

Buffalo already possessed a working and satisfactory lighthouse at the time that the Horseshoe Reef beacon was being contemplated. Expansive growth in industries such as lumber and grain milling, however, necessitated that the treacherous entrance to the Niagara River be marked with its own light. The river led to the docks and industrial centers in the nearby neighborhood of Black Rock, but navigating to them proved troublesome as the waterway was littered with shoals and reefs.

The story of this lighthouse begins in 1849, when Congress allocated either \$10,000 for a lightship or \$20,000 for a tower, if it was decided that a permanent structure was the superior choice. A U.S. Navy Commander certainly insisted on the latter, but he offered up a figure of \$45,000 to build a sturdy offshore structure. Of particular concern were the currents at the river mouth; in anticipation of the roaring plummet of Niagara falls they reached speeds of eleven knots.

The Treasury Departments Fifth Auditor Stephen Pleasonton, longtime steward of American lights, decided that the site for the lighthouse should be more centrally located. While the structure was named after its originally intended position at Horseshoe Reef, Pleasonton wanted it placed upon the underwater rocks of Middle Reef. This choice presented a unique diplomatic problem, as Middle Reef was in Canadian territory. The international boundary had been established since the days of the American Revolution, and had been once again cemented seven years after the conclusion of the War of

1812. The Middle Reef is just a short distance away from the site of the Battle of Fort Erie, in which over a thousand Canadian, American and British soldiers perished. At the time, there was certainly no guarantee that the British would welcome or permit an American lighthouse on their land.

Pleasanton decided to ask for permission anyway, even though a similar request for a beacon in the Bahamas had been denied by the British twenty years earlier. To his surprise, the English were far more receptive this time around. Swiftly blossoming commerce transcended nationalistic concerns, and the British realized that they could derive benefit from a Niagara lighthouse while allowing the Americans to incur the expense of building it. Still, there was a long chain of diplomatic contacts to work through in order to make the project a reality. In London, the U.S. Minister contacted the British Foreign Secretary Viscount Palmerston with the idea. Palmerston reached the Colonial Secretary Earl Grey, and Grey communicated with the Governor General Lord Elgin, requesting that the provincial government in Ontario consider the matter.

It greatly helped that the American request included a petition with the signatures of "several hundred merchants and residents of Buffalo," and that Canadian businesses also supported the project. On April 23, 1850, Canada's provincial government gave its approval. Many high ranking British officials still had to sign off on the deal, so it wasn't until December that the U.S. Minister and British Foreign Secretary signed a Protocol in London. Indeed, even then

U.S. President Millard Fillmore had to agree to the terms, which he did in 1851. The Protocol involved a British cessation of an acre of submarine land to the United States, which constituted about one third of the Middle Reefs. This land fell 1,150 feet on the Canadian side of the border. As part of the agreement, the U.S. pledged to build a lighthouse there and not a fort.

On March 3, 1851, Congress appropriated another \$25,000 to build the Horseshoe Reef station. Shortly thereafter, the Lighthouse Board assumed control of U.S. Beacons from the Treasury Department. The new Board appointed a three person committee to recommend a contractor for the job. Against the committee's advice, the Board selected the proposal of Isaac Smith. This contract was canceled owing to a number of difficulties, including inclement weather and delays due to the unstable composition of the Middle Reefs. Diplomatically obliged to build the lighthouse or forfeit the reef, the U.S. Government undertook to finish the project between 1855-56. A stone foundation was put in place on the underwater shoals, from which four iron columns were erected to hold a single story structure made of wood. Standing at a height fifty feet over the river, the lantern room sported a fourth order Fresnel lens which was visible up to 10 miles from the lake. It was first exhibited on September 1, 1856.

There were a number of shipwrecks that occurred around the Horseshoe Reef light, including one in 1884 involving a vessel named the *John W. Cramer*. This ship was a 53 foot wooden tugboat with a

steam propeller, and it was grounded on the reef during a storm and quickly broke apart. In 1907, a similar vessel named the *Myrtie* experienced the same fate, although it took a few days to disintegrate on the rocks.

The station was regarded as a particularly unpleasant assignment among lighthouse keepers. There were two such individuals at Horseshoe Reef; they usually lived on the mainland and commuted to their work, except when bad weather and rough seas compelled them to make do in the spartan quarters on site. A turn of the century assistant keeper raked in \$490 a year in pay, but this was offset by the Lighthouse Board's admission that Horseshoe Reef was "one of the most comfortless and unattractive stations in the district."

A 1913 arrangement put Horseshoe Reef Station within U.S. Territory, and moved the Canadian border 100 feet west of the lighthouse. At this time, however, the beacon on Middle Reef was quickly losing its significance. A new channel had been diverted from the Niagara River; the protected waterway offered a direct route to Black Rock absent the swift currents and treacherous shoals of the river proper. The Horseshoe Reef Light was further made obsolete by the establishment of a water intake crib in nearby Emerald Channel which sported an aid to navigation on its cylindrical roof. In 1920 Horseshoe Reef was decommissioned and left to decay.

The Crib Light's primary purpose is to provide clean water to the city of Buffalo from a spot where Lake Erie flows into the Niagara River. Water is brought in through grates and made to sit in

a central pool in the structure. From there, gravity takes it down a 12 foot diameter tunnel that extends for 6,600 feet beneath the bottom of the lake. The water is received by the Colonel Ward Pumping Station, located on Porter Avenue in Buffalo, where it is purified and distributed. The intake crib gathers up to 125 million gallons of water every day.

Buffalo's intake crib or 'roundhouse' is a much larger structure than the Horseshoe Reef light it replaced, so it was a simple matter to affix an automatic beacon atop its tiled roof. The light was established in 1908 and its characteristic is two white flashes at five second intervals. In recent years the intake crib underwent a roof replacement, and a number of the windows were bricked up or filled in with block glass. The station used to sport a chimney, though it no longer does.

While the intake crib is a healthy and active structure, the Horseshoe Reef building is a mere skeleton standing out on the water. It has received a spot on a national watch list for threatened lighthouses; it earned the lowest possible score of a 'y' for its current dilapidated condition. A 'y' score essentially means that a structure is in ruins, and that any future improvement is in grave doubt. Part of the reason for this is that only the stone foundation and iron framework remain; the wood and other materials have long since rotted away. Restoring the building would therefore be an expensive proposition, as it would have to be rebuilt. On the plus side, the old iron beams appear to be sound and the lantern room is

still completely recognizable.

The structure has not gone entirely to waste, as a colony of birds known as cormorants have taken up residence on the stark beams. Previously endangered, they have returned to the Great Lakes area and have graced the Horseshoe Reef ruins for the last 15 years. Cormorants need three things in a locale to declare it their home, and the middle reef structure qualifies on all counts. It is devoid of people, in proximity to shallow water that contains schools of small fish and is composed of either dead trees (or in this case) a metal skeleton. Cormorants have also been known to nest in the dead trees of the East Niagara River's Motor island, and also upon the electrical towers along the West Niagara River. The cormorants have changed the color of the Horse Reef station; it was previously brown but the white guano of the birds has completely covered the iron. Not everyone is thrilled about the presence of the birds; sports fishermen are irked that each of the hundreds of cormorants will consume up to a pound of fish every day. With fewer small fish to eat, the larger specimens sought by game fishermen do not enter the reef as frequently.

Resources

"Horseshoe Reef Lighthouse." 2006. Retrieved July 15, 2007 from:
<http://www.hellotim.net/history/brokenhouse.html>.

Vogel, Mike. "Beacon to the Heartland." Keeper's Log, Fall, 1987.