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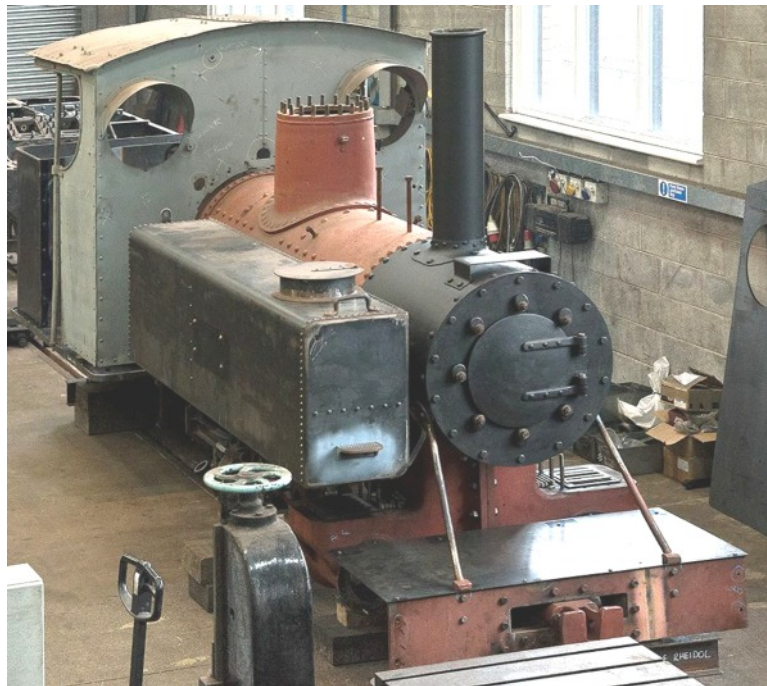
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A Reflection on our Times

Nick Booker - Chairman



Baldwin 10-12-D no. 794 under restoration at the Vale of Rheidol Railway. When complete, the locomotive will represent the original WHR Baldwin no. 590 - John R Jones.

At the time of writing, I am wondering where and how 'it' will all end. The impact of Coronavirus and the resulting 'lockdown' has had a tremendous impact on the economy and social activities at all levels. The Ffestiniog & Welsh Highland Railways and the Welsh Highland Heritage Railway are closed and essentially existing at a care and maintenance level. Just at the time, when in a normal year, visitors would be starting to flock to North Wales to enjoy the delights of Snowdonia and spend their money, hopefully some of it on 'our' railways and heritage, they are nowhere to be seen, with consequential and significant impacts on the revenues of both railways and of course the wider tourist and general economy. It is too early to judge what the long-term consequences of the current shutdown will have on the future of the F&WHR and the WHHR. However, it is safe to say that 'life will not be the same' for a long time, even if the lockdown/social distancing measures are lifted 'tomorrow', whenever that might be.

We do not know, for example, how the public will respond in a 'post virus' environment to visiting museums, heritage sites, travelling on public transport etc and, indeed, what rules will be imposed by the 'authorities'. I will comment in more detail on this key aspect later in the article. However, would you be happy to sit in a theatre shoulder to shoulder with an unknown other member of the public, wander round a crowded museum or travel in a packed Welsh Highland train up the Aberglaslyn Pass? These are just some of the issues facing not just our favourite heritage railways.

The WHR Heritage Group's response to the immediate problems facing those we support has been to respond, as I'm sure some or all of you have done, to the appeals for financial support from both the F&WHR and the WHHR. As the Heritage Group is unlikely to be doing anything with the Glan yr Afon weigh bridge project this year or indeed any other projects on the WHR, the Committee took the decision to give a substantial proportion of the weigh bridge project budget instead to the F&WHR Covid-19

appeal. While the Company may get some help from the various Government Covid-19 schemes, it seems clear that the F&WHR will need substantial donations to help make up for the loss of revenue from the trains, cafes and retail activities that would otherwise be coming on stream about now in any normal year.

We have followed our support for the F&WHR with a substantial donation to the WHHR's Resilience Fund Appeal. In words that equally apply to the F&WHR, Graham Farr, the WHHR's chairman has said "...we may be able to reduce some of our ongoing financial overheads, but we cannot completely stop the bills coming in, or urgent maintenance tasks emerging...financial reserves are not limitless... it is not difficult to imagine more dramatic scenarios."

So far as the Heritage Group itself is concerned, and in view of the circumstances described above, your Committee has taken the decision to cancel the Annual General Meeting at Waunfawr and the *Journey into the Past* special train for members planned for Saturday 8th August and announced in the March edition of *WHH*. However, with this edition of *WHH* you should find the Accounts for 2019 enclosed. The railway's *Journey into the Past* trains for this year and which the Heritage Group has hosted and sponsored for the last two years have been cancelled but will, we hope, be reinstated in 2021.

On a more optimistic note, the Heritage Group made its planned donation to the restoration of the Baldwin 794 as the WHR's 590. Built for the Great War along with many similar machines, after the conflict 794 was sold and exported to India. There it worked on a sugar plantation, carrying the name *Tiger*. Returned from India in about 1985 and now owned by The Imperial War Museum, 794 is on long term loan to the WHHR on the understanding that it is restored to working order. The locomotive will operate under the pseudonym 590, being almost identical to the original WHR locomotive.

The Group's total donation includes £500 sent by the descendants of K F Antia, the Indian engineering graduate who wrote a treatise on the WHR following a visit in 1924. The donation will fund the purchase of boiler fittings, including the whistle and a Westinghouse pump regulator. It is rather appropriate that the donation will facilitate the restoration of a locomotive that once ran in India, quite apart from being built in the USA and operating in France and ultimately in Wales. 794/590 is currently in the workshops of the Vale of Rheidol Railway.

At Tryfan Junction, the exterior of the station building has required a fresh coat of paint, with the doors especially needing attention. The F&WHR Company did not have the resources in manpower or finance to do it and the WHR Society therefore organised a contractor to undertake the work and the Heritage Group has funded the cost of the paint. The Society's contribution was funded partly by money raised in memory of the late John Wood (Woody) who was Hon. Stationmaster in recent years.

There is some further work to be done on repairs to the rendering on the building as well as repairs to the interior

window sill, which is required following the ingress of water through the failed render. The Heritage Group will be helping to fund this work in collaboration with the Society and I extend our thanks to Dafydd Thomas, the Society's chairman and his team for taking charge of this work.

As many members will be aware the graves of Charles Easton Spooner, engineer to the NWNCR, and his wife lie in St Mary's Church, Beddgelert along with a separate grave for their maid Elizabeth Preece. The Spooner graves were the subject of a tidying up exercise some 20 years ago by the late John Keylock, Dick Lystor and others and the Preece grave by Peter Jarvis. Early last year Dick Lystor was approached by Val Blake, the widow of Francis Blake, and asked if the WHRHG might once again do some restoration work, i.e. weed removal and painting, as part of a project to bring visitors into the church and its grounds. Val is a trustee of the Church's Friends and her late husband was very much involved in WHR activities. Your Committee took the decision that a volunteer run project to spruce up the graves was not practicable and has recently appointed a contractor to undertake the work. Quite when the work will commence is, of course, in the lap of the gods.

From		No. of Packages	Name of Goods	WEIGHT	Rate	AMOUNT	TOTAL
Dyngwyn		3	Slabs Ex Moel Tryfan Quarry	1 10	3/6	5 5	

Station. SEPT 22 1914 79

To The North Wales Narrow Gauge Railways Company.

SEPT 22 1914

SEPT 22 1914

The Carriage must be paid on delivery, unless the Consignor has a Ledger Account with the Company.

The Group's Archivist, Dick Lystor, continues to scan the web on the look out for NWNCR/WHR material and a piece of ephemera he spotted recently and bought on our behalf is an NWNCR payment receipt regarding slate from Moel Tryfan Quarry – see picture above. Tyddyn Alice appears to have been a farm or small holding in the parish of Llanfaglan, in Gwynedd. It is in the modern community of Bontnewydd. One assumes Mr Jones collected the slabs from Dinas, probably with a horse and cart. The Great War was a month old at the time and the NWNCR company was in gradual decline. According to today's maps, 'Tyddyn Alice' lies 0.58 miles from the Hendy level crossing on a heading of 261 degrees therefrom. This puts it 0.55 miles due north of the cross-roads that mark the centre of Llanfaglan. A 'tyddyn' is a small-holding.

Our photographic collection continues to expand and at the end of last year, we bought a photograph of Dinas taken by a Mr J.J. Davis on the 9th of July 1954 (see page 3).

Finally, I return to the crisis facing not only Porthmadog's narrow gauge railways but all heritage railways, museums, cultural organizations and attractions. I have been following market research into visitor attractions by the North American consultants, Colleen Dilenschneider. While this is US research it certainly gives some insight



Dinas Junction, 1954 (Arch 4990) - J.J. Davis

into potential behaviours once things start being eased here in the UK. The fortnightly research sample covers around 2,000 adults each time. I have précised and paraphrased their words and removed some of the American idioms. For those who want the detail see www.colleendilen.com

In mid April this year, they carried out research into the question ‘Which cultural entities will people return to after reopening?’ The answer in brief is that ‘Near term demand to revisit cultural organizations e.g. museums, heritage sites etc., is being redistributed toward some kinds of organizations and away from others when they reopen’.

Research shows that people currently expect to start returning to their more usual attendance patterns within three months, with a full return to “normalcy” within six months. People may anticipate returning fully to their normal cultural / heritage engagement behaviours within three months, but they may not be as likely to visit the same specific types of organizations (at least not in the immediate near term). In other words, the near-term demand for onsite cultural engagement is being redistributed away from some organization types and towards others.

The results suggest that demand will strengthen in favour of organizations that allow less constricted visitor movement patterns as opposed to more close quartered experiences. These findings suggest that whether or not the UK Government enforces social distancing rules, visitors will be wary of going to places such as concerts, theatres, (and trains perhaps?) etc but will be more comfortable in spacious outdoor environments.

Colleen Dilenschneider’s most recent research in April has resonance with our railways as it suggests that members and subscribers should be particularly important target audiences upon reopening. Reopening doors without a clear and efficient (but flexible) audience engagement strategy will risk even more lost revenue. “Let’s open the doors and see what happens” will lead to losing opportunities for a successful recovery. It is imperative that there is plan for making strategic engagement decisions and it will be especially true for those organizations imposing entrance limits in order to promote social distancing onsite. Heritage railways come to mind.

Also, there is a key group of constituents who may be especially important for recovery, i.e. members and

subscribers. While some of this may be obvious, the headlines in the research indicate that:

1. Members and subscribers are a cultural organization’s greatest potential advocates. Their onsite satisfaction and perceptions about the institutions to which they belong differ from those of general visitors. They are better.
2. Lapsed members and subscribers who intend to renew when they next visit, or, at least some of them. Encouraging their membership renewal may be synonymous with encouraging attendance.
3. Members/subscribers are particularly valuable from a revenue standpoint, and that is critical right now.

Why all the fuss about members? Because not only are they advocates, but they contribute critical monetary support as well. After being closed for weeks – if not months – cultural institutions may (my words – ‘probably will’) find themselves in “survival mode” and aiming to figure out how to sustain themselves in this new environment with significant lost revenues due to closures.

Research over 10 years and covering 18 cultural organizations that had paid admission as well as a membership fee, including museums, zoos, aquariums, and botanic gardens, among others, found that a member of an exhibit-based institution had a 4.5x greater monetary value to the cultural organization than a visitor.

4. As organizations devise strategies to rebuild and maximize revenues, these champions may be a particularly important asset. But just because they are members doesn’t mean they will visit even during a non-pandemic time period. They may need to be reminded of the organization’s important work and the value of their support.

During this time, it may help to think of members and subscribers – and particularly those who are mission motivated – as advocates and supporters. Becoming a member is the top way that people believe they can support an organization’s mission – even more than donating.

As the author of the Colleen Dilenschneider blog says in discussing the importance of these audiences, “When you’re in trouble, you turn to your friends.”

Members and subscribers or not, the people who believe you matter, matter to you.

This last paragraph conveniently segues into the appeals from both railways:

Link to the WHHR’s Resilience fund Appeal here:

<https://www.whr.co.uk/timetable-2020/>

Link to the F&WHR’s appeal here:

https://www.festrail.co.uk/news_and_events_item/covid-19-appeal/

I hope that when the next issue of this Journal is prepared, our railways will be open and operating!

Operating the Bryngwyn Branch

The original North Wales Narrow Gauge Railways proposals suggested eight 'railways'. Had these all been built, narrow-gauge rails would have run from Portmadoc to Corwen via Bettws-y-coed (Railways 1 to 5) and from Dinas to Bryngwyn and Rhyd-ddu (Railways 6 and 7). Railway 8 was to have been a link between Pwllheli and Porthdinllaen.

In the event, Parliament rejected the proposals for Railways 2, 3, 4, 5 and 8, so only two formal proposals were pursued - the General Undertaking (Railway 1) and the Moel Tryfan Undertaking (Railways 6 and 7). Of these, only the Moel Tryfan Undertaking was built, comprising a main line of 4½ miles from Dinas to Bryngwyn (Railway 6) topped by an inclined plane reaching up to the quarries on Moel Tryfan, and a branch running up the Gwyrfa Valley, from a junction 2 miles from Dinas, for just over 7 miles to reach Rhyd-ddu on the pass west of the summit of Snowdon (Railway 7). It later became the practice that the longer trip up the valley was operated as the main line and the shorter route up to the quarries was treated as the branch. It is this convention to which I shall adhere.

There is an excellent book on The Bryngwyn Branch by Dave Southern and John Keylock, published in 2014 and is available as advertised elsewhere in this publication. Sections of the book deal with the physical character of the branch, the operation of the services, focus on the reminiscences of Goronwy Roberts who drove the line in WHR times and reviews of surviving paperwork, much of which again refers to WHR days.

As you may have noticed from my previous articles I am more interested in earlier days and particularly in the people involved and what they did. To me the most fascinating section in the book was the memoir written in about 1940 by John Hughes, an early employee of the company whose memories are also recorded in *WHH 79*. Before I turn to that, however, a little overview is called for.

The branch, which was the economic lifeline of the railway, was initially staffed by a Stationmaster at Bryngwyn and, it is believed, a part time stationmaster at Rhostryfan who, as it happens, was also a cobbler. Trains on the branch were fully staffed with Driver, Fireman and Guard. At Tryfan Junction, where the branch left the main line, there might initially have been another stationmaster.

Fairly quickly Tryfan Junction, in an area of little habitation, became unmanned and the train crew probably operated the signals and points, the part timer at Rhostryfan was dispensed with, leaving the branch guard,

Dave Rogerson has been taking another look at the working arrangements in place over the operating life of the Bryngwyn Branch

Owen B Thomas, to cover the roles of Stationmaster at Rhostryfan and Tryfan Junction. It is reported that he used a wheeled trolley to come down the line ahead of the train collecting fares, giving local lads a ride and to look after his collection of caged birds in the signal box at the junction. Owen's permanent colleague for about the

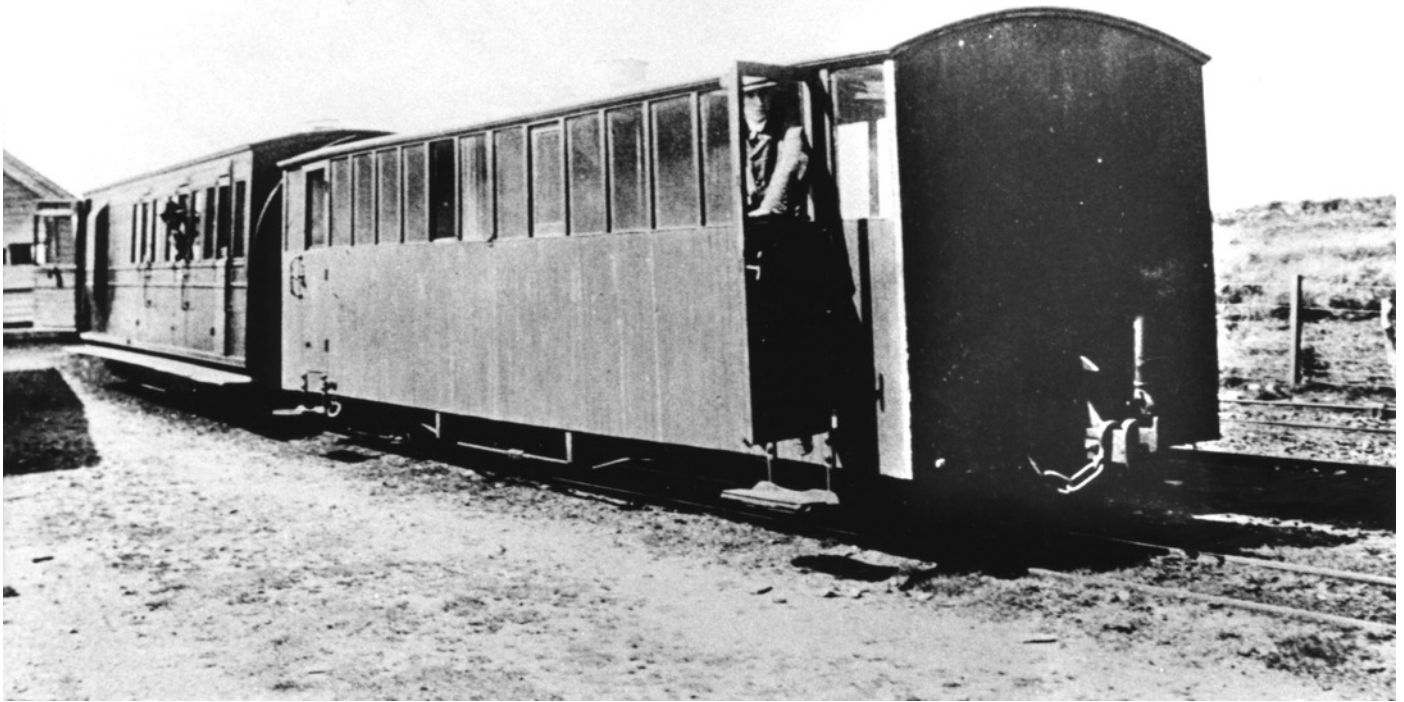
20 years up to 1900 was the Bryngwyn stationmaster Robert Hughes who also had the inclined plane up to the quarries around Moel Tryfan under his supervision. The driver and fireman worked to a rota but there are hints that Hugh Williams and his son Willie Hugh Williams might have dominated this run.

Things changed dramatically around 1900 when Owen Thomas left the railway to farm near Deiniolen. Shortly afterwards Robert Hughes was tragically killed when he caught his foot in some pointwork at the head of the incline and a truck smashed into his leg. The pattern, however, continued as before with the man currently known to us only as W. Hughes fully occupied at Bryngwyn and Dafydd Lloyd Hughes looking after everything else on the branch. They might have had a little support at Tryfan Junction for a time from John Limerick, the son of one of the platelayers, but he was not paid much so his help was slight.

Sometime before 1911, W. Hughes left and it appears that Dafydd Lloyd Hughes took on all the roles pertinent to the branch although the role of guard was reinstated. Richard Jones is mentioned as fulfilling this role at one point.

Thus, for pretty much the whole time for which the NWNGR operated, a 4½-mile railway and ½-mile inclined plane, carrying the entire output of two major quarries, Alexandra and Moel Tryfan, and two smaller, Braich and Fron, were handled by a team of two branch men, a driver and a fireman. At the same time they dealt with stores, coals and gunpowder going up to the quarries, parcels and other goods to and from Rhostryfan, Rhosgadfan, Y Fron and Carmel villages and a smattering of passengers. They probably had assistance at the top of the incline from quarry operatives and particularly from Richard Cunnah who, with his loco *Kathleen*, for many years brought the slate down from Alexandria Quarry and almost certainly often shunted the top of the incline.

One cable-worked incline on a British standard-gauge line which survived until 1929 was at Battersby in North Yorkshire and this mile-long operation took six men plus two loco crews to operate effectively. Two men attached wagons at the bottom, two took them off at the top and two operated the drums which controlled the descent whilst the loco shunted wagons around as needed.



“it is made up of two carriages – part of one is first class” - John Hughes

Photographs of passenger stock at Bryngwyn are rare indeed. Not much appears to have changed between John’s ‘imaginings’ and World War 1, as this picture from 1916 shows. The two carriages are a Pickering Brake (in Tanners’ day the equivalent would have been an Ashbury Brake Composite - however Hughes indicates a separate ‘guards van’, suggesting that the ‘one carriage’ more likely was Ashbury ‘Corridor’ No. 10) part of each was indeed first class. The other carriage seen here was the ‘Workmans’ (NWNGR No. 7) - (Arch 3501)

Boyd in his book *Narrow Gauge Railways in South Caernarvonshire* (Vol 1 p.203, 1988 edition) has a diagram which indicates that one side of the incline was always going up whilst the other is coming down. In fact, the way these inclined planes worked was that there were effectively two ropes wound in opposing directions over a drum. Hence as one rope paid out from the drum the other was wound in. The essential fact that allowed them to work was that there was more weight going down than was coming up on every journey so the full slate wagons and empty goods attached to one rope at the top overcame both the drag of the lighter empties and full goods coming up on the other rope and the other resistances to motion such as friction. For the next journey the roles of the ropes were reversed. The only theoretical problem was that there might be too much weight going down causing the ropes to accelerate to too high a speed and so the drum operator’s major job was to apply a brake to prevent this happening. Experience would have informed this balancing act making sure that the incline worked with minimum braking even when heavy coal wagons going up had to be counterbalanced by more weight coming down. The other consideration would be the balance on a particular day between what had to come down and what needed to go up and sometimes, when there was little to come down they might have to have slow journeys which just managed to overcome resistance; on other days with little to go up

they might have to operate near to the limit of braking power and risk runaways.

Turning then to John Hughes account of the days when Mr Tanner was manager (1890-98). One must imagine a train driven by Hugh Williams and stoked by his son Willie Hugh Williams entering the branch at Tryfan Junction. John Hughes describes such a train “it is made up of two carriages – part of one is first class, then a covered van carrying flour and goods, followed by a large coal carrying wagon and sixteen empty slate wagons and finally a guards’ van”.

WHH 86 gives a hint as to how it was guarded. On page 5 the story of the ponies running away down the line because Owen Thomas was following them on his trolley is recounted. It struck me that it was odd that he was leaving the branch to go to Dinas but then I realised that it was early morning and he was going from his home in Rhostryfan so as to guard his first train of the day. Looking at the 1892 Timetable in Boyd, again under Mr Tanner’s management, all the services on the branch and main line except the first and last had common timings at Tryfan Junction. This would enable Tom Morris the guard from the main to shepherd the Dinas to Tryfan Junction section theoretically as one train. Owen Thomas would be present at Tryfan Junction and, having set the points and signals back for the main line and put any parcels for Tyddyn Gwydd and the other farmsteads around the junction in the



“..then a covered van carrying flour and goods, followed by a large coal carrying wagon and sixteen empty slate wagons”

C.J. Keylock Collection - WHR 109

station office, to take the branch train over. A farmer expecting a parcel might have sent a lad to meet the train otherwise they would have to wait until later.

However, the first train would have to be guarded all the way from Dinas and the last taken back by Owen Thomas.

John Hughes then states, “He went up on the train to Rhostryfan and Bryngwyn and before the train returned he came back on a small trolley to prepare the lines at Tryfan Junction”. He also, no doubt, had to deal with the distribution of goods first at Bryngwyn then at Rhostryfan and finally those he had left at the junction. And he still had to find time to look after his birds in the signal box!

Meanwhile the other three men at Bryngwyn had to operate the incline. Battersby needed six men, Bryngwyn was shorter and narrower but the operation would be identical. There were three roles: top sorting and attaching, bottom sorting and attaching and brakeman. Again quoting John Hughes, “Robert Hughes was the Station Master at Bryngwyn...he was responsible for releasing the slate wagons on the big incline”. So, in John Hughes day, it was Robert Hughes’s job to trudge up the incline (to quote Goronwy Roberts) to operate the drum. He was the NWNCR man, he was responsible for the incline, which was company property, he was the drum man and, probably, the mastermind of load size. At the bottom Willie Hugh, the fireman, attached predetermined loads to the rope; at the top the quarrymen did the same as directed by Robert Hughes. This division of roles at the top is as Richard Cunnah described in his evidence to the inquest into Robert Hughes death which is related in *WHH* 54 of this Journal.

Then the brakes were released, the loads traversed the incline controlled by Robert Hughes and the brakes were reapplied on the completion of the journey. Between each journey the wagons which had traversed the inclined plane

had to be detached and shunted away and the next carefully chosen loads brought in and attached. The two locos apparently communicated by whistle to check the load size. Then, when the timetable demanded, work on the incline ceased, a train was reformed to take the passenger carriages, empty vans and loaded slate wagons back down to Tryfan Junction to link up with the main line service back to Dinas.

One problem remains which nobody seems to have mentioned. Board of Trade regulations always recommended that a train should be guarded. Owen Thomas had already left on his trolley heading for Tryfan Junction, so he was not available. The solution must be that either Robert Hughes did this job or the fireman, having stoked the boiler enough for three miles downhill, was the nominal guard. Or maybe they simply bent the rules! The application of the regulations might have become stricter after 1902 and this could be the reason that Goronwy Roberts describes the fireman in WHR days trudging up the incline to operate the drum. The guard would operate the bottom end then be available to complete his guarding duties.

This I believe was the process which was carried out by Robert Hughes and Owen Thomas for the 23 years between the opening of the line and 1900. For all these years, the daily task of these men was to keep the slate moving whilst taking fares from passengers, recording sources and destinations of all consignments, collecting money for deliveries and ensuring it was all done safely. After 1900 Dafydd Lloyd Williams took on prime responsibility until after the end of NWNCR days. Their efforts were, I am sure, appreciated by management then – I think we should applaud them now.

NWNGR Fairlies (Part 1)

Over the winter of 2017/8, Chris Jones and I exchanged a series of e-mails in which we discussed a 'chronology' he was developing designed to describe the evolution of the two Fairlie locomotives, *Moel Tryfan* and *Snowdon Ranger*, supplied to the NWNGR by The Vulcan Foundry, Newton-le-Willows, Lancashire.

Towards the end of this exchange, I remember noting that this would make a good article for *WHH*. Chris's rejoinder, as I

recall, was simply "I will leave that to you". Thus, for better or for worse, we have a joint effort.

Chris really wanted to understand both the evolution of each locomotive, ensuring that the photographs we have can be arranged in the correct chronological order. Analysis is continuing so this is likely to continue as an on-going process. For now, I will simply try to 'set the scene', introducing the two locomotives.

Background

A drawing showing C.E. Spooner's (Chief Engineer, North Wales Narrow Gauge Railways) original proposal for these locomotives is to be found in the FR and WHR collection at Gwynedd Archives, at XD97/472014. No doubt heavily influenced by Robert Fairlie, the proposal was for a locomotive based on Fairlie's principle. It appears to be dated June 12th, 1874, although both Boyd and the Gwynedd Archives catalogue state 12th January. A reproduction of the signature is shown here in Figure 1, and the source of the confusion will be appreciated. It is signed by "C. E. Spooner per G. Percival Spooner", confirming that the design was G. P.'s. G. P. was C. E.'s son who, on Festipedia, is particularly credited with the design of double-Fairlies *James Spooner* and *Merddin Emrys*. *James Spooner* predated the NWNGR single-Fairlies.

The FR single-Fairlie *Taliesin* was also built by Vulcan Foundry, their RN (see below) 791. *Taliesin* entered service on the FR on the 18th August, 1876.

On receipt of this proposal, Vulcan Foundry, Newton-le-Willows, Lancashire, prepared production designs for the locomotives. The Vulcan archive can be found at the Liverpool Museum, and therein can be found Vulcan drawing 9407 dated 10th October 1874.

The drawings show the sand pots at footplate level, the whistle in front of the cab sheet and a Chatfield patent fire door. The injector is shown as a No. 6 Giffard. The suspension springs are coil springs. The drawings do not show the drain-cock arrangements and the lubricator intended to feed the steam line is shown on Spooner's proposal but not on the Vulcan drawing.

A third description is to be found in an article in *Engineering*, 23rd November, 1877, including

Figure 1) Signature extracted from Spooner proposal (XD97/472014)

reproductions of detailed general arrangements. It should be noted that this issue was published only 2 to 3 months after the opening of the NWNGR (May/June 1877 for Goods and August 1877 for passengers) so it seems more than likely that the GA drawings shown therein actually represent the as-built standard of the locomotives. There are differences between these and the Spooner proposal/Vulcan 9407 drawings that will be noted later.

The Vulcan Foundry Drawing Office Record Book summarises the characteristics of the two locomotives as shown in Figure 2 below:

The 'Rotation Number', unique to each individual locomotive produced, for *Moel Tryfan*, 738, and for *Snowdon Ranger*, 739, were cast into the maker's plates attached to their cab sides, but more on this later in these notes. The right-hand column indicates the Foundry's 'Working number', unique not to the locomotive but to the order. The Spooner-proposal drawing noted above has been marked, no doubt by Vulcan after receipt, '874 - 2 sets'. In Figure 2, the year of delivery is noted as 1875,

VULCAN FOUNDRY ROTATION NUMBER	YEAR OF DELIVERY	WHOM BUILT FOR	NAME OR RX CR.'S NUMBER	DIAMETER & STROKE OF CYLINDERS	DIAM. OF DRIVING WHEELS	TENDER OR TANK	WATER CAPACITY IN GALLONS	GAUGE OF RAILWAY	DIAGRAM SHOWING POSITION OF WHEELS	WORKING NO.
735 4/5	1875	NEW ZEALAND GOVERNMENT	246/248	10 $\frac{1}{2}$ x 18	3-0	SADDLE TANK	450	3-6		884
738 2/6	DO	NORTH WALES NARROW GAUGE RLY	MOEL TRYFAN	8 $\frac{1}{2}$ x 14	2-6	SIDE TANKS	303	1-1/2		874 2 D
739 2/6	DO	DO	SNOWDON RANGER	8 $\frac{1}{2}$ x 14	DO	DO	DO	DO		DO
740 15/1	DO	PORTUGAL	RIO DOURO	11 CYL. 10 x 18	3-3	4 SIDE TANKS	800	3-0		100

Figure 2) Extract from Vulcan Foundry Drawing Office Record Book

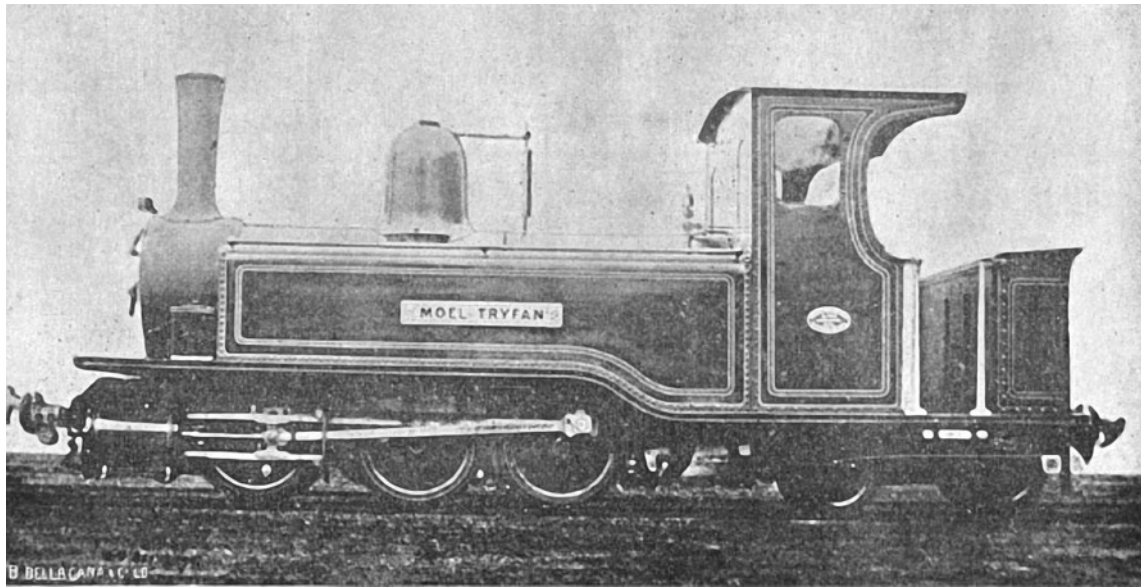


Figure 3) Maker's photo of *Moel Tryfan* - Vulcan Foundry no. 738 - 1876 (Arch 5026)

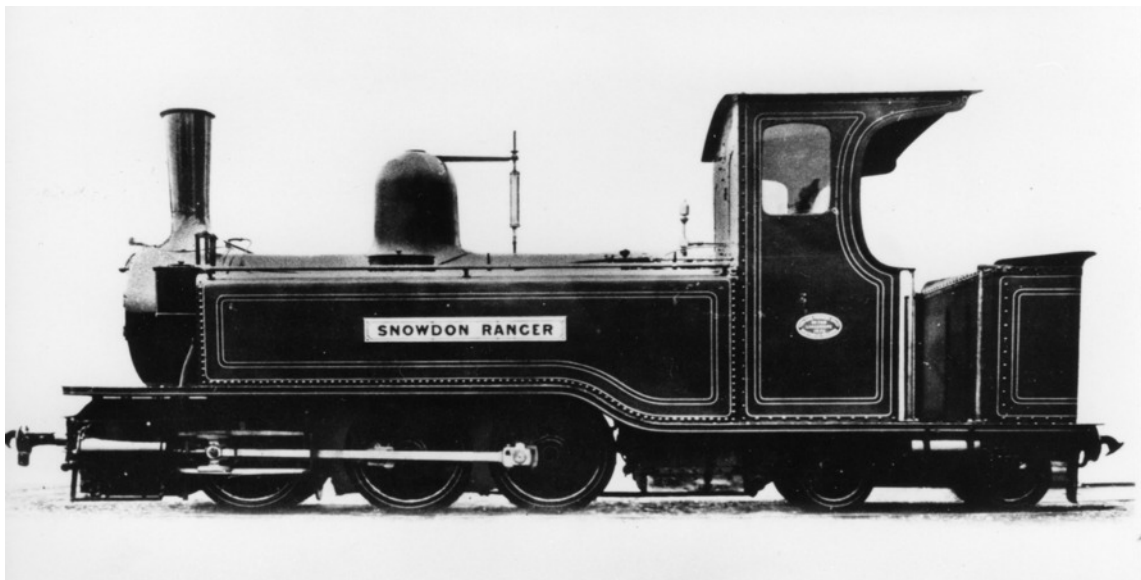


Figure 4) Maker's photo of *Snowdon Ranger* - Vulcan Foundry no. 739 - 1876 (WHR 016)

DOUBLE-BOGIE FAIRLIE LOCOMOTIVE FOR THE NORTH WALES NARROW GAUGE RAILWAYS.
CONSTRUCTED BY THE VULCAN FOUNDRY COMPANY, NEWTON-LE-WILLOWS, FROM THE DESIGNS OF MR. G. E. SPOONER, ENGINEER, FORTMADOC.

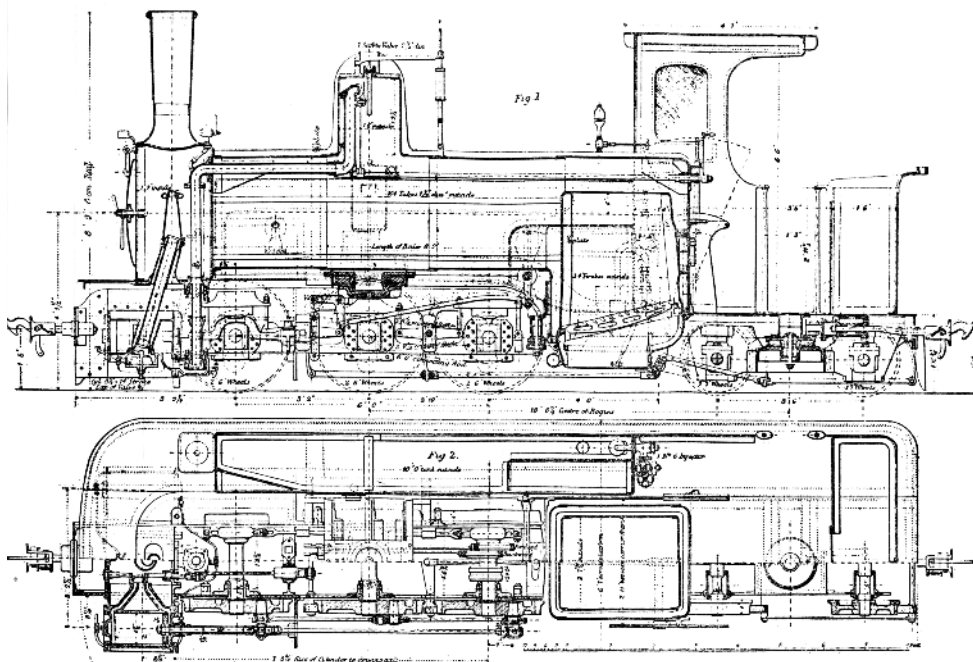


Figure 5) GA Drawing from *Engineering*, 23rd November, 1877.

but the works plates fitted to the locomotives are marked 1874.

So far as this broad summary is concerned, there is no suggestion that contradicts the objective that both locomotives were to be the same.

The makers' photographs, showing each of the two locomotives, are compared in Figures 3 and 4.

The *Engineering* article and diagram from November 1877 (Figure 5) reveal what might appear to be changes made over the first few years. For example, the Chatfield patent fire door arrangement is not shown, having been replaced by a conventional design.

However, such features, noted in the discussion above, cannot be confirmed by the maker's photos, so whether these really were changes or whether the locomotives were built to this latter standard initially is a matter of conjecture. However, as noted above, there was little time between the delivery of the locomotives and the publication of the *Engineering* article (press deadlines should be borne in mind here) to allow such possibly fundamental changes.

That there were differences between the build standard and the original designs is confirmed by the differences between *Moel Tryfan* and *Snowdon Ranger*. These include the sand pot arrangement and a lack of lubricator on *Moel Tryfan*'s smoke box top. *Snowdon Ranger*'s cab is slightly the longer of the two. In the photos each loco shows at least one change from the original drawings. We cannot logically argue that there were no other changes – without photographic, or other, evidence we can but speculate.

Snowdon Ranger was fitted with manual drain cocks (lower lever operated) - *Moel Tryfan* with steam powered drain cocks. *Moel Tryfan*'s couplings had a larger hook head and the front bob weight was set further back than the equivalent on *Snowdon Ranger*. The original low design of sand pot had a separate vertical feeding pipe attached to the side of the bogie frames between the cylinder and the leading driving wheel, not very pleasant location for the

fireman, with heat and the potential for steam from leaks. It is unsurprising the feeding mechanism was later changed.

Both appear to have been painted in their final livery and lining rather than the photographic grey often seen in maker's photos. The definition of the makers plates is poor in the photographs, but in the case of *Snowdon Ranger*, the better photograph of the two, the third digit ('9') of the makers number can be seen to be slightly raised. On *Moel Tryfan*'s plate the numbers appear to be level. The first locomotive built, *Moel Tryfan*, seems to have been closer to the maker's drawings noted above. The changes on *Snowdon Ranger*, relative to the design drawings and to *Moel Tryfan*, imply some additional re-thinking, or perhaps experimentation, as the second locomotive was being built.

On *Snowdon Ranger*, the lubricator behind the chimney had been installed. However, the drawings also state that Widmark (steam operated) draincocks were to be fitted, which patently was not the case in the first *Snowdon Ranger* build-standard.

As originally built and operated, NWNGR locomotive and stock were not fitted with continuous brakes. This remained the case until 1891/2 when the locomotives, newly acquired stock and, progressively, the existing stock were fitted with the Westinghouse air-brake system. However, the railway operated three small 4-wheel carriages which, in the event, were simply piped through and were not fitted with actual brakes. This remained a bone of contention with the Board of Trade, as described in, for example, *WHH 47*.

Having, hopefully, established a *Moel Tryfan/Snowdon Ranger* baseline, I will take this first part of Chris Jones' analysis up to the point where the air brake systems were fitted to the two locomotives. We have very few photographs showing the locos in this interim period but those that we have indicate potentially significant developments over this period.

Other than the maker's photograph of *Snowdon Ranger*, the only photos we have in the collection from this period

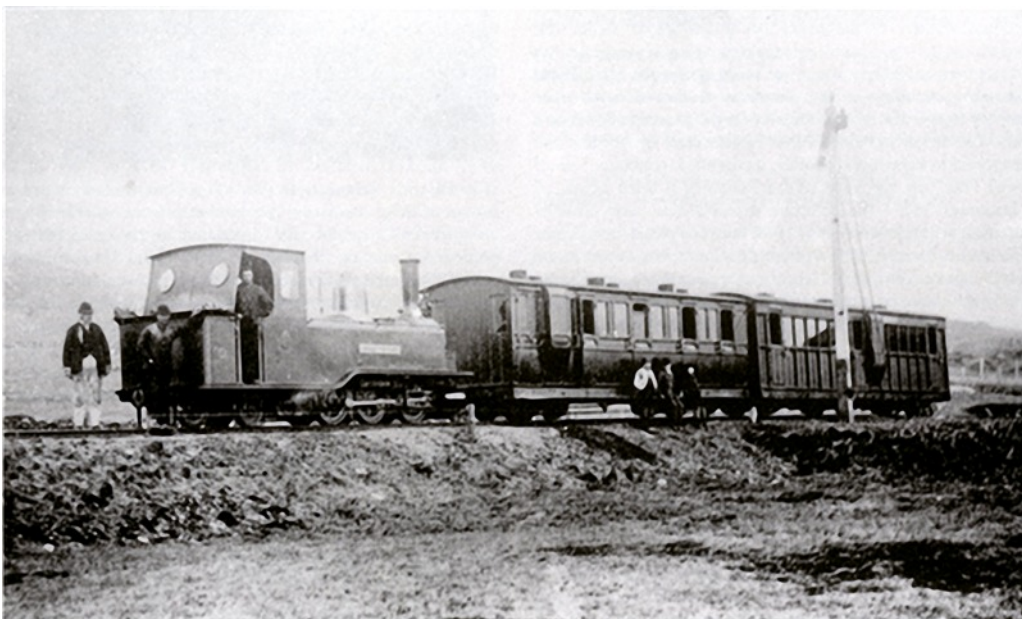


Figure 6) *Moel Tryfan* with a train of two carriages - both Brake Composites, the leading carriage by Ashbury, either no. 1 or 2, the other a Gloucester 'Cleminson', either no. 6 or 7.

The train was waiting to depart a relatively newly-opened Rhyd-ddu, so probably circa 1881/2.

(WHR 171)

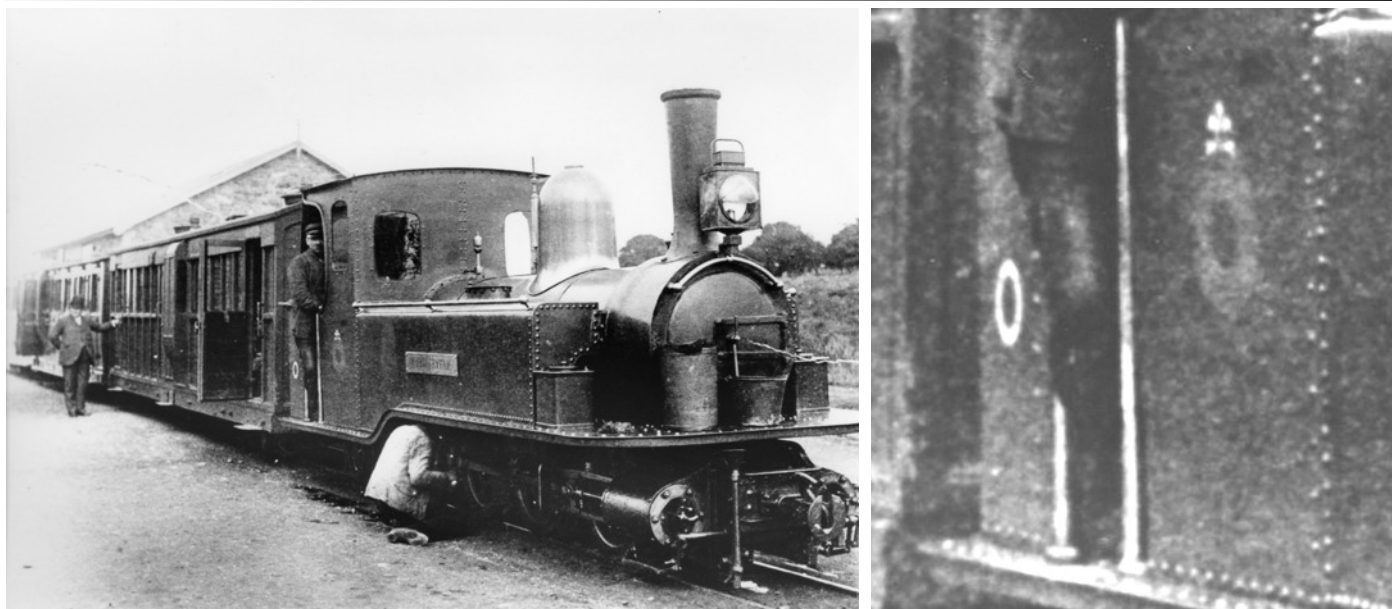


Figure 7 (left) *Moel Tryfan* being prepared for departure from Dinas (Arch 3488)

Figure 8 (right) Enlargement of the cab and bunker sides to show the crests added in lieu of the maker's plates.

are of *Moel Tryfan*. Quite possibly the earliest of these is shown in figure 6. The photograph was taken at Rhyd-ddu shortly after the opening of the extension from Snowdon Ranger in 1881. A careful examination of the locomotive will indicate two features of interest. First, a steam pipe lubricator, as per the drawing in *Engineering*, had been installed and, second, the maker's plate on the cab side had been replaced by a crest. To be fair, we only see the right-hand side of the locomotive, but it seems entirely reasonable to suppose that the same change was made on the left.

If we turn now to figure 7, a close examination of the image will also show the presence of the steam-pipe lubricator and it is more obvious that we also see that the maker's plates(s?) had been replaced by crests. A close up of the crests is seen in figure 8.

The subject of NWNGR crests was discussed at some length in *WHH 22*.

Further examination of figure 7 will also show that the painted lining, prominently visible in the maker's photograph (figure 3) had disappeared. Due to image quality it is not possible positively to confirm that this was also the case in figure 6, but it does look as though the lining was missing in that image also. The headlamp prominently visible in figure 7 can also be seen in figure 6, still at the front of the loco despite its change of direction, and the two carriages seen behind the locomotive in figure 6 are there, in the same geographical sequence, in figure 7. Note also in these pre-continuous-brake days the practice of placing many braked passenger vehicles in these trains.

Finally, a head-on view of *Moel Tryfan* taken on the same occasion as figure 7 shows the alignment of the sand delivery pipe that had to be filled manually by the fireman while the locomotive was in motion. This will be discussed further in later sections of these notes.

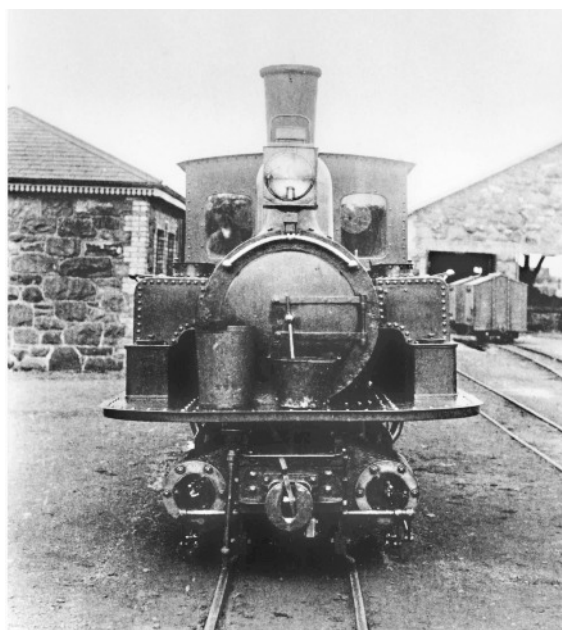


Figure 9) A head-on view of *Moel Tryfan* taken at the same time as figure 7.

Even though these photographs were taken early in the railway's operation it will be seen that this locomotive, and from what we will discuss later, it would seem *Snowdon Ranger* also, had experienced a number of changes, some cosmetic, some physical. This did not end here! Continuous brakes were to be introduced, the maker's plates were to be reinstated, decorative schemes were to change, sand pots were to move, and so on. However, when and how?

Final note (for the corner men).

In figure 9, look through the open doors at both ends of the goods shed and note the coal wagon visible on the elevated siding, apparently viewed side-on. This really is a side on view - another very rare image showing one of the coal tippers in action. The wagon was rotated on a turntable to allow end-on tipping into whatever stood below.

From the Editor

Nick Booker has passed me the following appreciation of Angus Tilston, MBE.

Angus Tilston, who has died aged 86, provided the Heritage Group with the DVD copies of a short piece of rare amateur cine film from 1936 showing a typical journey by a party of family and friends along the Aberglaslyn Pass. Shot in 1936, the last year of passenger operations on the Welsh Highland, it captures the essence of the railway in the 1930s, of short trains and small locomotives.

Angus was a collector of historical film, film maker and local historian and had been awarded the MBE for services to the historical film industry in the North West.

Angus Tilston MBE died 6th August 2019

We reported last time that our recent book, *The Croesor Tramway*, had been short-listed for their 2020 Book Awards by the Railway and Canal Historical Society.

After judging, we did not in the event receive an award, beyond the short-listing which was no mean achievement.

Michael Horne's book, *The London District Railway*, a 700 page 2-volume work, was finally selected as Railway History Book of the Year.

This book was also selected as the RCHS Book of the Year. 100 books had been considered and 11 were short-listed over three categories.

Regrettably, Michael Horne had died before his two Awards could be presented.

Continued from Page 12

no. 26 had had its roof lowered (April 1924) and had had vacuum brakes fitted (May 1924). The Pickering had had its roof lowered also - no. 8 was so treated in March 1924 and no. 9 in May 1924. No. 8 was one of three carriages dual-braked from the earliest Welsh Highland days. No. 25 had "WELSH HIGHLAND RAILWAY" painted on its sides in April 1924 and this wording is clearly visible in the photograph. However, it is not clear whether no. 26 had had its lettering applied (July 1924) or whether the Pickering had been so treated (August 1924 - all dates are ref. *WHH* 10). Unless the lettering is not visible because of the poor quality of the image, this suggests an earliest likely date of between May and July of 1924.

We know from articles in *WHH* 20 and 24 that double-engines were rostered over the Welsh Highland in 1923 and 1924, but in all probability were rare visitors to the railway after that. If so, the view here should not have been too unusual in the summer of 1924. Additionally, the Moelwyn Tunnel Accident of August 1924 (*WHH* 30) confirms that Welsh Highland passenger stock ran all the way to Blaenau in that year.

WHHG 16 is one of the series of Topical Press images taken in 1923. These were Topical references 2474 to 2477 (in our collection as WHHG 9, WHR 164, WHR 159 and WHHG 16 respectively). We also have WHHG 3 which appears to be one of the series but for which there is no positive indication of a Topical reference number.

Typically, they show *Palmerston* with a train of FR stock at various locations on the WHR: Dinas Junction (2474), Tryfan Junction (2475), Waenfawr (2476) and Snowdon (2477). Here at Snowdon (the name had not yet been changed to South Snowdon) we see *Prince* on a south-bound train comprising principally Welsh Highland stock. A close examination of the image shows *Prince* to be fitted with chopper couplings and we can see that the one clearly visible item of WHR stock, an Ashbury 'Corridor' had not been cut down. If we accept that the date was 1923, we



WHHG 16

can further deduce that any stock marshalled behind *Prince* had to be selected from the vehicles temporarily dual-braked at the start of Welsh Highland operation. This tells us that the Ashbury 'Corridor' was, in fact, NWNCR no. 10. Two other passenger vehicles were dual-braked; the Observation Car (Gladstone) and Pickering Brake Composite no. 4 (later WHR. no. 8). However, it is clear from WHHG 16 that *Prince's* train did not include the Pickering, but instead, one of the 4-wheel brake vans, either an F.R. Van (possibly the dual-braked Van No. 5, today's No. 6) or the dual-braked WHR van (Van No. 4), both derived by modifying Type 3 F.R. Quarrymen's Carriages. The carriage between the 'Corridor' and the Van would have been the Gladstone, and there is just enough of the vehicle visible to confirm this identification.

Whilst we cannot see the locomotive on the north-bound train, what we can see exactly matches details of the train seen behind *Palmerston* in the other images. Thus we can deduce with reasonable confidence that this was indeed the same train seen in the other photos.

However, the varying weather conditions in these photos suggests they were not necessarily all taken on the same day.

Peter Liddell's Photo Analysis

Readers who are avid, or perhaps only passing, Radio 4 listeners may well have come across a programme called *The Patch*. Central to this programme is the mysterious "random post-code generator" which, at the beginning of each episode, provides a BBC producer with the first 4-digits of a post code and the instruction to "go there and find a story".

Often, when I pen this column, there is a photo which appears currently to be a 'hot topic', making my choice of subject for me. Otherwise, it might simply be a photograph that has previously vexed me and for which I have sufficient prior analysis to make up the column. However, in order to give a better view as to the extent of our Archive I thought that I might occasionally use my new "random photograph selector" and see where that takes me.

This is the first trial of that system.

However, some basic facts before we start - there are currently 4608 items in the Archive, but there are numerous duplications therein so the number of distinct images is somewhat less than this. These images cover the Welsh Highland, its predecessors and its history post-closure, including re-building and operation of the 'new' railway. Of these items, 1083 are of the WHR and predecessors and another 1074 show the railway post-closure before any rebuilding commenced.

So let us see which 3 photographs the 'random' machine has given me - they are items 183, 305, and 3416 which, searching the data base, I find are WHR 183, WHHG 37 and one of the duplicate copies of WHHG 16. So, let us look at each of these in turn.

First, WHR 183. It seems from this photograph that volunteer labour is not the sole prerogative of 'modern' heritage railways. This is one of a series of four photographs from the late Bill Rear's collection (WHR 180 to 183) showing Hugh Roberts' children hard at work in 1936 cleaning Ashbury semi-glazed 'Summer' no. 26. It would seem that no main-line train was expected as the ladder would otherwise have represented a significant Health and Safety issue. The carriage was parked close to the crossover carrying the engine shed road from the carriage siding over the main line.

WHHG 37 is a very interesting photograph. It shows the FR double-Fairlie *Merddin Emrys* with a train of Welsh Highland stock about to enter the cross-town link at Portmadoc Harbour. The train comprised: Ashbury semi-glazed 'Summer' No. 26 (? - the image is not entirely clear);



WHR 183



WHHG 37

Ashbury 'Corridor' no. 25; one of the Pickering Brake Composite carriages. There appears to have been another locomotive (one of the Englands) behind the Pickering, but the image does not allow this to be properly identified.

No. 25 had had its roof lowered - this happened in April 1924, according to the tables in *WHH* 10 - however, as the carriages are being pulled by a Festiniog loco it is apparent that it had also been converted to, or had had fitted in parallel, vacuum brakes. *WHH* 10 suggests that vacuum brakes were fitted to no. 25 in May 1924. Additionally,

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