

THE SEARCH FOR A NORTHWEST PASSAGE: ON THE HISTORY OF A SCIENTIFIC COMPETITION IN GEOGRAPHY AND CARTOGRAPHY

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Such terms as ³scientific competition² or ³scientific rivalry² are well known and habitual for our contemporaries. The rivalry between the USSR and the United States in space was one of the most recent examples of such kind of contests. In the presentation we shall discuss an earlier case of a similar program, which, though lacking comparable society's response and interest, but had demanded not less fortitude and selflessness from its main participants - Russian and British explorers and sailors.¹

A beginning of the story had been ³cartographic². In the sixteenth and seventeenth centuries French, Spanish, British and other maps portrayed the northern Pacific in very arbitrary ways sometimes reflecting very old notions about ³Annian Strait² and different ³lands² of ³Esso², ³De Gamo², ³Kampania², and others, which had been partly fruits of imagination of early travelers and fractionally reflected hearsay data on real islands and parts of the Pacific coasts. Peter the First had struggled all his reign to put Russia on the level with the European states as in economical development, so in the scientific achievements, and he understood very well special opportunities of his country in compiling of a reliable map of the Northern Pacific, and in definitive solving of the problem - *whether America being connected with Asia, or separate from it?* Russian sailors and *zemleprokhodtsy* [pathfinders], starting from Semen Dezhnev's time (1648), had known that extreme north-eastern tip of Asia was being washed by ocean's waters, and the Siberian maps (*drawings*) of the seventeenth century reflected this knowledge (for instance Siberian Drawings of 1667 and 1673). Peter I had been well aware of this data, but the Russian Emperor wanted to confirm the Siberians' information by a Navy exploring expedition, which results would be conveyed through the precise cartography, so that they could be understood and acknowledged by European scientists. The task was fulfilled in the period from 1725 to 1742, during the First (1725-1730) and Second (1732-1742) Kamchatka Expeditions led by Vitus Bering and Alexei Chirikov, and the voyages to the islands in the Bering Strait and to the shores of the North Alaska by M.S. Gvozdev and I. Fyodorov (1732). Former Russian Academician Joseph Nicolas Delisle (1688-1768) made available the results of these explorations to the foreign scientists and public at large. In 1750 he presented for the Royal Academy in Paris his paper, in which he made very brief and incorrect outline of the history of Russian voyages to the American coasts, his main attention being concentrated on fictitious ³discoveries² by an Admiral Bartolomeo de Fonte, who allegedly had sailed in quest of north-western pass from Atlantic to the Pacific ocean, and ³discovered² an inlet in the North American Pacific coast at the latitude of 53° N; an inlet supposedly led far inland and terminated somewhere on the Atlantic coast. Cartographer Fillip Bushe together with Delisle compiled and published in 1752 *Carte Generale des decouvertes de l'Admiral de Fonte et autres Navigateurs Espagnols, Anglois et Russes pour la recherche du Passage a la Mer du Sud. Par M. De l'Isle de L'Academie Royale des Sciences & c. Publiee a Paris en Septembre 1752*. The map shows a course of the Bering's expedition, in the vicinity of Alaska there is a following

inscription: *This is a land which has been seen by Shpanberg in 1728* [?!], and below - *A land which has been seen by Russians under Chirikov's command in 1741*. To the south of these lands hypothetical *Anian Strait, de Fonte Lake*, and the like objects are pictured. De Fonte Passage is shown on the map to commence in a river *R de Los Reyes*, then it proceeds into a lake - *Lac de Fonte*, which is drawn to the west of the Hudson Bay and connected with it by a waterway. Fantastic Delisle-Bushe's map immediately had caused severe criticism of contemporaries.² Notwithstanding this criticism the mythical geography by Fonte and De Fuco in Delisle-Bushe's transcription was reflected in many well known maps published in the eighteenth century, and Fuco's name even left for posterity in the geographical name of the strait.³ The discussions on mythical and real geography of the North West coast of the North America were keeping alive a hope to find a free water way from Atlantic to Pacific ocean crossing North America in relatively low latitudes, and this hope inspired many travellers to look for this continental passage. British government and Hudson Bay Company's chiefs were especially anxious to find a north-western water way from Atlantic to Pacific ocean. In 1769 the Company's employee Samuel Hearne had journeyed by land from the Hudson Bay in search for copper deposits and north-western passage. To 1772 the travellers reached so far north, that they have proved impossibility to find a north-west pass to the south of 72° of North Latitude.

On base of Samuel Hearne's conclusions, Captain James Cook in his third round the world voyage was ordered to look for a passage in the opposite direction, namely - from the Pacific to the Atlantic ocean. Cook's Expedition had sailed by the northern Alaska coast to the north-east up to the 70° 30' of the north Latitude, in which point explorers met impregnable ice field. Near a promontory, which had been named Icy Cape (70° 19' of the north Latitude, 161° 41' of the west longitude). In 1779 ³Resolution² and ³Discovery² again sailed to the northern part of the Bering Sea, passed the Bering Strait and reached 70° of the north latitude, where they were met again by the ice fields. The author of this presentation was lucky to find in the American Geographical Society Collection of the Golda Meir Library University of Wisconsin-Milwaukee a genuine manuscript *Chart of the NW Coast of America and the part of the NE Asia with the track of His Majesty's Sloops Resolution and Discovery from May to October 1778* ...⁴ This chart was compiled by George Vancouver, who during the expedition had served as a midshipman on board of ³Discovery². Speaking about Russian trips, which had been caused by some degree by the Cook's expedition in the Northern Pacific, it is necessary to point out Cossack's *sotnik* Ivan Kobelev's expedition, which was sent to Chukotka peninsular to investigate rumors about foreign vessels near its coast. Kobelev had left Pendzhina mouth for Anadyr¹ on March 22, 1779, and reached Diomed islands (in Bering Strait) on July 27. While being on these islands, Ivan Kobelev had gotten a lot of data on geography and native villages of the northern part of Alaska. The Cossack incorporated all this information into his draft map. At the end of 1779 Second-Major Mikhail Tatarinov used the draft and Kobelev's report to compile a map of Chukotka and Alaska⁵. This map bears the direct evidence of usage as of Captain Cook's materials, so of Natives¹ data. The recent studies by Svetlana G. Fedorova and Doroty Ray have proved that in comparison with charts, compiled by members of Captain Cook expedition, Kobelev-Tatarinov's map was the real improvement in picturing of the Northern Alaska.⁶

The expedition in 1815-1818 on board the ³Ryurik² under the command of Lieutenant Otto Kotsebu (1787-1846) had been the next important stage of northern Alaskan coasts¹ exploration. In 1816 ³Ryurik² had sailed by the American coast to the east. The expedition found a deep gulf in

the Alaska's coast, which by the ³Ryurik² crew's decision was named after her captain Kotsebu Bay. On the 14 of August ³Ryurik² reached north-eastern limit of Kotsebu Bay's coast, which was named Kruzenshtern Cape. Then expedition turned to the southwest. In the summer of 1817, after wintering on Sandwich (Hawaii) Islands, expedition had sailed again to the northern part of the Pacific, but to the north of St. Lawrence Island ³Ryurik² was stopped by solid ices. So, during navigations of 1816 and 1817 ³Ryurik² without success tried to sail to the north of the regions, which had been reached by Cook's ships.⁷

The failure of achieving the main goal of the expedition notwithstanding, Otto von Kotsebu's explorations facilitated very much the geographical study and charting of Alaska's northern coasts. The main results of the expedition had been published in its three volumes¹ proceedings by Otto von Kotsebu, printed in 1821 in German, and translated into Russian and English.⁸ The main cartographic results of the expedition are reflected in *Atlas on the Lieutenant Kotsebu's travel on board of ship Ryuric in the Southern Sea and Bering Strait*.⁹

In 1819-1821 Russian Admiralty set up round the world expedition, with its ultimate goal being investigation of possibility of the sea passage from Pacific to the Atlantic ocean near coasts of North America. The special chart of the Polar basin had been compiled in connection with preparation of this expedition. Experienced Captains M.N. Vasil'ev on board ³Otkrytie² and G.S. Shishmarev on ³Blagonamerennyi² were exploring in 1818 and 1820 northern coasts of Alaska up to the vicinity of Icy Cape, Vasil'ev reaching 71° 06' of north latitude in July, 1820, which place was 30 miles to the north of James Cook's northern spot; Shishmarev could sail up to 69° 06'. In June of 1821 ³Otkrytie² and ³Blagonamerennyi² had tried again to sail to the north-east, but were stopped by ices earlier than in 1820.¹⁰

Simultaneously with Vasil'ev-Shishmarev's expedition, Russian American Company organized in the same regions a *Northern Expedition* on board of ³Golovnin² under V.S. Khromchenko (Khramchenko) (1792-1849) and ³Baranov² under born in Finland navigator A.K. Etolin (1790-1876). V.S.Khromchenko and A.K.Etolin had left New-Archangel in 1821, and they spent nearly two years in the northern waters, leaving a vivid trace in explorations of Alaska. First of all, travellers had sailed into the Bristol Bay, where by force of Head Office's Instruction, they performed surveys and descriptions of Hagemaster Island and of the Strait, of the same name, between the Island and Alaska's mainland. After completing these works, travellers had laid their cause to the North, where each of them independently discovered Nunivak Island, the information about which being gotten from Eskimos by Petr Korsakovskii's expedition two years prior to Khromchenko and Etolin's trip, the members of the latter voyage being aware of the fact. V.S.Kromchenko had been the first to reach Nunivak, although later in his priority in this discovery was disputed, due to the fact, that only three days before his arrival there, A.P. Avinov performing surveys by seagoing boat as part of M.N. Vasil'ev's expedition, had mounted the Russian Navy flag on this Island.¹¹ Etolin and Khromchenko could not completely survey coasts of Nunivak, but Etolin succeeded in detail charting of the strait between the island and mainland (now it is Etolin Strait), and he entered Nishagak and Kuskokwim rivers. Khromchenko continued survey of the Norton Sound, which had been commenced by James Cook, and he found to the west of Darby Cape an inlet, which he named Golovnin Harbor. In 1822 Eskimos natives of this harbor's coasts had provided V.S.Khromchenko with detail data on hydrographic net of the south-western part of the Seward Peninsular, on base of this information, Russian explorer made a conclusion that by means of these water ways with some portages it would be possible to go up to

Shishmarev harbor and Polar Ocean.¹² Europeans would get more geographical information on these regions only at the very end of the nineteenth century. An experienced Eskimos Tungan, who had traveled to Saint Lawrence Island and Siberian coasts, told Khromchenko about some geographical features of Seward Peninsular's coast's to the north of Golovnin Harbor. One of the main Expedition's goal was coastal survey of Alaska between Vancouver Cape and Seward Peninsular as well getting information about natives of these regions. The travellers could not fulfill this task in full measure due to the stormy weather and shoals off the coast. So, they failed to get any data on natives of Yukon's delta - the most populated Eskimos' region in Alaska. The failure of the Expedition to reach survey Yukon's delta probably had delayed a discovery by Europeans of this great river up to Andrey Glazuniv's travel in 1834, when he reached it from Mikhailovskii redoubt by land.

Parts of V.S. Khromchenko's journal have been published in Saint-Petersburg in the fall of 1824 in seven issues of *Severnyi Arkhiv* journal (## 11-13/14-18).¹³ Original charts and descriptions performed by V.S. Khromchenko and A.K. Etolin, as well as by M.N. Vasil'ev and G.S. Shishmarev have not been published, and if manuscript charts of Admiralty's Expedition is known, similar materials of the Russian-American Company's expedition have not been found yet. In connection with both expeditions the manuscript *Mercator chart, showing Icy Sea, Bering Strait and part of the Eastern Ocean with coasts of Chukotka Land and North America*. is of great interest. The chart has survived in two copies, and it shows results of all Russian expeditions up to 1822/4.

An outstanding Russian Hydrographer Vice Admiral Gavriil A. Sarychev included the results of 1818-1822 Expedition into his *Atlas of the Norther Part of the Eastern Ocean*.¹⁵ 26 charts and plans of Asian and North American coasts in this atlas embody charts by Otto von Kotzebue, V.M. Golovkin, L.A. Hagemester, M.N. Vasil'ev and others. This fundamental publication had shown all lacunas in mapping of the North-West America's coasts. To fill in these lacunas Admiral Sarychev directed the Head Office of the Russian American Company to order captains of the Company's vessels to survey and describe those coasts of the Russian American colonies, which could not be shown in the *Atlas of the Norther Part of the Eastern Ocean*.¹⁶ So this Atlas became something like modern 'on-line' cartographic material, had to be continuously being complemented and corrected by officers of the Russian-American Company and by participants of the governmental Navy scientific expeditions. Leaders of the Russian-American Company, as well as State Admiralty Department discussed and analyzed in details the results of the Northern Expeditions. Captain Vladimir N. Berkh played a prominent role in these investigations. We believe, that especially to show all collected information on Alaska and adjoining regions of the American mainland there was produced the manuscript *Map of the Russian Possessions in Northern America. Published on funds of Russian American Company. Compiled by Lieutenant Captain Berkh and drawn by State Admiralty Department's pupil of the First Class A. Tokarev. May 31, 1821*..¹⁷ This map's versions have been published by V.N. Berkh (1823) in his two main books on the history of exploration of Polar regions, Aleut Islands and Alaska. The map, which is included into the second volume of his *Chronological History of all voyages into the Northern Polar countries with an outline of geographical features of that region*, shows in the fullest measure the most part of the Arctic's space. It is, as well as we know, the first time when inside the union cartographic picture the eastern coasts of Greenland, northern shores of Europe and Siberia, as well as Alaska's coasts between 71 and 59 degrees of the northern latitude have been

displayed.¹⁸

Despite all the efforts of the Russian American Company and the State Admiralty Department to close the data, an information about Russian active geographical explorations in the Northern Pacific, Arctic Basin and Alaska spread outside the Empire's borders, Otto von Kotzebue and his works published in Europe in foreign languages being main 'culprits' of such development. The Britain was the most worried by this information, and jealous of Russian encroachments to the territories of her Hudson Bay Company being immediate neighbor of the Russian American Company in Alaska. Sir John Barrow, a principal founder of the Geographical Society (1830), and Secretary of the British Admiralty for most of the period 1804-45, stated in 1817: *It would be somewhat mortifying if a naval power but of yesterday should complete a discovery [of a northern passage from Atlantic to Pacific ocean] in the nineteenth century, which so happily commenced by Englishmen in the sixteenth.*¹⁹ British Parliament offered a substantial reward in 1818 for finding a Northwest Passage or for attaining the farthest north should a westward route to Bering Strait be impossible. The same year the 'Dorothea' and 'Trent', commanded by Captain David Buchan and Lieutenant Commander John Franklin respectively, with Lieutenant F.W. Beechey in the 'Trent', sailed to make their way as close to the North Pole as possible and thence to Bering Strait. Ices stopped the expedition near Spitzbergen.²⁰ John Franklin was sent in 1819 to explore by land the shores of Polar Sea between the mouth of the Coppermine River and the eastern extremity of the continent. In 1821 British expedition under command of William Edward Parry and George F. Lyon on board of H.M.S. 'Fury' and 'Hecla' sailed in 1821 to the north-west part of Hudson Bay in search of a passage into Pacific ocean. Going to the west in the late autumn of 1822, travellers were getting many proves of Native's (Eskimos') ability to provide them with very dependable geographical data. Inquiries from Eskimos, had made William Parry and George Lyon even sure about a proximity of the Passage, and they believed that the worst part of their travel was left behind them.²¹ Explorers reached Igloodik village on the island of the same name in June 1822. Eskimos compiled for them a map, which again confirmed, that to the north-west there was a passage. Expedition's ships had been stopped by ice in the Strait, which Eskimos named *Closed*. After winter on Igloodik island explorers were forced to turn for home.²² Charting results of the expedition have been reflected in the *General Chart Showing the track of H.M. Ships Fury and Hecla, on a Voyage for the Discovery of a North West Passage, A.D. 1821-22-23. The Shaded parts of the coast Show the discoveries of this and preceding expedition*, published for the first time by John Murray (London) on January 7th, 1824.²³

On base of his study of correspondence between I.F. Krusenstern and John Barrow English scientist Barry M. Gough found that Admiral Krusenstern *with great liberality of sentiment* recommended to Barrow the same plan of search for a passage, which had been proposed by J. Franklin, namely - a combination of land trip from the River Mackenzie mouth to the west, with sea voyage from the region of the Bering Strait via Arctic coast to the east.²⁴ Author of this paper have been lucky to find an original of J. Franklin's drawing with project of his expedition in the Royal Geographical Society's Archives in London.²⁵ Franklin was worried that Russians would fulfill whether the sea part of the project or succeed in a land expedition from their American colonies in Alaska so that they would expand their power into the rich fur-bearing region of the Mackenzie River basin. To forestall a possibility of such development, British Admiralty had organized an expedition on line with Krusenstern-Franklin program, and the fulfillment of its sea part was entrusted to Captain Frederick William Beechey (1796-1856) on

board of H.M.S. ³Blossom². On board of the ³Blossom² there were all new hydrographic materials and charts, including even detailed materials of round the world voyage of Otto von Kotzebue, which in spite of Anglo-Russian rivalry in the Alaskan Arctic, had been sent by Admiral Krusenstern in 1823 to the British Admiralty.²⁶

So, ship-sloop ³Blossom² of the British Navy was ordered on the 12th of January, 1825 into the region of the Bering Strait to meet William Edward Parry's (1790-1885) expedition, which was going to the west near the coast from Prince Regent's Inlet, and J. Franklin, who had to go down the Mackenzie River and connect his explorations in the mouth of the Coppermine River with the most western known points of America. The Admiralty recommended Beechey to make Kotzebue Sound the main base of the expedition. If Captain Beechey could not meet with Captains Parry and Franklin in 1826, he would have to return in the same region in 1827, and wait there participants of the land expedition up to the late autumn and continue his efforts to go to the east, as well as surveys, charting and explorations.²⁷

On the Fifth of July, 1826 ³Blossom² took off the Petropavlovsk Harbor and laid on the course for Bering Strait. Going through the Bering's Strait, explorers found there three (but not four as in Kotzebue's materials) islands on the same places as in Cook's charts. July 22, 1826, ³Blossom² entered Kotzebue Sound. On July 25 expedition reached vicinity of Chamisso Island which had been agreed upon with Franklin as a meeting place. ³Blossom² hoisted its anchor again and sailed to the North, while T. Elson was commissioned to perform a detail coast survey and to erect there beacons for Franklin. All participants of the expedition was very much disappointed that they had not been ordered by Admiralty to try going from the Pacific to Atlantic ocean near America's coasts, but, barge under Thomas Elson's command was sent in that direction. During their visit to Kotzebue Sound, members of Beechey's crew were actively associating with Eskimos and had an opportunity to get acquainted with their outstanding geographic and cartographic abilities, about which Captain Beechey told in his book in details.²⁸ The Frederick William Beechey's description of cartographic methods and geographical awareness of Eskimos was the first and the most thorough of its kind. It had been used for analysis of the map making development outside the European tradition in the classic work on the history of cartography by L. Bagrow and R. Skelton, and it became a textbook's example in the history of world cartography.²⁹

Elson's party has reached the northernmost point of American Arctic coast in this region and named it after the initiator of Arctic explorations, Lord of Admiralty Sir John Barrow. 126 miles of Arctic North America's shores have been added as a whole to the previously explored coasts during navigation of 1826. On October 13, expedition, giving up a hope to meet Franklin, left for winter in San-Francisco and Hawaiian Islands.

In 1827 Beechey's expedition returned to the northern part of Pacific again. Being stopped by ice, ³Blossom² had had to return into the region of Prince of Wales Point. In this period expedition begun to suffer failures, the most grave of which was the expedition barge's shipwreck near Chamisso Island. Relations with Natives had deteriorated in such a measure, that it became nearly impossible to continue explorations. So, on October 6, 1827 ³Blossom², failing again to meet Franklin, left Kotzebue Sound and sailed to return home.³⁰

The most important from cartographic point of view result of the Beechey's expedition have been the detail survey and charting of some 600 miles of North America's shores, which were not explored before. In spite of Anglo-Russian competition in the Alaskan Arctic, in 1830, Captain (later Sir) Francis Beaufort, Hydrographer of the British Admiralty since 1829, presented

Krusenstern with a copy of the *North Polar Chart* with Beechey's additions.³¹ Expedition's surveys in regions between Point Rodney and Point Barrow, as well in the vicinities of Kotzebue Sound and Port Clarence have been the most serious contribution to compiling of a reliable map of Alaska. Cartographic results of the expedition are reflected in the *Chart of Part of the North West Coast of America, from Point Rodney to Point Barrow by Captain F.W. Beechey R.N.F.R.S. in His Majesty's Ship Blossom assisted by Lieu. E Belcher, Mr. Elson, Master, Mr. Jas. Wolfe, Mate.*³² The original survey materials of the Beechey's expedition are kept in the Archives of the British Admiralty in Tounton.³³

The scientific achievements of this expedition in the field of natural history were extensive, and they have been reflected in a general way in the two volumes¹ work by Frederick Beechey. Its materials served as a rich source for researches of many English scientists.³⁴ Expedition's works have helped to further development of the studies of Bering Strait's region's Eskimos; recent anthropologists and ethnologist are using Beechey's materials profusely.³⁵

The search for a passage from Atlantic to Pacific ocean was successfully accomplished only ten yeas later by an English expedition, on auspices of the Hudson Bay Company, under the command of Thomas Simpson and Peter Warren Dease in 1836-1839. In 1837 the expedition descended by River Mackenzie to the Arctic ocean, and sailed to the west hoping to reach Cape Barrow. On July 23, travellers, forcing their way through multiple ice fields, reached the Return Reef, to the west of which no European had gone yet. Here they begun a regular survey of the coast, in which process, many inlets and capes have been named after different Hudson Bay Company's officials. On July 31, in the vicinity of a cape, named after Governor of the Hudson Bay Company's Territory George Simpson, Cape Simpson, Thomas Simpson and Peter Dease had understood that to sail further by boats was impossible, and decided to send a party of five men under Thomas Simpson on foot (and in places - on kayaks) by land to Cape Barrow. So, on the 1st of August, 1737 Simson's party left the last camp, which had been reached by boats and named in commemoration of the affair *Boat Extreme*. In the vicinity of an inlet, named Dease Harbour after official leader of the expedition, travellers met a group of Eskimos, who loaned them their umiak to cross the inlet. Besides Simpson asked Eskimos about further route for his party. In responce, an Eskimo woman had provided him with a detail drawing of the Dease Harbor and coasts to the west, which was complemented by an old Eskimo with drawing of very long and narrow promontory with tents in the western extremity of the country, which Simpson decided to be a picturing of Point Barrow. Following days of the trip had proved Eskimos¹ map to be very close to reality, and at 1 am on the 4th of August, 1837 travellers sighted Point Barrow in the rays of the rising sun. The Point, in all conformity with native map, happened to be a long and narrow peninsular with huge Eskimos¹ burying ground and two villages (winter and summer) in the distance of three miles from each other. Simpson found that Eskimos, he met at the Point Barow had had indirect contacts with Russians, whom they called Noonatagmun. An old Eskimo even volunteered to pass for Russians or any other white men a letter from Simpson, confirming the fact of Englishmen's reaching Point Barrow in spot with coordinates: 71o03'24" of North Latitude and 154o26'30" of West Longitude. So, the competition in search for north-western passage, which took more then two centuries, has completed with the ³British Victory.² In 1839 Royal Geographical Society proclaimed their award with Golden Medal, and the government appointed a pension of 100 pounds per year for Thomas Simpson. These accolades could not be handed to the traveller, who on his return trip to England perished in July of 1840 under strange circumstances due to a quarrel with his partners, which

culminated in gunfight.³⁶

Surveys performed by Thomas Simpson and Peter Dease were reflected in the *Map of the Arctic Coast of America from Return Reef to Point Barrow explored by Messrs. P.W. Dease & T. Simpson under the direction of the Honorable Hudson's Bay Company, 1837*, published in the *Journal of the Royal Geographical Society*.³⁷ The original cartographic materials of this expedition has survived in the Archives of the Royal Geographical Society in London.³⁸

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