

Context:

Captain Cook, Resolution Cove, April 1778.

Citation:

Doe, N.A., Kayaking to Resolution Cove

SILT 10, 2014. <www.nickdoe.ca/pdfs/Webp311c.pdf>. Accessed 2014 Jun 13.

NOTE: *Adjust the accessed date as needed.*

Copyright restrictions:

Copyright © 2014. No reproduction without permission.

Date posted:

June 13, 2014.

Author:

Nick Doe, 1787 El Verano Drive, Gabriola, BC, Canada V0R 1X6

Phone: 250-247-7858

E-mail: nickdoe@island.net

Kayaking to Resolution Cove

...the tale of a visit by two Gabriolans to Resolution Cove in Nootka Sound on August 15–17, 1995, and their discovery of the exact location of Captain Cook’s observatories, and of several of the viewpoints of the artists on the 1778 expedition.

Nick Doe with Jenni Gehlbach

In the last days of March 1778, the British naval ships *Resolution* and *Discovery* under the overall command of Captain James Cook, anchored in a small cove on the west coast of Vancouver Island.¹ They were not the first ocean-going vessels to have visited Canada’s Pacific coast. A Spanish vessel, the *Santiago*, had anchored off the entrance to Nootka Sound in 1774, and another, the *Sonora* had made a fleeting passage in 1775, but on neither of the previous occasions had the visitors made even a brief landing, far less had an opportunity for making, as Captain Vancouver was later to put it, “...miscellaneous observations as would be very acceptable to the curious...”.

The events of Cook’s sojourn in Nootka Sound from March 31 to April 26, 1778, are well-enough known, although inevitably comment has tended to focus on what was only the second contact between Europeans and any of the Nuuchah-nulth. Thanks to the work of John Webber and William Ellis, Cook’s visit is as well illustrated as it is well documented.²

Although there were similar expeditions from France (Compte de la Pérouse) and

Spain (Alejandro Malaspina), the French Revolution, Malaspina’s political troubles, and the subsequent Napoleonic wars of the early-19th century detracted attention from the work of the continental Europeans. Even today, the part played by the Spanish scientists on the coast is not widely known.³

Cook’s visit, unlike the later one of Captain Vancouver, was still within the European Age of Enlightenment, and it is not difficult, more than two-hundred years later, to sense the enthusiasm and the curiosity with which artists and scientists took out their notebooks and began their sketches and observations, “...free from the notion that ancient authority alone was sufficient to describe or explain the natural world”.

Resolution Cove

If the original intent of Cook’s landing at Resolution Cove was to recuperate from his Pacific crossing from Hawaii and his subsequent battle against westerly gales, vicious squalls, and the rain and fog of the Oregon and Washington coasts, he could scarcely have made a better choice than Nootka Sound. He was greeted cordially by the Mowachat and Muchalaht who traded freely with the crew, and there was an ample supply of freshwater and building materials to replace the *Resolution*’s rotted mizzen-

¹ Beaglehole, J.C. (ed.), *The Journals of Captain James Cook— The Voyage of the Resolution and Discovery 1776–1780*, pp.294–334, Hakluyt Society, Cambridge University Press, 1967.

² Joppien, Rüdiger & Smith, Bernard, *The Art of Captain Cook’s Voyages— The Voyage of the Resolution and Discovery 1776-1780*, pp.80–98 and Volume 3 (catalogue) pp.433–469, Yale University Press, Volume 3 (text), 1988.

³ Engstrand, Iris H.W., *Spanish Scientists in the New World—The Eighteenth Century Expeditions*, Seattle and London, University of Washington Press, 1981.

mast and to refurbish the fore-mast, neither of which was in any condition to be used for the planned voyage to Alaska in search of a northwest passage.

Although the cove, which Cook knew just as “Ship Cove”, offered an indifferent anchorage—it is rarely used today—he was somewhat protected from both the deep-ocean swells and the sometimes over-zealous attentions of the inhabitants of the settlement at Yuquot, now more generally known as Friendly Cove (Figure 1).

A 20th-century approach

Our own visit to Resolution Cove began—if trips like this can be said to have a defined beginning—in Gold River. There we rendez-vous’ed with the m/v *Uchuck III*, which sails every week between Gold River and Tahsis with supplies for logging and fishing camps around the sound. In August, there’s always someone wanting to go out to, or return from Yuquot, so the ship swings around the south end of Bligh Island instead of going straight through the Hanna Channel to Tahsis. We arranged to be dropped off—literally—near Friendly Cove.⁴

After a visit to the church (originally Catholic, but now an Aboriginal cultural centre in the making), lighthouse (manned), and the old and historic Mowachaht village (now mostly without houses and uninhabited except for a caretaker family), we made camp in Santa Gertrudis Cove for a few days. There, among other activities, we carefully observed the daily pattern of the

winds before, early one morning, making a “now-or-never”, rather lively passage across the entrance of the sound to the Hesquiat Peninsula, just south of Burdwood Point. Another few days were spent on this seldom visited, invigoratingly surfy coastline, before we grabbed another brief break in the sometimes-rainy, sometimes-sunny, but frequently blustery weather, and headed back north toward the shelter of the Zuciarte Channel, Bligh Island, and Resolution Cove (Figure 2).

Approaching the cove

Figure 3 shows the kayaker’s view of the approach to Resolution Cove from the open ocean. The low-lying forested land ahead is the southernmost shore of Bligh Island. The channel on the right is the Zuciarte Channel which divides the Clerke Peninsula of Bligh Island from Vancouver Island proper. All of the mountains in the background are at the head of the sound on Vancouver Island.

If we were looking for an early indication that we were headed to the right place, we sadly missed the mark. Although we did not realize it until much later when we were back home, the triangular-shaped peak on the skyline, just left of centre in the photograph, together with the mountains and ridges to its right were the model for several works by both John Webber and William Ellis. What fooled us, was the exaggerated vertical scale in the artists’ work. The mountains are much further away than they appear to be in their drawings.⁵ Added to this is the fact that you can’t actually see these mountains from everywhere within the cove, and then only if the weather is fine.

⁴ To discharge kayaks at sea, the *Uchuck* crew puts the loaded kayak, complete with paddler, on to a pallet, which they then swing over the side and down into the water with the ship’s derrick. Experienced paddlers of course always remember to smile for the cameras up on the deck while simultaneously freeing themselves from the pallet and wrestling with the swell.

⁵ Joppien, Rüdiger & Smith, Bernard, *ibid*, p.82 and pp.434–436.



Figure 1: The location of Resolution Cove on a modern chart (CHS 3664). The change in name from Ship Cove to Resolution Cove was made by the British Hydrographic Office ca. 1849.

Nootka Sound, which Cook called "King George's Sound", is about half-way between the entrance to the Juan de Fuca Strait and Cape Scott at the northern end of Vancouver Island. Resolution Cove is just around the eastern side of the southern tip of Bligh Island at latitude 49°36.4'N, longitude 126°31.9'W. It is three and a half nautical miles from Friendly Cove (Yuquot).

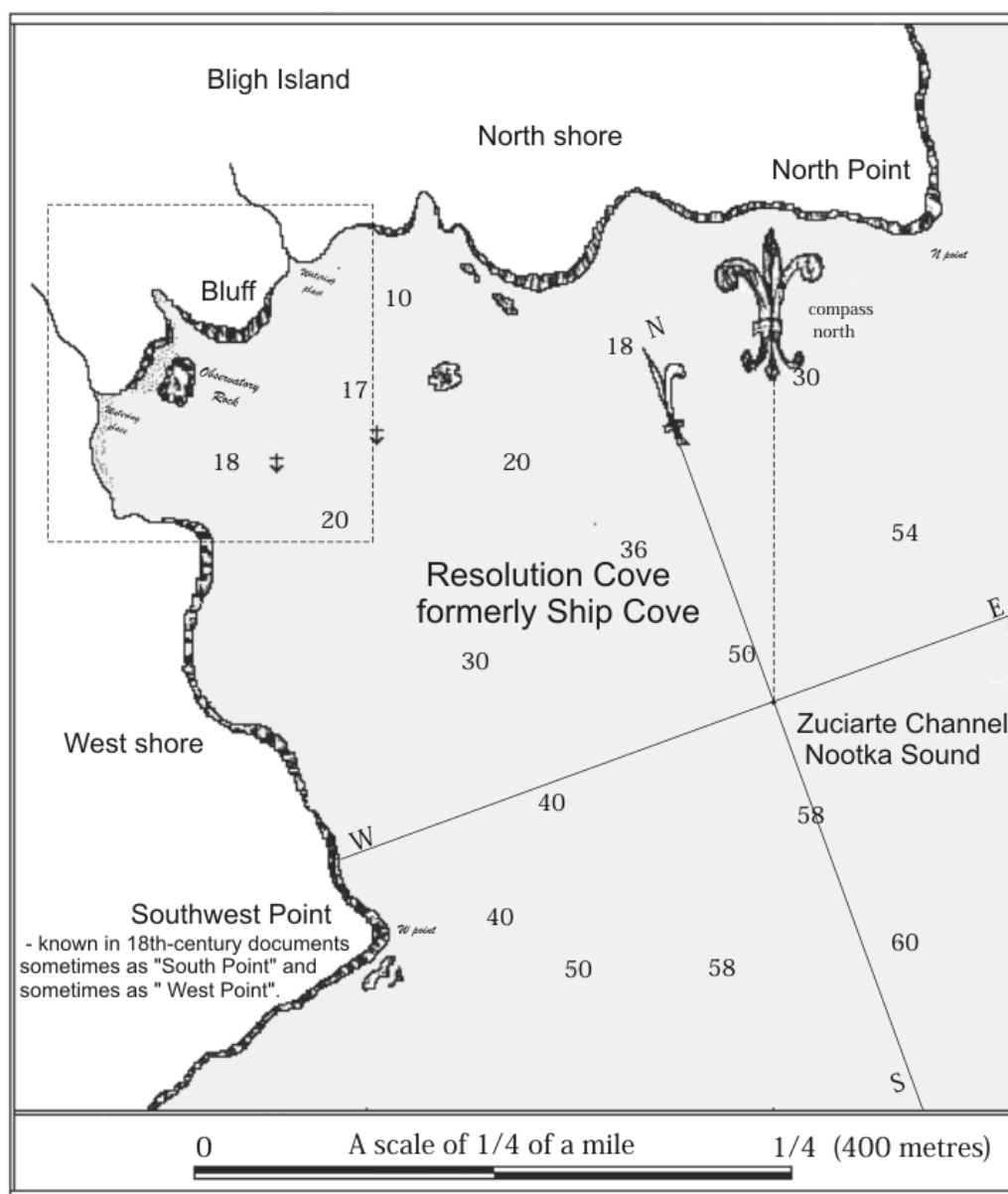


Figure 2: Resolution Cove from Thomas Edgar's log.

Several charts and sketches of Nootka Sound from the Cook expedition have survived,¹ the most interesting of which for our purposes is a small sketch of Resolution Cove found in the log of Thomas Edgar, sailing master of the *Discovery*.² A computer-enhanced version of this is shown here. It is oriented to magnetic north, and so must be rotated 19°49' clockwise (according to Cook) to compare it with a modern chart.

Annotations in the original are *W. point*, *Watering place*, *Observatory Rock*, *Watering place*, and *N. point*.

1. David, Andrew (chief ed.), *The Charts and Coastal Views of Captain Cook's Voyages*, pp.151–162, Hakluyt Society, 1997.

2. PRO Adm55/21, f.153. Shown in David, Andrew, *ibid*, p.162.



Figure 3. The kayaker's view of the approach to Resolution Cove from the open ocean. The low-lying forested land ahead is the southernmost shore of Bligh Island (Clerke Peninsula). The channel on the right is the Zuciarde Channel which divides Bligh Island from Vancouver Island. All of the mountains in the background are on Vancouver Island at the head of Nootka Sound.

Figure 4. Approaching the southwest point of Resolution Cove. It was known to some of Cook's crew as the (geographic) South Point, and by others as the (magnetic) West Point.





Figure 5. William Ellis, *Mountainous Landscape, Ship Cove*.

Alexander Turnbull Library, Wellington. A264.39

This watercolour was evidently a study for several other works including works by Webber.

Figure 6. An extract from the photograph below with the vertical scale exaggerated.

Figure 7. The mountains that Ellis drew. However, this is not the view from deep within Resolution Cove, though you can see them in the distance from its entrance (Figure 3).

This view is from a small boat off Anderson Point at the west entrance to Muchalat Inlet, about 3.5 nautical miles north of the cove. The highest peak to the northeast is seven nautical miles (13 km) from the cove and at 1163 m is high enough for it to retain the last of the winter snow in early April.

This photograph was taken on a later visit in late-May 1996 when the weather was better.





Figure 8. The only place where it was practical to beach a heavy kayak was strewn with logs, as it was in Cook's day. Moving them away at high tide was only a temporary fix. They were all back the next day, exactly as Cook describes in his journal.

Figure 6 is the same photograph as Figure 7, but it has been cropped and rescaled vertically to match Ellis's Figure 5. Cook and some of his crew would have had a much closer view of these mountains than from the vicinity of the cove on their excursion around Bligh Island on April 20, 1778.

The fact that you see this same skyline in other views at Nootka, not all of which depict these mountains in their correct position, makes sense of course—the weather was not good during Cook's stay. On many days the skyline would have been obscured by clouds. Evidently, when necessary, the artists just put mountains in where they knew mountains could be seen on a sunny day and didn't worry that

somebody might notice one day that the details weren't true to life.

Landing places

Most of the shoreline of Resolution Cove is rocky and there are very few good landing places apart from the rock-strewn muddy beach in the corner of the cove that is covered at high tide. The creek that emerges from the forest there, Cook's "watering place", is scarcely more than a trickle in summer, and is probably not much more in winter as there is no sign of torrent debris.

In Cook's journal we find the following:

Lest this should not have been particularly noticed by others, I shall mention some circumstances that occurred almost daily. In the cove where we got wood and water, was

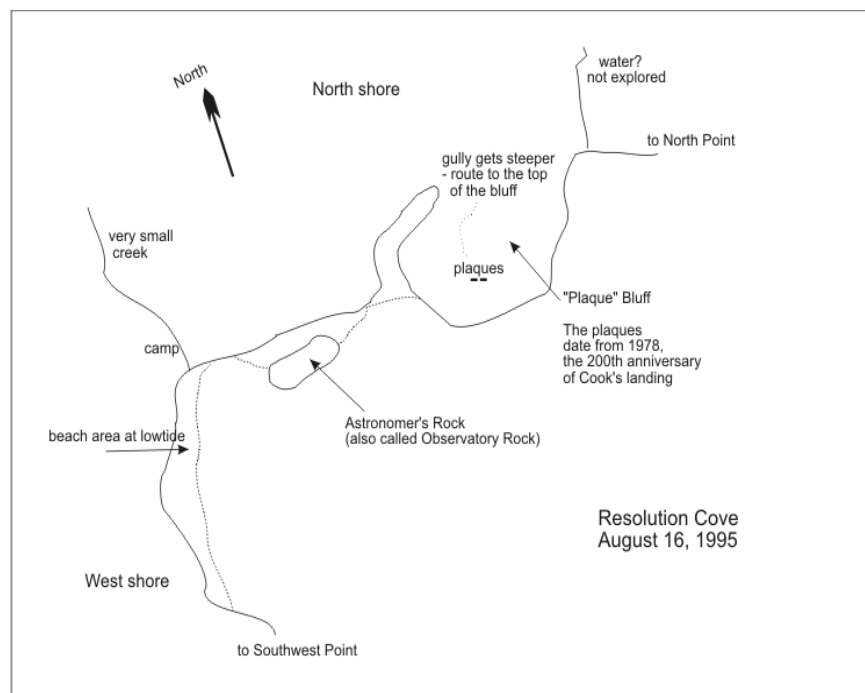


Figure 9. The part of the cove where all the action took place. It corresponds to the area within the dotted square in Figure 2.

Figure 10 (*below right*). The same as Figure 9 but with annotations (red) showing the camera viewpoints. The key is A=Fig.8; B=Fig.14 & 20; C=Fig.11; D=Fig.31 & 33; E=Fig.19; F=Fig.24; G=Fig.21; H=Fig.16; J=Fig.23; K=Fig.26 & 29; M=Fig.34; N=Fig.28; P=Fig.39.

a great deal of driftwood thrown ashore, a part of which we had to remove to come at that water. It often happened that large pieces, or trees, which we removed in the day out of reach of the then high water, were the next morning floated again in our way...

Figure 8, taken on our arrival at Resolution Cove, shows Jenni, in her drysuit, pushing logs off the beach at high tide so we could land our fully-laden kayak. Many drifted back on the next tide and had to be moved again when it was time to leave. *Plus ça change...* and all that; yet, here we see one modern woman easily doing the

work of a crew of 18th-century men.

The beach

Figure 11 shows the "beach" on the west side of the cove at low tide, as seen on the morning after our arrival. This is the area where blacksmiths and carpenters worked on the masts and rigging of the *Resolution*. It is rock-strewn, muddy, and covered at high tide.

It is shown in a well-known landscape by John Webber, "The *Resolution* and *Discovery* in Ship Cove", Figure 12, which is now in the Greenwich Maritime Museum.

The turquoise tarpaulin under the trees near the

righthand side of the photograph marks Cook's "watering place" and our camp site. Many of the trees are hemlocks (*Tsuga heterophylla*) and cedars (*Thuja plicata*).

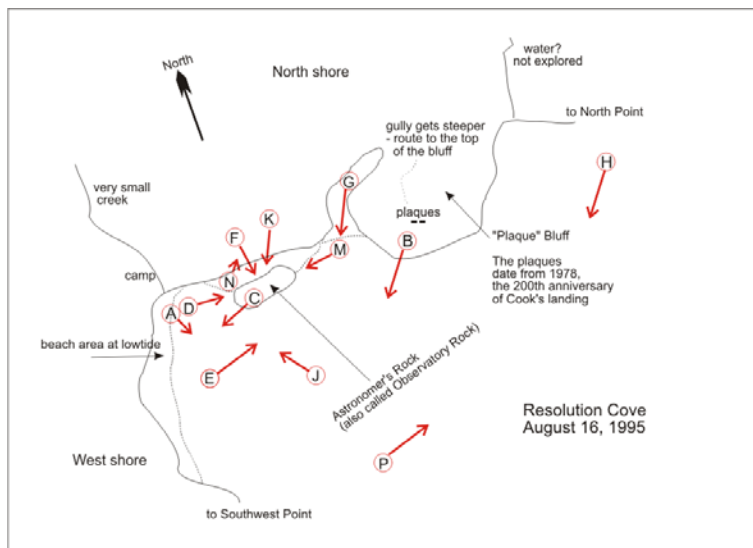




Figure 11. The beach at low tide on the west side of the cove. The view from Astronomer's Rock.



Figure 12. The 18th-century view of the cove showing the beach on the right, the Astronomer's Rock near the centre. One of the main objectives of our expedition was to take a photograph of this view, but it turned out to be impossible. The vertical scale of Astronomer's Rock and its position is not as it is in real life, and we could not find any viewpoint from which the whole of the cove could be photographed in this fashion, even had we had better equipment. The drawing is a composite of smaller scale studies that only an artist could make.

John Webber, *The Resolution and Discovery in Ship Cove*, April 1778.
National Maritime Museum, London. 3.189

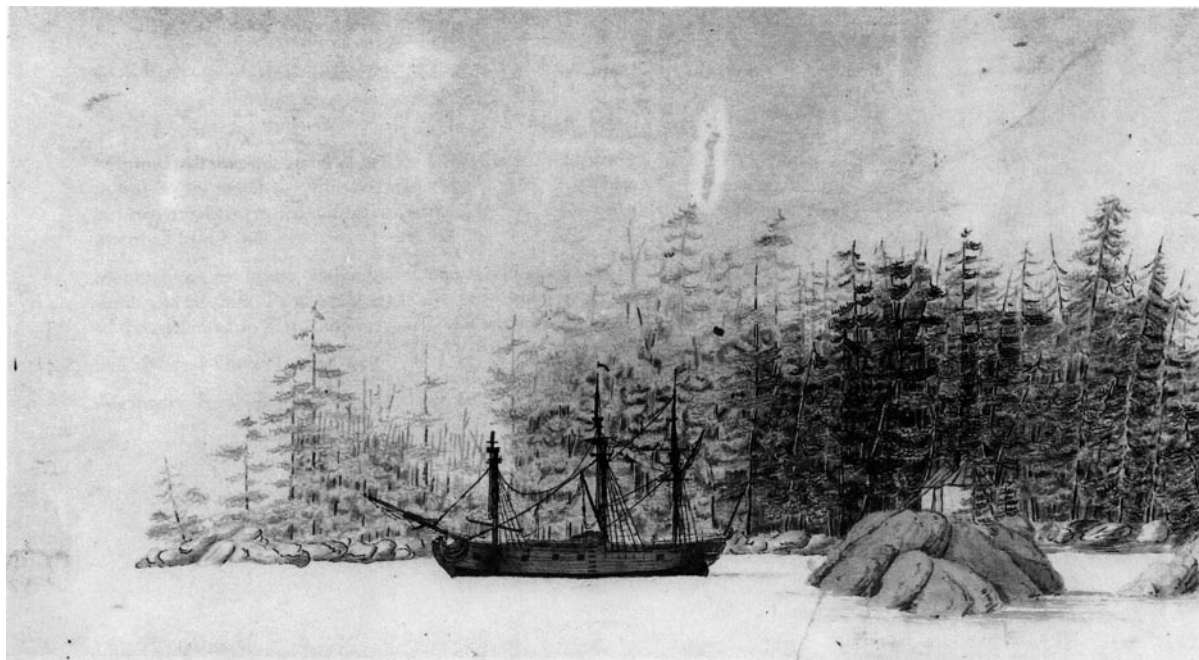


Figure 13. John Webber's portrayal of the *Resolution* while undergoing repairs with the beach area behind covered at high tide. He has drawn the southwest point with commendable accuracy; the positioning of the Astronomer's Rock however is unrealistic, but interesting in that it shows it to be surrounded with water at high tide and with ropes to assist access from the seaward side.

John Webber, *A view in Ship Cove*, April 1778.
Mitchell Library, Sydney. PXD 59-2 f.8



Figure 14. The southwest point as seen from Plaque Bluff. The Astronomer's rock is way down to the right and was impossible to include in the photograph from this vantage point.

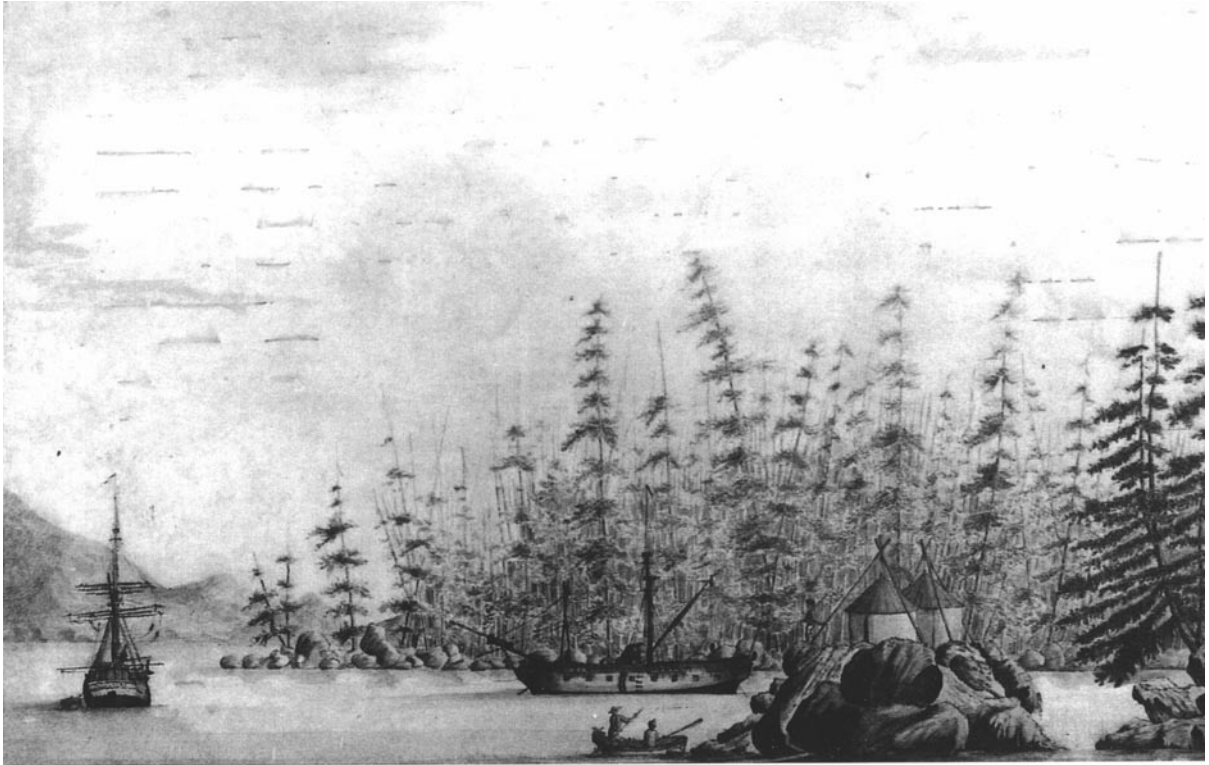


Figure 15. William Ellis's view of the beach area and the southwest point including the hills on the other side of the Zuciarde Channel on the right, both ships, a dinghy, and a sentry on the Astronomer's Rock, which again is shown in an unrealistically prominent position.

William Ellis, *A view in Ship Cove*, April 1778.
National Library of Australia, Canberra, R 7595



Figure 16. A view capturing most of what Webber (Figure 13) and Ellis (Figure 15) saw; however, this photograph had to be taken from the kayak—the shore is too rocky and steep here to land. The Astronomer's Rock is out-of-sight behind Plaque Bluff on the right.

Looking for the Astronomer's Rock

Had we had Thomas Edgar's excellent chart with us (Figure 2) we would have found the Astronomer's Rock long before we actually did. At this stage in the expedition we still believed that John Webber had faithfully rendered the rock's position and appearance in his drawing. So, on the first morning after our arrival we decided we would devote our time to a search for the Astronomer's Rock.

The consensus was that the most likely candidate was Plaque Bluff, which was not more than 150 metres along the north shore of the cove from us. It could clearly be seen from everywhere in the cove, and met Cook's description of the location of the Observatories—"on an elevated rock on one side of the Cove close to the *Resolution*". It was also about the size Webber had depicted (Figure 17). It just wasn't clear to us if we would need the kayak to get there, or if we could scramble along the rocky shoreline at low tide.

It turned out that you can get to the bluff from the west side, but it would be difficult to do so from the north shore.



Figure 17. This extract from John Webber's panoramic view of the cove (Figure 12) suggests, judging by the height of the men, that the Astronomer's rock was around ten metres high. This is close to the height of Plaque Bluff (Figure 19).



Figure 18. Plaques commemorating Cook's sojourn in the cove installed in 1978 by the Maritime Forces Pacific and the Nootka Sound and British Columbia Captain Cook bicentennial committees (Appendix 3). There was also a flag pole and two iron posts for what had once been a fence to prevent dignitaries from falling off the ledge.



Figure 19. Plaque Bluff in the centre stretching across more than half the picture. It's around ten metres high with mature trees growing on it. Direct access from a small boat is difficult, but there is a gully leading into the forest behind from which you can scramble up a cleft without trouble.

Figure 20. The view from the ledge where the plaques are mounted is nice—there are huckleberries here, two sorts—but this is not somewhere where you would want to be pitching big tents and moving around a lot in the dark—and those trees obscure your view of the sky. Not the best place to be doing astronomy.

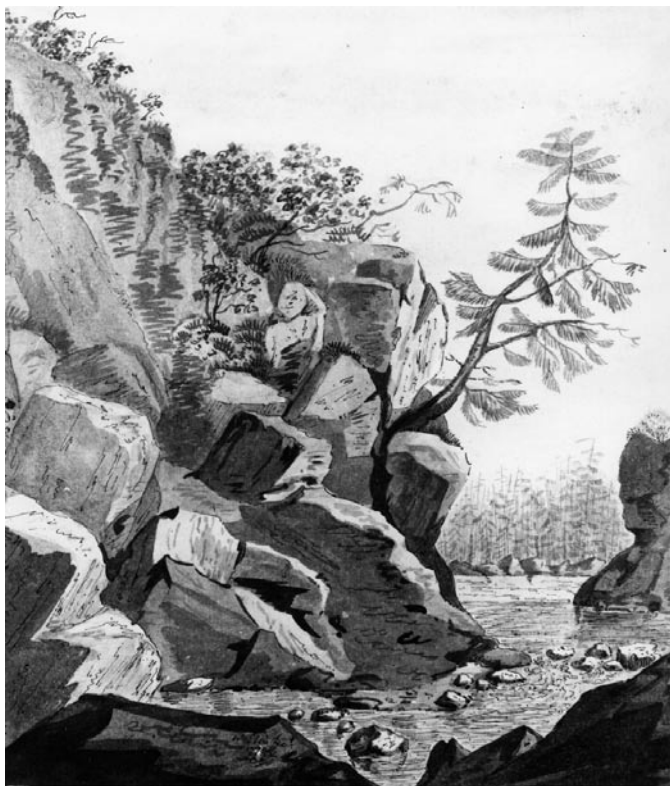
As the captions for Figures 18–20 explain, we were far less sure this was the right place after having worked our way up to where the plaques were. Too high; too difficult to climb with a load; nowhere to pitch large tents; devoid of views that matched the

Figure 21. The gully leading down to the beach on the west side of Plaque Bluff at low tide. Note the notch in the rock just above and to the right of Jenni's head and the same notch in Ellis's drawing below.

Figure 22 (*below*). William Ellis's drawing of the gully. He was not as troubled by the high-contrast lighting as our camera and he sat there when the tide was in—it was high at about 4:45 pm on April 2, 1778.

The "distant" view is of the western shore of the cove.

William Ellis, *A Rock and a distant View in King George's Sound*, April 1778.
National Library of Australia,
Canberra, NK 53/G



18th-century drawings; absolutely no possibility of being surrounded by water at high tide; difficult to protect from surprise attack; and a sky partially obscured by trees.

Finding the Astronomer's Rock

The next *logical* step in the search for the Astronomer's Rock would have been for us to go back to the journals of the expedition, find out who was the astronomer, and find out what he had to say about it. It didn't actually happen that way at all, but it's a good exercise, so let's do it.

Normally, each of the two ships would have had an official astronomer. On March 22,

1776, the Board of Longitude appointed William Bayly to be the astronomer on the *Discovery*, but no appointment was made for

the *Resolution*, the reason being Cook notes in his journal:

Received on board several Astronomical & Nautical Instruments which the Board of Longitude intrusted to me and Mr. King my second lieutenant, we having engaged to that board to make all the necessary Astronomical and Nautical observations that should accrue and to supply the place of an Astronomer which was intended to be sent out in the Ship.

There was thus only one full-time astronomer, which is perhaps why the references are to the Astronomer's (singular) Rock and not to the Astronomers' (plural) Rock.

William Bayly was quite clear about where his observatory from the *Discovery* was:

"My Observatory stood on a small rock that was surrounded by the sea at high water..."

James King, the acting astronomer for the *Resolution*, adds:

"...set the observatory up, on a rock in the N part of the cove close to the ship..."

David Samwell, who at the time was the

surgeon's mate, remarks:

"...The astronomer's Observatories were erected on a small rock surround[ed] with the Tide at high water,..."

And just in case there was any remaining doubt, Thomas Edgar in Figure 2 had marked Observatory Rock on his chart.

If you look again at Figure 19, it is clear that the Astronomer's Rock must have been that small rock *in front of Plaque Bluff*. That grey, bare rockface in the foreground is where the observers and sentries scrambled up to the tents from the jolly-boat using ropes as shown in Figure 15. And if you look at the photograph of the camp site, Figure 23, it's clear that the rock on the right is Astronomer's Rock. But it wasn't clear at all to us, until... Wandering slowly back along the beach—the tide was lower now than when we had traversed it earlier in the morning—I passed behind a small rock in a now dry channel, and suddenly, revealed as by a bright light switched on in the bedroom in the middle of the night, there it was.



Figure 23. The NW corner showing the beach, camp site, and on the right, Astronomer's Rock.

composite using <http://svcambria.webs.com/Resolution%20Cove.jpg>

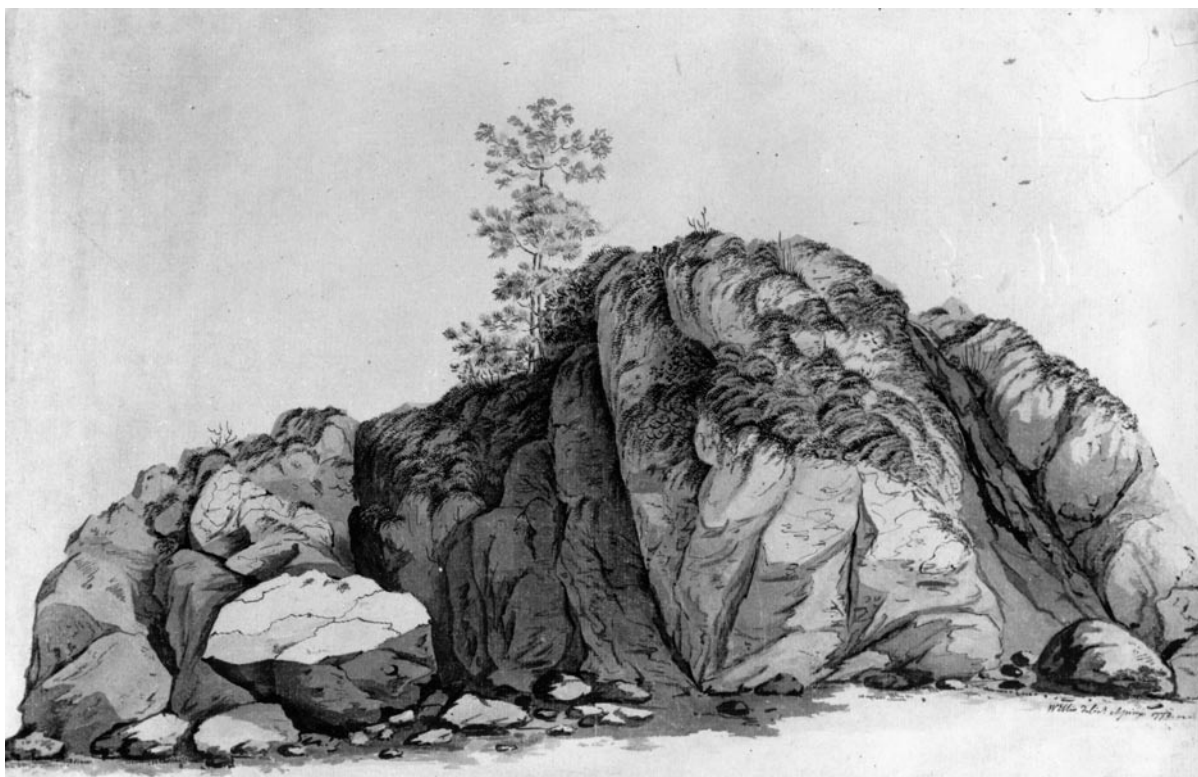


Figure 24 (*above*). Astronomer's Rock, Resolution Cove, August 1995.

Figure 25 (*below*). William Ellis, *A view of Astronomer's Rock, Ship Cove*, April 1778.

National Library of Australia, Canberra, NK 53/H

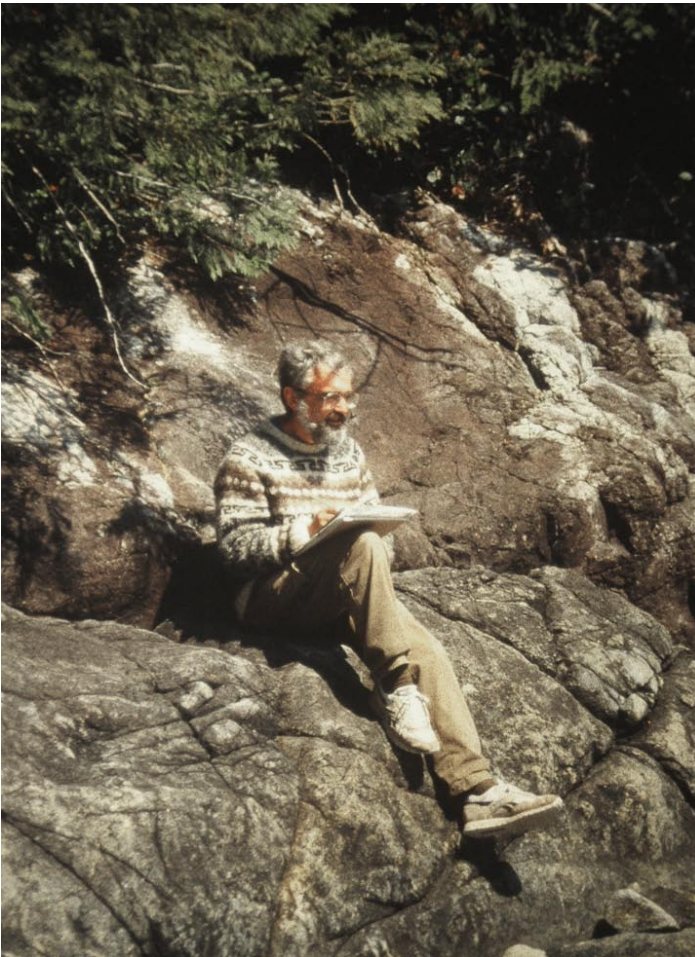
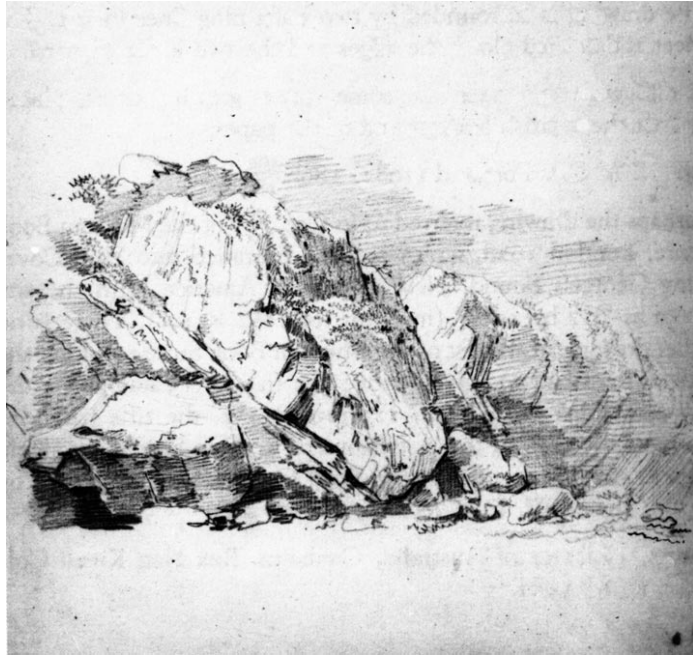


Figure 26 (*top left*). The large flat-topped boulder that evidently caught the attention of the two artists. It appears in the centre Figure 24, on the left in Ellis's drawing Figure 25, on the left in Webber's drawing Figure 27, on the bottom right in Ellis's Figures 32 and 43.

Figure 27 (*top right*). John Webber, *Rocks at Nootka Sound*. The rocks are on the landward side of Astronomer's Rock, Figure 26.

Private collection, England.

Figure 28 (*left*). Jenni's discovery. A comfortable ledge where Ellis sat while working on his drawing of the Astronomer's Rock, Figure 25. There are even convenient grooves in the polished surface to hold pencils and pens.

John Webber probably sat on an easily-identifiable moss-covered rock to Ellis's left—his slightly different perspective in Figures 27 & 30, strongly suggests this. The two artists would have been sitting within easy conversational distance from each other as they worked.

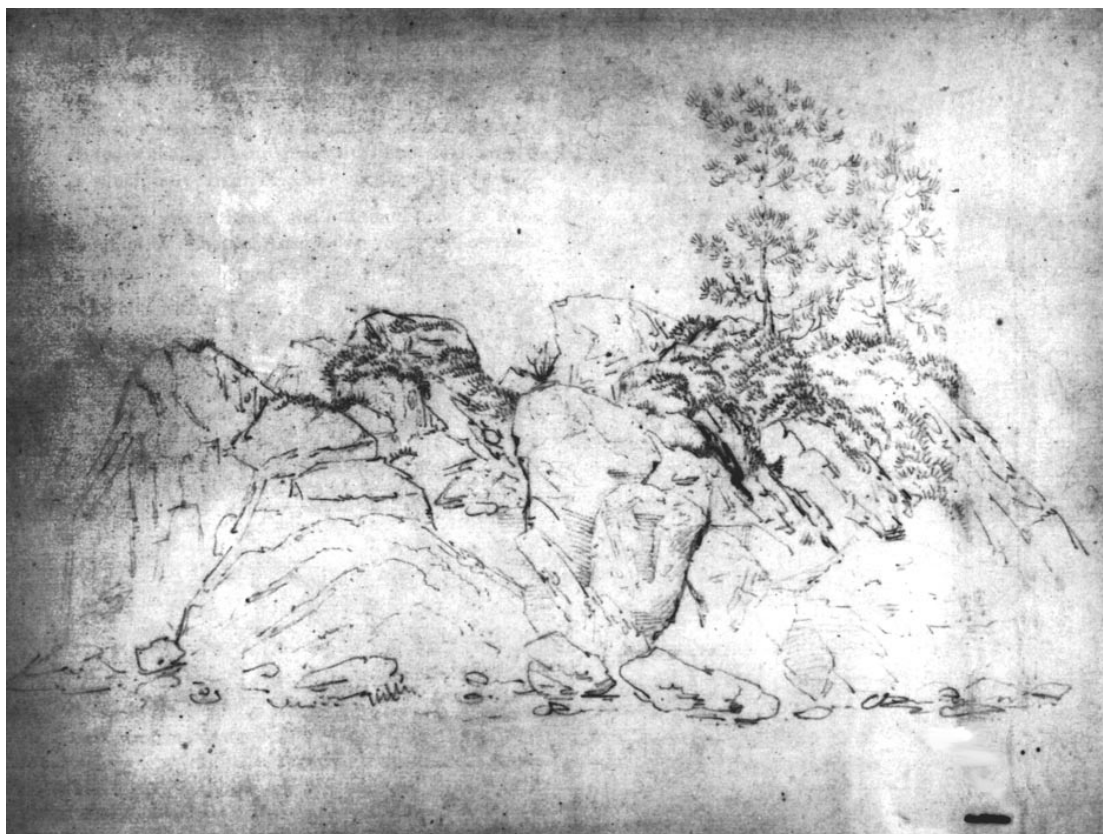


Figure 29 (*above*). Astronomer's Rock, Resolution Cove, August 1995.

Figure 30 (*below*). John Webber, *Entrance of Ship Cove*, April 1778. Despite its title, this pencil drawing is of the landward side of Astronomer's Rock, the same perspective as Figure 27.

Private collection, England



Figure 31 (*top*). An early first-morning reconnaissance of the beach. Quite unaware of it at the time, that's Astronomer's Rock ahead.

Figure 32 (*middle*). William Ellis, *View in King George's Sound*, April 1778. The same view, not perhaps immediately obvious until you crop and magnify the vertical scaling by over 40% as shown in Figure 33.

National Library of Australia, Canberra.

Figure 33 (*below*). Matching Ellis's work with this edited extract of Figure 31 took us a while—the lack of trees didn't help.

That striking T-shaped rock on the left of Figure 32 was nowhere to be seen even after an hour or more of searching using lots of imagination. The boulder along the bottom of Figure 32, right of centre, we did however find. It's not visible from here but is round the corner and is as drawn by Ellis in Figure 25 and by Webber in Figure 27.



Figure 34 (*top*). A view of the Astronomer's Rock from the base of Plaque Bluff at low tide when the channel on the landward side is dry.

Figure 35 (*middle*). Webber; an undistorted extract of Figure 13. His depiction of the shear fractures is not bad at all.

Figure 36 (*bottom*). Ellis; an undistorted extract of Figure 15. Note the sentry standing on the rock.





Figure 37. William Ellis, *A View of a Singular Tree in King George's Sound*.

National Library of Australia, Canberra, NK 53/E

Figure 38 (*right*). OK, may be not the same tree as in Figure 37, especially if you ignore the driftwood and tail end of the kayak in the background, which just happen to add to the semblance. Such stumps host several epiphytes—rotting cedar is particularly liked in this part of the world by red huckleberry. This one supports salal, licorice fern, queen's cup, and other shrubs and mosses.



Most of the detailed landscape drawings of the artists were evidently made in this channel between the rock and the Bligh Island mainland. While it was by now perfectly obvious to us that the Plaque Bluff is never surrounded by the sea, but could we be sure that this rock was in 1778?

Although the large tide height here is 14 feet, the daytime spring tide associated with the full moon on April 11, 1778, would have reached only 10.7 feet, a consequence of the date being closer to the spring equinox than the summer solstice.⁶ But

⁶ Conveniently for those of the crew needing to make use of the beach, high high water was always before 8:00 am and after 8:00 pm during the first three weeks of April 1778. The early morning high tide at the first-quarter moon soon after Cook reached the cove was as high as the subsequent spring tide.

even this lowish high would have been high enough to have made it all the way around the real Astronomer's Rock. And even if this were not so, the journals tell us that the weather around the time of the full moon was nasty with frequent rain and gale-force winds. Atmospheric pressure must therefore have been low—Bayly recorded the equivalent of 99.1 kilopascals on April 8 and 9—and this would have caused the tide to surge nearly a foot higher than normal.

Quite apart from its historical interest, the rock was a delightful place to sit for a while in the sun and ponder. It was living space for mosses and lichens; rusty-haired saxifrage, wild strawberries, low scrambling red-berried kinnikinnick; scrubby salal; and four or five small trees, the tallest of which was a storm-broken Douglas-fir.⁷

⁷ About 0.46 m (1.5 ft.) in diameter at breast height. Even under poor growing conditions—but in good



Figure 39. The camera's view of the north point from close to the ship's anchorage.

Photograph taken in May 1996.

North shore

Access by kayak to the shore of the cove from the bluff along to the north point is

lighting as here—a Douglas-fir (*Pseudotsuga menziesii*) could get this big in 70 years, so there's little chance this was there way back when. Had it been one of the shore pines (*Pinus contorta* var. *contorta*) the story would have been different. There is no consistent depiction of the sizes and positions of the smaller trees on the rock by the artists although Ellis wrote of the cove: "the most prevailing ones are fir of several species, yew, and *abor vitae*. The others are birch, maple, poplar, willow, and elder".

"Fir" presumably included Douglas-fir [*Pseudotsuga menziesii*], they had to be in the list somewhere. Although there certainly are yews in the region [*Taxus brevifolia*], they are an understory tree and tend to be solitary, so it is unclear why Ellis included them in his list of "prevailing" trees. *Abor vitae* would have been cedars, mostly or all red [*Thuja plicata*]. "Birch" must have been alder [*Alnus rubra*]. "Poplar" is black cottonwood perhaps [*Populus trichocarpa*]. John Ledyard includes "ash" in his list and the deeply-furrowed grey bark of some *Fraxinus* spp. that he would have been familiar with is similar to the bark of the black cottonwood of the west coast.

possible, but difficult—the rocks are not high, but they are steep and slippery; there is no beach; and even a slight swell puts the boat in danger. Even if you can get out, getting back in could be an adventure.

Whether or not you can access the shore from inland without bushwhacking, we do not know. In any case, there is no evidence in Webber and Ellis's work that they ventured there either. Two excellent pictures of the north shore, one by each artist, have nevertheless survived, Figures 42 and 43. They were likely drawn on the deck of the *Resolution* at a time when a high tide was preventing anyone going ashore.



Figure 40. This is an extract of the photograph in Figure 39 with the vertical scale increased.



Figure 41. John Webber, *A view in Ship Cove*. A delightful view of what is unmistakably the north point (cf. Figure 40).
British Library, London.

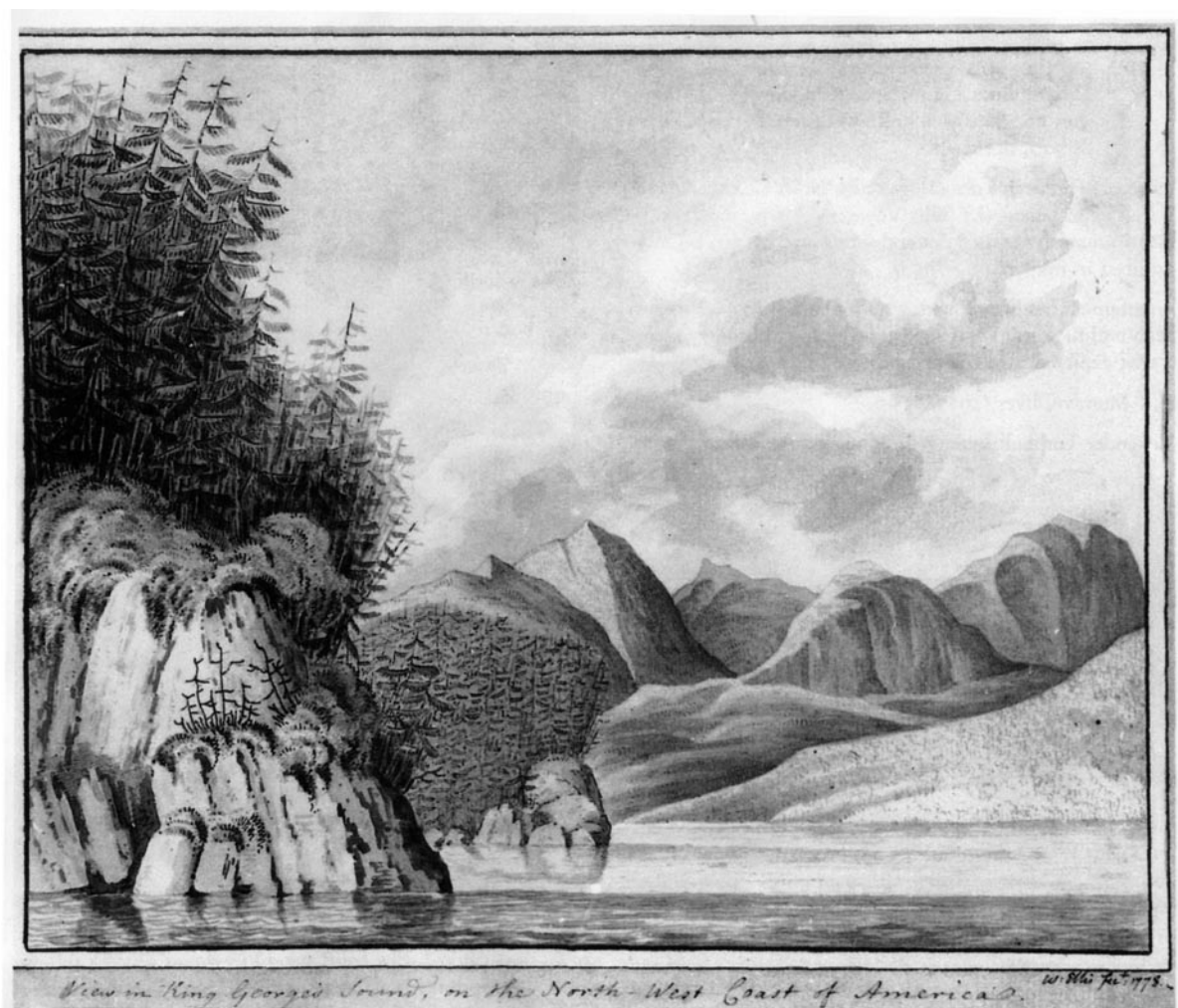


Figure 42. William Ellis, *A view in King George's Sound*. Also of the north point (cf. Figure 40), probably from the ship's position. The mountains are those in Figure 5.

National Library of Australia, Canberra, NK 53/B



Figure 43. William Ellis's *View of Ship Cove in King George's Sound on the NW Coast of America*. A work notable because of its depiction of the conifer trees as deciduous.

National Library of Australia, Canberra, NK 53/B

A curious composition

The most curious work of all, which could only be fully deconstructed after having seen where the others were drawn, is in Figure 43.

Ellis has depicted the conifers around the cove as deciduous trees. But that's not all.

Although there are hills on Vancouver Island as shown, there are no mountains beyond the southwest point. There's nothing in that direction but the open ocean, Figure 16.

The large rock in the bottom righthand corner has been "borrowed" from another drawing, Figure 25, and is misplaced.

And Astronomer's rock, where the observatory tents were pitched, is rendered

considerably higher than it is in real life, Figure 29.

But, I'm becoming too serious—William Ellis and John Webber were artists; and they, like us, had their own versions of visual reality. ◇

Appendix 1—Navigational observations

Although the expedition's astronomers, Cook, King, and Bayly, made over 600 observations of the position of the moon in order to determine their longitude, their reckoned position of Astronomer's Rock, $49^{\circ} 36.1'N$, $126^{\circ} 42.5'W$, was 12.7 km off the mark and too far west. It is at $49^{\circ} 36.43'N$, $126^{\circ} 31.95'W$. Moreover, when Captain Vancouver did the same series of measurements in 1792, he was off by 10.3 km, but this time, his estimate was too far east.

Some years ago, I repeated every one of the 18th-century calculations and showed that although there were several arithmetic and other careless errors in their work, the principal cause of the problem in both cases was faulty data in the Nautical Almanacs that they had used.⁸ Calculations using just Cook and company's observations, but with all the computational problems eliminated, put Cook's estimate of his position at $49^{\circ} 36.1'N$, $126^{\circ} 32.5'W$, which quite remarkably, is at the southern tip of the Clerke Peninsula of Bligh Island only 910 metres from where he actually was.

Appendix 2—What kind of rock?

The rocks in Resolution Cove, including the Astronomer's Rock, are granodioritic (plutonic) intrusives that date back to the early-Jurassic, 200-million years ago.⁹ This

⁸ Doe N.A., *An Analysis of Captain Cook's Longitude Determinations at Nootka, April 1778*, LIGHTHOUSE, Journal of the Canadian Hydrographic Association, 48, pp.21-29, Fall 1993. Available [online](#).

⁹ My geological knowledge in 1995 was sparse so in revising this in 2014, I have relied in part on: D. Marshall, M. Lesiczka, G. Xue, S. Close, & K. Fecova, *An update on the mineral deposit potential of*



These were the numbers Cook was looking for. Available to us with a touch of a button. Could Cook and his contemporaries have ever envisaged such a futurity?

Even 1995 technology looks very dated now—I had to rent this GPS unit for the trip.

was before the Wrangellian Terrane, which includes most of Vancouver Island, collided with North America. The rocks are however younger than the Triassic-aged flood- and pillow-basalts so common on Vancouver Island further east.

The rocks are light-grey or white when well-weathered. When fresh, they are white with black, commonly acicular, speckles. The white and clear crystals are *plagioclase* and *quartz*, and the small black crystals are

the Nootka Sound region, GeoscienceBC poster, 2006. Online as 2005-027_2006RoundUp-3.pdf.

mostly *hornblende* with minor *biotite*. Here and there, these intrusives have themselves been intruded by white aplitic or *quartz* veins, and by thicker dykes of grey aphanitic dacite and dykes of a near-black mafic rock. These dark rocks looked to me, at a glance, like basalt; however, the 18th-century observers noted that some of the rocks in the cove were sufficiently magnetic to disturb

their compass, which suggests instead some type of diorite rich in *magnetite*—midshipman James Trevenen’s “kind of iron sand” perhaps—but that’s conjecture, don’t quote me.

As observed and recorded by the artists, the rocks are brittle-fractured and have been extensively sheared with steep dips.

Appendix 3—The plaques on Plaque Bluff

CAPTAIN JAMES COOK R.N. F.R.S

WHEREAS CAPTAIN JAMES COOK WAS DIRECTED ON HIS THIRD VOYAGE TO SEEK A NAVIGABLE SEA ROUTE FROM THE PACIFIC TO THE ATLANTIC AND HAVING EMBARKED ON THAT VOYAGE JULY 1776 ABOARD H.M.S. RESOLUTION ACCOMPANIED BY H.M.S. DISCOVERY HE REACHED THE SHORES OF VANCOUVER ISLAND MARCH 1778, ANCHORED HERE AT RESOLUTION COVE 31 MARCH TO REFIT HIS SHIPS AND SOJOURNED HERE UNTIL 26 APRIL 1778.

WE NOW, THEREFORE, COMMEMORATE THE BI-CENTENNIAL ANNIVERSARY OF THIS EVENT ON THIS THE 26TH DAY OF APRIL 1978 AND DEDICATE THIS SITE.

THE NOOTKA SOUND AND BRITISH COLUMBIA
CAPTAIN COOK BICENTENNIAL COMMITTEES

RESOLUTION COVE

TO COMMEMORATE THE VISIT OF CAPTAIN COOK R.N. F.R.S. WHO SHELTERED HERE WITH H.M. SHIPS RESOLUTION AND DISCOVERY 31 MARCH – 26 APRIL 1778 AND REPLACED TWO LOWER MASTS WITH TREES FROM THIS ISLAND.

THIS WAS THE FIRST BRITISH LANDING IN WHAT IS NOW BRITISH COLUMBIA.

PLACED ON THE OCCASION OF THE CAPTAIN COOK BICENTENNIAL 26 APRIL 1978 BY THE COMMANDER, OFFICERS, AND MEN OF THE MARITIME FORCES PACIFIC.

Appendix 4—An afterthought



So, does anyone but me see any commonality between the two pictures above? The top one is a photograph of the Astronomer's Rock taken in May 1996 as you approach it from the beach. The one below it is a scaled and magnified extract of John Webber's famous pen, wash, and water-colour, *The Resolution and Discovery in Ship Cove*, shown in full in Figure 12.

The extract of Webber's panoramic view is from a position in his work exactly where the Astronomer's Rock was—between the beach and Plaque Bluff. Webber's placing of the observatory as shown in Figure 17 is a ruse. He has correctly drawn the relationship between the Astronomer's Rock and Plaque Bluff, but for his own reasons, has placed the tents on the latter and not the former, thereby causing great confusion to at least two innocent kayakers. That's our story and we're sticking to it. ♦