

Notes on the History and Context of the Miners Barracks at Lockett, Stoke Climsland, Cornwall.

”The purpose-built Miner’s Lodgings should be acknowledged for its very unusual purpose and function, that of accommodating men working in extreme conditions in mines away from their former homes, interesting cultural evidence of the desperate nature of the plight of the working classes in the later nineteenth century. An analogy can perhaps be made with the way that so many Cornish miners also lived in far-flung parts of the world, particularly in the Americas, South Africa and Australia. These miners worked away from their families and usually sent money back home to support them.

The Mining Society:

Arsenic mining and processing

was the third phase of the mining industry in 19th to 20th century Cornwall, coming after the downturn in the markets for copper and then tin. The heavy infrastructure in place by then and the discovery of the value of arsenic as an insecticide made the extraction and treatment of the ores well worthwhile.

“The principal arsenical insecticides were Paris green (from 1869) superseded by London purple (from 1878). During the latter half of the nineteenth century the leading world output came from the eastern part of the nominated Site (Tamar Valley). Production of this semi-metal prolonged prosperity long after other metalliferous productions had declined....it was in the 1870s that a handful of mines in the Tamar Valley mining district were producing over half of the world’s arsenic.” (ref World Heritage Site web-site)

The redevelopment of mines at Lockett for arsenic thus took place in the 1870’s. The buildings associated with it include 10 to 12 arsenic calciners and a large arsenic ‘grinder house’.

Full records of the reopening, upgrading with new machinery, and then sudden closure, are held in Cornwall’s County Record Office, County Hall, Truro.

The Brunton calciner used most widely for roasting arsenic ores to release the arsenic, was designed in the 1820’s, but not widely used until decades later. At Lockett refining was taken further in a purpose built complex, described in full in the Mining Journal in 1876.

In West Cornwall, the renowned and recently conserved Botallack calciner and labyrinth complex was built in 1908.

At Lockett, New Great Consols Ltd mined 10,000 tons of copper from 1867 to 1874; was redeveloped as New Great Consols Tin and Arsenic works in 1874, processing 60-70 tons of material per day and planning up to 120 tons a day when wound up suddenly in 1877 due to cash-flow problems. New equipment had just been installed. It had already produced 3,580 tons of arsenic – all scraped from the flues by hand, ground-finely, and packed into large barrels, then taken away up Kit Hill in steam wagons to be shipped to America.

The building of the barracks was reported in 1872. It and the arsenic grinder mill are rare and specialist structures, surviving here along with the 12 calciners, the flue systems and stacks which are all protected by Listing.

Photographs of c1900 show the 25 acre mine area still covered in large wooden buildings. The equipment was all still in place.

By 1920 only some timber skeletons remained.

In 1938 the heavy machinery was all scrapped, and

1940's air photo shows the site before large quantities of reprocessed spoil were deposited on top as terraced settling beds.

(for the above, see "old photos, maps and plans").

The village and community

The tiny hamlet of Luckett developed on the edge of the mine from the middle ages onwards, in line with mining activity.

The village is situated in a deep valley at the foot of Kit Hill (1¼ miles to its summit), where mineral lodes run roughly west-east parallel with the valley bottom (containing an unnamed tributary of the R Tamar).

Evidence of tin streaming and records of 16th century lode-back mining are to be found all along the valley.

In the 19th century the surrounding agricultural land was in full use by the farming community. With other active mines nearby, miners and their families were accommodated wherever possible on local farms and in cottages, most of which show signs of sub-division and the conversion of tiny barns etc.

In the later 1870's when the workforce rose from approx 200 to over 300, it put extra pressure on a rural village and area already seriously overpopulated ever since the 1840's and 50's.

Censuses show that people were living 14 to a room, and over 120 people are recorded as living beside the wide Kit Hill road into the village where there are just 4 houses now, suggesting shanty or other temporary housing there. In spite of the work, times were hard, and the parish clothing list shows that 120 families qualified for help.

The smallest cottages which date from the C19th were built in different vernacular styles, maybe representing the various parts of the country from which people came to join in the 'boom'.

In 1871, when New Great Consols Ltd was working, 38 households were squeezed into the village and local cottages - an increase of 23 from 15 households in 1851.

(ref Census records)

Most incoming miners at NGC may have been single men from mines in West Cornwall.

The need for a barracks at Luckett must have been critical.

The Mine Barracks as a building:

The barracks is built half of timber. Its upper half is made of double-skin weather-boarding on a timber frame. The window frames of the barracks show no sign of having been painted, and survive well.

Many of the mine buildings at Luckett shown in pre-1900 photos were built using wooden boarding.

In the village one large and one small barn were also half boarded, but both have now been replaced by stone.

Mine barracks elsewhere:

Comprehensive searches to confirm its importance have been carried out across the country through a wide number of local specialists and not least the:

World Heritage Site Team at Cornwall County Council

SMR's in Cornwall and Devon,

RCHM's records and photographs,

Cornwall Record Office,

Local Studies Library, Redruth

RIC Museum, Truro.

Findings to-date show that

The Barracks building at Luckett is a rare survivor:

1. The nearest in design, layout or construction were -
 - 'Plan of Miners Barracks' plan only, drawn for Camborne and Illogan 1890 (CRO ref TL/16/18) – plan only
 - 'Mining workshop' at St Day, Cornwall – a small all-timber building or similar building style 1840's, not for accomodation – said to be Listed
 - Wheal Phoenix, Minions, Cornwall (ref A Sharpe CCC) – foundations only
 - Ailsborough (ref P Newman, EH c 2000), Vitifer 'Miners' House', and Hexworthy, all on moorland Dartmoor (ref T Greeves 'Tin Mines and Miners of Dartmoor – a photographic Record' 1986) – recorded in photographs, all now reduced to low foundations
 - 'Gold Miners Barracks' Tyddyn Gwladys Gold Mine, Merionethshire - a wooden or wood-lined building with open ceiling and beds, not bunks, c 1930-40 – archive photo only

(For the above, see "old photos, maps and plans").

2. Others are either
 - Rows of one-room cells or similar, with their own chimneys - Wales, Sark (most now ruins, roofless or Sark's is converted to housing)
 - Mine shops, incorporating smithy, stable, mine office and store – well known on remote mines in the lead mining area of Derbyshire etc, but only three standing have been found – (one restored at Killhope mining museum, one a shell but preserved, and the other possibly demolished.)
 - Others which originated eg as military barracks and then became forest workers – Forest of Dean
3. None have come forward related to canal building or coal mining.

4. Remoteness was an important factor in the need for barracks, density of population was another.
5. The conditions suffered by those living in barracks and the colourful memories and descriptions of them as far worse than the mines themselves, underlines the high importance of any surviving examples, as a social record.

Social importance of the building:

Arsenic workers worked under very severe conditions, covered in the white dust which they scraped from the flue walls with almost no protection. They tended the 12 calciners which roasted the concentrated ores, or worked in the grinding mill packing it into barrels. They and miners all working their 8-hour shifts were amongst those living at the Barracks, sleeping on pallets never cold as one group replaced another, and forever suffering from the serious effects of the arsenic dust which they lived, breathed and slept amongst.

(For conditions in a barracks or mineshop, *see 1862 Commission Report*)

After closure of New Great Consols, members of local families were amongst the thousands who went to work on mines abroad. Three Lockett men of families working at NGC in the 1870's, are later shown in a photo at 'Mrs Tregaskis' Lodging House, Utah' (another wooden building) - at least two returned and their descendants continued to live in Lockett.

Reason for the rare survival of this building

When New Great Consols Mine closed suddenly, it had just been developed with a lot of new equipment and had high potential.

The mining equipment was all kept intact, while an Agent was employed to keep charge of it for another 20 yrs or so.

This would have included the Miners Lodging, where the lodging keeper and family (Rowe-Pellow) stayed on as other families did in the Company's cottages in the village, eventually acquiring ownership three generations later (but almost too late for this building).

It is only in photos of c1900 that you can see the full scale of the NGC workings, covered in large wooden buildings up and down the valley sides, and elevated tramways.

During the early 20th century, some income was drawn from a small set of settling beds, extracting minerals from the previous dumps.

Village families had stayed on, depending on their jigsaw puzzle of garden plots.

Young men emigrated, and part of the nearby woods were allowed to be cleared to grow market garden crops employing the women and children.

The Depression was made worse by outbreaks of Meningitis and TB, and whole families of children died. Strawberry growing was providing some work then, and the Barracks was used in wet weather to make punnets using a stationary tool set up there.

By the 1930's most of the wood had been removed from the mine site. By the 1940's Lockett was well known as having the most complete set of mining apparatus anywhere in Cornwall (*F Booker "Industrial Archaeology of the Tamar Valley"*).

It was only after 60 yrs, shortly before WWII, that the bobs and boilers were sold off when German boats evidently came up the Tamar to Danescombe buying scrap. In the late 1900's, elderly local people still recounted that they used to say "here come our bobs and boilers down on us", as bombs aimed at Plymouth were emptied over Kit Hill. Those in their 90's were still taking arsenic drops daily to protect them against poisoning (!) (*ref oral tapes, Parish Archive*)

Then at last in 1946 the mine was re-opened, second-hand boilers etc were brought up from W Cornwall, and an aerial ropeway and a processing mill was set up to separate the complex mixture of ores, introducing and trialling several new methods of electro-magnetic separation and chemical flotation. The old levels were pumped dry, taken deeper, and extended to the north east where a 'hole the size of a cathedral' was created. Large quantities of material were brought in from other sites to be re-processed and vast settling beds gradually built up over the earlier remains. 130 people were employed. These mostly came from Estonia, Poland, Latvia etc and again had to be lodged in the village, this time at the Count House. Older experienced local men and young ones from nearby came by lorry and motorbike; they trained here until closure in 1952, and then again had to leave Cornwall to seek work in the coal mines in the north or abroad or nearby at Trebartha, which had a short reopening.

The few other mines working at that time also employed Polish etc immigrants.

So the mine had come back to life, but the Lodging no longer suited as accomodation.

This building bears witness to the changing fortunes of the mining community better than any other. It had not been changed or added to at all until water began to come through the roof in the 1990's, when some superficial work was carried out but no alterations.

The barracks building was thus never used as a house, sold, converted, upgraded or modernised but, like the local community, was put on indefinite hold after 1877. It is still known as the Miners Lodging and respected locally as that – a fluke survivor along with the rest of the mine of that time.

However, unaltered as it is, it now represents the mining community of the late 19th century Arsenic boom period, demonstrating the harsh conditions under which people had to work and live, and is an important educational resource for the future.

Building design, with survival, alterations or additions:

This was a very simple building, but sophisticated in its design. It catered for a large but varying number of men to eat and sleep in two large open spaces each heated by a single fireplace.

It allowed for the miners to enter the building directly from the mine. If they entered from the road, they may have removed soaked and dust laden garments in the lodging-keepers' stair room before entering their communal accommodation. Two doorways have been blocked, which led from the Lodging-keepers' accommodation directly into the upper and lower floor of the miners quarters. There was an outside privy and a small washhouse, now gone, which are believed to have sat on top of the leat and wheelpit of an earlier mill next door, which ran past the rear of the building.

It provided private accommodation for a family who cooked etc for the miners in their own kitchen / living room, which had two large built-in cupboards, a hearth with range and pasty-trays set into the hearth walls, and a granite sink into which clean water could be tipped from outside. A stair led from the large lobby to their own two sleeping rooms above. There is no evidence for bunks, so beds or pallets may have been used as at Tyddyn Gwladys in the 1940's (*see "old photos, maps and plans"*).

What has been lost of the original fabric ?

Parts of the two timber floors (and ceiling if there was one) of the communal part, original glazed sashes of some rear windows, two original external doors, banister (if it existed) to miners' stair, upper chimney at east end, planking and weatherboard of rear first floor of east part.

There would have been no other fixtures or fittings.

Everything else survives, except for the outside privy and wash house.

Most of the original fabric remains in good or excellent condition.

Where it has gone, due to water entering the building and safety considerations, plenty remains to show how restoration should be completed.

All other internal features and details survive -

(see 'Notes on the building plus photos')

In the lower (barracks) end –

- Stone east end wall, and stone partition forming west end of this part – both with remains of limewash paint. Stone partition has door leading to Lodging-keepers' accommodation
- Stone front and rear walls to first floor level with supports for timbers of first floor, and wider stone walls of part-cellar to support timbers of lower floor. Limewash finish to side walls downstairs, end wall upstairs.
- Wooden walling to first floor space at front, and western half at rear of building – weatherboard outside, fine planks inside in good condition, on timber framing.
- Upper and lower hearths in east end wall, with fireplace surround downstairs and plastered chimneybreast.
- Wooden floor with joists across and boards running lengthways along the building, at east end downstairs and small part of west end upstairs.
- Staircase against stone partition at west end, with chamfered detail, and no banister.
- Complete roof timbers, with batten and slate roof.
- Two square ventilation panels
- Original front door onto street for use of miners.

- Window frames - still unpainted and good after 130 yrs, with slate cills downstairs, wooden upstairs. Some original glazing in-situ.

In the upper (lodging-keepers') end –

- Stone west end wall, with two hearths and chimney stack.
- Stone walls to first floor level, as above
- Original wooden planked partition (similar to inside walls) creating third space on each floor. This space contains original staircase with chamfered detail and banister against the wooden partition, leading to Lodging-keepers' two upper rooms – one leading from the other via original panel door, and on lower floor has rear door leading to mine site, and next to it a doorway with original braced door leading through stone partition into miners accommodation. It may well have been used for hanging all the wet and dust-laden outer clothing. At the road end of the wooden partition is an original door leading into the Lodging-keepers' accommodation. Original wooden boarded floor / ceiling.
- Lodging-keepers' lower room with original wooden boarded floor and ceiling, hearth with built-in cupboards either side, and granite trough with access from outside and in, for supply of clean water. Pasty trays (and possibly range) seen by previous owner when superficial modern fireplace was lifted away to be replaced by a gas version.
- Lodging-keepers' upper room with original wooden walls front and back, original ceiling and floor and wooden partition wall described above, original door and frame, hearth in west end wall hidden by superficial modern fire.

History of the building, including changes –

- The changes to this building, although the simplest form of accommodation, have been minimal. Three successive generations of one family, closely linked to the mine, have lived in the upper end since it was first built and have respected the whole though unable to fully maintain it (still in the hands of the mining company for several decades and then used by the community prior to family ownership confirmed late 20th century).
- During the Depression the long table in the miners end, like all the wooden buildings on the mine site, was used for vital firewood.
- The space was used by the villagers who, working for the strawberry growing industry, made punnets here using a kind of hand-press (*ref oral tapes in the Parish Archive*).
- In the 1970's the village was described as a 'ghost village' with very few houses occupied. That changed in the later '70's and 80's as it came within commuting distance of Plymouth.
- When part of the wooden back wall and the floor boards in the lower end became unsafe due to water ingress in the 1980's-90's, they were eventually cut away and the building propped internally as now.
- During work to make the building more comfortable, the Anchor Trust (who knew of its historical importance) were very careful in what they did - removing nothing, providing extra warmth by fitting a modern electric fire, and replacing simple bathroom facilities. They unfortunately replaced the miners' front door, which had matched the adjacent one, and rotted rear windows which had been like those on the front (*see photos*). They prepared the upstairs room for sub-division by the addition of modern stud walls with a door

– however the change was obviously not wanted, since these were never boarded over. Similarly, although plasterboard was tacked to the wooden front, back and partition walls, it was never plastered or painted and the original wooden boarding can still be seen underneath. Upstairs, plaster to ceiling and two stone walls was renewed.

Additions therefore consist of studwork, plasterboard, bath, toilet and sink and water tank upstairs, and fire, cooker and toilet downstairs. The 4 rear windows and 2 doors would have to be made to match by any restoration project. Minimal electrical wiring and water have been laid on.

Losses consist of two areas of wooden floorboards (approx 50 % of total) and one area of plank and weatherboard wall (approx 25% of total), one upper chimney stack, two replaced doors, approx 5-6 replaced sashes, and two fire surrounds. All original internal fixtures, fittings and partitions are still there and have been looked after.

It is the very simplicity of this very functional building which is deceptive. It has survived remarkably complete, when all others of its kind identified or recorded have been abandoned and are now gone.

Unfortunately it was turned down for Listing in 2007, which would have protected it.

The building is still important to local people.
It dominates the village street, giving it its special gorge-like quality.

The community has not grown in number, and is again a mixture of old local families and newcomers.
All appreciate the importance of mining locally, dominated as the village is by the 25 acre mine site at its centre.

There was a recent proposal for the building to be used for educational purposes in conjunction with the long-distance walking and cycling trails etc in the Tamar Valley and E Cornwall, with displays about mining etc on the walls, and some community-run events and educational activities, through the Tamar Valley AONB service or a specially created Trust. Recent sale of the property makes a community use, protecting all original features, less likely.

Overall conclusions re the Miners Barracks at Lockett:

- Although once commonly known, there are very few surviving Miners barrack buildings of any description standing, and no others are complete and unaltered like this one.
- Those which do are mine shops of the leadmining areas of N England, which were of a different form and layout, had a different purpose incorporating other activities such as smithing, and were entirely stone built.
- That all-timber or half-timber barracks may have been usual, but as far as can be ascertained from an extensive search, do not survive today.

- That the Lodging / barracks at Lockett is a last, very delicate, survivor of a building type and a way of life which was of high importance within East Cornwall, on more remote mines or requiring large numbers of workers to live away from home.
- That as part of the important later 19th century Arsenic industry, and the human end of it, any associated buildings which still show the conditions of the time must be of high importance for educational and social reasons.
- That the arsenic industry overall was socially important in East Cornwall, where its impact on the lives of individuals, families and whole communities was as great by its collapse as it was when active. Lockett's community was and is a prime example of that.
- That as a building of high importance to the local community, the Conservation Area, the Tamar Valley AONB, and not least the World Heritage Site, this building should be protected from potential redevelopment and loss, in line with the Management Plan for the World Heritage Site and its recognition of the importance of working with local communities to protect their local heritage.

As an important representative of the arsenic mining industry in E Cornwall - probably one of the most unpleasant and demanding for the people who worked in it – the surviving structures of New Great Consols mine should be preserved. The loss of this memorial to the lives of the individuals who were the mining community at that time, under the most extreme conditions, would be a loss not only to the World Heritage Site but to us all.