



## Preliminary Field Report – Harbour Main Cannon Site.

ich@heritagenl.ca -- Heritage NL -- PO Box 5171, St. John's, NL, Canada, A1C 5V5

**Prepared by Dale Gilbert Jarvis  
and Maryssa Barras**

At a meeting of the Town of Harbour Main-Chapel's Cove-Lakeview Heritage Committee held 4 October 2020, a number of potential heritage projects were discussed, including the possible restoration of an old cannon.

As a followup to the community workshop, on Wednesday, November 25th, heritage committee volunteer Catherine Ann Kelly guided Heritage NL staffers Dale Jarvis and Maryssa Barras to the cannon, pictured above.

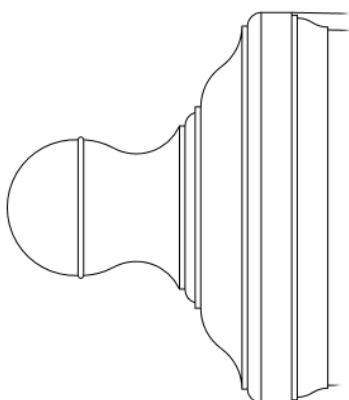


The cannon site is located in Harbour Main, near Saints Peter and Paul Parish Church, at the top of a small, but high, rocky hill, that is overgrown with thick moss and groundcover. The cannon is partially

buried in the moss layer, which covers its vent. There are no clear features near the cannon, and assessing the site is made difficult, again, due to the thick ground cover. Trees block what would otherwise be an excellent view of the surrounding area. The site is well-known to locals, and was a place where children regularly played when a school existed nearby.

Barras and Jarvis measured the cannon [see Appendix One below], which has been rotated 90 degrees along its horizontal axis, with the port trunnion buried (if it remains) and the starboard trunnion missing. According to local oral tradition, the cannon was “rotated” in living memory. It is uncertain if that means rolled or spun around so the muzzle points in its current direction - although is unlikely for the cannon to have originally pointed inland. There is no identifiable cast cypher on the top of the cannon, although there are aiming guide markings along its cascabel [also written ‘cascable’]. The cannon is roughly 7 ½ feet long (230 cm) with a bore diameter of 4.3 in (11cm), which, combined with cascable shape, suggests that it was cast as a British 9-pounder Armstrong-Frederick pattern gun (see Collins):

It was with these guns that the British fought the American War of Independence. Because the external features of the Armstrong pattern were largely retained across the many re-designs, these guns are generally known as Armstrong guns but more accurately its the Armstrong-Frederick pattern of 1760 which survive in large numbers today. They are most easily identified by the characteristic Armstrong cascable design (Collins “Armstrong”).



*Image: Armstrong pattern cascable diagram 1760, by AR Collins.*



*Image: Detail of Harbour Main cannon, showing cascable.*

*Source: Heritage NL, 25 November 2020.*

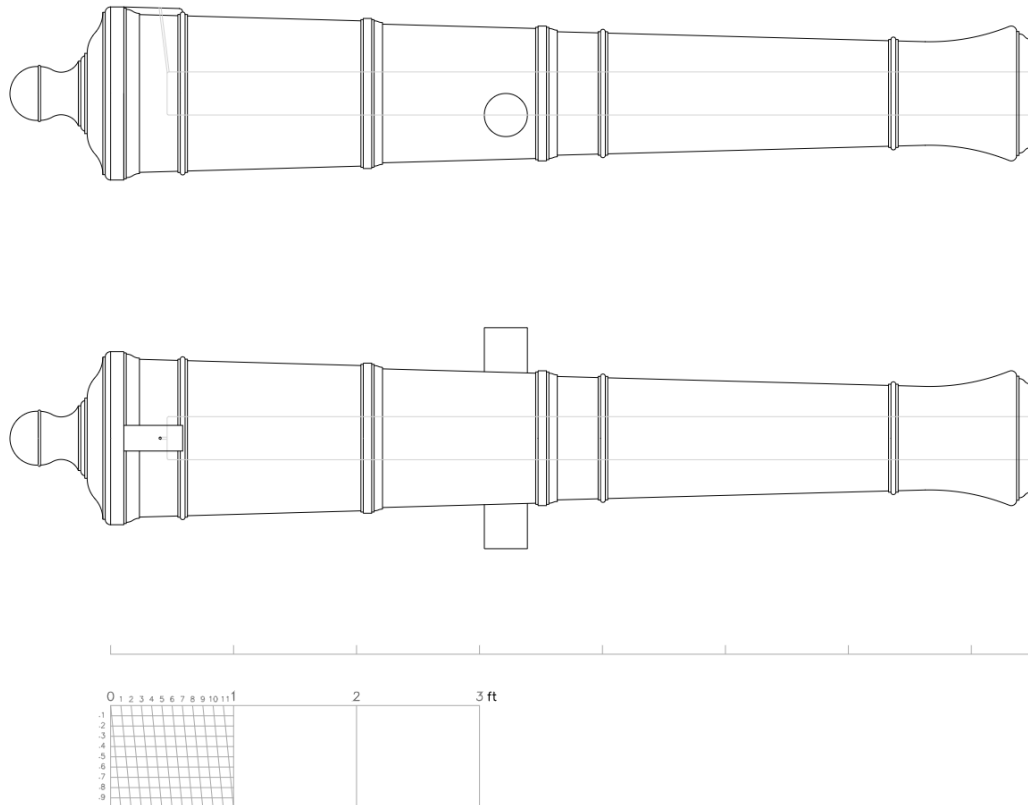
The Armstrong-Frederick pattern was formalized in 1764 by the Board of Ordnance as part of the establishment of artillery pieces, who ordered that there were to be five lengths and weights of 9-pounders, including a 7 ½ foot version (McConnell 84).

In 1780, Thomas Blomefield became Inspector of Artillery and between 1782 and 1785 his department carried out a general reproof of ordnance, rejecting nearly half of them. In 1787 cast iron guns of Blomefield's own design were made, with significant alterations to the Armstrong design, including adding a ring to the cascable which allowed free movement of the breech ropes, used to restrict the gun's recoil aboard ship (Collins “British”)

By 1792 gunfounders were mostly all using Blomefeld’s “new pattern ordnance” (Lavery *cited by* Collins). The Harbour Main cannon features a chase astragal band, which was rarely used after c.1810 (Gooding).

*Image: Example of the Armstrong Pattern, courtesy of AR Collins.*

Armstrong pattern 9 lb, barrel length 7½ ft



Based on this preliminary research, we can suggest the cannon was cast at some point during a roughly-thirty-year period between 1760/4 and 1792, by which point most newly-cast 9 pounders guns were of the Blomefield pattern. Robin Martin, Parks Canada, writes that the cannon,

...is most-likely a leftover from the British defensive works during the Seven Years War (1756-63) which is on the extreme early end of your projected timeline. The absence of the starboard trunnion is no accident as I can assure you it didn't corrode off. When



artillery was in danger of being captured by an enemy in an indefensible position, crews were often ordered to “spike” them – in effect, render them inoperable and useless to the enemy. There were several ways to achieve this with the most common and easy being to load a large powder charge with a slight bore obstruction and hammer an iron spike into the vent. When the gun was discharged via the muzzle, the spike would fuse into the vent making it a long and laborious task to drill it out. Thus the blanket term “spiking” was coined for this process in all its forms. If you had the time and the equipment, the best way to spike a gun was to saw off one of the trunnions. This permanently and irreparably makes the gun useless.



*Image: Detail of Harbour Main cannon, showing removed trunnion.*

*Source: Heritage NL, 25 November 2020.*

Like the British guns at Fort Point in Trinity, it is my suspicion that your cannon was spiked using this technique in advance of the inevitable French capture of the area following their successful capture of St. John's in June, 1762 (Martin, R.).

With regards to the spiking of the gun by the removal of the starboard trunnion, he adds,

This was a process that took considerable time and effort, [and] would only be done under the explicit orders of the Commanding Royal Artillery officer or the Commanding Royal Engineer and to my knowledge was never done (in this manner) unless the threat of capture was dire. The only period in Newfoundland's military history that placed garrison artillery under such risk of capture and that also matches the era of the gun type was the French invasion of Newfoundland in June, 1762. It is the only time period I have confirmed that Newfoundland-based Royal Artillery or Royal Engineers spiked guns in defensive works. The handful of guns I have seen in Newfoundland spiked in this manner all were done during this time period (Martin, R.).

Christopher Martin, Provincial Historic Sites, supports the argument for a casting date closer to 1760/4:

By the time of the American Revolution, British defense of the island was largely centered on St. John's. While they did maintain forts /outposts at some places like Placentia and Fort York in Labrador for some time, many of the smaller batteries and forts that had been maintained or built in the early 1700s fell into disrepair between 1762 and 1775 and were not reinstated with the beginning of hostilities with America (Martin, C.)

Local folklore holds that the cannon “was left behind” during the Avalon Peninsula Campaign of Pierre Le Moyne d'Iberville and Governor Jacques-François de Monbeton de Brouillan (1696); this is folk history and highly improbable given the probable casting date 60+ years later. Further research would help refine or clarify this date.

How, why, and when the cannon ended up on a hill near the Catholic Church in Harbour Main are questions yet to be answered.

---

## Recommendations

1. The cannon is an **archaeological object** as defined under the Historic Resources Act, and so the Province has title to it as per section 11 of the Act. Any future plans for the cannon would benefit from including a professional conservator in the discussion, and any future work should follow appropriate conservation measures.

There has been some community discussion about moving the cannon to a location on the harbourfront where it might be more visible. **Our recommendation would be to further research the history of the site, and to conserve, mount, and interpret the cannon *in situ*.** In moving the cannon to another location the cannon would become part of a different destination; keeping the cannon *in situ* preserves its significance as a destination of heritage value.

There are two paths used to access the cannon, although neither path is very easily accessible currently. One of the paths, starting from the church parking lot, would probably be the better path to

use as a marked trail to the site, if **land-ownership was clarified and permissions acquired.**

2. **Future Research & Survey.** The cannon, and the site itself, need further research, and a good archaeological site survey, with permission of the PAO. Another possible venue for future research, from Robin Martin of Parks Canada:

“The gun may well be a 9pdr but it is possible it could be a ‘short’ 12pdr. The Armstrong pattern had some issues regarding their weight and length in terms of placing them on warships. As a result, depending on the size of the vessel, different lengths of similar caliber guns were developed. With guns demonstrating significant damage from corrosion, accurate bore measurements are often difficult or impossible. With your bore measurement of 11cm, the diameter is 4.33in which is close to the 4.26in bore of the 9pdr. However, the addition of less than one centimeter would meet the 12pdr diameter of 4.63in” (Martin, R.)

3. **Further research suggestions** from Chris Martin, Provincial Historic Sites:

“It’s not to say that a battery could not have been in place during the American Revolution, the Colonial Office records certainly show a lot of concern over American and French attack on the island as Governor Edwards is corresponding with Robert Pringle - CO of the Royal Engineers in NFLD and with George Germaine in England about potential threats and the need for increased security but much of the discussion and building of defensive works centers on St. John’s. While all seem to fear an attack and privateer action in the waters around the island justify the fears, there is also a discussion over the cost of expanding both the fortifications and the volunteer regiment of foot that was



established. Further research into the collections especially with Royal Artillery returns listed in the Colonial Office correspondence will tell you if gunners were stationed in Harbor Grace during the American War (also the Seven Years War), and if so how many and what supplies they had there. Also the Book of the Royal Engineers will contain correspondence on directives, supplies, and reports on construction of all defensive works being undertaken for the years covered in the ledgers” (Martin, C.).

4. **Municipal Designation** - Heritage NL provides expertise and services to municipalities and community groups that wish to identify, protect, safeguard and develop their heritage places. Under the Municipalities Act, incorporated municipalities may designation heritage buildings, structures, and lands. This provides protection for local heritage places. To find out more about how the Town could designate the site as a place of local historical importance, contact Andrea O’Brien ([andrea@heritagenl.ca](mailto:andrea@heritagenl.ca)) in the HeritageNL office, or visit: <https://heritagefoundation.ca/programs/municipal-outreach/>

## Sources

Collins, AR. “Armstrong Pattern Guns of 1760.” Miscellaneous Technical Documents. <https://www.arc.id.au/ArmstrongPattern.html> Web accessed 27 November 2020.

Collins, AR. “British Cannon Design 1600 - 1800.” Miscellaneous Technical Documents. <https://www.arc.id.au/Cannon.html> Web accessed 27 November 2020.

Gooding, S. James. “The parts of a cast iron or bronze gun.” in An Introduction To British Artillery In North America. Museum Restoration Service; 1st edition (Jan. 1 1965)  
[http://regimentalroque.tripod.com/blog/parts\\_of\\_a\\_gun\\_Gooding\\_1965.jpg](http://regimentalroque.tripod.com/blog/parts_of_a_gun_Gooding_1965.jpg) Web accessed 26 November 2020.

Lavery, B, Carronades and Blomefield Guns. Developments in Naval Ordnance, 1778–1805. In R. D. Smith (Ed.), British Naval Armaments. Conference Proceedings 1, Royal Armouries, London 1987, 15–27. London: 1989.

Martin, Christopher C. Personal Communication. 27 November 2020.

Martin, Robin. Personal Communication. 27 November 2020.

McConnell, David. British Smooth-Bore Artillery: A Technological Study to Support Identification, Acquisition, Restoration, Reproduction, and Interpretation of Artillery at National Historic Parks in Canada. Ottawa: Minister of the Environment, 1988.

*Thanks to: Catherine Ann Kelly, Harbour Main; Dr. AR Collins; Jamie Brake, Provincial Archaeologist; Chris Martin, Historic Sites Officer; Robin Martin, Newfoundland East Field Unit, Parks Canada.*

## Appendix One - Field Measurements

Date of Recording: November 25, 2020

Recorded by: Maryssa Barras, Dale Jarvis

Location: 47 deg. 26'24"N, 53 deg. 9'32"W, point taken from breech of cannon, cannon is aligned 40 deg. NE.

**Notes:** Looking from the breech end of the cannon, the right hand trunnion is broken. Trunnion measurement taken from base mark. Cannon is very rusted, no markings found. Cannon is embedded in moss and overgrowth, with right-hand trunnion facing the ground. Vent was only partially visible, vent size is 1cm, distance of vent to breech is 12cm.

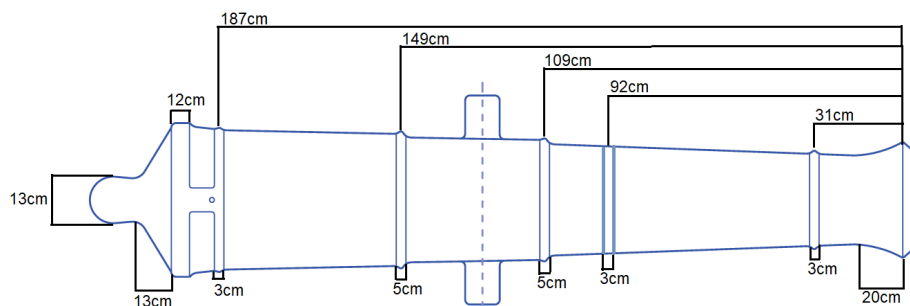
Muzzle Type: Tulip

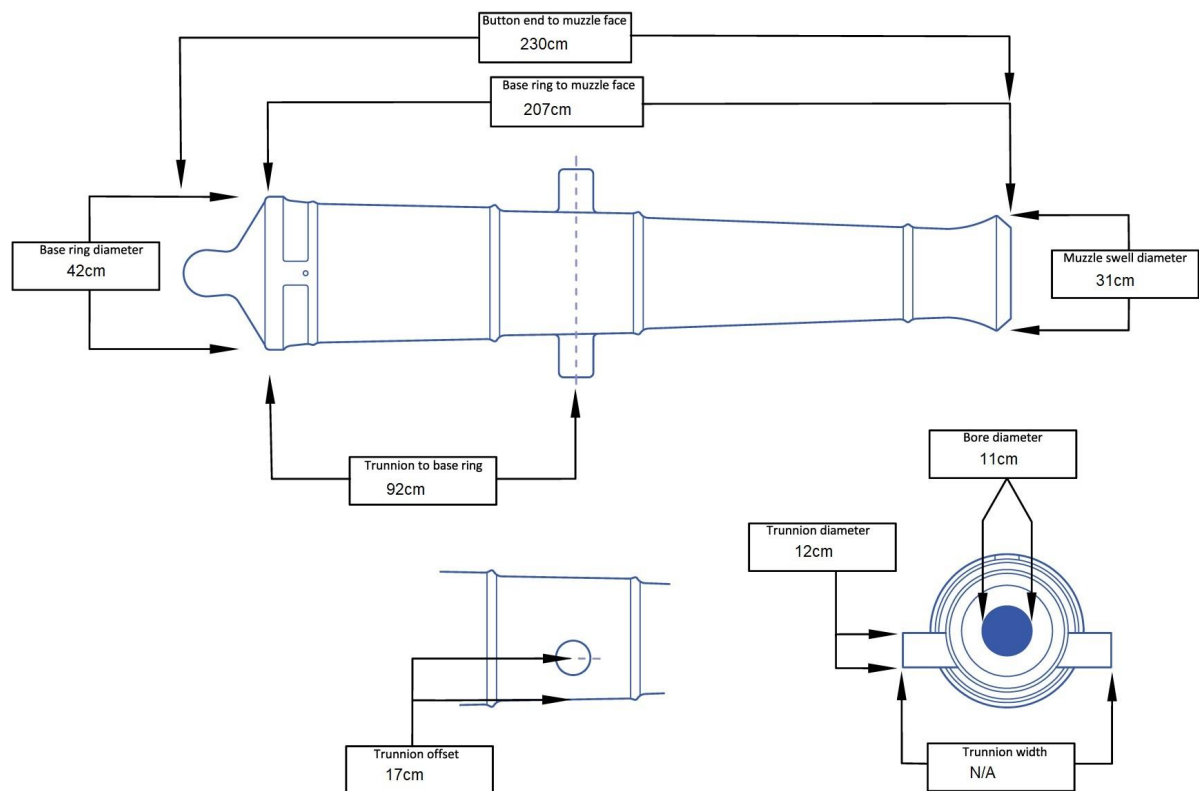
Cascable Type: Conical

Button Type: Spherical

Moulding Type: Astragal

The cannon features 3 astragals: first reinforce; chace; and muzzle.





*The Heritage NL Fieldnotes Series was created to openly share information concerning the ongoing research projects of Heritage NL in the fields of built heritage and intangible cultural heritage. This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](#). Last update 1 December 2020.*