

THE WINDMILLS OF GLAMORGAN

Jane Jo F. Roberts

In this county there are remains of two main types of tower windmill. The tall tower mills with fantails and galleries around the tower have already been examined in detail in Melin vol.I (1985). The concern of this paper is the remainder of the stone tower mills, and old and possible windmill sites which are often only indicated by field-names and placenames.

The remains can tell us very little concerning the machinery and workings, so this can only be guessed at in the light of general millinological knowledge. No machinery survives, and the only millstones found are at the tall mills already described. The oldest reference to a windmill in this area is in the thirteenth century at Llantwit Major. This was most probably a post mill, as tower mills only came into general use much later.

The mills on various old maps for this area are generally represented by post-mill symbols. This, however, does not always reflect the true nature of the mill (one only has to look at the symbol used by the OS today). In addition, the placing of these mill symbols is not always very accurate and gives only a general indication of where the mill really was.

No definite remains of a post mill exist today in the county. These early mills almost certainly had only one pair of stones, and were less permanent than the tower mills. The gearing was probably a direct drive to the stones from the brake wheel via a lantern gear. All the surviving remains today are of stone towers (except that at Caswell Bay, which was a wind-powered water pump on an open trestle). The stone for the towers is of local origin and it seems that brick was not used. Most of the mills had very thick walls, over three feet thick in some cases, and interior diameters of sometimes less than ten feet. The best indication of the mills in their working days can be gathered from K.S.Wood's painting of one of the mills on Newton Down (fig.7(6)). This shows the mill with three of four anticlockwise common sail frames and two tailpole braces through the cap. The cap is shown as conical with a wind vane on the top; it appears to run round inside the top of the tower (British mills normally have the edge of the cap overhanging the tower to shed the rain). Although we cannot rely too much on the evidence of one painting we have nothing else to go on, and Wood is known to have painted what he really saw. Concerning the machinery inside, the very small diameters of some mills (assuming that they were corn mills) must indicate a direct drive to one pair of stones only, as there was simply not the room for intermediate gearing. For direct drive in a tower mill, where only the cap turns to the wind, the stones have to be in the exact centre of the mill. In a number of the surviving towers (e.g. Newton Down, and the older mill at Wick) there is a reduction in thickness in the walls at what would have been first floor level, and on this ledge may have rested the large timbers needed to support the weight of the millstones. Fig. 4 shows a section through the probable arrangement of

machinery , but it must be remembered that this is only an informed guess.

The tall 'modern' mills are so different in external design that they appear to owe their origins to some other part of Britain rather than to their predecessors in this area; their internal gearing appears to have its origin in the local water mills rather than the earlier windmills, so this does not help us in determining their internal economy either. Concerning millwrights, it is generally thought that mills were built by the farmers who owned them: but the mills at Rhossili and Port Eynon were built by a nineteenth-century Cornish millwright called Osborne. The small size and grinding capacity of the mills suggests that they must only have been used by the farmers and their neighbours. Many of the millers in the nineteenth century were tenant farmers as well. Pairs of windmills were to be found at Wick and Newton Down: in each case one mill appears to be older than the other.

To summarise what is left today:-

Foundations

Newton Down
Windmill Farm, Llanharry
Marcross Farm
Caswell Bay (wooden water pump)

Remains or parts of towers

Newton Down
Kilvey Hill
Llantwit Major (White Cross)
Wick
Sant-y-Nyll

Towers converted to other uses

Llantrisant (lookout tower)
Llantwit Major (unfinished house conversion)
Wick (house conversion)
Newton Nottage (gable of house)

Preserved tower with some machinery

Hayes Farm Sully

GAZETTEER OF GLAMORGAN WINDMILLS

(* remains: + name only recorded)

1. ABERTHAW (ST 042 668) +

At Aberthaw three enclosed fields were called Windmill Closes[1].

2. ARGOED GANOL FARM (ST 995 175)

A windmill was apparently painted by Obadiah Hodges at Argoed Ganol farm around 1900. The painting shows an octagonal house or mill with two visible sails (the others are behind the mill)[2]. The building is shown next to the water just this side of the county border. Hodges was a well known local character in the area around the turn of the century, when he took a young girl

around with him to carry his equipment. The author spoke to someone who knew Hodges and stated that he painted accurately what he saw. The sails are not well painted (in contrast to the rest of the painting) and one wonders whether they were added later by someone else. The mill could not have worked as shown in the painting since a hoist and a chimney would have fouled the sails. The building was clearly being used to live in.

The windmill (if it was one) was demolished by the present landowner in 1972 because it had become derelict and unsafe[3]. There could be some confusion with an iron wind engine (for pumping water) which fell down some years ago.

3. ASH, Monkknash (c.SS 91 71) +
Marked on William Rees' map[4].

4. BISHOPSTON (c.SS 59 90)

A windmill is mentioned in the survey of Gower and Kilvey of 1543-83[5]: '...to the 17th article we say that Within 40 yrs there have beene certayne mylls erected by certaine ffreholders - vizt Thos ap Morgan Lloyd, a grist mill Saved Bennet a water mill, Ple Wm a Water mill, and Anthony Davers a wynd mill.'

5. BOVERTON MILL FARM (SS 992 673)
Fully described in Melin I (q.v.).

6. BRIDGEND (SS 909 798) +

Known as Brackla Windmill, this mill is shown on the Tithe Award map[6]: 'Plot 169, windmill etc: owner & occupier, Richard Jenkins.' A railway runs through the site today, and the windmill is also indicated on the plan accompanying the GWR's private Bill seeking powers to build the railway line through Bridgend[7]. The mill is not shown on Yates' map of 1799.

7. CARDIFF, Plasturton Windmill Gardens (c.ST 17 77) +

Place Storton Farm, in the parish of St John, was marked 'windmill' and listed as 'the late Edward Woosman, Tenement, Windmill and Garden' in 1824[8].

8. CASWELL BAY (ST 589 876) *

A wooden trestle wind-engine water-pump, on a very exposed cliff site: just three of the four fixing-bolts remain (fig. 8 (2)) of this rather unusual structure. It shows some of the characteristics of wind engines made by John Wallis Litt of Warminster, although the makers of this one are not known. It stood on the very pinnacle of the cliff high above the beach. The square tower was made of wood and was 7' 6" square at the base. The windshaft was about 26' above the ground. The top was winded by a fantail and there was an annular sail (fig. 4), of which only the frame appears on photographs and postcards (fig. 8 (4)). The mill pumped water all the way up the cliff via large concrete tanks (one of which remains today, fig. 8 (4)) from the beach below, where there is a freshwater stream. We have the following concerning the history of the pump: 'Emma, Agnes and Alice Morgan (landowners) had Caswell Bay House built for them in 1879. The water supply to the house was provided by a process of storing

the fresh water welling up from the spring in the bay in large, concrete tanks. The water was pumped to the house and others in the bay by an incredible Heath Robinson contraption, powered by a windmill which stood on top of the cliff.' [9] The supply pipes from the pump to the houses must have been over half a mile long. The wooden trestle of the pump was burnt down by picnickers in about 1930 [10]. A.G. Thompson had this to say of the mill [11]: 'If you take the track in the corner of the bay or by clambering on to the top of the old water tank and climbing up the broken-down walls of the old Windpump House [you will reach the mill on the cliff-top]. Not so very many years ago water used to be pumped from a spring here by means of wind vanes at the top of the cliff known as Redley Cliff. The derelict stallage of this windmill was a landmark for years but was finally demolished about twenty years ago as it was then considered to be unsafe.' Mr. Bill Skilbeck of Penmaen remembers the mill having had iron gears and rods coming through its open wooden trestle: it was also used as a navigational aid and was marked on Trinity House charts. An undated picture of the mill is shown in Swansea Pictorial in the 1970's, and the pump is featured on a number of old postcards [12].

9. CEFN CRIBWR WINDMILL, Tythegston Higher (SS 862 826) +
'Old Wind Mill' plus a windmill symbol appears on a map of the area surveyed by Edward Thomas of Margam for Charles Edwin in 1779 [13]: there is a housing estate on the site today.

10. CWM COL HUGH

Near Boverton, Llantwit Major, field no. 913 on the OS 25" map for 1877 (sheet XLIX) is marked with a circle and the words 'old windmill'. It was also drawn by Patty Harding [13a].

11. EWENNY, Wallas Farm, Lampha (SS 91 75)

In 1982 the then farmer recalled his mother's memories of a windmill here: he said that the windmill was destroyed during a gale (c.1880-90) and some items of ironwork were still visible at the site. There is nothing on the site now, and when the author visited it in 1983 the farm was under new ownership; the new owner said that he thought any ironwork on the site had been sold for scrap. He knew nothing of a windmill: perhaps it was an iron wind engine.

12. KENFIG

'The Survey of 1307 indicates that there was a water mill and a windmill there. These were held by the Abbot of Margam...the windmill was indisputably that which was once sited on the high ground near Mawdlam Cross, known locally as Mont Mawr or Twmpath y felin gwynt (i.e. big windmill mound or tump)' [14]. There is also a fourteenth-century reference to a windmill here: 'Hugh le Despencer, 1349: Kenfig, one watermill and one windmill valued by the year - £6. 13s. 4d' [15].

13. LALESTON (SS 875 799) +

Possible site only: a field known as Mellins or Mill Lands [16].

14. HENSOIL (HENSIL) MILL (SS 056 801)

A windmill is marked with a postmill symbol and the name Hensoil Mill on Kitchen's map of Glamorgan of 1759.

15. KILVEY HILL (SS 673 939) and

16. BON-Y-MAEN (SS 683 955)

Both remained until recently. One side of the wall of the tower at Kilvey Hill remains, high on the hill above Swansea Bay near the radio mast, and the whole tower of Bon-y-maen remained until 1966. The mills are here described together, because earlier references do not clearly differentiate between them.

There was a windmill on Kilvey Hill, Llansamlet, in 1680[17]: it may be this mill, or an earlier one on this site. Kitchen's map of 1759 shows a mill at this location, marked with his universal postmill symbol. An old (and rather unrealistic) drawing of Kilvey windmill shows a pent-shaped cap and four sails: the tower is in two sections, the lower half having little batter and the top rather narrower and with a steeper batter[18]. A picture by J.G.Wood of 1813[19] shows the mill on its high exposed hilltop position overlooking the area of Swansea Bay. No detail can be made out except that the sails were in place. The remaining walls are almost 4ft thick, which meant that the working space in the mill was very small indeed. K.S.Wood painted the mill in or around 1930[20], and shows most of the bottom part of the tower on the point of falling. Only the bottom part of one side of the tower remains today.

The tower of Bon-y-Maen mill stood until as recently as September 1966, when it was demolished to make way for development. The mill had a straight-sided tower said to have been of larger dimensions than Kilvey. It stood in the recreation ground at Cefn Hengoed.

The two mills are put together here because there are quite a few references to them, but it is not always clear which one is meant, 'Kilvey', 'Llansamlet' and 'Bon-y-maen' being used quite indiscriminately. W.C.Rogers[21] puts forward the argument that the tower at Kilvey Hill was too small to be a windmill, and therefore was only a beacon. However, pictorial evidence contradicts this, and many other mills of similarly small dimensions are known[22]. The adjacent field is named 'Cae felin wynt' (windmill field) on the Tithe Apportionment of 1844. Rogers mentions that Bussy Mansell built Kilvey Windmill 'about six years ago' (when from?), 'also a watermill there called New Mill'[23]. The location near the watermill may imply that this one was the windmill at Bon-y-Maen (a watermill being quite impossible at Kilvey). He also mentions correspondence in The Cambrian newspaper during the first two months of 1878 in which George Grant Francis said that he thought that the Kilvey Mill had been destroyed by lightning on a Sunday last century. A Mr Edward Hughes of Llansamlet replied that he thought the incident took place in 1810 'when riotous drinking was going on in the mill'. Mr Hughes said that this happened at the Cefn Hengoed mill (Bon-y-maen). He also said that the mill was repaired, 'but had been stripped of its roof soon afterwards when the door was left open in a high wind'. Rogers also quotes from The Cambrian: 'On Sunday last in a great gale and thunderstorm the vanes [sails] of the

windmill of Morgan Evans in Llansamlet were broken off [probably a tail-winding as this can happen in a thunderstorm when the wind changes direction too suddenly for the miller to be able to turn the mill into the wind]. Following the commencement of repair work at about 3.00 in the afternoon some twenty or thirty people went into the mill for shelter when the storm resumed. Lightning struck the roof and set the mill on fire, two men were killed and twenty on the ground floor were struck lifeless but all except one revived.' This could not have been the Kilvey mill, as it is clearly too small.

Both mills have been variously called Kelvey, Kilvey, Llansamlet, Foxhole, and Bon-y-maen and this has led to the confusion between the two.

17. LLANBLETHIAN (SS 995 742)

Hugh le Despencer held a mill here in 1349[25]. There was also the 'Site of old Windmill at the end of Love Lane, Llanblethian'; a sketch of 15th August 1889 shows the shape of a round tower.

18. LLANDINOR (SS 465 915) +

A placename in 1598 - 'the west hedge of a close called the Little Windmills' - indicates the possible former presence of a windmill in this area[26].

19. LLANHARRY (SS 999 782)

Windmill Farm, Llansannor, has the foundations of a stone tower under the turf. A mid-eighteenth century reference records 'Edward Thomas of Argoed Ganol Llansannor left to Alice and Jane Humphreys...the Windmill Farm': its large rectangular fields date from 1810[27].

20. LLANTRISANT

'A wind mill was destroyed during conflict between men of Glamorgan and Normans c.1262-1280 at Llantrisant'[28].

21. LLANTRISANT (ST 043 836) *

Very high on the windswept Llantrisant common stands this sturdy stone tower which no longer looks like part of a windmill: but when it was one, a good supply of wind must always have been on hand. The local people have for many years called the tower 'the Billy Wynt', forgetting its probable origin in 'melin wynt' (windmill). On Thomas Kitchin's map of 1759 there is a circle on or near this spot, and the words AN OLD TOWER. There are no records of this as a working mill although it is marked as 'old mill' on the OS 1" map of 1833. Llantrisant Borough records have a plan for the restoration of the mill[29]: unfortunately the restoration was as a lookout tower and not a mill, and it remains so today.

The tower has an external diameter of 18ft, and the walls are 3ft thick; the bottom 2ft 6ins is battered, probably as an extra support for the foundation. The rest of the tower is straight-sided and has one door, 7ft in height, at ground level. A painting of 1795[30] shows what could well be the mill as a tall straight-sided tower possibly with the remains of sails, although on the copy I have seen it is very indistinct.

22. LLANRHIDIAN (SS 546 933)

Marked on OS 25" map of 1879 as 'old windmill', and a circle within a square. 'Old Windmill' is also marked on the 1913 6" map; but now there is only an area of rough ground. The walls of a ruined mill standing in 1949 appear on an small-scale aerial photograph, which the author has not seen. Nearby is Windmill Wood farm (SS 566 928): there is no mill here at all on the 1879 OS 25" map, but the present Windmill Wood is marked Wimblewood, so the name could be a corruption and not referring to another windmill.

23. LLANRHIDIAN, Windmill Farm (SS 478 923)

A very exposed site, ideal for wind. The new owner (in 1982) refused permission to explore the site, so only the name can be confirmed.

24. LLANTWIT MAJOR (SS 972 694) *

A tall tower converted to a house: fully discussed in Melin I.

25. LLANTWIT MAJOR (SS 968 675)

No remains now, although it was marked on the Tithe Award map of August 13th, 1839, in field no.720 - Mill Field: owner, Nichole Lloyd, occupier, John Roberts. It is interesting to note that the next field to it is Damsal Field. It is marked with a windmill symbol and the words 'old windmill' on the 1938 location map in the Glamorgan Archive search room[31]. D.Elwyn Gibbs comments, 'The site of the original manorial mill is still visible, I believe, in the Millfield'[32]. Anyway this is probably the site of the medieval/early modern windmill, say 1400-1600.

26. LLANTWIT MAJOR (SS 962 700)

This windmill appears on the Tithe Award map of 1839, and is recorded as 'Windmill and 4 acres: owners, Hon. Robert and Lady Lydia Haviet'. When the author visited the site the occupants of Morfa Farm on whose land the mill stood did not know of it at all. I could find no sign of it, and two possibilities turned out to be a sheep dip and a dew pond!

27. LLANTWIT MAJOR

There is possibly another a medieval mill recorded in 1262 (which is only about a hundred years after the first references to windmills in England). An extent notes that payment from the mill was £17. A later Inquisition of 1295 reads 'Three mills worth yearly £15' and in 1307 'two water mills and one windmill £15' [33].

28. LLANTWIT MAJOR (SS 963 686) *

One side of a stone tower remains. The mill appears as a windmill symbol on the unpublished OS 2" (1813), and is marked on the 1830 Tithe Award map: the OS 1" (1st edition, 1878) also shows a windmill symbol. It is in White Cross Field, and has been called White Cross or West Mill. The mill (or an earlier one on the site) was built about 1580 [34]: Roger Seys wrote to the agent of Lord Pembroke in 1589 about a mill newly built by Edward Strad-

ling of the Manor of West-Llantwit. There is also an inquest at Pendoylan [34a] on the builder killed while making repairs, also about 1590. Edward Stradling owned the separate Manor of West Llantwit, and built his mill to the detriment of Lord Pembroke, Lord of the Manor of Llantwit. The remains of the windmill were painted by K.S.Wood[35].

29. LLANTWIT MAJOR

A fifteenth-century reference relates to a mill here: 'The lord had three mills, the chief of which was certainly at Ham and another of which was a windmill'[36]. The tithes of Llantwit belonged to Tewkesbury Abbey.

30. MARCROSS FARM (SS 927 690) *

Only the foundations of this mill remain. The dimensions are similar to Kilvey Hill mill, an external diameter of 20ft and walls 5ft thick giving only 10ft of working space. One ground floor doorway was to the east.

31. MERTHYR MAWR (SS 867 773)

This mill may still remain beneath the sand, but so far the author has failed to find it, despite repeated searches. It was near Candleston Castle buildings, and emerged from the shifting sand of the dunes in 1823. The tower is described as being 17ft in diameter, having walls 2ft 6ins thick and being about 13ft high. It was made of stone rubble and was straight-sided with two doorways to south and north which were 2ft 6ins wide. One unusual feature was an arched window.

32. NEATH (SS 750 976) +

Although the site is totally unsuited for wind, a windmill is mentioned here in an eighteenth-century document relating to 'The Latts': 'August 25th, 1748: counterpart of a lease for 21 years from Herbert Mackworth of Neath, Co. Glamorgan, Esq., to Rowland Pytt of Gloucester, iron worker, of a parcel of land where a windmill stood, with 40 yards in length from the centre of the said windmill towards Neath Bridge and 80 feet from the low water mark in the River of Neath, to be measured in a direct line at the end of the said 40 yards at a place called the Latts in the parish of Neath. Yearly rent £2. 10.s. Witnesses Tho. Lewis, Loyson Hopkins'[37].

33. NEWTON NOTTAGE (SS 820 778)

A mill tower with battered walls is now incorporated into the gable end of a cottage. This must have been one of the earliest conversions of a mill to a house. It is first described as 'Old Wind Mill' in 1791 by L.S.Higgins[38]. On the unpublished OS map of 1813[39] there is just a tower, but by 1846 Windmill Cottage is marked on the Tithe Award map: it is also marked on the OS 25" map of 1871. In the Tithe Award schedule the landowner was given as William Reynolds Vines, the occupier as John Mansfield.

34. NEWTON DOWN (SS 839 791)

35. NEWTON DOWN (SS 839 789)

The first windmill to be recorded in the area of Newton Down is

on Thomas Kitchin's map of 1759: it is rather difficult to tell exactly where this mill is supposed to have stood, but it was west of Newton. Today there are the remains of two mills which once worked close together. The only map showing both mills is the OS 25" map of 1871, where the northerly one is shown as an 'old windmill' standing near the quarry. The remains of one tower are still standing, and there are the foundations of the other. The south mill has the distinction of being the last mill to retain sails and cap, as described in the Introduction[40]. The occupier of nearby Mount Pleasant farm recalls how his grandfather used to take his corn to the local mill to be ground, as did all the farmers in the area around. His father remembered the mill working when he was a boy. He said that the mill was owned by a small local farm and existed solely to grind corn for locals. Later when the mill finished the farm carried on with livestock only.

On the 1813 2" OS map there is just one mill marked with a windmill symbol: it is marked 'old windmill' on the 1833 OS map. On the 1846 Tithe Award map the property is described as 'old windmill and yard': the owner is Sir Josiah John (Bart.) and the occupier is Edward Neale. The surviving mill tower is just over 19ft high and has an external diameter of just under 17ft. The walls are 3ft 4ins thick, reducing in thickness at first and second floor levels[41]. The cap had a weather vane for a finial.

36. PORT EYNDON (SS 455 861) +

This mill, which stood in Hills parish, is said to have been built by the Cornish millwright Osborne who also built Paviland mill and dressed millstones[42].

37. PAVILAND, Rhossili (SS 445 864) +

D.C. Jones notes that in '1895 Present Windmill was made for Thomas Taylor's farm by a Cornish millwright named Osborne who roamed from mill to mill dressing stones and executing repairs' [43].

38. RUMNEY

There was a windmill in Rumney near Cardiff in 1316: 'other destruction was widespread from Rumney (Cardiff) in the east to Dinefwr in Carmarthen. The walls at Whitchurch were destroyed, as were also the corn mills at Merthyr Tudful, Gelligaer, Machen, Llanfedw, Whitchurch and Glyn Rhondda. Four cornmills and a fulling mill suffered similarly in Meisgyn, and at Rumney, the water wheels of two mills, and the canvas of the windmill had to be replaced' [44].

39. SANT-Y-NYLL (ST 099 783) *

Fully described in Melin I: the tall battered tower remains with an adjoining building.

40. SAINT DONATS (SS 945 689)

41. SAINT DONATS (SS 945 690)

There are two 'windmill field' names on the Tithe Award map: they were next to each other, owned by Thomas Pyrwhitt Drake, Esq., and tenanted by Anne Morgan. In addition there is a picture

of a 'windmill near St Donats' said to have been painted by Samuel Prout (it is certainly in his style): it is a rather fanciful picture of a windmill with a straight-sided tower and a thatched cap with four common sails and with the winding mechanism housed in a dormer at the back of the cap[45].

However, the same picture is reproduced[46] as a mill at St Just in Cornwall: Prout did draw other locations in Cornwall, and is not otherwise known in Wales[47].

42. SULLY (ST 156 686)

The 1840 Tithe Award map shows an 'old mill' here at Windmill Hill Field. Some 'stones' (from the tower, or perhaps mill-stones) are said to remain[48], but access to the site was refused to the author. It is now in the garden of a large house.

43. SULLY, Cog Farm (ST 162 688)

44. SULLY, Hayes Farm (ST 140 679) *

Both fully described in Melin I. At Hayes Farm the tower and some of the machinery remains, along with other farm buildings.

45. SULLY (ST 14 67)

A windmill was noted in the I.P.M. of Hugh le Despencer in 1349: together with a watermill, it was valued at 10s. It is also noted in the account of the Manor of Sully (1374)[49].

46. SWANSEA (SS 63 91)

A windmill is marked on William Morris' map of Swansea Bay (1793), represented by a little postmill symbol. It would have stood in the area now occupied by the rugby football ground.

47. SWANSEA +

The Swansea Corporation Attorney's account records, 'for cleaning the Windmill, 3s' [50].

48. TRE DOGGAN (ST 066 679) +

49. TRE DOGGAN (ST 067 677) +

Two fields called 'North Windmill' and adjoining 'South Windmill' were in the possession of William Spenser in 1624: the fields were bounded on the south-west by Windmill Way[51].

50. WELSH ST DONATS, Castle Farm, Ystrad Owen

There is some evidence to suggest that this mill was of timber construction: nothing remained in 1918.

51. WICK (SS 925 724)

Thomas Kitchen's map (1759) shows a windmill east of the road into Wick.

52. WICK (SS 926 720) *

Described in Melin I; the tall tower has been converted into a house.

53. WICK (SS 924 720) *

In the same field as no.52 (until the latter was fenced off for conversion) there remains a straight-sided tower of local stone.

It is marked on the 1813 OS 2" map with a windmill symbol, and has been in its present condition since 1890. The dimensions are[52]:-

Tower, now 20ft high
Internal diameter, 12ft 5ins
Walls, 3ft to 3ft 3ins thick; reducing to 2ft above a ledge 6ft 6ins above ground
Doorways, on east and west, 4ft 1in wide outside, 3ft 9ins wide inside; on north, 2ft 9ins wide, 13ft 2ins high to the crown of the arch.

It is marked as an 'old windmill' on the OS 6" map of 1884[53].

A windmill has been recorded at MONKNASH, but it is quite clearly a dovecote and so is not included in the list here.

Acknowledgements

I wish to thank Mr G.D.Nash for providing me with details of nineteen of the older sites described; Martin Watts for his measured drawings and dimensions of Wick and the Newton Down mills; and to all those who helped me at the Glamorgan County Record Office search room.

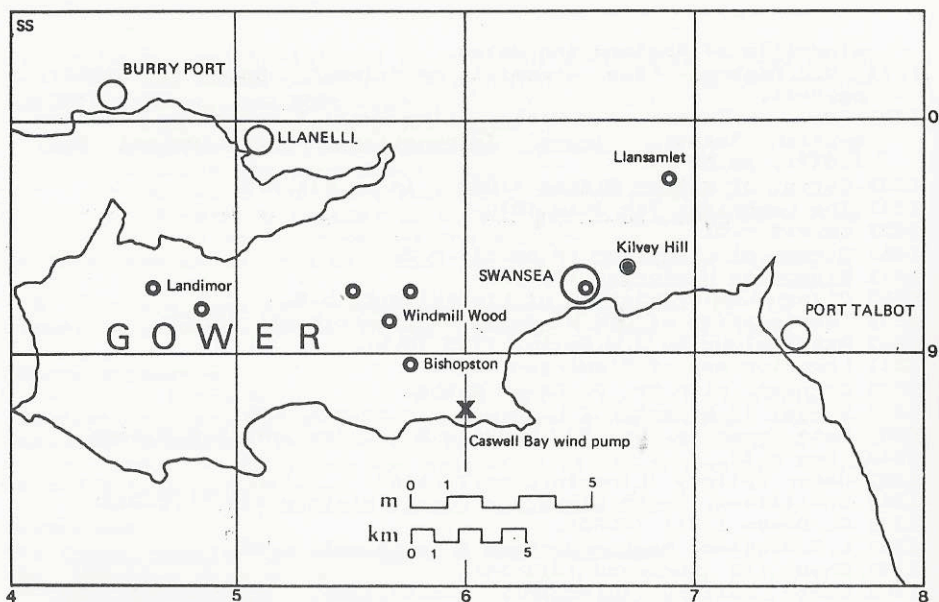
References

- [1] Trans. Cardiff Naturalists' Soc. 84 (1954-5)
- [2] 'Ye Olde Mill House Argoed Ganol Farm: painted (c.1900) by Obadiah Hodges, donated to the Newport Museum by Mrs. M. Jenkins.
- [3] ex. inf. Mrs. M. Jenkins
- [4] William Rees, Map of South Wales & the Borders in the Sixteenth Century
- [5] C.Baker & G.G.Francis, Surveys of Gower & Kilvey (1870), p.118
- [6] Tithe Award Map (1842), Coity Lower parish: Glamorgan County Record Office (hereafter GCRO).
- [7] Plan no.7, Stewart's Maps 1, plot 16 (GCRO)
- [8] Bute Estate Map (1824); information on this mill was originally provided by Mr. I. Rees and Mr. I. OhAnnaidh.
- [9] Geoffrey R. Orrin, A History of Bishopston
- [10] Conversation with Mr. W. Skilbeck, a local inhabitant who used to play on the mill as a child.
- [11] A.G.Thompson, Gower Journey
- [12] Kindly loaned to me by Mr. F. Gregory and the late Mr.G.Bridger.
- [13] In GCRO
- [13a] National Library of Wales (hereafter NLW) Drawings Vol. 175: undated drawing of St Donats Castle.
- [14] A.Leslie Evans, The Story of Kenfig p.31.
- [15] NLW, Floyd Papers, ms.3748D.
- [16] Auctioneer's sale announcement of copyhold land; Glamorgan Gazette, 28th Oct.1898.
- [17] M.Williams, The Making of the South Wales Landscape, p.154.
- [18] Picture noted as 'Kilvey Windmill': The Lower Swansea Valley Project (Dept. of Botany & Microbiology, University College, Swansea).
- [19] J.G.Wood, The Principal Rivers of Wales
- [20] K.S.Wood, painting in the Usher Gallery (Lincoln), no.77.1458; Wood is well known for having painted a large number of the

windmills of England and Wales.

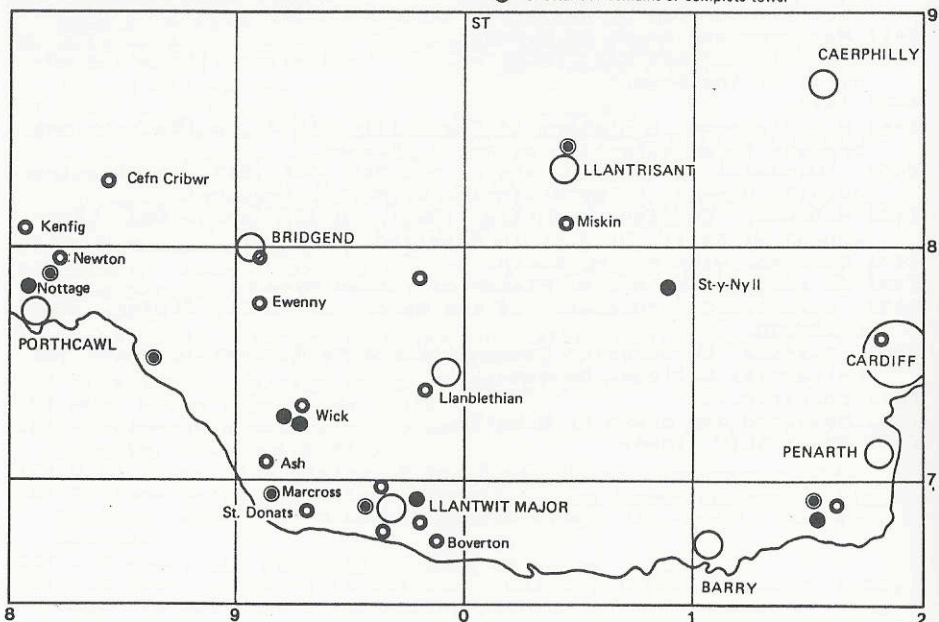
- [21] W.C.Rogers, 'The Windmills of Kilvey', Gower 17 (1966), pp.8-11.
- [22] Rev. L.Turner & M.Watts, 'The Small Tower Mills of the British Isles', Trans. International Molinological Soc. (1977), pp.55-74.
- [23] Survey of Kilvey States (1688), in op.cit.n.5.
- [24] The Cambrian, 7th July 1810.
- [25] op.cit.n.5.
- [26] Survey of Llandymor in op.cit.n.5.
- [27] Glamorgan Historian 10, p.24.
- [28] Dilwyn Lewis, History of Llantrisant, p.9.
- [29] 'Restoration of Old Windmill at Llantrisant' (GCRO).
- [30] Watercolour by J.W.Smith, 1795 (NLW).
- [31] Location map of Glamorgan (GCRO).
- [32] Corresp. with Mr. D. Elwyn Gibbs.
- [33] Survey of Roverton & Llantwit, in op.cit.n.5.
- [34] Bute Schedule, Box 92, parcels B & C (ex inf. D.E.Gibbs)
- [34a] See n.32.
- [35] Usher Gallery (Lincoln), no.77.1468.
- [36] S.Williams, South Glamorgan County History (1975), p.212.
- [37] CL/Deeds 1/711 (GCRO).
- [38] L.S.Higgins, Newton Nottage & Porthcawl, p.55.
- [39] Sheet 178 (surveyed 1813-14).
- [40] Usher Gallery (Lincoln), no.77.1464; reproduced by permission of Lincolnshire County Council Recreational Services, Usher Gallery, Lincoln: the painting is undated, but an almost identical one (77.1463), clearly of the same tower but without cap or sails, is dated 24.5.34.
- [41] Measured and drawn by M.Watts.
- [42] Donald C.Jones Coll. (NLW) no.16, 'The Watermills and Windmills of the Gower'.
- [43] *ibid.*
- [44] H.P.Richards, A History of Caerphilly (1975), p.19; this was brought to my attention by Mr. A. Fisher.
- [45] 'Windmill near St Donats', pub.9th Oct.1815 (publishing details brought to my attention by Mr. F. Gregory).
- [46] H.Douch, Cornish Windmills (1966), p.32, annotated 'Trevennal Windmill, St Just in Roseland, c.1840'.
- [47] Corresp. with Mr. H. Douch.
- [48] As recorded by Mr. A. Fisher of Ystrad Mynach.
- [49] op.cit.n.5: 'Account of the Manor of Sully' (1374), NLW ms.3739D.
- [50] Swansea Corporation Common Attorney's Account (Library of University College, Swansea).
- [51] op.cit.n.1.
- [52] Measured and drawn by M.Watts.
- [53] Sheet XLIV (1884).

Fig. 3



Windmills in West Glamorgan

- Confirmed or probable site
- Some remains
- Substantial remains or complete tower



Windmills in East Glamorgan

Fig.4

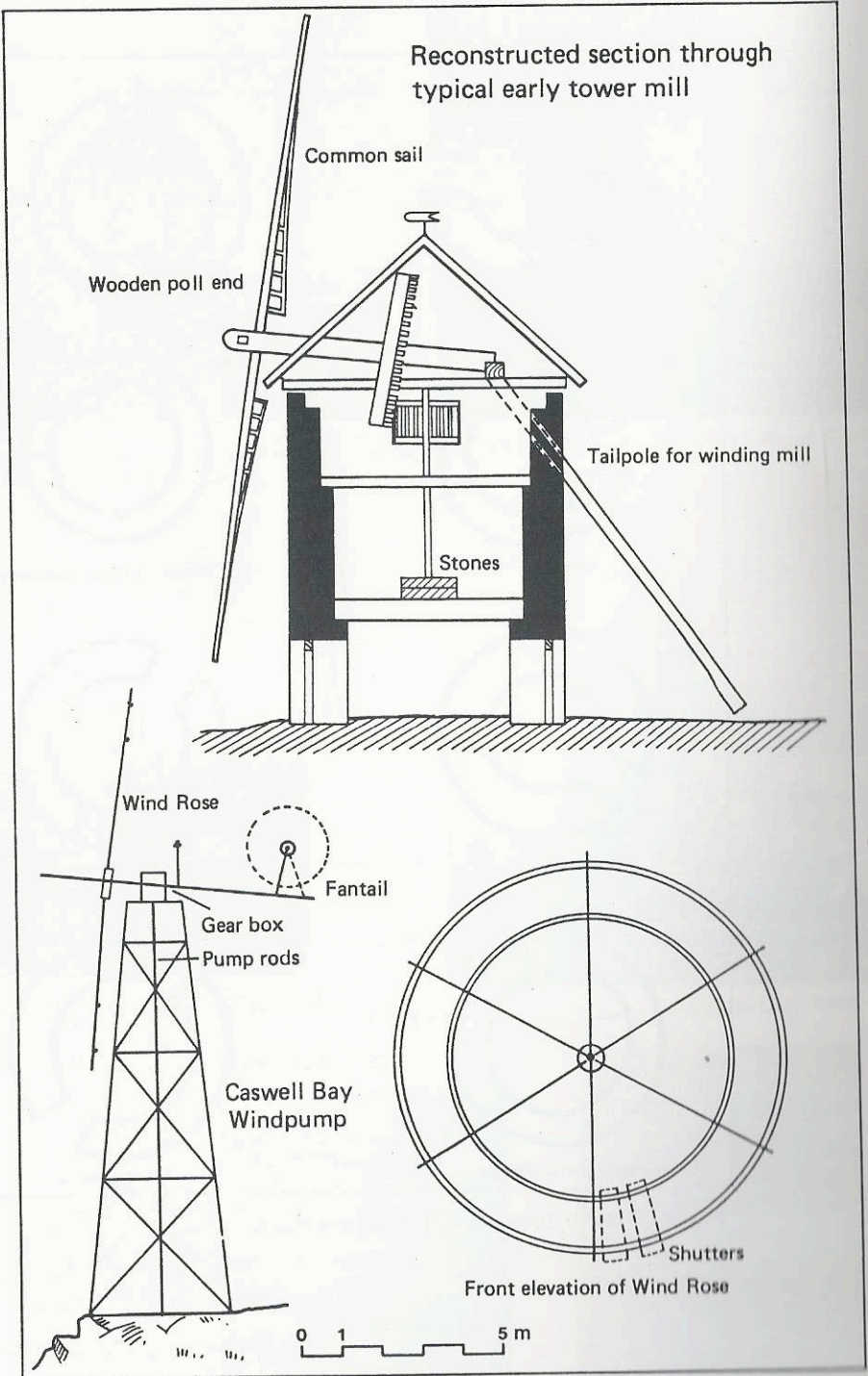
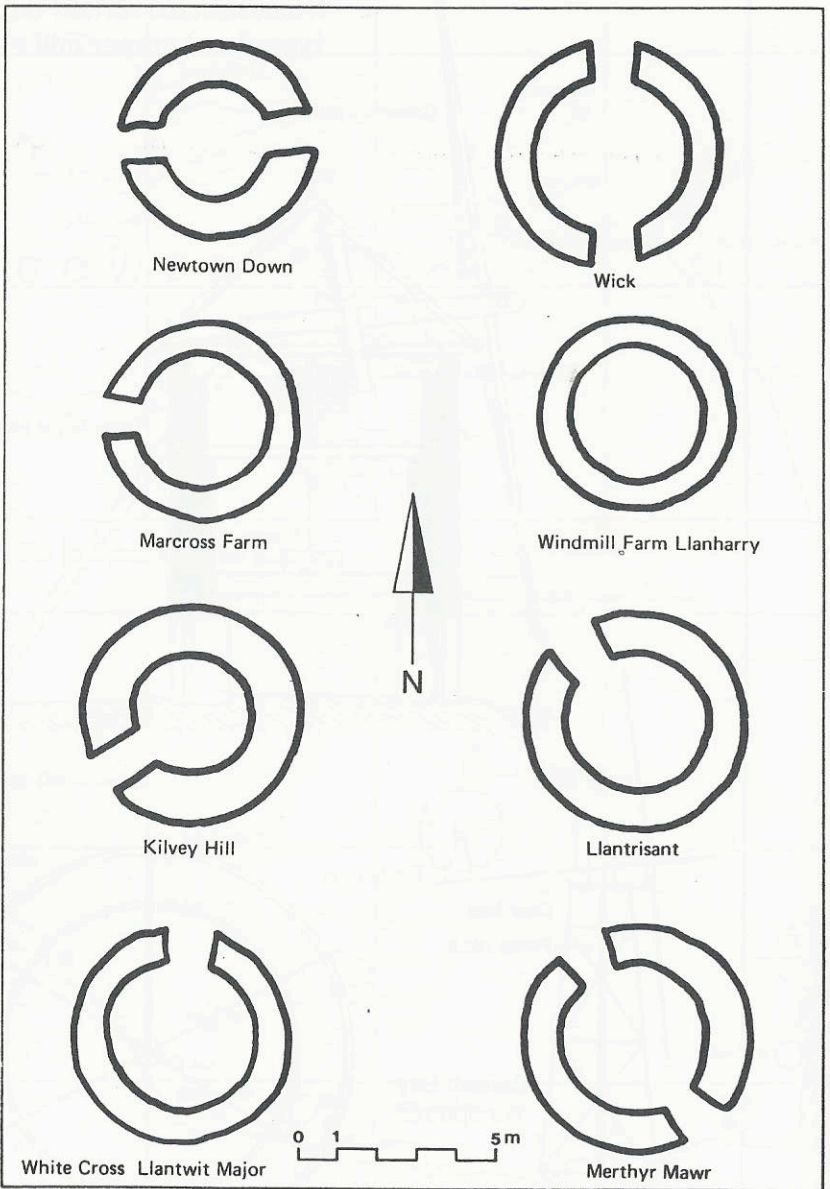
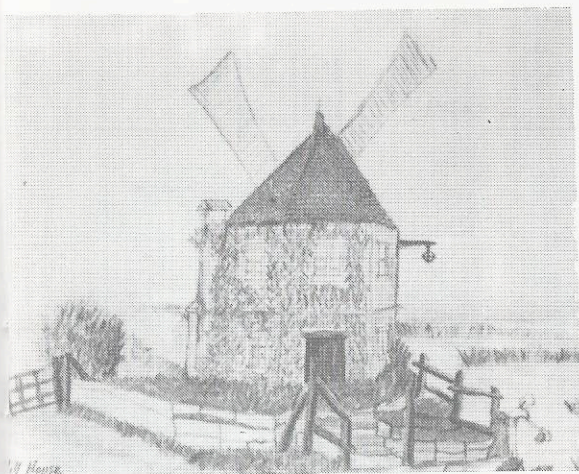


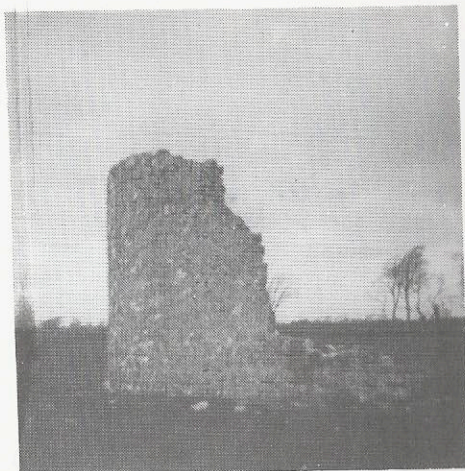
Fig.5



Plans of early tower mills in Glamorgan



1. Argoed Canol Mill (2): copy by the author of a painting by Obadiah Hodges



2. White Cross Hill, Llantwit Major (2b)

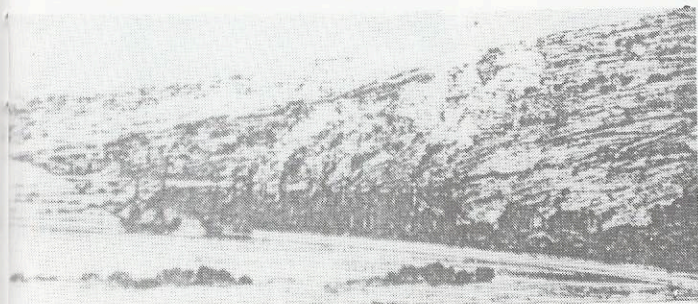


3. 'Billy Wynt', Llantrisant (21), 1982



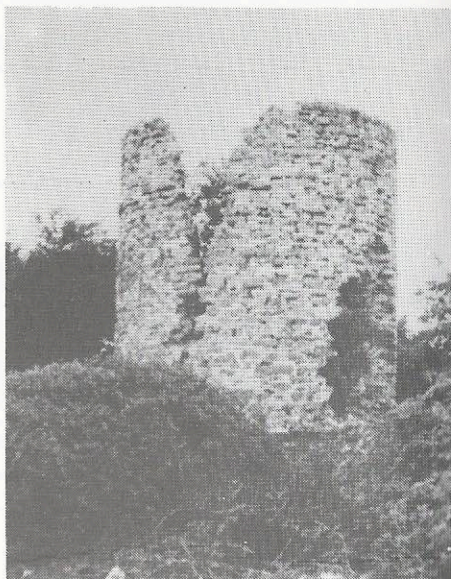
4. Kilvey Hill (15); above, 1982; below, 18th C

5. Swansea Bay, c.1813, showing Kilvey Hill (15)





6. Newton Down (34): painting by K.S.Wood, reproduced by permission of the Usher Gallery, Lincoln

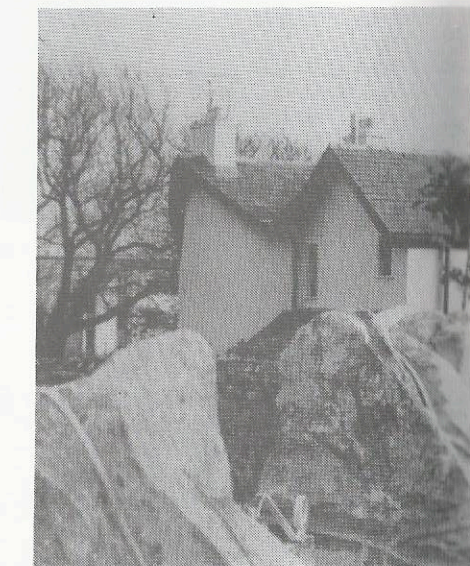


7. Newton Down (34), 1982

8. Wick Mill (53)



Fig.7



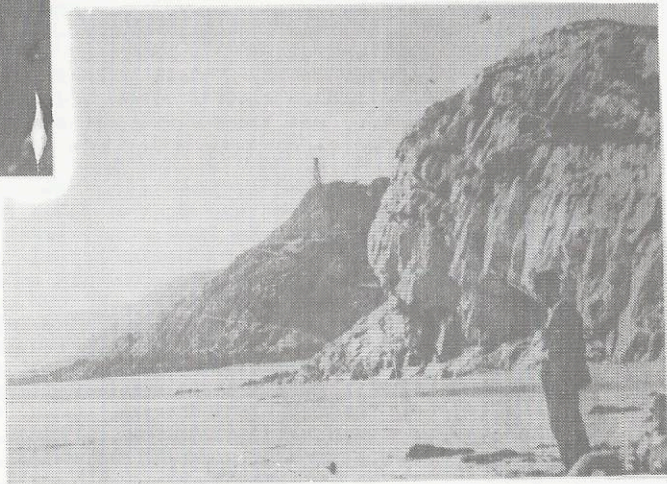
9. Windmill Cottage, Newton Nottage (33)



10. The derelict windpump



12. The site in 1983



13. The remaining water-tank

11. The windpump on the cliff-top

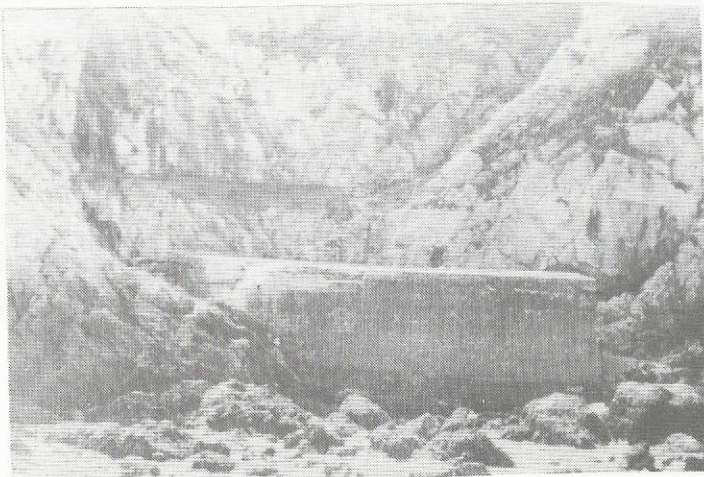


Fig.8

Caswell Bay windpump (8)