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Pushing boundaries

Last updated: 21 November 2006

Dr Edward Davies from Capel Curig, author of *The North Wales Quarry Hospitals and the Health and Welfare of the Quarrymen*, recalls the dangers faced by the quarrymen, and what the doctors did to save them.



There were three hospitals for the quarries of North West Wales in the 19th and 20th centuries - at Penrhyn (Bethesda), Dinorwig and the Oakley quarry, Ffestiniog.

The slate industry had been going since the Middle Ages, but it wasn't exploited on an industrial scale until the 19th century. The quarry owners soon realised that there were a lot of accidents in the quarries and that they needed to address the problem.

The first hospital was opened at Mount Street, Bangor, in the early 19th century, but injured quarrymen had to be transported there from Bethesda on a horse and cart or later, the tram, so they decided to build a hospital at the quarry itself in 1840.

A hospital was opened for Dinorwig in 1830, before building a new one when the quarrying moved downhill at Allt Ddu - that's the hospital you can visit today.

Quarry owner Oakley's widow decided to open a hospital for the Ffestiniog Oakley quarry in 1848.

They were only for quarrymen, and they had to pay sixpence a month towards the hospitals' costs. This rose to a shilling later in the 19th century.

These hospitals kept up with the latest technology. In Penrhyn the first successful anaesthetic was given to a quarryman who needed his leg amputating at the thigh due to a bad accident. They had tried anaesthetic on a man at the old Bangor Infirmary before, but he'd died due to his injuries.

To begin with they used ether, then chloroform, then a mixture of those two and alcohol to put people under.

Dr Thomas Hughes, who was at Dinorwig from 1875 to 1890, was a big supporter of using an invention of Lord Lister's, where carbolic acid was sprayed in a mist over a patient's open wound. Despite much opposition to this technique, it was very successful in keeping the wound clean and prevented many quarrymen from dying of septicaemia.



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Tai Hanesyddol

O blastai crand i ffermydd gwledig, camwch dros drothwy rhai o dai mwyaf

hanesyddol yr ardal

Dinorwig had an X-ray machine only two years after it was invented in Germany in 1896. The first man to be X-rayed was in for two days - it was suspected he had trouble with his knee joint.

Dr Mills-Roberts was the first to use this machine - he was a man very much before his time, especially in operating on head injuries. He used the technique of draining an abscess on the brain after a quarryman sustained a critical head injury. This was common and they would often have to remove a piece of broken skull which was pressing down on the brain.

All three hospitals were kept busy and became expert in accident and emergency. But there was a difference between the injuries sustained. The Caernarfonshire quarries were open quarries, while Ffestiniog was more like a mine. So they didn't have so many injuries from falling from a great height, but did get injuries from blasting underground - especially in the days when they worked by candlelight.

There were on average 40 accidents a month, five per cent of which were very serious.

Penrhyn and Dinorwig also treated those who suffered from diseases because of the quarries, especially problems with the lungs and gut. The Ffestiniog hospital didn't treat these conditions but Assherton-Smith, owner of Dinorwig, was more amenable and some wives were treated there for things such as breast cancer or for the removal of cataracts.

As a country doctor I've always had an interest in the history of medicine in the area. I was born and brought up in Blaenau Ffestiniog amongst the quarrymen, many of whom suffered from the 'dust disease' (pneumoconiosis). Two of my grandfather's brothers were killed at Dinorwig and I've always felt it was important to document the injuries and diseases suffered by these men.

Dinorwig Hospital

your comments

Elfyn Edwards

Does anyone know who was the last doctor to work in Penrhyn Quarry hospital before it closed in the 1960s? I remember the Prichard family living there at the time.
Thu Jan 15 16:05:42 2009

C. Miller from Corris

Anne Thomas Buckley's great grandmother probably did work at the Quarry hospital. There was another hospital, which I believe was opened after the FirstWorld War, but if she was born in 1836 it would have almost certainly been at the Oakley Hospital. If you read this, and have any more info, do leave a comment.
Mon Jun 9 09:18:24 2008

anne thomas buckley

my great grandmother catherine was apparently matron of blaenau ffestiniog hospital - she and her husband edwin jones also lived there i believe. Would this be the oakeley hospital or was there another hospital in blaenau? she was born in 1836.

Mon Feb 25 10:06:09 2008

C. Miller from Corris

I am researching the history of the Oakeley family and their endowing of churches and hospitals at their quarries. Does anybody 'out there' have any further information? (I am working my way through the Oakeley papers in the Gwynedd records office)

Tue Dec 18 09:38:00 2007

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Quarry hospital

Last updated: 21 November 2006

Llanberis once boasted a hospital ahead of its time. **Ken Latham**, manager of the Padarn Country Park, introduces the doctors and patients of the 19th century.



This old hospital in Llanberis was for the men who worked at the Dinorwig Quarry in the 19th and 20th centuries. The idea was to have a hospital close to their place of work so they could get back to work as soon as possible after they received treatment.

There was a hospital in Bangor, but that was over ten miles away and took an age to get to by horse and cart - or even by car.

There were over 3,000 workers in the Dinorwig quarry and there were a lot of accidents - broken bones, lost fingers, crush injuries and worse.

This hospital was one of the first in the country to get an X-ray machine - it's still here and it's quite a horrible thing to look at, even though the technology behind it hasn't changed all that much.

It was also one of the first buildings in the area to have hot and cold running water and electricity and there's an old pharmacy here.

There's also an operating theatre with old equipment like a skill saw to remove injured fingers and an examination couch - which isn't really a couch. It's sort of like a large hot water bottle. They would fill the bladder of the table with hot water to heat the table, and lie the quarryman on it. The quarries can be very cold places, especially if you've been injured.



The doctors would do all sorts of things here. If there was a serious accident, they would take the opportunity to use new techniques to treat the problem. One in particular was Dr Mills-Roberts, who worked here at the turn of the century before going off to World War One. He was also a footballer for Preston Northend and helped them to the FA Cup and league double.

The Dinorwig hospital remained until the coming of the NHS in the 1950s. It became a first aid post before closing along with the quarry in the 1960s.



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Unfortunately, when it was closed everything was removed. Fortunately, someone had the foresight to keep lots of the equipment at the county archives and we were able to recreate the quarry hospital and open it to the public. It's one of the few hospitals of its kind in Britain.

More on the slate quarry hospitals.

your comments

Peter Hughes

My Dad, Vivian Hughes, grew up in the hospital. Amazing work they used to do their and some great stories of bravery and drunkenness.

Fri Aug 22 13:47:44 2008

Jo Conwy

I love the whole park as a whole, but the hospital is a very informative and fun addition to the day out.

Thu Nov 1 09:48:36 2007

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