

Chapter 4

19th- and 20th-century developments: the spread of surface quarrying and the growth of the quarrying village

Introduction

The first years of the new century saw the break up of the old Allen Estate structure at Combe Down. New landlords emerged and new entrants came into the freestone quarrying business, both in the old core area and the peripheral areas of the future Combe Down parish. This chapter concerns the developments at surface and the story is continued, briefly, to the end of substantial quarrying in the 20th century.

Two new major transport developments affected Combe Down in the first 40 years of the century, though they hardly affected the landscape of the Down itself. First was the opening of the Kennet and Avon Canal and its branch the Somersetshire Coal Canal in 1810. This led to wharves being built in Bath near the old Dolemead site, another near the Dundass Aqueduct at the bottom of Brassknocker Hill and others at Tuckingmill and near Midford, which opened up markets to the east. The Nowell family opened a wharf in London at Pimlico (Irving 2005, 68). This was to be a golden age for Combe Down, with perhaps its highest levels of production, probably for underground quarries, but certainly for the outputs of numerous surface quarries which came to dominate. The canal also linked quarries in Wiltshire to Bath, a competitive threat more fully realized in about 1840 when Brunel's Great Western Railway came via Box Tunnel, actually cutting through the Wiltshire freestones on route to Bath and Bristol. The huge reserves there of thick, massive and easily worked freestone became marketed as 'Bath Stone'. Its production on a much larger scale opened a new era of fairly cheap and abundant stone for the building industry, and it thus became a massive and ultimately overwhelming competing source. Combe Down went quickly into relative decline and, after about 1860, absolute decline. Coinciding with exhaustion of the older quarries, although Combe Down probably was still the preferred choice of the Bath market, the future was becoming clearer and by the early 20th century, Combe Down was largely a relic quarrying landscape, and a growing suburban settlement.

Break-up of the Allen Estate

In the latter part of the 18th century, the still largely intact Allen Estate came into the hands of Sir Cornwallis Maude who had married Mary Bennett, Allen's niece. He later became 1st Earl de Montalt, and in 1793 became the first Lord Hawarden. He died in 1803 and his son, the second Lord died in 1807 (see Chapter 6 for details). Under the first Lord, the estate seems to have envisaged the end of surface quarrying in what is now the core area of Combe Down, the southern end of the area denoted by Allen's Fir plantation and centre of the modern conservation area. They clearly also envisaged the continuation of underground quarrying, including from the Sheeps House Quarry and the Jones Quarry which were slightly away from the centre.

The growth of the settlement of Combe Down

Lord Hawarden seems to have initiated the housing development process, improving the Old Rank, subsequently de Montalt Row, about 1795. The re-fronting, with a 'polite façade', of Isabella Place (named after his wife) a row of some slightly older cottages, added a degree of architectural as well as marital balance to the settlement until after 1805 (Fig. 4.1). This suggests Hawarden probably envisaged a settlement of mainly middle-class housing. These first houses seem to have been marketed for 'invalids', requiring somewhat cheaper accommodation than was on offer in the City of Bath, in a bracing and pleasant, wooded and elevated environment. In the next thirty years or so several substantial houses were built, such as Mrs Cruikshank's Belmont House, the Brow, and Claremont and Hopecote houses, in addition to a chapel, church and later vicarage and schools.

However, the sale of the estate (in part after the first Hawarden death in 1803, and the second in 1807), led, over three decades, to a substantial area coming into the hands of speculators who then divided the land piecemeal into leasehold or rented properties for building, gradually developing into the core community of Combe Down. The quarries in or close to the core area were somewhat similarly divided into fairly small, one- or two-acre plots, perhaps to ensure fairly rapid working across the

area and the freeing-up of more land for building. Land well outside this central area was probably considered to have less building potential and seems generally to have been divided into larger plots, as around Shaft Road and Entry Hill, for example. The land east of the Long Drung, affected by later speculation (around 1830), was sold partly on the basis that housing and quarrying could co-exist, if the latter was on a small scale.

When de Montalt purchased Prior Park and the Estate in 1788 he immediately mortgaged it. In the downturn of the 1790s the interest, even at 4% must have been crippling, as receipts probably fell dramatically, not least from the quarries. It seems likely he used Benjamin Wingrove to advise him; he was a surveyor and conveyancer, and later (1817) the Bath Turnpike Trust's first professional surveyor. Probably between them, they conceived a new plan for Combe Down, with wide roads, 50, 40 and 30 feet wide. Perhaps, as for the Turnpike Trust later, Wingrove was an expensive man to appoint, probably demanding needlessly high standards of construction (Buchanan 1986, 242). There seem few signs that Hawarden prospered under the arrange-

ments, though Wingrove and his fellow speculator Harry Salmon almost certainly did.

Wingrove was considered trustworthy enough, however, for Hawarden to sell him some of his land, reducing the mortgage on the estate by a few hundred pounds, and to be promised a further £1000 against a payment made, but without any grant or conveyance being completed. At this point Hawarden died, in 1803, leaving heavy mortgages on his Combe Down property and obligations by the sale of it and other properties to pay the £5000 legacy of his daughter Sophia (by Mary, née Allen). His estate trustees struggled and one resigned, but came to agreement with Wingrove to transfer yet more property, effectively the heart of the settlement of Combe Down as known today, to Wingrove on payment of a further £1000 (LL. A91/18/5/16). On the 4th of January 1805 the deal was done, but on reading it one can almost feel the expensive lawyerly disapproval in the huge deed which sorted out the complicated sequence of events since 1723. Wingrove now owned a large part of the area south of the Bradford Turnpike (North Road), and east of Combe Road to the Long Drung (the area

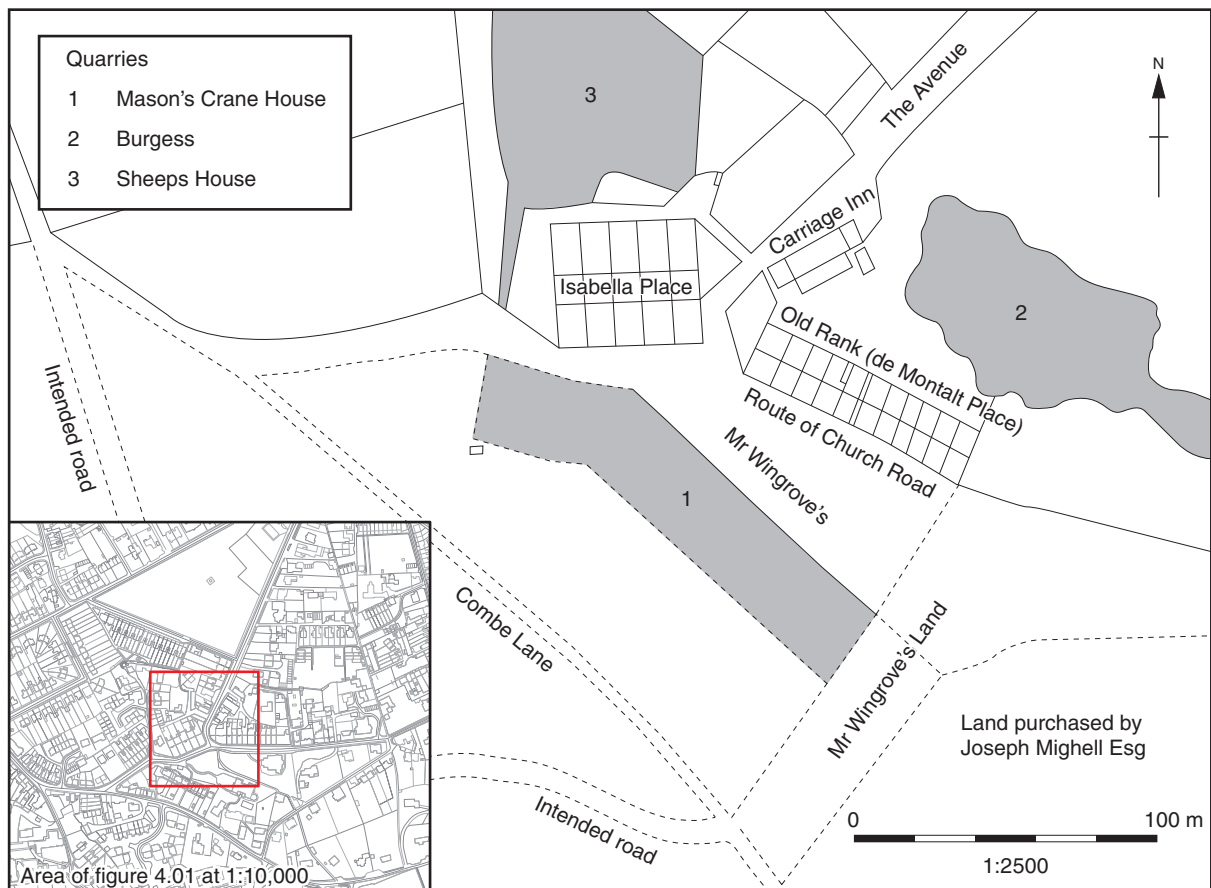


Fig. 4.1 Land at the centre of Combe Down sold by Benjamin Wingrove to Edward Layton in 1805. The three sets of buildings, from right to left, are the Old Rank which became de Montalt Place, the Carriage Inn and Isabella Place. Three surface quarries are shown. The rectangular area is Masons Crane House, Burgess' is behind the de Montalt Place and Sheeps House behind Isabella Place. Note the stable at the south-west corner of Masons Crane House Quarry. (Source LL. A/91/18/5/17)

between The Avenue and the Long Drung became known as Combe Park) and south to what is now Summer Lane.

Much the same was happening west of Combe Road, where Harry Salmon, another land speculator, was the purchaser of the 'Late Collibeas Greendown' from Hawarden in 1803, one of the sales 'made or intended to be made by Lord Hawarden' before his death. He was also to have purchased the adjacent land east of Combe Road and he was also to widen roads (Irving 2005, 28) which included Combe Road from its junction with the Turnpike. This had a new wall built down the east side, and perhaps due to location errors found by the recent Lyncombe and Widcombe Survey of 1799, it left a narrow strip owned by Salmon on the east side of the wall, which he agreed to transfer to Wingrove to consolidate the holding on the Monkton Combe side. In the event the land east of the road, including the narrow strip, seems to have passed directly to Edward Layton (*ibid*).

East of the Long Drung, the Poor Tynning, once part of the Combe Farm, was less clear in its dealings. A small part of the north-west corner was conveyed to Wingrove by a Mrs Sarah Drinkwater in 1809 and a month or two later, what seemed to be this part of it passed to Andrew Greenaway, with rights to quarry etc. Greenaway a quarryman and builder, built two houses and sold them leasehold, and then sold his rights to John Burgess, quarrymaster about 1810 (Pollard 1994, 18). Before 1809 the quarry area to the north of The Brow belonged to the Houlton family, a builder, who sold some to another builder and the larger part to John Ovens Thomas (see below) of Prior Park. He had John Cotterell, a local surveyor and estate agent lay out the land and the Tynning and Gladstone Roads for dwelling plots: the whole passed leasehold for 1000 years to Cotterell in 1830 (Pollard 1994, 16-21).

John Ovens Thomas was a wealthy Quaker, a Bristol businessman who accepted an offer to sell Prior Park to him for £28,000 from the Trustees of the second Lord Hawarden in 1808. He was a wealthy shareholder in the Kennet and Avon Canal and saw himself, perhaps, as repeating Allen's success in using the canal to help exploit his estate. The area involved included the land west of the Prior Park Estate in Monkton Combe, sometimes previously known as Colthurst Down, north of the Bradford Turnpike. This was let to several quarrymen and was an active quarrying area until the end of the century, continuing to pay royalties to a family trust after Thomas' demise in 1828.

To the south of Combe Down John Connolly of Midford Castle was the purchaser of at least some former Allen Estate lands, including Kingham Fields and what is now Vinegar Down. Both were worked from about 1810, stimulated by being the nearest parts of the outcrop to the wharf of the Somersetshire Coal Canal at Tuckingmill.

The Hadley Estate

Just before he died in 1803, the first Lord Hawarden, in conjunction with Harry Salmon and Benjamin Wingrove, had planned the core area as the nucleus of a much larger village. They modified the older tracks and laid out new roads to their specified widths and dedicated them to public use. These formed a loop with the turnpike at the north or top end, though with restricted and gated access via Prior Park Carriageway to Bath. This included Combe Road, Rock Hall Lane, Beechwood Road, Summer Lane, The Avenue and the path south of the (later) churchyard. Thus the modern road layout of the core area became a permanent feature of the landscape.

The land east of Combe Road and between the Turnpike and Combe Road as it turns east into Church Road was sold (by release of mortgage) directly by the Hawarden Trustees in July of 1805 to Edward Layton, described as then as 'of Cornwall' (LL.A91/18/5/19). Significantly it was witnessed by Edward Wingrove and it is likely also it had been agreed in Hawarden's lifetime to have been sold to Harry Salmon so this must have followed a series of negotiations between the parties. The land extended east to a straight line boundary from the centre of Stonehouse Lane at its junction with the Turnpike in the north (which had been the Road to Combe on the Thorpe Map of 1742 and was thus probably a significant ancient boundary line on Greendown), to a point on the west side of Rock Lane where it meets Church Road today. A small strip of land was, as Salmon had agreed with Wingrove, added to it next to the new wall on the east side of Combe Road. Layton, by then of Bath, then began to lease the ground to various quarrymen in a series of strips ranging north and south. He also seems to have acquired, then or later, the ground east of the Stonehouse – Rock Lane line, across to The Avenue. He also bought the village area settled around the junction of The Avenue and Church Road (Fig. 4.1), and with it the quarry at the Sheeps House entries (2342), of which only the late 19th-century western entry (close to the steps today up to the houses on the Firs) was shown, already developed for some 120 feet during the Allen Estate period. The Sheeps House quarry boundary was virtually as it is today and by 1811 included John Davidge's cottage and brewhouse at the bottom, which gave its name to the location. These buildings seem to have replaced the wooden huts formerly used by the quarrymen. Nevertheless, there is evidence underground and in documents of the use of the cartways there long after these changes.

The area of the Masons Crane House Quarry was also shown and included in the village purchase, but symbolically as a long rectangle. From their design it was not long before it was built upon to become the site of the Quarry Vale Cottages. The quarry behind the Carriage Inn and de Montalt Row, west of the Lane to the Quarry (adjacent to

Claremont today) was also shown as bounded pretty much as it is now. All these older village areas can thus be considered worked out by about 1800, though work continued on the surface quarry on the east behind Claremont and Hopecote Lodge and possibly to where Belmont Road and the old vicarage is today, for some years. John Burgess was the probable quarryman of the Hopecote end of the quarry behind it by about 1810. The owner of the land to the front of the quarry is not known, but may also have been him. He was probably facing the end of his stone reserves there, since construction of new houses like Claremont and the Unitarian Chapel of 1815 were creeping eastwards, built in the quarry or on its waste stone.

Layton died about 1808 and his estate was left to Nathaniel Hadley of Lewisham in Kent, whose wife Ann was Layton's daughter. There was no rapid build-up of houses, but more a steady series of purchases of leaseholds by, usually, men of modest means, such as John Davidge, quarrymaster as well as brewer and inn-holder whose house was sited at the bottom of Rock Lane. This sale of leaseholds yielded a steady and increasing income for the Hadley Estate for the remainder of the century. The Hadleys were absentee landlords with their home near Lewisham in south London, where their papers survive in the Library. Their estate was sold in about 1901 (Hadley Arms Papers, private collection, Combe Down).

The Layton/Hadley estate also leased-out the underground quarries between Combe Road and the Avenue and just beyond, to various quarrymasters, some of whom probably previously held leases from the Allen Estate. They worked through the mid century, and on a lesser scale to beyond the end of the century. The extent of their leases is shown on the map (Fig. 4.2) for east of Combe Road, with the similar disposals at very near the same time by Harry Salmon on the west side. These leases, all for underground quarrying, will be considered in detail in Chapter 6.

Harry Salmon's purchase of Quarr Down west of Combe Road in Lyncombe and Widcombe

Harry Salmon bought the area west of Combe Road. He promptly sold it leasehold to several quarrymasters who worked there for the next three decades, mainly at surface. Three at least of these built houses on their plots, Abraham Sumsion, Jonathon Rudman and Samuel Nowell, but the development there, for some three or four decades remained dominated by surface quarrying.

The development west of Combe road has been recently described by Irving (2005), and is largely summarised here including indicating the boundaries of the actual quarries on a modern map (Fig. 4.2) using a 'best fit' approach from the two incomplete source plans (BRO.MH/7/14 and Irving 2005, fig. 13). Irving has also researched the individual quarrymasters involved (including some on the

Hadley properties), which, for this reason is not repeated in any detail here except where it directly relates to the quarries.

Harry Salmon purchased this part of Late Collibeas Greendown from Lord Hawarden in 1802, probably in anticipation of the sale of leaseholds to several local quarrymen which quickly followed. The tracing of the boundary on the ground is somewhat complicated so is described in detail here. Its south boundary followed Shepherds Walk along the edge of Horsecombe Vale, south of Rockhall gateway from where it projected across to the back of what is now The Paddocks. From there it followed a curving path to what is now Beechwood Road. The actual Rockhall Lane as is seen today did not in fact follow the original intended road, the projected new roads set up by Wingrove and Hawarden, which followed the Lyncombe and Widcombe, and Monkton Combe boundary. This was probably along an old trackway from the Shepherds Walk path. Instead, from a point near the junction of Rockhall Lane and Combe Road, it diverted to the west, partly for the convenience of the quarry operators, but also, with future property sales in mind, to serve properties on either side of the road within the same parish – a common ploy when formerly unenclosed land was laid out. This south-east extension beyond the Lane included Byfield Place, where underground workings were reported during recent building operations (Pollard pers. comm.). The date of these is not known, but it is a likely site for early quarrying (Phases I and II) rather than quarrying currently being considered (Phase IV).

The east boundary thus followed behind the Paddocks and Rock Hall Cottages, probably rejoining the line of Rockhall Lane near Ralph Allen Yard (where a stone today marks the old parish boundary), following close to the course of Rockhall Lane and then Combe Road to the Bradford Turnpike then following the southern side of the Turnpike to just east of the Foresters' Arms. From there the west boundary was almost straight down to the Shepherds Walk corner and was delineated as a 15-foot-wide service road, intersecting with the 12-foot-wide road discussed below. Generally the boundaries fit very well to the present boundaries where this is relevant, though the link which seems originally proposed for Rockhall Lane to Beechwood road seems to have been lost, possibly due to quarrying across the line of the road.

This area was divided into two parts, to be separated by an east-west 12-foot-wide service road for the quarries from the modified route of Rockhall Lane. On the south, the land was divided for quarrying into three roughly equal portions, all fanning out from a single position from a previous entry at the west side just below Jones Quarry (now Ralph Allen Yard), thus giving an underground access available to each of the quarries which ranged from there south-east to north-west. These are the three shown in the plan of the sale deed illustrated by Irving (2005, fig. 7).

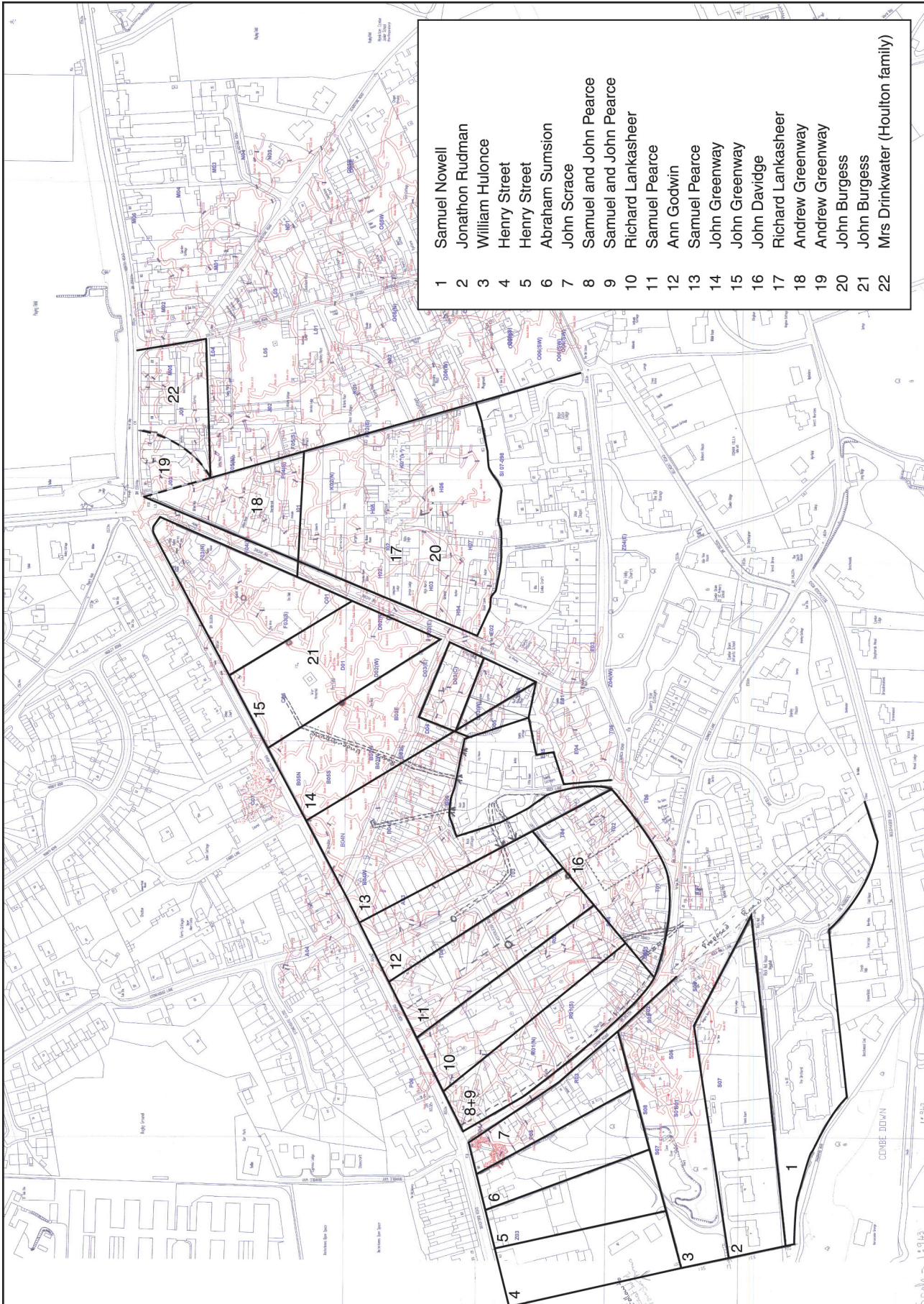


Fig. 4.2 Plan of Hadley and Salmon quarry leases (derived from LL./A91/18, and Iroving 2005 and pers. comm.)

The southernmost of these quarries was sold by Salmon to Samuel Nowell, and was operated as a surface quarry. It was later sold to Phillip Nowell, whose family house, Rock Hall, was built on this plot. Nowell was to become one of Combe Down's most important masons, working on such projects as Windsor Castle. The central of the southern plots was actually bought by Nowell and Hulonce jointly, with Jonathon Rudman first renting it for £20 annually, but having an option to purchase it, an option which he apparently later took up. This plot extends over what is now Cherry Lodge and Tor View, generally following the present boundary walls (the boundary here is the least satisfactory fit and is only an approximation). It too was largely surface quarried, though there is a small, Phase I or II underground section under Tor View, previously unsuspected (Quarry 910), which has now been stabilised. The third plot was initially operated by William Hulonce who worked the eastern part underground (Quarry 503 and possibly 504) until about 1816, with Patrick Byrne apparently responsible for its underground western end (Quarry 500, 501, and 502 respectively). The western half of the plot, worked by surface quarrying was sold to Patrick Byrne in 1805, and sold again to Henry Street (see below) in 1841.

On the north side of the area, fronting the Turnpike on the north side for which no original plan is extant, it seems likely the division was into four properties, with the length running north to south, and originally three ownerships. Only a small portion in the north-east corner was worked underground, by John Scrace up to about 1810 (Quarries 508 and 512), the remainder being surface-quarried. Adjacent to this area of land, where the Foresters Arms now stand, was a quarry in Widcombe Field opened by Henry Street in 1795 (Irving 2005, fig. 6) and this made expansion eastwards especially useful to him. The western plot was bounded on the east by more land belonging to Henry Street, with the 1836 Jewish Burial Ground at the top Irving (2005, 52). This is believed to have been after the establishment of a synagogue in Kingmead Street, Bath in the 1830s ([www. Combe Down Heritage.org](http://www.CombeDownHeritage.org)). This suggests that both the western plots were owned by Street, since the road was to his quarries and they are referred to as such by William Smith. Street sold the land for the Jewish burial ground in 1812, and the plan with the deed shows the second plot as Street's. He was also, in 1809, to acquire the next plot east, from Abraham Sumsion when the latter died, and John Scrace's corner plot fell to him a year later after he went bankrupt. The boundary shown on Fig. 4.2 is here a 'best fit' between the two easternmost plots at a small entry-road from the Turnpike, and shows equal division of the eastern plots. This fits the modern inside or west boundary of the eastern plot (originally John Scrace's) which follows the present day boundary of the garden of the houses along the west side of Combe Road.

It seems likely that exploitation of these quarries was first carried out near the Combe Road and Turnpike margins, since this allowed housing to be constructed at the earliest possible time, certainly at the junction, by about 1825 (Irving 2005, 49). Surface worked plots were restored as far as possible, and it seems likely these earliest workings have probably generally been brought up to the original level (i.e. the adjacent road level), while the later certainly remained sunken. Some of the houses on Combe Road however, on the southern part of Scrace's ground, are partly built on the quarry floor. In answer to a question posed some years ago to one of the writers, given the time gap between the availability of the land for quarrying and the building of the Jewish Burial Ground in the 1830s, it is likely that the burial ground was quarried too and restored. It would make the grave-digger's task that much easier. Much of the central and southern area of the quarry was shown as still being worked on maps in the mid and late 19th century, though this area is now obscured by infilling in recent years with spoil resulting from a new sewer laid along Summer Lane. What was perhaps the last ever working may be suggested by a remaining gullet (working trench) near the south-west corner of the quarry.

John Ovens Thomas and Colthurst Down

Colthurst Down ranged on the northside of the Turnpike to the northern escarpment, and east of the Combe Road junction as far as what is today called Popes Walk (formerly Hanginglands Lane, the footpath to Bath), which was all within Monkton Combe. The area east of that to the Prior Park Road (today Ralph Allen Drive) was in Lyncombe and Widcombe, as was Prior Park itself. These were all bought by John Ovens Thomas of Prior Park, sometime after 1807, and it seems likely the surface quarrying on Colthurst Down started soon after. At his death in 1828, the estate was left to his niece, Mrs Cruikshank, who lived at Belmont, and she put it all up for sale. The sale notice of 10 July 1828 included the quarries, and emphasised their eventual value for building. A proposed road (never built) was set out from some way down the Prior Park Carriageway ranging south west to the site, 'which might be a mile long'. The stone, it read, 'is of the very highest quality and might be worked in a very lucrative way being only a mile from Bath and the Kennet and Avon Canal, which stone might be conveyed easily to London where it has been used in many of the public and other buildings and is in great demand'.

It is not certain who operated the Colthurst Down Quarries until the 1851 Monkton Combe Tithe survey and plan (copy in BRO). They occupied enclosures at that time extending about half-way back to the escarpment. The Combe Road junction corner enclosure was shown as a wooded enclosure next to which quarrying by Isaac and Giles Sumsion was encroaching northwards, probably from the western end. The area eastwards was just beyond

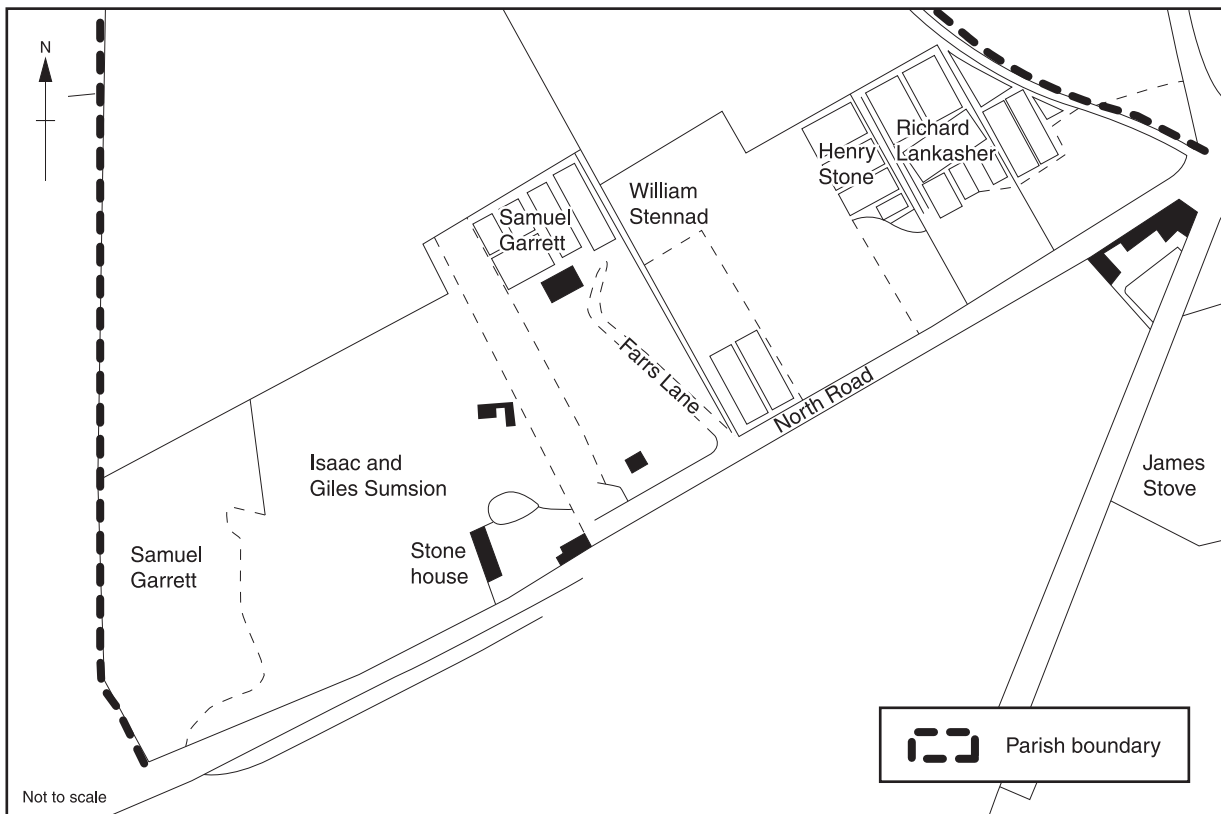


Fig. 4.3 Quarrying north of North Road (The Turnpike), based upon the Cotterell map of 1852 with data from the 1851 Tithe award



Fig. 4.4 The Farris Lane Cottages built on the quarry dump. The second from the right was the first to be built



Fig. 4.5 Farris House, built on the bottom of the quarry

Stonehouse, the houses there shown in a small enclosure almost as was on the 1742 Thorpe Map. The Sumsion site was the largest on the Colthurst Down with some 40% of the area. From the enclosure east of Farris Lane the owners of the four quarries can also be determined from the title award schedule: From the west they were owned by William Stennard with the largest, Henry Stone, Richard Lankasheer and at the east, James Love. A map of 1852 (Fig. 4.3), possibly by the same surveyor, J.H. Cotterell (Addison 1998, 36), shows the last three quarries to have only worked a portion (the remainder is still gardens), amounting to about half of the enclosure within which they were sited.

Part of Stennards Quarry, next to the Turnpike, already had a west-facing house built upon it, which may have been of pre-quarrying date. The area west of Stennards Quarry with a lane running within it, was owned by Samuel Garret who may not have been a quarrymaster. It appears as though the quarry may have been worked out, at least to the rear of the then enclosure. The lane was still a curved quarry road, which, later straightened, became Farris Lane. At the west side was the first of what became a row of cottages, (similar to earlier cottages at Mount Pleasant Quarry, so possibly for quarrymen too). These were built on the quarry tip (Fig. 4.4). Down the lane was what is now Farris House, which site examination shows was built on the bottom of a former quarry (Fig. 4.5), with the quarry face a little beyond in 1851-52. The bottom floor, now the cellar, of this house appears to have sat on the quarry floor and it is possible it was

associated with the working quarry, perhaps a count-house or similar. The possible quarryman's cottage (and other buildings erected behind it by the time of the 1884 OS 25 inch sheet), sit on a large spoil heap which extends back from the Turnpike Road (North Road today), with a 7-10 m high slope down to near Farris House. It is evident this whole central area had been quarried by around 1880.

By 1884 and the 1st Edition OS 25 inch sheet (Fig. 4.6), quarrying was pushing northwards towards the northern rim or escarpment edge. The quarrying faces by 1883-84 are shown as gulleets about 25 m wide, the actual working faces indicated by cranes, four in all and, from the spacing, probably one for each of the old quarries, though by then the ownership was down to two, Love and Stennard. The discontinuous faces of the quarry form a large arc extending almost to the Combe Road junction across to Hanginglands Lane (now Popes Walk). More houses had been built eastwards from Farris Lane. An opening to surface at Stennards Quarry (where Selwyn Court is now) was still functioning, serving the last remaining underground working in the vicinity (Quarries 2214 or 2212). A fifth crane was shown on a new working east of Popes Walk, extending across to the Prior Park Road, known as Junction Quarry, This was later worked by the Bath Stone Firms Ltd until about 1925. Stonehouse Lane was still curved (with Quarries 2218 and 2219 below), and no houses had been started there.

William Stennard was succeeded by his son Henry in 1870 and the Misses Stennard sold their quarry in 1903. Henry Stone became involved with Fullers

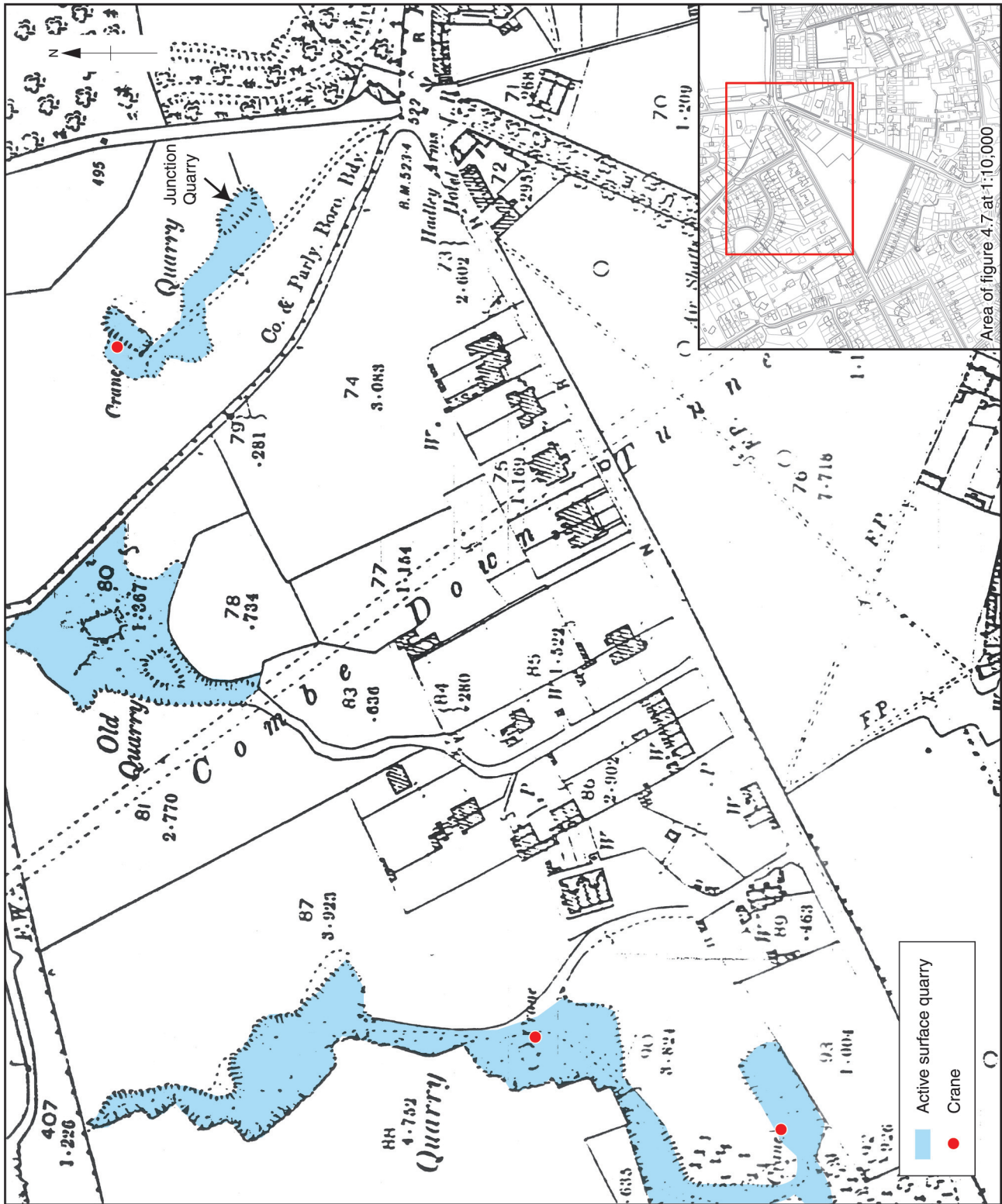


Fig. 4.7 Quarrying north of North Road c 1900 (1902 OS 25 inch map). Most of the area to the west has been quarried, with Junction Quarry still extending over what is Prior Park today

Earth and other materials and possibly sold out to Stennards. Richard Lancasheer (there were alternative spellings used) sold his rights, in 1865, presumably to James Love and a year later was listed in a local directory as of Claverton Street, Gentleman. James Love who also quarried at Odd Down, linked with his son in 1865 to form J. and E. (Edwin) Love and Sons until 1872 when only Edwin was listed. In 1899 Edwin's son joined him and the firm became Love and Son until 1927 (Hemmings 1983).

The leaseholds to the quarries were sold again in 1877, on behalf of the Thomas devisees, in two lots, one occupied by Messrs E. Love, the other by H.J. Stennard. In lot one (the easternmost), there were about 4 acres of stone out of the total 11 acres and 24 perches, and in the second some 7½ acres of stone out of 15 acres, 2 roods and 37 perches. The extensive building frontage to both was emphasised. They appear to have worked until 1893 (Pollard 1994, 22). The quarry east of Popes Walk appears to have been in operation until 1925 (Hemming 1983), continuing through what is now the Priory Estate. Comparison of the 1882-84 map with the 1902 equivalent (Fig 4.7) shows almost the whole of the area back to the escarpment had by 1902 been excavated.

The quarry eventually became owned by the Bath Stone Firms Company. In 1872 the son of Henry Stone and Son and James Stone formed Stone Brothers. This joined, in 1887 with other local companies including the Isaac Sumsion quarries and some of the Wiltshire quarries to form the Bath Stone Firms Ltd. The first chairman seems to have been James Pictor, but a director was Isaac Sumsion. In 1898 Sumsion became Chairman and was succeeded by his son, also Isaac in 1910. In 1907 the title became The Bath and Portland Stone Firms and two years later the Firms were shipping Portland Stone to Glasgow (BRO. 388). They dominated production in the Combe Down area subsequently.

Prior Park

In the 1828 sale, Prior Park and House was sold to a 'Popish Prelate of Pious character', and was changed into a 'college for Popish youths' (Grenville 1841, 442). It was possibly under the Bishop that the upper part of the Park became used as quarries. In 1839 the Lyncombe and Widcombe Tithe Award map has no indication of them, but on the 1883-84 OS 25 inch map (Fig 4.8), quarries are shown across

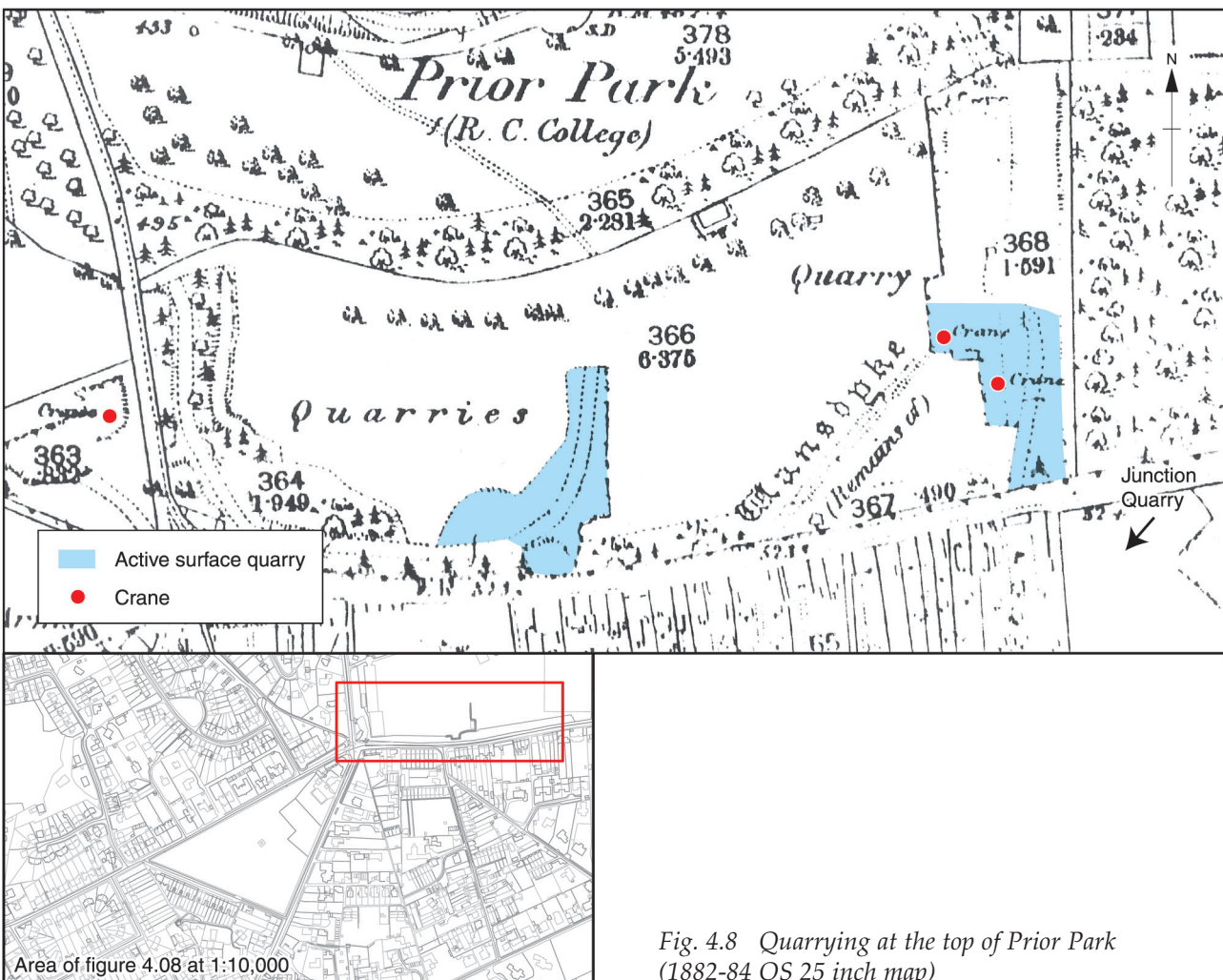


Fig. 4.8 Quarrying at the top of Prior Park (1882-84 OS 25 inch map)

the whole width adjacent to the Turnpike Road, except for a short section near the east end where the supposed Wansdyke crossed. It seems likely that the westernmost part of quarry also extended under the junction at the top of the Prior Park Drive, since a chamber under the road here was found driven from that direction in the underground archaeological survey.

Freefields and Rainbow Wood

This extensive area of open quarries, north of the (North Road) Turnpike and east of Prior Park was probably worked mainly in the mid and late 19th

century, but was totally finished before 1900. The owners are not known but Wooster reports that the Hancock family began their family operations there in the mid 19th century (1978, 10). This may have been residual working of already worked-out quarries.

Combe Down Quarries

This is the name by which the large quarrying complex either side of Shaft road, extending east to St Winifreds near Combe Manor was known from the mid 19th century onwards, including the older Mount Pleasant Quarry. They were started as surface

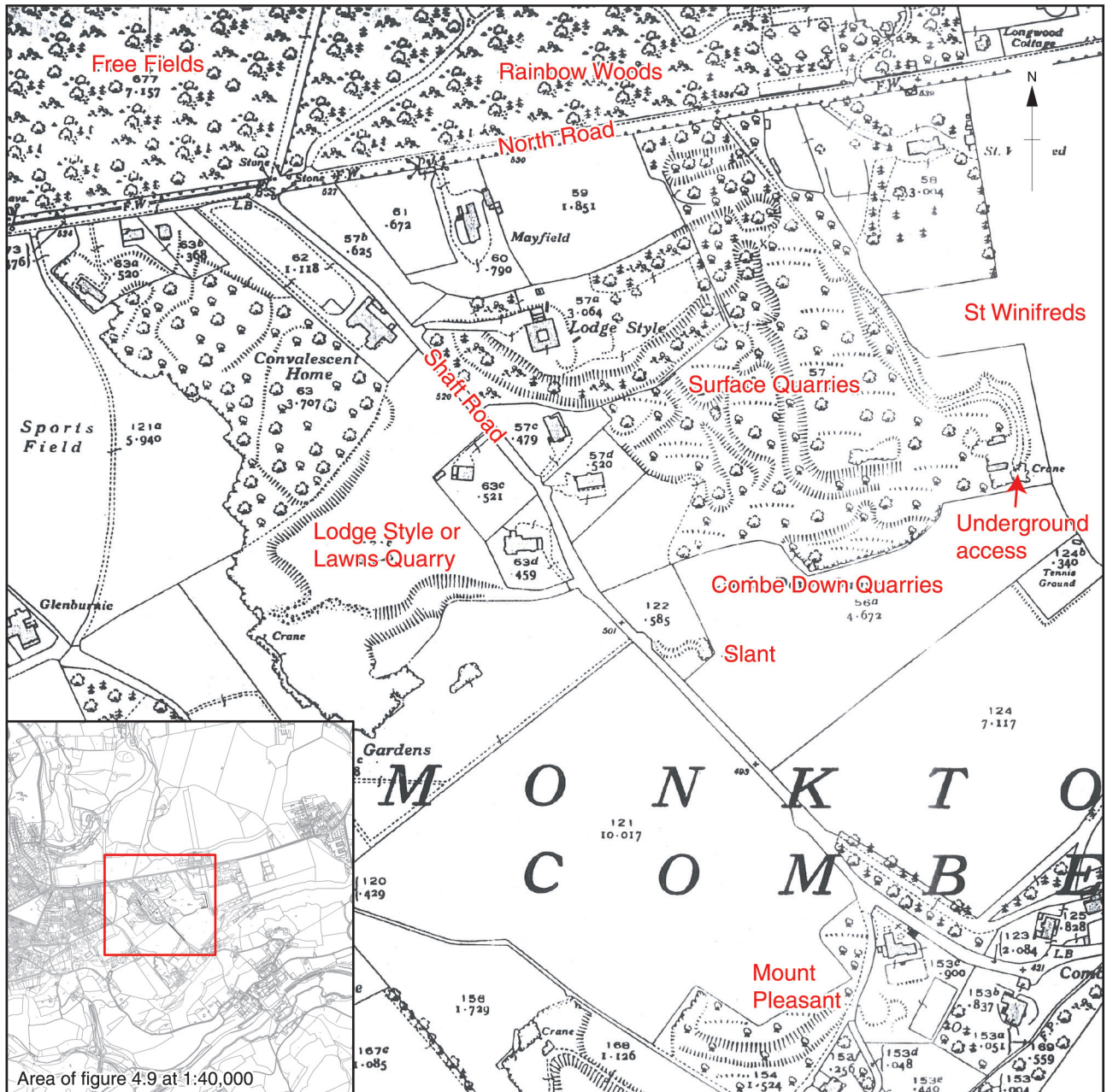


Fig. 4.9 Combe Down Quarries, near Shaft Road, about 1930. Lodge Stile Quarry is on the left of Shaft Road (OS 25 inch map)

quarries, becoming very extensive (Fig. 4.9) but by the century end also had underground quarries which continued working until about 1928 or after. It is possible these were operated by the Sumsion family (shown as by Isaac and Giles Sumsion in the 1851 tithe award) until they merged their interests into the Bath Stone Firms Ltd (see above).

A small quarry at Mount Pleasant is shown on a plan (see Figure 3.13) of the proposed Kennet and Avon Canal of 1795. By the middle of the 19th century it had grown and had cottages built on its oldest spoil tips. Part was said to have been owned by the Stone Brothers in the 1870s (Addison 1998, 51) who were party to the later Bath Stone Firms

merger. Mount Pleasant Quarry itself was closed in 1914 by the Bath Stone Firms, but reopened, probably in the 1970-80s, by Bathite Ltd, who used crushed stone to produce a composite concrete block with a oolitic limestone concrete face. Unfortunately these building blocks, used on less expensive housing projects, were prone to splitting at the joint and the process was abandoned. A substantial quantity of discarded blocks were used to support the underground roof near the Hadley Arms. The derelict bases and buildings of the Bathite plant were still *in situ* in 2000.

The 1851 Tithe Map shows quarrying on the east side of Shaft road adjacent to the Turnpike, which

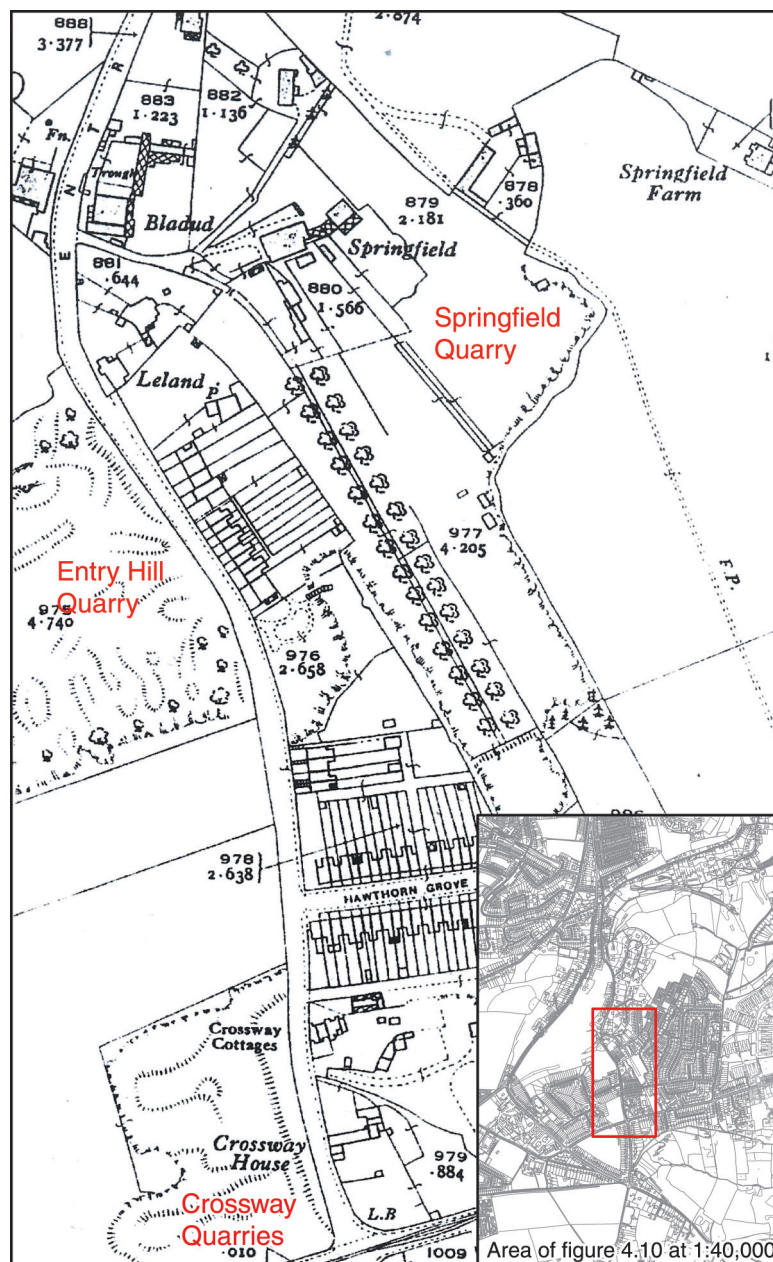


Fig. 4.10 Entry Hill and Crossway Quarries (1930 OS 25 inch map). Springfield Quarry had become the largest in the area about 1900

was carried out by Sumsions. At the roadside a house has been built on a site that seems to have been quarried, so stone was probably removed here long before, possibly in the early 19th century. By 1884 these workings were very extensive though as the 1930 OS map shows, they were not quite yet complete. The latter map also shows the slope entry to the underground quarrying near the escarpment on Shaft Road. The quarries at Lodge Style, west of Shaft Road, remain in production today (Fig 4.9).

Entry Hill and Crossway

Quarrying had begun here in the late 18th century on the westernmost area of Widcombe Field, then used as arable on land which probably belonged to the Magdalen Hospital (1799 Charlton map of Lyncombe and Widcombe (see Figure 3.14). By the mid 19th century this had spread south-east towards the Turnpike but probably terminated at Hawthorne Grove before 1880 (1882-3 OS 25 inch map). No ownership is known. However, after this time, what became known as Springfield Quarry developed to the south, becoming, according to Addison (1998, 40) in 1900, when worked by

Armstrongs, the largest quarry in the Bath area, producing overall 2.5 million cubic feet of stone. It certainly has some of the highest quarry faces in the area. A small area in the corner between these two was also worked underground, probably in the late 18th century. The underground elements, Quarries 2374 and 2375, were infilled during the Stabilisation Scheme.

Just to the south of the Turnpike was Crossway Quarry, begun before 1799, with another on the other side of the road later. It was worked by Philip Bennet in 1839 and both were sold 1863 to Thomas Shepherd. Building on the site was shown on the 1882-83 OS 25 inch map. The quarrying had ceased by 1930 (Fig. 4.10).

Kingham and Vinegar Down

Irving has recently investigated William Smith's quarrying and stone-sawing business in some detail, and the following is a summary of the main data from his account. South-east of the village, Kingham and Vinegar Down were still owned in 1799 by Lord Hawarden (SRO. SDH/6 Renewal of Mortgage) but in about 1808, after Hawarden's

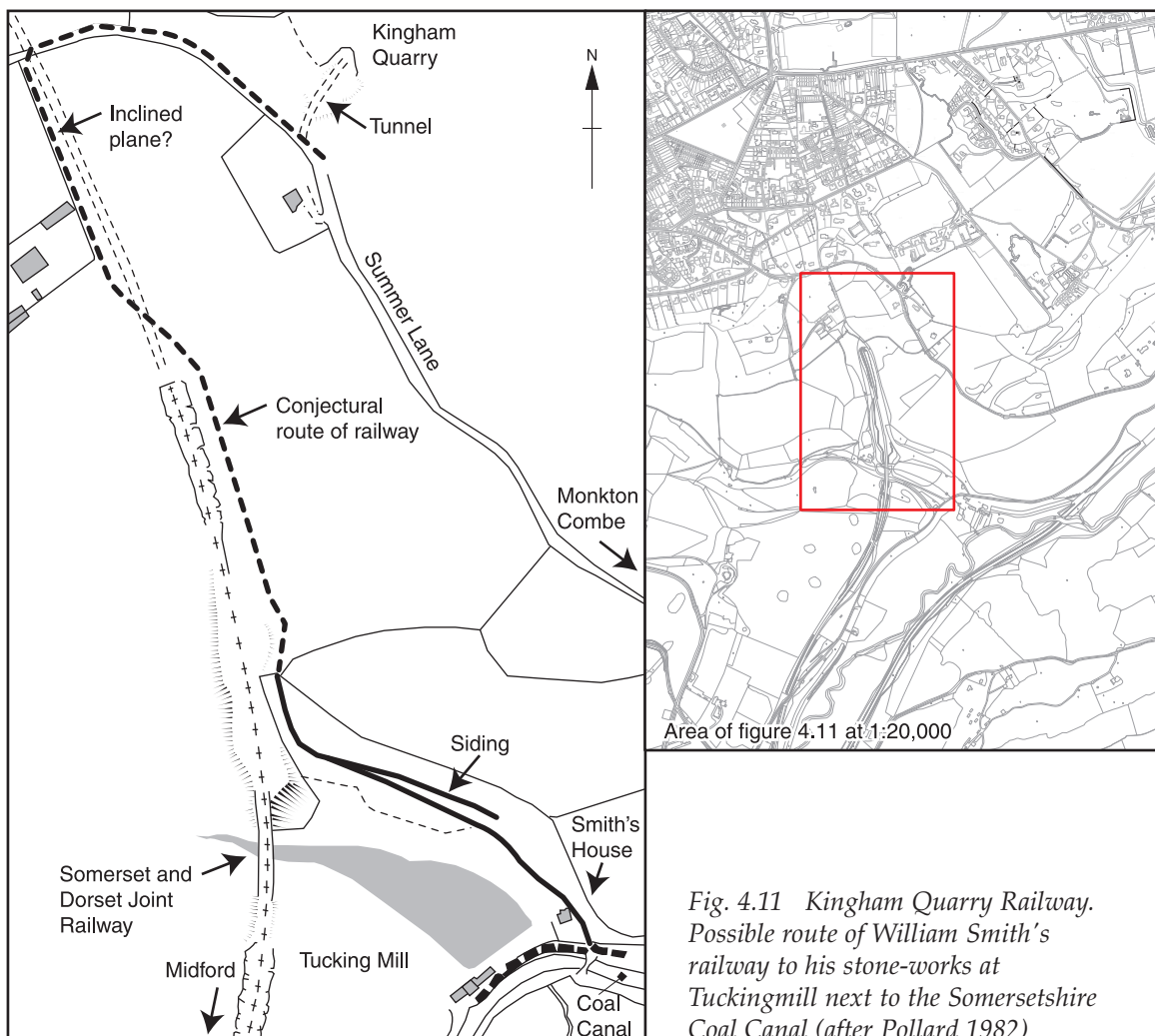


Fig. 4.11 Kingham Quarry Railway. Possible route of William Smith's railway to his stone-works at Tuckingmill next to the Somersetshire Coal Canal (after Pollard 1982)

death, they came into the hands of Charles Connolly of Midford Castle. Smith had bought the nearby Tuckingmill, becoming aware of it as the surveyor to the Somersetshire Coal Canal in 1798. He saw the opportunities the canal would offer to a stone business, so once open, he acquired it. Smith failed to sell his estate a few years later and decided, with the imminent opening of the canal, to raise capital and work the stone himself. For this purpose he arranged a mortgage with Connolly. There is little doubt that Smith saw himself as repeating Ralph Allen's success. He took a lease from Connolly on the Kingham Field Quarry about 1810 and made some form of arrangement with Connolly and with John O'Neal, the latter who leased the Vineyard or Vinegar Down Quarry from Connolly also. In a joint arrangement they began the development of a plate railway, using mainly second-hand rail from the canal construction (Fig 4.11). It linked the two quarries along Summer Lane, then followed the line of the Long Drung footpath down past de Montalt Mill in a self-acting section, then crossing the slope to go past Smith's mill to the canal wharf using horse traction.

At Tuckingmill Smith built an ingenious if not entirely original saw frame for cutting ashlar and devised the use of circular stone saws to cut the ashlar into thin plates (perhaps tiles or cladding) suitable for masonry repair work, a growing London requirement. All this was worked by water power, though at first this was not sufficiently powerful.

It all went wrong for Smith. The quarry had problems with cambering (landslipping) of the stone, with one gull following another in his arched entry. His railway section was neglected by him, to the ire of the others involved, and the sawmill suffered not unexpected initial operating difficulties. Money was very short, and Smith neglected the work at both a surface quarry, a short underground entry and the mill, preferring to stay either at his London house or go on one of his geological tours. Eventually Connolly lost patience, and sued Smith for debt, with the result he resided for a time in the Fleet Prison in London. It was the end of his venture. The course of the railway has been traced by Pollard (1982) and was recently confirmed by the Combe Down Heritage Society on Pollard's route.

The operations at Vinegar Down by O'Neale after 1810 do not appear to have continued much longer than the ill-fated ones of William Smith. However, the quarry appears to have been re-opened as in 1852 it was worked by Robert Russel (Hemming 1983 and 1851 Tithe Map) and in the 1870s was exploited for the building of the Somerset and Dorset Railway, which passes in a tunnel deep under Combe Down. A light railway was apparently built to convey stone to the works where they emerged from the tunnel and over the Tuckingmill viaduct. The route is unclear, but may have been similar to that of Smith, O'Neale and Connolly. There are substantial buttresses in the cutting

leading to the tunnel built of the stone and more may have been used in the tunnel. The line was disused about 1880. About the end of the 19th century there were small quarrying operations there by a Herbert Jones, and a Frederick Davidge was killed underground in 1913, after which the mine closed (Addison 1998, 52-3). Today there are indications, in a collapsed entry and subsided lawn, of a small underground quarry extending from in front of Beechwood House on the south of the road, to a possible working on the north side.

Landscape and working of 19th-century quarries

Surface effects of underground workings

The surface aspects of underground quarrying changed relatively little. The older entries to the cartways largely remained in use at both the Rock Lane (Sheeps House Quarry, or later, Davidges Bottom) and Rock Hall Lane (Jones Quarry at Ralph Allen Yard today), but a new cartway was driven in on the west side of Sheeps House Quarry to work western parts of Firs (Quarries 2220 and 2221) and two from the west side to work northern and southern East Byfield areas (Quarries 514 and 520). The use of these was directed by the Layton/Hadley Estate to cope with the needs of different lessees from Combe Road across to the Avenue. Apart from the entries below the face of what by then was effectively a worked-out surface quarry, there needed to be an area for storage and loading and for banker masons to work. Prior to the end of the 18th century, Sheeps House had small wooden huts for the bankers, but these were apparently cleared for houses in de Montalt's time, and certainly were when Davidge's brewhouse and other cottages in the bottom, were built by 1811.

More shafts were sunk and these probably handled the bulk of the stone quarried. The immediate areas around their tops must have been busy with the handling of stone, and the tracks from them to the turnpike, now totally disappeared, must have been conspicuous with stone-laden carts. The sinking of these shafts had to be specifically agreed with the Hadley Estate, although at first consent seemed grudging. The OS maps and sale deeds (Hadley Sale in 1901, Hadley Arms Deeds) show a line of five wide shafts ranging north from Jones Quarry, and another line of three ranging north and east from Firs Shaft on Firs Field, towards the Hadley Arms (Fig. 4.12). There were a further two west of Combe Road and several east of The Avenue and across to Far East Firs. The only formal requirement from the landlord was for such shafts to be fenced, or in practice, surrounded by a low wall, as for example that exposed in 2010 in an archaeological trench at the Chestnut Tree shaft on Firs Field (see Chapter 9). By 1830 when the Fir trees planted by Allen up to a century earlier had largely been felled, the lines of shafts and their mounds and haulage gear would have become very conspicuous

in the northern part of the core area, with the perimeter gradually becoming occupied by houses.

What structures they required when working is not at all clear. The alternatives were, first, some form of crane, probably with a swinging jib, either similar to the 18th-century crane types introduced by Allen, or, more likely, a version of the jib crane with a hand-operated windlass mounted on the jib, similar to that used on surface quarries, described below. This arrangement was certainly used around 1870 at the small quarry at the north-east corner of the Combe Road/Bradford Road junction. Such structures would have been very noticeable, especially as between 1800 and 1830 the fir trees planted by Allen up to a century earlier were felled and apparently not replanted.

The second was a simpler arrangement, probably only really suited to smaller quarries not producing large blocks, such as those under the Tynning and Gladstone Road areas, where frequently a banker mason produced wrought stone underground. This would probably be a simple hand-windlass mounted on a timber frame, similar to a jack roll used in mining. They would hardly be more obvious than a well, though stone brought to surface may have needed a small storage area too.

The impact of surface quarrying

Surface quarries had a very much greater impact on the landscape than quarrying underground. First the useless ridding, or Twinhoe Beds had to be removed to expose the freestone below. In the first instance this required removal of spoil to some distance away, but when some quarrying had been done, there was space available for dumping behind the current working face area. The freestone below the ridding or overburden was worked in benches, of a few beds thick. In the early part of the century the working of the stone was done with little more than bars or a winch to move the blocks, but in the first decades of the century a simple form of stayed-derrick crane was developed. Surface working, even when carried out with the sequential restoration of the surface, left fairly large areas of bare ground and rock faces, with jibs of cranes projecting above the horizon, sufficient landmarks for the Ordnance Survey to mark them on their large-scale maps. There were clearly the usual problems of dust or mud, and damage to roads by heavily laden carts. Steam cranes and steam lorries also made a minor additional impact in the early 20th century.

An indenture of 12th August 1817 between Edward Salmon and Patrick Byrne makes clear how

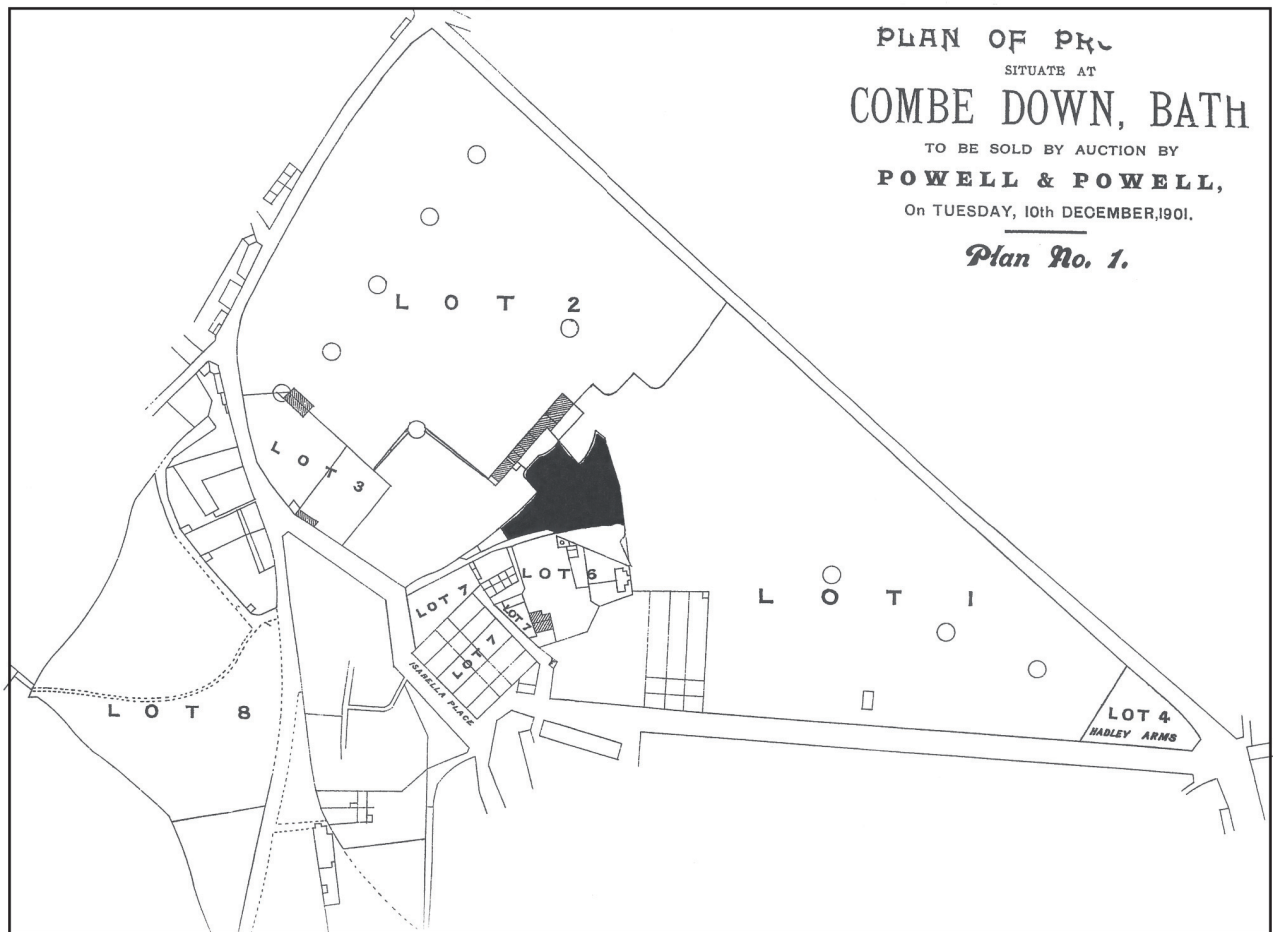


Fig. 4.12 Shafts left from quarrying under the Hadley leases by 1900, detail from auction plan (Hadley Arms Papers)

the underground and surface quarries were to be left, at least in this case where possession was by leasehold tenure, with an annual rent to the lease owner. It particularly emphasises the idea of quarries as potential house sites in the landlord's mind. Byrne had possession of the western acre of the (originally) Hulonce plot west of Combe Road. He was directed to quarry in a sequence of five stages, the first the underground section at the east of his plot (the Byfield bat entrance area today), then in four fairly equal stages west to the boundary – which were expected to be done, and were done by surface methods. Before the expiration of the lease, he was to:

. . . level the whole surface of the ground either by filling up or otherwise throwing arches over the same, and shall carry away or otherwise bury all the loose stone and rubbish . . . and well and effectually level the surface of the quarried part not more than five feet below or above the present level of the unquarried ground at the western boundary . . . and to set aside all the mould dug from the surface . . . and spread the same (or other good mould) to not less than three quarters of a foot depth to make the ground fit for agriculture or garden use.

He was also to erect a house and to sink a well to supply a good quantity of water, walled from top to bottom. There would obviously be an advantage in sinking such a well in the bottom of the quarry, building the wall up around it before or during backfilling the site (copy of deed and plan supplied by Richard Irving).

There seem to have been two systems of stripping the overburden in use at Combe Down. The first, probably continuing a practice from the previous century, was a common method in stone quarrying and evidence of its use still, just, survives on the site west of Combe Road close to Shepherds Walk. In this a slit trench, just wide enough for a cart, was kept open to the full height of the quarry. At the commencement the overburden had to be removed before any work could start. Once this was done the removal of the freestone left space behind the working face, where further spoil could be stacked behind a series of advancing rubble walls built as the site progressed. The spoil was removed continuously just ahead of the freestone working using stout planks as a barrow-way. In the case of Sophia (widow of Jonathon) Rudman's quarry, this was the system in use, since a workman, in 1825, was killed falling with his barrow from the high overhead plank (Irving 2005, 40). Stone was either tumbled or slid, possibly using a winch, to a suitable position for dressing, or was cut or sawn almost *in situ*, into easily manageable sizes. When John Scrace went bankrupt in 1809, his quarry was advertised as having a share of a crane and two winches (Pollard 1994, 13), the share presumably had been with his neighbour, Abraham Sumsion

and, later, Henry Street. Sharing a crane suggests use for loading at a central position common to the two quarries with the winches used to drag stone to that position.

The alternative method of surface quarrying, which had become usual by the late 19th century, relied on a fairly substantial crane of the Scotch derrick type using a central post and jib supported by (usually) five cables, attached to drilled or weighted anchor points around the quarry. The crane, with a hand-cranked cable drum mounted on the jib, used a friction brake and ratchet to control the load. It was used to lift or drag blocks from their bed, from a much wider radius than its jib might suggest, and to load them, after trimming, and ringing to detect cracks, on to carts. A preserved example of such a crane from Union Quarry at Odd Down was probably typical of the type (Fig. 4.13).

As well as handling quarried stone, the crane may also have sometimes been used to remove overburden by use of some form of tray or 'muck box', hand-loaded and swung over to the spoil heap some reasonable distance away, though use of a horse and cart for distances too long to plank and barrow over would be more usual. This may be the

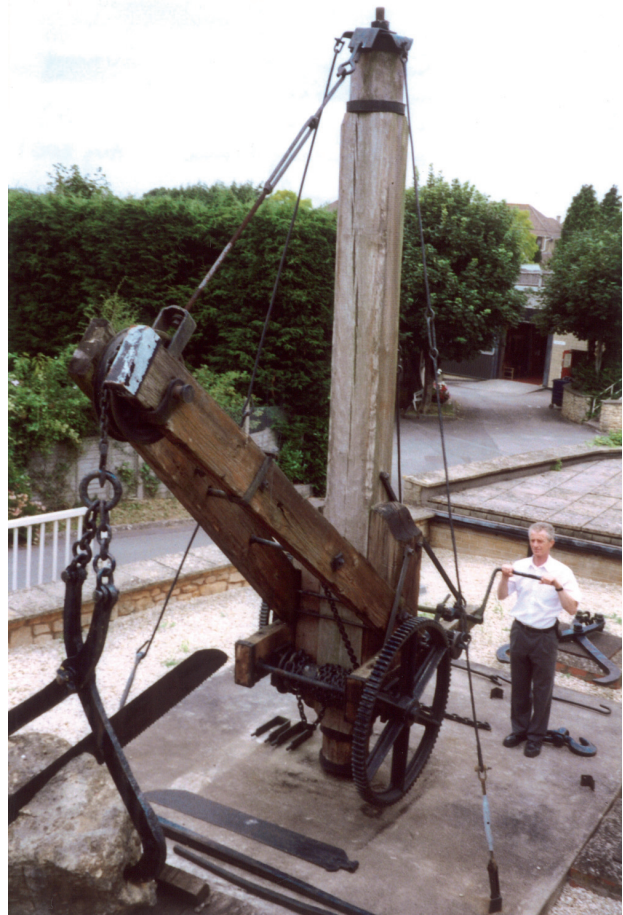


Fig. 4.13 A quarry crane preserved at the former Union Quarry, Odd Down. The mast has been slightly shortened

origin of the spoil heap extending back from the North Road just west of Farris Lane, to near Farris House. By having a high heap, it released space to form a wide quarry floor for working, handling and storing stone, and for buildings, such as an office, perhaps, for example, Farris House.

The advantage of the crane lay in the greater ease in moving stone, and in allowing the face to be worked vertically rather than in benches. The capital cost was only modestly higher. In substantial quarries, as those north of North Road were by the late 19th century, one or two cranes were used, as shown on the 25-inch maps, in each quarry, moved as necessary as the site and the working face advanced over the landscape. The typical large surface quarry had active operations over an acre or two, in some cases followed or accompanied by restoration to an acceptable degree for agricultural use or housing. This was especially the case in the inner parts of what in 1854 became the new parish, particularly along North Road.

The largest quarries around Shaft Road however, seem generally to have been restored to a much lesser degree, so that approaching a working section usually meant crossing a growing area of land characterised by a series of dumped heaps roughly parallel to the original quarry faces. After a few years the quarry face was a fairly insignificant feature compared to the much larger area of spoil dumps behind it, and it is perhaps not surprising that some landowners again began to prefer work to be done underground, as appears to be the case near Shaft Road.

The relict landscape of the 20th century

By the end of the 19th century the older quarrying areas had almost entirely ceased production, the main underground exception being James Riddle's Quarry (518), off Combe Road. A new small underground working of the late 19th and early 20th century took place north of North Road west of its junction with Combe Road and was marked by a surface crane and later a steam crane used for raising stone from below (see Chapter 12). Minor underground working was probably still spasmodically undertaken in the Gladstone Road area using shafts and some form of hoisting gear, but these would have had minimal impact on the surface. The last surface work in the central area was the development between Ralph Allen Drive and Pope's Walk, and at the top of Prior Park, which finished by around 1910. By then the quarrying area north of

North Road, where not built upon along the frontage, had become partly derelict, partly returned to agricultural use.

Aside from the Hancock Upper Lawn Quarry, which continues today, the last surface and underground quarrying probably took place in the late 1920s or early 30s. Underground working continued longest. The Combe Down Quarries at Shaft Road, St Winfreds and Mount Pleasant, had underground working amounting to some eight acres and St Winfred's had about one acre. Both were accessed by slope (or inclined) entries with a surface yard and crane, but otherwise were relatively insignificant landscape features. In contrast most if not all the huge area between Shaft Road and St Winfred's lay derelict, shrubs and trees gradually taking over, as they also have north of the road, in the former Rainbow Wood and adjacent Claverton area of Combe Down. The dominant surface feature of the early 20th century was one of dereliction and/or natural regeneration of the areas amounting to possibly half of the total land area of Combe Down, but no longer directly impacting on the main settlement area.

Settlement, mainly in the form of recreational areas but also housing, gradually took over much of these areas. In the first housing phases old quarries were built in, as at Quarryvale, or over, as at Combe Park and Gladstone Road, more or less as soon as quarrying had completed. In the case of west of Combe Road and North of North Road, housing and quarrying lay alongside each other, sometimes with the new housing built on the former spoil heaps barely months after a retreat of the quarry to a new face and crane position. What can be considered modern development began after the First World War. West and north of the Combe Road intersection with North Road became Ralph Allen Park (c 1920) and houses were built along the frontage, only to be replaced during the Second World War by the Defence establishment. The Hadley family sold their holdings in 1905 and the building of The Firs followed. The 1930s saw much building near Entry Hill and much infilling of the Combe Down central area. After the Second World War there was almost total infilling from Entry Hill to Shaft Road, with the Foxhill Estate dominant. Many old quarries were filled with rubble following the rebuilding of war-damaged Bath and either used for housing or sports or recreational grounds. In a sense this landscape development was as much related to quarrying as it was to expanding needs of the overspill of the ever-growing city of Bath.