

Lansdowne Monument Stone Sources Revised October 2024

Introduction

This report was researched and written by Jane Root. It should be read in conjunction with existing reports including Geckoella's 2024 stone analysis report. This text is based on extended documentary research and current online resources including Historic England's Building Stones Database published in May 2023. New information has been found which supersedes some earlier research, for example in relation to the identity of the quarryman Thomas Strong. The primary purpose of this report is to investigate the sources of the stone used in the construction of the Lansdowne Monument within the wider historical context. Its author has no expert knowledge of building stones and this is not a technical report.

Grid references and postcodes in this report are approximate.

Historical Introduction

Additional research for this report has extended our knowledge not only of the construction of the monument but also of the historical, cultural and social context in which it was built. This new information places the structure firmly within the local and regional history of stone quarrying and the building trade, demonstrates the expert knowledge and skill which informed its construction and sheds light on a human story of industry and enterprise. It provides new evidence for a reappraisal of the significance of the monument.

The Jones Brothers

The Lansdowne Monument was built by the brothers Daniel and Charles Jones of Bradford on Avon (BA). Daniel, the eldest, outlived his brothers Charles and Bryant (or Bryan) and was the sole director of the family firm from 1852. His 'honourable career' is well documented (*The Builder* Vol XXV 16 March 1867, 193).

Daniel and Lavinia Jones

Daniel Jones, a 'talented and much respected architect and builder' was born c1796 and died in Bradford on Avon on 27 November 1866 aged 70 (*Bath Chronicle* 29 November 1866 p3 col 3). He was a remarkable man and his wife, Lavinia Elizabeth Chapman Kemp, whom he married in 1821, was an equally remarkable woman. Early in the marriage Jones 'then a builder in humble circumstances' became a bankrupt but Lavinia, being a

... person of taste and education earned a comfortable living as a governess, and afterwards as an artist. (*Western Daily Press* 3 July 1868 p3 col 6; *Devizes and Wiltshire Gazette* 9 July 1868 p3 col 5)

Mrs Jones was the daughter of a Mr Kemp, a glass merchant, and

... had a taste for painting, and in order to better their circumstances she resolved on turning her taste in that respect to account by prosecuting the calling of an artist, which she did for several years with much success. About the year 1833 [Daniel

Jones'] circumstances having, by his wife's exertions, been improved, he went to Bradford, where he commenced working a quarry in conjunction with one of his brothers, his wife in the meantime remaining in London prosecuting her profession. She, however, some years afterwards, joined him at Bradford, and lived with him up to his death. (*Devizes and Wiltshire Gazette* 9 July 1868 p3 col 5)

In later life, Lavinia Jones exhibited a miniature printing press designed for use by women at the 1862 International Exhibition in London ([Cassell's illustrated exhibitor, illustrations with descriptions of the International exhibition of 1862 : Cassell, Ltd : Free Download, Borrow, and Streaming : Internet Archive](#)). She produced specimens of her printing 'in about forty-six different languages' with a key in English presenting a prayer for universal peace. Her work was given a very favourable whole-page entry in the published catalogue (Cassell Ltd 1862, 223).

List of Works

Immediately after Daniel Jones' death, his widow wrote to *The Builder*:

I consider it my duty to ask you to permit me to record in your ever-valued journal the close of a firm which has for the last forty years stood quietly and without ostentation, and has received the patronage of our noble families in Wiltshire and elsewhere.

The beautiful estates of Lord Lansdowne at Bowood, the Pembroke estates at Wilton; the Beaufort Badminton estates; Mr. Walter Long's at Longleat; Savernake and Tottenham Parks, all contain monuments of the skill and industry of these three brothers, Messrs. Daniel, Charles, & Bryant Jones, who were men eminent for their strict integrity and good taste. Mr. Daniel Jones survived his two younger brothers, and the works, from after 1852 were wholly performed under his direction. November 27th, 1866, was the day of his departure from the scene of his labours, deeply regretted by all his workmen and all who intimately knew him.

1837. At Dorking, for Mr. Hope, his mansion at Deepdene.

1839. For the Marquis of Lansdowne, Derry Hill Church, Mr. T. H. Wyatt, architect; Churchill Obelisk; Calne Church; Studley Church; Wilton (Wyatt); Tetbury; Newnton; Bridgwater, for the Rev. Mr. Capes; Winsley Church restoration.

1841. Wooton Church (Wyatt); Infirmary, Salisbury.

1842. Christ Church, Bradford Wilts, Messrs. Manners & Gill, architects; Lansdowne Tower; Derry Hill Parsonage; Tarrent [*sic*] Hinton Church; Tarrant Gunville Church (Wyatt); Burbage Church (Wyatt).

1843. Newton Toney Church (Wyatt).

1844. Horningsham Church (Wyatt), for Lady Bath; Chittoe, Spye Park; Keevil Church; Rood Ashton, for Mr. W. Long; Steeple Ashton Church.

- 1845. Coombe Church, near Salisbury.
- 1846. Hilpertton Church (Wyatt); Wilsford (Wyatt).
- 1847. Melksham Market-place and Town-hall.
- 1848. Mansion at Frankleigh, for the Misses Bailward, Mr. Clutton, architect; Upton Scudamore Rectory (Wyatt).
- 1850. Freshford Schools, Penally, near Tenby, Wales; Thatcham, Manners & Gill, architects, Bath.
- 1851. Savernake Church, for Lord Bruce, called Christ Church (Wyatt).
- 1853. Chippenham Church, Mr. Scott, architect.
- 1856. Mansion at Orchardleigh, near Frome, for Mr. Duckworth (Wyatt).
- 1859. Memorial Church, Tottenham Park, for Lady Ailesbury (Wyatt).
- 1861. Woodborough Church, for the Rev. Mr. Wylde (Wyatt); Lullington Church, Orchardleigh, for Mr. Duckworth (Wyatt).
- 1862. Longleat; Leigh House, Bradford-on-Avon, for Miss Poynder.

Appealing to Mr. Wyatt as to the correctness of parts of this list, that gentleman writes, - "I should be gratified if you would allow me to add my tribute to the worth of these brothers, as they worked for me for twenty-five years, without one misunderstanding, on the estates of the Duke of Beaufort, Lords Lansdowne, Ailesbury, Bath, and Pembroke, and built or restored eighteen churches for me."

We are glad to have the opportunity of recording such an honourable career. (*The Builder* Vol XXV 16 March 1867, 193)

This list does not appear to be complete and there are discrepancies between it and information from other sources. For example, there is evidence that the Jones brothers built the 'Golden Gates' lodge at Bowood to Charles Barry's design in the 1830s (BA; NHLE UID 1253792). The Lansdowne Monument is not included and other structures have not been identified, for example the 1839 Churchill Obelisk.

Mrs Jones' list of the brothers' works includes buildings of national and international significance designed by prominent architects, and others which they designed themselves. For example, on 16 September 1847 the *Devizes and Wiltshire Gazette* reported on the opening of the new Market Hall (now the Town Hall) at Melksham:

The foundation-stone of the building, the whole of which is composed of Bath stone, and now forms so noble an ornament to the town, was laid in March last; and the satisfactory manner in which the undertaking has been conducted and completed reflects the greatest credit on the energy and talent of Messrs. D. and C. Jones of Bradford, who have been both the architects and contractors. The Hall (which occupies an area of 50 square feet) is in the Italian style, having pilastres [*sic*], frieze

and cornice in the centre compartment, surmounted with a pediment, and bell turret. (p3 col 3: NHLE UID 1194263)

The Deepdene (including Chart Park) near Dorking is a Grade II* Registered Park and Garden (NHLE UID 1000143). The designed landscape was first developed in the seventeenth century and was extended and remodelled by Thomas Hope (1769-1831) an influential figure who had wide interests in archaeology, art, gardening and interior design (NHLE UID 1000143). The 'mansion' on Mrs Jones' list was remodelled for his son Henry Thomas Hope between 1835 and 1840 and has been demolished, but the register entry notes that

Hope, a Tory MP, entertained Benjamin Disraeli at the Deepdene and it was here that Disraeli wrote part of his novel 'Coningsby'; it was subsequently dedicated to his host. (NHLE UID 1000143)

Confusingly, the register entry gives further contradictory dates for the remodelling of the house:

The house was substantially altered by William Atkinson (c 1773-1839) for Thomas Hope in the early C19 and was possibly the earliest example in England of a villa house in Italianate style. In c 1843 it was enlarged and largely rebuilt, still in the Italianate style, for Hope's son. The architect was probably W H Ashpitel (1776-1852) (Lees-Milne 1982).

The parish church of St Paul, Chippenham, built 1853-61, was designed by Sir George Gilbert Scott and is Grade II* listed (NHLE UID 1268096). The listing description gives the following reasons for the designation:

* ARCHITECTURAL INTEREST: the overall design and architectural detailing of this Victorian church designed in the Early English style is of a very high quality. * INTERIOR: Its internal layout and features are equally of a very high quality and have survived remarkably intact. * HISTORIC INTEREST: It is a particularly good example of a church designed by the nationally important architect Sir George Gilbert Scott. (NHLE UID 1268096)

As the *Builder* article shows, Daniel Jones also worked extensively for T H Wyatt, for example at the parish church of St Katherine Great Bedwyn (NHLE UID 1183857). This was built in a florid Decorated style for the 2nd Marchioness of Ailesbury in 1861 and is Grade II* listed despite having been reconstructed after damage in an explosion in 1952.

The parish church of St Mary and St Nicholas, Wilton, designed by Wyatt and his partner David Brandon and built c1841-44, is Grade I listed (NHLE UID 1365914). It has been described by Julian Orbach as

... one of the grandest estate churches in the country ... built for Sidney Herbert, Secretary at War and Florence Nightingale's supporter during the Crimean War. The church is a North Italian Romanesque basilica translated to England and filled with genuine Italian marbles and Cosmati work as well as exceptionally good carving of c.1845 (Orbach 1987, 446)

Knowledge and Innovation

Personal experience, including the churches he built for nationally prominent architects, may have inspired Daniel Jones to develop new ways of working. In 1862 he exhibited a pulpit carved in White Bed Farleigh Stone at the International Exhibition – the ‘Great London Exposition’ – which was sponsored by the Royal Society of Arts, Manufactures and Trade ([London International Exhibition \(1862\) | Organisations | RA Collection | Royal Academy of Arts](#)). This exhibition ran from 1 May to 1 November of that year and featured more than 28000 exhibitors from 36 countries. Like his wife’s printing press, Jones’ pulpit was one of only around 300 objects selected for illustration in the published catalogue (Cassell Ltd 1862, 156).

The pulpit was explicitly intended to demonstrate the adaptability of Bath stone ‘to Gothic tracery, as well at other styles of ornamentation, dressings to windows, doors, cornices, &c’ (Cassell Ltd 1862, 155-6). An extended description in the illustrated catalogue demonstrates Jones’ expert knowledge of his local building stones:

The twisted columns are productions by mechanical contrivances, which may be applied in various departments of buildings, both in interiors and exteriors, to enrich the several parts of churches or private dwellings. This adaptation of terra-cotta has been lately introduced to the building trade, and is strongly recommended by the exhibitor to architects. Perhaps in no part of England is there a more suitable material than the Bath stone for building purposes, when the cost of material and labour are considered. The different quarries produce shades of difference in the colour and quality of the stone; and from all the quarries the Farleigh Down may be selected as the most agreeable in colour, in soundness, and in adaptability to mouldings and Gothic tracery.

At Mr. Daniel Jones's place of business there are interesting varieties of beautifully executed columns in this stone, as well as substantial and elegantly designed chimney-pieces, &c, all offered at moderate prices.

This firm has been established for nearly a century, and has erected some of the best buildings in England. The far-famed church of Wilton was erected for the late Lord Herbert, under the superintendence of Mr. Daniel Jones.

... an examination of the pulpit executed by Mr. Jones cannot but command considerable attention. It will be found near the Canadian Court, among various objects of interest in the building trade, exhibited for their architectural beauty. Here will be found stones and earths of various kinds both in their natural and manufactured states. The capability of terra-cotta and the softer kinds of stones for various useful and ornamental works has never before been so completely demonstrated. (Cassell Ltd 1862, 156)

Jones’ stock-in-trade was auctioned on his premises at Tory in Bradford on Avon after his death. An advertisement for the sale on 4 September 1868 provides further evidence for the scale of the operation and his inventiveness, listing a

... Capital 8-horse-power high pressure Steam Engine, with excellent Boiler, Steam Guage, &c., complete; valuable iron-frame Turning Machine, a clever invention for turning spiral columns, open, twisted, and other intricate work in stone or wood; 2 powerful and 1 portable iron-frame Turning Lathes, Sawing Benches, with circular Saws; 3 iron Lifting Crabs and Chains; iron and wood Pulley Blocks and Ropes, 2 large cast-iron Bearers, 3 heavy Fly Wheels and Cranks, part of a heavy cast-iron Lifting Pump, wrought and cast-iron Shafting, and quantity of old Iron, Lead Pump, Embossing Press, iron Deed Safe, 6 powerful Quarry Bars.

A large quantity of Builders' Materials, comprising about 150 Scaffold Poles and Planks, numerous Quartering, Scaffold Ropes, 14 Window Sashes, Door Frames, iron Cramp, Flooring Dogs, quantity of wood, iron, and stone Patterns, Old Doors, &c. A quantity of Building Stone and Ashlar, ornamental Stonework to form a Pulpit, and a large number of spiral, open work, fluted, & worked Stone Columns; glazed Pipes, Ladders, Steps, Trucks, Wheelbarrows, 2-knife Chaff Machine, Bean Gritler, Chaff Box, and numerous Effects.

Also 4 Photographic Cameras, Slides, Chemicals, Glass Plates, Ware Baths, &c. A brass-bound mahogany Writing Desk, Phrenological Bust, Plaster Figures, Writing Case, &c. &c. (*Trowbridge Chronicle* 29 August 1868 p4 col 2)

A large quantity of books included bound volumes of *The Builder* and the *Architectural Magazine* and 'Bloxham's Gothic Architecture'. The pulpit Jones exhibited in 1862 was subsequently offered for sale again by a Mr C Long, a builder in Bradford on Avon (*Bath Chronicle* 23 September 1869 p4 col 4).

The Construction of the Lansdowne Monument

Charles Barry and Thomas Strong

There is an undated estimate for the construction of the Lansdowne Monument in the Bowood Archive produced by Thomas Strong. A note signed by Strong states:

Having Seen Mr Barrys Sketch of the Oblisk I consider the above Estimate to be as near as Possible the full cost of it (BA).

Strong's price was £1241.0.8 and it is not clear why it was not accepted, but in May 1845 the job was awarded to Daniel and Charles Jones. What is now clear is that Strong, a quarryman at Box, had been known to Charles Barry by repute, and possibly in person, since at least 1838 and had supplied stone used at Bowood before that date (Barry 1839, Table A).

Charles Barry led a national enquiry into suitable sources of stone for the New Palace of Westminster which toured the country in August, September and October of that year visiting quarries and inspecting buildings (Barry 1839, 1). Specimens were collected, and petrographic analysis undertaken by Professors Daniell and Wheatstone at King's College, London (Barry 1839, 2). It is not clear how the quarries and buildings were initially identified, but Thomas Strong is listed in the table of quarries as both the freeholder and

quarryman at Baynton Quarry in Box (Barry 1839, Table A). The stone he produced was a cream coloured Oolite described as

Chiefly Carbonate of Lime in moderately fine oolitic Grains, with Fragments of Shells (Weather Bed). (Barry 1839, Table A)

The table records the density of the stone, the entire depth of workable stone, gives a description of the beds, the size of blocks that could be procured and lists the prices of block stone at the quarry per cubic foot (Barry 1839, Table A). It also describes the route and cost of carriage to the Pool of London, the delivered price in London and analyses the cost of plain rubbed work in comparison with that of Portland stone. The entry in the column headed 'Where known or reported to have been employed' states that Strong's stone had been used at

Laycock Abbey, Longleat, Bowood, South Front of Wilton House, Windsor Castle, &c. (Barry 1839, Table A)

Under 'General Remarks' it states in the table:

The Weather Stone is generally used for Plinths, Strings, Cornices, &c.; the Corn Grit for Dressings; the Scallet, which is the finest in Grain, is used for Ashlar. Eight Quarries on the Box Escarpment; many of great Antiquity (Barry 1839, Table A)

The Jones Brothers

The contract between the Marquis of Lansdowne and the Jones brothers dated 14 May 1845 provides significant information about the construction of the monument (BA). It should be noted that the original has not been seen and there may be transcription errors in this report as a result. The contract explains that the Marquis had commissioned the design from Charles Barry, who had produced a drawing and specification on which the Jones' estimate was based. The figure of £1324 originally written into the contract was subsequently amended to £1359 but the reason for this is not known. It is evident that there had already been a false start on the monument, since the Jones' undertook to

... take down such part of the said Obelisk as has been already erected before the signing of this Contract and rebuild the same according to the Terms of this Agreement... (BA)

It is possible that this work had been undertaken by another contractor, perhaps Thomas Strong or an associate, and it is not certain that it was on the same site. However, it is clear from the known extent of the Marquis's land ownership that the choice of sites for the monument was limited.

A copy of a drawing attached to the contract which is said to have been seen in the Bowood Archive has not been identified (Follies 2004, 22). This reportedly had a note on it dating it 1 April 1842. Another drawing entitled 'Proposed Monument near Bowood' is not dated but a note dates this 1845-6 (BA). This drawing shows the obelisk in elevation, section and plan,

crowned by a globe and finial. There is no evidence the latter were built, possibly because there were concerns about the exposed position of the monument from the outset. Lord Lansdowne agreed to pay 75% of the contracted sum as the work progressed, withholding the balance until

... the expiration of twelve Calendar months next after the said Monument or Obelisk shall be finally and perfectly erected and completed according to the said plan and specification and the terms of this agreement; provided that at the expiration of twelve Calendar months the said Monument or Obelisk shall be reported to the said Marquis by the said Charles Barry or such other person or persons as the said Marquis shall ... appoint, to be substantially and in all respects properly built and completed and weather proof. (BA)

The contract included a detailed specification:

To excavate the Ground to the depths shewn on the Section put in a Foundation Concrete as shewn on the Drawings composed of six measures of clean gravel and one equal measure of fresh ground stone lime mixed dry and afterward well worked together with water and in that state teemed and thrown into the work from a height of at least ten feet. The surface to be made perfectly level for the stone Foundation.

The Foundations to be composed of rough wall stone from the neighbourhood of Calne well bedded and laid in good mortar and so flushed up and grouted as to leave no vacuities therein.

The Quoins of the Walls under the steps and at the end of the Angles of the Pedestal and shaft the Plinth and Quoins of the Obelisk the apex globe and Terminal to be of Bath Stone from the Box or Lodge Stile Quarries properly bedded and jointed and worked with a fine random tooled face each stone to hold its face dimensions from back to front to be truly worked on the beds and to be properly bonded with the rough wall stone adjoining and the back – The rest of the work to be constructed of rough [?Hall] stone from Bradford in courses about 6 inches thick, hammer dressed or rough chopped to a true and even surface on the face to all the external facings and backed up with the Calne Stone, and to be well bedded and flushed up with mortar as before described so as to have no vacuities therein.

To fix a Chippenham landing at the top of the shaft two feet square and six inches thick

To provide and fix a copper rod half inch in diameter and 126 feet long as a lightening conductor to be properly insulated at the fixings and to be made perfect to the earth.

The tops of the steps to be formed of Chippenham [?Flags] of large size at least 3 inches thick laid to a proper fall for the delivery of Water. (BA)

The contractors undertook to supply all materials, transport, labour, scaffolding and tools, but were allowed to burn lime from chalk dug on the Marquis's land near the site of the obelisk.

Some amendments to the text of the contract in a different hand may be significant. The stone originally specified for the foundations was 'rough wall stone from Bradford', amended to read 'from the neighbourhood of Calne' (BA). The coursing of the rough Hall stone from Bradford has been altered from 'about 4 inches thick' to six inches and the section 'to all the external facings and backed up with the Calne Stone' is an addition.

Work seems to have started in the summer of 1845 and on 7 November Charles Jones acknowledged receipt of £500 on account 'for Building an Oblisk at Cherhill' (BA). Charles Barry billed Lord Lansdowne £92.0.0 on 29 May 1846 for

The Design, Specification and Estimate of the works in a monument erected on the Cherhill Downs, arranging and adjusting the accounts &c (BA).

The Building Stones

The building contract lists four different types of stone and specifies how each was to be used in the construction of the monument. Evidence discussed in this report demonstrates that Barry had detailed knowledge of the Bath stone specified for the quoins and dressings but the Jones' probably influenced the final choice of others. They were allowed to burn lime, presumably for mortar, from Lord Lansdowne's land but were otherwise responsible for supplying all the materials. It is likely that they produced the stone for the main structure of the obelisk from their own quarry at Bradford on Avon.

Research Methodology

Documentary research for this report is based on primary and secondary resources. Key online resources are the Historic England Building Stones Database map, *Know Your Place*, the National Library of Scotland Ordnance Survey map images, *Ancestry* and *Find My Past* (links in Bibliography). Other resources such as the HER have not been fully investigated for this report and the potential to use the 1910 'Domesday' survey to identify quarry sites active at around the time the Lansdowne Monument was repaired with Atworth stone has not been pursued.

Find My Past has a Wiltshire Tithe Award Register 1813-1882 which is searchable by the keyword 'quarry' and should therefore identify all the working quarries in Wiltshire during the period of the tithe survey which peaked in the early 1840s. This is a transcript and includes a known error relating to the property occupied by Bryan Jones in Bradford on Avon in 1841. It is however a very valuable resource producing more than 550 results across the county representing about half that number of quarry sites (owners and occupiers are listed separately so each site appears twice). These results can be checked against the original awards in the Wiltshire and Swindon History Centre.

The tithe maps themselves do not consistently record quarry sites. For example, the Bradford on Avon tithe map does not mark quarries (meaning that these can only be identified from the award) but other tithe maps, for example for the parish of Box, do identify quarry sites. The 25" Ordnance Survey maps surveyed around 40 years after the tithe maps also identify quarry sites but these are not necessarily in the same locations. Evidence discussed in this report relating to the quarry occupied by Bryan Jones in Bradford on Avon in 1841 demonstrates the shifting nature of quarrying and the huge advantage that the coincidence of the construction of the Lansdowne Monument with the national tithe survey provides for research into the sources of the stone used. It also confirms that the quarry sites identified on the HE Building Stones Database are only a small proportion of those that have been active in the past.

Ways of working with Geckkoella have been tested to establish how quarries which were open at the time the monument was built can be matched with geological information to identify specific sources of stone. The HE Building Stones Database map is overlaid on current mapping only, meaning that geological information cannot be correlated directly with historic maps, and it is suggested that enhancements should be considered. Historic quarry locations are identified in this report using OS Grid References and Postcodes generated by visual comparison, which is slow and laborious. The findings of this report may have significant potential for other projects.

Stone Sources Specified in the Contract

1 Rough wall stone from the neighbourhood of Calne (for the foundations):

Historic England's Building Stones Database map marks a single quarry in the centre of present day Calne (HE stone source ID 6200). Calne Quarries only supplied Calne Freestone and this is the only quarry on the map shown as a source of this stone. Other quarries immediately west and north of the town supplied Corallian Ragstone, and south west of the town Lower Greensand (HE Building Stones Database map). The Historic England guide to the building stones of Wiltshire describes:

Coral Rag, Calne Stone, Corallian limestones

This group includes many different rock types used locally for building: sandstones, sandy limestones and shelly limestones, often with peloids or ooids, and coral fragments. They are generally not very regularly bedded, but they do provide durable building stones.

The white Calne stone is a cross-bedded peloidal limestone with small shell fragments. It was quarried around Lyneham and Calne.

Freestones are exceptional in this group, however, and the Corallian limestone areas typically show a variety of hardstone blocks and rubblestone in the buildings. The wide variety of textures and tones of cream, grey and brown imparts a particular charm to the villages and towns along its outcrop, including at Highworth and Wootton Bassett. Dressings are often of local brick or freestone, as can be seen at Highworth. The Coral Rag Formation is a fine-grained, coralline, rubbly limestone,

formed around the reefs as detrital build-ups. It can make good quality, durable, building stone. (Historic England 2023, 11-12)

The sample of internal walling stone supplied to Geckoella (IW01), which is assumed to be part of the original construction, is a coarse grained peloidal limestone (Geckoella 2024, 3.5.1). The source of this stone is difficult to pinpoint geologically but Geckoella have supplied marked up extracts from the BGS Geology Viewer geological bedrock map identifying an appropriate search area in the Calne neighbourhood.

The HE Database map overlays geological information on current mapping only, meaning that a search of the tithe awards for the corresponding area has been judged by eye using multiple map sources. The tithe apportionments for Calne, Lyneham, Hilmarton, Tockenham, Wootton Bassett, Bremhill, the Liberty of Bowood, Brinkworth, Grittenham, Highway, Clyffe Pypard and Blackland have been searched for the word 'quarry'. This produced only five results, suggesting little quarrying activity.

There was one working quarry in the parish of Calne in 1844, at Conigre Farm (KYP: T/A ref 142; approximate OS Grid Ref ST 97992 71521; Post Code SN11 0LT). This was not on the same site as the Conigre Farm Quarry marked on the HE Database map (Stone Source ID 56102: Corallian Ragstone). In 1838 there was one quarry in the parish of Tockenham, at Tockenham Wick, which appears to have supplied road stone since it was occupied by the Surveyor of Roads (KYP: T/A ref 38; approximate OS Grid Ref SU 03778 80600; Post Code SN4 7PF). A search of the 1840 Clyffe Pypard apportionment produces three results relating to two quarry sites. An arable field owned by D E Broome Esq and occupied by William Beak is described as 'Twelve Acres by Quarry' but it is not clear where the quarry itself was (KYP: T/A ref 597; approximate OS Grid Ref SU 07099 76225; Post Code SN4 9NP). Another site was an active quarry, owned jointly by William Grosvenor and E D Sanbridge and occupied by Hugh Spencer (KYP: T/A ref 76; approximate OS Grid Ref SU 09048 79394; Post Code SN4 7RA).

2 Bath Stone from the Box or Lodge Stile Quarries (quoins and dressings):

research for this report identified the Lodge Stile Quarry without difficulty, before addressing the evidence for Box. The Building Stones Database map shows three quarries on Combe Down in Bath in the area immediately around the present house named Lodge Style which produced Combe Down Stone (HE stone source ID 219, 154677, 154678). Other quarries on Combe Down produced what is described as Bath Stone. Most of the total number of 44 quarries identified on the Building Stones Database map producing Combe Down Stone are clustered south and east of the village of Box, and Box Ground and Combe Down Oolite are interchangeable names for this stone. The Historic England building stones guide explains what lay behind the choice of this material for the most exposed parts of the monument:

The strength of Bath Stone comes from the crystalline (spar) calcite cement between the grains, rather than from the ooids. The cement prevents water being absorbed into the rock by the softer porous ooids. This cement is, in part, derived from carbonate leached from shell fragments mixed in with the ooids, which recrystallised

after burial. Thus, it is no coincidence that the best weatherstone in the area, Box Ground (Combe Down Oolite), contains the highest proportion of shell debris. The same level was extensively worked in the hills around Bath, and it is still quarried there on Combe Down. It was probably these lower beds of the formation that gave Bath Stone its reputation. (Historic England 2023, 8)

The 1851 Monkton Combe tithe award identifies the site of the 1909 Voysey house known as Lodge Stile on Combe Down as a quarry owned by William Vaughan Jenkins and occupied by Isaac and Giles Sumsion and others ([LODGE STYLE, Non Civil Parish - 1394909 | Historic England](#); T/A ref 184: BRO Tithe Apportionment transcript *cf* KYP; approximate OS Grid Ref ST 76822 62611; Post Code BA2 7HP). The Sumsions owned other property in the parish and occupied other quarry sites. Oxford Archaeology's monograph on the archaeology of the Combe Down stone mines notes the prominent role of the Sumsion family in what ultimately became The Bath and Portland Stone Firms (Willies, Redvers-Higgins, Wain 2011, 63). The name Lodge Stile is not used in the tithe apportionment, but Oxford Archaeology have identified a site immediately opposite the Sumsions' quarry on the other (west) side of Shaft Road as Lodge Stile or Lawns Quarry (Willies, Redvers-Higgins, Wain 2011, Fig 4.9). According to the tithe apportionment, this site was also owned by William Vaughan Jenkins but was occupied with other enclosures by William Harding and was in arable cultivation. The quarries at Lodge Stile were still in production in 2011 and remain so in 2024, now known as Upper Lawn Quarry and worked by John Hancock & Sons (Bath) Ltd (Willies, Redvers-Higgins, Wain 2011, 66; [JOHN HANCOCK & SONS \(BATH\) LIMITED overview - Find and update company information - GOV.UK](#)).

The 1839 Houses of Parliament report identifies Lodge Hill Quarry at Combe Down as a source of cream coloured Oolite (Barry 1839, Table A). This quarry was owned by W V Jenkins and worked by Isaac Sumsion. In 1851, the quarry at Lodge Stile was apparently the only one owned by Jenkins and occupied by Isaac Sumsion and it seems very likely that Lodge Hill Quarry was on or adjoining the Lodge Stile site and producing the same material. A note on Table A in the 1839 report that 'Ridges and Troughs are made of this Stone' shows that Barry was aware of its durability. Given the exposed position of the Monument it is reasonable to suggest that Barry would specify materials which he knew had already been rigorously tested.

The same argument applies to the first source of Oolite specified by Barry. A search of the Wiltshire Tithe Award Register for Box produces more than 140 results, representing around 70 quarry sites in the parish active at the time of the tithe survey in 1840 (KYP). This is a credible source for the original stone used at the Monument but there is no realistic method of pinpointing the quarry from which it was taken using geological information (information from Dr Andy King, Geckoella). However, Barry's 1839 report identifies only one quarry in Box. This was Baynton Quarry, which was owned and worked by Thomas Strong. We know that Strong had supplied stone used at Bowood before 1839 and produced an alternative estimate for the Lansdowne Monument (Barry 1839, Table A; BA). The site of Baynton Quarry can be identified from the Box tithe apportionment dated 31 December 1840 (KYP). This shows that Thomas Strong owned and occupied parts of Box Quarry on enclosures 388,

388a and 389 (approximately centred on OS Grid Ref ST 83577 69293; Postcode SN13 8HQ). Strong did not own or occupy any other quarry sites in the parish. In 1840, another part of Box Quarry was owned and occupied by Sir Andrew Bayntun, and this is presumably why Barry referred to the site as Baynton Quarry (KYP; Barry 1839, Table A). It seems reasonable to identify this as the first source of Oolite specified by Barry, which may have been preferred because it had already been used at Bowood and was closer to the Monument site.

The Oxford Archaeology monograph on the Combe Down stone mines discusses the interrelationship between the two sources of stone specified for the quoins and dressings of the Lansdowne Monument. The date of construction coincided with significant developments in availability:

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 Dundas Aqueduct at the bottom of Brassknocker Hill and others at Tuckmill 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. (Willies, Redvers-Higgins, Wain 2011, 53)

Note that in 1839 the suggested method of transporting either type of Bath Oolite to London was by land to the Dundas Aqueduct from Combe Down or to Lacock from Box and thence *via* the Kennet and Avon Canal, which passes within four miles of the site of the Lansdowne Monument near Bishops Cannings (Barry 1839, Table A).

3 Rough Hall stone from Bradford (facing the obelisk and base walls, backed with Calne stone): the Building Stones Database map identifies the Hall Mine at Bradford on Avon, also known as Kingston Quarry or Combe Quarry (HE stone source ID 10366). The coincidence of names provided a starting point for research and according to the database the Hall Mine produced only Bradford Ground stone. The map identifies a total of four other quarries producing this stone on the south side of the town (HE stone source ID 8307, 9107, 9108, 20214). Two of these sites are identified as 'Jones's Quarry' and have accordingly also been investigated.

We know that the Jones brothers were quarrymen as well as builders and Bradford on Avon Museum records

... a large open quarry called Grip Wood Quarry or Jones' Quarry after the firm of quarriers and builders who worked there. It has been designated as a Site of Special Scientific Importance because of the sequence of rocks that is exposed there. Daniel and Isaac [*sic*] Jones built many buildings in Bradford and beyond. ([Bradford Quarries](#) | [Bradford on Avon Museum](#))

Jones Hill Quarry is recorded on the Wiltshire HER:

Freestone surface and underground stone quarry, possibly worked in the Medieval period. The site is thought to be the source of stone for Shaftesbury Abbey and is documented in the early 17th century. The surface workings gave access to underground mines, which were until recently, used for growing mushrooms. The site was still active as a quarry in 1901, with two cranes in the interior. On the south side is a brick shelter with a pair of doors at one end, apparently leading to an underground space, possibly an old working. The west end of the quarry is relatively undisturbed and the ground level steps up. The sides and floor are very overgrown but vertical drill marks are visible in several places. There are apparently other entrances to underground workings here but these could not be located. (HER ref ST86SW468)

It is important to note that none of these quarries (including the Hall Mine) was apparently operational at the time of the Bradford on Avon tithe survey in 1841. The tithe apportionment does identify Bryan Jones as the occupier of a parcel of land described as a garden, paddock and quarry on the north side of the town (WSHC T/A Bradford on Avon: ref 58). The land was owned by John Jones, who was evidently not his father who had died in 1814 ([Brian B. Jones \(1802-1843\) - Find a Grave Memorial](#)). This quarry was on the same Bradford Ground or Ancliff Oolite as the Hall Mine and the other four quarries on the south side of the town (HE Map Building Stones Database map). The tithe award does not identify any other quarry sites owned or occupied by Daniel, Charles or Bryan Jones but the extended Jones family has not been investigated for this report.

The Bradford on Avon tithe map does not distinguish quarries, but the site occupied by Bryan Jones is marked as a quarry on the 1887 25" Ordnance Survey map, which also shows two other quarries in the immediate vicinity (Wiltshire XXXII.14, surveyed 1884-5). Neither of these was a quarry in 1841 (WSHC T/A Bradford on Avon: refs 27, 47, both described as gardens). Significantly, none of these three sites is identified as a quarry on the HE Building Stones Database map.

Bradford Ground is otherwise known as Bath Stone or Ancliff Oolite and is described as 'shelly and oolitic with prominent cross-bedded shelly layers, making it less homogenous and a less durable freestone' (HE Wiltshire building examples and stone sources spreadsheet). However, the

... freestone from the Bradford on Avon area, the Ancliff Oolite, occurs locally in the lower part of the Forest Marble. It is quite distinctive, characterised by strongly developed cross-bedding, with layers of well sorted shell fragments that are picked out by weathering. It was widely used from the 18th to the 20th century in Bradford and Trowbridge, but it is no longer worked. Hall's Almshouses in Bradford on Avon are constructed of Ancliff Oolite. (Historic England 2023, 10)

Given a reasonable assumption that the Jones' brothers used stone from their own quarry, it is likely that the stone used for the monument came from T/A ref 58 (WSHC T/A Bradford on Avon; approximate OS Grid Ref ST 82182 60988; Post Code BA15 1QG). This conclusion is consistent with the geological evidence.

4 Chippenham (slabs used for paving the plinth steps): the text of the contract is confusing on this point, but the original has not been seen. It could say 'Hays' or 'Flags' but the latter would make more sense. The Building Stones Database map shows many quarries in the vicinity of Chippenham but none close in to the town itself. There are clusters around Calne in the east and others west and south west of the town which are largely on the Bath Stone belt. However, a total of 78 quarries within twenty miles of Chippenham on the west side yielded Forest Marble Ragstone. The Historic England building stones guide describes:

Ragstone

In the Forest Marble Formation, generally, the bedding is more irregular and there are clays separating the limestones. The limestones, known as ragstone, are typically yellow-brown with a blue 'heart'. They are made up of broken shell debris and are less thickly bedded than the ooidal limestones. Cross-bedding is typical and the matrix is crystalline calcite. This makes the limestones a good weatherstone, but they are too intractable to be used for dressings. They have been employed extensively for cottages, farm buildings and as a walling stone. Thinly bedded, fissile, shelly limestones provided the stone roof slates typical of the older Cotswold buildings, as well as cobbles and larger paving slabs. Small pits in fields around Bradford on Avon, Atworth, Gastard and Malmesbury were excavated for this purpose. (Historic England 2023, 9-10)

A keyword search of the Wiltshire Tithe Award Register for 'quarry' at Chippenham produces 90 results within a five-mile radius (*ie* 45 sites). An exact search for Chippenham identifies two sites (KYP: T/A refs 173, 729), neither of which is marked as a quarry on the HE Building Stones Database map.

Geckoella have supplied marked up extracts from the BGS Geology Viewer geological bedrock map identifying an appropriate search area in the Chippenham neighbourhood. The BGS map is overlaid on a satellite view and the HE Database map overlays geological information on current mapping only, meaning that a search of the tithe awards for the corresponding area has been judged by eye using multiple map sources. Five tithe awards south and west of Chippenham have been searched for the word 'quarry': Lacock, Easton, Corsham, Biddestone and Slaughterford and Yatton Keynell (KYP).

The only reference to a quarry in the 1840 Lacock apportionment is an 8a arable enclosure known as 'Quarry Ground', owned by W H Fox Talbot and occupied by William Curnick (KYP: T/A ref 526; approximate OS Grid Ref ST 90139 68825; Post Code SN13 9QJ).

There are nine sites associated with the word 'quarry' in the 1839 Corsham tithe apportionment. A cluster of sites on the south east side of the town of Corsham within four miles of Chippenham probably produced Forest Marble Ragstone. Note that these are at or in the vicinity of Gastard, identified by Historic England as a source of fissile limestone used for stone roofing slates (Historic England 2023, 9-10). A 13a arable field owned by Ezekiel Harman and occupied by Philip Gregory is described as 'Quarry Ground' (KYP: T/A ref 615; approximate OS Grid Ref ST 87199 67965; Post Code SN13 9PL). This site is adjacent to the Ridge Quarry and Ridge Mine, both sources of Forest Marble Ragstone (HE Building Stones Database map Stone Source ID 56021, 8330). A 10a pasture known as 'Quarry Leaze' also owned by Ezekiel Harman and occupied by Jacob Hayward is adjacent to Velley or Aust's Quarry, another source of Forest Marble Ragstone (KYP: T/A ref 700; approximate OS Grid Ref ST 88338 68120; Post Code SN13 9PU; HE Building Stones Database map Stone Source ID 8329).

A 10a pasture owned and occupied by John Taylor is named 'Quarry Ground' (KYP: T/A ref 837; approximate OS Grid Ref ST 88932 68359; Post Code SN13 9QR). The HE Building Stones Database map marks Gastard Quarry, producing Forest Marble Ragstone, on this enclosure (Stone Source ID 120947). A 6a arable enclosure owned by Sir Harry Neale and occupied by John Hulbert was also known as 'Quarry Ground' (KYP: T/A ref 889; approximate OS Grid Ref ST 88133 69475; Post Code SN13 9PF). The HE Building Stones Database map does not identify any quarries in the immediate vicinity of this site.

North of Corsham, a site named 'The Great Buckrell' which was owned and occupied by Paul Methuen was apparently an active quarry in 1839 (KYP: T/A ref 1272; approximate OS Grid Ref ST 87271 72020; Post Code SN13 0QE). Methuen owned and occupied another quarry in an enclosure named 'Larkstones' (KYP: T/A ref 1296a; approximate OS Grid Ref ST 87050 71403; Post Code SN13 0DT). The HE Building Stones Database map marks Brickers Barn Quarry, producing Forest Marble Ragstone, on this site (Stone Source ID 55983).

Another site north of Corsham was a small garden and quarry owned by Mary Woodman and occupied by William Woodman (KYP: T/A ref 1366; approximate OS Grid Ref ST 85552 70452; Post Code SN13 0PP). The HE Building Stones Database map identifies four quarries in the vicinity producing Bath Stone/Combe Down Oolite (Stone Source ID 6385, 9109, 55984, 55999). A house, quarry and garden owned and occupied by William Brewer is on the site of Hartham Park Quarry, otherwise known as Brewer's Yard, producing Bath Stone (KYP: T/A ref 1377; approximate OS Grid Ref ST 84623 70381; Post Code SN13 0ER; HE Building Stones Database map, Stone Source ID 245130, 8399). Another site nearby, owned by Henry Hall Joy Esq and occupied jointly by Robert and William Hulbert was also an active quarry in 1839 (KYP: T/A ref 1382; approximate OS Grid Ref ST 84865 70854; Post Code SN13 0PF). The HE Building Stones Database map marks Seven Acres Mine, which produced Bath Stone, on this enclosure (Stone Source ID 14364).

The 1840 Biddestone and Slaughterford tithe apportionment identifies quarry sites west of Chippenham producing both Bath Stone and Forest Marble Ragstone. A pasture named 'Quarry Piece' owned by the Earl of Egremont and occupied by John Gibbs is at approximately the same location as Pew's Hill Quarries, which produced Forest Marble Ragstone (KYP: T/A ref 200; approximate OS Grid Ref ST 85120 74345; Post Code SN14 8RD; HE Building Stones Database map, Stone Source ID 55857). Of two areas described as quarry and waste, a piece at the west end of Biddestone village was a pasture known as 'Butts' (KYP: T/A ref 337; approximate OS Grid Ref ST 86002 73368; Post Code SN14 7DY). The other was an apparently active quarry in 'Great Dry Field' (KYP: T/A ref 344; OS Grid Ref ST 85277 73586; adjacent Post Code SN14 7DT). Immediately adjoining this were sites named Standhill or Standhills Quarry which were apparently no longer worked since they were under cultivation as pasture and arable (KYP: T/A refs 345, 346 (two pieces, 347). The largest of these enclosures was owned by Lord Methuen and occupied by Ann and William Blake (T/A ref 345; approximate OS Grid Ref ST 85223 73551; adjacent Post Code SN14 7DT). Two small enclosures also owned by Lord Methuen were occupied by Thomas Hulbert (T/A ref 346; approximate OS Grid Ref ST 85179 73602, ST 85123 73564; adjacent Post Code SN14 7DT). Another small enclosure also occupied by Thomas Hulbert was owned by Thomas Little (T/A ref 347; approximate OS Grid Ref ST 85150 73583; adjacent Post Code SN14 7DT). The HE Building Stones Database map identifies Biddlestone [*sic*] St Nicholas Quarry producing Bath Stone at the site of T/A refs 346 and 347 (Stone Source ID 55868).

A 14a arable enclosure described as 'Colletts Leaze, Quarry and Georges Ground' owned and occupied by Henry Hall Joy Esq is close to the site of Collett's Bottom Woods Quarry, which produced Bath Stone (KYP: T/A ref 424; approximate OS Grid Ref ST 84773 71829; adjacent Post Code SN13 0PF; HE Building Stones Database map, Stone Source ID 55997).

The 1842 Yatton Keynell tithe apportionment identifies clusters of quarry sites in this parish north west of Chippenham. There were three active quarries in very close proximity at Giddeahall (KYP: T/A refs 280, 281, 429; approximate OS Grid Ref ST 85682 74805; Post Code SN14 7ES). Two active quarries west of the village of Yatton Keynell were on the site of Manor Farm Quarry, which produced Bath Stone (KYP: T/A refs 317, 318; approximate OS Grid Ref ST 86124 76268; adjacent Post Code SN14 7EL; HE Building Stones Database map, Stone Source ID 8338). Other quarry sites in Yatton Keynell were not in active use. Some quarrying may have continued at a cluster of sites north of Long Dean around an area described on current mapping as Grains Quarry Plantation (KYP: T/A refs 376, 378, 379; centred on approximate OS Grid Ref ST 84783 76165; adjacent Post Code SN14 7EX). Two other sites nearby are described as 'Old Quarry' (KYP: T/A refs 445, 446; approximate OS Grid Ref ST 85160 75638; adjacent Post Code SN14 7EX). These are close to Long Dean Quarry, which produced Bath Stone (HE Building Stones Database map, Stone Source ID 55861).

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Online Resources (accessed January- October 2024)

British Newspaper Archive: [Home](#) | [Search the archive](#) | [British Newspaper Archive](#)

Historic England Building Stones Database: [Building Stones of England](#) | [Historic England](#)

Internet Archive: [Internet Archive: Digital Library of Free & Borrowable Books, Movies, Music & Wayback Machine](#)

Know Your Place (KYP): [Know Your Place - Wiltshire \(bristol.gov.uk\)](#); [Know Your Place - BaNES](#)

National Archives Discovery Catalogue: [Discovery](#) | [The National Archives](#)

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Oxford Dictionary of National Biography (Oxford DNB): [Oxford Dictionary of National Biography \(oxforddnb.com\)](#)

Wiltshire Historic Environment Record (HER): [Historic Environment Records](#) | [Wiltshire Council](#)