

The British Association in Swansea in 1848

by MARGARET WALKER

“We arrived last night, after a somewhat tedious sea voyage from Bristol. From this city during the day four steamers had started for Swansea, each one carrying a fair number of members and visitors to this, the first meeting of the Association within the limits of the Principality”. In these guarded terms did the correspondent of *The London Illustrated News* phrase the first of his two reports of the proceedings of the 18th annual meeting of the British Association for the Advancement of Science, held at Swansea from Wednesday, August 9 until Wednesday, August 16, 1848.

Others clearly shared his doubts as to the wisdom of bringing the association to ‘a corner, as it were, of Great Britain’, ‘... remote from the Metropolis; remote from the chief seat of English learning; remote, also, from those great highways of communication... the highways of steam’. The Marquis of Northampton, who was President of the Association for this year, spoke wistfully of the splendid meeting held at Oxford in the previous year with its attendance of 1,320, and stressed that Swansea could not expect so numerous a gathering. The total attendance, finally reckoned at 819, a figure which included 197 ladies, 15 foreigners and 376 associates, was inevitably lower than usual, but when the problem of distance and methods of travel are taken into account, one is left with the conviction that the Association included a number of dedicated and adventure-seeking scientists. It may have been some consolation to the organisers of the Swansea meeting that the attendance at Ipswich in 1851 was only 710.

The attractions of the region had been persuasively pressed at earlier meetings by the Swansea-born scientist and lawyer, W. R. Grove, who ‘like a potent magician, or like a representative of the bards and druids of ancient Britain, summoned us to the shores of the Bristol Channel’. He was of course accustomed to the journey from London to Swansea, but the problems of distance were later to be experienced by Professor Phillips, the assistant general secretary of the Association, who travelled down from York in June to check arrangements for the meeting. He arranged with George Grant Francis, one of the local secretaries, that he would be in Swansea on the Monday ‘as early as any coach or steamer will bring me’. Once on his journey, he discovered that the Gloucester Mail would not reach Swansea in time for them to work on the Monday, so he ‘made a push to Bristol and came on by its mail’ on the Sunday. On arrival at the Mackworth Arms, he was forced to retire to bed with ‘a troublesome cough’, but was able to breakfast with Grant Francis the following morning before starting work. He was well satisfied with all the local arrangements and no doubt approved the detailed timetable which the Arrival and Location Committee printed and posted to all the members.

This timetable was designed to show 'how parties may leave London or Birmingham and arrive in Swansea on the same day'. The visitors were given the choice of three routes, by rail to Bristol and thence by steamer to Swansea; or rail to Bristol, steamer to Cardiff and the final stage by road; or else they could travel all the way by the mail coach. The journey by road was naturally the slowest as the mail left London at 8.55 p.m. and, travelling through the night, reached Swansea at 1 p.m. the following day. The quickest route was the combined rail and sea crossing *via* Bristol. Members could leave Birmingham or London in the early morning and be in Bristol in ample time to board the steam packet for Swansea. On Tuesday, 8 August, the day before the meeting started, and the day on which most people travelled to Swansea, the packet left at 12.30 p.m. After a six-hour crossing, they disembarked at the Mumbles Road, where omnibuses and flies were waiting to take them to the reception centre at the Royal Institution of South Wales. For those who wished to avoid such a long sea voyage, the committee had especially arranged a route *via* Cardiff. This entailed only a three-hour journey by steamer from Bristol to Cardiff 'from whence Omnibuses with four post horses start from the Cardiff Arms immediately for Swansea'. By the end of the journey, there must have been many visitors who regretted that the main-line railway had not yet advanced into South Wales. Their feelings were possibly expressed by the writer in *The Literary Gazette* who complained 'In this very focus of the metal, its most wonderful uses and lightning rapidity are unfelt; and from the speed of the racer or swallow, we seem to sink to the pace of the tortoise or sloth. Still, patience and progression going hand in hand, even the longest journey, like life, comes to an end'. The Association had visited Swansea two years too soon, for in June 1850, the South Wales Railway connecting Swansea with Gloucester was officially opened.

The charges for travelling on the steam packets were not excessive. The usual rates were ten shillings for the best cabin and five shillings for a fore cabin. The steamers were, however, the normal means of carrying livestock and merchandise across the Bristol Channel, with a charge for horses of 17/6, fat cattle 10/-, dogs 2/6, sheep 1/-, pigs 1/6, while a carriage for example, cost 32/6. Presumably the learned members of the British Association would not have had many four footed companions, as extra steamers were put on especially for the meeting. Two of these were *Troubadour* and *The County of Pembroke*. Special arrangements were also made for the return journey and a poster announced that 'As many members have to leave on August 16th, Wednesday, the proprietors of *The Lord Beresford* have kindly placed her to start expressly at 8.00 a.m. for Bristol'. On the following day it was also arranged that the packet *The County of Pembroke*, with William Rose as commander, would leave Padley's Wharf for Bristol at 8.00 a.m. Trains for London left the termini at Bristol at 6.00 p.m. and 11.50 p.m., while passengers for Birmingham left at 7.5 p.m.

Every effort had been made by the local committee to ensure the comfort and entertainment of the visitors while they were in Swansea. All

the influential members of the Association were staying at the big houses in the neighbourhood. John Henry Vivian had the largest house party at Singleton, with nineteen guests, who included the president, the Marquis of Northampton, and the former president, Sir Robert Inglis. Six people stayed at Sketty Hall with Lewis Weston Dillwyn, six at Brynymor with Robert Eaton, and four at Penlle'rgaer with John Dillwyn Llewelyn. Professor Grove stayed with his family at Danycoed. Professor Phillips, the secretary, refused the invitations offered by his friends and took rooms in Adelaide Street, near the Royal Institution, as he knew from past experience that he would be continually on call during the meeting. The main hotels, especially the Mackworth Arms, the Cameron Arms, and the Castle, were full, but there was a detailed list of private accommodation in the town, which the committee had drawn up well in advance. This indicated whether a parlour was available, the number of beds and the price. Some would-be hostesses had stipulated 'no ladies' or 'no cooking'. Prices varied markedly according to the accommodation offered. Those who booked in advance were mostly accommodated in the better-class area of the town around the Burrows, but there were plenty of rooms still available for those who wished to choose for themselves. Visitors arriving at Swansea had therefore first to visit the Reception room at the Royal Institution, outside which, *The Cambrian* reported, 'an excellent German band discourses most eloquent music'. There they could consult the list of lodgings and receive their tickets for the meeting. On the back of the ticket was a map of the town, showing the different rooms to be used for the public and sectional meetings. The general meetings and public lectures were held in Trinity Chapel in Park Street, while the sectional rooms were in the Royal Institution, the Town Hall, the Assembly Rooms and school-rooms in York Place and the Huntingdon chapel. Meals were provided at the Assembly Rooms where breakfast costing 2/- was served from 8 a.m. to 10 a.m., and dinner for 5/- at 5 p.m. Compliments were offered to the local committee on all their arrangements. The meetings took place within a compact area, and the catering was good. 'The ordinary at the Assembly Rooms was . . . more liberally supplied, and better served than we almost ever remember at any former gathering; the waiting, too, and the wines, were good'. The only adverse criticism was on the 'extremely high' charges.

The members of the Association had a busy week ahead of them. The proceedings started with the general business meeting at which Sir Robert Inglis, the past president, welcomed his successor, the Marquis of Northampton. In his initial speech, the new president referred to the report on the Observatory of Kew which had earlier been presented to the committee by Sir John Herschel. This proved to be one of the most discussed topics of the meeting. It was felt that despite the important scientific observations which had been made there, the Association could not afford to keep it going much longer. The press lamented that Kew, 'the much vaunted "home" of the Association, is about to be abandoned for want of funds' and appealed to the Government or some other society to help. A further £100 was however voted towards its expenses by the Association at the

end of the annual meeting. On Thursday, the daily sectional meetings started and the members separated according to their different interests. There were topics to suit all tastes, ranging from reports on earthquakes and meteors to a paper on 'The Development and Change of Teeth in the Kangaroos'. In particular, a paper on the influence of carbonic acid on the growth of ferns produced a very interesting discussion in which Professor Grove and Dr. Michael Faraday took part, while a marathon extemporaneous address lasting two and a half hours was given by Sir Henry de la Beche on 'The Geology of portions of South Wales, Gloucestershire and Somerset'. Mr. Budd talked about 'The Advantageous Use made of the Gaseous Escape from the Blast Furnaces of Ystalyfera' and was able to demonstrate this more fully when he took a large party around his iron-works on Saturday. A paper on discordant sounds heard while travelling on railways was much discussed, while the statistical section had a lively debate on a paper on the relationship of crime to education. Two evening lectures were also given during the course of the week, one on 'The Chemistry of the Metallurgic Processes practised around Swansea', with special reference to copper-smelting, the other on 'Microscopic Structure'. Both of these were very well attended.

The local committee had arranged numerous attractions and entertainments to occupy the visitors in their free time, but the weather was, inevitably, unreliable. The meeting opened in torrential rain, or, in the words of the correspondent of *The Literary Gazette*, 'what, in the days of Noah, was called "showery weather".' He found some compensation in 'a beautiful aurora and lunar rainbow' while the next evening 'the sunset was gorgeous, huge masses of black cloud being tinged into the richest *copper-colours*—a genuine Swansea heaven!' The weather continued showery throughout the meeting and although it may have hindered some from enjoying to the full the entertainments offered to them, nothing was cancelled. A Regatta was held on Friday afternoon, and a small rocket display by Lieutenant Carte took place in the grounds of Singleton, to which all the Association members were invited. The correspondent of *The London Illustrated News*, in his second report, wrote enthusiastically of his visit to Singleton and its beautiful grounds, and the discharge of rockets which drew large crowds out of doors 'notwithstanding the very unfavourable character of the day'. He had forgotten his tedious journey, and was clearly enjoying his first visit to Swansea.

Lieutenant Carte was able to demonstrate fully his method of rescuing ship-wrecked sailors on the following Monday, when, in the presence of hundreds of spectators, he fired a rocket with line attached across to a schooner, which was representing a wreck. The line was fastened, a life-buoy drawn across, then two men jumped overboard 'and although the sea was running high, came ashore in perfect safety'. Lord Northampton and others present were impressed by the demonstration and hoped that rockets would be adopted along the dangerous portions of the west coast.

Saturday was the day for excursions, and much thought had gone into

the programme. There were parties to Gower to examine the caves and the cliffs; a dredging expedition in the Channel was made in the yacht *Osprey*, when 'many animals, and among them the beautiful *velella limbosa*, were thus collected alive for exhibition at the sectional meeting of the Zoological department on Monday'; and a most popular trip costing 7/- was made up the Swansea Valley, where dinner at 3/- a head was served on the lawn, under a marquee at the Lamb and Flag, Ystradgynlais. Some from this party went to Carreg Cennen castle, others visited the Ystalyfera Iron-works and later descended an anthracite mine at Abercrave, while the 'less adventurous ascended the limestone hills'. They did not return to Swansea until a late hour of the evening, but the success of the expedition was certain. As the London correspondent wrote, 'The sun shone brightly, and all was joy in which ever direction you cast your eyes; and the sage philosopher for the day unbent himself and joined in the hilarity of each group and scene'. An interesting scientific attraction was also afforded to those who visited Penlle'rgaer, the home of John Dillwyn Llewelyn. He was experimenting in the use of electricity for propelling vessels, and demonstrated how a boat could be driven around the lake by means of a large powerful battery in the bow. As it moved no faster than by ordinary paddling, the opinion was that 'at present it is a scientific toy; but it clearly establishes the principle that electricity can be converted into a motive power for the propulsion of vessels . . . and as the power can be indefinitely increased so as to meet the required speed, the sole question is one of expense'.

Apart from the excursions, many of the local works welcomed visits from members of the Association who had the choice of the neighbouring copper works, tin works and collieries as well as the Swansea pottery. Promenades and Soirées were also arranged at the newly built National Schools in Oxford Street on Saturday evening and the following Tuesday. The rooms were tastefully arranged with many local exhibits and pictures while 'the tables on which were placed various microscopes were quite besieged. The circulation going on in the foot of a live frog, as seen through a powerful microscope was amongst the most interesting sights of the evening'. 'All the principal families in Swansea, Neath and their neighbourhoods' were present, and the displays proved as popular with them as with the scientists.

Sunday afforded a well deserved day of rest to the visitors in the midst of all these activities. Many of them attended morning service at St. Mary's church, which was crowded to excess when the Bishop of St. David's, Connop Thirlwall, preached a sermon in aid of the National Schools. The vicar, the Rev. E. B. Squire, took the evening service, and the total collections realised £81 6s. 8½d. The Bishop again preached at Holy Trinity church in the evening. He had been elected a vice-president of the Association in the previous week, and was staying at Sketty Hall as guest of Lewis Weston Dillwyn.

On Wednesday, August 16, the proceedings of the British Association

were adjourned until the next meeting at Birmingham in the following year. In his concluding remarks, the President spoke of the valuable meeting they had had, a meeting which in fact had lasted a day longer than intended because of the number of papers to be read. He wished to express the warmest thanks of all members for the extreme kindness and liberality with which the Association had been received in Swansea, and he hoped 'that the British Association would again visit them; at least he would endeavour to come himself even if he came without them'.

The Marquis did point out one way in which the visit of the Association had plainly benefited the town. Every street, alley and court in Swansea had been clearly named, prior to their visit. As Grant Francis, the author of this improvement, wrote 'If the natives found it difficult to remember the names, how could visitors, whose time was so valuable, be expected to find their way through the unmarked streets of a strange town?' When G. T. Clarke, an inspector of the General Board of Health came to Swansea in July, 1849, to enquire into the sanitary condition of the town, he thought Swansea deserved 'great credit for its street nomenclature. . . This is a necessary preliminary to any sanitary improvements, and it has been done cheaply and well in Swansea'. Slates, cut to the correct size, painted white, and edged and lettered in black, had been carefully nailed to the walls. Between 600 and 700 labels were fixed at an estimated cost of 1/6 each. Neath quickly followed Swansea's example, while Cardiff and some other towns had sent for patterns.

The townsfolk rightly felt that they were mainly indebted to W. R. Grove for the successful visit of the British Association to Swansea. On the following Friday, both tradesmen and gentry joined in a dinner given in his honour, when he was toasted and thanked. Not only had the meeting brought visitors and increased trade to the town, but it had awakened a real interest in science among the ordinary inhabitants of Swansea.

