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JACK BECK AND MASSON HILL: A TRIBUTE TO A MAN AND A MOUNTAIN

Neville Gregory

Introduction: Amongst my memories are a number that I shall never forget and I would like to dedicate these here to the memory of both a person and an area of land because I believe they influenced the direction my life was to take. Recently looking through some records I came upon a news clipping which read: Beck. "Peacefully, on Thursday, 10th. October, 1996, at the Whitworth Hospital, Darley Dale, after a short illness, John Francis (Jack) aged 83 years, of Megdale, Matlock and formerly of Starkholmes Road, Matlock.

Early memories

To declare that "life is full of surprises" is an understatement and we all experience the unexpected where we often find ourselves pursuing occupations brought about by what we might call "fate". For myself, looking back, it seems to have begun at an early age. I was destined to join the quarrying industry for the winning of gritstone but, due to family disagreements, everything changed.

On reading the sad notice of Jack's death, my mind slipped back some sixty-five years, to a day when, at ten or eleven years of age I walked up that hill that dominates the town of Matlock where I was born and on which my eyes rested each time I looked through the window of my boyhood home on Matlock Bank.

As an only child, usually a loner, I would often set out to see at close range what there was on that hill that had a fascination for me. I already realised that my home was on gritstone, whilst across the River Derwent at Matlock Bridge, the hill above was limestone and the walls dividing the fields contained many fossils. In those days the area of land just below the summit of Masson Hill between the ring of trees, eastwards, to the Victoria "Prospect" Tower, contained huge tips of brilliant white calcite and spar which sparkled from reflections radiating flashes of sunlight on a bright day whilst upon dark days a "blue-grey" fume rose from the ground like wisps of steam - we supposed as a product of the lead-zinc content.

A little to the west of the ring of trees and just below the skyline I had noticed from my window in recent weeks a small cluster of buildings had appeared, in front of which soil was being tipped downhill. At this location there were no spoil heaps or earthworks and a complete absence of old mine shafts. The surface of the ground here was covered with short grass; there were many small thorn bushes right across the hillside whose growth was retarded by lack of soil cover and the harshness of weather at around one thousand feet elevation. Outcropping rocks, jagged and weather-worn, were everywhere. It was a wonderful place for picnics during school holidays.

Eastwards from this area, there were more shafts and the hillocks surrounding them were bigger as one got nearer to the Tower. Most of these hillocks had vegetated; green of various shades from short grass and colourful with the wild pansies, orchids and stonebrack. Some of the mining hillocks had two or three shafts, usually having a diameter of about two feet. Occasionally there was a larger "shaft" that had served for winding up a hoppet or kibble, but few were covered in any way. Despite the dangers I never knew of a local child falling down a shaft, though rarely a young stirk had been known to fall victim. This was because they would stand around a shaft in groups to take advantage of the rising warm air from below ground and the jostling for position sometimes caused one to slip into the shaft.

No longer could I resist the urge to go and see what was happening on the hill and from Matlock Bridge and Snitterton Road I took the path uphill through Bridge Farm. I was soon crossing Seven Rakes then on and up, close to Masson Farm, where within fifty yards or so I came upon patches of red "fox earth" and dribbling water carrying a slimey clay substance downhill between the outcropping limestone. Just above, a rather large tip turned out to be a tailings dam which had the odd leak around the perimeter. Further uphill I came upon the largest of the buildings, an open-fronted shed containing two lines of timber boxes on legs, each having an overhead shaft and pulley wheel driven by a canvas belt from another, suspended on a long shaft fixed in the roof of the building, whilst close by, set in the earth floor other pulleys were rotating a shaft that had "tines" or blades turning in water. Then, peering into the darkness at the back of the shed I was just able to distinguish an opening, where men were coming out pushing small iron trucks loaded with dirt and rock, or so I thought! I now know the boxes were "jigs" for separating the ore; the shaft with blades, a logwasher and the material in the trucks being brought out of the mine via "Knowles Adit and tipped for feeding into the logwasher was crude "fluorspar".

At this juncture one of the men stood erect and began to light his pipe; I immediately recognised him as a "local" and later identified him as "Mr Beck". "Jack" would then be eighteen or nineteen years old. He had a brother working at Mill Close mine. Their mother had taught my father at Matlock Council School and their Grandfather Beck owned the summit of Masson Hill. He also owned some land close by my home, where he had built a garage with an office above and I believe he had intended to build a house at some future date.

The next five years saw little change, then there was talk of war. Fluorspar from the vast reserves in Derbyshire was being increasingly bought by Krupp of Essen. The Beck mine on Masson closed and "Jack" became employed by the recently formed and growing firm of Derbyshire Stone Ltd. It was around this time that Grandfather Beck died. Derbyshire Stone Ltd. bought most of the land on Masson Hill from Hall Dale to Snitterton and in the other direction as far as St John's Road, behind Harvey Dale and Common Wood.

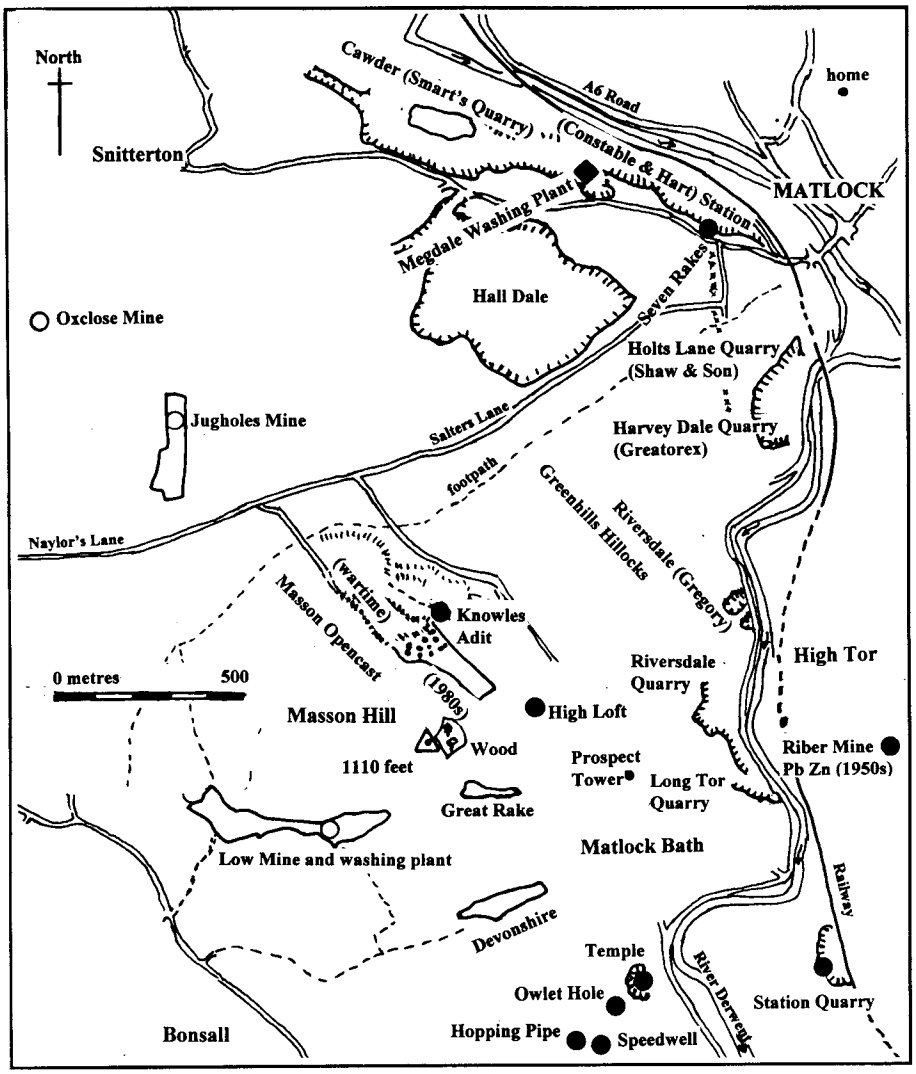
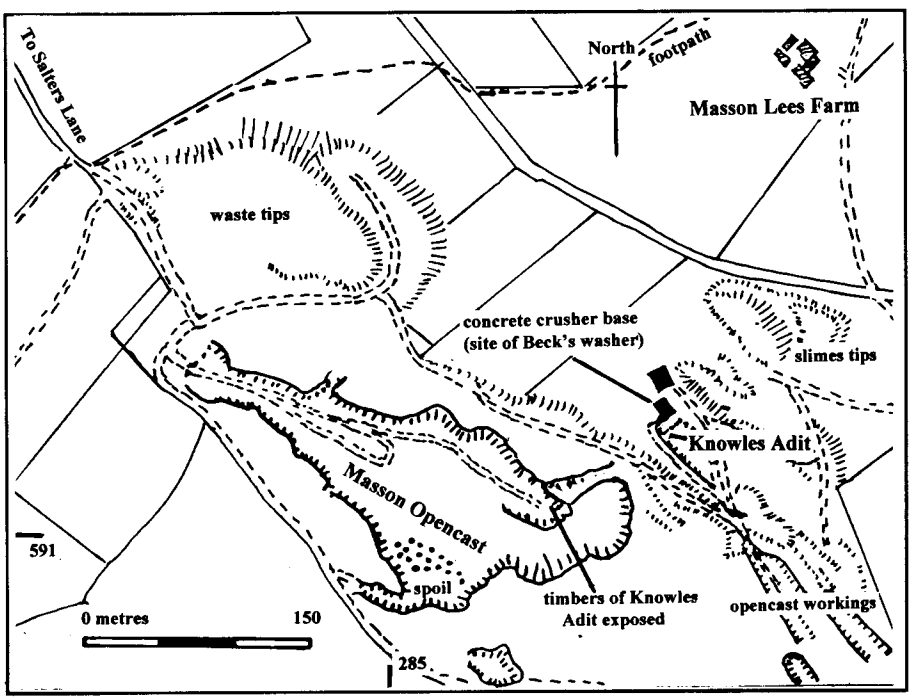


Fig. 1 (above): Quarries and fluorspar workings between Matlock and Bonsall on Masson Hill before 1970.

Fig. 2 (below): Masson Opencast about 1970, before the final working. The workings shown are now almost all obliterated.



It had long been understood that the "Great Rake", which runs east-west near the Prospect Tower had been productive of gangue minerals, as well as lead, for centuries. Near that south eastern end of the hill there was a large number of cross-veins, old shafts, underground workings and natural caverns. In addition the Rake was the source of warm water that still issues to numerous points at the surface which created such interest in days gone by. The Masson fluorspar deposit runs from the Great Rake across the hill, outcropping some distance south of the Salters/Naylor's Lane which runs from Matlock across the hill to Bonsall and Winster.

The Beck family had "tapped" into the Masson fluorspar deposit near to its northern edge by means of what had generally been thought of as "Knowles Mine Adit" situated below the skyline and west of the ring of trees on the summit. Jack Beck said this was not Knowles Adit (probably in the sense of being into Knowles Mine) and he declared that no-one had been able to identify the location of Knowles Mine, which had a history going back to the 17th and 18th centuries. However the name and adit entrance have survived.

Nearby, south of the Beck title, Guy Pearson, of Bonsall, first alone, then in later years aided by his son Lewis Pearson, had, since 1919, been extracting fluorspar from the southern, deeper end of the mineralised area, at Crichman and High Loft Mines. Here Lewis continued working until 1971. The Pearsons had nothing but a small petrol engine at surface for a number of years, prior to which they wound-up their ore by hand, using a stowes and a hoppet. Shafts in limestone ground were almost always lined with pieces of that stone. Hauling up a bucket could dislodge the lining causing it to collapse, so where, in narrow shafts this could happen, a special type of bucket was introduced. Large buckets with straight sides were called "kibbles". The hoppet used by the Pearsons was narrow, tall and barrel shaped. Because of this shape only the middle part of the hoppet could "rub" on the ginging (lining of the shaft) and glide over it rather than pull it out of position. The shaft they regularly used was Crichman Pipe, but below ground they were able to "get" the ore, size and wash it before it reached surface; a vastly different scale of operation to their neighbours some four hundred yards to the west.

Jack was placed in charge of all Derbyshire Stone's mineral operations and remained so until his retirement, though in later years comparatively little sparring was done by the company and its successor, Tarmac. As well as the workings near the summit of Masson Hill, plus lines of old hillocks lower down at Greenfield's Farm, there was Ox Close Mine at Snitterton, another mine where Seven Rakes came into Station (Cawdor) Quarry at Matlock, and there were mines at Matlock Bath; both under the Upperwood (Speedwell and Hopping Pipe and a side entrance to Temple, in what is now Gulliver's Kingdom) and in Station Quarry. Jack was also involved in the later (1950s) lead/zinc Riber Mine at Starkholmes.

From 1939 to 1945, the growing demand for minerals caused hitherto long deserted lead mines to be explored and re-opened for the winning of gangue minerals. Old tips and hillocks were removed even though the quality was low grade. The demand for crude ore continued long after the war. Materials for producing new machines, for re-building factories, for modernisation of old premises and processes, for modernisation of farming, manufacture of plastics, developing atomic energy, the space programme and of course the new major highways to carry the ever growing number of road vehicles.

The wartime production at the summit of Masson Hill was opencast, limestone being crushed in a mill which replaced the Beck's plant (the base is still there) or taken to Derbyshire Stone's primary crushers at Cawdor Quarry, whilst the minerals won were taken to the mineral processing plant at Megdale, sited just above Cawdor Quarry. The early days of the war saw the Megdale plant grow in size, but throughout its life it remained environmentally friendly, employing only mechanical separation which was ideal for the steel industry. This was not surprising when one considers that John Hadfield was Company Chairman of Derbyshire Stone and son of a Sheffield steel producing family.

The quarries on Masson Hill

In the early 1930s there was, for a short time, a total of nine (or, perhaps, ten) limestone quarries in production along the Derwent Valley between Matlock Bath and Darley Dale. All were eating into the base of Masson Hill, whilst to the south and west (at Cromford, Bonsall and Ible) there were other quarries nibbling at the same hill.

In the year 1930, there were six quarries working in Matlock Dale, all but two of them for limestone. These were situated between Matlock Bath Station and Matlock Bridge Station. Beyond the Station were three (or four) None are working today.

1. Station Quarry, south of Matlock Bath Station, produced crushed limestone, both dry and tarred. It had a rail link, south side of the "Up line" platform but also despatched by road.
2. Long Tor Quarry" - opposite Starkholmes Iron Bridge, Matlock Bath, (a once famous show cave runs behind the quarry face) produced crushed limestone and some tarred limestone, and is believed to have had the same ownership as Station Quarry, Matlock Bath.
3. Riversdale, opposite High Tor: two limestone quarries adjacent, but may have ceased operation by 1930. This was the site of a spectacular landslip in 1966 which blocked the A6 for three months.
4. Riversdale: two small quarries opposite High Tor which worked basalt, mainly in the form of weathered boulders (which had a tendency to roll into the road) and, possibly, some dolomite. The more northerly, adjacent to High Tor Guest House, had a small crushing and screening plant worked by a gas engine, for dry stone. Operators, all for a short period, included Grattons of Bonsall and George Crowther of Matlock. Both quarries were owned by John Gregory and successors and were leased by various operators for short periods. They delivered by road.
5. Harvey Dale, near to the bottom of St John's Road and opposite the footbridge to Matlock Church, was owned by Greatorex and Sons. It produced dry and coated limestone, together with asphalt blocks fused for roofing, flooring and for between deck-plates on ships to prevent penetration by missiles during war. It had a large crushing plant and stores on the river-side of the road opposite. They ran a shuttle of six steam wagons between the quarry and Matlock Goods Station where they had a private loading dock (designed by my father, it was his first job as a railway employee when aged 16).
6. Holt (Lane) Quarry, next to the railway bridge where John Hadfield House was later built by Derbyshire Stone). Here Alfred Shaw and Son produced dry limestone in many sizes, transported by road, or via Matlock Goods Yard, by rail.
7. Station Quarry, Matlock produced mainly dry stone, and had a very long loading ramp where 6 ton trucks of stone were pushed up by a small shunting engine, four at a time. Main line trucks were shunted beneath the ramp and the hoppers above discharged into them, then the empties were allowed to run back down the incline, by a man with a pole, levering the brakes. Every boy wanted that job!
8. Constable's quarry, produced both dry and coated stone, both tarred and bituminous coatings in addition to dry stone.
9. Hart's quarry, produced mainly dry stone, but they amalgamated with Constables and together as Constable Harts, they had huge tar and bitumen storage tanks in the quarry. I remember it being on fire and all Matlock feared the tanks would "blow". In that particular year, there were 5 fatal accidents at Cawdor quarries. Fire in the"tar tanks" caused one man to fall into the boiling tar: presumably he was trying to dowse the flames; in another incident a man slipped and fell into the primary crusher; a steam crane, lifting a skip, fell over and crushed another man. Of the two other deaths one was believed to be due to a shot-firing that went wrong and the other was a fall from the quarry face. Though the exact year is unknown, it was during the early thirties and was, even in those days, quite remarkable for so many tragedies to occur in one year at one location.
10. Originally, there was a quarry owned by the Smart family situated at the western end of Cawdor. It produced dry limestone.

Hall Dale Quarry, which is to the south of the older Cawdor Quarries, was opened up as a separate limestone quarry in the 1950s by Derbyshire Stone. It had been decided that to tunnel beneath Snitterton Road from Cawdor would probably cause its collapse. There was also about eighty feet of dolomite limestone near road level rising up the hillside which would have to be moved to break out to the day once the tunnel had passed beneath the road. The alternative followed was to take off the limestone, following the contour of the rising dolomite, so there was, for many years, a large quarry with a sloping floor (abandoned since the 1980s).

In the 1930s, before the war, there was little mechanisation in limestone quarries for the winning of stone in Derbyshire, save for "steam powered cranes" used to lift the skips on to trucks for transportation to the crusher. The skips were hand-loaded after the rock had been broken by hand into the size

that the jaw crusher could take. The larger quarries used steam locomotives and trucks on rails to move the stone. Compressed air drills were used to bore rock for blasting in the primary stage and following a blast where huge lumps needed a further reduction. The latter was called "popping" due to the small amount of powder needed and the noise it made. I can remember the first time a charge to bring down 1,000 tons of limestone at Matlock was "fired" and that the townsfolk were not happy. Tunstead quarry had been carrying out this practice for several years and it was not long before a hundred thousand tons were being fired at a time.

Some of the older quarries produced limestone setts for road-making. They were made by use of a hammer and had to pass through a sizing plate to maintain regular shape and size. Crushed limestone, all broken by hand, was treated in the same way and had to pass through screens, or plates, having various size holes in each plate, but the "offcuts" of larger stones could in turn become a smaller size, so there was no waste and even the small fragments and dust could be used for "blinding", that is for infilling between the larger road-stones. I can remember the main A6 being a limestone highway where the steam roller was used to press various sizes of stone on to the ten or twelve inch base stones that were laid by hand, then using jets of water to spray the blinding surface for compaction as well as to reduce the dust generated by the vehicles passing over the surface.

The 1920s and 30s saw rapid improvement of quarrying methods as steam lorries, cranes, narrow gauge railways and powered crushing processes using the new technologies of electricity and diesel power were introduced. These led to much higher levels of production. Many types of asphalt products were developed for surfacing highways.

It may well have been the Buxton "Hoffman" quarry (the founder quarry of Imperial Chemical Industries) that triggered the great amalgamation of smaller quarries in Derbyshire. ICI closed a number of their smaller quarries in the Buxton area, following amalgamation, in favour of being granted planning permission for one large operation at Tunstead alongside the main railway line near Buxton. (In the early thirties local people had a "gut feeling" that the name "Imperial' attached to this company, was not of Britain, but of Germany, a feeling which probably developed from the effect on jobs.)

Like Buxton, before the 1930s, the Matlock area had so many quarries competing for orders for limestone that it was realised amalgamation would reduce competition and undercutting. In a short space of time, Constables, Harts and Smarts became one working unit, joined soon after by Matlock Station Quarry, Harvey Dale and Greatorex's. Shaws quarry closed from about this time. In Matlock Bath, Long Tor quarry was the first to close, followed by Station quarry. Those at Riversdale had eventually proved to be uneconomic to both General Refractories and several private individuals who each had leased the other for short periods of time. Those quarries west of Matlock (Bridge) Railway Station, who had formed the "Cawdor Group" began negotiations and within a very few years had linked up with a number of small operations in the Buxton area to become "Derbyshire Stone Limited". In a further wave of amalgamations, Derbyshire Stone later became part of Tarmac which itself has been recently absorbed into an even larger organisation.

Masson and Town and Country Planning

After the War and into the 1960s fluorspar, barytes, calcite, the lead/zinc ores, sands and gravel and of course coal, all had a great future in Derbyshire. Matlock became the County administrative centre and that too had to grow, which it did as mining and quarrying declined.

Various forms of town and country planning had been introduced centuries ago, for numerous purposes and in the 1930s controls for building had been established on a national level, but the winning and working of minerals only came under serious discussion after the return to peace. The next thirty years saw many changes to minerals planning law and eventually it was almost entirely re-written to keep up with rapid changes and industrial development.

With the introduction of Minerals Planning in 1947, Derbyshire Stone Ltd. submitted an application dated 7th. June, 1948: then, following discussion with the Local Planning Authority, an amended application for the continuation and regularisation of mineral operations on Masson Hill (No. M.A.78, re-submitted under Code No. Mat/150/1) was made. On the 10th. January, 1950, the Minister of Town and Country Planning notified all the interested parties that the revised application by Derbyshire Stone Ltd. was being called in (No.1350/9/7).

On the 25th. May, 1951, the Ministry of Local Government and Planning issued a favourable decision subject to certain conditions requiring as much spoil as possible be disposed of by backfilling, levelling off and being covered with topsoil previously stripped, in agreement with the Local Planning Authority. Any spoil which could not be so disposed of was to be tipped in two levels as on the agreed plan. Tree planting was required for screening the approved tipping area. There were controls for new slime beds, plant, machinery, shafts and adits, but there were no conditions imposed in respect of blasting, hours of work, duration of operations or for the restoration of the site as a whole. In October, 1957 Derbyshire Stone Ltd. submitted a planning application (Code No. MAT/1057/5) to extend existing mineral workings by winning and working magnesian limestone and associated minerals over an enlarged area of Masson Hilltop.

This was considered by the County Council in the light of the previous decision and consent was granted on the 22nd. January, 1958. Similar planning conditions were imposed, but, again, the duration of operations was unlimited, hours of work and blasting were not included in the conditions although provision was made under Condition (la) for progressive restoration as the workings advanced, with ultimate grading of the excavated area to reasonable contours.

Such old planning permissions failed to recognise the future changes and the enormous quantities of materials that were to be required. They were often given a life of sixty years because the "getting" of stone had always been hand produced, taking a great deal of time, but now huge machines were employed to do this work. Traditional quarrymen were no longer needed and were superceded by excavator drivers, borehole or well-sinkers, dumper-truck drivers etc.

Permissions given for working areas which had been thought sufficient for a quarryman's lifetime were now fast running out, so because of modern machinery, quarrying in depth became the next step. Huge dump trucks could haul tens of tons each load up steeply inclined roadways to crushers so large that huge blocks of stone could be reduced to numerous sizes from about fourteen inches to one half inch and/or to

pinhead-sized dust. It was used for supplying the sugar beet industry who usually had large pieces for burning (to make burnt lime) to bleach the sugar, whilst the fine limestone dust could fulfill many uses as a filler for the linoleum manufacturers, chemical trades and of course fine asphalts.

In 1977 the Local Planning Authority found that Laporte Industries Limited, without notification, had taken it upon themselves to remove the two-tier tip on Masson Hill, referred to earlier, claiming they were justified so to do under the terms of consent granted to Derbyshire Stone Limited in 1958, despite the fact that the tip had vegetated and when viewed from Matlock Bank, had blended into the surrounding area and therefore no longer created an eyesore.

In the discussions that followed, Derbyshire County Council officers persuaded the Laporte representatives to leave the vegetated face of the tips undisturbed to preserve the view from Matlock Bank. This was low-grade ore and no-one but Laporte with their "froth-flotation" separation plant would find it possible to extract profitable material from these tips.

The presence of high grade ore was known from underground workings to the southeast next to the Pearsons' workings, but covered by up to a hundred feet of dolomitic limestone, but this had no value at the time and the site was again abandoned for about eighteen months.

In 1978, Laporte asked the County Council for a meeting to discuss the future of Masson Hill. In the past two years there had been five fatal accidents at the Company's Ladywash Mine, near Eyam and coupled with diminishing reserves of ore they were forced to reconsider the removal of that one hundred feet of dolomite to reach the remaining pockets of fluorspar at the south-east corner of the Masson site and work recommenced in September 1978.

Within days complaints were received by the County Council about lorry traffic between the site and Winster and about blasting vibration and destruction of the environment. Matlock residents complained to both District and County Councils, the Police and the Mines and Quarries Inspectorate, who all took such steps as available to them to control the situation.

The County Surveyor, at meetings that followed, thought there was excessive use of Naylor Lane, from the site, by six and eight wheeled vehicles, so Laporte were surcharged for this excessive use of the road and, additionally, they paid for a number of new lay-byes to be constructed along the single roadway and the lane was widened where possible then surfaced to keep dust at a minimum. The operators employed specialists to monitor blasting and in the use of explosives.

By July 1979, complaints and public concern had diminished and it is worthy of note that many of the complaints received that year had confused Laporte's operation with that of Tarmac Ltd at Hall Dale Quarry, lower down the hill and closer to Matlock. The complainants seemed more concerned about the advancing face of that quarry, which had received Ministerial Consent in 1946, with local planning authority permissions for extension in 1959 and 1960. In May 1979, the boundary of the proposed extractive operations on Masson Hill were clarified and certain working to the north of their excavation was to be backfilled as soon as the internal roadway to the working face had been established.

By August 1979, the large hole originally excavated by Derbyshire Stone Limited, had been back-filled to original contours and by maintaining a good working relationship with the operators, who kept their word, the County Planning Authority were instrumental in achieving a far better restoration of mineral workings on Masson Hill than had ever been envisaged.

By the year 1980, the surface of the site had been cleaned up, walls rebuilt, areas seeded to grass and the circle of trees restored as I remembered back in my boyhood days, though the last section of the opencast has been left open by agreement so as to preserve geological features.

We have now almost completed the circle. The scene today is not quite as it used to be - some would think it better. For those who may be interested it is hoped this story of memories of a man and a mountain may put the name of the late Jack Beck into the annals of mining history along with the name of Masson Hill, where they both surely deserve to be.

Nevil Gregory