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There is a [follow-up article](#): Hebda, A. & Jones, G., A boring times at Brickyard Beach, *SHALE* 24, pp.40–2, June 2010.

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Clam curio—the piddock

compiled from notes by Barrie Humphrey

An article in the *Nanaimo Free Press*, July 29, 1885, reads as follows:

THE CLAM IN ITS ROCKY HOME

Mr. W.M. Flewett of the DeCourcy Islands, has furnished the FREE PRESS with a wonderful and rare curiosity in the shape of a clam embedded in a piece of sandstone. The piece has been broken off the sandstone rocks at the water's edge where Mr. Flewett has just completed a substantial wharf.

The clam, which is about two inches in length by over an inch in diameter, is embedded in the solid rock and obtained its food by means of a small hole, an eighth of an inch in diameter, through which the salt water would flow into the clam's inner chamber.

The question for experts to decide is how the clam got into the solid rock and lived in its narrow cell. This is not one of the many petrifications found on this coast, but is evidently their natural home and mode of life, for they can be found in the rocks of DeCourcy Island, which is situated about 10 miles south of Nanaimo, in large numbers.

The walls of the cells and passage are worn as smooth as the finest glass.

Any person desirous of inspecting this natural curiosity can do so by calling at this office.

A few days later a follow-up article in the *Nanaimo Free Press* dated August 1, 1885, reads:

THE ROCK CLAM CURIO

A number of our local scientists have examined the rock and clam alluded to in our issue of Wednesday. Each of the savants holds a different opinion as to how the clam got into the rock and, after getting in, how he

scooped out such a secure home and, after making things comfortable in his rocky home, how he managed to subsist.

The clam, about two inches in length by an inch in diameter, was found embedded in the rock and, when taken out, was alive and made delicious clam chowder.

The fact that clams could exist alive in the hard rock for a number of years appears to be a novel one, and we would be pleased to hear from any person who has made this particular branch—which we might appropriately name 'clamnology'—a study, and who can enlighten the public on the mysteries of living clams in the hard sandstone.

WILLIAM FLEWETT'S CLAM

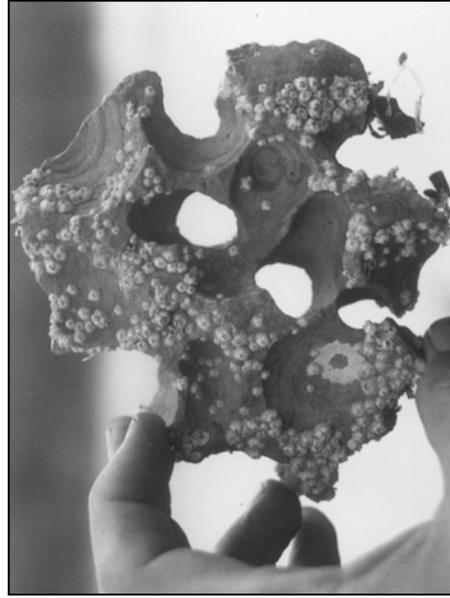
As far as we have been able to find out, nobody answered the call until around 1999 when Barrie designed the Gabriola Historical and Museum Society website page for the Flewett family. Barrie wrote, after researching the topic:

William's curiosity about nature was common in late-Victorian times, particularly in the professional class. It would not have been unusual for an 'engineer' to send a strange clam to the newspaper for identification.

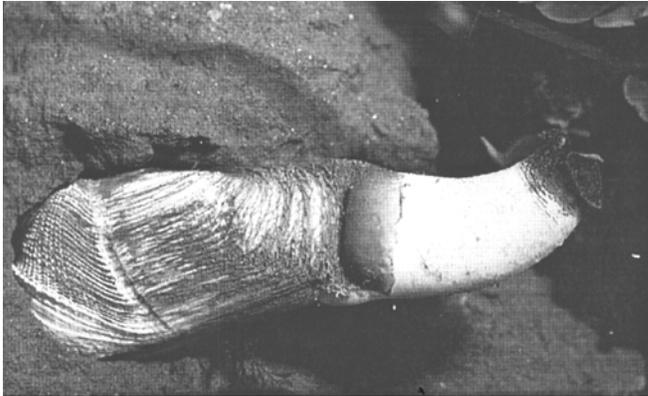
He had found a piddock—a clam of the family *Pholadidae*—which, when still quite small, uses its shell to burrow into wood, shale, or sandstone, where it lives and grows, enlarging its living space, but leaving its entrance hole small, as a defence against predators. Water sucked in through the entrance is filtered for small organisms on which the clam feeds.

Unfortunately, the newspaper article [in the *Nanaimo Free Press*] doesn't give quite enough information to identify the species. If full-grown, its size suggests either it might have been *Penitella penita*, the flat-tipped or common piddock, or *Penitella gabbi*, Gabb's piddock. It could also have been an oval piddock, *Chaceia ovoidea*, or a young rough piddock, *Zirfaea pilsbryi*. Piddocks contribute to the erosion of our coast—as do people breaking off rock to look for piddocks.

The final word on species we'll leave to the accompanying article by Andrew Hebda and Gwyneth Jones.



Top right: Holes in shale from False Narrows. They prefer shale or siltstone to sandstone.
Below: Stones from "Hole Beach" in Kyuquot Sound on the west coast of Vancouver Island. Kayaking friends wouldn't part with them. Despite the wide range of colours, they all turned out to be limestone, and it is difficult to imagine what else but piddocks could have drilled the holes.



Piddock, with siphon extended (from a now disappeared website)

It is very easy to underestimate the role of clams as erosion agents (Evans, 1968). They bore at a rate around 12 mm (half an inch) per year, which in geological terms is enormous. While we wonder about their role in the evolution of False Narrows, others think they may have played a significant role in the separation of Britain from the European mainland—they're happy to burrow in chalk. If it's true that these humble clams helped create the English Channel, it's staggering to think how different history would have been had they not done so.

The clams are only found below the low tide mark, which together with their habit of living and dying in their holes, makes them easy to escape the notice of casual beach strollers. They have curious shells that have led at least one person to suspect that they were deformed.

William Flewett was an interesting guy. There's a picture of him (reproduced on the right), "William Fleevet", on page 35 of June Harrison's book, *The People of Gabriola*. He was born in Shoreditch, London, England, in 1832, and came to Nanaimo to work as an engineer in 1873 via St. John, New Brunswick, and Cape Breton, Nova Scotia. He lived with his daughter

Mary Helen and his third wife Martha, who was Dutch, on DeCourcy Island where they were the only European inhabitants.

Boat Harbour used to be called "Flewett Harbour", and Ruxton Island used to be called "Flewetts Island", William and Martha having done well enough on the farm to be able to speculate on the possibility of there being coal on land in their neighbourhood.

He was well known in Nanaimo and one of his daughters taught at the Gabriola School from 1896–8. He died in July 1914. Martha died shortly afterwards. ♦

References

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Mark Edgar, Jo Chappel, and William Flewett