

FRANK SIMMONDS RECALLS HIS QUARRYING AND BUILDING CAREER

Arthur Price

Introduction

Frank Simmonds is retired and living with his wife at Bedruthan, Windmill Road, Minchinhampton. Between 1990 and 1995 I had several talks with him about his working life and read the notes he had written for a lecture given in 1987. In February 1996 we went through this paper together making a few alterations. He has taken a life long interest in the town of Minchinhampton and has an enormous enthusiasm for the building stone once quarried on and around Minchinhampton Common. As he said himself a lot has been written about the local woollen industry but nothing about quarrying. Some of the quarrying techniques, terms and names used for the different quarrying tools are very old, and have long been out of use and mostly forgotten. They have certainly not been fully recorded in print before. I believe he is the last 'traditional' quarrymaster remaining in the Cotswolds. Additions inside square brackets [] are my own.

The Family Firm

I was born at Minchinhampton on December the 5th, 1905. My Grandfather, James Simmonds, who founded the family building firm of J. Simmonds and Sons in 1860, died when I was five years old. He was a plumber, sanitary engineer and tile pavior. Two sons followed him in the building trade, my father Ralph who specialised in plumbing and heating, and Uncle Alfred who did the decorating. They both retired around the end of the last war.

When I left school at 17 I was apprenticed as a plumber and heating engineer just as my father had been but very soon the building side of the business took my interest especially the quarrying of stone. My cousin Jack carried on with the decorating side of the business.

It happened like this: after the Great War had finished, father's business expanded during a building boom; there was a shortage of tradesmen and just like now the Government had set up training courses. Nailsworth District Council wished to build some council houses and asked Messrs Baldwin and Son, who could not take on the job because of a lack of trained men. J. Simmonds and Sons were then approached and together The Nailsworth Housing Company was formed. The planners had stipulated concrete blocks for the walls. At that time they were hardly thought of in the district and so it meant we had

to make our own. [Many quarries turned to concrete block making and the industry lasted until the 1950s.] Fortunately we found an old quarry with suitable stone only a quarter of a mile away and installed the necessary plant and power. After the contract was finished the family business decided to bring in house building full time, so the concrete block making plant was installed in the garden at No 3 West End. This was the original workshop and house of the family. "J. Simmonds and Sons, Plumbers & Decorators, Sanitary & Hot Water Work", can still be seen painted on the side of the building. "Laboura est Orare" was the firm's motto. Over the top of the workshop door was written "By Hammer and Hand all Work must Stand".

I think it was in 1925 that our firm obtained the contract for the large house called the Shard at Well Hill. It was to be all stone and I worked under a foreman in the office measuring out the stone from the plans, ordering from the stone quarries, seeing that we had all the stone on site, ready dressed for the fixer masons as required. It was very interesting. Then came the contract for Cotswold Chine and several others, all in stone. I was made foreman from the start of these contracts, so you can see I was now well into the stone industry.

The building trade dropped off on the approach of World War Two. I felt I must look for other work and as I was part of the Civil Defence, I asked at Gloucester Labour Office for a job suitable for a person with my experience. I was made Clerk of Works in charge of altering buildings requisitioned for troop use. Amongst many other jobs I prepared 25 searchlight sites, and made ammunition dumps in the Forest of Dean. In 1942 I became a Garrison Engineer in charge of building and maintaining transit camps all over the Cotswolds during the lead up to D Day in 1944. We even had Americans in the Park at Minchinhampton. After the war I rejoined and took over the firm as my father and uncle retired.

The Minchinhampton Quarries Introduced

The quarries on Minchinhampton Common were in part of a geological horizon called Great Oolite and we quarried a building stone called Weatherstone or Hampton Stone. [Another name was plinth stone.] This was very shelly rock which usually weathers to a grey colour. Churches and houses all wanted good quality stone near the ground. I consider this a much better stone than the Freestone [an Inferior Oolite rock] which came from further down the hillside from such places as Walls quarry and Balls Green. Freestone would 'blow' if the frost got in it. The old men knew what they were doing, all the exposed parts of a house, copings and pinnacles; where water dripped from or would hang was built of weatherstone. The drip mouldings we called the 'labelling' or 'eyebrows'. There were three large weatherstone quarries on the Burleigh side of the Common, Tuffley's quarry, Crane Quarry and what was

later called the Dean and Chapter quarry. On the other side of the common were more quarries between Bownham and Amberley, the stone there was of a poorer quality and they had been abandoned before my time.

Tuffley's Quarry

Our firm used to buy stone from the National Trust's Crane Quarry and Tuffley's quarry at Burleigh. Harry Tuffley worked it with his brother who was blind. They dragged out stone blocks with a hand winch or crab. There was an old lime kiln there but I don't remember the Tuffleys using it. The Tuffleys had tunnelled under a path which came down from the Common and opened out a quarry on the other side; this short underground way they used as a workshop and tool shed. It was later walled up on both sides. The house they lived in was by the entrance to the quarry, it was once a public house called the Masons Arms. [It is all built of weatherstone in large blocks.] Behind was a tunnel with a spring at the end, the water was used for brewing beer in a shed built onto the entrance of the tunnel. [I am sure this tunnel was once the entrance to the quarry which would imply that part was once worked underground. Mr Simmonds does not agree with this theory.]

Crane Quarry closed for good in the late 1920s or early 30s and the Tuffleys had just retired. This meant that there was no weatherstone available. About 1929 Harry Tuffley asked if we would like to rent the quarry and we decided to do. A few years later he died and his widow sold the site to us. It was in a mess, they had been dumping spoil and quarry waste all over the place and it took a long time to clear up. There was a large mound in the middle of the quarry with trees growing on top. It was clear that most of the stone had gone; a section about 30ft wide, in the best quality stone remained in the top corner near the common. Firstly we installed a light railway line with a turntable, the rails were in twenty foot lengths. Side tipping trucks were used to move the spoil. They were bought from Workmans the Timber Merchants, after they had excavated a logging road in the Horsley valley. We made a spoil tip with an incline up which horses pulled the trucks.

Quarry Plant

To begin with it was all hand work but later we installed two single blade mechanical frame saws in an open fronted shed. The saws could be used with 6ft or 8ft long blades; no water was needed for them when in use. The railway ran from the quarry face and fed the stone into the shed. Another shed was used as the site office. We moved the machinery from Minchinhampton and the crusher was put to work making concrete blocks, we made many thousands but it eventually became

uneconomic. Lots of the waste was put in a Deamiter [?] mortar mill. This was installed in a shed and was run by a diesel engine. It looked like a large pan 8 to 10 feet across set on a geared cog. Inside were two heavy iron wheels. The pan rotated and so did the wheels, this ground up any thing we put in, stone waste, clay, brick bats and ashes. Lime was added to make the mortar. It was always a problem getting good sand for mortar in the 1920s and the early 30s as there was not much locally. My father would buy 'drift' from the road men, this was the material they had cast up onto the verges. When work was slack in the quarry the men would wash the drift in a tub for the sand. The road men dug road stone on the Common from shallow holes they called 'drillies'. This came to an end in the early 1930s as the roads were tarmaced with 'blue stone' and lorries came into regular use. We were able to buy sand from Cerney and river sand from Tewkesbury.

Our first derrick crane came from the Forest of Dean. It had a 60ft wooden jib. After buying it on site in the forest we didn't even know how to take it down but a Forester offered to dismantle, transport and erect it at Tuffleys quarry for £32. It was pulled over to Burleigh by traction engine. The Forester shot it over the edge of the quarry and had it up in a day but the fall probably damaged the centre piece. It gave many year's service, but one day we were lifting a block when it swung round and toppled over, it was lucky no one was hurt. The next crane had a 15ft jib and was made of iron and steel, we bought it from the National Trust through their agent Mr Bass. It had been working in Crane Quarry which had closed down by this time.

Working the Quarry

After we took the quarry Harry Tuffley explained how he worked the stone and the methods used and we followed suit. We also bought and used his tools so I expect that many of them are well over a hundred years old.

The quarry was worked in the following fashion: First came the brash or 'rid', this was up to 8ft deep, we tried to blast this off but it did not work. That was the only time we ever attempted to use explosives in the quarry. Then came small beds with no fossils, a lot of the top layers were 'callised'. This stone was very white and had been used in the past for the kiln and for 'cress' pieces for roofs so we followed suit. There was no sign of the 'planking' [hard, shelly thin bedded rock used for paving, stiles etc.] as in some of the other quarries. Then the beds became deeper with more fossils, this was the weatherstone. Most of the shells were crushed but some were found complete, up to three inches across. The beds were up to 3ft thick and some blocks weighed up to eight or ten tons, although sometimes the beds could

pinch out sideways. We worked it in shelves or benches right down to the clay [Fullers Earth], the quarry was then nearly 60 ft deep. Some of the beds had a lot of 'cricks', this was a problem and sometimes made the stone un-usable. We tested the blocks by tapping with a chisel. The masons could go to a lot of trouble sawing and shaping and then the stone would fail along the line of hidden crick. Some of the stones had what we called 'sand holes' in them, they were irregular holes up to 2 inches in diameter, filled with yellow gritty sand. They made no difference to the strength of the stone but did not look nice. Such holes became more common the lower we excavated. A fossil crabs claw about four inches long was found in 1940 when I was not there, it is now at Stroud Museum.

A block was extracted taking advantage of any joints or fissures. They had to be lifted off their bed using huge square chisel ended quarry bars, each about seven foot long, before the quarrymen could split them. It would never split on its bed, the fracture would run off to one side. To split a block took time, you could not hurry it, so the men would have several on the go at any one time. First of all a row of 'mortise holes' were picked into the top of the block using a 'plug axe'. The axe had a square cutting edge about an inch wide. The mortise holes were slots with parallel sides cut in along the direction the stone was to be split. Into each mortise were placed two 'scales', they looked like slim wedges only $\frac{3}{8}$ or $\frac{1}{2}$ an inch thick at one end and about five inches square. They were put in thickest end first. Then a large wedge 18" long was inserted between the two and the same for the rest of the mortise holes. The wedges were tightened up with a sledge hammer, then you would leave it for a few hours, give them another tap with the sledge, leave them overnight, give them another tap, then it would split right down the block in a true line.

The blocks were hauled out by a derrick crane on wooden rollers using chains or a lewis. To fit a lewis bolt a slot was made in the top of the block with the same parallel sides as a mortise hole except this time it was made bigger inside the stone. The lewis was made of three parts; firstly two outside pins were put in and pushed to each side of the lewis hole, then the middle pin was put in. This locked the lewis into the stone. A shackle was then fastened on with a pin, the hauling chains could then be attached. We used a wire pulley for small blocks.

Eventually, by about 1960, we worked right up to the boundary of the Common and could go no further. The National Trust did not feel able to allow the quarry to encroach out onto the Common. The Trust's decision was a great disappointment to me. Even so I was able to use the quarry sheds and frame saws for some years after, bringing in stone, I wanted to use the quarry as a dump and build a house on the site but Stroud District Council stopped me. Sometime after I sold it, this was done

anyway. There is now nothing left of the quarry. The crane was left there and is buried. All that's left is the shed with the mortar mill. [Mill has since been removed c. 1993.]

Sawing and Working Block

We had at least six men at work all the time but often more were needed for special contract, sometimes as many as twelve Fixer Masons. Six Banker masons were also at work in our banker shed and three full time sawyers, one of whom was Albert Aldridge. We had apprentices, one of whom, Alan Norton, is now Clerk of Works at Gloucester Cathedral. We were the only place at that time training lads.



The sawing and banker mason's shed at Tuffleys Quarry.

Once extracted, double sided quarry axes were used to 'scrabble' the sides of the block square and then the masons would saw them up using long saws. The single handed ones were called 'dummy saws', although some of the men called them 'frig bobs' [the term used at Bath]. The saws with two handles were 'double handled' or 'cross Cuts'. To cut a block it was easiest to stand it up so you cut across the shortest part and down through the longest, often you could lean it against a prop. No water was needed as the saws did not bind. Numbers were cut into the top of the blocks, this had a dual purpose, every stone was identified and at a glance you could see the lie of the natural bed on the sawn face. As much as possible was sawn before the banker masons started work with mallets and

chisels. They could make the fancy items, carvings, etc. Once cut up a 'jack barrow' was used to wheel the stones around; this was wooden barrow without any sides or back.

Stone Construction

Our stone went as far afield as Oxford where it was used in college restoration. On occasion we would use stone from other quarries. The firm built a lot of houses round here. I worked with the architects (Norman Jewson was one) on some and others I designed, all built in the traditional Cotswold style. Among them was The Shard at Well Hill in 1925, already mentioned. We used stone from the Picket Piece Quarry at Avening for this job. The beds there were not very deep, about 10 inches, so it was only small stones and window mullions. I sent six banker masons to work in the quarry. The quarryman who worked it moved to Andoversford. Other houses were Cotswold Chine at Box in 1927. Castle Hale at Painswick for which we used Painswick Freestone from Catsbrain quarry in 1930. Woeful Dane Avening in 1934, Minchinhampton Youth Centre, the Roman Catholic Church at Box in 1935. For Lane House (now called St Davids) at Box in 1935 we used new Cotswold tiles, bought I think from Filkins Quarry near Oxford. On most jobs we used second hand tile. I always used Tetbury Presents as the thin frost split tiles from Bisley do not last so long. New wing for Beaudesert school, Everest House, Minchinhampton, Derham House, Minchinhampton for Lady Cripps in 1936 and Llammas Park in 1949.

A prestigious job was supplying weatherstone for Maisemore Bridge both before (when work stopped) and after the war. It was all prepared to size at the quarry and our foreman Omar Cottle did a wonderful job through the war years banking the stone ready for the resumption of work. [The stonework on the bridge is still in wonderful condition.] I advised a lot of steeplejacks and once nearly met my end on Notgrove Church Tower when measuring up stone for repairs on a ladder. We did the repairs to Minchinhampton Church steeple and pinnacles in 1937, repaired the tall spire at Painswick and supplied all the weatherstone for the Nailsworth Clock tower which was [designed by Peter Falconer], banked and built by Omar Cottle in 1954. Of course because stone was in short supply we often used second hand material. I built two bus shelters in Uley, the Stone including the central pillars came from the old Shortwood Chapel.

Of course we also sold stone to many other builders in the area and also supplied many grave stones, ledgers (6ft x 3ft) and curbs (7ft x 4ft). The memorial ledgers to the Barnsleys and Gimson in Sapperton churchyard are from Tuffleys Quarry. Most of this type of work was ordered by the Art Memorial Company. They had offices and a show room in London Road, Stroud. I used to deal with a Mr Beasley.

Other Weatherstone Quarries

In 1959 Gloucester Cathedral was having trouble obtaining suitable stone for their restoration work, as our quarry was nearly at the end of its working life. They decided to buy the quarry further along from us. The stone was never so good there, full of sand holes and a variable quality. It became known as the Dean and Chapter Quarry. We worked it for them. Stone was brought back to Tuffleys by lorry to cut up on the frame saws. They bought a metal jib crane which lifted 3½ ton, but it was not suitable, as it was meant to work with an electric motor, the gearing made it too slow for hand winding, so it was not used for long. Very little of this stone was actually used at the Cathedral so the whole episode was a waste of money for them. The stone was really only any use for rough walling and rockery stone. We sold 12 tons in 2 to 3 ton slabs to Sir Walter Preston for his rockery at his home near Tetbury. The quarry has also been filled in. The housing estate built nearby is called Deans Quarry.

There were other quarries working the weatherstone in the twenties and thirties, they all closed long before us. In Box Lane at Hampton Green was Mr Jones in the 1920s and then Mr Cox. The weatherstone was used for plain walling, there was some block but most was burnt for lime but again they could not expand. The limekiln stopped just before the war but is still there in excellent condition. Most of the quarry has been levelled and now a bungalow has been built on the site. I remember a quarryman called Mr Phipps. On Spring Hill was Mr Dee a builder, he quarried 'Holey stone' like that which is found at the Devils Churchyard. Possibly he had Crackstone quarry which is filled in. At Box House were some more quarries in the weatherstone and planking beds but I don't remember them working. [Stone from this quarry much harder than usual. Closed c. 1860.] Small exposures of Weatherstone can still be seen at Pinfarthings and Bessbury Common. There were quarries at Halfway House and one appropriately enough called 'Old Quarries' at Box farm, they have also all been levelled in.

The quarries on the Common belonged to the National Trust. [Because of the extensive quarrying operations the Minchinhampton Common Preservation League had been formed in 1912. In 1913 a once and only offer was made by the Lord of the Manor, Major Ricardo to sell the common and the mineral rights. The National Trust was invited to buy. Their policy was not to stop the quarrying outright but also not to allow any new land being used.] The largest quarry between Tom Longs Post and the Bownham Estate to the northwest was once very famous and called Crane Quarry. [Called Hampton quarries in the 19th century and Windmill quarry for a time in the 20th century. It was the first quarry to use a large crane in the district. In place before 1900, it had a wooden central mast and jib and was held in place by wire guy ropes.] Walter D.

Gorton of Rodborough was the quarrymaster and also a builder. (He had two sons, Walter who went to Australia and Captain Gorton who became an architect.) This is where some of the best stone came from. They also worked the planking beds but I don't know much about them as they died out before reaching Tuffleys quarry. His stone and timber yard was behind the Bear Inn, I can remember watching the men at work and their pan mill grinding away. He supplied stone and built houses in Dr Browns Road. He also built an estate at Private Road on Rodborough Common and used weatherstone for a high surrounding wall. When the old Gloucester Prison was pulled down he used some of the stone and bricks to build High Beech House. The squint holes in the entrance gates came from the prison.

Huge blocks were sent further afield by flat bed cart hauled by traction engines. Some went down to the railway station in Stroud. In 1910 there was talk of building a large hotel on the Common, stone in 4 ton blocks was taken up to the Common and left against a wall but the job fell through because of the war. The stone was there for ages, it did not suffer at all in the frosts. We eventually used the stone when Colonel Goss gave us the order to build Cotswold Chine.

I cannot remember when Mr Gorton stopped work but afterwards the quarry was run by the National Trust's Agent, Mr Bass, who loved at Backwells, Burleigh. They installed the 70ft steel jib crane. One of the last quarrymen to work there was Lewis Close. In the 1920s we bought stone from there to make the war memorial standing in the Market Square. When Crane quarry closed some of the quarrymen came and worked at Tuffleys quarry. They left behind a huge drop of around 60ft behind a low drystone wall and right next to the road. It was very dangerous so was filled in with rubbish by the Council. They finished about 25 years ago and then a 9 inch layer of sewage sludge was put on top and grassed over, so today you would never know the quarry had been there. The weatherstone ran out the further west you went but there were some small quarries and trials, a lot of them hit the clay. One was converted into a reservoir by the Stroud Water co. They concreted the bottom and sides but it would never hold water. A eight foot high drystone wall was built around it but was pulled down and the hole filled in. All that's left is a mound.

Tile Quarries

Further eastwards away from Minchinhampton were several tile quarries. They were never very deep and when worked left bumps and hummocks all over the fields. You can still see some of them at Hampton Fields and Peaches Farm. They were all worked before my time. However I do remember two of them in operation, one was just past the Ragged Cott. The quarrymen sold tiles and crazy paving in the 1920s. Along side the main road at Aston Down was a site purchased by the Airforce to make

runway foundation at the airfield and concrete blocks for the buildings. They installed a miniature railway of about two foot gauge along side the main road running to the aerodrome. A tiny steam engine pulled the trucks.

Underground Freestone Quarries

The most well known Freestone quarries I have already mentioned, Walls Quarry closed a long time ago. The Balls Green quarries were underground and were once worked by the Essex family, the granddaughter is still alive. Her father had Egypt Mill. A quarryman called William Blick was killed there. [In 1904 by a 1 ton block which fell from the roof while he was sawing.] The last quarrymaster to work them was a Mr Brown in the thirties. He used air drills and plugs and feathers to extract blocks. They were taken to a stone yard in Brewery Lane, Nailsworth, where he had some frame saws. It was treated with a chemical to make it last better. One of the last jobs he supplied before the Second World War stopped the work for good was the coping stones for Gloucester College. [He also supplied stone to the old Nailsworth Co-op.] I have seen huge blocks of stone stacked outside the entrance, some of them ten tons or more. It was light brown when first quarried but after the sap dried out turned white. It is a beautiful stone to cut and dress, masons liked it because it was so soft. The stone pillars and arches inside Hampton church came from Balls Green.

Another underground quarry was on the Nailsworth 'W' and one in a cutting leading off halfway down Culver Hill from Amberley. I can only assume that the freestone was of poor quality because they were abandoned before they tunnelled very far in.

Retirement

In 1973 when I retired I sent a lot of the quarrying tools down to Stroud Museum. [They are the only complete set of traditional quarrying tools to have survived in the Cotswolds.] I regret very much that the quarrying has finished as there is a lot of quality stone still there, but as all the Weatherstone quarries have been filled in you would be hard pressed to even find the sites. [A sad end to a once notable industry which did so much to shape the character of the local Cotswold scene everyone enjoys today.]