Daston, 'Why are facts short?', op. cit. (57). For a nineteenth-century insistence that facts be presented in tables see Daniel Headrick, When Information Came of Age: Technologies of Knowledge in the Age of Reason and Revolution, 1700–1850, Oxford: Oxford University Press, 2000, p. 75.
 - 59 Daston, 'Why are facts short?', op. cit. (57), p. 13.
 - 60 Daston, 'Why are facts short?', op. cit. (57), p. 7.
- 61 Anke te Heesen, 'Faktenmontagen', in Nikolaus Wegmann and Thomas Rathmann (eds.), 'Quelle': Zwischen Ursprung und Konstrukt. Ein Leitbegriff in der Diskussion, Berlin: Erich Schmidt Verlag, 2004, pp. 66–88, 80.
 - 62 H.R. Doc. No. 105, op. cit. (36), p. 9.
- 63 Robert Hooke asked travellers to 'mark[-] withal, the Latitude and Longitude of the place, wherever such Observation is made, as exactly as may be, and [to] set[-] down the Method, by which they made them', in one of the first issues of the *Philosophical Transactions*. 'Directions for Sea-Men, Bound for Far Voyages', *Philosophical Transactions* (1666) 1, pp. 140–143, 140. See, for the history of the logbook, Margaret Schotte, 'Regimented lessons: the evolution of the nautical logbook in France', *Annuaire de droit maritime et océanique* (2013) 31, pp. 91–115; Schotte, 'Expert records: nautical logbooks from Columbus to Cook', *Information & Culture* (2013) 48, pp. 281–322; and A.R.T. Jonkers, 'Logs and ship's journals', in John B. Hattendorf (ed.), *The Oxford Encyclopedia of Maritime History*, vol. 2, Oxford: Oxford University Press, 2007, pp. 394–401. For nineteenth-century practices of log-keeping see Marie-Noëlle Bourguet, 'A portable world: the notebooks of European travellers (eighteenth to nineteenth centuries)', *Intellectual History Review* (2010) 20, pp. 377–400; Paul Gilje, *To Swear Like a Sailor: Maritime Culture in America*, 1750–1850, Cambridge: Cambridge University Press, 2013, pp. 56–105; Simon Naylor: 'Log books and the law of storms: maritime meteorology and the British Admiralty in the nineteenth century', *Isis* (2015) 106, pp. 771–797; and Barbara Sankey, 'Writing the voyage of scientific exploration: the logbooks, journals and notes of the Baudin expedition (1800–1804)', *Intellectual History Review* (2010) 20, pp. 401–413.

guaranteed the retrievability of islands – at least in theory and depending on the accuracy of the calculations. As with facts, one had to be able to return to islands. Only upon their discovery do they begin, not unlike the fact, to exist as real objects in space; the geographic date makes their notation possible in a grid, and thereby transport into the two-dimensionality of the chart.⁶⁴ When, as Daston argues, lists and tables serve as literary forms to keep facts short and isolated from one another, facts are no less islands than the islands, discovered by whalers and recorded by Reynolds, are themselves facts.⁶⁵

With the island-fact, the intelligent whaler emerged as a public figure once more. Reynolds's portrait of the intelligent whaler was reprinted in a book, to make his proposition 'as extensively known to the public as possible ... through the medium of the public press'.66 What is more, though, in Reynolds's table as well as in the newspapers, the whaler was given a name. Not unlike the authors of natural-history texts who maintained and conferred authority by naming their artisanal informants - and who reserved anonymous phrases like 'an intelligent operative' for those of low social standing -Reynolds mentioned by name the captains who had come upon uncharted islands.⁶⁷ His table listed not only islands but also people.⁶⁸ Island discoveries are hence assigned to discoverers who, in combination with calendric and geographical date as well as the name of the ship with which the printed note originated, lent them the aura of scientific facticity. No less than it linked facts to credible eyewitnesses that could report on them, the table made eyewitnesses credible because what they reported could be tabulated. The Royal Society, Britain's biggest manufacturer of facts, has always depended on mariners, most notably when it wanted to print accounts from foreign countries in the Philosophical Transactions, and it preferred reports from captains to those from ordinary sailors. It made a difference, in the eighteenth century, what kind of ship embarked on an exploring expedition, with what kind of instruments and on whose behalf.⁶⁹ Trust in the observer was indeed a fundamental condition for factual knowledge to be valid, but one did not have to be a member of the gentry to provide information that could be processed into facts.⁷⁰ As early as 1665, the Royal Society was ready to believe an 'understanding and hardy Sea-man' and could print his account of the Bermuda

- 65 Daston, 'Why are facts short?', op. cit. (57), p. 16.
- 66 Reynolds, Address, op. cit. (28), p. 3.
- 67 Anne Secord, 'Corresponding interests: artisans and gentlemen in nineteenth-century natural history', *BJHS* (1994) 27, pp. 383–408, 398.
- 68 I take this thought from Alex Csiszar, 'How lives became lists and scientific papers became data: cataloguing authorship during the nineteenth century', *BJHS* (2017) 50, pp. 1–38, 4.
 - 69 Shapiro, op. cit. (57), p. 75; Sorrenson, op. cit. (32), p. 222.
- 70 Steven Shapin, A Social History of Truth: Civility and Science in Seventeenth-Century England, Chicago: The University of Chicago Press, 1994, argues that being part of the gentry was a requirement for fact production. Shapiro, op. cit. (57), pp. 75–76, however, convincingly shows that while 'gentlemanly status may have a role for those engaged in creating experimental "facts", the community could not be so small for the "facts" of natural history gathered from distant climes'.

⁶⁴ Volkmar Billig, *Inseln: Geschichte einer Faszination*, Berlin: Matthes & Seitz Berlin, 2010, p. 20; see also Bernhard Siegert, '(Not) in place: the grid, or, cultural techniques of ruling spaces', in Siegert, *Cultural Techniques: Grids, Filters, Doors, and Other Articulations of the Real*, New York: Fordham University Press, 2015, pp. 97–120.

whale fishery in one of the first issues of the *Philosophical Transactions*, thereby making him a prototype for Franklin's and Reynolds's intelligent whaler.⁷¹

In Reynolds's table, the existence of islands was accredited through operations on paper, such as writing a logbook, filling in forms, and writing up acquired information in tables. Perhaps one can conclude that the facticity of islands in the nineteenth century was a question of legitimation by procedures of writing. At the same time, the discursive figure that emerged from that table owed its existence precisely to this factual format. The intelligent whaler was a paper figure, because writing down whaling intelligence in factual format, in papers and on paper, was what brought him to life. It is due to the paper technology at work in Jeremiah Reynolds's *Report*, i.e. the table, that the suppliers of this information entered scientific, expansionist and ultimately historiographical discourse not as yarn-spinning mariners, but as reliable informants.

The politics of whaling intelligence

Reynolds painted the intelligent whaler as a tacit producer of knowledge whose geographic discoveries were not sufficiently acknowledged:

These are discoveries which make little or no noise in the world; there is no long story ... no romance, attached to them; there is but a rock, a coral reef, or an island more in the midst of an ocean ... and yet he who points out a rock, a reef, or an island, unknown before, is a benefactor to the human race.⁷²

He contrasted this lack of romance with a romanticization of the whaler who explores the Pacific with very basic means and more or less as a secondary concern. For this reason, it can be forgiven, according to Reynolds, that geographical positions are not always determined, given that the actual purpose of the voyage is 'to take whale, and not to make discoveries'. Moreover, mistakes in positioning are made less frequently than could reasonably be assumed:

When, however, we reflect on the disadvantages under which they labour; unprovided with instruments of improved construction; often computing their progress by the run of the log alone ... it must be conceded that the information they have imparted is more correct and explicit than we would reasonably anticipate.⁷³

Rather than formally discipline his heroes by handing out apodemical forms and abstract logs, as the Royal Society had done and the US Navy would do only a few years later, Reynolds and his supporters demanded that a federally funded exploring expedition be sent to the Pacific.⁷⁴ The whaler's geographical knowledge, on the one hand, and

^{71 &#}x27;Of the New American Whale-Fishing About the Bermudas', *Philosophical Transactions* (1665) 1, pp. 11–13.

⁷² Reynolds, *Address*, op. cit. (28), p. 41.

⁷³ Reynolds, Address, op. cit. (28), p. 35.

⁷⁴ Beginning in 1848, Matthew Fontaine Maury, superintendent of the US Naval Observatory, collected hydrographical information by asking captains to fill in standardized forms, so-called abstract logs, in exchange for nautical charts drawn on the basis on these very abstract logs. See, most recently, Azadeh Achbari, 'Building networks for science: conflict and cooperation in nineteenth-century global marine

on the other his US citizenship in a part of the world theoretically up for grabs to the European powers, necessitated in their view a federal undertaking that consolidated whaling intelligence and manifested the geographical and economic claims of the United States. Whalers served a twofold function in the argument. First, because of their experience and discoveries, they were to advise on the arrangements for the expedition. To an officer of the navy, the whaler's notes were valuable preparatory work for the expedition:

It is probable that not less than five hundred of these islands and reefs have been marked with sufficient accuracy by our whalers, sealers, and traffickers, of one kind or another, to enable an expedition to examine the most important of them, without much loss of time in seeking their positions. This will enable the discovery vessels to do more, in less time, than has probably ever been effected by a similar enterprise from any other country.⁷⁵

Second, whalers functioned as US citizens in need of protection and thus came to be beneficiaries of an expedition that they as such legitimized in the first place. Whalers as informants were not disinterested, and neither was Reynolds. His was not a gentlemanly science, but a practical one that made no distinction between knowledge and profit. Whalers' knowledge was fact-worthy not despite, but because of, their self-interest. They were expected to profit from accurate charts as well as from military protection. In a letter that Benjamin Rodman, a whaling agent from New Bedford, had sent to Reynolds, the geopolitical interests that stood behind the project are overtly expressed. Rodman demanded law enforcement in the Pacific:

Why should we have governors, judges, and all the paraphernalia of courts, in territories where there is a bare possibility that an Indian may be murdered, or become a murderer; steal a horse, or have his horse stolen; and not have a superintending influence abroad, where our ships are daily traversing from island to island and from sea to sea ... that the savage may be awed into respect, and the mutineer's hand be bound down in submission?⁷⁷

For this businessman and shipowner, military presence in the Pacific meant, if nothing else, a protection of venture capital: 'Would not this ... make the merchant lie down

studies', *Isis* (2015) 106, pp. 257–82; Penelope K. Hardy, 'Every ship a floating observatory: Matthew Fontaine Maury and the acquisition of knowledge at sea', in Helen Rozwadowski and Katharine Anderson (eds.), *Soundings and Crossings: Doing Science at Sea*, 1800–1970, Sagamore Beach, MA: Science History Publications, 2016, pp. 17–48; and Smith, op. cit. (6), pp. 74–106.

75 John Downes, quoted in Reynolds, Address, op. cit. (28), p. 239.

76 It is worth noting that Reynolds did not ask whalers to report their most profitable whaling grounds (which is precisely what Matthew Fontaine Maury would later, successfully, ask them to do). For the ideal of a disinterested gentlemanly science see Secord, op. cit. (67). Lukas Rieppel, 'Albert Koch's hydroarchos craze: credibility, identity, and authenticity in nineteenth-century natural history', in Bernard Lightman and Carin Berkowitz (eds.), *Science Museums in Transition: Cultures of Display in Nineteenth-Century Britain and America*, Pittsburgh: University of Pittsburgh Press, 2017, pp. 139–161, gives another example of how profit-oriented agents were included into the scientific community. On practical versus theoretical knowledge in whaling-related fields see Achbari, op. cit. (74).

77 Reynolds, *Address*, op. cit. (28), p. 117. This point has been made most emphatically by D. Graham Burnett, who also quotes Rodman's letter to Reynolds; see Burnett, 'Hydrographic discipline', op. cit. (8), p. 200.

more comfortably, when he knew there was a diminution of the chance of misfortune by sea ... by the acknowledged influence of moral power which is felt everywhere?'⁷⁸

Besides the geopolitical benefit, Reynolds worked out a biogeographical advantage for the whalers that could hardly be separated from the economic one. Here, early in the golden age of whaling, he already formulated the problem of over-fishing:

The scarcity of the whale on the common whaling ground may be easily accounted for, when it is understood that it takes about ninety whales, as they average, to make a full cargo, and that from this calculation our own whalemen take about eight thousand a year ... I have stated these particulars to show how necessary it will be to explore new grounds in higher southern latitudes for the right whale, when the sperm whale become[s] scarce in equatorial regions.⁷⁹

The exploring expedition that Reynolds had in mind would set sail to find and map new whaling grounds in the Pacific. If nothing else, it would correct the English charts, which, as manifested by the many uncharted islands recorded by whalers, were unreliable in Reynolds's eyes. And yet US whalers still relied on those charts for their navigation: 'we have as yet no maps or charts of our own to compare with them'. Years later, the dependence of US mariners on charts of other nations was still an issue to Matthew Fontaine Maury at the Naval Observatory. He complained that an American warship could not enter the capes of Virginia or call at Washington, DC 'without applying to the hydrographical office of England for the chart on which to shape her course'.81

Reynolds's lobby for an expedition was not the only way that whalers' facts found their way into tables. In 1843, Henry Lindsey from New Bedford founded a newspaper which, with an eye toward the most important industry in town, presented whaling intelligence comprehensively, gathered together in due order as opposed to scattered amidst other news. Ever since the first issue, the New Bedford weekly Whalemen's Shipping List and Merchants' Transcript led with a table that, arranged by home port, listed all US whale ships at sea and recorded their 'Place of last Report' as well as the obtained amount of oil. As in Reynolds's table, whalers provided the information for the Whalemen's Shipping List. But here, they also were the information. The editor wrote in the first issue,

From the federal and fragmentary form in which our shipping news appears in general newspapers; from the vast amount of property invested in the whaling business, and the many thousand seaman [sic] engaged therein, coming as they do from all parts of the country, we have been led to believe that a paper of this kind would be interesting to ship owners and merchants, and not less to the parents and wives, the sisters, sweethearts and friends of that vast multitude of men, whose business is upon the mighty deep, and who are for years seperated [sic] from those to whom they are dear.⁸²

Less concerned with geographical discoveries, this list was about the business interests of whaling agents and the social fabric in the towns that sent the bulk of their young men

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78 Reynolds, Address, op. cit. (28), p. 117.
79 H.R. Doc. No. 105, op. cit. (36), p. 3.
80 H.R. Doc. No. 105, op. cit. (36), p. 3.
81 H.R. Doc. No. 2, 29th Cong., 1st Sess., 1845, p. 689.
82 Whalemen's Shipping List and Merchants' Transcript, 17 March 1843, p. 8.
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a-whaling. The *Whalemen's Shipping List* derived from a 'sense for danger' that presented hazards and risk as a regularly occurring aspect of political or economic affairs.⁸³ A shipowner in the whaling industry was 'preeminently a dealer in risks' who sent capital to sea without knowing what exact returns it would yield or even whether, in case of shipwreck, there would be any return at all.⁸⁴ From the *Whalemen's Shipping List* such an owner could infer the status of his investment, while families of whalers could keep track of the route that their brothers, husbands or fathers were taking.⁸⁵

However, this information was gathered from captains and crews when they returned to their port and it was almost never up to date. The captains themselves obtained it from 'gams', social meetings of whaling ships at sea, where nautical as well as terrestrial news was exchanged. These 'gams' were accidental, even unlikely, gatherings, but they were crucial for communication between land and sea. Herman Melville described this communication network, which brought together all kinds of intelligent paper, in Chapter 53 of *Moby-Dick*:

For the long absent ship, the outward-bounder, perhaps, has letters on board; at any rate, she will be sure to let her have some papers of a date a year or two later than the last one on her blurred and thumb-worn files. And in return for that courtesy, the outward-bound ship would receive the latest whaling intelligence from the cruising-ground to which she may be destined, a thing of the utmost importance to her. And in degree, all this will hold true concerning whaling vessels crossing each other's track on the cruising-ground itself, even though they are equally long absent from home. For one of them may have received a transfer of letters from some third, and now far remote vessel; and some of those letters may be for the people of the ship she now meets. Besides, they would exchange the whaling news, and have an agreeable chat.⁸⁶

Ships took the role of floating post offices, forwarding mail, providing 'old newspaper reading for a month', and exchanging whaling intelligence in highly contingent ways and on uncertain routes.⁸⁷ These vagaries of maritime communication caused long

- 83 Burkhardt Wolf, 'Das gefährliche regieren: Die neuzeitliche Universalisierung von Risiko und Versicherung', Archiv für Mediengeschichte (2009) 9, pp. 23–33; Michel Foucault: Security, Territory, Population: Lectures at the Collège de France, 1977–78, Basingstoke: Palgrave Macmillan, pp. 55–87.
- 84 Elmo Paul Hohman, 'Wages, risk, and profits in the whaling industry', *Quarterly Journal of Economics* (1926) 40, pp. 644–674, 659; Davis, Gallman and Gleiter, op. cit. (35), pp. 381–422.
- 85 Slauter, op. cit. (37), p. 768, makes a similar case for merchants and insurers in the age of the American Revolution who followed the movement of armies and navies, drawing on letters, newspapers and ships' captains' reports. For a social history of whaling towns see Lisa Norling, 'Contrary dependencies: whaling agents and whalemen's families, 1830–1870', Log of Mystic Seaport (1990) 42, pp. 3–12; Norling, Captain Ahab Had a Wife: New England Women and the Whalefishery, 1720–1870, Chapel Hill: North Carolina University Press, 2000, pp. 165–213. Whalers were not, of course, all men, although women aboard whaling ships were the exception. Some captains were accompanied by their wives and daughters, and very few cases have left traces in the archives in which women went a-whaling disguised as men. Mary Brewster, 'She Was a Sister Sailor': The Whaling Journals of Mary Brewster, 1845–1851, Mystic: Mystic Seaport Museum, 1992; Margaret Creighton and Lisa Norling (eds.), Iron Men, Wooden Women: Gender and Seafaring in the Atlantic World. 1700–1920. Baltimore: Johns Hopkins University Press, 1996.
- 86 Melville, op. cit. (1), p. 239; see also Markus Krajewski, 'Kapitel 53: The Gam. über oralen Verkehr auf See', Neue Rundschau (2014) 125(3), pp. 175–185.
- 87 Henry Cheever, The Whale and His Captors; or, The Whaleman's Adventures, and the Whale's Biography, New York: Harper & Brothers, 1850, p. 206.

latencies between sending and receiving letters or other news. Accordingly, it could take months for an entry in the *Whalemen's Shipping List* to be updated.

When it was printed in the newspaper, at last, the information provided by whalers came to be information about whalers. The weekly newspaper referred to the whalers' double role, also contemplated by Edmund Burke, and found in Reynolds's rhetoric, in which whalers figured as profiteers of an expedition. They had, on the one hand, nautical knowledge that made them 'discoverers' of oceanographic and geographic phenomena; on the other, they worked at the behest of an industry on which the prosperity of entire towns depended.

Conclusion

Ten years after Reynolds interviewed the whaling captains, and on the heels of several administrative reshuffles and personal fallouts, the United States Exploring Expedition (known as the US Ex. Ex.) put to sea. Reynolds had collected endorsements from shipowners and had citizens petition Congress. His nationalist rhetoric had struck a nerve. It convinced a wider public and, most importantly, the president. His expedition now had proponents in Congress, Senate and government who took up the cause which for years had run the risk of remaining a pious hope. Reynolds was not aboard when the squadron, led by Charles Wilkes, sailed from the shore of Virginia. But the directions for the expedition still echoed his appeals:

The Congress of the United States, having in view of the imported interests of our commerce embarked in the whale-fishery and other adventures in the great Southern Ocean ... authorized an expedition to be fitted out for the purpose of exploring and surveying that sea, as well to determine the existence of all doubtful islands and shoals ...⁸⁹

The expedition so often promoted in the name of the whaling captains' knowledge would now work for its further development. The exploration of Pacific islands, the verification of their existence, their recording in charts, and the writing of sailing directions were all, according to the aims of the expedition, to be 'serviceable in future to vessels engaged in the whale-fisheries'. The aims of the US Ex. Ex. are characterized by the same apparatus of risk assessment from which the *Whalemen's Shipping List* derived: 'to extend the empire of commerce and science; to diminish the hazards of the ocean, and point out to future navigators a course by which they may avoid dangers and find safety'. 91

The historiographical paper figure of the intelligent whaler – who cruised every ocean, shared his nautical and geographic discoveries, and contributed significantly to one of

⁸⁸ On the US Exploring Expedition see Burnett, 'Hydrographic discipline', op. cit. (8); Barry Alan Joyce, *The Shaping of American Ethnography: The Wilkes Expedition, 1838–1842*, Lincoln: University of Nebraska Press, 2001; Smith, op. cit. (6); Stanton, op. cit. (27); Margolis and Viola, op. cit. (21).

⁸⁹ Charles Wilkes, Narrative of the United States Exploring Expedition: During the Years 1838, 1839, 1840, 1841, 1842, vol. 1, London: Wiley and Putnam, 1845, p. xxv.

⁹⁰ Wilkes, op. cit. (89), p. xxvi.

⁹¹ Wilkes, op. cit. (89), p. xviii.

the United States' largest industries - was also an American 'frontier figure'. 92 He was thus well suited to become a powerful fixture in nationalist debates on US-American expansionism in the Pacific. Publicized by the emerging mass media and by former newspaperman Jeremiah Reynolds, who with the help of his table turned news into facts and islands into epistemic objects, the intelligent whaler's expertise was poised to become the principle leitmotif in advocacy for a national exploring expedition. As ambassadors to the commercial and scientific empire, whalers were easily justified motivators for an enterprise located at the interface of science and commerce, in which geopolitics was all but absent. On the one hand, whalers provided the US Ex. Ex. with the location of islands to be recorded on charts, while on the other, they were to benefit from the United States' military presence in the Pacific and the discoveries that the expeditioners – and with them the navy, whaling merchants and the American public - hoped to make on the expedition. Much as the Whalemen's Shipping List turned news from whalers into news about whalers, the US Ex. Ex. sailed to draw maps from facts provided by whalers and subsequently equipped the latter with the very charts for which they had provided the intelligence.

Investigating the history of the intelligent whaler as historiographical, paper and frontier figure not only demonstrates that the whalers' role in knowledge production was an important discursive factor in the making of federal science policies in the United States. The debates in which the intelligent whaler was called into action show that whalers also functioned as agents of empire. The aim here has been to historicize frontier practices and narratives, rather than to retell the story of whalers as heroic explorers or less-than-heroic colonizers in the Pacific. This helps to shed light on the media and actors that carry the story of the frontier instead of reproducing tropes as old as the frontier itself.