

REVISED: A HISTORY OF THE OPENINGS (AND CLOSINGS) THROUGH NORTON POINT

Tom Dunlop / February 21, 2014

In the May-June 2011 edition, Martha's Vineyard Magazine published a special report that I wrote on the opening – also known as the breach or cut – through Norton Point, caused by the Patriots Day Storm of April 15-17, 2007.

This story featured several sidebars (also by me), one of them a history of previous openings and closings going back more than two hundred years. Some of my research came from the Gazette, some from interviews, and some from a study on the last long-term (1953-1969 or 1970) opening, written by J. Gordon (Pete) Ogden III, published in Quaternary Research 4 (1974).

Further research on this topic – and others – in the last year and a half revealed several errors of fact and interpretation in my history of the openings. This report corrects those mistakes and – I believe – is now the most accurate account of when Norton Point was open and when it was closed for as far back as we can ascertain.

I want everyone with an interest in the present opening to have the latest information I have. I will also leave a record of it in the relevant files at the Vineyard Gazette, which owns Martha's Vineyard Magazine.

My thanks to Skip Bettencourt, Nancy Hugger, and Camille Colantonio for lending me an important geological study from the nineteenth century that filled in parts of this history. Please get in touch with me if you have any questions, comments, or corrections.

With thanks,
Tom Dunlop

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OPENINGS BEFORE 1869

Up to now, from various maps and accounts, the first opening through Norton Point Beach we could account for is one that was said to have occurred sometime in 1856. A report by J. Gordon (Pete) Ogden III lists an opening that year, as does at least one map from the last quarter of the nineteenth century.

However, there are some puzzling and contradictory things about the supposed 1856 opening.

A review of all the issues of the Vineyard Gazette in 1856 fails to reveal a story of an opening occurring that year – a surprising thing given that the paper was paying close

attention to the waterfront and any changes that might affect boating or fishing in Edgartown. One possibility is that Norton Point might have broken open during a blizzard that lasted from Saturday evening through Sunday evening, January 5-6, 1856:

On January 11 of that year, the Gazette reported that “[t]he tide during Sunday rose to an uncommon height, covering some of the wharves. . . . The storm, on the whole, was perhaps the severest experienced here for twenty years or more.” But this was a winter of unusually frequent and mighty storms, as well as a prolonged and severe freeze, and there is also a chance that the opening occurred sometime afterward. Still, no story that I have found so far mentions one occurring that year.

David Foster, director of Harvard Forest and member of the board of The Trustees of Reservations, has taken an interest in the openings and the processes of erosion that have occurred along the Chappaquiddick shoreline because of them. At a recent conference on the opening and its effects, sponsored on by Woods Hole Sea Grant and the Massachusetts Office of Coastal Zone Management, Dr. Foster presented compelling evidence that, prior to its closing in 1869, the opening through Norton Point had existed almost continuously from 1776 and perhaps even earlier than that – a span of ninety years or more.

This idea runs counter to the historic cycles through which all the openings – natural and manmade – have run since the closure of 1869. But there is a good deal of evidence, both on maps and in written accounts, to support the possibility that this opening had been in existence for generations. Ogden’s study – published in *Quaternary Research* 4 in 1974 – lists these eighteenth and nineteenth century maps that all showed an opening through the beach:

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|--------|---------------------------------|-------------------------------------|
| • 1776 | Des Barres Map | Opening at eastern end |
| • 1795 | Benj. Smith survey for town | Opening at Wasque end |
| • 1830 | H. Grape survey for town | Opening near Wasque |
| • 1846 | H.L. Whiting | Opening at eastern end |
| • 1856 | H.L. Whiting | Opening at western and eastern ends |
| • 1860 | Unidentified hydrographic chart | Opening at western and eastern ends |
| • 1871 | H.L. Whiting | No opening |

Also in hand are statements by contemporary authorities who, after this opening closed in 1869, declared that it had been open not merely for decades but for generations. Quoting Whiting in an essay published by the *Vineyard Gazette* on March 28, 2013, Dr. Foster wrote:

“In an 1869 report Whiting states that before that date the barrier beach was only intact for a few months around 1800 and ‘with this exception, there is no record or tradition of the non-existence of an inlet through Cotamy [Katama] Beach since this section of the coast has been known.’ Whiting’s conclusion is supported by [James] Freeman (1807) who pin-points the closing at 1792 when it ‘remained shut during six months; at the end of which it was again opened by a north-east storm: it was never shut before or since.’”

Others wrote about how long the opening had been in place after it closed in 1869, as we shall see below.

Closure of the opening in 1869-1870

The first indication we have of the closing of the “long opening,” which might have been in existence a hundred years or more, comes from the Vineyard Gazette of November 26, 1869. The item reads in full:

“Sometime last week the island of Chabbaquiddick [sic] ceased to be, the action of the wind and sea having closed Washqua Opening. We were just congratulating ourselves upon this addition to our territory, when the storm of Saturday made another opening in the beach, and left ‘Chabby’ an independent continent, once more. This is one of the most singular cases of *sea*-cession on record.”

But this was not the end of the closing process, because about six weeks later, on January 7, 1870, the Gazette reported that “the elements . . . have closed Washqua Opening firmly, the beach being now some four feet high. Capt. Theodore Wimpenny drove his horse and wagon across the beach, a few days ago, to what was once the *island* of Chabbaquiddick, now an island no longer, but a part of the mainland of the County. A few weeks ago, the opening was closed for a day or two, and then broke open again.”

This second story reaffirmed the idea that the opening had been in place for almost a century. It said of the conjoined Vineyard and Chappaquiddick: “Now the reunion seems to be permanent, and bids fair to continue so. It is nearly or quite 100 years since the passage was made by land to ‘Chabby.’ It is cheering in these days, when rumors of secession are rife, and we seem to be in danger of losing a portion of our town [meaning Oak Bluffs, which was a satellite village of Edgartown and was just beginning to agitate for incorporation as a town of its own] to find the elements conspiring to annex a large tract of valuable territory to our island.”

The following week, January 14, 1870, the paper reported that “Mr. William W. Huxford, of Chabbaquiddick, brought a load of produce to this village last Monday, by the overland route. . .” and here the paper re-asserts the idea that the inlet might have been open for a hundred years or more, saying that Huxford’s crossing over Norton Point was “. . . a thing that has not been done before since the earliest memories of the veritable ‘oldest inhabitants.’”

The Gazette gives us supplemental evidence that the inlet that closed in 1869 might have been in business for a very long time. On August 11, 1865, the paper listed all those who had drowned “near our own shores [Edgartown],” and followed it with a separate list of those “lost at sea, or dying in southern or foreign ports.” According to this report:

- A father and son died either in, or close to, an opening at Wasque in 1800.
- A young man, Bartlett Fisher, was struck by an oar and lost overboard while sailing with “only an Indian boy” at the opening in 1825.

Indirect evidence suggest that, however long the opening had existed, Edgartown missed it after the closure in 1869 and moved rapidly on the first of several attempt to re-open it artificially.

Efforts to reopen the beach, 1870-1881

At various times between the closure of the inlet in 1869 and the next natural opening in 1886, the Gazette listed the reasons why many people in town wanted Norton Point open again, besides the shortcut it had afforded fishermen to the best fishing grounds off Wasque:

- On January 31, 1879, the paper declared that a new manmade opening would improve “the channels of the harbor [as well as] the inside fisheries” and make life more enjoyable for “summer visitors who are partial to those sports, but whose aversions to long sea voyages in doubling [going back and forth around] Cape Poge and Washqua Point restrain them from participating therein.”

The paper added that many “experienced townsmen” felt that an opening could be dug at a cost of not much more than \$100 – “the lamentable failures of costly scientific experiments to the contrary, notwithstanding.” The essay concluded: “Let us prove to the world and to the brilliant mathematicians at Washington that three score years of practical experience is not always without value.”

- On September 16, 1881, the Gazette reported a meeting to discuss the engineering of a new opening: “In response to the call of the Selectmen, a large and enthusiastic meeting of citizens was held in the Town Hall on Thursday evening of last week, to consider the matter of obtaining the assistance government in effecting an opening through the South Beach. . . .”

It was the general sense of the meeting that the harbor was “deteriorating” because the main harbor entrance was narrowing (causing a hazard to shipping), the currents were less strong than they had been (allowing for more freeze-ups), and the shellfish beds were suffering from too little fresh seawater.

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FAILED ATTEMPT TO OPEN THE BEACH, 1870

In the July 22, 1870 edition, there is a crytic report of an attempt to re-open the beach at the Wasque end:

- “Chabbaquiddick still remains a part of the continent. The new opening at Washqua closed up almost as soon as it was completed. Too bad.”

This apparent attempt to open the beach in the summer of 1870 would not be the last:

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FAILED ATTEMPT TO OPEN THE BEACH, 1873

In the fall of 1873, people attempted what appears to be the first fully engineered effort to open Norton Point to the Atlantic.

According to the paper, the preparatory digging took two months. It involved the “combined labors of two United States engineers, a couple of dredging-machines, and an unlimited number of men and teams.” But “almost in a moment” this effort was “brought to naught by the inopportune action of the elements.”

The engineers and townspeople understood even in those days how natural openings occurred – by waves overwashing the beach and a very high tide then bursting outward from Katama Bay into a falling tide on the Atlantic side. They dug a cut from Katama Bay outward, stopping just at the edge of the ocean to wait for the right moment.

By October 27, 1873, all this digging had “reduced [the beach] to a very limited barrier.”

But then a southeasterly storm arose “and the violence of the sea from without drove in the narrow strip of beach remaining. The waves then came tumbling in, carrying away the bulk-head that had been constructed to arrest their course, undermining the huge masses of sand that had been stacked up on either side, and depositing the whole along the bed of the opening, and before the sun set the beach was apparently almost hermetically sealed as before.

“Various theories are advanced to account for the disastrous winding up of this undertaking, and blame is freely lavished in different quarters. . . . [O]ur fishermen have from the first said that the opening was attempted in the wrong place [too far west], but scientific men had their way in the matter, and the \$20,000 appropriated by the government for the work has been sunk in the ocean, amid the sands of the beach and Katama bay. Had the opening been made at he place where the old channel stood for years, it doubtless would have remained intact for a generation. Science is good in its place, but practical knowledge is often the better guide to enterprises of this kind.”

With this failure, no serious new attempt to open the beach was made. But in the winter of 1886, Mother Nature took matters into her own shoreline-altering hands:

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OPENING OF 1886-1903

A gale on the night of January 9-10, 1886, did what man could not do in 1873. From the Vineyard Gazette of January 15, 1886:

“One of the results of Saturday’s gale was the breaking through of the South beach near the entrance to Katama Bay – the first effectual opening from the harbor directly to the ocean in twenty years. The opening is reported to be a hundred feet wide and five or six feet in depth, and is believed will likely to stand for a number of years – although there are those who dissent from this opinion. Assuming the permanency of the opening, however, its importance can hardly be overestimated. The long voyage around Cape Poge, with its attendant risks and exposure and the long day required for a few hours’ fishing, can be discontinued, and instead thereof will be substituted the safe and easy race down the harbor, with two chances a day for those who desire it. Summer visitors will enjoy the easy access to the fishing grounds now afforded and the sojourners at Katama especially – who have [had] heretofore to sail nearly around the island of Chappaquiddic to catch a bluefish, but who can now accomplish their purpose after a half-hour’s run – will find the change a most agreeable one. . . .”

In the same edition, a letter writer to the editor was elated:

“Mr. Editor: The report last Sunday morning that the south beach had opened to the sea fell at first on unbelieving ears. It was hardly credited for some time that the action of the waves and storm had so suddenly brought about a result so desirable, which the government had vainly expended, by the hands of engineers, \$20,000 to accomplish. It took from 24 to 36 hours to persuade the anxious fishermen of the favorable fact, and then not till some of their number had actually visited the locality, and witnessed the waves of ocean rolling in through the breach into the harbor on the breast of the incoming tide.

“The re-opening of this passage is a cause for rejoicing with all classes and conditions of people: all regular fishermen, all those who seek the fishing grounds simply for sport, the owners of Katama and all lands along the harbor banks from the wharves to the beach – all of these directly, and the whole community eventually, will feel the stimulating and revivifying effects of this important change. The grounds for this rejoicing are too apparent to need detailing here; but the one fact that for the next quarter of a century the dwellers along the harbor shores will have for a daily summer spectacle the passing and repassing sail of a fleet of a hundred boats over a beautiful sheet of water three miles long and from one to two miles wide – to whose crews they can join themselves at pleasure – must have a tendency to ‘boom’ the lands in question for building purposes more than anything that has yet occurred. . . .”

We have a second-hand report on what apparently happened that January 1886 night from Henry Whiting, writing two years later:

“. . . After a gale from the ENE, the wind shifted to WSW, still blowing a gale. The ‘west beach’ as the portion west of the new inlet is now called, was quite low before this gale occurred, and after the shift of wind, the whole beach . . . was a ‘breaker’ [overwashed by surf]. A very high tide, one of the highest in this locality since the Minot gale, accompanied this storm. The general opinion is that at the time of the high tide of the bay the opening was first made by the out-going or southerly current. As soon as the beach could be visited for observation the opening was already, by estimate, about one hundred yards in width. . . .”

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Closure of the 1886 opening in 1903

If it is true that the previous natural opening had been in existence almost without interruption for ninety years or more before closing in 1869, the opening of 1886 would last only seventeen years. Openings since then have lasted more or last that long as well.

Newspaper files suggest that inlets through Norton Point do not close with the explosiveness by which they open. This makes sense: Surges and tides conspire to blast open the beach from bay to ocean during tempests. But it is the conflicting forces of tides that close them at Wasque. It took at least several weeks for the inlet to close in 1869; it evidently took a year for the opening of 1886 to do so in 1902 and 1903.

In the archives of the Gazette there is a February 1902 clipping from a different paper, datelined Cottage City [Oak Bluffs] that declares, “The opening through South beach into Kapam bay [sic], made by the ocean on January, 1886, is reported closed by yesterday’s storm.”

But apparently this closure was not permanent, because yet another clipping more than a year later – dated March 19, 1903 – also reports the closing of the 1886 breach.

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FAILED ATTEMPT TO OPEN THE BEACH, 1919

So far, all the evidence suggests that no opening occurred for at least fifteen years after the closure of the 1886-1903 opening. However, Islanders attempted to open the beach by hand in 1919, apparently for many of the same reasons given in the 1870s and 1880s.

A story in the October 30, 1919 edition of the Gazette offered a summary of the failure of this effort. “The undersigned,” wrote John Prada, treasurer of the Katama Bay Trench Association, “will state that he paid over to Contractor George S. Norton the above sum (\$358), he having the contract to dig the said trench. We all did our best but failed, due to

weather conditions, which nobody could foresee. Everyone worked hard, and we hope sometime to put it through, having learned much from past experience.”

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OPENING OF 1921-circa 1940 [MAN-MADE]

Unlike the attempts to break through the beach in 1873 and 1919, this effort was successful. One quick item in the Gazette gives us a few insights into the planning and preparation:

- **Katama Bay project goes forward: July 1, 1920:** “Representatives of the state harbor and land commission visited the beach to see if an opening was feasible.” This story contains a history of previous openings that is more or less accurate.

On microfilm at the Gazette office, there are a series of lively accounts from the late winter and early spring of 1921 of the new effort to open the beach to the sea. Even better, in an envelope labeled “Katama Bay,” there are snapshots of men, wagons, teams of horses and oxen at work, as well as pictures of the tide beginning to run out from the bay to the Atlantic once the cut is finished.

On March 24, 1921, the lead story in the paper carried this headline: “Katama Opening Success / Up to Dame Nature Now.” A sub-head reads: “At noon today the opening was 150 feet wide, 15 feet deep, and still widening. According to state engineers on the scene, the way from Katama to the sea is open to stay. The danger that a storm might undo all the hard work of the last few weeks is past.” At least two later stories confirm that this opening, dug by man, worked:

- **Beware the opening: July 14, 1921:** There is a brief report on Page 4 about the stronger tides in Edgartown harbor now that Norton Point has been cut open to the sea.
- **Cut still open and useful: September 22, 1924:** A letter to the editor by Charles Sumner Bird says the opening is helping the town’s shellfish crop, and complains bitterly of the raw sewage still being dumped directly into Katama Bay.

Failed Attempt to open the beach, 1932

Eleven years after the artificial opening of 1921, it was becoming clear that this cut was no longer flushing the harbor as desired. Declared a Gazette editorial in 1937:

“The 1921 opening, in due course, worked to the eastward and became virtually useless in circulating the water in the bay for the benefit of the scallop fishery. In 1932 the town financed an ambitious attempt, but nature thwarted the effort with a succession of adverse gestures.”

The 1932 effort was made at roughly the same place as the successful cut of 1921. On February 19, 1932, the paper reported on the start of the digging, which took three months. On May 20 the paper ran a story headlined “Moonlight Digging Opens Katama Cut; Now Up to Nature.” But a week later, pounding surf from the ocean closed the cut and the effort was abandoned.

Final closure of the 1921 opening after 1940

Aerial photographs of South Beach, taken in November of 1938, show that the opening of 1921 had not quite closed at Wasque when the opening of 1937 [see below] was put through. There is still a narrow inlet, pointing east, at Wasque.

Furthermore, we know that the 1921 inlet was still open at the Wasque end early in 1940. On February 2 of that year, the editor answered a letter to the Gazette that asked about the status of the 1921 opening. The editor replied:

“. . . The Wasque opening is still running, and it was reported that a third opening had broken through between this and the big [1937] opening. This [new third opening] was not observed [by Steve Gentle, flying above the beach] on Sunday, however and very likely it is closed. . . .”

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OPENING OF 1937-ca. 1952 [MAN-MADE]

Working off the same philosophy as before – that an opening benefitted the shellfish beds of Katama Bay, flushed the harbor, shortened the route to the sea, with the additional benefit that doing the work in this period offered men work during the Depression – the town in 1937 made a new attempt to open the bay to the sea. A series of stories in the Gazette described the preparations:

- **August 27, 1937:** “Power Shovel at Work on New Katama Opening.” The work began early that week with a mainland company, Turner and Breivogel of Falmouth, using a power shovel to excavate Norton Point.
- **August 31, 1937:** The cut was put through on Sunday evening, August 29, taking advantage of the highest tide of the month in the bay. But the following night, reported the Gazette, it appeared as though the Atlantic was going to close it again.
- **September 3, 1937:** Then there was a reversal of fortune. The Atlantic calmed down, the tide continued to run strongly through the cut, and in the first few days of September, the new opening was estimated to be somewhere between 250 to 300 feet wide.

We know that this manmade opening survived: The following spring (May 6, 1938) the Gazette reported on the need to rebuild the Chappy ferry slip because strong tides had eroded the sand around it. In this paper, the Norton Point opening was described as “wide and deep,” and Winthrop B. Norton, chairman of the selectmen, said he believed it had moved little since being dug.

The paper also reported on July 29, 1938, that a second opening had occurred to the east of the original opening. (This phenomenon repeated itself about a year into the openings of 1953 and 2007.) The island left between the two openings soon eroded away and the opening was at its widest when disaster struck from the south on September 21, 1938:

Hurricane of 1938

On September 21, 1938, the Great New England Hurricane struck southern New England, doing catastrophic damage (including destroying the village of Menemsha). Unfortunately for Edgartown, the manmade opening of 1937 had migrated to the east and the second opening now exposed Katama Bay and the Edgartown waterfront to the full force of the storm surge.

After the hurricane, the Gazette speculated on how the manmade opening might have made things worse for the harborfront:

- **September 23, 1938:** “One impressive aspect of the storm was the terrific force of the current which stormed through from Katama Bay and out past the harbor light. The opening through the South Beach was blamed for this by many onlookers, but others said that if there had been no opening, the storm would have made one, sweeping through as mightily. . . .”

In another story, the Gazette said: “One bone of contention throughout the storm was the South Beach opening. Leading remarks such as: ‘Well, they got their opening. . .’ and ‘They would have an opening. . .’ were starting arguments all over town.

An editor’s note, written in reply to a letter to the editor on November 2, 1940, gives this information about the status of the 1937 opening three years after it was cut:

“The opening from Katama Bay to the ocean has changed a good deal, and will probably continue to change. As these words are written the opening is extremely wide, and has several islands in it. Steve Gentle of Edgartown flew over it in a plane on Sunday and reports that it has worked pretty far down, but not yet far enough to prevent a clear sweep [of the tide] through the harbor and bay. The west bank is building up quite a bit, and as the bank builds the the opening shifts eastward. A good run of the usual southwest winds will hasten this action, and when the opening is far enough to the east so that there is no longer an open and clear sweep through, and when the current has to make a run around the elbow of Chappquiddick . . . opinion is that the strength of the current will be diminished. It is still too early for this to take place. . . .”

As noted above, a remnant channel from the manmade opening of 1921 still existed at Wasque when this note was written in 1940.

Closure of the 1937 opening, ca. 1952

Having just paged through all the Gazettes of 1951 and 1952, I can say that the opening of 1937 was still in existence as late as the summer of 1951.

A story published August 7 of that year describes how a father and his seven-year-old boy were nearly drowned while paddling a cockleshell through the opening that week. The two were saved by Capt. Roland J. Authier in a powerboat called The Vineyard Maid, based in Vineyard Haven.

We may also safely assume that the opening still existed as of May 9, 1952. In that edition of the Gazette, there is a photo headlined “Bass Fishing at Katama Opening on a Perfect Autumn Day.” This means the picture could have been taken no later than the previous fall (1951). But if the opening had closed since then, the newspaper would have noted that fact.

Yet a review of the major stories and editorials in the Gazette for 1951 and 1952 fails to turn up *any* reference to a closing of the 1937 manmade opening. This would have been a noteworthy event, and very likely the paper would have not only reported it but editorialized about the fact that Chappaquiddick was no longer an island unto itself.

We do know that a winter storm bored open a new opening at the Katama end of Norton Point in the middle of February of 1953. The story of this new opening does not say when – or even whether – the manmade opening of 1937 had closed, so it is possible that remnants of it were still open even then.

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OPENING OF 1953-1969

On February 15-16, 1953, a storm opened Norton Point to the Atlantic near Mattakesett, farther west than most previous openings.

A number of accounts, both written and personal, establish that the new opening of 1953 persisted without interruption through the landfall of the two hurricanes of 1954 (Carol on August 31 and Edna on September 11):

- **Vineyard Gazette, August 4, 1953:** A bass fisherman and other beachgoers assisted two swimmers who had swept out to sea through the opening.
- **February 12, 1954:** A storm drove a second opening through the beach, much as a storm drove a second opening through Norton Point a year after the manmade opening of 1937, and as it would again after the Patriots’ Day Storm of 2007.

- **July 2, 1954:** The body of John Brock Taylor of Fort Leavenworth, Texas, was found after he took an outboard through the opening and disappeared.
- **August 24, 1954:** Suffering engine trouble, an Amica Trainer airplane landed on South Beach near “the old opening.”

Hurricane Carol, August 31, 1954

As with the opening of 1937, the beach was wide open to the Atlantic when Hurricane Carol struck on the last day of August, 1954. The Gazette reported:

- **September 3, 1954:** During the height of the storm witnesses could see “no indication of South Beach whatever, other than a guess as to its location from the height of the water pouring in. . . . The opening [is] receiving some blame for much of the surge which affected the Edgartown waterfront, but at Tuesday noon there was no opening – the whole beach seemed open.”

Charlie Blair, today the Edgartown harbor master, was a boy when the storm struck. He recalled: “I was actually living in the house at Katama, on the water, and saw the water leave Katama Bay so that the flats were all exposed. Fish were actually flapping in the mud. It was awhile when there was no water there. The low pressure just pulled it. But the breach had already happened.

“And it came back in two or three waves. And it took all the docks out. Shoved the docks right up through the town. The surge was unbelievable, about halfway up the cellar steps at our house, which was right on Edgartown Bay Road.”

Ogden’s account of an opening immediately after the hurricane on August 31, 1954

In his study of the openings published in 1974, J. Gordon Ogden III, a respected hydrologist and native of Oak Bluffs, gave a detailed, personal account of being alone on South Beach when he said it opened to the sea in the hours immediately after the hurricane on August 31, 1954. This would have been Carol, though he misnames it Edna, a second hurricane that struck eleven days later.

Ogden’s account omits any mention of the opening of February 1953 (or the second opening of February 1954). But the record clearly shows that at least one inlet existed when the August 31 hurricane struck. And no newspaper account mentioned a new opening occurring immediately after either hurricane that year.

A possible rationale for Ogden’s eyewitness account

On September 2, 1960, the Gazette reported at length about a meeting called by the U.S. Army Corps of Engineers to discuss the strong currents running through Edgartown harbor and their effects on shellfishing and boating.

Only a few people attended this meeting. They were businessmen, summer residents and selectmen, and they agreed that the tides were causing sand to cover over the shellfishing beds in Katama Bay, building up shoals near Lighthouse Beach and in the outer harbor, and making it hard for recreational sailors to navigate.

In this can-do era, the attendees agreed that the opening should be closed by man and that perhaps a new, smaller opening should be cut through at Wasque to help the harbor waters flush and stay clean.

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. But Ogden's report of 1974 showed 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.

Closure of the 1953 opening in 1969-1970

I have not found an account in the Gazette declaring the 1953 opening officially closed in the fall or winter of 1969. Ogden's report says that it closed in November of that year. Aerial photographs at the paper show the opening nearly closed at Wasque in early 1970.

Since previous openings closed and reopened fitfully before closing for good – and because at least one Edgartown resident gave me the same basic date – we may safely say the closing of the 1953 breach occurred in the late fall or early winter of 1969-1970.

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OPENING OF 1976-1977

During a gale on February 2, 1976, the beach opened in the vicinity of the herring creek at Mattakeset, near the site of the February 1953 opening. Many Edgartown residents, both year-round and seasonal, remember this opening well.

Among other things, one man – former harbor master and Chappy ferry owner George T. Silva – made a Sisyphean effort to close this breach in the spring of 1976. He wanted to protect the entrance to the nearby herring creek, stop new and shifting sand flats from burying atop nearby shellfish beds, and tame the currents that were running wild in Edgartown harbor.

George T., as he was known, hired cranes and bulldozers to pile up dunes on either side of the new channel, and through the spring – at the age of seventy-four – he dragged hundreds of plastic bags full of sand over the beach, laying them across the Katama Bay end of the inlet to slow the current.

Under his direction, levees were periodically thrown across the opening at hours of slack wind and water. But after his last attempt to seal the beach failed that June, at a personal cost of \$4,032.70, he gave up. "I can't do any more," he said. "People tell me I'm a little crazy, and I guess I was. People tell me to leave it alone and it will close on its own, and I hereby leave it alone."

There are a series of excellent stories by William A. Caldwell about the Silva effort to close the beach. They are worth reading at the Gazette.

Closure of the 1976 opening in 1977

One year after the opening, during a particularly cold winter, ice covered Katama Bay. It is the theory of Warren Gaines, assistant shellfish constable, and others that the ice blocked the flow of the tides through the opening, allowing migrating sand to fill it in prematurely. By the spring of 1977, the efforts of George T. Silva notwithstanding, the opening of February 2, 1976, had indeed closed on its own.

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OPENING OF 1991

On August 19, 1991, Bob, the first true hurricane to strike the Vineyard since Carol and Edna in 1954, briefly opened Katama Bay to the sea. But evidence from photographs suggests that this opening was caused by storm waves breaking into the bay, and that there was no outward flowing of the tide to keep the new opening in place. It closed after a few days.

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OPENING OF 2007-2015

During the Patriots' Day Storm the first enduring opening through Norton Point since the year-long opening of 1976-1977 occurred during the early morning hours of April 17, 2007.

Conditions were so perfect that this opening might have been predicted:

- A great storm came up from the south, with winds and seas battering South Beach from the southeast for several days.
- The beach itself was low, narrow and often overwashed after a winter of damaging storms.
- There was an exceptionally high tide in Katama Bay on the night of April 16-17, caused by a full moon at its closest approach to earth that year.

- The wind veered to northwest as the tide fell in the Atlantic just before midnight on April 17. But the water in the bay remained exceptionally high. As the last storm waves overwashed Norton Point, the pressure of the water seeking to escape the bay during the falling tide there drove the waters outward, creating the new opening.
- This opening closed during the overnight hours of April 1-2, 2015.

Reopening and closing of Norton Point, September 30-October 17, 2015

- During a southeasterly storm beginning September 30, 2015, the beach reopened opposite the fishermen's parking lot. The pattern was the same as the 2007 opening: astronomically high tides, overwash softening up the beach, and a the tide starting to fall in Edgartown as it was already falling at Wasque Point. The time was between 2:30 and 3 p.m.
- On October 17 – for the first time during this two-week reopening of the beach – Norton Point was dry and intact when the water was high in Katama Bay but falling on the Atlantic side. It was as good a measurement as any that the beach had closed again.

Chris Kennedy:

He's on vacation on Provincetown. Rangers are on the beach every day, from dawn to late at night. "We've been noticing over the course of the last few weeks that – we've been calling it the connector – but that very thin stretch of barrier beach that connects Wasque Point with Norton Point has been been getting progressively lower and much more narrow.

"So it's not a surprise that with the strong southerly winds we had today to have the overwashing. I think what really surprised us is that we have another breach at Norton Point, albeit it's still fairly narrow. It's only about a hundred feet wide. But clearly we have tidal water flowing through it. So it is technically a breach in the barrier beach."

Jack Klumick saw the overwashing at high tide. "Then he noticed that as the tide was going down that the water from the bay, from Edgartown harbor, was beginning to flow through the barrier beach into the ocean."

Re. the derby: They've been in touch with Ron Domurat of the Martha's Vineyard Surfcasters Association. It has been closed all September and will remain closed until further notice. They are telling those who want to drive over the beach "that's not a reality," and won't be one for at least the next several weeks."

Rick Dwyer is the Norton Point Chief Ranger: 508-274-3762

Jack Klumick:

“. . . it started to fall on the ocean side. But on the bay side, Katama Bay, there was an astronomical high tide, approximately between two and three o'clock. And the bay water started to flow into the ocean . . . at what we call 'the connector' now. But once the tide starts coming back into the bay side, that could stop.

“Rick Dwyer has been there for 12 years. His prediction is, he thinks it's going hold. We'll see what nature decides.” By this he means that it should begin to fill in and close.

“The ocean side was the overflow side. That's not unusual. That's been happening for weeks now. But not to this extent. But what happened, when the ocean side started to fall, the bay side was extremely high. It was an astronomical high tide. So that Katama Bay water started to flow out [into the sea]. It was stream width. It may have stopped already, once the Katama Bay tide starts to flow the other way again. There should be a settling effect. Hopefully more sand will accumulate on the ocean side and that will firm it up. A lot of sand went into the bay side too, which to some degree can be considered a positive.”

“But in the next couple of days, with [Hurricane] Joaquin coming up, it's going to be challenging.”

He says that he was the first man to ford the opening as it closed on April 1 and that Rick was the first to walk over sand. “But I had boots on and it was ankle-deep. But April 2nd, Rick Dwyer walked across in sneakers and it was bone dry when he did it.”

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For relevant envelopes on the openings at the Vineyard Gazette see these envelopes:

- “Norton Point Breach”
- “Katama Bay”
- * “J. Gordon Ogden Jr. / III”