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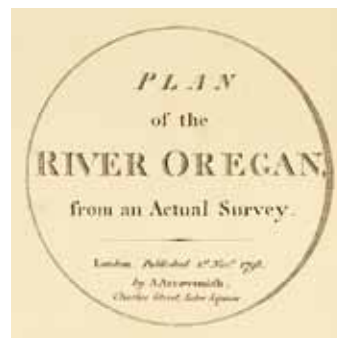
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Front cover
Detail from Ernest Dudley Chase, 'World Wonders, A Pictorial Map', 1939. Winchester, Mass. 72 x 96 cm / 28 x 37 1/2 in. Courtesy David Rumsey Map Collection, www.davidrumsey.com
For full image see p. 56.

COMPILING ‘ALL THE RECENT DISCOVERIES’

Aaron Arrowsmith and mapping Western North America, 1790–1823

James Walker

From 1790 London-based cartographer and publisher Aaron Arrowsmith (1750–1823) regularly published world and regional maps that reflected the most recent European discoveries along the Northwest Coast (NWC) and western North America.¹ European maritime exploration of the NWC had begun in 1741 with a Russian expedition commanded by Vitus Bering.² The Spanish, fearing ensuing Russian commercial and imperial expansion to the continent, renewed their explorations along the NWC, which had been suspended since Sebastián Vizcaino’s 1602–03 expedition. In 1774, 1775 and 1779 Spanish naval personnel explored and mapped extensive sections of the Pacific Coast from San Blas, Mexico to Prince William Sound, an expanse of nearly 37 degrees of latitude, but official policy prevented widespread public dissemination of this new information.

When the account and charts of James Cook’s third voyage (1776–80) were published in 1784, Europeans learned about the complex geography of the NWC between 43° and 70° north latitude, and of the potential rich market for pelagic animal fur.³ The first English fur traders, James Hanna and James Strange, arrived on the NWC the next year and were followed by John Meares (1786–87); Nathaniel Portlock and George Dixon (1786–87); and Charles Duncan and James Colnett (1787–88).⁴ Between 1785 and 1795 an estimated 35 English and 15 American ships traded on the NWC between 42°–60° north and their reports and maps were responsible for generating all of the new geographical knowledge of the NWC. English shipowners operated under licensing regulations of the East India Company (EIC) and South Sea Company who required English captains turn over copies of log books, accounts and charts to Company authorities upon return to London. Alexander Dalrymple (1737–1808), the unofficial EIC hydrographer, a post he assumed in 1779, and member of the Royal Society, compiled these materials and often privately published charts of harbours and sections of this coastline.⁵ Dalrymple interpreted these first reports of the NWC archipelagos as

supporting his belief in the existence of a northwest passage. He envisioned that the discovery of such a navigable route would facilitate the union of the EIC and Hudson’s Bay Company (HBC) and thereby extend a British mercantile monopoly across the continent.⁶

Dalrymple regularly employed several London-based commercial services to engrave and print his maps probably because of their superior technical expertise.⁷ Some time before 1790 he developed a working relationship with Aaron Arrowsmith. Although speculative, it is likely that Dalrymple considered an association with Arrowsmith as an opportunity to use the commercial map trade to promote and disseminate new knowledge of British maritime ‘discoveries’ and hegemony on the NWC. As a result of their association Arrowsmith obtained access to maritime fur traders’ records and charts. Indeed, Arrowsmith credited Dalrymple, among others, for information on new discoveries that he incorporated into his world maps of 1790 and 1794.

Arrowsmith also gained access to information about recent discoveries in the interior of the continent. Independent fur traders and employees of the London based HBC had begun to map the vast complex typography and hydrography west of Hudson’s Bay following the reconnaissances of the French Canadian fur trading family La Vérendrye executed between 1731 and 1743.⁸ HBC officials restricted access to these cartographic records until Samuel Wegg, Governor of the HBC from 1782 to 1799 and treasurer (1768–1802) of the Royal Society, championed a policy of promoting HBC activity by publishing its cartographic records.⁹ Dalrymple enjoyed Wegg’s confidence, and he facilitated his association with Arrowsmith. By 1795 Wegg and the London committee of the HBC had made Arrowsmith their unofficial cartographer.¹⁰ This allowed him direct access to the charts and maps of HBC surveyors that arrived each fall from factories on Hudson’s Bay. These surveyors/explorers included Philip Turnor, David Thompson (before 1797), Peter Fidler, Samuel Hearne, Joseph Howes and Donald McKay. Several of these invaluable cartographic

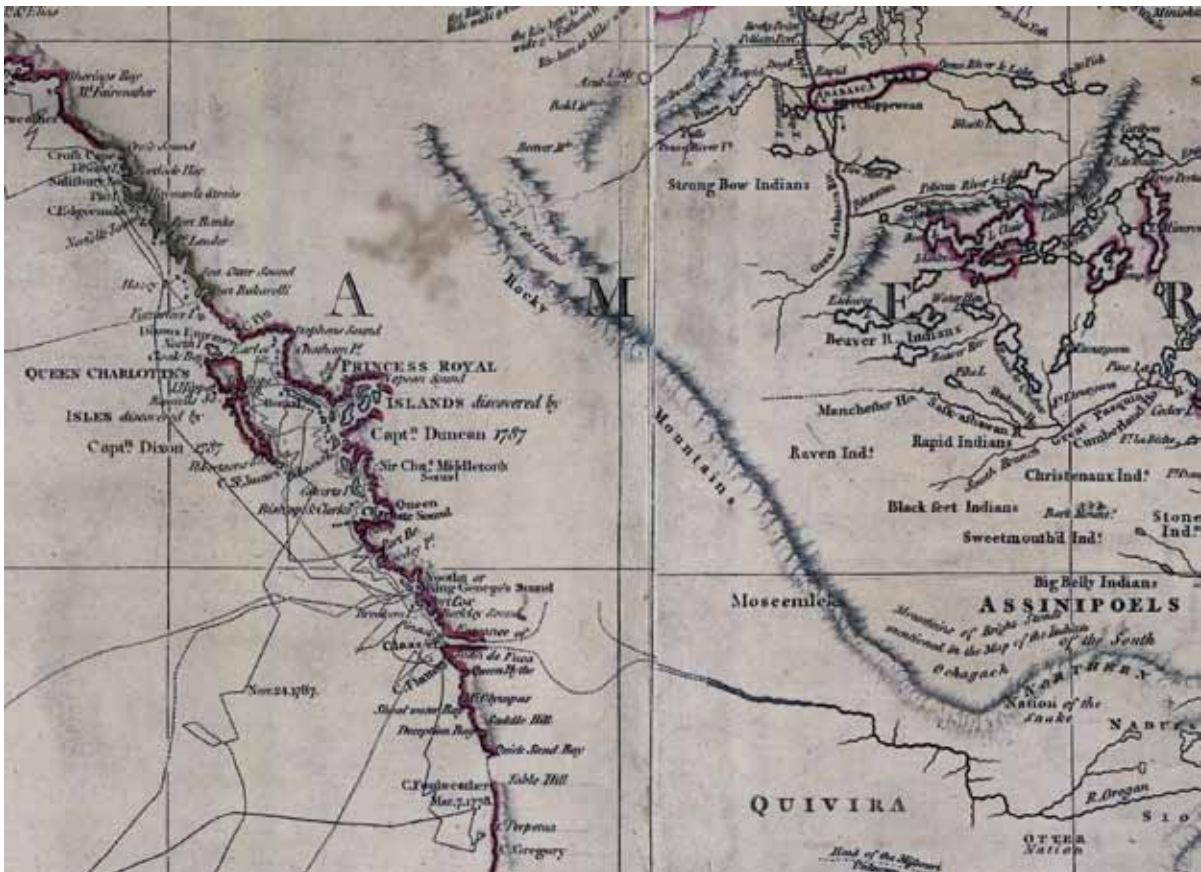
records have not survived; presumably they were retained by the Arrowsmith firm and were lost in the bombing of London during World War II.¹¹ Arrowsmith also obtained information directly or indirectly from the accounts of surveyors/explorers of the Montreal-based North West Company (NWCOM) including Alexander MacKenzie, Peter Pond, Simon Fraser and David Thompson (after 1797).¹² He also benefitted from his continued association with Dalrymple. From September 1795 to November 1796, Arrowsmith served as an assistant to Dalrymple, who had been newly appointed Hydrographer to the Admiralty, thus gaining access to the accounts of Capt. George Vancouver and other commanders of ships of the fleet commanded for survey work by the Admiralty.¹³

In summary, Arrowsmith's long-term professional connections with Dalrymple, Wegg and others allowed him to obtain regular access to the documents and details about the most recent discoveries along the NWC and in western North America. For over 30 years Arrowsmith compiled, interpreted and edited geographic information from maritime and overland

explorers, surveyors and from indigenous sources, and he regularly reissued splendid engraved wall maps of the world and North America. British and American statesmen, geographers, and many other cartographers used these maps to help develop policies, plan explorations and disseminate knowledge.

Between 1790 and his death in 1823 Arrowsmith Sr operated his firm from three successive London locations. In 1810 he was named Hydrographer to the Prince of Wales, and in 1820, Hydrographer to the King.¹⁴

In this article I will briefly describe eight selected maps from Aaron Arrowsmith's lifetime that illustrate his understanding of developing knowledge of 'all the new discoveries' of the NWC and interior. I emphasise his assiduousness in seeking new information, how he used it, and how explorers, statesmen, and other cartographers consulted and reproduced his maps. I have drawn heavily upon the work of many scholars of Arrowsmith and his work including Barbara Belyea, Richard Ruggles, Coolie Verner, Warren Heckrotte and others.



Part 1: Two maps of the World (1790 and 1794)

On 1 April 1790, from his newly established business at Charles Street, Soho, Arrowsmith published a large (56 x 79 in/142 x 183 cm) wall map of the world: 'Chart Of The World On Mercator's Projection, Exhibiting all the New Discoveries to the present Time...'.¹⁵ He did not issue an accompanying geographic description, but in The National Archives a letter in his hand lists multiple printed and manuscript sources for this map. Yet, judging from the information on the map, this list is incomplete.¹⁶ The section of map pertinent to this discussion covers the NWC and interior from latitudes 45° to 55° (Fig. 1).¹⁷ Here Arrowsmith prominently included the geography and toponomy of several English captains who traded along the coast from 1785–88. In so doing, Arrowsmith both reflected new geographical knowledge and helped to superimpose a British identity on the region. On this map, Arrowsmith credited George Dixon with the discovery of the 'Queen Charlotte's Isles' in 1787 and incorporated several of his place names (many drawn from prominent British personages) that remain today, including Port Banks, Dixon's Entrance, North Island and Cloak Bay (named for the large number of fur garments obtained there). Farther north, he noted Portlock Harbour named by Dixon's sailing partner Nathaniel Portlock.

A legend on the mainland opposite the 'Queen Charlotte's Isles' noted the 'Princess Royal Island discovered by Capt. Duncan in 1787'. Nearby, Arrowsmith tracked Charles Duncan's route on his ship *Princess Royal* and that of his sailing partner James Colnett on the *Prince of Wales*. Duncan skirted the eastern side of the 'Queen Charlotte's Isles' and named several places, including 'Bishops and Clerks' Island and 'Sir Cha^s Middleton's Sound' (present-day Fitzhugh Sound) and two locations whose names remain today, 'Nepean Sound' and 'Calverts I.' Arrowsmith also used place names he obtained from accounts of John Meares' trading expedition to the coast in 1788 and 1789 including Port Cox, in Clayoquot Sound on Vancouver Island, and from William Douglas' expedition in 1788, including 'Sea Otter Sound'. Arrowsmith amended this information on subsequent states of his world map. On the 1799 state, for example, he depicted the most recent discoveries and some names from Vancouver's expedition and eliminated references to Duncan's less

complete descriptions, thus simultaneously updating both the 'progress' of new surveys and a more authoritative set of British associated place names.

In the interior (Fig. 1, lower right) at 45° the 'R. Oregon' flows northwestward from its origins in several lakes and connects via a dotted line into the 'Entrance of Juan de Fuca' at 49°. This is perhaps the earliest cartographic version of the hypothetical River of the West (a long conceptualised river originating from the interior) emptying into the Pacific Ocean at this particular latitude.¹⁸

Other mariners and cartographers quickly adopted this construct of the River of the West. It is likely that the British trader Meares adopted Arrowsmith's depiction for a map accompanying his account published in 1790.¹⁹ American geographer Jedediah Morse depicted it similarly for a map accompanying several editions of his *American Gazetteer*.²⁰ Indeed, this cartographic concept, traced to Arrowsmith, contributed early on to Thomas Jefferson's vision for a transcontinental exploring expedition. In January 1793 he proposed this venture to the French botanist and explorer André Michaux explaining, 'It would seem by the latest maps as if a river called Oregon... entered the Pacific ocean not far southward of Nootka Sound'.²¹ Later, Dalrymple also made use of Arrowsmith's world map, and the British foreign secretary, the Duke of Leeds, invoked the map in 1790 as part of his case against Spain during the Nootka Controversy over contested territorial sovereignty of Great Britain in the Pacific Northwest.²²

Above the Arctic Circle (not illus.) Arrowsmith recorded for the first time the approximate 3,000-mile trek from 'Ft. Chippewean' (on the western shore of 'Arabasca Lake') to the Arctic Ocean made by Alexander MacKenzie between June and September 1789. Arrowsmith added a legend affirming the well-placed source of information for this exploration: 'By Permission of Simon M^c. Tavish Esq.^r [founding partner of the NWCOM] is correctly delineated the Discoveries of M^c. M^c. Kenzie laid down from his original Journal in the Year 1789'.

While Arrowsmith's 1790 map was an authoritative source of universal knowledge about recent European exploration, it also became a tool of political purpose, and a construct of a British identity in the Pacific Northwest during the Nootka Controversy between Britain and Spain.²³ The place

Fig. 1 The Pacific Northwest section of Arrowsmith's 1790 'Chart of the World on Mercator's Projection...' Other cartographers copied this geographic and toponymic information ensuring dissemination of Arrowsmith's reputation and the concept of a British identity on the region. Reproduced by permission of the National Library of Scotland.

names and legends on Arrowsmith's map eclipsed the fact that explorers other than British had been there or the existence of large and culturally diverse numbers of indigenous communities.

In January 1794 Arrowsmith published 'Map of the World on a Globular Projection, Exhibiting Particularly the Nautical Researches of Capⁿ. James Cook, F.R.S. with all the Recent Discoveries to the Present Time'. He dedicated it to Dalrymple and included portraits of Cook and Dalrymple within elaborately engraved cartouches. Simultaneously, he published *A Companion to a Map of the World* that was principally a treatise on map projections, but also included a list of the sources he used to compile his world map.²⁴ This list tallies nearly 135 books, maps, charts and manuscripts. The North American sources include multiple manuscript surveys by HBC surveyor Philip Turnor and NWCOM surveyor Alexander MacKenzie; 'Tracks and Settlements of the Canadian Traders in the Interior Parts of the Country'; and three

manuscripts 'North of Churchill...by an Indian'. Arrowsmith acknowledged his indebtedness to Dalrymple 'who generously presented me the whole of his valuable geographical publications, consisting of 632 Maps, Charts, Plans, &c. accompanied with near 2,000 pages of letter-press'. Arrowsmith also expressed gratitude to many others including Fellows of the Royal Society, the Secretary of the Admiralty, and to 'The Honorable Company of Merchants trading to *Hudson's Bay*'. During the late eighteenth and early nineteenth centuries, as Matthew Edney notes, the relationship between mapmakers in England and those who represented the state, members of the Royal Society, Admiralty, and others of London's intellectually elite, must be understood in the context of cartography 'as a socially constructed rather than as a purely intellectual system'.²⁵ Arrowsmith's tributes to his benefactors indicate familiarity but also evidence of his unequal professional and social hierarchical status in relation to his patrons.

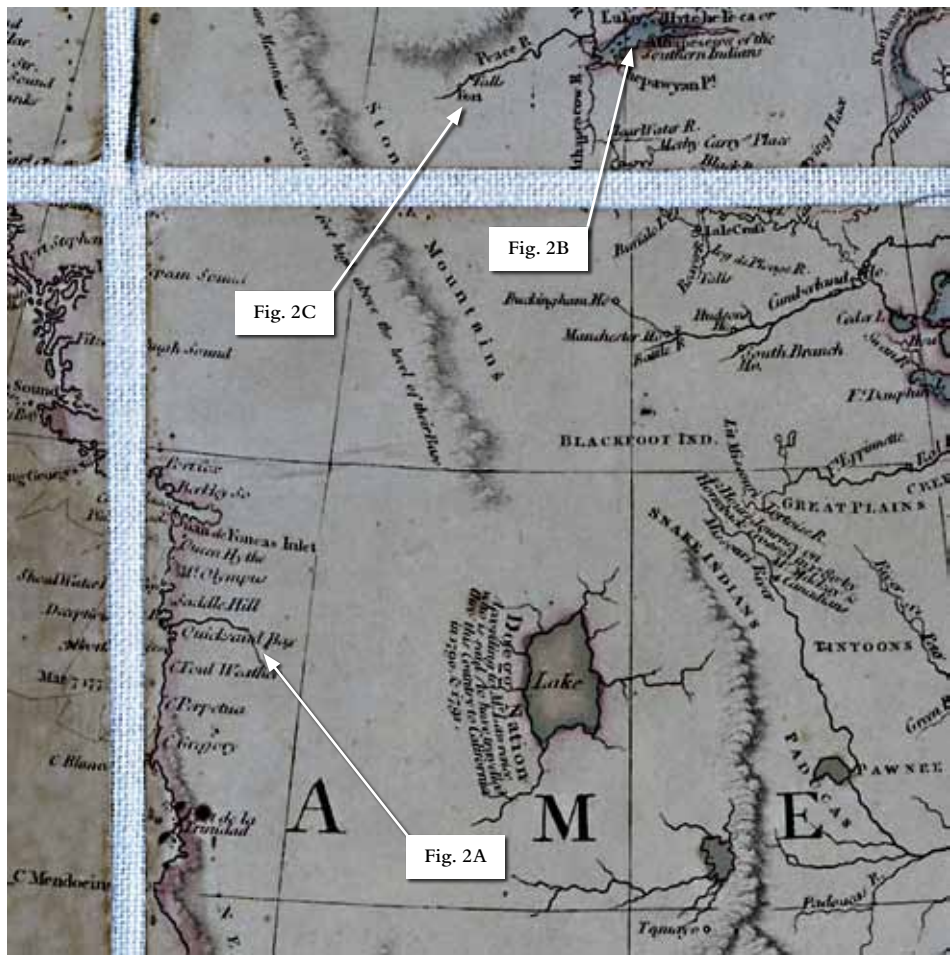


Fig. 2 Section of Arrowsmith's 1794 world map with many additional place names along the Washington and Oregon coast and the earliest printed illustration of the (unnamed) Columbia River. Courtesy of the Norman B. Leventhal Map Center at the Boston Public Library.

Nevertheless, this relationship was symbiotic. Arrowsmith was provided with privileged material, which he could use to generate financial gain and prestige. In return, 'mapmaking was integral to the fiscal, political, and cultural hegemony of Europe's ruling elites'.²⁶

Along the NWC on this 1794 map, much of Arrowsmith's typography and toponymy are similar to his earlier world map, but he introduced new information in the region just south of 50° north. He eliminated the conceptual 'R. Oregon' connecting the interior with 'Juan de Foncas Inlet'. And south of 'Deception Bay', he drew an unnamed river at 46° (Fig. 2A).²⁷ This is undoubtedly the first printed cartographic depiction of the Columbia River.²⁸ It is likely that Arrowsmith made both changes based on incomplete information he obtained from the accounts and charts which Vancouver had sent to the Admiralty in July and August 1793 with Lts Zachary Mudge and William Broughton. If so, it is puzzling that Arrowsmith did not also depict Vancouver's exploration of Puget's Sound and the insularity of Vancouver Island. Also, Vancouver and Broughton are omitted in the list of credits in his *Companion*.

In the interior, Arrowsmith incorporated much of the information from the explorations of HBC surveyors Philip Turnor and Peter Fidler, made between 1789 and 1792, into the Athabasca Country from the Saskatchewan River to the south shore of Great Slave Lake (not illus.) and east end of Lake Athabasca (Fig. 2B).²⁹ 'Buckingham Ho.' on the (unnamed) North Saskatchewan River wasn't seen by Turnor, but was under construction when visited by Fidler in late 1792. Both men made composite maps based on personal observations and 'from Canadian and Indian information' although, as Belyea notes, Fidler scrupulously distinguished between indigenous maps and his own; other mapmakers such as Turnor blended native information with their own surveys.³⁰ Along the 'Peace River' (Fig. 2C), the feature 'Fort' locates a NWC site (Fort Forks), at that time the westernmost French, or English speaking, habitation in North America.³¹ This fort was the 1792–93 overwintering site for Alexander MacKenzie and John Finlay on their trek to the Pacific Ocean.³²

The new discoveries on Arrowsmith's 1794 map did not go unnoticed by other mapmakers. In 1796 John Reid in New York published William Wintherbottom's *The American Atlas* which included 'A General Map of North America Drawn From the Best Surveys 1795'.³³ This map was an almost exact copy of the North

American section of Arrowsmith's world map and the first appearance on an American authored map of the still unnamed, Columbia River. Arrowsmith reissued new states of his 1794 world map at least four times to 1814.³⁴

'Plan of the River Oregon from an Actual Survey... Published 1st. Nov. 1798'

The first printed chart specifically centred on the Columbia River, 'The Entrance of Columbia River', was one of three insets on a larger map of the NWC prepared by Lt Joseph Baker for the atlas accompanying the 1798 publication of Vancouver's *Voyage of Discovery*.³⁵ It delineated approximately 30 of the nearly 100 miles of the Columbia River that William Broughton surveyed in October 1792. Approximately six months after publication of *Voyage of Discovery*, Arrowsmith published his 'Plan of the River Oregon' (Fig. 3).³⁶ While Arrowsmith, at this time, no longer held an official position with the Hydrographic Office of the Admiralty, Dalrymple remained its Hydrographer, which probably ensured that he maintained access to Vancouver's surveys. His 'Plan' reproduced the entirety of Broughton's 8ft/2.4m long manuscript chart from the mouth of the river at the lower left to Point Vancouver at upper right, nearly 100 miles upstream.³⁷ Arrowsmith drew this map at approximately the same scale as on Vancouver's inset chart, but incorporated many more place names that had been bestowed by Broughton, several of which remain today: 'Baker's Bay', 'Young's River', 'Tongue Point', 'Grey's Bay', and others. We can only speculate why Arrowsmith continued to choose the toponym 'Oregon' to identify the river instead of adopting Vancouver's use of Robert Gray's name, 'Columbia'. Interestingly, in 1798 he issued an updated edition of his 1794 world map on which he marked both 'R. Oregon' and 'Columbia R.'

Arrowsmith's 'Plan of the River Oregon' was the principal survey of the Columbia River consulted by mariners to the area for nearly the next three decades.³⁸ The Arrowsmith firm republished this chart in 1831 and 1840.³⁹

Part 2: Nineteen states of 'A Map Exhibiting all the New Discoveries in the Interior Parts of North America...' [hereafter Map of NA] with descriptions of five states from 1795–1818

In the *Companion* to his 1794 world map Arrowsmith noted, 'Speedily Will Be Published A Map of that Part of North America which is included between the