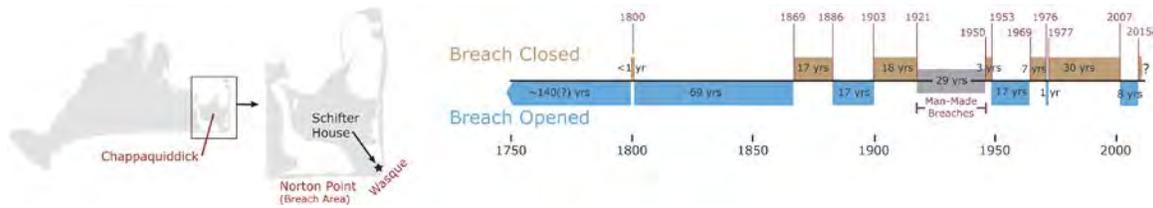


## Norton Point Openings – Building on Tom Dunlop’s Research

To develop the timeline (Below and page 129; *A Meeting of Land and Sea*) for the openings and closings of the Norton Point Breach between Chappaquiddick and Martha’s Vineyard I began with Tom Dunlop’s history and worked with other sources to provide confirmation and to extend the record back in time. These sources and the cited evidence is summarized below.



Below: **Dates of open periods with actual opening and closing dates if available.**

Tom Dunlop (TD) evidence in black; DRF notes from maps, J.G. Ogden research, and others in grey; DRF comments and questions in blue. Notes from Henry Whiting’s papers in crimson.

The definitive periods of closure appear to be: 1869-1886; 1902-1921 (man-made); 1932-37; 1950-53; 1969-1976; 1977-2007. Periods of 17, 19, 5, 3, 7 and 30 years. Longest closure in 300 years happens to have been the recent period when the Shifter house was built.

TD – Indicates no definitive breaches before 1856.

But the following series of observations suggest that the opening (breach) existed in the 17<sup>th</sup> and 18<sup>th</sup> centuries.

- 1666 (Pieter Goos) Unclear, but appears to be one landmass; closed
- 1676 (John Speed) Unclear, but appears to be one landmass; closed
- 1694 (Southack) Shows two separate landmasses; open
- 1698 (Atheam) Likely open; two land masses just touching; poor quality
- 1724 (Homann) Two separate land masses; open

Henry Whiting 1872 – There was a connection between the two land masses in the early 1800s for “ a few months”. Beyond that he could not verify any earlier or subsequent connections until 1869. His view is that there was two land masses back in time as far as is known.

~1775(6)~1846 (poor data on opening or closure before Whiting’s first survey)

Isn’t it possible that it was open even longer, at least since 1777 and perhaps rather continuously? Is the only reason it is thought closed sometime between 1846-1856 due to “opening in 1856”? 1775(6) map; 1776 Des Barres), 1784 (map),

1795 (map), 1800 (news account), 1825 (news account), 1830 (map), 1846 (HLW map; shows openings at C and extreme E). Acc JGO HLW 1856 shows open; Closed sometime before 1856

**1856-1869** (natural opening – from HLW); Walling 1858 open; HLW 1889 says closed in 1869; HLW 1871 shows closed; VG source of 1869;

**1873-1873** (Unsuccessful first attempted engineered opening).

**1886-1902** (natural) January 9-10. Closed Feb 1902 or March 1903; (Shaler 1888, HLW 1886, 1901 Eldridge open: open between 1887-89)

**1919-1919** (Unsuccessful attempt)

**1921~1932** (Man-made) March 24. 1932 – Closure date is unclear. JGO cites 1934 USACE report as closed. **1932** (Unsuccessful attempt). 1936 Nautical chart shows open.

**1937-1950** (but 1921 still open??) August 27. Second (natural) opening July 29, 1938 Closure ca. 1950.

**1953-1969** (natural) February 15-16. Second opening February 12, 1954. Closed late 1969-70 (date uncertain; JGO-Nov 1969); 1961 USGS shows open

**1976-1977** (natural) gale - February 2. Closed 1977 (Ice on Katama Bay?)

**1991-1991** (natural – Hurricane Bob) August 19. Overwash no outward flow.

**2007-2013???** (natural) April 17. Storm from S; high tide Katama Bay followed by NW wind

In the early 1970s the Army Corps of Engineers proposed building a ten-foot high berm south of South Beach to block storm waves from washing over Norton Point and breaking it open. It was Ogden's report of 1974, stressing that it was the beach failing from Katama Bay outward – not a rushing in of water from the sea – that caused Norton Point to give way. This may be why he added an eyewitness account that stressed the water driving outward from the bay to the sea. The Army Corps of Engineers soon abandoned the idea of building a berm south of South Beach.

Ogden – natural due to erosion resulting from continual rise in sea level and vigorous longshore currents keeping sands in suspension until dispersed in ACK Sound or coastal shelf. Beach failure occurs by sapping rather than overshoot of waves so USACE 1969 proposal of a 3m berm seems unlikely to work.

DRF – there would be other historical references to open and closed periods. Ogden's table is useful.

Dunlop, T. History of the Openings and Closings through Norton Point. See unpublished article on this web site.

Ogden, J. G. I. 1974. Shoreline changes along the southeastern coast of Martha's Vineyard, Massachusetts for the past 200 years. *Quaternary Research*, 4, 496-508.

Whiting, H. L. 1872. Report on Edgartown Harbor Pp. 1-4 in *U.S. Coast Survey, Reports concerning Martha's Vineyard and Nantucket. Appendix No. 15 to Report for 1869.*

Whiting, H. L. 1872. Shore-line Changes