

ART. VIII.—*A salt spring in Borrowdale.* By CHARLOTTE
KIPLING, Freshwater Biological Association, The
Ferry House, Ambleside, Westmorland.

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THE existence of a salt spring or salt well at Manesty
in Borrowdale has been known for many years, and
it is referred to in many of the early guide-books to the
Lakes. Some of these mention that the spring was once
owned by Furness Abbey. For example, Pennant,¹ who
toured the district in 1772, writes:

“The entrance into Borrowdale divides the scene, and the
northern side alters into milder forms; a salt spring, once the
property of the monks of Furness, trickles along the shore; hills
(the resort of shepherds) with downy fronts, and lofty summits,
succeed, with wood clothing their bases to the water’s edge.”

and this account was subsequently quoted by West.²

John Housman³ states:

“. . . and as all Borrowdale belonged to that religious body,
they are supposed to have laid up, at Grange, near the foot of
this mountain, their grain, their tithe, and also their salt, made
at a salt spring in the neighbourhood.”

and, more recently, W. T. McIntire⁴ says:

“The monks also manufactured salt at a saline spring in the
neighbourhood of Grange, a spring afterwards used by the
German miners (temp. Eliz. I) for medicinal purposes.”

The statements that the monks were supposed to have
made salt at the spring will now be considered. Firstly,
could salt have been made there by the methods in use

¹ Pennant, *A tour of Scotland and voyage to the Hebrides* (London,
2nd ed., 1776) 46.

² West, *Guide to the Lakes in Cumberland, Westmorland and Lancashire*
(Kendal, 1780) 113.

³ Housman, *A descriptive tour and guide to the Lakes, etc.* (Carlisle,
1800) 97.

⁴ Borrowdale; article in *Cumberland News* by W. T. McIntire, 9.6.34.

in the middle ages, and secondly, if so, did the monks in fact manufacture salt there?

In mediaeval times the following method was used to make salt. In early summer a shallow reservoir on a salt marsh was filled with salt water at a spring tide, and the water kept impounded throughout the summer to evaporate as much as possible in the sun. Sand from the foreshore was added to this water to increase its saltness. In the autumn the resulting brine was run off into a covered tank, and later the evaporation was completed by boiling the brine in shallow pans, for which purpose fires were kept burning night and day.

Chemical analysis (Mackereth unpublished data) has shown that the water from the spring in Borrowdale, if treated as described above, would yield salt suitable for domestic use, though it would not be identical with sea salt, and would taste rather bitter. In order to make it, a shallow reservoir near the salt spring would be necessary, but observation of the site has shown that the terrain is not very suitable for this and no evidence of embankments can now be found. A large quantity of wood fuel would also have been needed and was available at that time. On the coast, however, sites of saltworks dependent on wood fuel were eventually abandoned in favour of sites where peat fuel was available. The high rainfall in Borrowdale would make evaporation in an open reservoir an extremely doubtful proposition. It therefore appears that although the manufacture of salt would have been possible in Borrowdale in mediaeval times, for practical reasons it seems unlikely that it could have been made there in large quantities.

Did the monks make salt in Borrowdale? In an attempt to answer this question the records of Furness Abbey have been consulted.

Borrowdale was acquired by the Abbey of Furness from Alice de Romilly about 1210. A charter describes the boundaries of the territory concerned, and details its

assets, including meadows and pastures, stag and hind, wild boar and pig, and so on, but does not mention minerals or salt.

In 1336 a charter quoted by Atkinson⁵ gives details of a grant by Edward III to Furness including the following:

“ . . . et Borudale, Botherykkle, Mels et Salthous in Com. Cumbriae.”

A charter of Henry IV of 1400 repeats the above, though with slightly different spelling.

It is possible that the “Salthous in Com. Cumbriae” mentioned in these charters could refer to Manesty, but it is much more likely to refer to saltworks near Millom.

A list given by Beck⁶ of benefactions not of sufficient value to be inserted in the annals mentions the following:

“William son of Hugh gave with his body to be buried by the monks of Furness, land in Millum adjoining to the saltwork” and

“Adam brother of William lord of Millum confirmed the donation of the Church of Millum, the saltwork near Lairwath . . .”

The exact date of these grants is uncertain, but was probably about 1220, and thus earlier than the charters quoted, which could therefore refer to the Millom saltworks.

At the Dissolution in 1537 two inventories were compiled of the value of the possessions of Furness Abbey, one by Abbot Roger and one by the Royal Commissioners.

The first, the rental of Abbot Roger, contains the entry:

“Borowdale in Comberland. In Agento xxviii li. x s.”

The detailed account in Brownbill's edition of the *Coucher Book*⁷ shows that this amount is made up entirely of

⁵ Coucher Book of Furness Abbey, pt. I, 174.

⁶ Beck, *Annales Furnesiensis, History and Antiquities of the Abbey of Furness* (London, 1844) lxxx.

⁷ Coucher Book of Furness, ed. by J. Brownbill. Chetham Soc. 74, 76, 78 n.s. (1915-19) 644.

rents for farms; there is no mention of salt or minerals. The account gives the names of the tenants, not the names of the farms. All entries are of a similar form, for example:

“ . . . John Hynde, for 1 tenement and 1 ac. arable and 2 ac. meadow	8 0
“ . . . John Lambert, for 1 tenement and $\frac{3}{4}$ ac. arable and 1 ac. meadow	5 0”

The names Hyne (or Hynde), Lambert and Yowdall, described as “of Manesty” occur frequently in Crosthwaite parish registers⁸ in the 16th and 17th centuries. The earliest entries mentioning Manesty (in the baptisms) are the following:

“1564 Aug 13 Esabella Hyne filia Thomae de Manistie . . .
1567 Apr 3 John son of John Yowdall of Manistie and Janet.”

This list goes back to 1560 only, and in the first years gives names without domicile. It has not been possible to find out which of the families rented the field containing the salt well, and thus identify the relevant entry in the account.

The second inventory, the “Certificate of the Revenues of Furness Abbey by the commissioners of Henry VIII, 1537”, also contains no reference to salt or minerals in Borrowdale. The entry reads:

“The Countie of Cumberlond . . . Also the Rents and fermes in Borowdale xxviiij li. x s.”

which is the same amount as in the Rental, £28. 10s.

The two inventories are not always identical, as the Royal Commissioners added some items not included by Abbot Roger (for example, Blelham Tarn 2s., Esthwaite 10s.). If there had been a source of income in saltworks in Borrowdale the commissioners would not have been likely to overlook it in their valuation.

Over the monastic period many references occur to saltworks owned by the monks. In a manuscript note-

⁸ *Registers of Crosthwaite.*

book⁹ written about seventy years ago W. B. Kendall summarised these. He made a list of "Saltworks possessed by Furness monks" and this contains no mention of Borrowdale. It reads:

"At Salthouse (near Barrow) charcoal fuel Furness Abbey
 " " (Millom) " "
 At Stalmine Fylde peat fuel "

owned by Conishead Priory

1. between the Priory and Ulverston pool peat fuel
2. at Haverigg Millom "
3. site for saltworks near Haverbrack Westmorland with the rights to get sea sand for purpose of salt-making.

(The salt was worked out of the sand and the water evaporated)
 It is not known that this site was ever utilised by the monks."

The absence of any mention of saltworks in Borrowdale in any of the records consulted (even though these are far from comprehensive) makes it appear extremely improbable that saltworks existed there in the monastic period. This does not rule out the possibility that small quantities of brine or salt might have been made by the local inhabitants for their own use, or that the water might have been used for medicinal purposes: such activities would not have been within the scope of the subject matter of the documents consulted.

After the Dissolution, Furness and its possessions became Crown property. In August 1555 a commission was appointed¹⁰ "to enquire as to minerals in the manor of Borrowdale" with the following terms of reference concerning the salt well:

" . . . And also that ye doe enquier whether there be anie well of watar . . . salt or brackishe of and within our seide Manor or Lordshippe And what yearlie rent or profitte we be answered for the same and of whome. And if we be answered noe yerelie rente or profitte for the same well That then y^e doe also enquier what yerelie Rent or profitte may be answered and improved unto vs for the same well."

⁹ MSS. notebooks by W. B. Kendall. Quoted by permission of the Trustees of the Kendall Papers deposited in the Barrow Public Library.

¹⁰ Duchy of Lancaster Pleadings Phil. and Mary, Vol. 20, R 10.

The reply in October was as follows:¹¹

“ . . . Itm as concern'yg the Salt Well in Borodal grange we cannot lerne nor knowe of any proffit that cumys to the Kyng and the quenes ma^{ts} by reason thereof nor hath not at any tyme but if any p'son wold gyve the yerely rent of ij^s by the yere unto ther highnes For the same it were improvid so moche of yerely rent to ther ma^{ts} w^{ch} we suppose wold be gyven.”

The Crown was obviously hopeful that profit could be made from the salt well.

In December 1555 a license to search for minerals was granted to Ambrose Dormer:¹²

“License to search for all minerals whatsoever in Borrowdale; and lez Wadhole and le Wadd and the Foss of Salt water.

. . . AND ALSO the aforesaid Lord the King and Lady the Queen by the advice and assent aforesaid have granted demised and to farm let to the aforesaid Ambrose Dormer one Foss of Salt water called a Saltwell being in the Grange of Borrowdale aforesaid and elsewhere within the Lordship of Borrowdale aforesaid to turn the said water to the greatest advantage and use of the said Ambrose his executors or assigns upon the land aforesaid . . .

. . . also rendering yearly to the aforesaid Lord the King and Lady the Queen and the heirs and successors of her the said Lady the Queen for the aforesaid foss of salt water Two shillings.”

It is interesting to note that in the documents quoted above the salt well is considered on an equal footing with the Wadholes (Black lead). The rent asked for the Wadholes was thirteen shillings and fourpence, compared with two shillings for the salt well.

In 1613 James I sold the manor of Borrowdale to two gentlemen of London, who resold it in 1615. The details of this latter transaction are contained in a document known as the Great Deed of Borrowdale. The names of the purchasers and in some cases the names of their properties are given, including: “John Lambert and Richard Hyne of Manesty.”

¹¹ Duchy of Lancaster Pleadings Phil. and Mary, Vol. 19, R 10a.

¹² Enrolments of Leases [Duchy of Lancaster]. Edward VI and Phil. and Mary, Vol. 5, fol. 218.

The document, quoted in a paper on Old Borrowdale by J. Fisher Crosthwaite,¹³ describes the sale as of:

“ . . . ‘all that manor of Borrowdale with the rights, members and appurtenances, and all those lands and tenements in Borrowdale aforesaid by particulars thereof mentioned to be of the yearly value of £28. 10s. and all that Salt Well or Salt water within the Grange of Borrowdale, together with all Royalties,’ but they except and reserve . . . all those Wad holes commonly called Black-cawke . . . thus the tenants became owners of all minerals and manorial rights excepting the Black lead.”

In this transaction the salt well and the black lead were treated differently; the rights to the black lead were retained by the vendors, while the salt well rights were sold with the land and the rest of the property. In the years between 1555 and 1615 there had been much activity in the Lake District and especially in Borrowdale in surveying and exploiting the mineral wealth. The Wad-holes had proved to be extremely profitable, but, so far as can be ascertained, the salt well had turned out to be of no commercial value, and the hope of profit from it must have faded at this time.

All over England in the second half of the 17th and first half of the 18th centuries there was a great development of spas and treatment by medicinal waters. It became fashionable to take the waters, and much money could be made by successful promoters of spas and watering-places.

Some idea of the widespread interest in medicinal waters can be obtained from the title-page of a work by Thomas Short, M.D., published in Sheffield in 1740:

“An essay towards a natural, experimental and medicinal History of the principle mineral waters of Cumberland, Northumberland, Westmoreland, Bishoprick of Durham, Lancashire, Cheshire, Staffordshire, Shropshire, Worcestershire, Gloucestershire, Warwickshire, Northamptonshire, Liecestershire, and Nottinghamshire, particularly those of Neville Holt, Cheltenham, Weatherslack, Hartlepool, Astrope, Cartmall etc.”

¹³ Old Borrowdale by J. Fisher Crosthwaite. *Trans. Cumb. & West. Ass. of Literature & Science* 1 (1875-6) 65.

Several references to Borrowdale (spelt Barrowdale throughout) occur in this book:

"History of purging waters from Marine Salt only . . . BARROWDALE Well, Near Grange, three miles from Keswick in Cumberland, it lies in a Level near a Moss; it was found at first by Miners digging in quest of Ore, and springs out of the hard blewstone which constitutes all those awful Mountains, and terrible precipices called Fells, being a kind of Lapis Scissilis, is pretty solid of a blewish colour, and much of it will bear a pretty good gloss in polishing. It's a rough, severe purge to strong constitutions, heats the body much excites a thirst, being a meer Brine of inland salt, so strong as it would well bear the expence of a salt work there, for scarce a 22nd part of the German Ocean is salt, but a 16 of this is pure salt, and might be brought to a much richer Brine, were the freshes made out of it, which drain into it at present, being a kind of pond; there grows no grass as far as this water reaches. But a gallon of Middlewich Cheshire strong brine leaves fifty Ounces of Salt, and a gallon of the weak Brine 45 and half ounce: But however harsh a vomit and purge Barrowdale Well is, it wants not it's customers and admirers, and indeed in Dropsical, cacochymic, cachectic, disorders; foulness of the Stomach, slipperyness of the Bowels from Relaxations, or much Mucus, some icteritious disorders, it is of service to several."¹⁴

In a table of analyses of about eighty waters Borrowdale water is classified, together with Caergyle and Leamington (Leamington) as:

"Class Sixth, Purging Waters with Marine Salt only."

The results are tabulated as follows:

"Place	...	Barrowdale
Month	...	June 19
Year	...	1729
Solut. arg.	...	White sedt.
Spt Salis	...	O
Syr Viol	...	Green
Spt CC	...	_____

¹⁴ Dropsy: a morbid accumulation of watery fluid.
 Cacochymy: unhealthy state of the fluids of the body.
 Cachexy: a depraved condition of the body, in which nutrition is everywhere defective.
 Icteriticus: jaundiced.

Oil Tart	...	Whitish
Gall	...	O
Sugr Lead	...	White
Sublimate	...	Pearl
Logwood	...	L. Red
Sumach	...	Muddy
Weight	...	_____."

This analysis was used by subsequent writers.

The statement that the well was discovered by miners is interesting but it must refer to a period two hundred years earlier than the publication of the book, and therefore too much reliance cannot be placed on it. If it were true however it would explain the absence of any mention of the salt well in the monastic records.

In 1757 John Rutty, M.D., published in London: "*A Methodical Synopsis of mineral waters comprehending the most celebrated medicinal waters both hot and cold of Great Britain, Ireland, France, Germany and Italy and several other parts of the world.*"

It includes:

"Particulars of Borrowdale Mineral Spring.

The well lies near Grange, three miles from Keswick.

It is a strong brine of inland salt.

The water was whitish with oil of tartar; white with sugar of lead; and exhibited a white sediment with a solution of silver.

It was green with syrup of violets, and red with logwood.

THE ANALYSIS.

This is much stronger than the water of the German ocean; for whereas scarce a 22nd part of that is salt, a 16th part of this is pure salt, for it yields half a pound from a gallon.

The sediment in gross, sent me by Dr Short, was actually warm on the tongue, of a brackish and bitterish taste.

It caused a violent ebullition and acid fume with oil of vitriol; some small, scarce sensible, froth with spirit of salt; lay still with vinegar.

It was of a dusky green, with syrup of violets in the middle, and purple at the edges.

It quite liquified in the air, even as much or more than the residuum of our Francis-street water.

It crackled a little on the red-hot iron and stunk.

The solution of two drams of the salt in a quart of distilled water, boiled to a pint and a half, is of a brackish taste, and bitter in the throat.

It presently exhibited a gross white grume with oil of tartar, and with spirit of sal ammoniac; and some small grumes with solution of sugar of lead.

A stiff white grumous sediment with solution of silver.

The salt in substance, boiled in the proportion of half a dram to half a pint of milk, curdled it with a clear whey; which, and the appearances with the tincturing articles, are an argument of some acid adhering: viz. the above solution was purple with syrup of violets; from logwood it extracted little tincture, except some reddishness at the bottom; from brazil an exceeding pale orange, from rhubarb a yellow, from ash bark very little of a blueness, from sumach little tincture, from galls a green one.

The solution or deliquium of the salt in the air, had a very powerful effect in attenuating the blood.

The proportion of indissoluble matter to the salt was but very small; and moreover it was of a singular nature, not fermenting with vinegar, nor even with oil of vitriol, but it sparkled greatly on the red-hot iron.

COROLLARY.

From the bitterish taste of both the sediment and solution, from the above-described effects of the solution on the several tincturing articles, and particularly galls; from the effects of the same solution of the strength mentioned on alkalies, and from the coagulating effect of the salt on milk; this water appears to have a nitre or bittern combined with the marine salt, and withal to border more upon the acid than most of the salts impregnating the saline springs here examined, except that near Carrickfergus."

Donald Monro in *A Treatise on mineral waters*, published in two volumes in London in 1770, makes use of the work of both Dr Short and Dr Ruttly. He lists over 130 English waters and classifies Borrowdale water in the category: "of weaker salt springs which contain a calcareous glauber salt."

His description reads:

"BARROWDALE

The spring, which affords this water, is situated three miles from Keswick in Cumberland: it is more strongly impregnated

with a marine salt than the water of the German Ocean; a gallon affording, by evaporation, according to Dr Short's account, eight ounces, or one sixteenth of solid contents; of which he says, six drachms are a light calcareous earth, the remaining seven ounces two drachms are sea salt. Dr Rutty, who has since made some experiments with the salt of this water, concludes, that it has a mixture of a calcareous Glauber salt, because it runs *per deliquium* in the open air; one half drachm of it boiled with a pint of milk curdled it; and the solution of the salt yielded a white cloud and a precipitate on being mixed with a pure alkaline salt.

Dr Short tells us, that this water is a rough severe purge to strong constitutions, heats the body much, and excites thirst; but that, notwithstanding, it does not want its customers and admirers."

A map of Derwentwater, published in London in 1783 by P. Crosthwaite, marks "Salt Spring" Mr Banks's.

Hutchinson in his *History of Cumberland*, remarks in a footnote:

"Not far below (Manisty) house is Borrowdale well, recommended for cutaneous eruptions: it springs out of a flat from a spar rock, adjoining to a peat moss. The water tastes very like sea water, and is clear; but rises with a kind of moss or scum. At Manisty Nook there is another spring of much the same quality."

T. H. Horne¹⁵ gives a description of the bath as it was when used for medicinal purposes:

"And at a short distance to the right from this house, at Manesty, we noticed Borrowdale-Well, a sulphureous spring, formerly much frequented for cutaneous affections: the bath is walled round, and about three feet deep, the bottom is flagged, and is entered by a commodious flight of steps. Not far from this spring there is another, possessing the property of Epsom salts, and also much resorted to in former times, when the professors of the healing art were not so numerous, or so easily to be consulted, as they now happily are. When the beauties of Derwentwater are considered, together with the charming view of the lake which this spot commands, and the attractions of the surrounding country, it is not a little astonishing that these useful springs are so little known, and that some public-spirited

¹⁵ Horne, *The Lakes of Lancashire, Westmorland and Cumberland* (London, 1816) 44.

individuals have not, ere now, erected suitable accommodations for invalids."

In 1871 Macpherson¹⁶ in a guide-book to the mineral waters of the British Isles dismisses Borrowdale with the brief comment:

"The water of Barrowdale, three miles from Keswick, consisting chiefly of salt, but of which I have no exact analysis, was usually briskly purgative in the quantity of one pint. It is now never heard of."

In *Mines and Mining in the Lake District* by John Postlethwaite, published in 1877 in Whitehaven, the following reference to the salt spring occurs:

"The Salt Well and Copper Plate Mines . . . At a short distance from this vein, on the western side, apparently connected with the eastern copper vein, there is a salt spring, from which the mine derives its name. The water is similar to that at Brandley Mine, and has frequently been used medicinally. About sixty-five years ago a well was dug by the proprietor, Major General Sir John Woodford, K.C.B., and a house built over it for the convenience of bathers, and this was opened to the public free of charge; but the public did not appreciate the privilege, and the house was allowed to fall into decay. If a high price had been charged by the generous knight for the use of the mineral water, it would no doubt have been much more highly esteemed."

At the present time the site of the salt well is neglected and its vicinity very boggy. The remains of the wall enclosing the bath can still be seen. In addition to the original salt well, an old mine shaft in an adjacent field also contains salt water. Recent interest in the salt well has been aroused by the potential value for biological research of the salt well and its immediate surroundings, and not, as in the past, by medicinal or commercial considerations.

SUMMARY.

Borrowdale was owned by the Abbey of Furness from about 1210 to 1537. No contemporary evidence has been

¹⁶ Macpherson, *Our baths and wells; the mineral waters of the British Islands with a list of seabathing places* (London, 1871) 101.

found to show that the monks knew of the salt well, although various authors in the 18th century and later state that it was used by the monks.

The earliest definite reference found so far is in a document dated 1555, concerning a commission appointed to "enquire as to minerals . . .".

In 1615 the salt well was mentioned in the Great Deed of Borrowdale, when the well was sold together with the land.

In the 18th century the salt well was used for medicinal purposes, both internally and externally, and was widely known. This use continued until the early part of the 19th century.

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