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NOTE: *Adjust the accessed date as needed.*

Most of this paper was completed in April 2007 with the intention of publishing it in the journal *SHALE*. It was however never published at that time, and further research was done in September 2007, but practically none after that. It was prepared for publication here in November 2016, with very little added to the old manuscripts. It may therefore be out-of-date in some respects.

It is 6 of a series of 10 articles and is the final version, previously posted as Draft 1.4.

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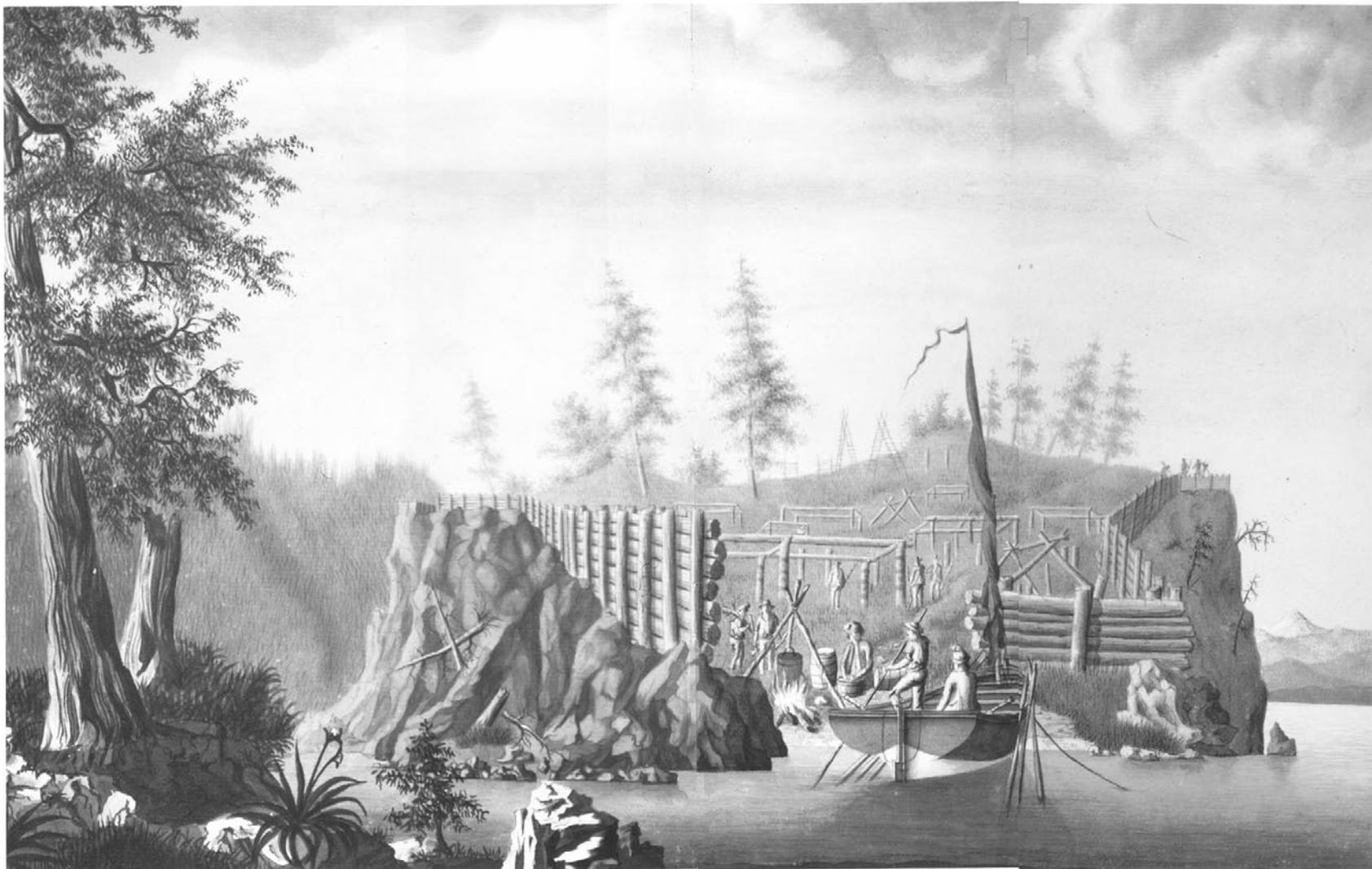
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Fortificación de los Indios del estrecho de Fuca

Museo de América No. 2.350

A drawing of an abandoned Indian village being visited by Spanish explorers. Although attributed to José Cardero who was a member of the Galiano-Valdés expedition that circumnavigated Vancouver Island in 1792, this version of the drawing is by Fernando Brambila who embellished the original after it became part of the Malaspina-expedition records. Cardero's original and any copies of it have been lost.

Flea Village — Initial remarks on “Cardero’s” drawing

by Nick Doe

[...continued from [File FV-565](#)]

Title

The title of Cardero’s drawing is *Fortificación de los Indios del estrecho de Fuca*—“Indian fortification in the Fuca Strait”. However, this is almost certainly not the original title, if there ever was one, but something that was added later as the drawing was being prepared for publication.

The term “*en Fuca*” was commonly used by the arrangers of the documents of the Malaspina expedition (of which the 1792 expedition was a part) to indicate any location in the Juan de Fuca Strait, the Strait of Georgia, and the inside passages to Queen Charlotte Sound. Examples of its use well beyond the present-day Juan de Fuca Strait are to be found in the titles of pictures by Cardero of Knight Inlet (*Canal de Vernacci*) and Loughborough Inlet (*Canal de Salamanca*).¹ The title therefore gives little indication as to the village’s whereabouts beyond the fact that it is unlikely to be on the outer coast of Vancouver Island.

Location

What the picture shows is a small-boat expedition. The men are cooking for themselves, and the location is therefore not close to anywhere where the Spanish expedition’s ships *Sutil* and *Mexicana* anchored.

¹ María Dolores Higuera Rodríguez, *NW Coast of America—Iconographic Album of the Malaspina Expedition*, p.120 & p.126, MUSEO NAVAL, 1991.

The European-looking barricades have led to suggestions that it might have been the Spanish establishment at Neah Bay; yet, there are no signs in the picture of any Spanish buildings or flags. Everything shown is typically Coast Salish apart from those barricades. There are house frames, fish-drying racks, and pit houses or middens.² We actually have 18th-century Spanish pictures of *Núñez Gaona* (Neah Bay) at the entrance to the Juan de Fuca Strait, including one by Cardero, and they don’t look anything like this. Bruce Ward, a former president of the BC Map Society, assured me that there is nothing he had seen at Neah Bay that has anything close to the topography shown in the drawing.³ Since the title of the picture says it was a fortification ... *of the Indians*, seems to me that’s what it was.

After leaving Neah Bay, the 1792 Spanish expedition overnighted off Lopez Island in the San Juan Islands, but they left early the next morning for *Seno de Gaston* (Bellingham Bay) where they saw a village, which they

² Ralph Heading astutely observed that the two hillocks on the horizon might be pit houses. Subterranean houses were used by the Klahoose whose territory was around the Toba Inlet and its approaches (Dorothy Kennedy & Randall Bouchard, *Northern Coast Salish*, in Wayne Suttles, *Handbook of North American Indians*, vol. 7, p.446, Smithsonian Institution, 1990). They could also have been middens or, less likely, over-grown natural features (glacial erratics).

³ True, there was a fence at *Núñez Gaona*, but its purpose was to contain livestock, hardly calling for the robustness shown in the picture. Some pictures of the Spanish establishment at *Nutka* (Nootka) also show fences, but they are, as one would imagine, far less substantial than those shown here.



above: photograph by J. Hamilton

right: detail from the Cardero drawing



Normally, I would be suspicious of any attempt to identify an otherwise unknown mountain in a drawing—there are mountains galore in British Columbia, and it's easy to find peaks that resemble each other, particularly in the Coast Mountains. But this one is too tempting. On the *left*, a photograph of Mount Denman, a 2000-metre peak that is conspicuous practically everywhere in Desolation Sound. On the *right*, the mountain on the far *right* in Cardero's village drawing.

examined “with the telescope”. It had two large houses and was inhabited and therefore doesn't fit the bill. There were no other opportunities for Cardero to have made his “boat expedition” drawing before reaching the Fraser delta. I should note here too for my American friends that the Spanish never visited Puget Sound.

There was once a substantial Indian village at Lily Point on the southeast side of Point Roberts, but this was visited by the British and their detailed descriptions do not match this scene. The Spanish saw this village from their ships—it is marked on a sketch map in one of Galiano's notebooks—but there is no indication in their records or on their sketch map that they stopped there, or that it would have been necessary to send a small-boat expedition a substantial distance from the ships to explore it. The appearance of the site

of the village at Lily Point bears no resemblance to the picture. It is very unlikely therefore that the location is in the lower mainland area. No further small-boat expeditions were made until they reached Desolation Sound.

The Spanish conducted several small-boat trips in the Desolation Sound area and Galiano and Valdés say that Cardero often went along. The Spanish account notes that while there, they saw abandoned villages.⁴

The general topography and high mountain on the far right of the picture could easily be a depiction of somewhere in that area.

After leaving Desolation Sound and passing through the Arran Rapids (*Angostura de los Comandantes*), more exploring by small boats was done before the expedition rounded the

⁴ [SILT 17-3 File: FV-563](#).

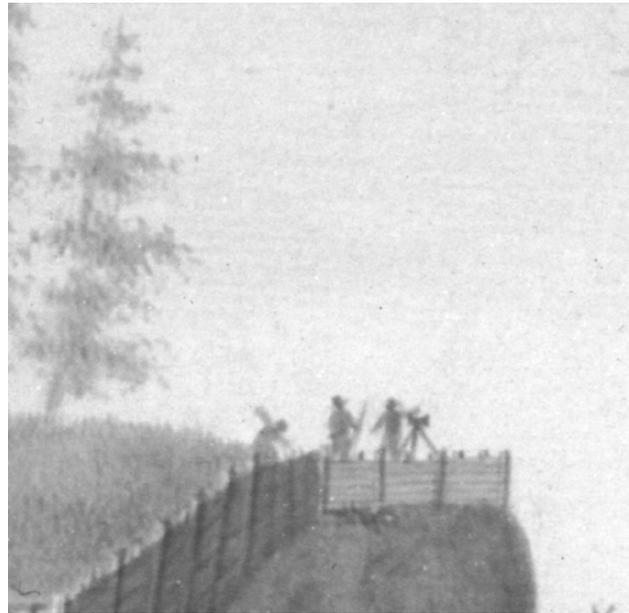
north end of Vancouver Island. So although we can't be certain the site of this village is somewhere in the Desolation Sound area, it is, I think, difficult to say where else it might be.

Number of men

Turning now to some of the details in the drawing, we can start with the number of men. The number shown is eleven, making twelve expedition members in all if we include the artist. This is on the high side; it was usually about ten. However, while the group on the top of the hill is suspicious, the number of soldiers, five, is exactly right. These would have been “able-bodied and spirited” members of the *Voluntarios de Cataluna* based at Nootka. Two were from the *Sutil* and three from the *Mexicana*. They were armed with muskets and bayonets.

The men at the top of the hill are making observations using a tripod. The 1792 expedition did carry a theodolite with heliometer and a two-foot telescope. The tripod would have belonged to the telescope and used to observe eclipses of the moons of Jupiter, but since this could only be done in the dark, I guess, based on the evidence of the picture, they must also have used the tripod to support the theodolite. This would have been used to establish the variation of the compass, measure the local hour angle of the sun to establish local (apparent) time, and for surveying (as opposed to navigation). However, these are not things that a small-boat party (other than a shore party) would normally be doing. The theodolite was too sensitive and too valuable to be put at risk in a small boat. Practically all routine navigational observations would have been made with a compass, chronometer, and sextant.

The Spanish records make several mentions of the use of the theodolite when they arrived at



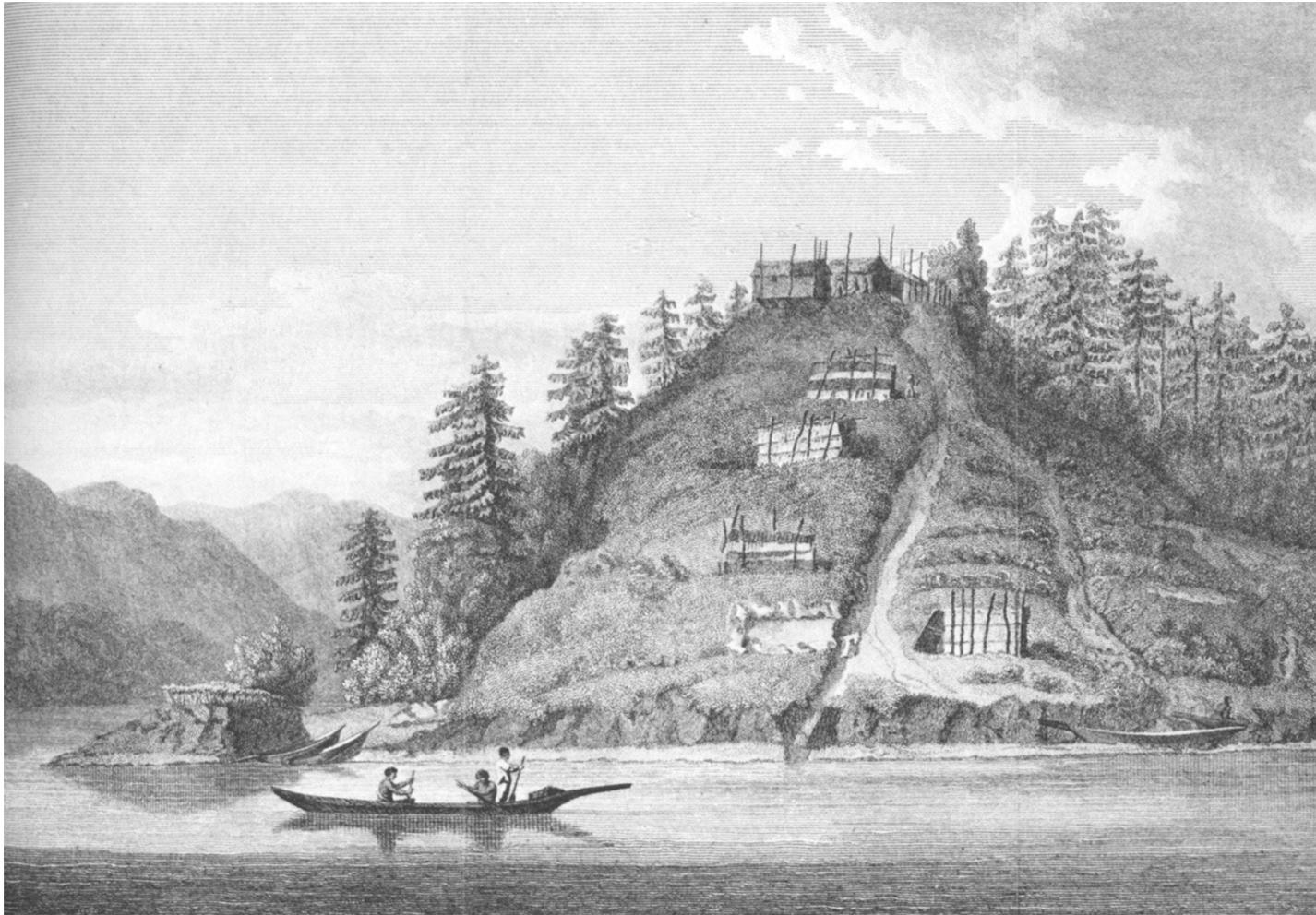
detail from the Cardero drawing

Too many men on the hill (see text)

the northern end of the Strait of Georgia and in the Desolation Sound area.⁵ On at least one occasion, a boat expedition was away at the time, confirming that the instruments were usually kept on one of the ships.

Although carefully observed, the group at the top of the hill is therefore in the picture for “added interest”, not because it was part of this particular scene. This would neatly account for the “extra” men.

⁵ At *Isla de Quema* (Kinghorn Island) and the *Islas de las Tres Marías* (Rendezvous Islands, Calm Channel) for example. Kendrick, John, *The Voyage of Sutil and Mexicana 1792*, p.140 & p.152, Arthur H. Clark, Spokane 1991.

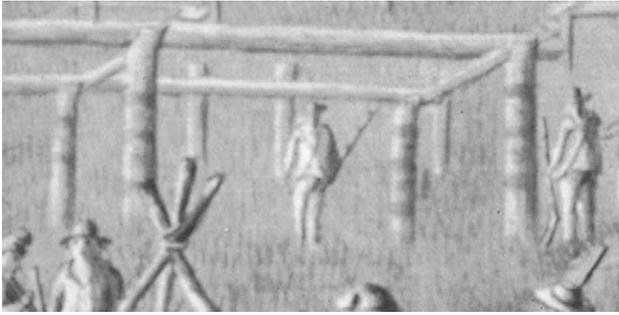


Village of the friendly Indians at the entrance of Bute's Canal

Vancouver's *A Voyage of discovery...*, facing p.269

Engraving of a drawing by 18-year-old Thomas Heddington who served aboard the *Chatham* and was with Johnstone and Swaine on June 29, 1792, when they stopped here. This is not Flea Village; however, it makes the point that it is impossible to judge from an artist's work how large a village was. Menzies remarks that this was "...a pretty considerable village of upwards of twenty houses & about 30 canoes...from which we concluded that its inhabitants could not be far short of a hundred and fifty". The artist has shown only a fraction of these houses, and we should expect an artist drawing Flea Village to have done the same.

John Frazier Henry, *Early Maritime Artists of the Pacific Northwest Coast, 1741–1841*, p.99, Douglas & McIntyre, 1984



detail from the Cardero-Brambila drawing



detail from the Sykes-William Alexander watercolour

The chief's house?

The posts of the large house near the entrance in Cardero's drawing appear to be decorated.

The British said the posts of the large house at the entrance to Flea Village had "painted ornaments"⁶ and the watercolour by William Alexander shows the frame of a large house on the beach similar to Cardero's.⁷

Size of the village

Judging the size of the original village by counting the frames of houses in the drawing is not so easy. The small-boat expeditions sent out into the area by the British expedition of 1792 led by Captain George Vancouver

⁶ [SILT 17-2, File: FV-562](#), p.3.

⁷ [SILT 17-2, File: FV-562](#), p.4.

sometimes recorded their estimates of the number of inhabitants. Comparing these numbers with what one might estimate from the accompanying drawings shows that, for compositional reasons, artists depicted only a fraction of the houses seen. Based on this evidence, a guess might be that Cardero's village would have been home to several hundred inhabitants. Vancouver in his report says three hundred.

According to Puget, the floor area of each house in Flea Village was $16 \times 16 = 256$ sq.ft. (23.8 m^2)

In Johnstone Strait, the Vancouver expedition came across a village with 34 houses and an estimated population of 500,⁸ which amounts to $500/34 = 14.7$ people per house. Let's say a person, on average, needed $6 \times 3 = 18$ sq.ft. of sleeping and personal space and neglect communal areas which could have been provided by having two levels, then the footprint of a house would be $14.7 \times 18 = 265$ sq.ft. (24.6 m^2) which ties in well with Puget's figure.

There must have been therefore about $300/14.7 = 20.4$ houses in Flea Village.

Puget says there were 3 "distinct buildings" in Flea Village. Each would therefore presumably have comprised 7 houses, and each of the three "buildings" would have been roughly $7 \times 16 = 112$ ft. long (34.1m).

⁸ W. Kaye Lambe (ed.), *The Voyage of George Vancouver*, pp.625–7. An engraving of the village based on a sketch by John Sykes *Cheslakee's Village in Johnstone's Straits* faces p.629.

With two, say 4-foot “lanes”, the total footprint of the village would therefore be $112 \times 56 = 6272$ sq.ft. (583 m²).⁹

Roughly a circle 90 ft. (27m) diameter. Cardero's drawing looks a bit bigger than that, but not by enough to be significant.

The barricades

The post-and-rail barricades are a major problem. Nothing remotely like them was described by the British expedition and it is unlikely that they did not see everything the Spanish expedition saw in their contemporaneous explorations of the area.

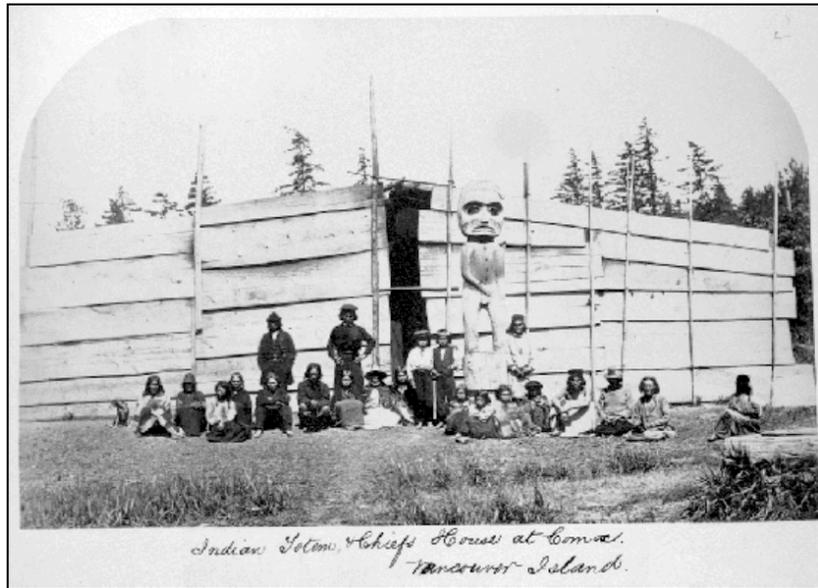
Moreover, the layout of the site with an undefended opening at its most vulnerable point on the beach is militarily ridiculous.

Who would bother climbing a cliff and clambering over the barricade when the door was wide open?

There are several possible solutions to the barricades problem, some more plausible than others, and none utterly convincing:

1. Despite the unlikelihood, the barricades actually existed as drawn.
2. They are entirely imaginary, composed by an artist back in Spain to conform with what Europeans would expect a fortified village to look like.

⁹ The archaeological site EaSd-9 was recorded as being 110 m² a reference clearly only to the beach. I recorded 300 m² of open flat ground at the site of Flea Village. Google Earth gives 700 m² for the entire site where it is now known to be, but this may include some rocky ground obscured from the satellite by the trees.



The Desolation Sound area including the entrance of Bute Inlet is within the traditional territories of the Coast Salish, Xwemalkwu (Homalco), Klahoose, and Tla'amin [Sliammon] who now mostly live on Cortes Island and near Powell River. This photo taken in 1866 shows closely-related (same language) Island Comox people and a Chief's house. I guess there is a chance that a field sketch of an array of such houses along a cliff might appear, to somebody who had never seen them, and had no notes to explain them, to be a fence.

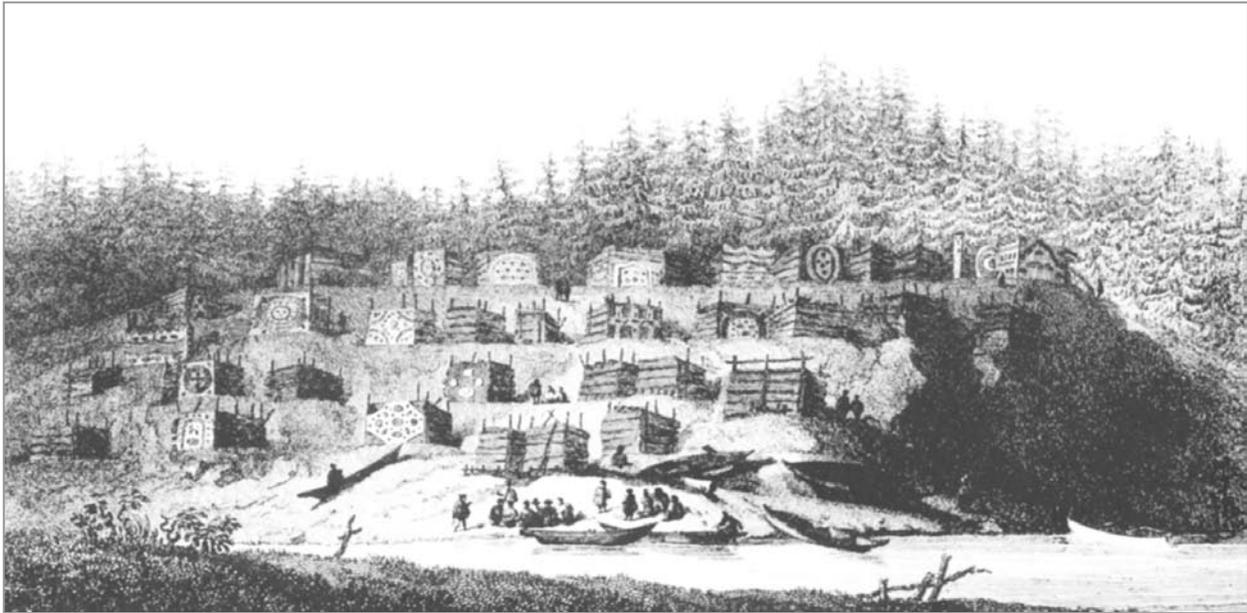
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3. They are a mis-interpretation by an artist in Spain of either field sketches or field descriptions of some other place.
4. They are a mis-interpretation by an artist in Spain of field sketches of the backs of houses.
5. They are a mis-interpretation by an artist in Spain of field sketches of fish drying racks.

Some other place?

Although enclosures made with stacked horizontal poles are rare on the west coast—the normal form in later years used by Indians and Europeans alike were (upright) palisades—horizontal forms did exist.¹⁰

¹⁰ Although stacking raw logs horizontally makes sense when the ground is hard and rocky, the method uses up a lot of good, valuable timber, which can be saved by



Cheslakee's Village in Johnstone's Strait, reported by Vancouver as containing 34 houses (the number shown in the drawing) and having an estimated population of "about 500".

John Sykes in Vancouver's *A Voyage of discovery...*, facing p.629.

Captain Vancouver, on August 12, 1794, when he was in Alaska, wrote:

"...but before the party had reached this extent [the eastern end of Hamilton Bay, Keku Strait, 56°54'N, 133°44'W], Mr. Johnstone states, that the remains of no less than eight deserted villages were seen; some of them were more decayed than the others, but they were all uniformly situated on the summit of some precipice, or steep insular rock, rendered by nature almost inaccessible, and by art and great labour made a strong defence; which proved, that the inhabitants had been subject to the incursions of hostile visitors. These fortified places were well constructed with a strong platform of wood, laid on the most elevated part of the rock, and projecting so far from its sides as to overspread the declivity. The edge of the platform was surrounded by a barricade

splitting the logs into planks which would have been the normal practice. Post-and-rail designs require some method of fastening the rails to the uprights which is not easy if the rails are very heavy.

raised by logs of wood placed on each other [my emphasis]."¹¹

Menzies' account is very similar, concluding with:

"...on these edges a barricade or breast work was generally raised all round by logs of Timber placed on each other, so as to give strength & security to the whole fabric."¹²

There's no evidence however that the Spanish saw, or even had an opportunity, to see these particular fortifications. Vancouver's book was first published in 1798 and the Spanish account of the voyage of Galiano and Valdés (*Relación del Viaje...*) in 1802, so it is remotely possible that someone was using the above cited passages as a compositional aid.

¹¹ *The Voyage of George Vancouver...*(ibid), 1791–5, p.1386, Hakluyt Society, London 1984.

¹² Wallace M. Olsen (ed.), *The Alaska Travel Journal of Archibald Menzies—1793–4*, pp.206–7, University of Alaska Press, 1993.



At the west entrance to Tenedos Bay, the cliffs have natural terraces. It was here that arrays of fish-drying racks were seen in 1792; hence the Spanish name *Bahía de Pesquero*. I also came across such terraces while bushwhacking along the coast towards Price Point just north of Prideaux Haven. They were so convenient that it was hard to believe they weren't man-made, but on peeling away moss you could see they were natural rock formations.

Backs of houses?

As explained in the caption to an accompanying photographs, the barricades might have been the backs of houses. For this to work obviously we have to pre-suppose that Brambila was not merely tinkering with a drawing by Cardero, but was constructing one from field sketches he had found in Cardero's notebooks.¹³ The supposition that such sketches might have existed is bolstered by the British description of Flea Village, which Cardero likely saw. Archibald Menzies, for example, says:

“We found at the top of the rock nearly level & wholly occupied with the skeletons of houses—irregularly arranged & very crowded; in some places the space was enlarged by strong scaffolds projecting over the rock & supporting houses apparently well secured—

¹³ See the endnote of this article.

These also acted as a defence by increasing the natural strength of the place & rendering it still more secure & inaccessible.”

Fish drying racks?

Mistaking fish racks for barricades is perhaps pushing this line of reasoning too far, but as the British reports indicate, the possibility has to be included. Tenedos Bay is just to the south of Prideaux Haven in Desolation Sound.

Captain Vancouver writes:

“Along the shores of the upper part of this arm [Toba Inlet, though Tenedos Bay was meant] which are mostly composed of high steep barren rocks, were several fences, formed by thin laths, stuck either in the ground, or in the chinks of the rocks, with others placed along them; some horizontal, others oblique, and different directions. Ranges of these were fixed along the rocky cliffs in the line of the shore, others varied from that direction, and from their appearance were supposed to be for

the purpose of drying fish; but as similar works, though perhaps not quite so extensive, had been observed without being appropriate to that use, and always at a considerable distance from any known habitation; the object they were designed for, remained as uncertain to us...”¹⁴

Menzies knew what they were:

“We soon rounded out a deep Bay [Tenedos Bay], on the West side of which we saw a great number of fish stages erected from the ground in a slanting manner, fir the purpose of exposing the fish fastend to them to the most advantageous aspect for drying. These Stages occupied a considerable space along the shore & at a little distance appeared like the Skeleton of a considerable Village; they were made of thin Laths ingeniously fastend together with Withies of the Roots of Pine Trees....”¹⁵

Puget did to:

“...In this bay, the Indians had erected several slight fences or frames, as we supposed for the purpose of drying fish.”

...as did the Spanish. They named Tenedos Bay, *Bahía de Pesquero*.

About Cardero

Manuel José Cardero (1776–?) was born in Écija, Córdoba, Spain, but nothing else is known of his life until he sailed with the Malaspina expedition of 1789–1794. He travelled in the *Descubierta*, probably as a servant. He showed an aptitude for drawing early on in the expedition, and he was consequently detached from the main Malaspina expedition in Acapulco and told to join the Galiano-Valdés expedition of 1792 as a cartographer and artist. After the voyage, Cardero returned to Spain, and was with Valdés for a time.

¹⁴ *The Voyage of George Vancouver...*(ibid), p.603.

¹⁵ C.F. Newcombe (ed.), *Menzies' Journal of Vancouver's Voyage—April to October, 1792*, pp.66, Archives of BC, Memoir No.V, 1923.

When Malaspina returned from the Pacific, Cardero turned over his drawings to him, but he was informed in 1795 that his services were not needed on the work of putting the documents of the voyage in order.^{16 17 18} As it turned out, this was not a very smart decision. Several of Cardero's drawings have titles that, if not wrong, are a source of puzzlement.

About Brambila

Fernando Brambila (1763–1834), or to give him his original Italian name, Ferdinando Brambilla, was born in Lombard, and was trained as a professional artist at the *Academmmia di Belle Arte di Brera* in Milan. He was recognized as one of the most skilled artists of the Malaspina Expedition, but he did not join the expedition until the ships reached Acapulco, Mexico, in December 1791, several months after their visit to Nootka Sound.

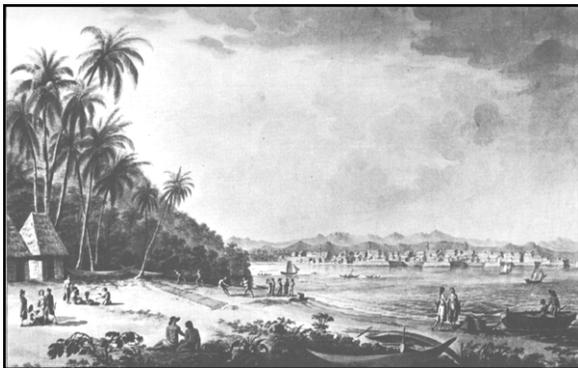
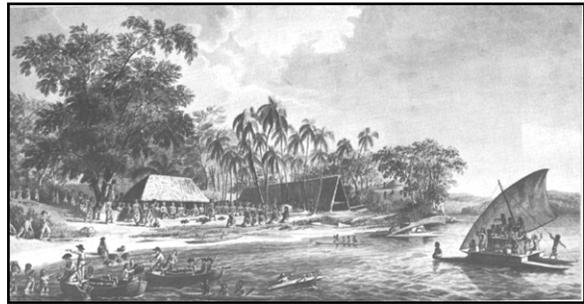
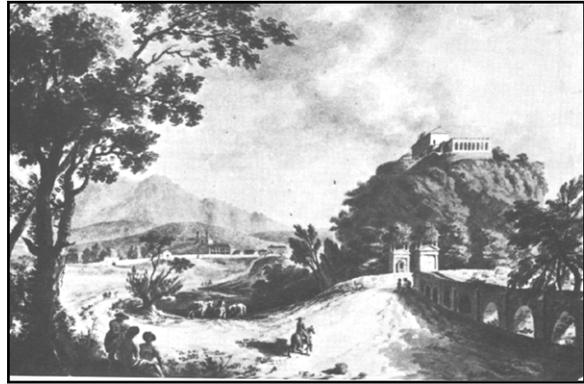
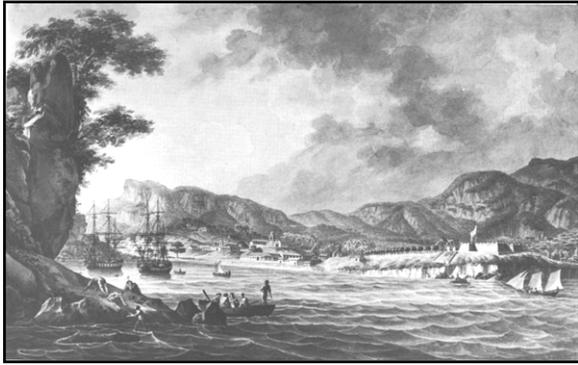
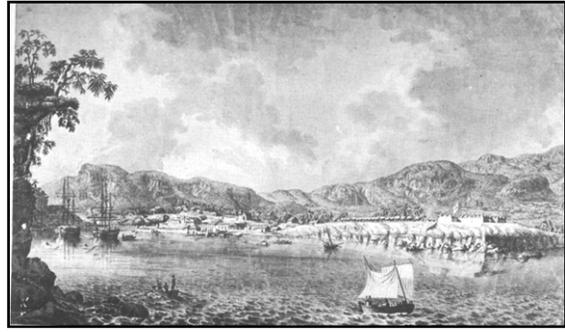
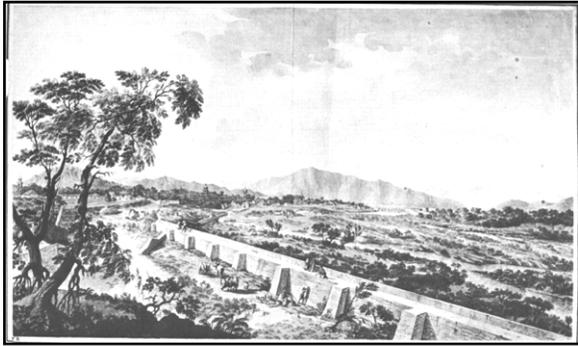
Brambila was assigned to recording landscapes, rather than working on any botanical or anthropological detail. His paintings were not surrendered to the *Depósito Hidrográfico* (the “trunk in the attic” of popular myth) until 1806, by which time he had probably lost touch with both Cardero and the by-then disgraced Malaspina.¹⁹ Most likely, this was when Cardero's original sketches, which Brambila must have had, were lost.

¹⁶ Carmen Sotos Serrano, *Los Pintores de la Expedición de Alejandro Malaspina*, pp.125–138, Madrid, 1992.

¹⁷ John Kendrick, *The Voyage of Sutil and Mexicana 1792*, p.237, Arthur H. Clark, Spokane 1991.

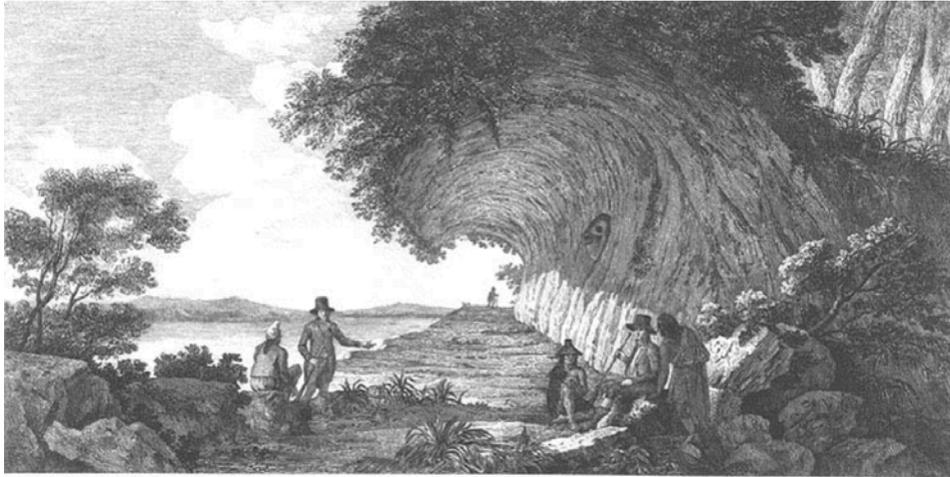
¹⁸ Virginia González Claverán, *La Expedición Científica de Malaspina en Nueva España, 1789–1794*, pp.385–393, El Colegio de México, 1988.

¹⁹ Peter Barber, in *Malaspina' 92, Jornadas Internacionales*, p.362, Real Academia Hispano-Americana, Cadiz, 1994.



It really isn't too difficult to recognize a picture that Fernando Brambila has worked on. Always put trees on the left seems to be a general rule; on the right (*bottom right*) they look awkward.

Pictures 157, 368, 369, 420, 766, 765,302, and 751 from Carmen Sotos Serrano, *Los pintores de la expedición de Alejandro Malaspina* Catálogo de Dibujos, Madrid, 1982.



VISTA DE UNA GALERIA NATURAL, DE CIENTO PIES DE LARGO Y DIEZ DE ANCHO EN LA INMEDIACION DEL PUERTO DEL DESCANSO EN EL ESTRECHO DE JUAN DE FUCA



Brambila's trees

One thing we can be fairly sure about is the non-existence of the trees and the “potted plants” beneath them on the left of the picture. Having trees on the left of his works was common practice for Brambila. A good example of this, one of many, is his rendering of Malaspina's gallery on Gabriola Island. The trees on the left of his version are in fact open ocean. The “potted plants” in the foreground were likely inspired by his visit to Mexico.²⁰

²⁰ Humphrey, Barrie, [Malapina's lost gallery](#), *SHALE* 10, pp.3–23, January 2005.

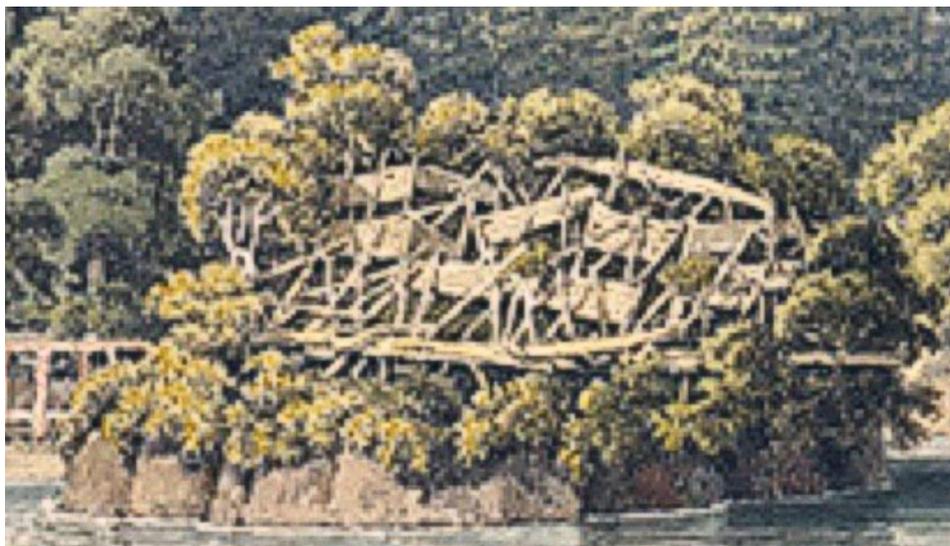
Preliminary conclusions about the drawing

Several of the elements of the picture are reflected in the written accounts of both the British and Spanish when they were in this area—boat expeditions, abandoned village, house frameworks, middens, conspicuous high mountains, fish drying racks, fortifications, use of the tripod in making astronomical observations, painted posts. There is no list that matches this for US

waters or the lower mainland.

The drawing is therefore of a site in Desolation Sound or beyond. The original has been modified, perhaps extensively, for artistic effect. Given that the site that made the most impression on the British was Flea Village, and the Spanish reported seeing “... in some places [near or among the *Islas de Sarmiento*, their name for Prideaux Haven] frameworks of village [houses] and quantities of shell which it was known had heaped up after having contributed to [the Indian's] sustenance”, as good a place as any to start investigations is Prideaux Haven.

This was the status of the research in the spring of 2002 before the first of three visits to the area.



[...continued in [File FV-567](#)]

Endnote added 2016: The supposition that Brambila's barricade is a mis-interpretation of a field sketch that he may have found in Cardero's notebooks of the remains of the backs of houses in Flea Village is supported by the watercolour by William Alexander (see FV-562 page 5).

Grant Keddie, the long-time Curator in Archaeology at the Royal British Columbia Museum added in an e-mail, February 5, 2002, the following:

“Defensive sites sometimes utilized house walls as the outer defense when the houses were joined together. The combination of the bluffs and the walls was necessary unless they were very steep bluffs.

“The walls in the Cardero drawing are similar to house walls. Because of the shallow soil at rocky defensive sites it would be easier to re-enforce a small number of posts with rocks and clay (as has been found at a few sites) and join

them with boards. If the boards are overlapping like house boards it would be difficult to scale them.

“ The opening area was probably barricaded during attacks and the focus of defensive activity.

“The value of walls was sometimes to prevent a surprise attack - giving the occupants time to defend themselves. Many of the oral traditions about warfare make reference to the failure of an attack because the defenders had enough warning time to get armed

and defend themselves.”

Articles:

- [FV-561 Introduction](#)
- [FV-562 Vancouver expedition accounts](#)
- [FV-563 Spanish expedition accounts](#)
- [FV-564 Historical accounts](#)
- [FV-565 Archaeological reports](#)
- [FV-566 Initial remarks on Cardero's drawing](#)
- [FV-567 Field trip #1, September 2003](#)
- [FV-568 Field trip #2, September 2005](#)
- [FV-569 Field trip #3, September 2007](#)
- [FV-570 A second look at Cardero's drawing](#)