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## Windmills and Watermills in Iceland

INFORMATION on windmills and watermills in Iceland is very sparse indeed, but it is fairly certain that they played little part in the life of the country. Although Iceland has a considerable cultural history, it developed very little industry before the twentieth century, and very little grain was grown there; thus the need for power was small. Mr Arni Björnsson, Curator of the Folklore Department of the National Museum of Iceland at Reykjavik, has said in correspondence with the author that, as far as he knows, there is no compiled information or printed article on either windmills or watermills in Iceland. He has kindly drawn attention to a single published picture of a watermill<sup>1</sup> accompanied by a brief description, and Rex Wailes has provided a reference<sup>2</sup> to what is probably the only published photograph of an Icelandic windmill. There is a sketch of a small post-mill on the island of Vigur in the north-west of Iceland in a guide-book.<sup>3</sup> This is all the definite published information the author has been able to discover. Other, rather more vague, published information, will be discussed later. Mr Björnsson has also referred to two Icelandic manuscripts in his care which describe watermills, but the author has not been able to inspect these.

The author's concern with this subject started during a visit to Reykjavik, when he was interested to find in the National Museum four pictures which gave information on windmills at Reykjavik, and another picture at the Folk Museum at Arbaer (on the outskirts of Reykjavik) showing a windmill. The evidence of these pictures is somewhat confused, and subsequent correspondence has not greatly clarified it. However, as a result of the correspondence with Mr Björnsson, coupled with the other evidence mentioned, it is possible to say that during the nineteenth century there was one, and were probably at least two, windmills in Reykjavik, and certainly one on

Vigur, and there were at least three watermills in the country, in addition to a tide-mill on the island of Brokey in the west of Iceland.

### Windmills in Reykjavik

Bennett and Elton reproduce a photograph taken by P. Lange of a tower-mill at 'Reikjavit, Iceland', which they refer to as an excellent modern example of the type in actual working order. The book was published in 1899, and one must, therefore, conclude that the mill was built in the nineteenth century and was working until at least the last decade of that century. The sketch of fig 1 has been made from this

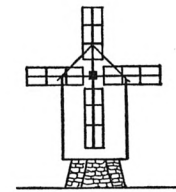


fig 1

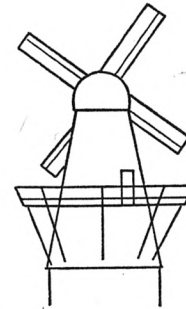


fig 3

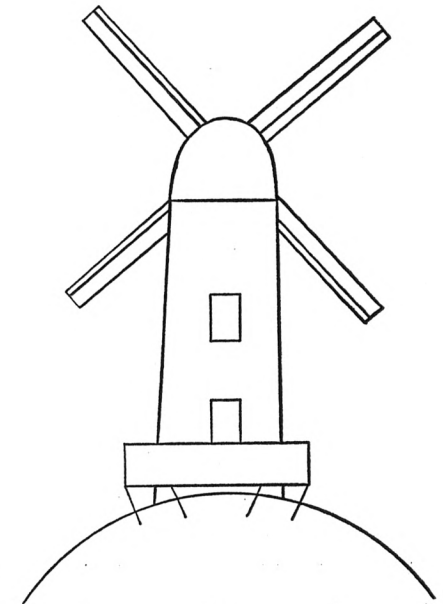


fig 2

photograph, and as the upper half of a man was included at the base of the photograph, it is possible to estimate the height of the tower as about 25 or 26ft measured from the ground, or about 18ft from the

bottom of the 'smock'. The sails do not exceed 20ft from tip to tip. It is not possible to determine the location of the mill exactly, but as a ship in the anchorage is included in the background of the photograph, it is possible to suppose that the mill was somewhere in the region marked C on the map of modern Reykjavik shown in fig 4.

Mr Wailes quotes the late Tom Hennell, who was in Reykjavik as an official war artist in 1942, as saying that what he presumed was the mill of Lange's photograph was built by or for some Roman Catholic Fathers from the Netherlands at the end of the nineteenth century.

Three pictures,<sup>4</sup> dating from around 1850 to 1874, show a windmill of substantially the same shape and size as that of fig 1, in a position close to that marked C in fig 4, and Mr Björnsson states that this mill, called 'the Dutch mill', was built in 1846 by a Danish merchant named P. C. Knudtzon. The 1852 lithograph by Fuchs is reproduced on page 328.

The painting with the clearest detail is that dated 1862 by Fowles, but the windmill he depicts is very different from that (or those) already discussed.<sup>5</sup> This painting shows very clearly indeed a large tower windmill standing on a hemi-spherical stone(?) base immediately adjacent to the Latin School, on its northern side. The Latin School (built in 1846 and still surviving as the Senior Grammar School) fronts on to the street called Laekjargata and the site of the mill must have been where the road called Amtmannsstigur now runs up the slope beside the school. A sketch of the mill, as shown in Fowles's painting, is given in fig 2, to the same scale as the mill in fig 1. It has a staging or gallery at the base of the tower. Since the dimensions of the Latin School are known from a recent photograph<sup>6</sup> showing people standing against its walls—the height from ground to top of gable is about 39ft—and since the mill towers above the school, it can be seen to be a very large mill, the base standing about 23ft above ground, and the tower itself being about 34ft above the base, with the sails about 38ft from tip to tip. The position is marked B in fig 4, and is reasonably precise.

Now all the paintings referred to show an eastwards view of Reykjavik and can therefore be compared with respect to the other

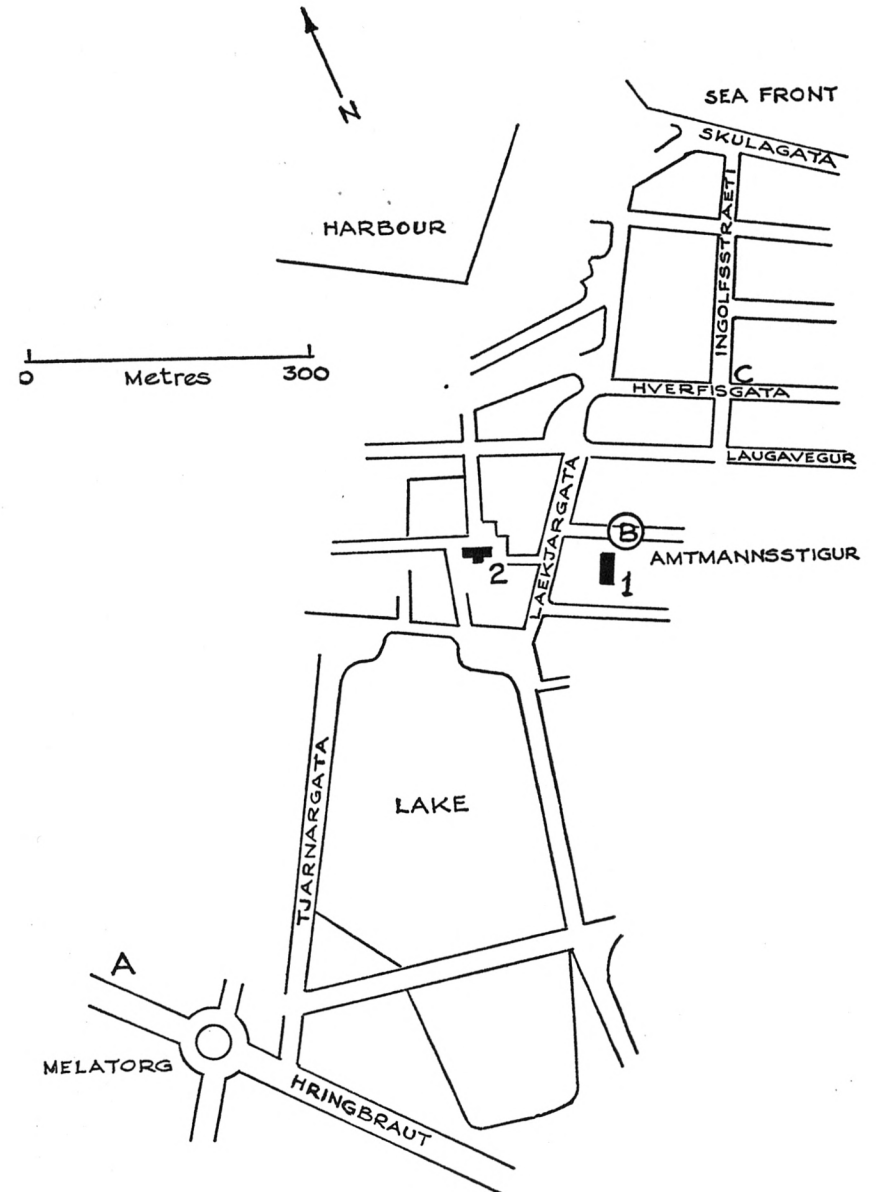


fig 4

detail they contain. However, there is a conflict, for Fowles's painting does not show a mill at point C, and the other paintings do not show a mill at B. All the paintings show the Latin School and the Lutheran Cathedral, more or less correctly, but only Fowles shows another distinctive old timber building, just to the north-west of the Latin School, which still exists and is, therefore, readily identified. In consequence, it is difficult to dismiss Fowles's mill as due to an artist's licence or error and to say that there was only the one mill from 1846 to the end of the century, tempting though it is to identify the mill of Lange's photograph with that of the first three pictures, and to say that Knudtzon built the mill for the Catholic Fathers and that Hennell's attribution to 'the end of the 19th century' was mistaken. It is possible that the mill shown by Fowles existed only for a short time after 1852 and before 1874, and it is just possible, therefore, that there were three mills in succession in the region B/C of fig 4.

It seems likely that there was, around 1836, another windmill in another part of Reykjavik. The picture by Mayer<sup>7</sup> does not show a mill, but from its title it is a view from a mill, which evidently stood to the west of the lake at Reykjavik, probably near the site of the present roundabout at Melatorg on the ring road (Hringbraut), as marked A in the plan of fig 4. One can make no deductions about the nature of the mill, which, of course, was not necessarily a windmill, but was most likely to have been one.

#### *Windmills elsewhere in Iceland*

The only other windmill to which the author has so far found a reference is a small postmill of timber construction on the island of Vigur off the north-west coast of Iceland. This is illustrated by a small but clear sketch in a travel handbook<sup>8</sup> and in a photograph supplied by Mr Björnsson from which the author's diagrammatic sketch of fig 3 has been derived. The actual size is not known, but the height is probably around 12–15ft. It is said to be still in existence, but the author has not yet had an opportunity to investigate it further.

#### *Watermills*

The watermill shown in the published picture, reproduced on p 328, is a diminutive one with horizontal waterwheel and vertical shaft, used for grinding grain, very similar to (except perhaps cruder than) those so widely used in the nineteenth century in the Shetland<sup>9</sup> and Faroe Islands.<sup>10</sup> Presumably the other two watermills which Mr Björnsson says are mentioned in Icelandic manuscripts of the last part of the nineteenth century were of the same type. All three mills were in remote parts of the country, that of the photograph being at Ljosavatn, just to the east of Akureyri, in north-central Iceland.

Mr Björnsson states that a tide-mill was used for some time in the island of Brokey in the middle-west of Iceland, but no details are available.

Other references which could indicate at least the possibility of other watermills are worth mentioning. Gjerset<sup>11</sup> states that shortly after 1752 a woollen mill, a fulling mill, a ropery and a tannery were built at Reykjavik as the result of negotiations between the Icelander Skuli Magnusson and King Frederick V of Denmark. These mills lasted less than two decades owing to commercial opposition. It seems more than likely that they were water-driven in view of the ample supply of water in Iceland.

Gjerset also states that shortly after 1770, 'Mills were built so that the people could grind their own flour'.<sup>12</sup> Whether these were water- or windmills (or neither) is not stated.

In more recent times, ie early in the twentieth century, two woollen mills were built 'employing water power as their motive force' according to an official publication.<sup>13</sup> Stefansson states that 'Since the end of last century there have been woollen mills in the country . . .' but does not state how they were driven.<sup>14</sup> One suspects that further information can be found in government and official papers, but only at the cost of mastering the very difficult Icelandic language.

#### *References*

- 1 Daniel Bruun, *Fortidsminder og Nutidshjem paa Island*, Copenhagen (1897), 120.
- 2 R. Bennett and J. Elton, *History of Corn Milling: Watermills and Windmills*, vol ii (1899), 297.

- 3 Peter Kidson, *Iceland in a Nutshell*, Iceland Travel Books, Reykjavik (1968), 194.
- 4 Charles Fuchs: A lithograph (undated) in Room 8 of the National Museum, Reykjavik, entitled REYKJAVIK Lith. u. Druck d. lith. Jnst. v. Charles Fuchs, Hamburg. Mr Björnsson states that this lithograph dates from 1852.
- An engraving, dated 1874, reproduced from the city archives as a postcard, available at the Folk Museum at Arbaer on the eastern outskirts of Reykjavik, showing a windmill in Reykjavik.
- H. H. Schytte: An engraving (undated) by H. H. Schytte in Room 8 of the National Museum showing a windmill in much the same position as that discussed above. This picture, showing the date 1847 on the cathedral, of course includes the Latin School, and thus, it is certainly later than this.
- 5 A. W. Fowles: A painting in Room 10 of the National Museum, showing a windmill in Reykjavik, entitled SCHOONER YACHT 'URANIA', 160 tons R.Y.S. (Owner—W. Wise, Esq., Captain—W. Bradley); LYING OFF THE TOWN OF REYKJAVIK, July 1862. A. W. FOWLES—1862.
- 6 *Iceland Today*, Reykjavik (1961), 120.
- 7 A. Mayer: A French print in Room 10 of the National Museum entitled 'Première vue en Panorama de Reykiavik, prise du Moulin', Dessiné par A Mayer, Lith par Justin Ouvrié et Guiaud. The Latin School (now the Senior Grammar School), which was built in 1846 and is both a very distinctive large painted-timber building and one of the few to survive from the nineteenth century, is not shown in this picture, and so it was clearly painted before 1846, probably in 1836.
- 8 Kidson, op cit.
- 9 P. N. Wilson, 'Watermills with Horizontal Wheels'. *Soc Prot Ancient Bdgs*, Booklet No 7 (1960).
- 10 K. Williamson, *The Atlantic Islands: The Faeroe Life and Scene* (1948), chapter 9
- 11 Knut Gjerset, *History of Iceland* (1922), 341.
- 12 Ibid, 343.
- 13 Thorsteinn Thorsteinsson (ed), *Iceland, a handbook published on the 40th anniversary of the National Bank of Iceland*, Reykjavik (1926), 73.
- 14 Vilhjalmur Stefansson, *Iceland*, New York (1943), 179.

### Acknowledgements

The author is grateful to Mr Rex Wailes and Mr Arni Björnsson for their help in obtaining the information credited to them.

For plates, provided by the author, see p 328



Page 328 (above) Portion of lithograph of Reykjavik in 1852 by Charles Fuchs (photographed by the author in the National Museum of Iceland by permission); (below) Illustration of horizontal water mill in Iceland

See Tucker, 'Windmills and Watermills in Iceland', pp 278-84

