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Tsunami Whirlpools - observed in 2004 and remembered in First Nations art and myth

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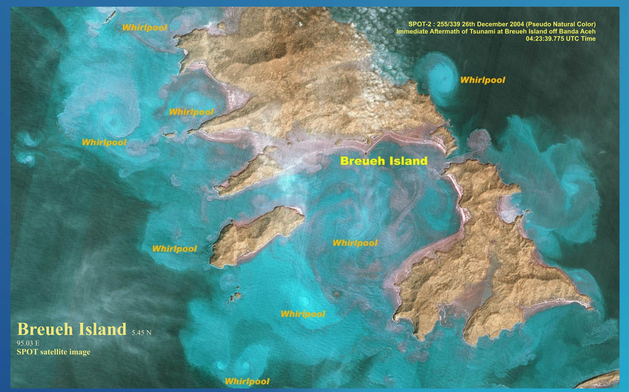
Whirlpools in the 2004 Indian Ocean Tsunami



Eyewitness Reports of Whirlpools in 2004

Telaga Marina Langkawi, Malasia

"the water created a whirlpool effect, sucking boats underwater and forcing people to run for their lives."
http://www.mirbumidahan.org/blogs/images/tsunami_in_langkawi/

"The anchorage turned into a swirling vortex of muddy water. ... Friends watched in horror as [our boat] was sucked back and forth through the whirlpool, completely at the mercy of the strong currents."
http://www.nytimes.com/News/12302004/weekly_stories/tsunami.html www.langkawitsunami.net/Boats/PollenPath.htm

Rebak Marina

"The whirlpool effect swept docks and boats round and round and out to sea on retreat of the surge." http://www.setsail.com/s_logs/liggett/sunflower139.htm

Penang, Malaysia

"I ... was stunned to see a huge whirlpool in front of my apartment. ... It looked like a giant washing machine ..."
Reuben Walters, Penang, Malaysia http://www.cnn.com/2004/WORLD/asiapcf/12/28/more.emails/

Burmese Thai border (?)

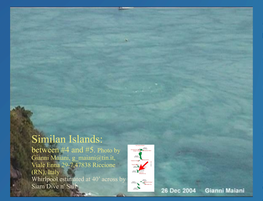
"The water had such unbelievable strength ... It was swirling like a whirlpool as if it was boiling and coming from the depths of the earth."
http://www.cbsnews.com/stories/2005/03/18/60minutes/main681558.shtml 60 Minutes

Similan Islands Richelieu Rock

" ... A whirlpool started forming around us ... our mooring rope was cut to avoid being sucked into the whirlpool ...
"the giant wave created a whirlpool with incredibly strong currents"
http://www.cdnn.info/industry/i041228e/i041228e.htm

South Ari Atoll, Maldive Islands

"like a horror movie, I actually saw the seaplane getting sucked under by the vortexes and eddies that were 20 feet across.....i was just waiting for the engines to smash into the water and see the plane flip over, when the crew cut the rope, jumped on board, and the plane bobbed up and took off." Reported through Tsunami bulletin board: tsunami_bb@infolist.nws.noaa.govsg : 72.75° E



ABSTRACT

Many whirlpools formed during the 2004 Indian Ocean tsunami. Whirlpools were photographed by SPOT satellites and reported by observers in at least a half-dozen locales. Whirlpools have previously been reported in a number of other tsunamis, and are a memorable feature of the human experience of a tsunami.

On the west coast of Canada, Haida mythology from the Queen Charlotte Islands mentions a whirling wave of foam in several stories that appear to describe tsunamis. A petroglyph from southeast Alaska shows a spiral suggestive of a tsunami whirlpool inside the body of a sea-monster who, stories say, inundates canoes, makes the salt-water boil, swallows fishermen, pushes fish into a cave, and creates a canoe passage by flopping across a spit.

Hundreds of kilometers to the south, Salish carvings from the inland side of southern Vancouver Island show whirlpool-like symbols in conjunction with Thunderbird and Whale; supernatural characters used to explain the origins of earthquakes and tsunamis by tribes on the outer coast of Vancouver Island.

Eyewitness Reports of Whirlpools in Other Tsunamis

- discovered through a brief search on google

Lisbon; 1755
"a great number of boats and small vessels ... were all swallowed up, as in a whirlpool, and nevermore appeared."
Eyewitness account by Rev. Charles Davy, cited in: Eva March Tappan, ed., The World's Story: A History of the World in Story, Song and Art, 14 Vols., (Boston: Houghton Mifflin, 1914), Vol. V: Italy, France, Spain, and Portugal, pp. 618-628) http://www.drgeorgepc.com/Tsunami1755Lisbon.htm

Papua New Guinea; 1957 and 1998
Skouw Mabo 1957: "A body of turning water, about 3 m high and described as whirlpool, caught and drowned a man who was near the beach."

Holtekamp beach 1998: "... a succession of many waves creating a whirlpool-like effect"
The Impact of the 1998 Aitape Tsunami at Jayapura, Indonesia, Nelson Joku , Geosciences Division, University of Papua New Guinea
http://www.pmel.noaa.gov/~tsunami/PNG/Upng/N_joku020402/

Manzanillo Mexico, M 8.0, 1995
"When the wave began to recede, eyewitnesses saw a whirlpool form just outside the entrance of the harbor."
Mexican Earthquake Generates Tsunami, New Data, and Unusual Photos
Earth in Space, Vol. 9, No. 7, March 1997, pp.5-8 .© 1997 American Geophysical Union. http://www.agu.org/sci_soc/eisborerro.html

Port of St. Thomas, Puerto Rico M 7.5 1867
"A whirlpool appeared in the center of the bay and everything that was floating began to move towards it."
Reported by commander of US Navy Atlantic Squadron.
http://poseidon.uprm.edu/public/The-Earthquake-of-the-Century.pdf
The Earthquake of the Century (The Devil's Scream) Author: Peter Avilés

Whirlpool Motifs from Southeastern Alaska

Water Monster Petroglyph

This petroglyph represents a sea-monster associated with earthquakes in Haida stories, with a vortex-like spiral within its body. "Y" shapes enclosing the spiral indicate water. The sideways "S" shape is similar to iconography used to represent strong currents on antique European maps. Photo from Dorris, Michael, 1975, Native Americans: 500 Years After, NY: Thomas Y. Crowell

Haida Tsunami Myths - From the Queen Charlotte Islands

The Water Monster - His activities produce the effects of a tsunami.

The water monster opens his mouth, and currents flow into it. Stone-Ribs puts on the water-monster skin, inundates canoes, makes the salt-water boil, and swallows fishermen. He causes a house to fall flat towards the sea, breaks the rock door that has traps him in the mountain, pushes fish into a cave, and creates a canoe passage by flopping across a spit. Sacred-one-standing-and moving, Stone-Ribs, and Upward, pp. 197-206

The Magic Hat - Topped by a foamy swirling wave, it causes a flood from the ocean.

1. *"He had a surf-bird for a hat. ...A round white thing was on top of his hat. This was a foamy wave. The foam was turning round and round rapidly. As soon as they had refused him the earth changed. Out of the earth water boiled up. Then, when this island was half covered, the frightened town people thought of giving the woman up. Then they all cried and ... let her go. Then the stranger gave them his father's hat covered with surf-birds which kept flying out from it and back again."*
A-slender-one-who-was-given-away pp. 151, 157: A-slender-one-who-was-given-away pp. 151, 157

2. *"On the top of the chief's hat ... a round fleck of foam swirled rapidly ... Something on his head began turning around very rapidly. Then a strong current of sea water poured into the house."* Raven Traveling pp. 122-124.

Stories from: Swanton, J., 1905, Haida Texts and Myths, Skidegate Dialect, Bulletin 29, Bureau of American Ethnology, Smithsonian Institution.

CONCLUSIONS

- **Tsunami whirlpools are frequently reported by eyewitnesses.**
- **Cascadia-area Natives linked whirlpools and tsunamis.**
- **Traditional knowledge contains information on ancient tsunamis.**

Whirlpool Motifs from Southern Vancouver Island

Spiral motifs appear with Thunderbird and Whale, supernatural beings associated with tsunamis and earthquakes in Native cultures on the Cascadia Coast. These Salish spindle whorls are from the inner coast of Vancouver Island. American Museum of Natural History, ethnographic collection: http://anthro.amnh.org/ - 161_1874 161_1865 161_9572 161_9574 161_9571

This spindle shows two Thunderbirds with wave-like beaks towering over a distressed-looking figure. Grooves around the central hole suggest a vortex, as does another set of concentric circles on the left-hand Thunderbird. The Raven appears on the upper right.

The Thunderbird and Whale, shown here, appear in many stories containing earthquake and tsunami elements. Deeply incised circular grooves around the central hole suggest a chaotic vortex.

A spindle decorated with a Thunderbird, wolf, and unknown figure. The incised groove around the central opening is present, but not pronounced.

A spindle decorated with orderly stepped circles; bordered by whale fins. The orderly appearance is only weakly suggestive of a vortex.

4/18/06 SSA Meeting, S.F.