The old roads between Pontlottyn and the Manmoel ridgeway.

K. A. Martin.

#### Summary.

In this paper the old roads and tracks between Pontlottyn in the Rhymney Valley and the Manmoel ridgeway road are discussed. This area underwent considerable changes in the early days of the Industrial Revolution. Some observations concerning the Georgetown (St. James) Reservoir and Scotch Peter's Reservoir are also made.

### Acknowledgements.

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#### Introduction.

This paper, while it can to some extent stand alone, is better considered as additional information to Volume 3 of Tracks. - "Roads centred on Tredegar" (Ref. 2), presenting an additional facet of this much larger and more comprehensive paper which discussed roads to the north, south, east and west of Tredegar.

Having said that, the area proved to be more interesting and to require far more work than I originally anticipated. This was because this area suffered such considerable changes over a short span of time - so that e.g. while the 1760 estate map (Fig. 2.) shows no Tredegar town and very few dwellings of any type the 1815-1817 Ordnance Survey surveyors drawings (Fig. 1.) and the 1832 O/S map (last surveyed in 1829 - Fig. 4.) already show the nucleus of the town of Tredegar. This continued to expand so that the population of Tredegar according to Powell (Ref. 3) rose from 619 in 1801 to 4,590 by 1811, 6,382 by 1821, 10,637 by 1832 and 23,195 by 1900. This expansion in population was accompanied by the expansion of the coal and iron mining and iron production all causing extensive changes to the landscape by waste tipping, industrial and social building together with new roads and railways.

Because of all this it proved difficult to trace all those tracks which were of great antiquity and used by foot, horse and pack animals or, in some cases by cart. Either the older tracks became upgraded and continued in use as new roads or were abandoned and lost. Many old roads and tracks over the wider area of north Monmouthshire and southern Breconshire have been examined and reported on in other volumes of Tracks (e.g. Refs. 2 and 4) but, in general, those north of the outcrop of the coal basin can still, with diligence, be found. However, it is also unfortunately true that, although the effects of industry have been less, many areas which have escaped the ravages of industrialisation have effectively been sterilised by vast areas of plantation forestry.

As the area discussed in this paper was one of those most exploited for its mineral wealth it can be considered as a microcosm and its detailed study can give us useful insight into similar happenings elsewhere in South Wales. To some extent the situation in the Merthyr area is discussed in "The route of the Ogilby coach road from Pontsticill to Quaker's yard" (Ref. 5.).

The period between 1760 and 1829 (last update prior to publication of the 1832 first edition O/S map) was one of great change but it was not until I discovered the existence of the Ordnance Survey surveyors drawings of between 1815 and 1817 that any clear light could be thrown on this period. The drawings for this area are shown in Fig. 1. and it can be seen that the basis for Tredegar had already been established – although it is not certain, as it was a planned town, how much of it actually existed and how much was projected.

One thing (out of the many) struck me immediately and that was it appeared to show no direct road connection between Pontlottyn and Tredegar corresponding to the modern B 4256. (Fig. 3). That this had a; ways been the case is most unlikely as this road is only a short section of a major long-distance route which runs from Neath in the west, crossing the Roman road from Cardiff to Brecon (M621. Ref. 6.)) just to the west of Fochriw, crossing the Rhymney river at Pontlottyn and then continued to Tredegar. At Tredegar it continued eastwards over "Surrowy Bridge" and subsequently through Pont y gof at Ebbw Vale, Nantyglo, Blaenavon and crossed the River Usk at Llanelen.

Fig. 2. is a section of the 1760 parish tithe map which clearly shows the routes in the area which later became Tredegar available at that time. It is worth reminding readers that the much later Georgetown Bridge was not then built. Powell (Ref. 3) seems to suggest a date for this of 1856 but is not explicit. The date for the building of the residential area of Georgetown must post-date the bridge but it is worth mentioning that the 1877 25" to the mile O/S map shows the streets but does not name them. The streets are, in fact, named on the 1920 25" O/S map after events in the African Wars.

Kimberly "big hole" – 1871. Mafeking – Oct. 1899 – May 1900. Ladysmith relief 28<sup>th</sup> Feb. 1900. Colenso – 15<sup>th</sup>. Dec 1899.

The exception to this is the now-demolished East Place (also called Bowen's Terrace) which is much older and seems to be shown, although it is not very clear, on the 1839 Bedwellty Parish map (Fig. 9) and can be seen immediately upstream of "Surrowy Bridge". This row thus seemingly had its own connection to the west bank of the river from the earliest date. River Row was connected to the south by a footpath to the later Poplar Road and to the north along what would become Bethel Avenue and cross the Sirhowy by a works bridge as shown on the 1839 parish map (Fig. 9.). The present road uphill to Ebbw Vale did not exist at its present position at that time as it was, seemingly, associated with the building of the new Georgetown bridge, but passed uphill just to the north of the later East Place at approx. SO 1452 0860. The route is discussed in detail in Chapter 2 of Reference 2.

The route taken towards Ebbw Vale from the Surrowy Bridge is not shown on the 1760 map (Fig. 9.) but partly shown on the 1832 1" O/S (Fig. 4.) where it has been lined in yellow. Its route has been researched and reported in Tracks, Volume 3 (Ref. 2.). The 1832 map however, does not show the bridge crossing the river from the works which is shown on both the 1760 tithe map (Fig. 2.) and the 1839 parish map (Fig. 9.). The 1815-1817 O/S surveyors map (Fig. 1.) shows no crossing despite the Surrowy Bridge being shown by name on the 1760 map (see also Fig. 1.2 of Tracks 3 for facsimile map.).

While, if the more direct route from Pontlottyn to Tredegar was unusable for any reason, then a deviation of roads from the west via Cwm Rhos was quite practicable, perhaps as an expedient, as can be seen in the Ordnance Survey surveyors map (Fig. 1), it was clearly necessary to make as exhaustive a search as possible for the putative original route west directly from Pontlottyn. This led to a careful survey of the area and a detailed study of the maps available to me in an attempt to resolve the issue and, from this starting point, various ramifications have ensued.

In order to give a general overview of the area under discussion I have used the 1947 1" O/S map (Fig.3). This map, although showing the general relationship of the main places featured in the area discussed, is limited in several respects but particularly in that it does not show field boundaries, which are essential for comparing the various early maps used with the situation as it is today. Fortunately, some large scale maps well out of copyright are available and I have made use of some of these e.g. Figs. 5, 8,14 and 15. To further mitigate the problem I have used Google Earth images on which the required detail of features as they are today can be seen. Fig. 7 is such an image, which is taken at an equivalent altitude of 1105 ft., in order to cover the required area but, on the computer screen, it is possible to examine every part of a possible route in much more detail by "Zooming in" closer. Other Google Earth images have been used for other parts of the wider area under discussion i.e. Figs. 13 and 14.

The second problem with the older maps was the lack of the National Grid (which was introduced by the Ordnance Survey in 1936 as OSGB 36), which is essential for the precise positioning of features. I have reconstructed this on all the maps by using definable points on both the present-day maps and the earlier ones. I cannot guarantee precision to better than a few metres - it was easier on some maps than others - the surveyors drawings were very difficult while others, such as the 1884 -1886 25" to the mile (Fig. 5) was very easy. The main problems found with the Ordnance Survey surveyors maps, was that they were of unknown scale and orientation and there were very few points sufficiently well defined to match modern features for which "fixes" can be made with accuracy. However I managed a construction of sufficient accuracy to enable the identity of features to be related to a modern O/S map with reasonable accuracy. For example, the position of the ford and mill at the Rhyd and a very precise location for the farm of Ton y fedw near the Manmoel ridgeway road which have enabled the position of the path or track uphill towards the Manmoel ridgeway to the east (Fig. 1 and Photo. 13) to be determined with some precision.

I have also walked over most of the area examining features in detail and taken photographs and GPS positions as, often, a close examination by eye can find features which are unmapped and not visible with Google Earth.

### Body of report.

Probably the biggest change over time is that both the 1832 first edition of the 1" O/S map (Fig. 4) and that of the 1817 O/S surveyors drawings (Fig. 1.) show the main road down the valley from Tredegar running down the western side of the valley alongside the tramway built in 1805, which it continued to do until the double-track railway was built in 1885. This railways new wider track-bed subsumed the road over considerable stretches. This is discussed in detail in Tracks. Volume 3, "Roads centred on Tredegar" (Ref. 2) and the result can be seen in Fig. 3. where the present road, which had to divert over the fields, has many twists and turns and changes in grade over nearly 3 miles below the Heathfield bridge over the Sirhowy (at the Rhyd - SO 151 074) taken by the earlier road before it has been subject to some improvements in recent years.

Some of the old roads and tracks are remarkably stable - such as those over the mountain from Cwm Rhos in Tredegar to Rhymney, others, such as the Manmoel ridgeway road are still in use today. However the general stability of many features since the early years of the nineteenth century to today is a matter of very clear interest.

The issues discussed in this paper have, for convenience of reporting, been split into three main sections but, in practice, there are many areas of overlap which have not always allowed such a division to be as simple as one might wish.

- 1) East from the Rhymney River to the Sirhowy River, which will be considered as two overlapping sections:
- a) From the Rhymney river to Cefn Golau.
- b) From Cefn Golau to the Sirhowy river.
- 2) From the Sirhowy river to the Manmoel ridgeway road.

It will be noted, when we discuss maps of the area at different dates, that there were considerable improvements to transport links in the entire heads of the valleys region at this time to match the rapid pace of industrial development (Refs. 2 and 4)

## 1. A.). Pontlottyn to Cefn Golau.

In the last edition of Volume 3 of Tracks I noted that the present road from Pontlottyn to Tredegar (B 4256) differed from the 1832 1" O/S first edition by taking a more contouring route north of the small-holding known as Heathcock, rather than through Cwm-Tysswg Farm to its south and running to the south of Cefn Golau Farm - the route which is shown on Fig. 4. (1832 1" O/S). This earlier route has been indicated on Fig. 3 (1947 1" O/S) where it has been lined Apart from these deviations the 1832 route differs little except immediately east of Pontlottyn where the early road from the Mardy Crossing (as it was called - SO 119 065) now passes through a large housing estate (Tan-y-Bryn). There are, however, indications which can be seen using Google Earth, that the earliest route ran directly from the important old Pontlottyn Bridge along the south western side of the estate meeting the present Tredegar road somewhat to the east of its present position. In doing so the road was clearly taking a remarkably straight line from the Roman road running north from Cardiff to Brecon (M 621. Ref. 6.) to Cefn Golau before it later deviation to the higher ground to the north – first past Cwm Tysswg farm (1832 map. Fig. 4.) and, later, even further north past Heathfield as it does today (Fig. 3.).

But, the O/S surveyors map (Fig. 1.) appears to show no road at all although Fig. 5, a 1884 – 1886 6" O/S map does. On this it is shown as running along the fence line from just to the east of Cwm Tysswg farm and continue eastwards and crossing *through* the reservoir which was, at the time it was built, in two parts suggesting the track was still respected, to join the Bedwellty ridgeway road at a point which was just south of the cemetery. On Fig. 5. I have highlighted this route with green dots and it was clear, after inspection on foot, that the area approaching the Nant Tysswg was very boggy and that it was most likely that in fact when the road reached this area that it re-routed further up the flank of the mountain and crossed the Nant Tysswg very probably at the site of the farm. This process of taking successively higher and contouring routes continued to happen up to the most recent.

By using Google Earth, and zooming in closely on the area of Cwm Tysswg Farm, there are strong suggestions that the earliest road did pass through the farm perhaps using the bridge (or an earlier version) which is still there at the present time. After crossing the stream the road then turned to the south and east to rejoin the old route - which is lined in green on Fig. 5.

It was the normal method on meeting a difficult place to cross, certainly used by the Romans, of simple common sense, to turn sharply upstream until a good crossing point was reached and then to rejoin the original route. This method has been shown to have been the case of the stone-paved ford crossing the River

Rhymney at the Llechrhyd at approximately 1 mile (1.6km.) upstream of the later turnpike bridge (Ref. 4.). This turnpike route was still the main road to Merthyr from Tredegar until the more recent Heads of the Valleys road was built. Subsequent to 1801 and the introduction of the turnpike road, the old stone ford was referred to as the "old Parish Road" (Ref. 4.). It is worth quoting I. D. Margary "Although in planning the layout of a road the alignments were placed so as to avoid the major difficulties of the ground, yet in following a direct line it is inevitable that some local obstacles such as steep sided valleys will be encountered. The method of crossing these was to turn the road along the side the valley, usually in an upstream direction, on a well-graded terrace-way, resuming the main alignment as soon as the obstacle has been passed." (Ref. 6. Page 18.). The crossing itself would most likely have been by means of a culvert, or more than one culvert as culverts are simpler to build than bridges and enable the road to maintain a constant level. Very ancient culverts, believed to be Roman but still used by the main coach road from Merthyr to Brecon alongside the Taf Fechan until the first turnpike via Story Arms was built just after the turn of the 19<sup>th</sup>. Century (Refs. 5 and 7) and these are still functioning.

Using a Google Earth close-up (Use date 1.1.2001) to examine the area in detail I have added a putative route of the Cwm Tysswg bridging point on Fig. 5. with pink dots. The Google close-up view shows the superiority of this route as a means of crossing the very wet and marshy ground and it is clear that subsequent revisions of the general road climbed successively higher up the valley.

It is clear however, that by the time (1815-1817) of the O/S surveyors survey (Fig. 1.) that the old direct route was abandoned and the traffic diverted via Cwm Rhos. Between this time and 1829 (last O/S survey before 1832 publication of first map) a direct route had been re-established by contouring uphill via Cwm Tysswg to Cefn Golau as seen in Fig. 4. Today the route west from Cwm Rhos is given a minor status being depicted with a broken path which I have lined with yellow. The earlier route via Cwm Tysswg farm and Cefn Golau farm is difficult to find on the ground today nor is it visible with Google Earth but it is shown on Fig. 5, taken from a 1884 -1886 25" to the mile Ordnance Survey map, where it has been lined in yellow, and also on Fig. 6. which is taken from the 1945 RAF reconnaissance survey (also available through Google Earth) where it has been highlighted with yellow arrows. Google Earth (Fig. 7) does, however, give a very good overview of the area on the earlier route from Pontlottyn to Cefn Golau lined with black arrows on Fig. 7 and with green dots on Fig. 5. This direct connection complies with ideals of the most direct and shortest route which has been noted in the previous paragraph as has the likelihood of it passing through Cwm Tysswg farm and then returning to follow the fence line.

There are other differences between the 1832 map and the present-day one such as:

- 1) The early tracks west from Cwm Rhos in Tredegar to Rhymney were much better defined than they are at present presumably because of their importance at that time. It is explained in Volume 3 that these tracks continued further west past Rhymney.
- 2) The footpath over Rhymney Hill from Bryn Oer to Pont Gwaithyrhaearn is shown clearly on the 1832 map (Fig. 4. lined in green) it is also shown in Fig. 8 (6" O/S) and on modern 1:25,000 O/S maps.
- 3) The tracks to the east of the Bedwellty ridgeway leading to Bedwellty Pits, Pont Gwaithyrhaearn (and beyond lined in yellow), which are particularly well defined on the O/S surveyors map (Fig. 1.) possibly suggesting its importance at this earlier date and still to be seen on modern maps such as Fig. 8., were much more prominent (lined in green). It is worth noting that the quarry and the incline to the west of Bedwellty Pits was already in existence when a "Plan of an intended Rail Way or Tram Road for Sirhowy furnace ....... through Tredegar Park ..... Newport" dated 1801 was printed.
- 4) The Bedwellty ridgeway shows the descending road through Cefn Rhychdir as seemingly much more important than it is today it is now only a lane. It might be of more than general interest that. Richard Fothergill, the "ironmaster" owned Cefn Rhychdir farm. The route from this farm to Tredegar was via the Mountain Lodge and this might have influence the importance with which the road to it is depicted on the early survey maps.
- 5) A road (lined in yellow in Fig. 4), which cannot be found today, is shown leaving Rhymney, from near the point where the Cwm Rhos road arrived from Tredegar, passing south/east to join the main Pontlottyn to Tredegar road immediately to the west of Cwm Tysswg Farm i.e. approx. SO 130 073.

The Ordnance Survey surveyors drawings of 1813-1817 (Fig. 1) have clearly thrown considerable light on the early routes showing that there are many significant changes. It must be noted that the quality of the drawings leaves much to be desired and I have colour-lined them lightly so that the reader may judge whether my interpretation is reasonable. I have also attempted to reconstruct the National Grid. This was far from easy as the map was un-scaled and its north/south orientation was clearly not that of today. However, I believe my rendering is accurate enough to be useful in identifying features shown on the other maps and described in the text.

Similarly, there are significant differences between the O/S surveyors drawings (Fig. 1.) and the first published O/S map (Fig. 4.). I have, incidentally, found this to be true of other areas along the heads of the valleys, which seems to illustrate the tremendous changes taking place in this area over a short period of time. Similar changes can, for example, be seen at Brynmawr where between the 1817 and 1829 there was an explosive growth in industrial activities and in

tramways (Ref. 4.) and also, no doubt, the difficulties faced by the surveyors in this undeveloped area with great pressure on time. I have, in a few cases by walking the ground pinpointed routes with a GPS. and shown that some of the earliest surveys are wrong, for example where they knew where the beginning and the end of a minor road over difficult moorland were might, if the weather was very bad, have guessed the actual route. I give definite examples of this in some of my Volumes on tracks.

To recpitulate, some of the most significant of these changes with time are:

- a) The most remarkable is that a road more or less directly from Pontlottyn to Tredegar (such as the present B 4526) is not depicted. There is every expectation that such a road must have existed at one time but it is not depicted on the O/S surveyors first map (Fig. 1.). It appears that the road east from Pontlottyn (lined in orange on Fig. 1.) at that time swung northwards at approx. SO 126 067 and continued to meet the Cwm Rhos to Rhymney road at approx. SO 131 086. From there it is shown either continuing northwards towards Bryn Oer or to the west by descending from Cwm Rhos ro the "Surrowy Bridge". This route cannot be seen today either on aerial photographs or on maps.
- b) The road south from present day Tredegar rising towards Cefn Golau where it divides with the ridgeway road southwards to and past Bedwellty Church (lined in orange) in turn dividing at approx. SO 142 057 with a branch (lined in yellow) descending to Cefn Rhychdir. The other branch (also lined in yellow) continues down the eastern flank of Mynydd Bedwellty to Pontgwaithyrhaearn with a side branch descending the valley of the later Bedwellty Pits. From here, after crossing the river to Troed rhiw gwair, it could rise directly to the Manmoel ridgeway road by an ancient route. The present road from Cefn Golau to Abertysswg did not exist at this date.
- c) As a cautionary note the Surveyors map (Fig.1) shows a feature which diverted me for a while. This comprises an ill-defined line between Pontlottyn at the western end appearing to run across the map from just east of Pontlottyn to the Sirhowy river (Fig. 1.). However despite several attempts on foot to find it and follow it I decided that it was merely a crease on the original map which had been scanned in. I mention this to illustrate a typical problem found when using old, imperfect maps.

This had been particularly misleading as, from the point on the River Sirhowy suggested by this illusory track lay the ford and mill of the Rhyd. and a well-defined route (lined in yellow on Fig. 1.) is to be seen rising uphill to the east towards Manmoel ridgeway. A close-up of this is shown in Photo. 13 but I will return to this route later in this paper when I discuss features to the east of the Sirhowy.

However, as has been noted, back at Cefn Golau the probable early route to the west can be seen following the hedge line if one stands on the reservoir embankment (Photo.1.). Both Fig. 1. (O/S surveyors) and Fig 4. (1832 O/S) show a field boundary to its south and walking shows the route to be overgrown but firm under foot as far as the vicinity of the Nant Tysswg. At SO 13762 07533. near a stream, there are the remains of a W.W.2 pill-box which might imply that access was reasonable at this time. This track can, in fact, be seen both in Fig. 7, which is a Google Earth image (where it is lined with black arrows) and which can be examined in greater detail by zooming closer on the computer screen and also in Fig. 6, which is taken from a 1945 RAF aerial reconnaissance photograph where it has been lined with green arrows. Such a track following the fence line is also shown in Fig. 5 (1884 -1885, 25" O/S), which I have highlighted in green. The area where the track following the fence line might have crossed the Nant Tysswg becomes lost in this area, due probably to the very soft ground and the reported dumping of waste and it would seem reasonable that it continued westwards either to the south of Cwm Tysswg Farm or, possibly, through the farm as has been discussed and as it still did as is shown on the 1832 1" O/S (Fig. 4.).

To the west, near Cefn Golau pond, the road swung northwards on a path taking it below the Cefn Golau farm before the major re-routing north of Cefn Golau farm as it does at present (Fig. 3) and on the 1864 – 1886 25" O/S map (Fig. 5.) and on joining the Bedwellty ridgeway road and descending northwards to present day Tredegar

The early route eastwards from Pontlottyn could once have been used by wheeled vehicles but after deterioration it became of value only to pack animals. More recently, from the earliest industrial times as transport became increasingly important, perhaps the Cwm Rhos route was resorted to until a succession of routes contouring the higher ground were built leading to the present day road (B 4256). The first possibly via Cwm Tysswg, as on the 1832 O/S map (Fig. 4.), then from Cwm Tysswg and above Cefn Golau Farm and later a more northern sweep via Heathcock as today. There have been other detailed changes but it would appear that the point on the Bedwellty ridgeway road just to the west of the gate and stile at SO 14174 07568 (Photo. 2.) was an important junction.

### 1.B.). Cefn Golau to the Sirhowy River.

At this point, immediately adjacent to the east of the present pond, a traveller from the west would be presented with several options.

- 1) To turn northwards and follow the road downhill to where, later, Tredegar would be built. (Shown as Bedwellty Common on the 1760 map Fig. 9.) or to continue northwards passing to the west of later Tredegar.
- 2) To turn southwards along the Bedwellty ridgeway road and onwards to Caerphilly and Cardiff.
- 3) To turn down the eastern flank of Mynydd Bedwellty to the later Bedwellty pits and cross the river to rise to the Manmoel ridgeway via Troed rhiw gwair or to continue further and to meet and cross the Sirhowy at Pontgwaithyrhaearn and, again, rise to Manmoel.
- 4) To pass through the gate in the wall at SO14174 07568, or that at SO 0430 0733 near the powder house, and down the eastern flank of the mountain to either the mill at the Rhyd or a little further to Llwch glas uchaf (present-day Highlands at approx. SO 152 069). The short stretch of road connecting the mountain wall to the main Bedwellty road is clearly a well-constructed cart road made in the traditional way with base stones dressed with smaller ones and was approx 10ft. wide. Whether it is a relict of an earlier important road which provided a suitable place to build the powder house or was built to service the powder house is, unfortunately, unclear.
- 5) Descend down the flank of the mountain to the lower end of later Tredegar. I will return to this possibility a little later when I discuss the 1760 Estate maps of the area.
- 1) The northwards route in pre-industrial times did not only descend to later Tredegar and the "Surrowy Bridge" but also continued northwards on the high ground to the east with descending routes to the crossroads by the "Blacksmiths Forge" on the Heol y waun fawr or continue north to, and past, Bryn Bach farm, as is shown clearly in Fig. 2, which is a tracing from the 1760 estate maps with the old routes lined in pink. The area in general and copies of some of the original maps is discussed in more detail in Tracks, Volume 3. "Roads centred on Tredegar" (Ref. 2.). In Fig. 2 the area of more direct interest is the southern part of Tredegar which shows the descent from Bedwellty Common as well as other features of interest such as Stable Lane and the Cwm Rhos to "Surrowy bridge" route.

It is important to note that the route northwards, through what is today the town of Tredegar, was at that time interrupted by scourys (Fig. 2.) and that no other routes are shown although it is probable that informal pathways existed between properties and, perhaps, alongside the banks of the river. All this is considered in some detail in Volume 2 which includes a series of maps of different dates subsequent to 1760.

It was long believed that the Bedwellty ridgeway road was a Roman road and is referred to as such by Archdeacon Cox in his "Historical tour in Monmouthshire", Volume 1. page 24 (Ref. 8). In this he described the road at that date as up to 40 to 50 feet wide and had, in places, large flagstones but was very variable along its length. He referred to the road as the "Sarn Hir" and that it continued northwards of Bedwellty Church over the moors towards Abergavenny. Thomas Henry Payne writing to Sir Richard Colt Hoare in December 1804 echoed the same belief and recalled the road crossing the bog at Bryn Oer by means of a stone causeway. This causeway, he was told by a workman, had recently been torn up so that the stone could be re-used – a common fate of any exposed stones which were usually "robbed out".

The routes to the northern end of present-day Tredegar were essentially:

- a) To continue through Milgatw to Blaen Onnau and on to Llangynidr or Crickhowell.
- b) Meet the east to west old heads of the valleys route and turn either way to continue on this.
- c) Continue northwards past Bryn Bach Farm and hence over the mountains to the north and north-west.

There were other possibilities and all are discussed in either Volume 1, "From Dowlais Top to the Usk" (Ref. 4) or Volume 3, "Roads centred on Tredegar" (Ref. 2).

- 2) Although it can be shown that the earliest road south of Cefn Golau was not the present one flanking the western side of Mynydd Bedwellty but ran directly over the top past "Carn Stwpa" and the present Ordnance Survey survey point the present route is certainly very old and probably dates from when conditions became sufficiently peaceful to allow ridge routes to be abandoned. This road is discussed in Volume 3.
- 3) There is a clear route crossing the mountains from Bryn Oer through the Cefn Golau area to continue down the eastern flank of Mynydd Bedwellty, where it splits into two main routes, on all the maps from the first Ordnance Survey map of 1832 to the present day this is lined in yellow on Figs. 1 (O/S surveyors) and (Fig. 4.) 1832 O/S. where it is lined in green and also in green on Fig. 8 (6" to the

mile O/S). It must be noted that on the O/S surveyors map, although the route southwards from Cefn Golau is very pronounced, presumably reflecting its importance at that time it is not depicted between Cefn Golau and Bry Oer. There is no apparent reason for this – except that tracks over open ground were not always depicted as can be seen for those mountain routes to the west of Tredegar (Fig. 2.).

It would appear that there were two main objectives for these routes

- a) descending the valley of the later Bedwellty Pits and crossing the river before rising uphill through Troed rhiw gwair to reach the Manmoel ridgeway road and
- b) continuing further to descend to Pontgwaithyrhaearn and uphill directly to Manmoel.

The route to Pontgwaithyrhaearn, which was first a blacksmiths forge and, probably a bloomery, and later an iron furnace, was much used to carry iron ore, limestone and, perhaps later, coal although for most of its earlier functioning period wood charcoal would have been the preferred fuel. It is an easy route to follow, although braided in places, and the hoof-fall and the dropping of manure showing clear vegetation changes. It was interesting therefore to find, when examining the mountainside carefully, to find an odd-looking feature resembling a shallow dome at SO14819 06005 (Photo. 3.) which, on examination, was found to comprise a dump of clean road stone (Photo. 4). The position of this mound is indicated as "M" on Fig. 8 and it is clearly near the green lined old track from Bryn Oer to Pontgwaithyrheaern although it can be seen on Fig. 4 that there were, at that time, two "braids" of the track and the mound could have been more closely related to one or the other. One can only speculate but it seems likely that this was intended to improve the route but the opening of the much larger iron works at e.g. Sirhowy saw the value of Pontgwaithyrhaearn collapse.

4) At the gate and stile at SO 14174 07568 a footpath, today a Right of Way, descends directly to meet (at SO 1432 0777) another Right of Way running alongside a water channel along the flank of the mountain as far as SO 14610 07494. Below this feature the area has been completely landscaped to restore land previously occupied by Whitworth and Ty Trist collieries and other industrial sites and this downhill path is terminated. It is roughly along the route of this water channel that a road is shown on the Bedwellty Parish map (Fig. 9) running from near the bottom end of Stable Lane to Ty Trist farm (Lined in yellow) and on Fig. 4. where its destination is depicted as a barn. This is interesting as Powell (Ref. 3.). on page 11 casts doubt as to whether Ty Trist is the original name but became known as "The house of sorrow" because it became reputedly to be haunted by a malevolent spirit known as a "Bwca" and was uninhabited although it had extensive lands. However, the name "Ty Trist" is quite clear on the 1760 estate map (Fig. 11.) but, although this map shows paths (discussed later) no sign of the road (lined in yellow) running south from

Stable Lane on the 1839 Bedwellty Parish map (Fig. 9). Today this road is almost lost except for a glimpse just below the water channel in places and, possibly, at SO 14315 07773, just north of the start of the water channel. Before industry the footpath downhill may have stopped at the Ty Trist track but it might have continued to the river roughly at the position of the later Garibaldy bridge, possibly heading for Llyswedog fawr. Because this path is so steep it is unlikely to have been used by carts and might have posed difficulties for laden pack animals.

The nature of this 1832 (last survey 1829) river crossing is not clear but by this date the river had already been "canalised"- largely with large cast blocks of furnace slag, a bridge of sorts would presumably have been necessary. Steep banks would also account for the track taking a slanting path to reduce its angle between the river and the road. This river crossing present in1829 pre-dates the sinking of Ty Trist in 1834 nor does Fig. 4. show any development of the land to the west of the crossing. Perhaps the existence of the crossing influenced the siteing of Ty Trist - it is far from clear.

In this context it is interesting to note that a short section of track (lined in pink on Fig. 4.) is to be seen rising from the river to meet the tramway/road but the map is insufficiently detailed to show the nature of the river crossing which is very close to the later "Garibaldy Bridge". The name of Garibaldy is associated with the Italian Garibaldi (July 4<sup>th</sup>. 1807 to June 2<sup>nd</sup>. 1882) and, no doubt, related particularly to his reforming zeal which resonated with the Chartist movement – perhaps particularly his "League of Democracy" (1879), which promoted universal suffrage and the emancipation of women. However it is unclear whether the Garibaldy Bridge was a new one or a was rather a dedication of an existing structure.

What is clear is that the 1760 estate map (Fig. 11.) shows a path from Cefn Golau to the river (labelled as route 2), as far as the maps can show us, crossing the river at approximately this point. This will be discussed further in more detail later in this paper. It is intriguing that the 1832 map (Fig. 4.) shows what looks like 2 rows of houses on the east side of the river – one immediately below this crossing point and the other near the Rhyd crossing. Unfortunately, there is insufficient detail on the map to be certain about this but it calls out for further research.

The 1832 map gives no indication of a possible destination to the east of the river with only Llyswedog Fawr and Llyswedog isaf marked by name - it also depicts the river crossing at the mill at the Rhyd to be a bridge at this time rather than a ford which is the general understanding, and implied by its name – indeed its name indicates that at earlier times it was a ford. The river crossing at Llwch glas uchaf is, depicted as a ford which was reached after crossing the tramway/road.

From the gate there are two other possible routes down the valley.

a) It was observed, from the opposite side of the valley, that the line of a possible track ran from the vicinity of the gate at SO 14174 07568 diagonally southwards across the flank of the mountain. On foot its course is evident on the ground and it meets the southern mountain wall at approx. SO 147 072 (Photo. 5) where it was clear that an opening, presumably gated, had once existed and later blocked. Such a gateway would seemingly have led into the valley. However, descent into the valley from here was clearly steep and any cart road, suggested by the width of the opening, would have to have taken a flanking route which is not evident today. It is quite possible that these openings might well have connected to the early routes (i.e. lined in yellow on Fig. 4 and others) from Cefn Golau to either Bedwellty pits of to Pontgwaithyrheaern It has been observed later in this paper, in Section C, that a 1760 estate map (Fig. 12) shows a route rising directly uphill from Llwch glas uchaf (Highlands) to debouch onto the mountain at SO 1480 0695 at T'yn y waun which is only 120 metres south of the blocked gate at SO 14678 07048 (Photo.5.) and there might be some relationship. On Fig. 8., the blocked gateway has been marked with a green cross and T'yn y waun with a red. Of course, the wide opening might well have been to accommodate cattle herds. This track is discussed further presently when other observations are made on the area of this eastern flank of Mynydd Bedwellty.

b) It is difficult today to find the actual link from Stable Lane to the mill partly because the entire area has been landscaped since the demolition of both Ty Trist and Whitworth collieries, and in particular because, more or less in line with the old track, the water channel has been cut along the side of the mountain to catch water run-off both to protect the workings and, doubtless, to conserve the water for use. To give a sense of the area being discussed, and the route taken, Fig. 10. is extracted from a modern 1:25,000 O/S map with added grid lines at 100 metre intervals. Continuing south on foot after the end of the water channel (SO 14610 07444) a clear indication of an old cart road can be seen at SO 14720 07382 (Photo. 7) in the contouring of the land and tree planting along its sides.

The possible track to the Rhyd is shown in dotted pink and its continuation to the Highlands in purple on Fig. 10. Fig. 13 is a Google Earth image of the area and it shows that the area is heavily overgrown but possible routes can be discerned (n.b. Ignore the prominently marked routes for the moment – they will be discussed presently.).

(Photo. 6, taken facing south at SO 14469 07601, shows the nature and the scale of this water channel. Downhill, below the fence-line, an earlier track can be made out in places and further south, past the end of the water channel, at SO 14720 07382, the contours of the land and the linear planting of the trees would seem to confirm the presence of the old track (Photo. 7). It might be

observed that the trees are not very large but they were not in leaf at the time of the year when the photograph was taken and the size would depend upon the species thus making their age unknown. Further downhill from here the track is difficult to follow due to fallen mature trees which lie across it. As Photo.7, taken at about half way between Ty Trist farm and the mill (SO 14720 07382), would seem to confirm the existence of a wide track once present but this might have been the continuation of the track passing Ty Trist or might have been connected with some other possible route to be discussed presently, connecting to the ford and mill at the Rhyd..

It is most likely that it once connected to the river at the Rhyd with its mill but this was before the building of the tramway and its associated road (1805) would have cut across this and the subsequent canalising of the river with high banks might have prevented convenient access and the track could have continued on a route shown on the 1872 25" O/S map (not included) to the vicinity of the Highlands (Llwch glas uchaf) by this date. From here the track could access the road/tramway or cross the river by fording.

As the footpath leading directly downhill from the gate was unlikely to have been suitable for heavy loads an alternative route was sought. Such a route was shown on the 1877 25 inch map running from the gate at SO 14174 07568 south to Llwch glas uchaf (Highlands). This route (lined in violet on Fig. 10), although heavily overgrown, was easy to follow on foot and could be followed with Google Earth but there is no evidence now that it was a cart track. At approx. SO 147 074 a branch was shown leading to the mill at the Rhyd but this part is no longer traceable due no doubt to the route being cut by the tramway and road, the upgraded railway line and now the new dual carriageway. It means, however that the section of relict track at SO 14720 07382 was possibly related to this route as opposed to a continuation of that via Ty Trist but the photograph clearly shows it to have been a cart road so this matter is still unresolved although the route continuing past Ty Trist would seem to have been very likely.

When walking the footpath alongside the water channel (lined in pink in Fig. 10.) a crossing point comprising a thick steel plate with anti-slip surface features was found (Photo. 8.). Downhill from here a section of track can be seen before it ran onto the reclaimed land and, If followed uphill, this joined the track from the gate at Cefn Golau to Highlands and continued past the mountain wall at SO 1431 0734 and over the Bedwellty mountain to reach the Abertwsswg road at SO 1414 0725 – a R.O.W. footpath can be seen on a modern map O/S map (Fig. 10.) following this section of the route. This suggests that this track or path had a long history of use although whether this was so in pre-industrial times cannot be known. This is shown on Fig. 10 in dotted purple.

### 1. C.) Further features.

However, the area to the east of the gate at SO 14174 07568 holds further surprises which can be seen in Photo. 21. This photograph was taken from St. James, on the eastern side of the valley, after there had been a light fall of snow with a brisk wind and shows several features worthy of comment.

- 1) Probably the most striking is the clear "Ridge and Furrow" cultivation on the east flank of the mountain. Ridge and furrow cultivation is a method of planting crops which goes back to mediaeval times when land was worked on a three crop rotation system in which the long fields were divided into three strips produced with a heavy plough and 6 to 8 oxen. These strips in turn, were:
- a) Planted with wheat or rye for autumn cropping.
- b) Planted with peas, beans and lentils in the spring.
- c) Left to rest or fallow. Often these were grazed by cattle of geese which also fertilized the land.

The rotation was then repeated.

At this time most of the livestock was killed and cured in the autumn for lack of winter feed for them. Later the system changed to a four crop rotation with a root crop, usually turnip or mangold. This method was promoted at the time of the Enclosures by, in particular, Lord Charles "Turnip" Townshend around the middle of the eighteenth century and becoming the system of choice. This means that how old the feature is will depend on which system was used.

In addition a further complication is that a strong advantage of ridge and furrow was good drainage on heavy land and could be created by digging and pitching with a spade. So, we cannot be sure of whether the feature is the result ploughing or smaller scale cultivation to achieve a similar result. It is worth mentioning, however, that once again Powell has a useful contribution by noting (on Page 10) that Pen Rhos was a very ancient farm, and a large one, ploughed by "several teams of oxen" at the same time - so it appears that the capacity to achieve the required ploughing was close to hand. We cannot be sure of the date but possibly the local name of the "Turnip Field" might suggest the latter part of the eighteenth century but under whose authority it was done must be a matter of further documentary research as the 1760 map (Fig. 2.) shows that the local occupation was low at that time. It is worth noting that in 1760 the "Turnip Field" was field No. 16 on the tithe map of Bedwellty and belonged to Ty Trist – at that time the annual rental of the land was a very substantial £26.2s 0d

There exists a great deal of literature on this subject by such as Oliver Rackham in his "History of the Countryside." (Ref. 9) or very accessibly, in Richard Muir's "Landscape Encyclopaedia" (Ref. 10.).

Photo. 21 also shows other features which are interesting in themselves and also help to determine the date of the ridge and furrow:

- a) A prominent feature (lined with orange dots on Fig. 10) running diagonally from the top left of the photograph to the lower right where it ends in a spoil heap at SO 14302 17643. This was caused by a trial pit or level which was abandoned and probably dates from the early part of the 19<sup>th</sup>. century. This is marked with small crosses on the Google Earth image (Photo. 22) and clearly post-dates the ridge and furrow.
- b) A more gently sloping feature which runs from immediately below the small reservoir to the east of the road (centred on SO 1413 0770) and running very directly to the blocked gateway in the wall at SO 14673 07048 shown in Fig. 10 and Photo. 5. This also post-dates the ridge and furrow but its purpose is unclear. It debouches onto the mountain above Highlands but the descent appears to be far too steep for carts and probably too steep for pack animals. A part of this track is shown on the Google Earth image (Photo. 22) where it has been highlighted with small ooooos. This track has been added to Fig. 10 with a line of blue dots. It crosses the downhill footpath from the gate and stile at SO14174 07568 and runs south to to the blocked gate at SO 14658 07048 (Photo. 5.). It's route, which is easy to follow on foot, does not correspond to the adjacent wall line shown on the map there is no wall to be found there but follows a slightly curving path following the flank of the mountain.
- c) Another path following the fence line and continuing southwards, which has been highlighted in mauve, meets the path uphill from the footbridge at SO 14544 07537 and continues southwards to meet the relict road at SO 14720 07882 but as it is difficult to see, although it can be traced on foot, I have not highlighted it as to do so might give it a perhaps unwarranted status. It can also be found over its more northern section but it cannot be distinguished from the fence line. This track is quite clear on Google Earth (Photo. 22.).
- d) Perhaps the most interesting feature to be seen on Photo. 21., from the point of view of early routes, is a track highlighted by the snow, descending from the mountain gate (SO 14174 97568) and turning southward joining, and possibly crossing, the track shown on the Bedwellty Parish map (Fig. 9.) running from the lower end of Stable Lane to Ty Trist farm. It appears to curve in the direction of the lower end of Tredegar from where it could have continued by one of the ways to be discussed in the section on the east of the Sirhowy river. This putative later part of the route through the landscape, now reclaimed, once belonged the Ty Trist colliery and its course cannot be ascertained with any degree of confidence.

So, from the area to the east of the gate at Cefn Golau (SO 14174 07566) a traveller could now possibly continue by several ways i.e. descend to the old road running from about half way up Stable Lane and, passing Ty Trist Farm and

continuing to the mill and ford at the Rhyd or continue further via Llwch glas uchaf (presently called "Highlands") and hence down the valley and crossing the river and accessing Manmoel via Troed rhiw gwair. This route can be followed by using Google Earth views (particularly those of 1.1. 2006 date) although with some difficulty in places.

1) It is clear that there has been much interference with terrain during the industrial and post-industrial land reclamation and some of these, such as the water channel and associated footpath (lined with pink dots on Fig. 10.) clearly relate to the industrial era but the snow-filled depression appears to post-date the ridge and furrow, although this is not completely clear.

To research this further I used the 1760 estate maps and cropped the relevant sections, which can be seen in Figs. 10 and 11,

Fig. 10. shows several features of interest, the most important probably being the depiction of the mill at the Rhyd with its leat running parallel with the river from some distance upstream. Associated with the mill are other features such as a kiln which, in the context of the mill, is likely to be a grain drying kiln but this is not certain. Just above the mill there appears to be a sluice gate - which would be expected. It is interesting in the general context that the original 1760 map from which Fig. 2. has been derived shows a similar leat running from the stream outflow of the "Present Scoury" to just above the old "Surrowy Bridge". This would seem to point to a more or less forgotten mill near "Surrowy Bridge" i.e. approx. 50 metres downstream of the later Georgetown Bridge.

Fig. 11. shows some other interesting detail, in particular several tracks which I have found by walking labelled 1, 2 and 3. The map (Fig. 11.) does not show any track alongside the river except, possibly, one along the side of the leat – this could have linked track "3" to the mill. The map is not very clear on this possible route but it does show three lined tracks rising to the Bedwellty mountain to the west. I have lined these tracks with symbols. It is not possible today to follow all of these because of the total devastation of most of the area but track "1" travels through undeveloped ground and on tracks "2" and "3" some traces can be made out on the higher flanks of the mountain above the industrial water channel.

Track "1" (lined with blue dots) is possibly the most interesting as it leads from a point on the mountain wall just a short distance to the south of the gate and stile at SO 14174 07568 close to the old powder house at approx. SO 142 075 where there is, in fact, a gate. It must be said that the accuracy with which this point is portrayed on Fig. 11 makes it impossible to be certain as to which is the most likely. This and the other tracks are shown with small green crosses on Fig.10, which is a modern 1:25,000 O/S map and it would appear that it is most likely to be the track made visible by the snow in Photo. 21. in which case it is clearly wide enough for carts. As this track follows a fairly gentle descent and also passes the vicinity of the relict track at SO 14720 07382 (Photo. 7.) as it heads

directly to the mill and ford it might well have once been of importance for traffic heading to, and from Manmoel either by via Troed rhiw gwair or the other routes rising to the Manmoel ridgeway to be discussed later. What might seem to mitigate against it having been a major road is that it is not depicted as prominently as the roads crossing what would become Tredegar shown in Fig.2. but roads over open ground were not normally given any emphasis - it was their boundaries which were considered most important to delineate the properties for rental purposes and this is borne out in Fig. 2. in that the roads by-passing what would become Tredegar to the west (lined in pink) are not given any emphasis either. It might be relevant that the short stretch of road from the main Bedwellty road to the vicinity of the gate and stile at SO 14174 07568 seems to be wide (10-12 ft.) and well metalled but this could have been a later update. However, close examination on foot seems to show that the gate near the powder house was the most likely to have been the most important and this seems to be borne out by Fig. 13 which is a Google Earth image of the area between Cefn Golau pond and the site of the old mill at the Rhyd. On this I have attempted to outline the tracks shown on the 1760 map (Fig. 11). The sections coloured in pink I have walked and some more or less congruent tracks can still be found but there is no visible evidence (excepting the section at SO14720 07382 shown in Photo. 7 that they were other than footpaths of pack animal routes. The crosses still left uncoloured can only be speculation based on the 1760 map as any original tracks have been completely destroyed by landscaping.

N. B. The position of the iron footbridge At SO 14544 0753 has been ringed in orange on the Google Earth image (Fig.13,).

Track "2", lined with green crosses, also originates near the powder house and heads downhill and would appear to be recognised by the positioning of the iron plate bridge over the water channel at SO 14544 07453 (Photo. 8. and Fig. 13). Originally it appears to have continued downhill to meet the river at approx. SO 147 079, a short distance downstream from the Garibaldy bridge and opposite a route from the east (delineated in dotted orange on Fig. 15, which is still in daily use and leads directly uphill towards the road leading past the Georgetown Reservoir and to the Manmoel ridgeway, possibly by a route via Llyswedog fawr. It will be shown later in this paper that the spur road continuing uphill from Poplar Road past "The Firs" public house leading to Llyswedog fawr in earlier times crossed the stream and continued uphill to the Manmoel ridgeway road.

Track 3., lined with green circles, meets the river a short distance downstream of track 2 and to the point where, in later years, Ty Trist colliery placed a viaduct (see Fig. 15 of a 1922 25" O/S map). It is a pity that the 1760 map (Fig.11.) does not show detail to the east of the river but such a crossing could only have been to reach Llyswedog fawr or the Manmoel ridgeway unless perhaps simply to reach grazing land. Track "3" also exits onto the Bedwellty mountain at the gate at SO1432 0734 and the section of this track downhill also crosses the water

drainage feature by means of the iron plate bridge (lined with purple dots on Fig. 10) although it possibly reached this gate by means of a just discernable track rising from the vicinity of the stile at SO 14646 07453.

That modern locations should appear to fit the routes of the tracks on the 1760 map might be simply fortuitous but as opposed to today when grand development plans are created by professional planners in distant marble palaces, in earlier times the developments, to a very large extent, built on the existing properties and routes. This "respect" of old routes and property boundaries has been commented on in other volumes of Tracks but in particular in Chapter 2 of Volume 3. where, on discussing the old road from "Surrowy Bridge" uphill to the east, I remark that "... traffic along Kimberly Terrace is subject to a SLOW sign where it crosses the old route."

Fig. 12. is a section of the 1760 map of the area of present day Highlands – originally known as Llwch glas uchaf and its access to the Bedwellty mountain at Tw'n y waun, which latter feature can still be seen using a close-up Google Earth image (use date 2006 for best image) at SO 1480 0695. This feature and its route from Llwch glas uchaf has been highlighted with blue crosses on Fig. 10. and this track can also be discerned with Google Earth.

It must be remembered that in 1760 (Fig. 12) there was no road/tramway and the land ran down directly from the farm to the river. The area and its general topography, can be examined with Google Earth and it would appear that Llwch glas uchaf was actually a short distance to the north and west of present day Highlands which was built on the road/tramway. It would be interesting to look for any ruins.

It can be seen from the 1760 maps, particularly Fig. 11., that the mountain wall line was rather different to the present one to be seen in Fig. 10. being curved rather than straight. Visiting the wall the changes are visible on the ground with the base of the older wall still being present and with sections of the original wall being well built and the modified lengths very poorly constructed. Why this work was done or when is not known but judging by Fig. 1 – the Ordnance Survey surveyors drawings of 1815 – 1817 it must have happened between 1760 and 1815. This wall straightening seems to have occurred at about the same time as contouring ditches were cut around the flank of the mountain to capture run-off water. The result of these changes appear to have caused some minor deviation of the old tracks from Bryn Oer to Bedwellty Pits and Pontgwaithyrheaern.

Today the mountain exit at T'yn y waun from Llwch glas uchaf (marked with a red cross on Fig. 8) has been blocked similarly to the mountain exit marked with a green cross. Both of these exits are also shown on Fig. 10. The original function of these blocked openings is not quite clear – perhaps they were principally to allow access to the mountain by livestock as the "funnelling" of T'yn ywaun might strongly suggest or possibly for pack animals as, in both cases, the descent to

the valley is probably too steep for carts descending some 120m. (393ft.) over a distance of 500m. (1640ft.) i.e. 1 in 4 or 25%.

It is a pity that the 1760 maps do not show anything to the east of the river and there is little detail on the 1839 Bedwellty parish map but there is some on the Ordnance Survey surveyors drawings (Fig. 1.) and, with greater clarity on the 1832 O/S (Fig. 4.). This latter map shows a distinct river crossing, with the river running over the road thus confirming a ford, to the east from Llwch glas uchaf which, on reaching the eastern bank turned southwards through Troed rhiw gwair towards Manmoel and, as the crossing is only half a mile downstream of the crossing at the mill at the Rhyd it is most likely that they were directly connected as the mill would certainly have attracted traffic. Dyffryn is also shown on the 1801 drawing of the proposed tramway and road from Sirhowy to Newport (here it is spelled Dufrin) as are Llyswedog fawr and the mill at the Rhyd. Dyffryn would seem to be in the vicinity of the old quarry at approx. SO 1565 0700 – where the footpath rising to meet the Manmoel ridgeway is shown on Fig.16.

All the area to the east of the river opposite Highlands, as it is known today, and the site of Dyffryn is now buried by dumped industrial waste and lost for examination.

### 2) East of the River Sirhowy.

Troed Rhiw haidd (Fig. 1. and Photo. 12), on the eastern side of the Sirhowy river, was most likely accessed from the Rhyd and again, most likely, by routes running from Cefn Golau, and seems to have been a short distance to the north from where there existed a very distinct road rising to the south east via Troed rhiw gwair to connect to the Manmoel ridgeway route. This track via Troed rhiw gwair is clear on the 1832 map (Fig. 4. - lined in yellow) and is prominent on the modern 1:25,000 version. Llwch glas uchaf is only some 500 metres downstream of the mill at SO 151 075 at the lower end of Tredegar and accessible from the west, perhaps sharing some of the route with that taken to the mill or. possibly, retaining a crossing point of the river which was never "canalised" in this area, although there was waste tipping to created level ground on the eastern bank. Even today the river is still shallow and wide (Fig. 8.). After the mill at the Rhyd was disrupted by industrial developments such as canalising the river, and which would also have destroyed any leat from upriver which would have fed the mill, the crossing was retained or even improved by a bridge as has been discussed (Fig. 4.).

This canalising created useful flat land and got rid of waste material but it also meant that the casual river crossing was made more difficult necessitating the construction of bridges such as the "Garibaldy". Further disruption to the original Rhyd crossing also took place with the building of the Heathfield bridge in 1891 (No. 16a) which replaced any earlier one - that there was an earlier one may come as a surprise to many people. It might mean a re-think on the way in which development of this lower end of Tredegar town took place.

From the evidence found so far the existence of a viable route or routes between the Cefn Golau area, and possibly Ty Trist, and the Rhyd it would seem clear that a track existed. This might be borne out by the fact that 1884 – 1886 25" (not shown) map also shows such a link but, of course, this was in the industrial era and not proving prior existence. The route uphill to the east is highlighted with pink dots in Fig. 16.although there was another probable route via the quarry.

After crossing the river it can be seen in Fig. 1 and more clearly in the enlargement in Photo. 12, that there was a clear uphill track to the east through Troed rhiw haidd which climbed directly towards the Manmoel ridgeway road and the complex of roads to Ebbw Vale and Cwm. This area is shown on a modern 1:25,000 O/S map (Fig. 16). In this context it is also worth noting that on the modern 1:25,000 O/S (Fig. 16) a footpath is shown rising to the east from Peacehaven, joining a modern right of way and exiting onto the mountain at SO 15943 07433 - this path is lined with pink dots on Fig. 16. Its point of emergence had, until a few years ago, a very old and dilapidated five-bar gate but today the gate is gone and the Forestry Commission has fenced it off

completely. Its exit point is, however, quite distinctively marked by the two very large beech trees which were originally on each side of the gate (Photo. 14.). These trees have a circumference of 11 feet at shoulder height and must be very old. Just how old is difficulty to be precise because so much depends on how rich is the soil and the temperature (at this altitude the soil is poor and the temperature averages 3 degrees below that at sea level) but internet research suggests a minimum of 150 years and possibly, bearing in mind where they are growing, as much as 300 years. Only by either cutting one down and counting the growth rings or, less drastically, by coring can a definite date be found. It is interesting that names have been carved in the bark many years ago but I could not interpret them.

There can be no doubt about the existence of a route but the track is quite steep rising by 130 metres over a distance of approx. 1000 metres (a slope of just under 1:8) which suggests pack animals but the five-bar gate at the upper end suggests carts could have used it with light loads. I attempted to follow the path downhill from the original mountain exit but it was virtually impossible to follow the map line as the entire plantation forest is dead. The trees still standing are rotten with peeling bark and a large number have fallen in all directions making passage impossible. By following a slightly meandering route in the general direction it became apparent that others had done much the same thing and, lower down, the mountain bikers had adopted a route which essentially exited onto the road at precisely where the map showed. Incidentally, in addition to the general difficulties the heavy rain in recent times found its way off the mountain by running down any suitable path. It is easy to see why the marked footpath (in green) which emerges at the old quarry was adopted. This track is also seemingly to imposed on an old path which could have allowed a river crossing at Highlands (Llwch glas uchaf) before the extension of industrial waste tipping below Peacehaven.

This route uphill from Peacehaven - lined with pink dots on Fig. 16., on emerging from the woods at the upper, eastern, end it is faced with a fairly steep bank and the suggested route, which has a more gentle gradient, has been shown meeting the uphill road from St. James at SO 15999 07565 but, as can also be seen from the map (Fig. 16.), two drainage channels feeding the Georgetown reservoir are cut across the route and the area is greatly disturbed making it difficult to be certain.

While, as can be seen in Fig. 16, the distance from either the old mill crossing or from that at Highlands (Llwch glas uchaf) to the Manmoel ridgeway road and, in particular the complex of road branches just north of the Domen which would have been a very desirable objective, are only 1.3 kilometres (well short of 1 mile) it would seem obvious that this connection was made. However there are difficulties in tracing any early routes as there has been a great deal of activity over the many years, particularly the covering of large areas of the mountainside with channels to collect water and direct it to reservoirs, access roads for

quarrying and, in more recent times, the intensive planting and felling of commercial forestry. This latter activity frequently destroyed earlier features and imposed roads to aid planting and timber extraction. This all means that each potential route must be examined carefully on foot but by so doing there are tracks which can be found which have a relationship with stone field boundary walls which can be removed but are seldom rebuilt since barbed wire came into normal use.

It must also be noted that on both the modern map (Fig. 3) and the 1832 map (Fig. 4) the Manmoel ridgeway road is shown as being remarkably straight. This had led me, in the past, to speculate that it might have had Roman origins but the Ordnance Survey surveyors drawings of 1813 to 1817 (Fig. 1.) shows otherwise. In addition to showing the side roads to Cwm and Ebbw Vale more prominently. particularly in the area to the north of the Domen i.e. at about SO 162 075, - it also shows the main road from the north to be much more winding and twisting. This suggests that the road was subjected to upgrading by local authorities between 1817 and 1829 (final update for the first published Ordnance Survey edition). The present road is wide enough for two-way traffic and is well-graded and contoured and this upgrading partially explained the problem I encountered when attempting to impose a national grid on this map. To produce such a grid I had to find features common to both the old and the present-day maps and I had difficulty in getting a good fit in this area. Eventually I used the nearby old farm of Ton-y-fedw which, fortuitously, lies exactly on the Ordnance Survey Northing line of 07, as a locating point and this gave satisfactory results. Knowing the mountain well, I was aware of an old abandoned track cutting across the western flank of the Domen. The present road takes a wider sweep to the west, presumably to maintain a better gradient and to allow for a wider road here but the old track is still to be found running across the flank from SO 16238 07468 to approx. SO164 070 where it merges with the present road. This relict section can be seen in Photos. 9, 10, 11 and 12. This feature can be seen clearly with Google Earth and examined in some detail but on the rest of the road to the north the early one is now buried beneath the present.

#### Notes on the St. James area.

Some further notes on the St. James area should be made. Although neither the O/S surveyors drawings of 1815-1817 nor the 1832 1" published map show an actual path east of the river to meet the Manmoel ridgeway road they do show one originating on the opposite bank of the river from Stable Lane and continuing uphill on the alignment of today's Poplar Road to Llyswedog fawr. This, I believe, offers more than mets the eye. Of Llyswedog fawr Powell says "A great antiquity is claimed for this ancient farmhouse, being at one time a most important building in which meetings for transactions of all parochial affairs were held and previously the affairs of the Hundred were transacted here." (Powell. Ref. 3.).

Llyswedog fawr is shown on the Ordnance Survey surveyors drawings of 1817 (Fig. 1.) but most clearly on the first published O/S map of 1832 (last revision 1829) (Fig. 4.). On this map what is today Poplar Road rises up past the later church of St. James and divides at the hairpin bend with the main road turning southwards to Llyswedog isaf and either continuing south to Troed y gwair and Manmoel or crossing the river either at the mill and ford at the Rhyd or at Llwch glas uchaf. The lesser road continues uphill from the hairpin bend past "The Firs" public house to Llyswedog fawr. This road pattern is clearly to be seen in the 1877 25 inch to the mile map (Fig.14). On this map the lower end of Rhyd Terrace past the later Windsor Villa and Tredegar Villa (SO 1500 0786) has not yet been built but the old road continues southwards towards Troed rhiw gwair. On the 1877 map a short distance from SO 1500 0786 a side road diverges and loops uphill northwards past the Union Workhouse (1849) and subsequently turns uphill past the then new Georgetown reservoir (1865) continuing onwards to meet the Manmoel ridgeway road.

It can be seen that this road was wide and it is likely that the wide loop curving uphill past the present "Rhyd Hall" was intended to reduce the gradient for laden carts. The loop has been indicated on Fig. 16, a modern map, as a line of red dots. Present-day Rhyd Terrace was not yet constructed but after the uphill road branched off it continued southwards downhill by the road still called The Rhyd to Troed rhiw gwair – as it still does.

By 1920 (Fig. 13) the workhouse had been expanded and the wide looping road was cut off by the building of Maes y Dderwen and replaced by a link road via Whitworth Terrace. The 1972 1" O/S (not included) shows the workhouse replaced by a hospital (in 1948) and the roads essentially as found today. The 2002 1:25,000 O/S (Fig. 14) shows that the road through what became St. James Park housing estate has been substantially modified.

But, to return to Llyswedog fawr and the short road leading to it from the hairpin bend – effectively a continuation of Poplar road. There is quite convincing evidence derived by examination on foot, by Google Earth images and, most particularly, by the evidence of the 1877 25" map (Fig. 14.) that a path continued past Llyswedog fawr by crossing the stream and passing around the stone wall to meet the present Manmoel road at SO 1540 0804 at a stile. I have highlighted the route with green dots on Fig. 14 and have also shown the route, in the same way, on a recent 1:25,000 O/S map (Fig. 16).

This would strongly suggest that the earliest route, crossed the Sirhowy somewhere between the bottom end of Stable Lane and the lower end of what became Poplar Road (at approx SO 1455 0830), just a short way downstream of the present road bridge and continued to either Llyswedog fawr and up to the Manmoel ridgeway or turned southwards to Llyswedog isaf, as has been discussed. It is also most probable that traffic from the west via the old "Surrowy Bridge" would also have used this route past Llyswedog fawr. The present road arrangements must have taken place in the early part of the 19<sup>th</sup>. century perhaps first to facilitate the building of the Union Workhouse (1849) and later, the new Georgetown reservoir (1865). Other development in the area, including the extension of the Rhyd Terrace, were taking place at this time and can be seen on the 1920 25" O/S map (Fig. 15)

If this were the case it would follow that there was a uphill road towards the Manmoel ridgeway from the earliest times but whether or not it was of the quality of later one is unknown. It is also possible, and there is some evidence to support this. That there was also a uphill path, of unknown quality, running directly uphill from the vicinity of the Garibaldy Bridge and following the steep path, with steps in places, still in daily use today, as is shown on Fig. 15. This would have passed the northern side of the old workhouse and continued uphill much as it does today. There are indications of such a path to be seen passing the quarry on Fig. 14 (1877 25" O/S). The present road uphill from St. James Park to the Manmoel ridgeway, which is now in a greatly deteriorated condition, was about 12 ft. wide but is difficult to date as it is constructed in the time honoured way used by the Romans and, later, by Thomas Telford, of using a foundation of substantial stones covered with a layer of about 6 inches of smaller stone of 1.5 to 2 inches, all well rammed down to provide a running surface. Before the introduction of pneumatic tyres such roads worked well with iron rims simply consolidating them further, as long as rutting was repaired regularly. Such roads were either given a camber each way from the centre or a gentle slope to one side with water run-off taken away by drainage trenches and culverts. Such roads could date from the 19<sup>th</sup>. century or for hundreds of years earlier if proper maintenance of drainage and surface dressing was carried out.

It is worth mentioning that this method of road construction was quite expensive and was often replaced with a cheaper method promoted by John Mc. Adam which did not use heavy base stones but simple a thicker layer of the smaller ones – N. B. NOT tarmacadam which was not widely adopted until around 1906 as a result of a RAC commission study necessitated by the destructive effects of the pneumatic tyre which could destroy un-bonded roads in very short time, particularly in wet weather.

The road uphill to join the Manmoel ridgeway originally had substantial gutters and culverts which were constructed in the usual way with two stone walls and transverse slabs of stone. One of these at SO 1590 0795, some 100 yards below the mountain gate, had clearly collapsed at some time and repaired with iron troughs some 42 inches long, one inch thick and about two foot wide. This suggests a later repair when the road might have been carrying heavier traffic than the original stone slabs were able to handle, although there are other original culverts still intact. This suggests that the road was carrying heavy traffic in industrial times. Today the road is largely in a ruinous state but small areas can be found which show how it must have been when it was properly maintained.

There is clearly a great deal we do not know about trade and industry in this area in the early 19<sup>th</sup>. century but it is important to remember that volumes of goods moved was much smaller (but rapidly growing), the population of this upland area was small and the normal means of moving goods was by pack-animal. Pack animals did not need roads and their usual routes were as nearly directly from A to B as possible. Only the most treacherous terrain was avoided but a foot, or more, of water was no problem provided the current was not too strong and the river bed was sound underfoot. Our present concept of travelling many miles by the circuitous routes often necessary for motor vehicles would have been strange to our forefathers.

It is clear that some areas of uncertainty remain and I will add a plea, which I have previously made, if anyone has any information which could help to clarify things I would be very grateful to receive it. In this way perhaps, at a later time, an improved and more detailed picture could be produced.

#### Conclusions.

I said in the introduction that, on close examination, the area proved to be far more interesting than I first thought it would be. This was because, while no single startling new finding was made, it has shown there is a great deal of interest and this must mean that a similar close examination of other areas along the northern outcrop of the coal basin would prove to be equally revealing.

What is clear is that even small historical details and references can still reveal insights particularly when done in conjunction with detailed examination on foot. I say "on foot" and, while this is still necessary for studying detail, it has been found that Google Earth is a remarkable aid. Before this was available I used as far as I could, being restricted to me by availability and cost, aerial photographs but these only gave a view from an altitude and did not allow the close inspection possible with Google - and it is free.

Taken together with the 1950 RAF reconnaissance photos of some areas, again available via Google Earth by simply going back on the time slider, for some areas including Rhymney and Pontlottyn, although unfortunately not Tredegar, one can gain a remarkable insight into the development of the area since the last war. In particular the Rhymney and Pontlottyn areas show an explosive expansion of housing and industrial development, together with great changes in the transport networks, which has obliterated any previous features. I have used a section of the 1950 RAF photographs in Fig. 6. which gives some idea of its value.

The old routes discussed in this paper emphasise the great reliance once placed on pack animals for transport in this then undeveloped area and the propensity for such transport to take the shortest and most direct route possible. Such animals were able to ascend and descend slopes far too steep for wheeled transport and needed no more than firm ground under foot and were easily able to ford rivers, except perhaps when they were in flood, as long as a firm footing could be found. When trade expanded greatly in volume from the end of the 18<sup>th</sup>. century and the beginning of the 19<sup>th</sup>., carts and with them new or updated roads, gradually started to carry ever increasing volumes of goods and, eventually, they were not enough and at the beginning of the 19<sup>th</sup>. century tramways and railroads became necessary. There were old roads to be found, particularly in this area along the ridgeways between the valleys, and in the early 19<sup>th</sup>. century these were upgraded, for example, as I have described for the Manmoel ridgeway.

How old the "old routes" are is an interesting point as in prehistoric times it was likely that most of the land was free to roam and the only considerations would have been to find he best way through the landscape to avoid natural hazards such as cliffs, bogs, rivers, hostile humans etc, and over time, satisfactory routes

were found. It is probable that these became accepted and established and, even when land became enclosed, most of these routes became time honoured. With the great changes wrought by industrialisation some of these old routes retained their validity but many were lost. The existence of several routes which may have served different purposes at different times in history has made it impossible to be too definitive and I am conscious of uncertainties but I hope what I have done in this paper is of interest and if it stimulates others to perhaps redefine them then in a real sense this paper will have served a useful function.

I have found when looking for possible old routes that it is worth while to stand and look at where one would like to go if leading a string of pack animals and (with the aid of maps and, today, Google Earth) try to walk it. Sometimes this will prove to be impossible, as in the case of large-scale industrial development, but often significant traces of the old routes can be found as "ghosts"— sometimes masquerading as new ones. It is also true that landowners were very quick to block a route not in continuous use and, even today, may attempt to prevent, or make difficult, the use of rights of way. Every rambler will have experienced this.

Having extolled the value of Google Earth I would also suggest that anyone interested in understanding the area carries a small camera – they are cheap today and running costs with a digital are next to nothing. The value of having one has, I hope, been made clear with the photograph of the western flank of Bedwellty mountain in the snow (Photo. 21.) which, together with the 1760 maps and modern maps, led to a good insight into some of the very oldest routes. Photo. 21. also allowed some further insight into the "Turnip field" which sometimes crops up in conversation (See section C.).

It is important to remember that the area discussed in this document is just a small example of the changes with time which have taken place over the much wider area. In other papers I have carried out similar research over to area between roughly Glyn Neath to the river Wye beyond the Black Mountains and north well beyond Brecon. These papers are all lodged in Tredegar library as well in other archives.

I would like to end with a plea. Anyone who has any information please write it down and thus make it available for the future. As an example of the value of this I recently used the notebooks of the Rev. Thomas Henry Payne, which he wrote up in his "Parochial Notes" for his parish of Tretower in 1806, when I was writing a paper on the north of the River Usk (Ref. 12.). In this he made various observations of the area with drawings, including a plan of the Roman fort at Pen y gaer as was still to be seen at his time, which were of the greatest value to my researches in the area. He showed, for example, that the reason why the Roman fort at Pen y gaer has so few remains today was because the farmers were busily extracting the stone for building and the hard core of the Roman road for re-use for their farm tracks. He also recorded that local frugal housewives washed out the funerary urns for reuse about the house. All this he did with his

pen or pencil each evening by the light of a lamp or candle and now, today, I could bring it up on screen over 200 years later. One cannot often find treasures like this but if information is not recorded in the first place it is lost for ever.

Fig. 18. is a Google Earth photograph of the area between Cefn Golau and the Manmoel ridgeway road with some of the main reference points labelled. On this most of the features discussed in this paper can be seen in relation to each other.

# Appendix 1.

## The reservoirs above Georgetown.

While the background to the history of these reservoirs is not directly related to the main purpose of this paper - to show the early transport links from Pontlottyn in the Rhymney valley to the Manmoel ridgeway - but is nevertheless of considerable interest to the early history of the Tredegar area, I decided to discuss them in some detail as an appendix. To fully explain the relationship of the early industrial development and the water resources really aught to be the subject of a much more extensive research paper. It has proved more difficult than I expected because, despite the confident assertions of many, the history of these reservoirs, both that presently known as St James but previously as Georgetown and that of Scotch Peter's, has proved difficult to determine. There are still uncertainties, such as the date of construction of the latter, which I have been unable to ascertain despite contacting Dwr Cymru, CADW, GGAT and Local Authorities. However I have found some information of value and, as the reservoirs per se are not the main subject of this paper, I have decided to admit to this less than satisfactory state of affairs and leave further work for another day.

The situation generally is somewhat confused because the reservoir, which today is a leisure facility, and known as St James Reservoir, was originally called the Georgetown Reservoir, as shown in Figs. 14 (1877 25" O/S) and 15, (1920 25" O/S). The smaller reservoir more recently called the Georgetown Reservoir at SO 150 086 (now drained) above the upper end of Fields Road was for domestic water supply. The other once-important reservoir in the area was Scotch Peter's which is also now drained.

Trying to sort out the origin and purpose of these two reservoirs – particularly that presently known as St James, has been frustrating in that everyone I spoke to had, if they had thought about it at all, either the vaguest of ideas or none. What I wanted to know was - when was the present St. James Reservoir built?

It is not shown on the 1839 Bedwellty Parish map nor on the Harford, Davies and co. map of 1842 but is on the 1877 25" O/S map (Fig. 16). However, on a close reading of Powell's "History of Tredegar (Ref. 3) he discusses, in Chapter 7, the building of Vale Terrace and Troed rhiw gwair in 1863 and, in the same paragraph, writes that the reservoir was in the course of construction and was completed in 1865. This seems to be a quite definite date as later, in Chapter II in the second part of the volume, it records the opening of Shon Sheffery in 1894 so there is no likelihood of any confusion.

It would seem to follow from this that the smaller reservoir and filter beds at the upper end of Fields Road (approx. SO 150 086, now breached) must have been supplied from here. Examination of the terrain between the two immediately showed the presence of a cast iron pipe some 12" in diameter (in 10 foot lengths) running between the present St James reservoir and crossing the paved ford at SO 152 085. This cast iron pipe has been partly scavenged today by thieves for scrap metal but can be seen in several places such as is shown in Photo. 15 (SO 15330 08362). The ford is shown together with access points, in Photo. 16 and in Photo. 17 (SO 15347 08549), where it can also be seen to be joined by a 6" diameter iron pipe from uphill, almost certainly from Scotch Peter's reservoir. A little further north, at approx. SO 153 085, (Photo. 18) another inspection manhole is to be seen but after here I failed to find the pipe, however in the context of Powell's description, that the reservoir was intended to supply clean domestic water, it would seem almost certain that it descended from here to the small reservoir above Fields Road. It might be noted that the pipeline gradient from here to the Georgetown reservoir was very low and this factor might account for the large diameter pipe with simple socketed joints. The pipeline has been highlighted in broken red on Fig. 17.

Scotch Peter's Reservoir was at a much higher altitude of approx. 400 m. (the contours have been enhanced on Fig. 17) but a close inspection of the site shows that it was most unlikely to have served the Ebbw valley directly except via a circuitous route northwards taking into consideration the profile of the land. However it seemed certain that at least some of the water was directed downhill to the west as during my close inspection of the area a section of 9" pipe with bolted joints seemingly designed to withstand pressure, was found at SO 15245 08718 downhill of Scotch Peter's on the Tredegar side (Photo.19) - marked with a letter "B" on Fig.17.

Fig. 17 gives general view of the whole area under discussion with the networks of water collecting channels for both reservoirs on the west flank of Mynydd Manmoel in Fig. 17 where those for Scotch Peters have been enhanced in blue and those for St. James in purple. It should be noted that the channel marked "A" is not a water channel but the O/S rendition of a section of the ancient long distance feature which has been shown to have run from the Clydach Gorge to the Dare valley (Ref. 11).

However, the enhanced contours drew attention to the possibility that water could have been taken northwards and eastwards via a circuitous route which could have used a narrowly defined path. Indeed the present-day 1:25,000 O/S map shows a blue water channel following such a route, enhanced in mauve on Fig. 17.. Although the area immediately downhill of the dam is a wilderness of plantation forest and secondary growth and is virtually impenetrable, two water channels are also shown on the modern map and, in much more detail, on the 1877 and 1920 25 inch to the mile maps. Two water-courses emerge from the reservoir – one on the northern side and the other from low down at the centre of

the dam. Both streams join and are shown crossing the Georgetown to Ebbw Vale road. Visiting the position indicated by the maps such a crossing point, now abandoned, could be seen at SO 15191 08750 (Photo. 20).

Returning to the earlier 25" maps it was obvious that this leat (lined in mauve on Fig. 17) fed directly into a large reservoir (numbered 256) which in turn fed two smaller reservoirs further down the flank of the mountain to the west (Numbers 264 and 265). It seemed that the water-course continued via the low ground over the mountain to the north past Mountain Air and further down its flank to Mountain Air gate. These reservoirs have been added to Fig. 17. and can also be seen in Fig. 3 (1947 1" O/S).

The water seen on the maps as issuing from the lower side of the reservoir dam clearly could not have been a leak, that would not be tolerated, particularly in a mass dam, and must have been a controlled supply but no trace can be found today.

It is clear that the bulk of the water was used for Ebbw Vale Steel, Iron and Coal Co. enterprises, perhaps the Sirhowy works or the several balance pits along the valley where the present St. James Way runs and this could be fruitful field for further research.

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