

# STONE FENCES and FEATURES of the LOWER COAST – A FIELD TRIP REPORT

By C. Martin, R. Lewis, and T. Fosnaes of the Sir William Vaughan Project



Lower Coast from a Google Maps satellite image

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### Introduction

Since before the Iron Age men built stone walls to define land ownership and use; to corral and shelter animals, or to protect crops. From simple piled rocks to intricate structures requiring precise measurement and building with worked stone, stone fences are relatively easy to construct and have an extremely long life span, lasting many hundreds, or thousands, of years.

In this report, web-based sources provide basic information about stone fences in relation to the Stone Fences and Features of the Lower Coast of Trepassey which were the subjects of two Sir William Vaughan Project organized field trips on 20 October 2012 and 12 November 2012. The first field trip was conducted by, and this report was prepared by, C. Martin, R. Lewis and T. Fosnaes. The second was conducted by Mr. Martin and Mr. Fosnaes, accompanied by B. Norris, an experienced stone wall and fence builder.

The Sir William Vaughan Project is an historical research project determined to discover information about Sir William's attempts to settle Newfoundland in the 1630's, particularly at Trepassey, as well as other historical Welsh-Newfoundland connections.

### Stone fences – general information

*From [https://en.wikipedia.org/wiki/Rock\\_fence](https://en.wikipedia.org/wiki/Rock_fence)*

One type of wall is called a "Double" wall and is constructed by placing two rows of [flattish] stones along the boundary to be walled. ... Smaller stones may be used as chocks in areas where the natural stone shape is more rounded. The walls are built up to the desired height layer-by-layer (*course by course*), and at intervals, large tie-stones or *through stones* are placed which span both faces of the wall. These have the effect of bonding what would otherwise be two thin walls leaning against each other, greatly increasing the strength of the wall. The final layer on the top of the wall also consists of large stones, called *capstones*, *coping stones* or *cope*s.

This is an adequate description of the fences found east of the Powles Point road although the Lower Coast fences appear wider at the base than the description allows or as is shown in the Welsh example photographed below. As well, some centuries of disregard may now disguise their original condition.

The article describes a Cornish wall variation which uses a wider base and incorporates trees and shrubs (*hedging*) on top; of interest is this statement, *As with many other varieties of wall, the height is the same as the width of the base, and the top is half the base width*. These proportions appear to be the case with the fences east of Powles Point road.

A series of fences on the west side of the road, closest to the road and extending west to the coast, do not have obvious flat stone courses but rather fit into the first and last categories of *thrown*, *stacked*, and/or *piled stone walls*.

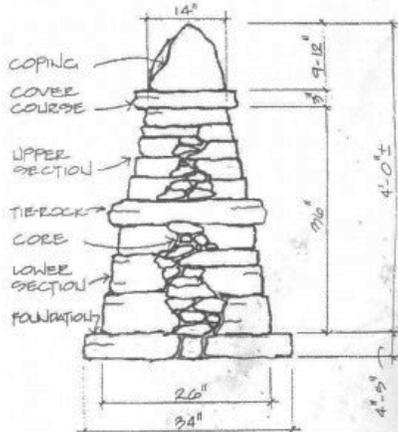


Pictures 1 and 2 A Welsh example from the *Rock fence* website.

From <http://sissonlandscapes.com/2011/landscape-design/connect-to-history-with-dry-stone-walls/>

Ultimately however, drystone masonry assumed the role as the method of choice for the agricultural enclosure, and we will see a profusion of styles, terminology, and construction methods over the centuries.

... Most simply, a dry stone wall (also known as a dyke in Scotland, or a stone fence in parts of the U.S.) is any wall that is constructed without the use of mortar to bind the stones together; instead the wall is bound together by the weight of the stones, and, hopefully, by the careful selection and interlocking of stone on the part of the mason. Most commonly dry stone walls were created by a farmer who was clearing a field in order to grow crops, and who subsequently added to the wall in following years ... This type of dry stone wall is typically called a *tossed wall*, or *dry-stack wall*, and may often be a somewhat haphazard construction, as the first stones unearthed by the farmers were often very hard, rounded glacial till that were very difficult to work with and resulted in the rubbly 'tumble-down' appearance we find in the older stone walls of New England. When stones are more carefully placed in double walled design (illustration left), and filled in the middle with rubble, the wall is usually referred to as a dry-laid wall ... there are certain 'best-practices' in drystone masonry which can result in a wall that will last centuries.



Naturally, drystone walls were also constructed as barriers for livestock, and in this use we find many of the characteristics that make up a durable stone wall that will stand the test of time. To begin, a drystone wall does not typically require a deep foundation as is required with other masonry work, as the wall is able to bend and flex with the movement of the earth during periods of warmth and frost (though a foundation below the frostline will certainly add to the life of the wall).

Typically only the topsoil is removed, and a course of heavy foundation stones is laid. The foundation course is

typically laid wider than subsequent courses as this provides more support should any stone shift outwards over time. Following this stones are laid in the time honored 'one over two, two over one' pattern ensuring that each joint, or break between stones, is crossed. Individual stones are selected for the best looking face, and laid so that the angle of the face of the stone matches the overall batter, or slant of the wall. The center of the wall, or 'hearting' is packed with rubble or unattractive stones that aren't useful for the face of the wall. The packing of the wall is an

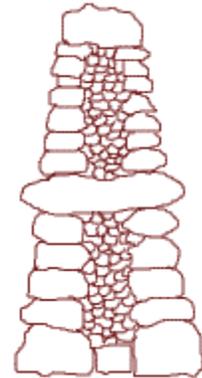
integral part of its structure, and as each face stone is placed, packing is also placed underneath and behind the stone to ensure many points of contact with adjacent stones. A good mason will typically strive to use the largest stones that can fit in the available space between the two faces of the wall, as larger stones will break down more slowly than smaller, increasing the lifespan of the wall. Packing from behind each stone, instead of chinking from the front, ensures that stones don't fall out, weakening the wall, but also ensures that as the smaller 'hearting' stones break down over time, the wall will settle into itself, actually becoming stronger.

From <http://www.britainexpress.com/History/drystone.htm>

Drystone walls are, with hedgerows, one of the most commonly used field boundaries in England, and help create what we now regard as the traditional pattern of field and lanes so evocative of rural England. While hedgerows are most common in the Lowland Zone, drystone walling is most often found in the Highland, or Upland, Zone (roughly the south-west, the Pennines, the Lake District, the Northeast). In addition, most of Wales and Scotland can be included in the Highland Zone.

... [illustrated typical drystone wall, right]

Throughout the medieval period, as settlement in the Highland areas increased, so too did drystone walling. ...



Drystone walls are not merely features of agricultural interest; they are in a sense, living history; a legacy of the movement towards enclosure of common farming and grazing land as English society moved away from feudalism. As individual landowners abandoned farming in favour of raising sheep and cattle, they enclosed land which had been owned or used "in common", by all the inhabitants of a village. The right to use the common land was lost as landowners enclosed fields and, in some cases, evicted villagers to make room for sheep!

Most of the drystone walls we see today are products of the post-medieval move toward enclosure. In the lower slopes of the Highland Zone the walls are rough and irregular in shape, enclosing small farms dating to the late medieval period and the 16th century.

Higher up the slopes the walls enclose larger fields dating from the 16th and 17th centuries. At the highest elevations are the great sheep grazing areas bounded under Acts of Parliament during the great Enclosure Movement of the 18th and 19th centuries. These walls are the most regular and may run for many miles across otherwise forbidding landscape.

So how are these traditional walls built? Although techniques may have varied in different locations, the common practice was to cut a narrow trench, and lay a base of small stones within it. Then the wall is built up in progressive layers, each narrowing slightly towards the centre of the wall.

That centre is filled with small stones or rubble. At about a height of 2 feet a layer of throughstones is laid across the entire width of the wall to tie it together, and then the wall continues above the throughstones. The wall is generally topped with a row of slanting or vertical stones. When the wall is forced to climb a steep slope, the stones are commonly laid horizontally, not parallel to the slope.

## Stone fences and features of the Lower Coast – Study area

The Lower Coast hinterland rises from the north shore of the Powles Peninsula (Figure 1). What appear to be raised seabeds are topped by a 19<sup>th</sup> century battery, now an historic and interpretative site. The battery commands the entire Lower Coast as well as the narrow entrance into Trepassey harbour. The road to Powles Head lighthouse follows the high ground of the central peninsular ridge. The area contains many stone fences and other stone features.

To the west of the road there are several stone fences starting near the road, some extend to the shore; there are *gates* or openings. The slope here is steep and the ground uneven with bedrock outdrops and steep drops. A former living site, Valna Fad or locally, phonetically pronounced *balnafal*, is south of the fences and may or may not be associated. Certainly the fine stonework at Valna Fad is more related to the eastern fences in style than the apparently rough piling of the west fences. The fences in this area may be more deteriorated or dismantled.

To the east is a network of straight, nearly parallel fences, with intersections and cross-fences; gateways and cellars. The stonework here follows the classic example, straight double walls of laid stones backfilled and topped with large stones. B. Norris described the walls as being “well built”, implying they were not simple field clearings but were organized, planned, and had purpose; he also suggested that the builders were skilled in rock fence building and used traditional techniques. Many of the fences are deteriorating through lack of maintenance and stone removal but are generally sound.

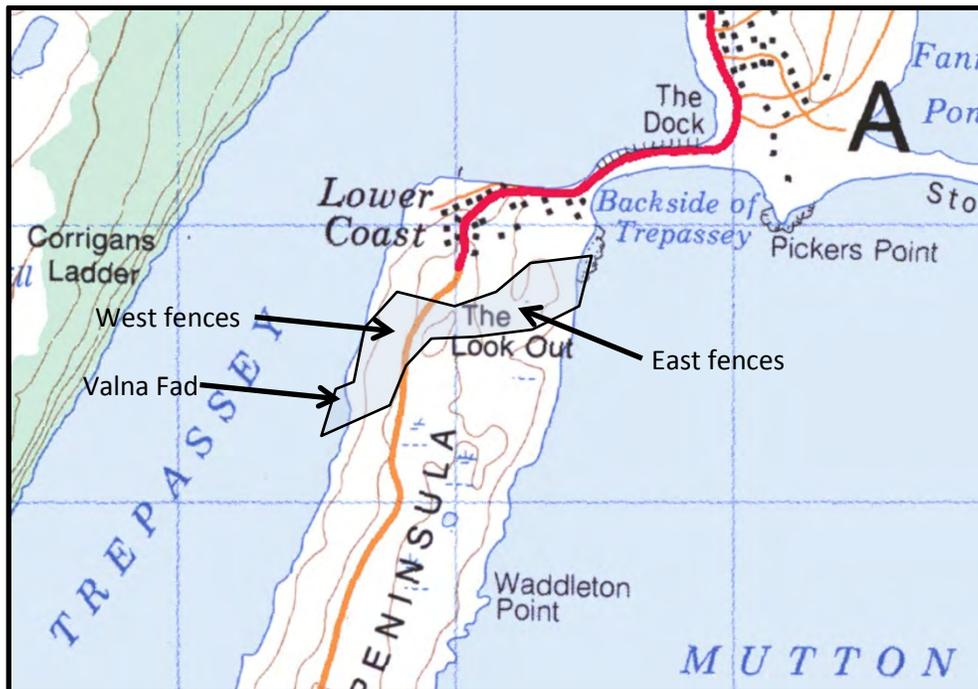
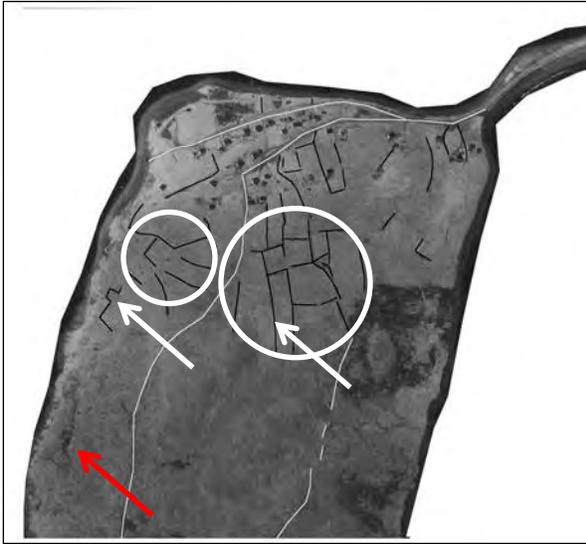


Figure 1 Section of Canadian topographic map 1K12 showing study area at north end of Powles Peninsula

### Stone fences and features of the Lower Coast

Generally the fences west of the road (3, thin white line) are of much rougher construction (thrown and piled) than are those east of the road, but they are orderly as are the east side fences. *Gate* features are found near center of the smaller white circle. Fencing southwest of the smaller circle (west of the road) shows a three-sided enclosure (white arrow) built into the wall, similar to one discovered at an east side fence and nearby to the south, the Vlna Fad site is marked with a red arrow. Between 12 and 2 o'clock on the small circle are flattened areas containing stone structures.



**Picture 3** This 1950's aerial photograph (left) of the Lower Coast area has fence lines traced in black; subsequent observation shows many of the northern (top) fences are wood and wood and wire fences. The stone fences visited in October 2012 are indicated by white circles. The white arrows indicate possible *folds* or *pounds*. The red arrow indicates Valna Fad site.

**Picture 4** An odd triangular structure (right), located at 2 o'clock in the larger circle, was investigated and might be a *fold* or similar animal control area.



**Picture 5** 1940's US aerial photograph showing Lower Coast.

**Picture 6** Lower Coast from 1K12 topographic map.

## Stone walls in building construction



**Pictures 7 and 8** Measuring 10 feet by 10 feet inside, the Valna Fad pit (left) is similar to one (right) at Grates Cove (<http://dswa.ca/showcase/grates-cove-newfoundland>), even to the bulging wall. The Grates Cove web page suggests the walls there date from the *late 1700s to the early 1900s*; while Trepassey informants give Valna Fad a mid-19<sup>th</sup> century origin, there is no real information as to the age of the dry laid stonework in the area. The Valna Fad cellar was built into the side of a rising landscape while Grates Cove appears to have been built on level ground and buried afterwards.

## Stone paving

Early flooring in barns, cellars, storage areas, and even some houses, were often *paved* with flat stones instead of loose gravel or pounded earth. A coastal cart path runs south ending at Valna Fad site. At Valna Fad, the east side of the path is retained by a dry laid wall. East of the south end of the wall is a shallow overgrown pit; a little north of that and raised slightly, is an area of flat stones. Each feature is about 15m<sup>2</sup>.

Stone-paved floors dating from the 17<sup>th</sup> century are featured at Ferryland and at the plantation building observed at Renew's, as reported in various numbers of the *Avalon Chronicles*. The Valna Fad floor is made of the same rock as the cellar wall and the retaining wall; all may have been quarried from a large sedimentary rock outcrop to the north of Valna Fad; The features observed at Valna Fad and the outcrop are pictured in Appendix A – Photographs.

## Conclusions

Stone fences and features scattered over the north end of the Powles Peninsula (the Lower Coast of Trepassey Harbour) have no known origin. They are typical of sheep pasture *enclosures* found throughout north Wales and highland Scotland and follow the ancient patterns of stone fencing. The walls are mostly survey straight and divide the land in even rectangles with some variations. It appears the two oldest walls form a central core around which other land was walled less rigorously. In 1917 the two main fences were surveyed as part of a Crown Lands grant. No other ownership records were found.

That the fences and structures have great archaeological and historical potential is undoubted, regardless of their actual age, but the oldest fences could date to the 17<sup>th</sup> century in light of contravening evidence. SWVP interest is being evinced through an attempt to fund an Historic

Resources Overview Assessment – Phase I under the terms of the Newfoundland and Labrador Government’s *Historic Resources Act* and *Regulations*. An HROA – Phase I provides a *probability* of historic resources and their *significance*. Field excavation is not required but field testing (test pits, measurements, and limited artifact collection to determine age, for example) may be conducted. Depending on Phase I results, further HROA activities and processes are developed leading to historic site designation.

Future research work in support of an HROA of the Lower Coast fences must include:

- sheep, goat, cattle and swine raising techniques of 17<sup>th</sup> century Wales;
- 17<sup>th</sup> century Welsh and highland stone fence construction styles;
- livestock importation by settlement schemes;
- compare Lower Coast evidence with Ferryland, Cupids, and other Newfoundland or New England settler sites;
- documentary evidence of Welsh settlement, building, and land transformation in Trepassey Bay;
- the relationships between stone fences and historical and modern land ownership;
- geologic information about the Powles Peninsula and the formation of the Lower Coast;
- an inventory of stone fences and structures in other Trepassey Bay communities.

Necessary to these efforts is a strong support base of community resources and approval and commitment to the process by Lower Coast residents. With these inputs and support the stone Fences and structures of the Lower Coast have a positive historical value for the Town of Trepassey and the Trepassey Bay area.

### **Selected Bibliography**

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Sisson Landscapes, Connect to history with Dry Stone Walls, website <http://sissonlandscapes.com/2011/landscape-design/connect-to-history-with-dry-stone-walls/>

Sir William Vaughan Project, St. John’s, Newfoundland, website <http://www.swvp.ca>

## Appendix A – Photographs

Thirty-four photographs on nine pages form this Appendix. The photographs record the findings of two field trips to explore the Stone Fences of the Lower Coast of Trepassey Bay, 20 October 2012 and 12 November 2012. There are several surmises and speculations included in the descriptions; these are based on observations and consultations between the field observers.

The seven pages are:

**Satellite site views and general location – this page**

**East side of Powles Point road – series 1**

**East side of Powles Point road – series 2**

**East side of Powles Point road – series 3**

**West side of Powles Point road – series 1**

**West side of Powles Point road – series 2**

**West side of Powles Point road – series 3**

**Valna Fad site – series 1**

**Valna Fad site – series 2**



**Pictures 1 and 2** West (left) and east (right) slopes of north end of Powles Peninsula have extensive stone fences and features.



**Picture 3** Southwest view of Lower Coast

**Satellite site views and general location**



**Pictures 4 and 5** Looking up (south towards the height of land, left) and looking down (north towards Trepassey Harbour, right), about midway of the fence closest to the road. The top is quite disturbed and no dry laid stone courses can be seen among the thick shrub overgrowth. Rocks were probably removed in some sections (4, center) as they are not found collapsed at the base.



**Picture 6** General view of the stone fences of the Lower Coast, east of the road, looking northeast towards Mutton Bay.

**Picture 7** Northwest view of stone fence in foreground of picture 6.

### **East side of Powles Point road – series 1**



**Picture 8** The first long fence east of the road (left) descends from the south and turns to the east at lower right corner of photograph 8 (white arrow); further east it joins the second fence east of the road which parallels it.

**Picture 9** The drystone courses of the second fence (right); the top is overgrown with heath-like plants and shrubs; the top can be walked.



**Pictures 10 and 11** A destroyed area (white arrow in photograph 11), the drystone courses are still evident but the fencetop and central fill are missing or disturbed. This area may be the corner of a *fold* or *pound* feature, a three sided extension of the wall as shown in a forshortened view in photograph 11 (marked with red arrows).

**East side of Powles Point road – series 2**



**Picture 12** Cellar pit about mid-point on Lower Coast slope and “well-built” section of middle fence.



**Picture 13** Checking a “well-built” section of the middle fence.



**Picture 14** This section of middle fence shows little deterioration considering that it hasn't been maintained for some time.



**Picture 15** A *gate*; the east side of the gate (black arrow) has a lot of piled rocks (right); the west gatepost (white arrow) incorporates a large erratic boulder or a bedrock outcrop



**Picture 16** East gatepost; the rocks here are larger than those used on the rest of this fence. It is possible the gate was made in the fence after construction by throwing the rocks aside.



**Pictures 17** The fences here are more like piled rock and do not show any evidence of drystone courses, *unless* it is to be found under the vegetation growing along the sides. A little further south, at Valna Fad, features show intricate drystone coursing.

**Picture 18** A straight, drain-like feature extends west from the fences area all the way to the coastal cliff; it isn't raised like a fence and contains very large rocks and boulders haphazardly deposited.

### West side of Powles Point road – series 1



**Pictures 19 and 20** Southwest view of a *gate* made during construction; note the *piled* character, the base may have drystone work that is submerged and overgrown.



**Picture 21** Larger stone collections like this may result from simple field clearings; being level with the surface indicates they may have been piled into a ditch or natural watercourse; perhaps filling a bog hole or bedrock depression.

**Picture 22** A general view to the northwest over the stone fences on the west side of the Powles Point road. The ground is steeper and rougher than on the east side.

## West side of Powles Point road – series 2



**Picture 23** Possible structure foundation with central pile, possibly a chimney or central fireplace base.



**Picture 24** A substantial rock structure; possibly two "side-by-side" cellars built against an outer wall.



**Picture 25** Close-up of section of east side retaining wall at the base of the green slope in the foreground of picture 26.



**Picture 26** West view over pit and large, levelled area defined by possible foundation walls. White circle shows a central feature, possibly a chimney or hearth; black arrows show the corners of the rectangular, flat area. The feature of picture 25 lies under the green sloped area in the foreground.

**West side of Powles Point road – series 3**



**Pictures 27 and 28** Valna Fad site has a ca. 20m long drystone retaining wall (south view left; north view right) creating a flat area to the east contains a shallow pit (black arrows), well grown over and without clear dimensions.



**Pictures 29 and 30** North of and slightly elevated above the Valna Fad shallow pit appears to be a flat, built-up area.



**Pictures 31 and 32** Valna Fad site possible cellar (west view left, east view right). The door and front wall have fallen in; the north wall (to observer's right) is bulging in; all four sides are overgrown. The finished inside dimension is 10 feet by 10 feet. Some stone looks worked and is of fairly consistent thickness. It was built into a rise of land and was likely partially buried on the east face.



**Pictures 33 and 34** North view of an outcrop north of Valna Fad site and a possible source for the rock used at Valna Fad; the road is well used by all-terrain vehicles; there aren't any fallen stones at the base of the face. The surface has little or no lichen on what appears to be a worked face (right) while an unworked area a little north is almost completely encrusted. There no chisel or drill marks obvious.

## Valna Fad site – series 2