

Historic Objects from the Esquimalt Remediation Dredging Project

The Esquimalt Harbour Remediation Project is estimated to remove about a quarter of a million cubic meters of contaminated sediments from the bottom of Esquimalt Harbour over a five-year period. The program was initiated in 2016 and planned to be finished by 2020. Fortunately, the Department of Defence and the Canadian Government have recognized the historic significance of the thousands of artifacts being found and have hired a series of archaeological firms to monitor and document the finds. They have also entered into an agreement with the Royal British Columbia Museum to act as the repository. As each of the archaeological firms submit the artifacts, it will be the role of the Royal British Columbia Museum to create workable study and display collections for future research and exhibits.

Historic artifacts include products brought onboard from Britain, products purchased from local merchants in Victoria, personal items such as tobacco pipes, items related to shipboard life such as ceramics and badges, along with items that functioned on the ships. Artifacts from civilian operations such as the Canadian Pacific Navigation and or Railway Company are also expected.

The first submission of artifacts has arrived at the RBCM and provides an exciting preview as the collection starts to take shape. Below we have selected a sampling of artifacts and some of their significance.



An excavator dredges sediment from the Esquimalt Harbour. Photo from Victoria News, April 7, 2017, courtesy of CFB Esquimalt.



Photo on the Esquimalt Harbour processing barge, August 2019 with current finds being cleaned. RBCM curator Grant Keddie (second left) and Collections Manager Genevieve Hill (right) meeting with archaeologists Graham Bowels and Ryan Spady. Photo by Author.

Selected Artifacts from the first submission to the Royal British Columbia Museum August 2019

All artefact photos by the author with assistance of RBCM volunteer Linda Bown.

Ship Related Arifacts



Ships Plaque USS Vesole

DcRu-1186:258

Diameter 17.5 cm and 0.6 cm thick, weight 860.6 grams.

Brass ship's plaque like this would be mounted in prominent areas of the ship such as an officer's mess. The USS Vesole (DD-878) was a Gearing-class destroyer of the United States Navy named for Ensign Kay K. Vesole USN (1913–1943), killed in action during an air raid at Bari, Italy on December 2, 1943, and posthumously awarded the Navy Cross. The ship was launched on December 29, 1944 and commissioned April 23, 1945 at the close of World War 2. The Vesole was sunk as target practice off Puerto Rico in April, 1983. US Navy ships often visit Esquimalt and the Vesole may have been there on her way to or from service in Viet Nam. A heavy brass item such as this would have salvage value as well as being be a prized souvenir so its loss was more than likely accidental.



Sounding Lead

DcRu-1189:268

29.2 cm by 5.7 cm weight 4.5 kilograms.

Any ship entering Esquimalt Harbour would have a sounding lead to confirm the depth. The lead or plummet would be attached to a line usually with fathom marks and swung by a leadsman who would call out the depth. In this case the line either broke or it slipped from the leadsman's hands. Either way it was likely a frustrating loss and may have been serious if the ship was navigating shallow waters. The lead shows signs of use and could date as early as the 19th century.



Bosun's Whistle

DcRu-1278:26

11.9 cm in length,
corroded to brass and
copper components,
stamped "MADE IN
ENGLAND."



Country of origin was typically added after 1891 and adding "Made in" is generally used starting in the early 20th century. The Bosun's whistle has a long association with naval ships. During rough weather or in battle various whistle codes could be used to communicate orders to the crew. In recent times they are mostly ceremonial, for example a high-ranking officer may still be piped aboard. The loss was likely accidental.



Brass Plaque, Location of Seacock, Bofors Magazine

DcRu-1275:93

30.5 cm in length and 4 cm in height, cast brass with raised lettering “SEACOCK FLOODING BOFORS MAGAZINE 31-0` BELOW FORECASTLE DECK.”

The Bofors 40mm anti-aircraft gun was designed in the 1930's and used through WW2 then redesigned for use against jet-powered aircraft after the war. The magazine would hold the ammunition for the Bofors gun. In the event of a fire this plaque would direct a crewman to the seacock which could be opened to flood the magazine preventing a catastrophic explosion. The plaque is a reminder of the dangers and the needed precautions of serving on a warship.



Wooden Fid

DcRu-1278:62

38 cm in length and 3.8 cm at the base of the handle then conical to a point.

A fid was typically made of wood or bone and used for marlinspike seamanship with natural fiber rope and canvas. This would have been a working tool probably used on a daily basis to splice rope etc. and was likely dropped overboard by mistake.



Small Copper Marlin Spike

DcRu-1278:90

9.2 cm in length and 1.7 cm in diameter at the head and conical down to the point.

This small size marlinspike would likely be in the tool pouch of a seaman and used for working with light rope or metal lines. Based on its crude appearance it may have been made aboard the ship for a specific task then accidentally lost overboard.



Brass Fire Nozzle

DcRu-1278:25

38.8 cm in length, and
6.1 cm outside diameter
at the base, threaded with
an inside diameter of 4.8
cm or 2 inches. There
are no visible markings.



Fire at sea is could quickly lead to disaster so all ships and especially warships carried firefighting equipment with frequent drills for the crew. A heavy brass nozzle such as may have been accidentally lost during a drill.

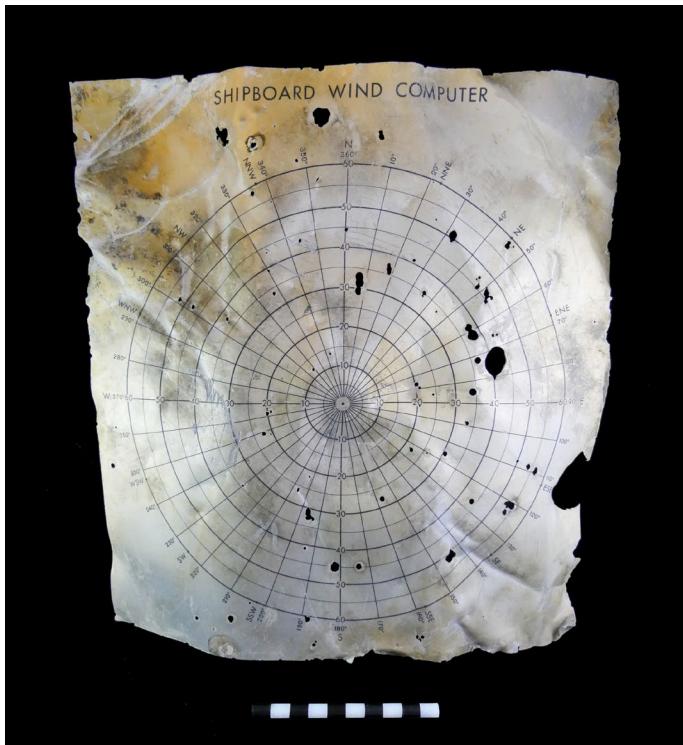


Brass Control Lever

DcRu-136:536

21.0 cm by 16.1 cm.

A brass control lever such as this could have multiple uses on a ship and it suggests there may have been a power source to be controlled. Brass has always been sought after for recycling which would also suggest an accidental loss. No commercial marks of any kind were found.



Shipboard Wind Computer

DcRu-1275:95

38.8 cm by 29.1 cm printed on an aluminum sheet.

It's remarkable this item actually survived being dredged off the bottom. Using the 360 degrees and grids on the sheet, true wind speed could be calculated by taking into account the speed and direction of the ship and the apparent speed and direction of the wind from the ship's anemometer and wind vane. The data forms a triangle with one of the points pointing to true wind speed. This is now a task that could easily be done by the simplest electronic computer but understanding the concept and how to calculate it is still a skill that would be needed during a systems failure.



Skeleton Key and Brass Tag RDF Office

DcRu-1278:79

Key 9.8 cm in length by 2.7 cm, and the tag 5.2 cm by 2.0 cm
Stamped “13 RDF OFFICE”

Based on the Dictionary of Military Abbreviations: British, Empire, Commonwealth by B.K.C. Scott 1982, RDF is an abbreviation of radio direction-finding. This was the term used until 1940 when it was replaced by the more familiar acronym, RADAR. Countries that held early RADAR technology regarded it as top secret and a key such as this would have been closely guarded.



Phone Hand Set and Cord

DcRu-1186:237

20.4 cm in length by 5.9 cm in width.

This style of handset became available in the 1930's and could easily have been on a WW2 warship. Communication systems on a warship are extremely important. If the set was discarded during an upgrade it would have little salvage value and may have been conveniently dropped over the side.



Royal Canadian Navy Crested Ceramic Egg Cup

DcRu-1278:100

4.4 cm in height and 4.8 cm in diameter. The maker's mark on the base is Crown Staffordshire Fine Bone China Made in England and dated 1960.

The blue crest contains ten maple leaves representing the ten provinces of Canada. The pattern was introduced in 1955. It also bears the crown of Queen Elizabeth. It's interesting the Canadian Government was still sourcing chinaware from Britain rather than Canadian manufacturers.



U.S Navy Ceramic Plate

DcRu-1278:30

15.8 cm in diameter, white ceramic with blue rings and a fouled anchor. The maker's mark on the back is in a stylized book: "THE BAILEY-WALKER VITRIFIED CHINA", above the book is a D and below BEDFORD OHIO 1943.

The US Navy "Anchor China" was used in the officer's mess and wardroom. During WW2 and the Korean war many US warships would have made Esquimalt a port of call. Ceramic items such as this could see service for a considerable time before being lost or discarded.

Personal Items



Victorian Royal Engineers Brass Button

DcRu-1275:85

2.3 cm in diameter, embossed “ROYAL ENGINEERS” and “VR” in script with Queen Victoria’s crown above. Back stamped Firmin & Sons Ltd. London. Nayler, in his book Military Button Manufacturers from London Directories, 1800-1899, shows the earliest record where Firmin and Sons added the Ltd. was 1879.

The Royal Engineers were instrumental in the development of early British Columbia and opening the road to the gold fields in the Cariboo. By the 1880's the Royal Engineers were more likely in Esquimalt to assist with coastal defences. It was feared that tensions between Britain and Russia would lead to war and the defence of Esquimalt was critical in maintaining the Empire's access to the Pacific.

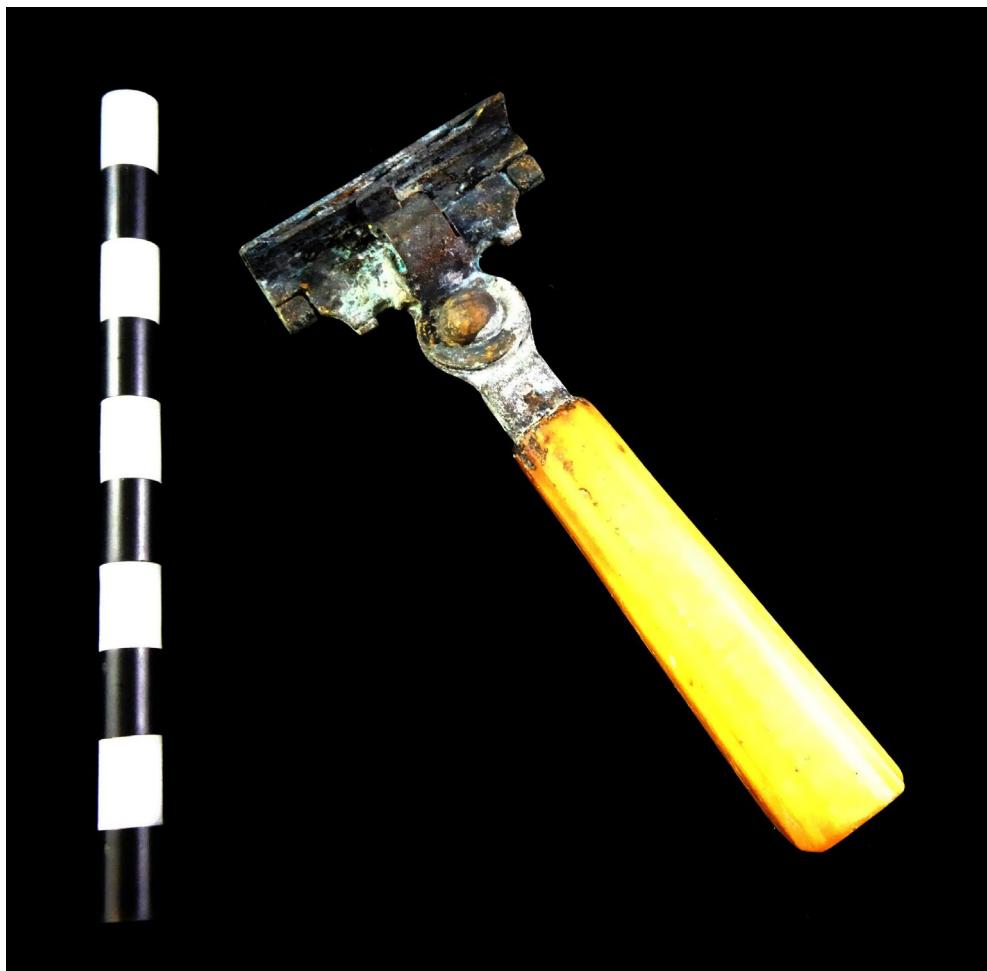


Clay Pipe (part of stem missing)

DcRu-1275:89

Total remaining length 11.4 cm and heel to the top of the bowl 4.9 cm. The stem is stamped "DAVIDSON" on one side and "GLASGOW" on the opposite with "TD" on the front of the bowl.

Museums Victoria in Australia suggests a date of 1861-1891 for this pipe and states Davidson produced pipes almost exclusively for export trade. The "TD" refers to the style of pipe originally introduced by Thomas Dormer a London pipe maker. In British Columbia, fragments of these fragile clay pipes are common in early sites but taper off towards the end of the 19th century as they are replaced by burl pipes and later in the early 20th century by cigarettes.



Safety Razor

DcRu-1278:58

9.8 cm in length and 3.8 cm at the head with what appears to be a yellow or “butterscotch” coloured Bakelite handle.

This razor appears to be made by Schick which was introduced in 1926 and may well have been used during WW2. Although, with permission, sailors were allowed beards but they had to be neatly trimmed at all times which would still require a razor. Perhaps this one was tossed when the owner acquired a new electric razor.



Pocket Watch

DcRu-1278:101

5 cm in diameter and 1.1 cm thick.

The crystal is missing and the watch is corroded to the point any writing is not readily visible. There is still a partial leather strap remaining. It's hard to say if the watch was damaged before it went in the water. Keeping proper time has always been important to naval operations and the Admiralty would issue pocket watches marked with a large broad arrow to indicate government property. By the time of WW1 pocket watches were slowly being replaced by wrist watches.



Cap Badge Canadian Forces Combined Service

DcRu-1278:91

4.8 cm by 3.4 cm. Most of the original surface has corroded off.

In February of 1968, the Canadian Forces Reorganization Act was passed and the Royal Canadian Navy, Canadian Army, and the Royal Canadian Air Force were merged to form the Canadian Armed Forces. This badge has been in use since that date however many branches of the Canadian Armed Forces now have specific corps badges.



Coin Mexican One Peso

DcRu-1278:17

3.5 cm in diameter, one peso coin dated 1962 and partially corroded from the salt water.

Ships from many countries visit Esquimalt Harbour for both courtesy calls and taking part in multinational exercises. Canadian ships also visit many foreign ports so a coin such as this could easily find its way to Esquimalt Harbour and somehow to the bottom of it.



Miniature Brass Ship's Gun

DcRu-1278:28

Length 6.1 cm and 1.3 cm in diameter, cast brass with significant damage.

This was a most unusual find with the muzzle end twisted and almost snapped off. It was most likely intended as a toy but may have been meant for a model or even demonstration purposes. It's possible it may have been something made onboard. The owner may have been frustrated with the damage and tossed it overboard.



Earthenware Plate Fragment

DcRu-136:522

Size of fragment 9.4 cm by 3.8 cm with a transfer design.

Maker's mark on the back "Copeland Late Spode." Goddard's book of British Pottery Marks dates this mark between 1847 and 1867.

The plate fragment in blue depicts a classical scene which was a common theme at the time. British made earthenware dominated almost all of the market in 19th century Victoria. This fragment of a quality plate may have been a local purchase but just as likely arrived on a Royal Navy ship as officers were expected to provide their own tableware.

Supplies: Bottles and Other Containers

These artifacts represent locally purchased products as well as those likely brought on board as part of the ship's stores.

Blue Square Bottle

DcRu-1278:55

18 cm in height and 7.2 cm square, hand finished, cup mold with wide mouth. This bottle would likely date between 1870 and 1890.



One of the steps to prevent accidental poisonings, starting in the mid 19th century, was to use blue glass for hazardous materials. Bottles that contained actual poisons were typically further embossed with the word poison or not to be taken. The blue colour was intended as a caution and was often used on chemical or medicinal bottles. A bottle such as this likely contained some type of powder or salt.

Food Bottle

DcRu-1278:107
22.5 cm height by
7.5 cm diameter,
aqua colour, no
markings.



This style of hand finished bottle is typical of the 1870s and 80s. It may have contained any number of preserved items or sauces. It may have been a local purchase although bottled preserves would also be part of a ship's supply.



Lea and Perrins Sauce Bottle

DcRu-136:511

18.2 cm in height and a diameter of 5.3 cm. Embossed “Lea and Perrins Worcestershire Sauce”. Base marked J103D with an S below.

This bottle is hand finished and likely dates between 1890 and 1910 and probably a Victoria purchase. Based on the number of bottles found locally, Lee and Perrins was probably the most popular condiment in 19th century Victoria. Worcestershire Sauce

had its beginnings in the county of Worcester in the early 1800's when Lord Sandys returned from travels in Bengal with a recipe he wanted to duplicate. He asked two chemists, John Lea and William Perrins to make the first batch. In 1839, an American John Duncan imported some to New York and it quickly became popular throughout the U.S. Starting in 1880's the sauce was bottled in North America and the base of the bottles were embossed JDS for John Duncan and Sons similar to the one from the harbour.



Fragment of a Chinese Brown-glazed Soya Pot

DcRu136:496

Fragment roughly 11.7 cm by 10.5 cm with the original spigot intact.

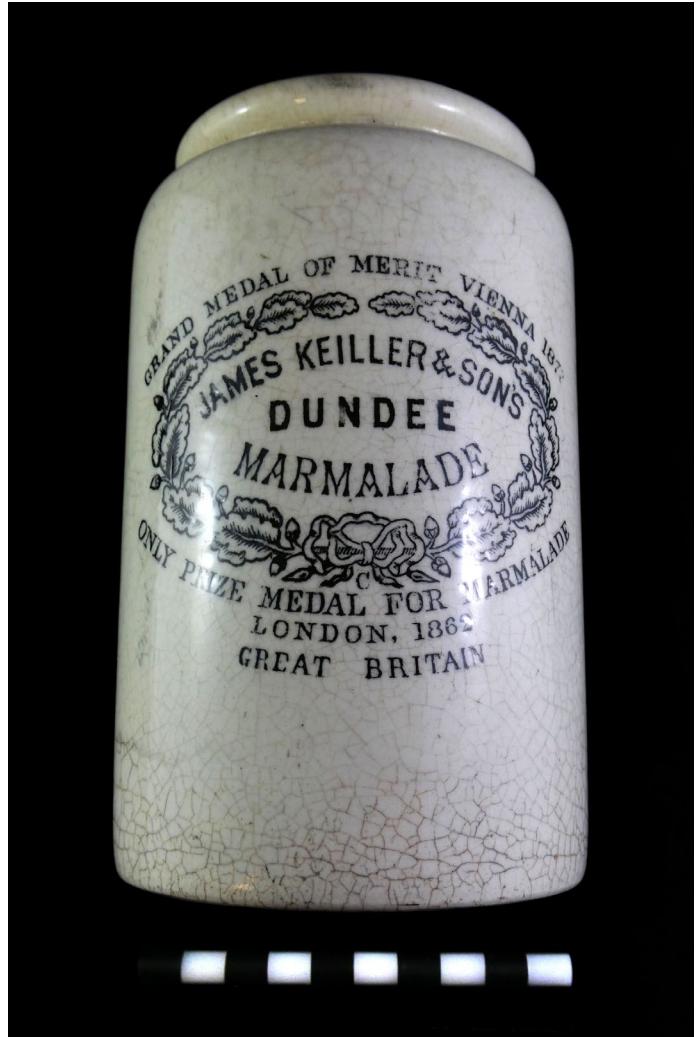
Chinese, brown-glazed, stoneware soya pots are a common find on historic sites that date between the 1850s and the 1920s in British Columbia. This was most likely a local purchase by a ship's cook or there may have been Chinese workers at the base.

Keiller and Sons

Marmalade Jar

DcRu-1278:63

15.2 cm in height and 9.4 cm in diameter, white ceramic with transfer printed label, “JAMES KEILLER DUNDEE MARMALADE above GRAND MEDAL OF MERIT VIENNA 1872” and below “ONLY PRIZE MEDAL FOR MARMALADE LONDON 1862 GREAT BRITAIN.”
Likely date 1880-1900.



James and Janet Keiller in Dundee Scotland were the first to produce a commercial brand of marmalade in Great Britain in the late 18th century. The significant difference was the addition of thin strips of peel. Keiller's marmalade was hugely popular in 19th century Victoria with very few historic deposits not having at least one or two remains of their ceramic jars. This jar could easily be a local purchase although the antiascorbic properties of citrus (whether vitamin C remained in any concentration is unlikely) were well known by this time and may have been stocked on Royal Navy ships. It would be another half century before Vitamin C itself would be identified as the cure for scurvy.



Schweppes Soda Water Bottle

DcRu-1278:54

23.5 cm in length and 7.2 cm at its widest, aqua coloured glass in a Hamilton or “torpedo” style, hand finished. The bottle is embossed “GENUINE SUPERIOR AERATED WATERS J. SCHWEPPE & Co 51 BERNERS STREET AND OXFORD STREET” and likely dates between 1850 and 1870.

Very few of the early Schweppes bottles are found in other sites around Victoria so it's likely this bottle was part of a ship's provisions from Britain. By the mid 19th century the Royal Navy was concerned about alcohol use by the sailors and soft drinks were being encouraged. The egg-shaped bottle was designed to hold the pressure and as it needed to remain on its side the cork kept from drying out and letting the carbonation escape.



Torpedo Soda Bottle Alex Phillips Victoria

DcRu-1278:80

22.1 cm in length and 7.4 cm at its widest point, aqua glass, circa 1850-1860s.

This Hamilton or “torpedo style bottle was almost certainly produced in Britain with no original markings. Upon a secondary cleaning it was observed that the initials “AP” were scratched into the bottle. The style of the two scratched letters matches scores of other bottles with “AP” scratched initials. Alex Phillips started the Pioneer Soda Works in Victoria in 1859. Bottles were scarce at the time so Phillips would obtain his bottles where ever he could and scratch his initials in the glass to indicate they were his property. Only a few torpedo bottles with his initials have ever been found. This bottle likely arrived on a ship in Esquimalt, was refilled and sold back as a local purchase. Phillips became a prominent Victoria citizen founding the first synagogue.



Fairall Soda Water Bottle

DcRu-1278:188

21.8 cm in height and 6.2 cm in diameter, hand finished, aqua glass with an internal thread stopper. Embossed “FAIRALL VICTORIA WEST.” The maker’s is “Riley Patent Screw Stoppered Bottle Riley Manufacturing London SW.”

Fairall is listed as operating between 1897 and 1908. Victoria West is a community between Esquimalt and the City of Victoria which would have been easy access for sailors or other workers on foot to make private purchases or Fairall may have delivered to a canteen in Esquimalt. Despite access to many American manufacturers for bottles most Victoria bottlers preferred to deal with Britain and support the Empire.



Thorpe Soda Bottle

DcRu-136:498

21.2 cm in height and 6.4 cm in diameter, aqua glass, hand finished internal thread stopper. Embossed "THORPE & Co VANCOUVER B.C. Makers BARNETT & FOSTER LONDON."

Thorpe was one of the larger suppliers of soft drinks in BC starting in Vancouver in 1889 before opening bottling plants in Victoria in 1892, and Nelson in 1897. This bottle likely dates to the 1889-1892 period and shows local purchases were being made from other cities such as Vancouver.



Royal crest (above)

Potter's mark (below)

Bumsted Salt Jar

DcRu-1278:116

13.2 cm in height and 10.9 cm in diameter, cream coloured ceramic. Impressed: "D. BUMSTEAD & Co ROYAL BRITISH TABLE SALT 86 LOWER THAMES STREET LONDON" with the Lion and Unicorn Royal Crest above. The maker's mark is Doulton & Co Lambeth Pottery London.

The mark was used after 1858 and the jar likely dates between 1858 and 1880. There are no known records of any other jars from this company being found in Victoria which would suggest this was part of the ship's stores or a personal supply that travelled from Britain.

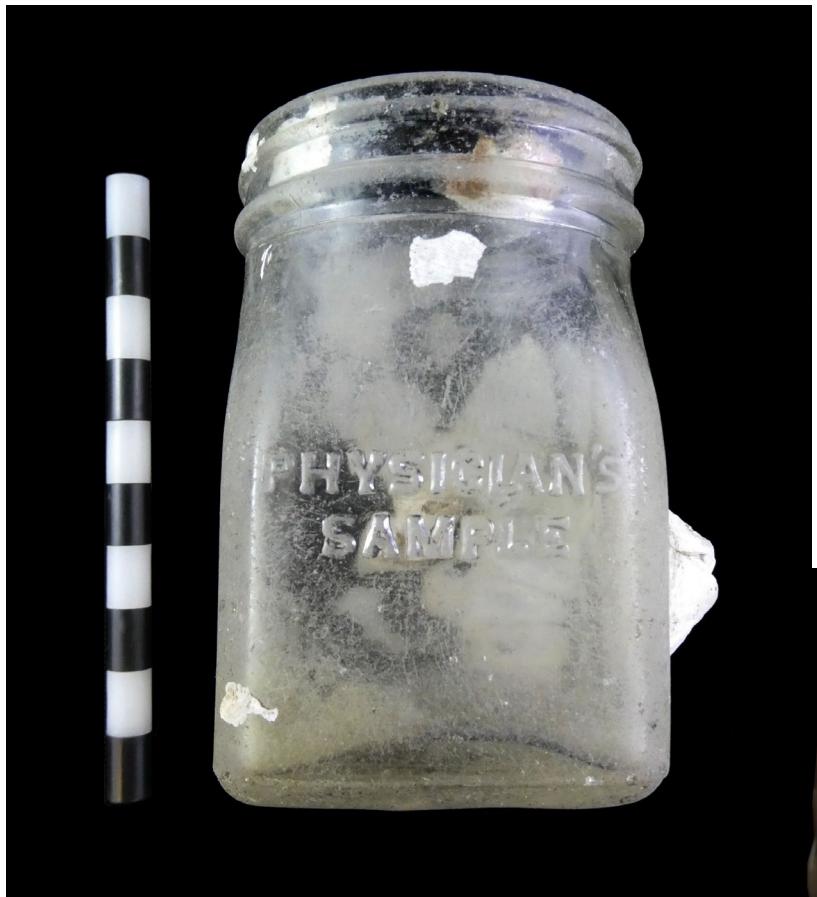


Crown Top Chinese Beer Bottle

DcRu-1277:104

24 cm in height and 6.2 cm, in diameter, hand finished with a crown top to take a cap, this bottle likely dates between 1900-1920.

These bottles are frequently found around Victoria and associated with the Chinese Community. They were likely produced in Japan and typically contained Chinese beer. The bottles have a distinctive ring around the neck and many collectors refer to them a “ring-neck beers.” Later versions were machine made. As there was a significant Chinese population in Victoria at the time, this was likely a local purchase. During World War 1, over 80,000 Chinese Labour Corps were landed and held in quarantine only a few kilometers from Esquimalt on route, in secret, to the Western Front in Europe.



Physician's Sample Bottle

DcRu-1278:107

8.4 cm in height and base 5.4 cm square, colourless glass with a screw top, wide mouth, and what appears to be an Owens ring on the bottle from the time of manufacture.

One panel is embossed “Physicians Sample” and the base has a shield with “P L” and a trident.

This mark is identified by the Society of Historic Archeology as Petrolagar Laboratories based in Chicago, circa 1941-1950's. Medical supplies are always crucial on warships especially during wartime as serious injuries or illness would need to be treated on board and it could be weeks before making port.



Blackwood Ceramic Ink Bottle

DcRu-136:544

13.8 cm in height (top part missing) and 5.9 cm in diameter, cream coloured ceramic. Impressed “BLACKWOOD & Co PATENT SYPHON.”

This style of ink bottle was first patented in 1867 by Blackwood in London. It had a specially designed rotating stopper that, when turned to the correct position, the ink would flow without the potentially messy need to remove the stopper. This would be particularly beneficial on a rolling ship. As this is the only known example found in Victoria it was likely part of a ship's supply.

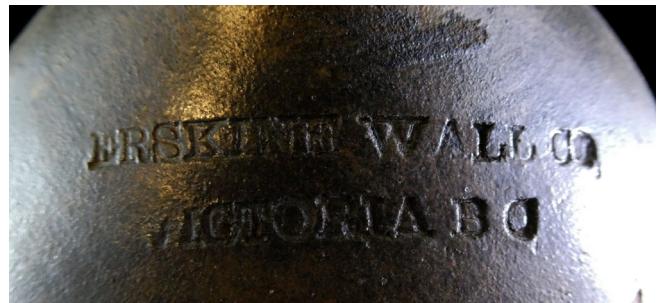


Multisided Ink Bottle

DcRu-1278:72

6.7 cm in height by 6.3 cm at the base, 8 sided conical, aqua coloured glass, cup mold with a hand finished top.

These are typically referred to as “umbrella inks.” This style of ink bottles are typically found in older historic sites around Victoria and become less common after about 1890. A bottle such as this could have been either a local purchase or part of a ship’s stores.



Ceramic Jug

DcRu-1278:128

29 cm in height and 17 cm in diameter, approximately one gallon in size, stamped “ERSKINE WALL Co. VICTORIA BC.”

Erskine Wall and Company appear listed as early as 1896 as grocers at the corner of Fort and Government Streets in Victoria (The Victoria Colonist, Aug 11, 1896 p.5). An 1896 add also lists a wide variety of alcoholic beverages for sale. Surviving jugs from this company are extremely rare and would likely be returned to the company for refilling and not dropped in the harbour. This is a clear example of local businesses providing goods for Esquimalt.

Wine Bottle

DcRu-1278:61

29 cm in height and 6.3 cm in diameter, amber glass, hand finished and with a turn-mold manufacture.



This tall slim bottle form is typically referred to as a “Hock” or “Rhine” style. This bottle likely dates between 1870 and 1910. They typically contained Rhine and Mosel wines. They are a frequent find in late 19th century sites in Victoria. This particular bottle has developed a rainbow-like patina from contact with the salt water.



Whiskey Flask

DcRu-136:531

20 cm in height by 9.5 cm in width and 4.2 cm thickness in an flattened oval shape, colourless, screw top and machine made. Embossed with crossed pistols at the top, a caricature of an "Old Colonel," maple leaves down each side with two swords and stippling. The lower part is embossed in an old-style script "OLD COLONEL DELUXE BOURBOUN WHISKEY," The base is marked "BC Distillery Company Limited" with a Dominion Glass Company mark that indicates a manufacture in 1945.

The BC Distillery Company was founded in 1904 in New Westminster BC and was eventually purchased by Seagram's (Now Seagram Company Ltd.) The bottle, with a clearly military theme was likely designed to appeal service personnel during WW2.