

# The Landmark Trust

## **BELMONT**

### **History Album**



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**Updated March 2020**

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**BELMONT - BASIC DETAILS**

*Winner, Georgian Group Architectural Awards 2015 for Best Building in an Urban Setting*

<b>Built</b>	<b>c1780</b>
<b>Listed</b>	<b>Grade II*</b>
<b>Ownership</b>	<b>Eleanor Coade 1784-1821 Richard Bangay 1881-1896 John Fowles 1968-2005</b>
<b>Acquired by Landmark</b>	<b>2007</b>
<b>Tenure</b>	<b>Freehold</b>
<b>Opened as a Landmark</b>	<b>Sept 2015</b>
<b>Building analysis</b>	<b>Paul Drury with input from Richard Morriss</b>
<b>Paint analysis</b>	<b>Catherine Hassall</b>
<b>Advising architects</b>	<b>Peregrine Bryant &amp; James Hall</b>
<b>Project manager</b>	<b>Carole Paton, Landmark Trust</b>
<b>Site manager</b>	<b>Stuart Leavy, Landmark Trust</b>
<b>Landmark Crafts Team</b>	<b>Carl Dowding    Len Hardy    Bill Barkley</b>
<b>Coade stone</b>	<b>Thomason Cudworth, near Axminster</b>
<b>Bricklayers/Masons</b>	<b>David and Simon Miles</b>
<b>Masons/Plasterers &amp; Conservators</b>	<b>Ian Burgess &amp; Osirion Conservation of Evershot Mark Milner Building Conservation of Blandford</b>
<b>Demolition &amp; Groundworks</b>	<b>Hansford Construction of Lyme</b>
<b>Roofing</b>	<b>Rowsell Roofing of Yeovil</b>
<b>Scaffolding</b>	<b>Pen Mill Scaffolding of Yeovil</b>
<b>Metal Work</b>	<b>KD Design and Fabrication of Chard</b>
<b>Bricklayers</b>	<b>Gebb White</b>
<b>Stone Mason</b>	<b>Scott Lewis</b>
<b>Painters &amp; decorators</b>	<b>Kevin Harris of Axminster (exterior) Ambrose and Locke of Taunton (interiors)</b>
<b>Joinery</b>	<b>Minster Joinery, Wormington Grange, Robeda Joinery</b>
<b>Lead carpenter:</b>	<b>Steve Spears</b>
<b>Services</b>	<b>Fords of Sidmouth</b>

**Belmont was one of the projects followed in the six-part television series, *Restoring Britain's Landmarks*, which aired in autumn 2015 on Channel 4.**

## **Supporters of Belmont**

We are hugely grateful to all those who gave so generously in support of the restoration of Belmont, including:

### **Guardians**

Mr R Broyd, Mr R Eaton, Mr F Heels, Mr G Ruthen and Ms S Andrew, Mrs A Sandall

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### **Legacies and gifts in memory**

Mr K Emerson, Mrs J Hanson, Mrs E Jurd, Mr A Officer, Mrs S Preston, Mrs A Stevens

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The books at Belmont were funded by a donation in memory of Ethelwyn Jurd, who had fond memories of staying at Landmarks over many years.

***We are also grateful to the generous supporters who have chosen to remain anonymous, and numerous other donors who supported the appeal.***

## BELMONT : A TIMELINE

This page provides a reference guide to confirmed dates of ownership (or head lessees) of Belmont.

- c1772      A two storey pavilion, 'Bunter's Castle' is built by Simon Bunter on a plot leased from the Corporation of Lyme Regis
  
- 1783      Possession passes to Samuel Coade, who builds a house around the pavilion
  
- 1784      Sam Coade transfers the leasehold to his niece, Mrs Eleanor Coade, who embellishes it with her eponymous artificial stone wares.
  
- 1821      Death of Mrs Coade; house remains in her ownership until this time.
  
- 1824-81    House is known as Belmont by now. Occupied by Mrs Fewtrell, and then a succession of tenants
  
- 1881-1896 Freehold bought by Dr Richard Bangay, who adds two large wings to each side, conservatories along the back and the observatory tower.
  
- 1896      House bought by Dr Harold J Cooper
  
- 1955      Margeret Cooper bequeaths Belmont to Harry and Joseph Cooper.
  
- 1959      13<sup>th</sup> October, Dr & Mrs Raynham buy Belmont. Largely absentee, the Raynhams demolish most of Dr Bangay's extensions
  
- 1968      25<sup>th</sup> November, John & Elizabeth Fowles buy Belmont
  
- 2005      Death of John Fowles, Belmont passes to his second wife, Sarah (née Smith).
  
- 2007      1<sup>st</sup> June Belmont bought by Landmark.
  
- 2013      December, work begins on site
  
- 2015      September, Belmont opens as a Landmark



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**The front (north) elevation in March 2015.**

## Summary

Belmont was built in its current form around 1784. The house encases an earlier two-storey look-out pavilion of blue lias ashlar, almost certainly the structure then known as Bunter's Castle. The plot is an important one, on the corner where the main road out of town to Sidmouth meets Cobb Road. Cobb Road was built around 1756 as a toll road by one of the Coades, an Exeter and Lyme Baptist family active in various parts of the wool business. Around 1783, the lease of the Belmont plot (it was owned by the Town Corporation of Lyme) passed to Samuel Coade, a clothier and fuller, who transferred the lease to his niece Eleanor Coade in 1784. It is not clear whether it was Samuel or Eleanor built Belmont, but it became a three-dimensional catalogue for Eleanor Coade's artificial stone, produced at her thriving manufactory in Lambeth. The head of Neptune above the front door is inscribed '1785, J. Brabham fecit' which confirms the construction date. As built, Belmont would have appeared like a pretty, pocket-sized country house, sitting proud above the Cobb surrounded by park railings and paddocks.

Mrs Eleanor Coade (1733-1821) was the first of three remarkable inhabitants of Belmont. Never marrying, she bought the artificial stone manufactory in London, near the south bank of Westminster Bridge, in 1769 as a failing concern. She turned it into a thriving business. She employed a team of the finest sculptors and craftsmen of her day to produce an artificial fired stone that she succeeded in marketing as actively better than natural stone for durability and reliability. By mixing pre-fired stoneware and ground glass, flint and silicates into raw ball clay, shrinkage was carefully controlled. Coade stone became a hugely successful product, used by all the great architects of the day. Though mainly living in London, Mrs Coade retained ownership of Belmont for the rest of her life. The leasehold was then bought by a Mrs Fewtrell, who first called it Belmont. She was followed by various tenants until 1881, when the house was bought by a GP, Dr Richard Bangay (1834-1933).

Bangay moved to Lyme from Cheadle near Manchester in search of a better climate for his wife Agnes. They had a large family and Dr Bangay became well-loved in Lyme. He extended Belmont considerably: he added two large gabled wings, erected conservatories across the back of the house and built the three-storey observatory tower. Astronomy was increasingly popular in the 19<sup>th</sup> century and Dr Bangay was a lifelong enthusiast. The Bangays left Lyme in 1896, selling the house to the Cooper family, who owned it until 1959 when it was bought by Dr & Mrs Raynham, the old house by now somewhat dilapidated. Largely absent, the Raynhams turned the west conservatory into a flat and knocked down most of Dr Bangay's extensions. The house was by now listed Grade II\*, because of its Coade connection. In 1969, still in need of work, the house was bought by the author, John Fowles, and his wife Elizabeth, who moved from Underhill Farm just outside Lyme where they had lived since 1965.

John Fowles is a writer of global fame, author of such works as *The Magus* and *The French Lieutenant's Woman*, for which he finalised the proofs in his writing

room on the first floor at Belmont and wrote many other works. They completed Belmont's refurbishment, and Fowles, a keen naturalist, revelled in its large if overgrown garden. He also loved local history and from 1979 to 1988, was curator of the Lyme Regis Museum writing many of the labels for the exhibits.

Elizabeth Fowles died in 1990. In 1998, Fowles married again, to Sarah Smith. By now in his seventies, Fowles was concerned for Belmont's future. He especially wished to avoid the house becoming a hotel and wanted it to be available to other writers. Failing to find an academic university willing to take it on, he approached Landmark. The trust was willing to take it as a bequest, but in the event it was found this was not the case. Sarah Fowles offered it to Landmark to buy, which we do not normally do but a generous legacy from Joyce Hanson, another Dorset resident, enabled Landmark to buy Belmont. Each year, two free study weeks are offered to creative writing students from the University of East Anglia in pursuance of John Fowles's wishes.

Belmont was by now again in need of major maintenance works. The Fowles' works had been somewhat pragmatic, often using inappropriate modern materials. The late 19<sup>th</sup>-century extensions were by now just two rooms, with awkward changes of levels internally and PVC windows. After very careful building analysis, it was decided to return the house to its original Regency form, removing the late 19<sup>th</sup>-century remnants. A detailed restoration scheme was drawn up based on archaeological evidence and old photographs, and the necessary permissions were obtained. Restoration lasted from late 2013-2015.

The house was entirely scaffolded, and the later extensions removed. It was re-roofed, replacing the stone copings and rebuilding the parapet and chimneys. The exposed Coade stone urns were conserved, their lids having cracked due to rusting iron dowels holding them in place. The Coade stone embellishments were all cleaned of later paint using high pressure steam, revealing remarkable detail. Neptune's head, removed to have a single point in his crown repaired, was found to be dated 1785, confirming the probable construction date. The external ground levels were corrected. The back lawn now reflects the size of Mrs Coade's original plot, although the rest of the garden has not been returned to the paddock it was in the 18<sup>th</sup>-century. It will remain the tangled wild life sanctuary so loved by John Fowles.

Throughout, the 18<sup>th</sup>-century floor plan has been reinstated, rebuilding partitions to the ground floor bedroom, back parlour and NE bedroom. The easy access ground floor bathroom was built on the site of similar service rooms apparent on early maps. The line of the stairs has been corrected. The fenestration and cornices are all primary. Only one original fireplace remained, now reinstated in its original position in the first floor drawing room. Like the friezes and architraves in the house, its decoration too is Coade stone, the remarkable detail of the central medallion left unpainted. The other fireplaces have been made by Landmark's furnishing team, using resin to create the decoration from moulds of the original.

## History of Belmont and its inhabitants

*'I sometimes tell people that my affection for this area is so great that it has become for me like some sort of shrine or church. It has taught me a great deal about who I am and what the world is, and I have always liked the thought that perhaps those who come after me might also gain from the experience of it and indeed in all the countless dilemmas the pursuit of their chosen art has given them.... This little Jurassic and Cretaceous paradise is genuinely so, a very special and peculiar place.'*

- John Fowles, 1999

Many occupants have enjoyed Belmont, so aptly named, since it was built in the mid-18<sup>th</sup> century. Three of them are particularly noteworthy: Eleanor Coade, Richard Bangay and John Fowles. Together, their lives encapsulate the journey that human life and ideas have taken in the last 250 years. From Coade's fervent Georgian Dissenting religion, through Bangay's self-taught Darwinian empiricism of evolution and burgeoning knowledge of the universe, to Fowles's modernist, existentialist awareness of man's responsibility for his own actions in an empty universe, the conversations that must have played out in Belmont's rooms through the centuries provide an unusually rich cauldron of material. We have a bustling entrepreneur in command of a complicated technical process; a social reformer GP and passionate learner and communicator, and an introspective writer who gained international fame as one of the most distinctive and effective voices of the modernist experience. All of them loved Lyme Regis.

Lyme Regis has been a port since the early Middle Ages. Its famous Cobb, a manmade sea defence to shelter its harbour, has existed in some form since at the 13<sup>th</sup> century. 'Primitive yet complex, elephantine but delicate; as full of subtle curves and volumes as a Henry Moore or a Michelangelo; and pure, clean, salt, a paragon of mass,' as Fowles so memorably described it in *The French Lieutenant's Woman*. The medieval core of the town lies to the east of the Cobb, but the Belmont plot's location immediately above the Cobb has always been a prime one.

In the mid- 18<sup>th</sup> century, the town had hit one of its periodic slumps. There have been several of these through the centuries, some for dramatic reasons like the reprisals for those who supported the Duke of Monmouth's landing here in 1685 or the disastrous fire in 1804, but around 1750 its state of torpor, even depression, has the feel of an inevitable consequence of the isolated geography of a small fishing town with little to distinguish it from any other. An anonymous *Guide to All the Watering and Sea Bathing Places* of 1815 (by when this new-fangled fad was already reviving the town's fortunes) likened the old core to 'a forest, or labyrinth of a fox den' and advised that 'to be a person of consideration at Lyme, it is necessary to toil up the hill, and to fix one's abode where it is in danger of being assailed by every wind that blows.'<sup>1</sup>

This, however, was an outsider's view. For Lyme residents, town life in the mid-18<sup>th</sup> century was as vibrant and tangled a web of business and personal relationships and activities as it is today. Such a 'person of consideration' was one Simon Bunter, a merchant of Axminster, with whom the story of the house known as Belmont begins.<sup>2</sup>

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<sup>1</sup> Anon, *Guide to All the Watering and Sea Bathing Places* (1815), p.356.

<sup>2</sup> Belmont, or sometimes Belmont House, seems to have been named as such by Mrs Fewtrell, a tenant in the mid 19<sup>th</sup> century. It is not known what the house was called before this, other than by whichever owner's name who reside there. For convenience, it will be referred to as Belmont throughout this album.

## Bunter's Castle – before the Coades

Little is so far known about merchant Simon Bunter of Axminster. His will, proved in April 1785, suggests he was a bachelor with no immediate family.<sup>3</sup> Host of renowned 'festivities' (see below), he sounds a sociable man. He may also have been something of an antiquarian: he bequeathed a portrait of Sir Walter Raleigh to the British Museum and his collection of coins and printed books to his former clerk, John Crown[?]. The most of the rest of his not inconsiderable estate he leaves to his nephews, John and William Clapcott. For the Coade story, it is interesting that the will also includes passing reference a Tozer, a family then ubiquitous in Lyme and the area, and related to the Coades by marriage.

The earliest mention so far of Simon Bunter's name is in a Corporation deed dated 27th Jan 1772<sup>4</sup> in a bundle of documents that reveals a concerted acquisition policy by one Thomas Hollis of Lincoln's Inn, Middlesex, from 1769 to acquire leases along St Michael Street, as Pound Street was then known. The deed refers to 'a tenement in the occupation of Simon Bunter, Gentleman, held under the said Mayor and Burgesses' and is identifiable as the Belmont plot. Bunter then appears in his own right in the rent rolls in 1777, holding two parcels of land from the Corporation until 1783 when the lease passed to Samuel Coade. Rather archaically, it seems many of the Corporation's head leases, the Belmont plot included, were granted on a period of three lives rather than the fixed term leases that were more common by that time. When Landmark acquired Belmont, we knew only that the house was said to have been built around 1785. From a cursory examination of the core fabric of the 18<sup>th</sup>-century villa, this seemed entirely plausible, and the date appeared in various secondary sources, no doubt the result of past local historians' study of the rent rolls of the Corporation of Lyme Regis. The Corporation owned much of the land in and round the town in the 18<sup>th</sup> century.

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<sup>3</sup> Public Record Office Prob. 11/1128

<sup>4</sup> Dorset History Centre LR/J/123





**Lyme Regis from the West (1784), a watercolour that shows the view into town when Belmont was being built. This little pavilion was a coastguard lookout, but Bunter's Castle must have been very similar. (V&A Museum Collections)**



In his 1823 *History of Lyme Regis & Charmouth*, local historian George Roberts wrote that 'For many years, Bunter's Castle, a summer villa, near the site of the present Belmont, was the scene of festivities.' This otherwise uncorroborated statement that Bunter's Castle lay somewhere near Belmont was repeated by various mid-20th century accounts, and the exact site of Bunter's Castle has been a source of ongoing speculation among Lyme's historians.

During Landmark's detailed analysis of Belmont's fabric during the pre-restoration phase, we were astounded to find evidence of a little two storey building that clearly predated the 1780s villa, embedded in the walls of the rear south eastern corner of the house (today's kitchen and sitting room above).<sup>5</sup> The surviving block spoke of a small structure roughly 6.5m x 7.5m. It was built of finely jointed, smooth blocks of the local blue lias stone, which had then been limewashed. Built into the north wall of this block was a projecting brick chimney breast, showing that the building was heated. Most of the structural timber was oak, found as studding encased in the internal walls of today's kitchen, with pine bridging and tie beams.

This, surely, is Bunter's Castle, not 'near the site of the [19<sup>th</sup>-century] present Belmont' but actually part of the 21<sup>st</sup>-century 'present' Belmont. For the Belmont George Roberts knew was on Pound Lane: our Belmont only became known as such in the mid-19<sup>th</sup> century.

The evidence for Bunter's Castle suggests that on the ground floor, there were two low-ceilinged rooms, with a doorway north of centre (Belmont's front elevation faces roughly north). The western of these spaces was narrow and no traces survive of this above ground level. The eastern contained the chimney breast and, presumably, a hearth. There is evidence for door openings in both the south and east walls, and for a two light casement window in the east wall.

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<sup>5</sup> Landmark's detailed analysis of the fabric of Belmont was masterminded by external archaeologist and consultant Paul Drury, to whose brilliant insight we owe much of our understanding of the house. Insights from architects Peregrine Bryant and James Hall also contributed greatly at this stage. The detailed findings are recorded in the Belmont Conservation Plan.



Figure 1: Belmont: Phased plan of ground floor



Figure 3: Belmont: Phased plan of first floor; chain lines represent the first floor bridging beams

These phased floor plans from the Conservation Plan show the outline of Bunter's Castle in red (Period 0). Mrs Coade's villa is in blue and Dr Bangay's extensions as they survived in 2007 in green. Yellow are 20<sup>th</sup>-century changes.

The Castle's principal room coincided, more or less, with today's sitting room, probably entered from the northwest corner by an external staircase (surviving joists show one cannot have risen in the room itself). There were windows in southern, seaward side: the surviving window cases incorporate raised and fielded backs to shutter boxes that are probably also of this primary phase, of a height suggesting typical sash windows four panes high. Bunter, it seemed, also enjoyed the sea view.

The roof structure, above the surviving garret floor, is also primary, but indicates eaves rather than a parapet: if its name implies that Bunter's Castle was somehow crenelated, then this must have been confined to the gables. All of this suggests that Bunter's Castle was a little pleasure pavilion, a polite prospect room to enjoy the views through sash windows over the Cobb and towards Portland Bill, while servants prepared refreshments in more modest service rooms below. There was a fashion for such things among people of middling affluence in the period: in Bristol in this period, a number of 'garden pavilions' were built by merchants.<sup>6</sup> The few details we found certainly suggest that the pavilion did not long predate the house built around it. Bunter's Castle was not the only such pavilion above the Cobb in these years. There was at least one other, a little polygonal building of at least two storeys, seemingly also built of blue lias and captured by C. W. Bampfylde in a watercolour in 1784. This, however, was a coastguard's look out rather than a pleasure pavilion.

Simon Bunter made his will in January 1783, perhaps putting his affairs in order as an old man, for in the same year the lease on the two parcels of Belmont land with their 'tenement' (presumably Bunter's pavilion) pass to one Samuel Coade. Bunter almost certainly he knew Coade personally, as another pillar of Lyme society. Perhaps he took satisfaction in passing his lease on the plot on St Michael Street (as Pound Street was then called) to a local Lyme resident rather than to the incomer Hollis (even if the latter went on to instigate many improvements in Lyme).

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<sup>6</sup> See R. H. Leech, *The Hearth Taxes as a Decodable Street Directory* in *Houses & the Hearth Tax: The Later Stuart House & Society*, ed. P. S. Barnwell & M. Airs (2006).



**Evidence of Bunter's Castle: the timber frame of the ground floor embedded in today's kitchen west wall (top) and the external ashlar face of its first floor north wall, east end, once limewashed.**

## 2. Samuel Coade (1725-1808, owned Belmont site c 1783-5)

The next received statement about Belmont we needed to untangle again came from secondary sources like Alison Kelly and the RCHME account (1952), neither of which give primary sources for the statement that Belmont was transferred in 1784 by Samuel Coade 'to his niece Eleanor Coade of the Parish of St Mary, Lambeth, Artificial Stone Manufacturer, who wished to enlarge the house, add new buildings and improve the premises.'

Samuel Coade was a member of a strong Baptist family that first appear in Lyme in the mid-17<sup>th</sup> century.<sup>7</sup> For nearly a century, the Coades developed close knit matrimonial ties with a few other Baptist families in the southwest.

The third generation branch that concerns us begins with the marriage of George Coad to Elizabeth Fowler on 31<sup>st</sup> May 1704 in Lyme Regis. This George may have been the George Coade who was mayor of Lyme in 1729-30. George and Elizabeth had a large family: fourteen children over the next twenty years. Their second son, also George, was born in 1706. He will be Eleanor Coade's father. The eldest son, named Robert Fowler Coade married to Sarah, an Enchmarch of Tiverton, The Enchmarches were a major wool-trading and -finishing family. Robert and Sarah Coade lived in some state in the Great House in Broad Street in Lyme, which they let in summer to Lord Camelford, owner of Cornish estates which supplied china clay. Clay is a seam which will run through the whole Coade story, in ways both obvious and less expected. George married Sarah's sister, Eleanor Enchmarch. Another brother, John, was briefly mayor of Lyme in the contentious double election of 1780.

George and Robert's sister, Margaret, married Aaron, one the Tozer clan. Tozers inherited Coade property when this branch dies out. Samuel Coade was the youngest of the fourteen children, and was born in 1724. The Coade brothers played a vertically integrated part across all stages of the wool business in the

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<sup>7</sup> See John Fowles's 1979 Curator's Report for Lyme Museum, p. 8 – although at this date JF had clearly not studied the Corporation deeds in detail and so mistakes the site of Sam Coade's Belmont for that of Coram Towers.

south west, initially basing themselves in Exeter. 'By this connection and their own shrewdness and industry they became vital figures in the welfare of [Lyme] during the period 1730-70, when it entered a terrible economic depression. They insisted on sending their wool here for finishing – their youngest brother Samuel's Exeter cloth worker's even complained bitterly that he was taking their own livelihood away from them because of this.'<sup>8</sup>

A lease dated 24<sup>th</sup> May 1748 gave the town water grist mill to 'George Coade [2<sup>nd</sup>?] of Exeter, merchant' for a term of 99 years 'dependent on the lives of Samuel, Eleanor, and Elizabeth', his youngest brother and daughters, showing that George Coade and his family were active, though not necessarily resident, in Lyme at this date. A consideration of a mere 5s was payable, 'because the properties demised are now ruinous.'<sup>9</sup>

By 1769, a lease abstract dated 20<sup>th</sup> February shows Samuel now had possession of 'All that Fulling Mill lying & being at the Northern end of the said town of Lyme Regis upon the river or stream there between Goslings Bridge [where today's Coombe Street crosses the river Lim] and Mill Green' – a quite different area of the town from the grist mill.<sup>10</sup> Samuel added various adjacent tenements and gardens adjacent to the fulling mill in a lease dated 12<sup>th</sup> February 1771, which refers to 'a Fulling Mill Dye House & Sluice or Flood Hatch & one or more Building or Buildings erected for the Convenience of Trade there in the possession & occupation of the said Samuel Coade.' Business was clearly thriving for Samuel, more so than for his brother George, as we shall see.

The other noteworthy point about Samuel Coade's fulling mill is that it lies very close the Baptist Meeting House on Silver Street. It was here that the Coades worshipped, and the chapel must have been the engine room of their influence in the town since the meeting first came together during the heady days of the Commonwealth in 1653, when Baptists initially met in each other's houses.

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<sup>8</sup> Ibid.

<sup>9</sup> DC/LR (B.7) J9

<sup>10</sup> LRM A6/1/1

One of these was the house and yard in Silver Street bought from Elizabeth Goodman. The current Baptist church, rebuilt in 1850, replaces the earlier meeting house on this site that the Coades would have frequented.

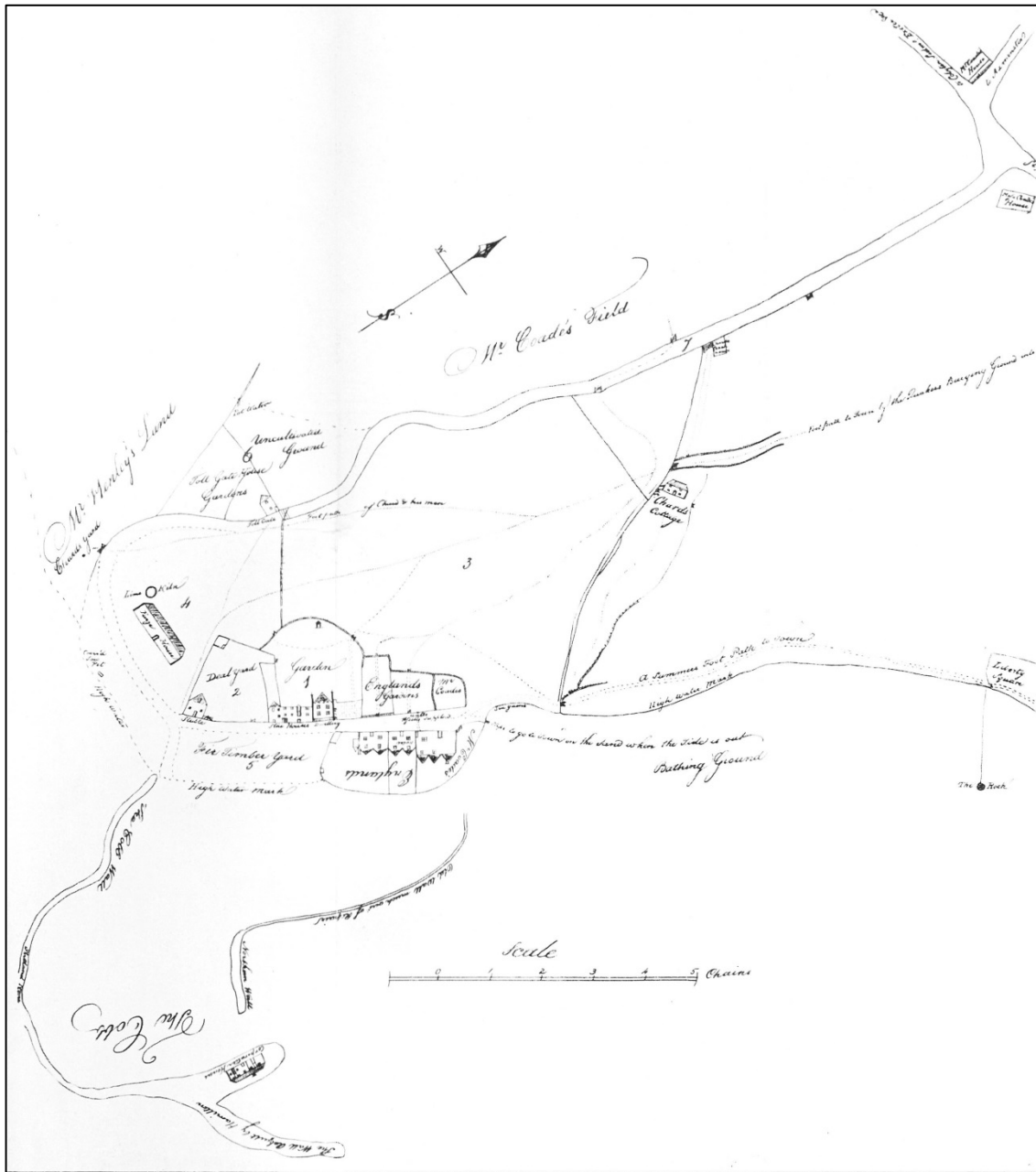
John Fowles does not cite sources in his 1979 Curator's Report, but he does state definitively that Samuel's 'own house was called Belmont, and was on the site of Coram Towers, at the seaward end of Pound Road. It was from this original that the present Belmont at the top of Cobb Road...was named.' An 1841 map<sup>11</sup> does indeed mark a 'Belmont' as the second plot in along the top side of Pound Road. If this was where Samuel originally lived, this could explain why he was so willing to acquire Bunter's Castle across the road, but this plot on the corner of Pound Road and Pound Street was not in Corporation ownership and so does not appear in the useful rent roll records.<sup>12</sup> For all his business activities in Lyme, in an item in the Salisbury & Winchester Journal for 6<sup>th</sup> May 1776 offering the sale of a lease in Lyme, he is still described as 'Mr Samuel Coade, merchant of Exeter.' Perhaps initially his Lyme house was a villa for occasional use rather than his permanent residence.

If Samuel Coade did indeed take possession of the Bunter's Castle plot in 1783, it seems he did not occupy it himself even if he remained the name on the rent roll after he is said to have transferred the site to his niece Eleanor. He also bought lands east of Charmouth in 1783, called Newlands, and the Land Tax Records also show Eleanor Coade owning land in Charmouth (this is whether Mrs Coade or her mother is not clear). In 1791 Samuel built a house called Belle Vue halfway along Pound Road (today's Kersbrook House). Perhaps, like his niece Eleanor, he treated his Lyme villa as a second home; more likely, by now in his late 60s, he built Belle Vue to live out his days.

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<sup>11</sup> *Plan of Lyme Regis & its Environs* in Cyril Wanklyn, *Lyme Regis: A Retrospect* (1922). This alternative Belmont is not, however, the site of today's Kersbrook House, which Samuel Coade built for himself as Belle Vue around 1800.

<sup>12</sup> Map 14 of a comprehensive town survey of 1824 known as the Drayton Map show this house as 'Mrs Tozer's House' and the field in front (sadly, now a town car park) as 'Mrs Tozer's Field.'



Plan of the Cobb in 1796 (detail). The 1756 toll road leads up from the Cobb through 'Mr Coade's Field' to 'Mtrs [or Mistress] Coade's House' (top right).

From *Lyme Regis: A Retrospect*, by Cyril Wanklyn, 1927 ed.



There is another reason why the Belmont plot may have been important to his plans. In his 1927 edition of *Lyme Regis: A Retrospect*, local antiquarian Cyril Wanklyn included a tracing and an early sketch map showing the plan of the Cobb.<sup>13</sup> Wanklyn infers its date to be around 1796, and it clearly labels Cobb Road as 'Mr Coade's road.' Belmont is 'M[i]str[ess] Coade's House' and today's car park is 'Mr Coade's Field.' The Cobb was originally a detached structure, but by this date land had built up joining it to the end of the Cobb. Wanklyn says:

*'In 1756 the causeway from the western arm of the Cobb, which joins it to the land, was made. As a result of this construction, and the action of the sea and the tide, a huge bank of sand and shingle began to form in the angle between the new causeway and the mainland.....On this reclaimed land, one of the Coades...got permission from the Corporation to build houses. This Coade also seems to have begun to build what is now called Cobb Road, but at that time was known as Coade's Road and later on as the New Road for nearly seventy years after 1832, when it was thrown open to the public.'*<sup>14</sup>

This map is a very important piece of evidence for Belmont, in that it is the first that shows the house in Mrs Coade's ownership. Cobb Road was relatively new in 1796. Originally, all goods brought ashore at the Cobb had to be carried along the sea front to be registered for customs duties in the town, along the plan's 'Summers Foot Path to Town' or along the beach. Mr Coade's Road, however, allowed goods to be brought straight up to, or down from, the Sidmouth Road and the Devon side. It was a sensible initiative, and a private road, so that tolls could be charged on it, as indicated by the little toll house half way up it. It was also directly overlooked by the Belmont plot. 'Mr Coade' also has a warehouse on the quay side, next to 'England's hotel.' The final point of interest in this plan is the evidence of lime manufacture activity on the beach and shore, a covered pit and a round lime kiln.

The presence of a 'cement works' on the beach is certain, and some make the leap to infer that it was here in Lyme Regis that Eleanor Coade and her mother perfected their formula for artificial stone. However, this is no more than a

<sup>13</sup> The tattered original of this plan is in the Lyme Museum's collection.

<sup>14</sup> Cyril Wanklyn, *Lyme Regis: A Retrospect*, 1927 ed., p. 23.

rumour. As we have seen, Coades abound in the town at this period and no evidence has been found of a ceramics kiln specifically along the foreshore, nor is one mentioned in the documents, even though there were probably brick, lime and/or tile kilns. It is frustrating that we do not know to which 'Mr Coade' the c.1796 plan refers: as George jnr moved to London and was dead by 1769, it seems more likely that it was his brother Samuel than Robert or John, given the rest of Samuel's holdings on the west side of town. Either way, the influence and energy of the Coade family in Lyme is clear.

Samuel Coade 'of Lyme Regis's' will<sup>15</sup>, drawn up on 12<sup>th</sup> February 1808 just before his death, reveals him as a wealthy and rather stern philanthropist. John Fowles described this will as 'a moving blend of generosity to the poor, [and] determination that charity shall not go to the idle, and simplicity.' His sister Mary Tozer or Tozier of Lyme Regis, whom we shall meet again, was one of his executors.

Like Bunter, Samuel makes no reference to any direct descendants. Samuel left an annuity of £200 pa to his niece 'Eleanor Coade of London during her life to be paid in equal quarterly payments' – the largest annuity by far of the many others he allocated to his nieces and nephews and other relations. He also forgave her debts to him – one wonders even what part Samuel's previous and future financial provision played in bankrolling Eleanor Coade's Artificial Stone Manufactory. He also appointed 'John Sealy of London', Eleanor's then business partner, as treasurer for disbursing various legacies to 'societies', like the 19 guineas he left to the East African Missionary Society. He charged two Exeter friends with overseeing legacies in Exeter for ministers' salaries and for those who had worked in serge or woollen manufacture but fallen on hard times. Mary Tozer was to distribute money among the 'sober industrious poor persons of or residing in Lyme Regis' and spend 19 guineas on books for children in the Lyme Sunday School. She also got Newlands in Charmouth, his chaise and two horses, and his wine, plate and china, etc.

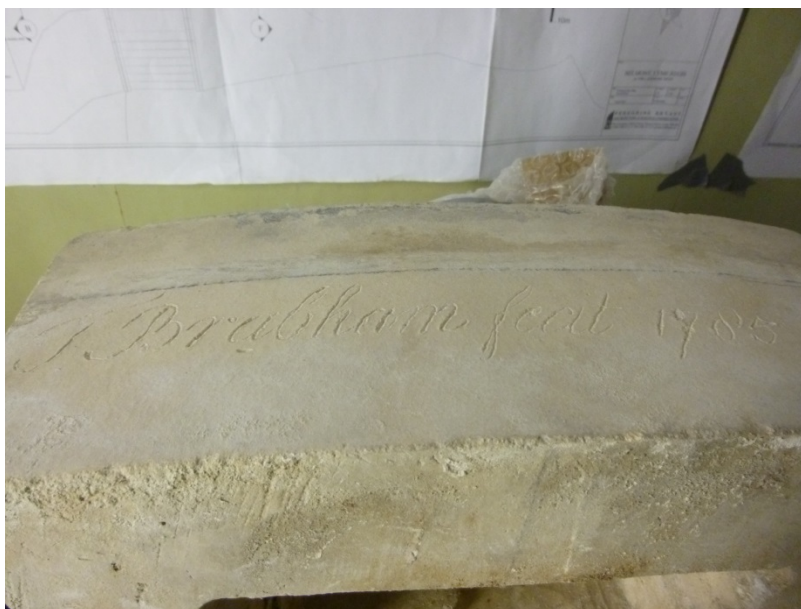
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<sup>15</sup> PRO Prob/11/1479

Finally, Samuel left instructions for a simple burial: 'I desire to be carried to the grave by eight poor men, to each of whom I order to be given one guinea.' A guinea in those days, wrote Fowles, was worth two or three weeks' wages.

All this is interesting Lyme context, but still does not make certain the date of the transfer of Belmont to Eleanor Coade.

What is concrete are the dates 1782 and 1785, found inscribed during Landmark's restoration on, respectively, one of the Coade stone urns on the roof of Belmont and on the head of Neptune above the front door. The urns could have been brought in from existing stock; Neptune is built-in indubitably as part of the primary phase of the villa house, and such a prominent element (believed unique, indeed, to Belmont) must surely have been chosen by Eleanor Coade herself.<sup>16</sup> It therefore proves that the villa was built in or soon after 1785, by when it seems pretty certain that Samuel Coade had relinquished his holding of the building (see too the evidence below of Eleanor Coade's direct tenure from 1789).



**This inscribed text, '1785, J Brabham fecit' on the base of Neptune's head above Belmont's front door records both the date of its manufacture and the craftsman who made it. It also gives the probable date of Belmont's construction.**

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<sup>16</sup> These key finds are described in more detail in the Restoration chapter of this album.



Examples of Coade stone in Southernhay, Exeter, near where Eleanor Coade grew up.

## Eleanor Coade (1733-1821, owned Belmont c1784-1821)

With Samuel Coade's death, we come to the first of Belmont's more celebrated owners, his niece Eleanor Coade. Known in later life as Mrs Coade (a courtesy title since she never married), she is a unique figure in architectural history in managing a hugely successful artificial stone manufactory in Lambeth. There were certainly other powerful business women in the 18<sup>th</sup> century and even in Eleanor Coade's own family: her maternal grandmother Sarah Enchmarch ran the family wool business successfully for 25 years after her husband Thomas died in 1735, employing 200 people making cloth, and despatching spies to learn the latest techniques used in Norwich (a standard practice in 18<sup>th</sup>-century manufacturing). However, Eleanor ran her business not as a wife or a widow but in her own right. She lived most of her life in Exeter and then London, but for nearly 50 years, from c.1784 until her death aged 89, Mrs Coade also retained Belmont as a seaside villa.

### Eleanor Coade's early life

Mrs Coade's parents, George Coade and Eleanor Enchmarch, married in 1732 and appear in Exeter around the same time, where they would live for nearly 30 years.<sup>17</sup> Their eldest child, also Eleanor, was born there on 3<sup>rd</sup> June 1733, followed by her sister Elizabeth in 1735. George ran a hot pressing business finishing woollen cloth, initially very successfully. He was joined in Exeter by his brother Samuel, whom we have already met, and who set up trade as a fuller. Fulling represents other stages in the wool trade, first at the very beginning of the process, when the fleece is cleaned of the oils and dirt from the sheep's back; and then finishing the woven cloth by beating and shrinking it to thicken it up. One of the key ingredients in fulling is clay.

George Coade bought 49 Magdalen Street at the heart of Georgian Exeter's commercial centre, and several other houses and a warehouse nearby.

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<sup>17</sup> That Eleanor Coade shares her Christian name with her mother has confused historians ever since.

Eventually, Coade stone would be prolifically used in Exeter, and much still remains there in Southernhay, elegant houses built in the 1790s near Mrs Coade's childhood home in Magdalen Street. However, by 1750 the Exeter wool trade was in decline, and in April 1759 notification of George Coade's bankruptcy appeared in the *Gentleman's Magazine*. He reappears in London in 1762, when he was elected, for one year only, a Fellow of the Society for the Encouragement of Arts and Sciences, when he was living at Charterhouse Square. It can be reasonably inferred that his wife and two daughters, then in their mid to late twenties, came with him to London, for by 1766 Eleanor was describing herself as a linen draper and insured stock worth £200 with the Sun Assurance Company, living in Charles Square and storing her stock in nearby Shoreditch. By 1767, her stock value had risen to £750: 'Wearing Apparel and Plate in her Apartments in the Dwelling house' at 21 Little St Thomas Apostle Street in the heart of the City. She was now living with her sister Elizabeth, and clearly insuring and operating independently of her father. Trading as a linen draper was not unusual for women who were in business in Georgian London, linen fripperies and clothing being an acceptable trade for women to engage in and sell to each other.

1769 was another *annus horribilis* for George Coade. He went bankrupt for a second time and his Exeter property (which he seems to have regained) was sold once again. He died the same year, and can have left little or nothing to his wife Eleanor. His daughter Eleanor seems not to have been implicated in his downfall; in any case, also in 1769, the two Eleanor Coades, mother and daughter, went into business with one Daniel Pincot who ran a struggling artificial stone manufactory at King's Arms Stairs, Narrow Walk in Lambeth.<sup>18</sup> Perhaps the Coade women were bankrolled by the extended family network: certainly, Samuel Coade forgave the younger Eleanor her debts to him in his 1808 will. The Coade mythology had begun.

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<sup>18</sup> The 1769 acquisition date is stated by Eleanor Coade in the *Coade Catalogue* of 1784 and *Coade's Gallery* of 1784, and it is repeated in various secondary contemporary accounts.

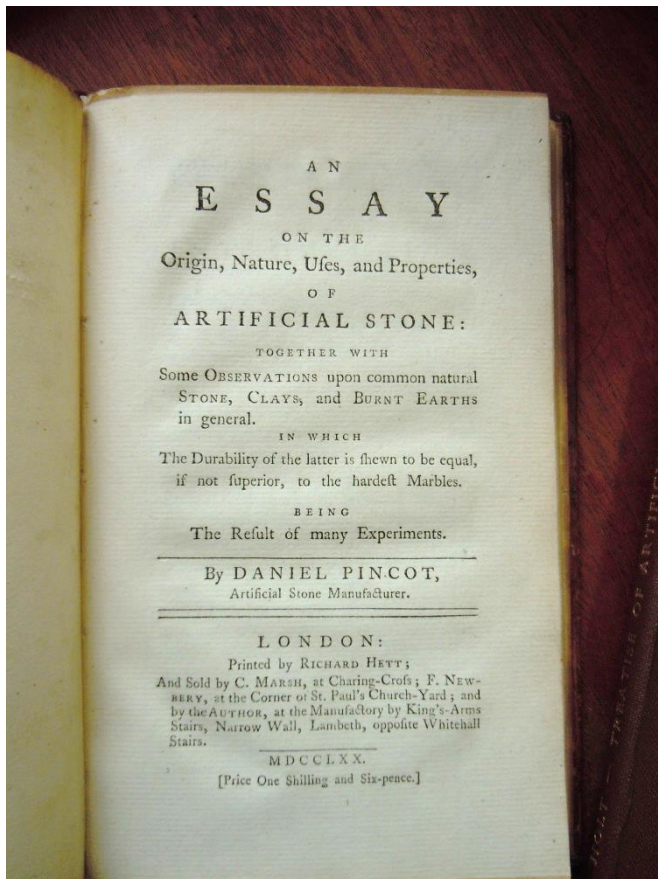
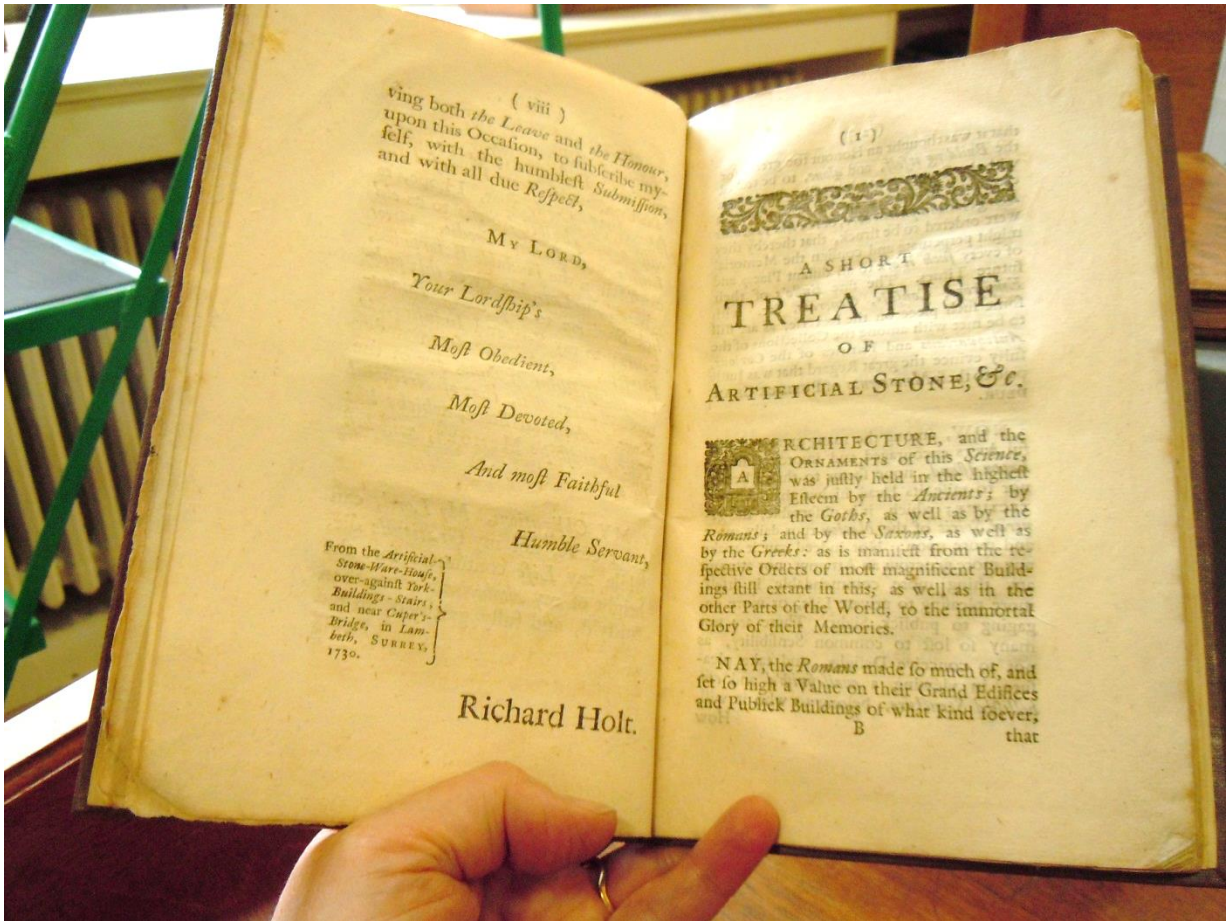
## The search for artificial stone: Richard Holt

Men had been searching for an effective artificial stone for decades. London was expanding apace in the 18<sup>th</sup> century, to the north and northwest especially, on land owned by the Earls and Dukes who would give their names to the new squares and terraces. It was here that opportunity lay, as a groundswell of aesthetic discontent with the appearance of these new streets emerged. Today we take a certain pleasure in the simple uniformity of Georgian brickwork, but it could be unremitting and over severe to contemporaries. In 1766, one such critic, John Gwynn, published a work called *London Improved*. Gwynn thought:

*'no publick edifice should be built with brick unless it is afterwards stucco'd, for a mere brick face in such buildings always makes a mean appearance... As the building with stone is so very expensive in this metropolis, it is to be lamented that encouragement is not given to some ingenious person to find out stucco or composition more durable than the common sort, and in which exterior ornaments might be easily wrought at a very small expense.'*

At an artisanal level, here was part of the ingenious Mrs Coade's market opportunity. But there was another, much grander opportunity. Coade stone rode a zeitgeist moulded especially, perhaps, by architect Robert Adam, newly returned from Rome and fizzing with enthusiasm for the embellishment of plain Palladianism with graceful classical ornamentation to an extent completely impractical in natural stone. What was needed was a ready supply of wares of consistent quality and dimension that architects could plan into their designs from the start. The success of Coade stone therefore made it possible for architects of the greatness of Adam, Soane and Wyatt to exploit, develop and include the infinite variety of the classical vocabulary of ornament in a way that reliance on natural stone would have rendered impractical.





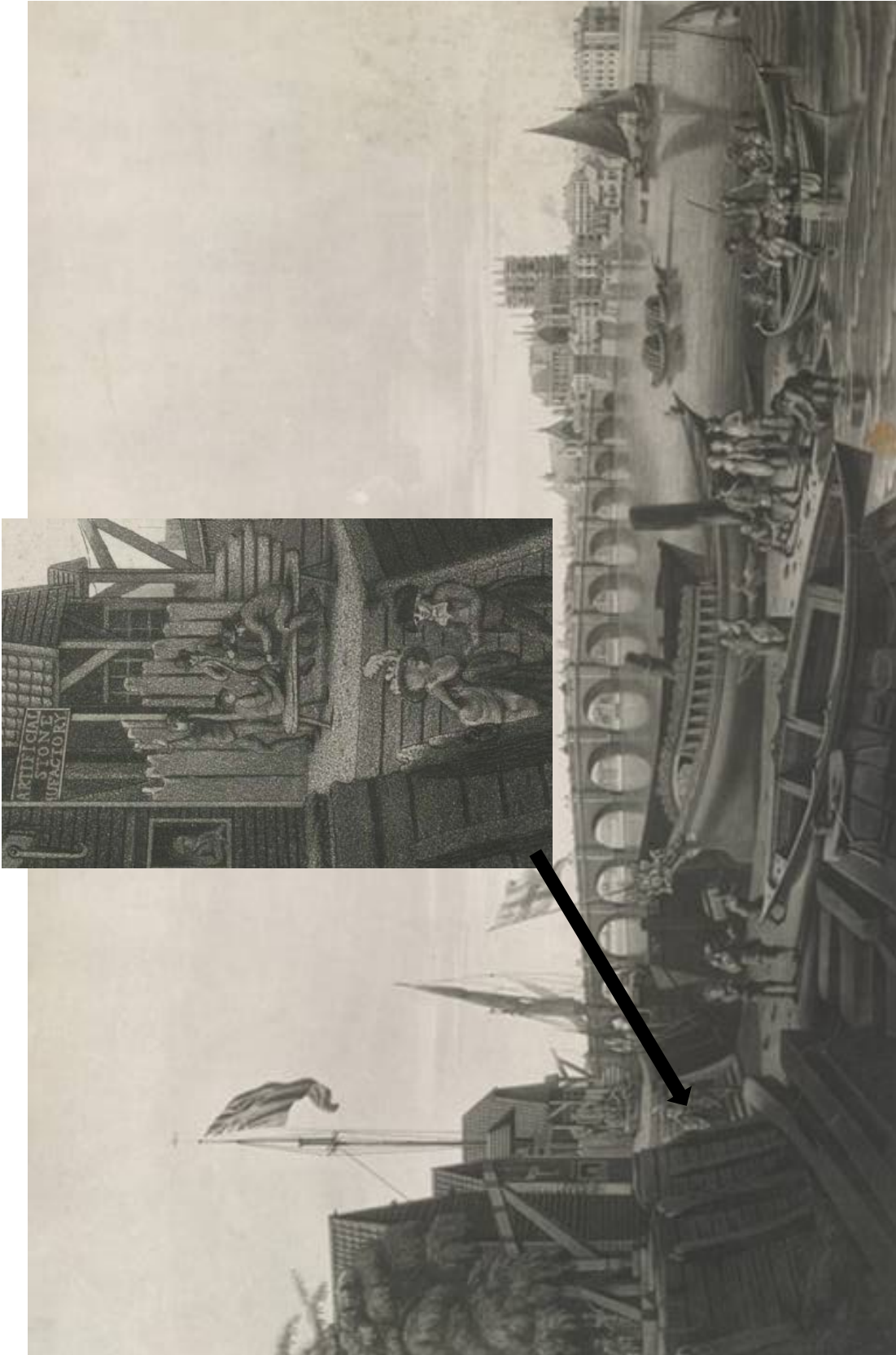
Treatises on artificial stone: Richard Holt, 1722 (top) and Daniel Pincott, 1771 (below). Pincot's *Essay* was published just as Mrs Coade was ousting him from the Lambeth manufactory.



However, the Coade women were not the first to try to meet this demand. As early as 1722, Richard Holt took out two patents for 'Compound liquid metal, by which artificial stone and marble is made, by casting the same into moulds of any form, as statues and capitals; also for house-work, garden-ornaments and other sculpture work.' Crucially, his formula was fired in a kiln. In 1730, Holt also published *A Short Treatise of Artificial Stone*, 'From the Artificial Stone-Warehouse, over-against York Buildings Stairs, and near Cuper's Bridge.' This almost certainly describes the same location as the future Pincot/Coade's manufactory, pinpointing it in relation to familiar landmarks: on the north bank of the Thames the monumental stone watergate with steps commissioned by George Villiers, Duke of Buckingham in 1626 from master mason Nicholas Stone and today left marooned in Victoria Embankment Gardens; and on the south bank the long landing stage, or bridge, to the popular pleasure grounds known as Cuper's Gardens. In other words, Holt's workshop stood on the site of the South Bank complex today; in exactly the same area as the known location of the Coade manufactory, which in terms of today's landmarks, lay between the Royal Festival Hall and the Hayward Gallery.

Holt claimed his new invention will resist fire and weather, and is stronger than iron, impervious to chisel and mallet. He also touches upon the skill of the kiln fireman: by varying the quantity of 'dry substance' used to bind the clay 'I can raise all my Goods to what Pitch, to what Excess of Strength I please to bestow upon them.' In August 1729 he writes that 'a certain pretending Architect, a Meddling, busy Man' tried to steal his formula, by going to the manufactory and talking to the workmen, pretending to be a partner, even trying to get the workmen drunk.

Holt has established a large range: 'a good round Catalogue of these has already been published for me...and runs as follows, viz. Columns, Pedestals, Entablatures, Cornices, Pediments, Ballustrades, Statues, Rusticks, Fascias, Coppings of Walls and Chimneys, Chimney-pieces, Hearth-Stones, Architraves, Frontispieces of Doors, Windows, Alcoves and Grotto's, Cascades, Obeliskes,



Edy's engraving of Westminister Bridge (1791) shows King's Arms Stairs and, on enlargement, the sign advertising the artificial stone manufactory.

Arches, Piazza'a, Key-Stones, Steps, Pavements, Urns, balls...Tomb-stones, Monuments, Sun-Dials, Crests for Doors, gates and Gateways, Statuary of all Sorts, Pipes of all Bores and Sizes...the prices are fix'd as near as I can, to about one Third part of the Price of Stone, and one Half of the Price of Lead.'

Off the shelf pieces 'are to be seen and sold at the place commonly called Holt's Ware, or Work House, opposite to York Buildings Stairs in the Strand, and near Cuper's Bridge in Lambeth. There's also a Show of Goods on the Gable End, towards the River, that will direct to the House; where, at any time, when the Water is above or about Half Flood, Gentlemen may Land at the very Door, and have nothing to do, but to step, or set their Foot, out of the Boat and into the House.'

This all describes fairly accurately Mrs Coade's eventual empire – the difference being that neither Holt's name nor examples of his wares are known today, and nor were they taken up with any enthusiasm by contemporary architects. According to Daniel Pincot in 1770, Holt's business died with him.



## Coade's Artificial Stone Manufactory

Lambeth in the 18<sup>th</sup> century still had a village feel, a marshy area where a loose assemblage of small businesses and pleasure gardens clustered along the banks of the busy Thames, just opposite the Palace of Westminster. Since the Middle Ages, terracotta, glass and porcelain makers had been active here and there must have been a collective knowledge of such techniques, all dependent upon the refining influence of fire.

From October 1767, Daniel Pincot was producing his own artificial stone from the site of Holt's workshop, although Pincot now describes the spot as 'by King's Arms Stairs, Narrow Wall Lambeth'. After 1750, when Westminster Bridge opened, the Lambeth site became more accessible. Until 1750, the Thames had been spanned only by antiquated London Bridge. To the east, Blackfriars Bridge opened in 1769, as the City retaliated. The Lambeth manufactory lay comfortably between both new bridges, as communications improved with the South Bank.

In 1770, a year after the Coade ladies went into partnership with him, Pincot too published, *An Essay on the Origin, Nature, Uses and Properties of Artificial Stone, Clays and Burnt Earths in General*. Pincot says of his predecessor, Holt: 'it appears this work met with tolerable encouragement for some years till, the projector dying, the whole affair died also....It is evident from a considerable quantity of broken pieces now in my possession that there was neither taste in the designs, nor neatness in the execution, though time has proved the materials durable in the severest trials. It is covered on one side with an earthen ware, white glaze; and some of it is poorly painted with blue ornaments, baskets of flowers, &c.'<sup>19</sup>

Pincot's *Treatise* is more scientific in tone than Holt's, and while it gives nothing substantive away, it sets out the criteria for good artificial stone plainly: it 'should, in the first instance, retain perfectly the form it receives from the mould;

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<sup>19</sup> Daniel Pincot, *An Essay on the Origin, Nature, Uses and Properties of Artificial Stone, Clays and Burnt Earths in General* (1770), p.47.



secondly, exactness in its dimensions; thirdly, it should be free from cracks, or fire flaws; fourthly it should be equally burnt, or have an even firmness throughout its whole substance; fifthly, it should have but small unconnected pores; and lastly, a bright stone colour should grace the whole.'<sup>20</sup> To achieve such standards is difficult: 'the constitutions of natural clays, not only in diverse sorts but in several samples from the same pit, are so various and uncertain that no standing recipe can be performed; every fresh parcel of clay demanding new experiments to determine the proportions.'<sup>21</sup> It is significant that neither Pincot nor the Coades ever sought a patent: it is a myth that Coade stone was a single formula or ever patented. The proprietorial secret, if there was one, lay in the consummate skills of the craftsmen who mixed the clay and the fireman who tended the kiln.

The final obstacle to the success of artificial stone were the naysayers, many of them masons themselves. 'One measure they take is by deterring modellers from working for the manufactory, wrote Pincot, 'telling them they will be despised by the whole trade, as forwarding a work it is their interest to suppress. "O Sir! Why will you have artificial stone? Nature must certainly be better than art; it is but an imitation, and a meer makeshift" (This term has been greatly used).'<sup>22</sup>

Pincot's *Treatise* thus neatly identifies the challenges for a successful artificial stone. Yet it cannot only have been bravura that led Mrs Coade to describe the Pincot works as 'failing' when she and her mother took them over, in the introduction to her 1784 catalogue of wares. The Coade ladies lost little time in imposing their authority, announcing in the *Daily Advertiser* of 14<sup>th</sup> September 1771, 'Eleanor Coade gives notice that Mr Daniel Pincot having now no further Employ at her Manufactory at King's Arms Stairs, Narrow Wall, Lambeth; all Orders relative to the Manufactory are desired to be sent to Eleanor Coade at Mr Denmar's, Bridge Head, Lambeth.' Nothing more is known of the unfortunate Mr

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<sup>20</sup> *Ibid*, p.59.

<sup>21</sup> *Ibid*, p.61.

<sup>22</sup> *Ibid*, p. 77.

Pincot, except his death in 1792 and burial in Bunhill Fields cemetery, which reveals that he, like the Coades, was a Nonconformist.

### Widow Coade or Miss Coade?

One of the enduring confusions of the Coade stone story was whether it was Eleanor Coade junior or her mother who was the driving force behind the success of the Lambeth manufactory. The Coades were a long lived family: Widow Coade, probably in her late 50s in 1769, did not die until 1796. However, Alison Kelly has convincingly demonstrated that it was *Miss* Coade, 36 by 1769, who was the prime mover in the Coade Manufactory's story from very early on. As early as 1771, receipts are made out to Miss Coade. 'Miss Eleanor Coade, sculptor' exhibited annually at the Society of Artists from 1773 to 1778, and again in 1780 (although whether these were works *modelled* by herself or produced in her name has never been clear – the documentary evidence implies the latter). Eleanor Coade senior is not evident in the records after 1773, and it therefore seems sure that Eleanor junior earns her respect title of 'Mistress' or Mrs very early in the manufactory's life. (Eleanor's sister Elizabeth died in 1765.)



Two views of Coade's Artificial Stone Manufactory in Lambeth, c.1802. The door leads to a show room; the lane leading off Narrow Walk gives access to the Thames. (London Metropolitan Archives, City of London)





## The secrets of Mrs Coade's success

### The sculptors

In sacking Pincot, the Coades had already found a much more promising partner in John Bacon, a sculptor of some renown (and already working with Pincot). This was quite a coup, and solved at a stroke that the work of artificial stone modellers might be 'despised by the whole trade.' Bacon too was a Nonconformist, the son of a Southwark cloth maker, born in 1740 and originally apprenticed as a modeller to Mr Crispe the porcelain maker, who also had a manufactory in Lambeth. Bacon taught himself sculpture; he also conceived the idea of making statues in fired ceramic stone and invented 'an instrument for transferring the form of the model to marble, (technically called *getting out the points*.)'<sup>23</sup> In 1769, he won a gold medal at the newly founded Royal Academy and became one of its first Associates in 1770. Bacon's brooding, heavy browed figures, naturalistically and loosely modelled, are very distinctive, and reveal an almost vernacular style developed independently of more Classical training.

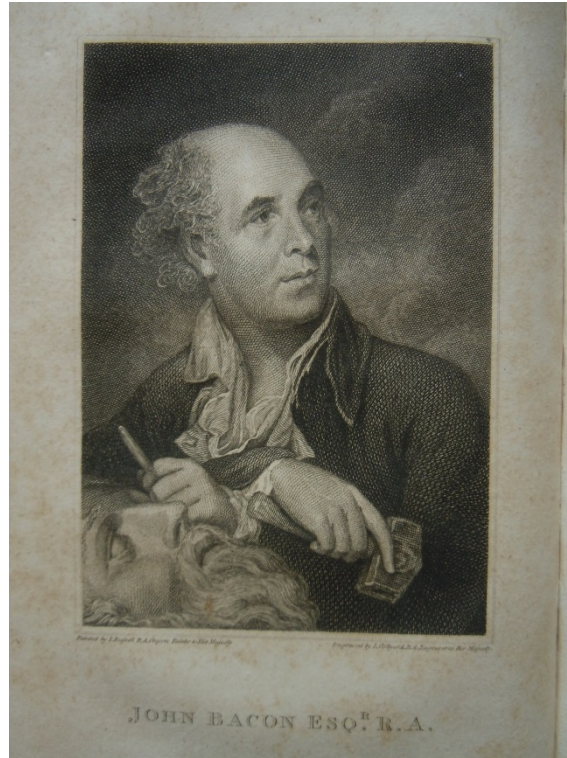
By declaring her works to be under Bacon's 'superintendence,' Mrs Coade raised the credibility of her wares at a stroke. The continuing employment of artists of the calibre of Bacon is one of the keys to Coade stone's success throughout the manufactory's life time, making it acceptable to the highest levels of society alongside the 'Bustos, Figure and Various Ornaments, Chimney Pieces, Friezes etc' that were offered 'at a Price sufficiently low to encourage any Gentleman or Builder who chuses to treat about them.'<sup>24</sup>

Joseph Panzetta was another sculptor with a long standing association with the firm and had worked with the manufactory for twenty six years when he created the apogee of Coade work in the forty foot Nelson pediment at the Old Royal Naval College at Greenwich. This memorial to the national hero, paid for by public subscription, took three years to make, from 1810-12.

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<sup>23</sup> Rev. Richard Cecil, *Memoirs of John Bacon Esq* (1821), p.137.

<sup>24</sup> *Daily Advertiser*, 11<sup>th</sup> September 1771.



**John Bacon, sculptor and Dissenter, was Mrs Coade's partner in her early days at the manufactory. He created the models from which the Coade stone casts were taken. His brooding figures, like Father Thames at Ham House in London, are very distinctive.**







Benjamin West's *Immortality of Nelson* which Joseph Panzetta modelled in Coade stone for the memorial pediment at the Old Royal Naval College in Greenwich. The pediment took three years to make and there could be no greater tribute to this artificial stone than that it was chosen for such a monument in preference to natural stone.



It was designed by artist Benjamin West, and based on his famous painting, *The Death of Nelson*. Panzetta's sculptural interpretation of the subject, even within the narrow triangular constraints of the pediment, must be considered the more successful treatment.

Other sculptors of independent reputation and renown also worked for the manufactory through the years, including John Flaxman, John Rossi and Thomas Banks.

### The formula

A second reason for her success almost certainly lay in refinement of the raw mix that Eleanor Coade no doubt inherited in part from Pincot, who in turn may have benefited from Holt's work. As we saw in Pincot's *Treatise*, the inclusion of pre-fired, ground 'grog' was already standard. We also know that every batch of clay brought its challenges, and absolute reliability in long term performance was key to the finished product. Earlier manufacturers of artificial stone did experience failures, some of them high profile like the gateway at Syon House, for which the Coade manufactory went to the courts to prove their absence of responsibility. The total reliability of Coade stone does suggest that refinements to the mix were made.

However, it is one of the enduring myths about Coade stone is that there was a single, patented 'secret recipe.' In fact, this was not the case. David Laing, an architect, summarised Coade stone's composition accurately enough in 1818 when he wrote it was:

*'...a species of terracotta. It combines in one mass, pipe-clay, flint, sand, glass and stoneware, that has already passed the furnace. These are ground to very fine powder, and are mixed together in the proper proportions, and the whole is well kneaded together by means of the addition of water. In this state it forms a kind of paste which has the ductility of the clay usually employed in modelling.'*

Through the 1980s, John Fowles was in regular correspondence with Alison Kelly, the historian whose magisterial work *Mrs Coade's Stone* (1990) remains

the most authoritative source on the topic.<sup>25</sup> In 1985, he gave her a small chip from the Coade stone gate post at Belmont, which Kelly took to historic ceramics expert Ian Freestone, then at the British Museum and in 2015 Professor of Archaeological Materials & Technology at University College, London. Dr. Freestone examined the sample under an electron microscope and was able to analyse its composition in detail, repeating the analysis in 1990 under a better instrument.<sup>26</sup> He too concluded that 'the production of Coade stone owed a good deal more to practical skills than to secret ingredients.'

In essence, to the main constituent of 50-60% ball clay from the south west of England, the Coade mix incorporated around 10% grog (pre-fired stoneware, finely ground); 5-10% crushed flint; 5-10% fine quartz or sand, and 10% crushed lime soda glass (which had a higher calcium content in the 18<sup>th</sup> century than today's soda glass). The grind size of the grog varied according to the size of the finished piece, and this aggregate provided a matrix to strengthen and stabilise the inherently friable, single-fired raw ball clay, also reducing shrinkage during firing. Its grittiness also gave a coarser texture closer to natural stone than traditional ceramic mixes.

The silicates – sand, quartz, flint – partially melted during firing, to increase strength, as did the fragments of glass. The glass also leaked alkalis which further enhanced the bonding properties. These additives collectively gave Coade stone its great durability and hardness. Most natural stone, especially that soft enough to be amenable to carving, has a tendency to porosity. In time, weaknesses develop that hold water, and if this freezes, it expands, spalling the stone so that it decays.

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<sup>25</sup> The correspondence between John Fowles and Alison Kelly covering the 1970s and 80s was deposited by Sarah Fowles with the V & A Archive at Blythe House, near Olympia in West London. It reveals Kelly working out her theories and gradually assembling the evidence of Coade's life, with Fowles contributing from his knowledge of local records (and sometimes pouring scorn on 'half-heard rumours hypertrophied into fact').

<sup>26</sup> Ian Freestone's brief updated paper *Forgotten but not lost: the secret of Coade stone* (1991) is appended to this album. It was originally published in *Proceedings of the Geological Association* (102)(2), 135-38.





**This watercolour shows the yard inside the Coade manufactory, behind the showrooms. Two men are grinding the grog on a wheel; others are mixing clay in a tub. A River God awaits collection, as does a Royal coat of arms (Coade held the Royal Appointment to both George III and George IV).**

(London Metropolitan Archives, City of London)

Another damaging agent is acid rain, highly prevalent in smog filled Georgian London and which eventually dissolves and erodes natural carbonates. The Coade formulation avoided both pitfalls, even if it still sometimes stained from the smog.

This combination of ingredients was already known to Richard Holt even in the 1720s. In 1731/2, John Mowbray and William Bridgman jointly recorded an entirely comparable account of the process, 'Mr Holts Secret communicated to Us' and in recording it, swore themselves to mutual secrecy.<sup>27</sup> All the key ingredients are there, and good understanding of the scientific principles behind process. Was this somehow communicated to Pincot, and thereby to Coade?

The other interesting point about the composition of Coade stone is the Lambeth context. It may be that she succeeded in refining the percentages or perhaps type of glass. The soda glass component found in Coade stone is entirely consistent in composition with the common glass used in the bottles of the day. Alongside her site in the area known as The Hopes, leased from Jesus College, Oxford, are glass grinders and fortified wine producers. Just as Bacon brought relevant skills in modelling and firing porcelain from the Lambeth potters, so soda glass was a common waste product in Mrs Coade's Lambeth. It was a surprisingly symbiotic, integrated area.

### The manufacturing process

Having mixed the base constituents, every subsequent phase in creation of a Coade stone object was a highly skilled and time consuming one. First, the artist made the model. This model was bigger than the desired end product by a carefully calculated percentage, to allow for 8-10% overall shrinkage during drying and firing. Next, a plaster mould was taken and, for larger works, cut into numerous pieces, and raw Coade mix was carefully pressed into the negative volumes. Most items were created hollow unless very small, and the fingerprints of the 18<sup>th</sup>-century craftsmen, and probably women, can often be seen on the inner surfaces of pieces of broken Coade stone. The pieces of the cast were then

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<sup>27</sup> BL MS.11394, ff. 45-6. I am grateful to Ian Freestone for this reference.



assembled, and carefully finished to smooth join lines and fill any imperfections before firing. The work was again hand-finished by highly skilled artisan artists – details like the fine fettling on a feather, the liveliness of the strands of a lion's mane or the depth of shadow in a profile in bas-relief all set the wares of the Coade manufactory apart from other manufacturers'. The work was then left to dry again, supported in a mother mould or with rods if very large to prevent it collapsing. There are examples of Coade pieces assembled using internal cast iron rods, but this was not reliable as the rods eventually spalled and split the piece.



The frontispiece to Mrs Coade's 1784 catalogue shows Fire defeating Father Time, as Architecture looks on. Behind is the coal-fired kiln, which includes a quotation from Ovid: 'nec ignis nec poterit ferrum nec edax abolere vetustas.' (*Metamorphoses*, XV – 'not fire, nor sword, nor the gnawing tooth of time shall destroy.') She used the same design for her trade card.

The raw works were then fired for up to four days in coal-fired kilns at 1100-1150 degrees centigrade – a process that required extremely careful control and skill in firing. The fireman was probably the most skilled workman in the manufactory, paid extra to watch the kilns overnight and a closely guarded employee. Even so, it was by no means a certain process, and we can add strict quality control of the finished wares to the Coade manufactory's virtues. While in the kiln, the pieces would shrink by another 3-5% according to the mix. No technical records survive from the manufactory during Mrs Coade's day, but the trials and 'recipes' would surely have been recorded as meticulously as Josiah Wedgwood was noting his own, very similar trials at his factory in Burslem.

Once out of the kiln and cooled, the works again needed to be carefully finished, smoothing out any imperfections or snags in the surface. Sculptural works fired in more than one piece were reassembled using cast iron dowels and again carefully finished (the rusting and spalling of these iron dowels are generally the only cause of failure in Coade stone objects).

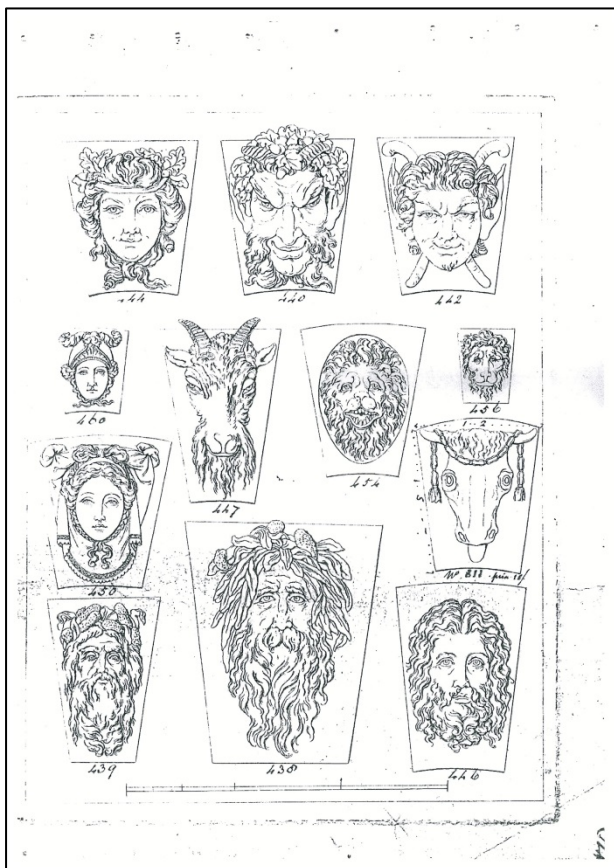
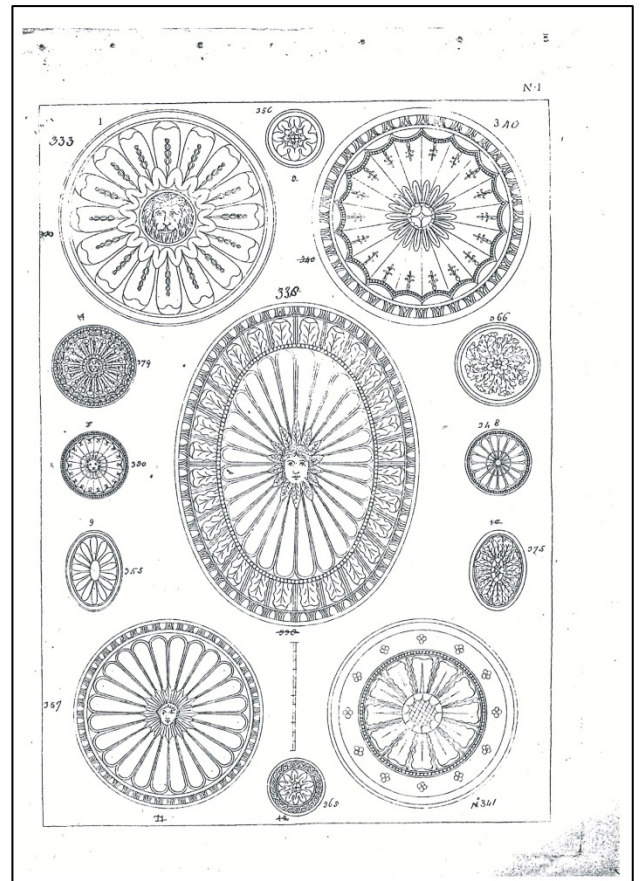
From all this, it is clear that it was a highly artistic, skilled and labour intensive process, for anything larger than a keystone. In no sense were Coade stone sculptures 'mass produced' and the larger ones required pre-enrolment by a number of subscribers. Bacon's instrument for taking the points no doubt came in handy when orders were placed for replicas of the very fine antique works then appearing in collections of connoisseurs – Coade stone versions of the Medici and Borghese vases, for example – and equally for bespoke figures like the River God at Ham House.

( 23 )

XXVI. STONE CHIMNEY PIECES.

	OPENING.		Ft.	In.	Ft.	In.	L.	S.	D.
	high	wide							
514 A Faun and Bacchante 4 Feet 6 Inches high supporting a Festoon of Vine-leaves and Grapes; the Tablet a Leopard: without a Cornice	4	1 by 4	6	36	15	0			
515 Ditto, with a Cornice				42	0	0			
516 Two front female Figures, 3 Feet 8 Inches high; a Tablet as N <sup>o</sup> 267; enriched Cornice, Mantle and Jaumbs:	3	1	3	11	26	5	0		
517 Profile Figures as N <sup>o</sup> 750, in Pilasters; a Tablet as N <sup>o</sup> 267; enriched Frize, Cornice, Mantle and Jaumbs:	3	10	4	0	15	15	0		
518 Pilasters—Anchor, Cable and Sea-weed; Ionic Capitals composed of Dolphins, &c. the Tablet as N <sup>o</sup> 262; Frize as N <sup>o</sup> 263; enriched Cornice, Mantle and Jaumbs:	3	10	3	10	15	15	0		
519 Pilasters—Figures as N <sup>o</sup> 748, set on ornamented Pedestals; Blocks as N <sup>o</sup> 754; Tablet as N <sup>o</sup> 267; enriched Frize and Cornice: <i>of wood</i>	4	2	4	1	21	28	0		
520 Pilasters—Consoles with Ornament dropping from them, projecting before Term-figures in profile; Tablet as N <sup>o</sup> 284; enriched Frize, Cornice, &c.	4	6	4	0	21	20	0		
521 Pilasters—Term-figures in profile; Tablet as N <sup>o</sup> 267; enriched Frize, Cornice, &c.	4	0	4	2	14	14	0		
522 Pilasters—Consoles as N <sup>o</sup> 507; Tablet as N <sup>o</sup> 236; Flutes and Cornice in Frize; enriched Cornice, &c.	3	10	4	0	11	11	0		
523 Pilasters as above; Tablet as N <sup>o</sup> 281; fluted Frize; Cornice one Member enriched; Mantle and Jaumbs plain Mouldings:	3	3	3	6	9	9	0		
524 <del>Tablet as N<sup>o</sup> 267</del> Chimney-piece, of which the Opening is circular; having a Basket of Fruit in the Center, with two Boys on each Side supporting Festoons of Fruit:	4	3	15	15	0				

XXVII



Example sheets from Mrs Coade's loose leaf 'catalogues'. The different elements could be combined in many different ways and allowed architects and builders to incorporate the objects into their designs with full confidence as to the reliability of their final dimensions.

Marketing: 'This infant manufactory certainly deserves some distinguishing encouragement.'

There is every indication in the records that Mrs Coade was a personable and forceful entrepreneur, not only adept in her own publicity but also conducting her affairs in such a way that others were inclined to add their own endorsements.

J. Nichols, printer to the Society of Antiquaries, was one such, singling out Coade's business uniquely for description in his *History & Antiquities of the Parish of Lambeth* (1786) for 'distinguishing encouragement.' John Edy was another, including a sign for 'Artificial Stone Manufactory' above King's Arms Stairs as the only trade sign in his 1791 engraving of Westminster Bridge.

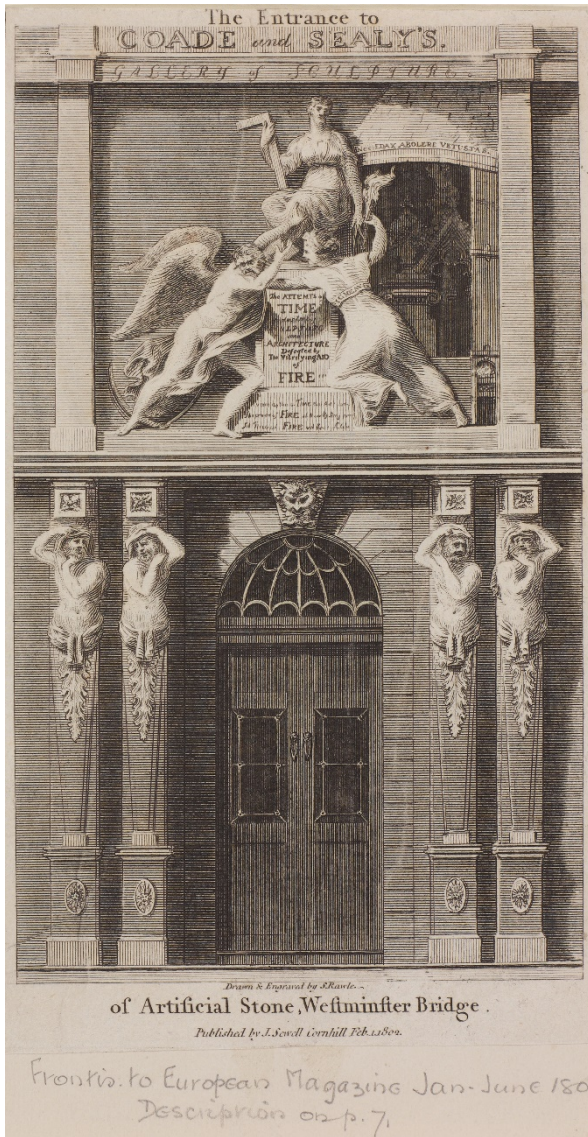
In the early years of the manufactory, Mrs Coade called her stone *Lithodypyra*, a made-up Greek word meaning 'twice-fired stone.' This does not exactly trip off the tongue as a brand name, and she soon rebranded to the punchier 'Coade stone.'

Otherwise, Mrs Coade did little that similar contemporaries like Wedgwood were not also undertaking: the published catalogue sheets, the exhibition gallery from 1799 on the south bank of Westminster Bridge, the advertisements in the newspapers, the exhibits at the Royal Academy.

But Mrs Coade's defining success in marketing her product lay in positioning it so that it came to be actively preferred to stone. Even the antiquarian Nichols quotes at length from Mrs Coade's 1784 *Catalogue*, in his *History of Lambeth*, in what may well be her own words:

*'The property that this artificial has above a natural stone, of resisting the frost, and consequently of retaining that sharpness in which it excels every kind of stone sculpture, renders it peculiarly fit for statues in parks and gardens, also of tombs and monuments in the churchyards of this, or a severer climate. The reduction of price, which has all along been aimed at, be found in a very great degree accomplished; for though a very considerable saving from the expense of Portland stone was one of its first recommendations, it is now become on that account, more than ever, worthy the public notice.'*





**This engraving shows the entrance to Coad & Sealey's Gallery south of Westminster Bridge that opened in 1799. The four herms, or supporting figures, are particularly fine works. Though the Gallery has long gone, two examples of the herms can still be seen at 80-82 Pall Mall, where the porch is a fine Coad ensemble. (City of London Museum.)**



*A catalogue, which has long been desired by the nobility & others, must be peculiarly acceptable to architects in the country, who, when making elevations, will thereby be enabled to choose such ornaments as suit their purpose, and may be furnished with drawings of any articles they fix upon. Such are requested to observe that the dimensions of panels, medallions, key-stones, & co. may be somewhat varied as occasion requires, by increasing or diminishing the margin; putting in, or taking away mouldings; with many other accommodations; also, that their own designs will be executed with every advantage.'*<sup>28</sup>

This catalogue (actually a series of undated loose sheets) contained no fewer than 788 designs. Often the pieces could be customised: a goddess's face given different headdresses, columns and capitals mixed and matched, chimneypieces assembled by assortment. The great architects of the day – the Adams, Soane, Wyatt, Wyatville and more – all found this positioning convincing, and they all incorporated Coade stone in their designs and interiors. Its fame spread and it was shipped worldwide, and was used from St Petersburg to the Caribbean. The Coade manufactory held the royal appointment to both George III and IV. When in 1810 a grateful nation sought a fitting memorial to Nelson at the Old Royal Naval College at Greenwich through public subscription, it was to the Coade manufactory they turned for its execution. It is hard to think of another such triumph of technology over nature that also so convincingly retains artistic integrity.

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<sup>28</sup> Nichols, 1786, p.83, note 2.

## Mrs Coade's legacy

By 1813, however, Mrs Coade was an old lady of 80. When John Bacon died in 1799, her cousin John Sealy, son of Eleanor senior's sister Mary, had become her partner and seems to have brought new energy to the firm, which became known as Coade & Sealy's. The opening of Coade's Gallery at the end of Westminster Bridge also coincided with his arrival.

Sealy died in 1813, and William Crogan, another member of the extended Enchmarch clan, took over the manufactory. So established was the brand name, however, that the company name reverted to simply Coade's. Crogan had been a clerk at the works for a number of years, so this was an internal promotion. It seems Mrs Coade was playing a diminishing role by now: Crogan wrote in 1814 that 'the business is now conducted on a/c of Mrs Eleanor Coade but she takes no active part in the concern,' and in 1815 of her 'advanced age and debility.'<sup>29</sup>

Mrs Coade's will, dated 26<sup>th</sup> February 1811, is the closest we can get to a sense of her personality, albeit towards the end of her life. She seems a pragmatic and fair-minded person, who sets out her affairs and complex wishes in business-like manner, and who knows her own mind: 'I entreat those of my relatives who will share less than others not to impute the difference to want of affection but to their own different situations and other existing circumstances which give some of them a claim to a more special notice, and as none of them do rank with the absolutely poor of the land.'

She was certainly prosperous (she has a silver coffee service, family portraits, rings, a gold watch with her cornelian seal set in gold) and educated ('my printed books', a glass bookcase).

The will also tells us she owned property in The Paragon in Blackheath, and she may have been living there herself. The Paragon is a masterpiece of Regency design by Michael Searles, a prestigious and perfect crescent of fourteen houses

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<sup>29</sup> Ruch, *Architectural History*, Vol. 11, 1968, p.35.



built c.1793 on a circular plot in the corner of the Heath. Each house was different internally: Searles would provide the buyer with a brick shell which could then be fitted out to suit the buyer's tastes and budget. It has a colonnade with Coade stone Doric capitals, and distinctively roughly vermiculated quoins that may be from the same mould as Belmont's.

Mrs Coade's bequest to 'my faithful servant, Hannah Wooten' gives us a glimpse of her interiors, perhaps indeed at The Paragon. She leaves Hannah:

*'all my wearing apparel of every description and also my sheets towels and small table cloths; also the window curtains, six chairs and any more chairs she may choose; and the fender and fire irons, wash handstand and night table, glass bookcase, swing glass and pier glass, carpet and mahogany Pembroke table all in my room; also the bedstead and bedding, chest of drawers and stove in her room; and also my tea caddie, six silver tea spoons, two silver table spoons, silver sugar tongs, silver milk jug and my common set of tea china; japanned tea tray and waiter, and also such of my coppers and earthen ware out of my kitchen as she may make choice of for her own use.'*

Mrs Coade was pious and charitable, leaving bequests to be distributed by eight Baptist ministers as far afield as Birmingham and Colchester, including the one in Lyme, where the Anglican and Independent churches also benefited. She remembers the British and Foreign Bible Society, 'the society established in London in 1733 for the relief of necessitous widows and children of Protestant dissenting Ministers,' the Baptist Missionary Society to the East Indies and the Girls Charity School and School of Industry (a poor house?) in Walworth.

Her will distributed also shared her considerable financial wealth across more than sixty friends and relatives, many of them in the south west and some in Lyme: Tozers, Enchmarches, Sealys, Shutes. More than half were spinsters and widows. To Mary Tozer, spinster, of Lyme, she left 'all my rings of every description.'

Perhaps learning from her own family experience, where she left money to married women, it was often in the form of trusts 'for their separate use' so that it would not form part of their husbands' estate, a century before the Married

Women's Property Act. One case specifies that if the woman died in testate the money should go to her daughters, rather than husband or sons, ensuring it stayed in the female line for another generation. It is not difficult to read a certain proto-feminism into such canny bequests.

In codicils added in 1814 and 1815, she adds the largest single bequest of £500, all her apparel and her folio-sized Bible to 'my servant and very dear Christian friend Elizabeth Parsons.' These codicils also hint at an old lady's querulousness: bequests to Harriet Sealy's children, and to 'Miss Maria Sealy, their aunt' are revoked, presumably due to a family quarrel.

The will also list the properties she owns:

*'my leasehold messuage or dwelling house and hereditaments with the appurtenances in the Paragon at Blackheath... and also...my leasehold messuages heredit and gallery...known by the name of Coades Row, Westminster Bridge...and also all that...dwelling house with hereditaments and appurts...at Lyme...now in the occupation of Thomas Schreiber Esquire...'*

This is of obvious interest to Belmont, in showing that Thomas Schreiber was in residence there in 1811. All these building are left to her executors who are 'at their discretion [to] absolutely sell and dispose of the same...for the best price or prices that can or may reasonably be had or gotten.'

Eleanor Coades died aged 88 on 18th November 1821 at Camberwell – from the will we know she was 'late of Camberwell Grove,' where houses of late 18<sup>th</sup>/early 19<sup>th</sup>-century origin do still survive. The event warranted an obituary notice in the Gentleman's Magazine, which again quotes directly from the Coades catalogue in describing this by now well-known ware. She was buried in the Dissenters' burial ground at Bunhill Fields, but her grave was destroyed during the Blitz.

The manufactory continued under William Croggan, successfully at first but eventually under increasing financial pressure. In the late 1830s, Croggan went bankrupt largely because of bad debts from the Duke of York, George IV's

brother. The famous South Bank lion, produced in 1837, is the last known Coade stone work produced under the Croggan name, who then disposed of the business to Messrs. Routledge, Greenwood, & Keene, who became Messrs. Routledge and Lucas. Around 1840, they 'dissolved the partnership and sold off all their moulds, models, plant, etc, by auction, by Messrs. Rushworth and Jarvis, of Saville Row. Many of these moulds and models were bought by Mr. Blashfield and by other manufacturers, among whom was Mr. H. M. Blanchard of Blackfriars Road , and who, being an apprentice with the Coades, and possessing many of their models, etc. claims to be their successor.'<sup>30</sup>

Artificial stone certainly continued and abounded, like the 'patented metallic cement' used by J. T. Knowles to embellish Landmark's Silverton Park and Stables – but the genre divided into more mass-produced cold cast cements and explicitly terracotta wares that had no stock with the refined Coade formulations and process. The Coade stone process did not long survive the forceful woman who made it so characteristic of the architecture and landscapes of the 18th century, too skilled a process, perhaps, for the increasingly mechanisation of the Victorian Age.

In recent years, there has been a small revival of the Coade stone process, and in 2015 two craftsmen have workshops where objects in the pale buff ceramic is still made exactly as it was in the 18<sup>th</sup> century (barring a gas- rather than coal-fired kiln): Stephen Pettifer's Coade Stone Ltd of Wilton, and Philip Thomason of Thomason Cudworth, near Axminster. Philip Thomason conserved the Coade stone at Belmont, and made the Coade stone ammonites set into the pavement outside Lyme's museum, and also the John Fowles memorial plaque that Sarah Fowles had installed in his memory, set into the wall on Cobb Road.

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<sup>30</sup> L F W Jewitt, *The History of Ceramic Art in Great Britain* (1878).



Scenes at Philip Thomason's Coade workshop near Axminster where he closely replicates the Coade process. Clockwise from top left: the workshop; the gas-fired kiln; working on one of the replacement gate caps for Belmont; some of the studio's large collection of moulds; inside the modelling studio.

## Mrs Coade and Lyme Regis

So much, then, for Eleanor Coade's London life and reputation in the wider world. What of her connections with Lyme Regis? Certainly, she can have spent little time in Lyme once she was running her thriving business. Her traces in the town are few, other than Belmont as a 'three-dimensional catalogue of her wares' as Alison Kelly described it.

One vivid source is the chance survival of the account book from 1788-1799 of a Lyme plumber and glazier, Zachariah Drower – proof of how valuable even such mundane ephemera can be.<sup>31</sup> Zachariah brought forward a 'Page of an Old Book', perhaps because he had yet to be paid:

1789	Miss Eleanor Coade's Accompt 52s 6d
June 9th	to 1 half Circle in front parlour window 1s To 11 small squares of Glass in Cellar at 2 ½ 2s 3d
1790	To 6 squares of Glass at John Govis your chaise broke at 3 pr Square 1s 6d
Feb 24th	To Cutting & Mending Glass for ye Chaise 6d
Jan 28th	To 1 sash square in the Middle Door 1s 9d
To	2 squares Crown glass in cellar window at 2 ½ 10d
April 24th	Rec'd ye Contents of Ye above in full.

There is a wealth of detail here to recognise and appreciate: a room in use as a front parlour (implying there was also a back one); remains of a 'cellar' were found beneath the late 19<sup>th</sup>-century additions along the east elevation, and most evocatively, an accident on an icy winter hill, when Mrs Coade's chaise or carriage failed to negotiate the entrance to the coach house and broke a window in the house next door, which the rent rolls confirm was occupied by John Govis. It must have been quite serious collision: the chaise windows were also broken. It also shows that Eleanor Coade was a woman of substance: not many Lyme residents could have boasted their own carriage.

<sup>31</sup>Dorset History Centre D/LRM:01

In 1794, Zachariah does more work for her:

1794 July 18th    To Work done for Miss Elloner Coade  
                          To Labour for Solderman [?] soldering a leake in ye Lead  
                          Gutter on ye top of ye House 1s 6d  
                          To a Pound of Plumbing solder 10d  
                          To putty [?] & Labour puttying ye Sky light over ye passage  
                          going into ye Kitchen 6d

Again, we can imagine the work going on at the house; the 'kitchen' is presumably one of the added service rooms added to the east and shown on early maps; a leaking gutter on the roof something to catch early, whether behind the parapet or the valley gutter between the two piles of the house. This time, Zachariah is paid more promptly: on '25th July rec'd of Miss Tozer ye Contents of ye above p[ayment]t.' This is Mrs Coade's cousin Mary Tozer, who lived on the corner of Pound Lane, settling up on her behalf.

When Mrs Coade was not in Lyme, another such chance survival suggests that she sometime let the house out through the summer. The *Bath Chronicle* for 29th June 1792 included the following advertisement:

*'TO LETT, furnished for the Summer and afterwards disposed of, that genteel and well-built house, situated near the top of the Hill at the West-end of the Town near the Sea, the property of Mrs Coade, known by its elegant artificial stone front, from her Manufactory at Lambeth. The House contains two parlours, drawing-room and six bedrooms, surrounded by a shrubbery and garden, with coach-house and stables; likewise convenient grass for horses.'*

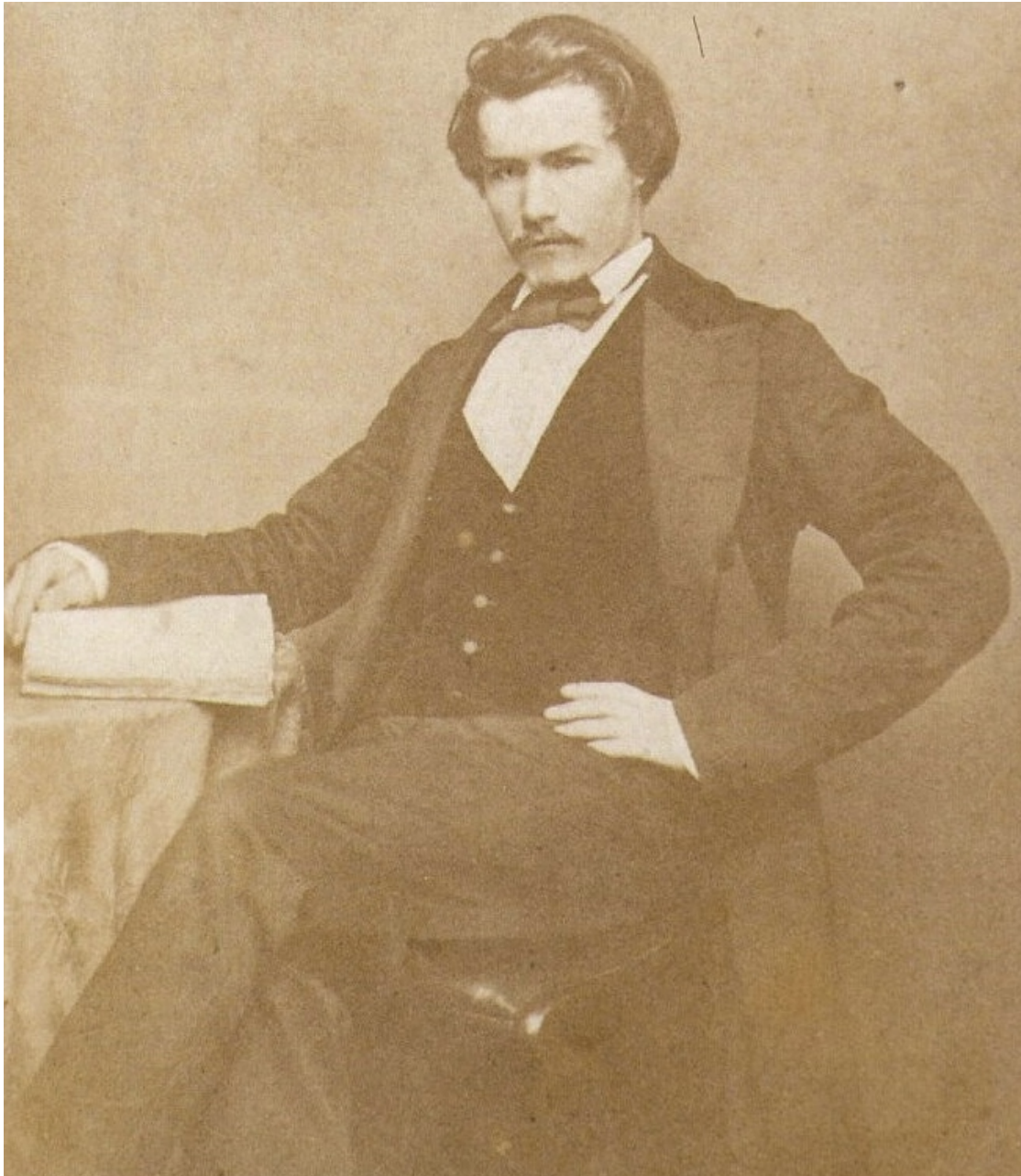
'Disposed of' in this context probably means 'afterwards occupied' or let, since Mrs Coade's will shows that she owned Belmont until her death in 1821 and also that Thomas Schreiber, Esquire, was in settled occupation at Belmont in 1811 and possibly beyond.



## Mrs Fewtrell and other tenants of Belmont

Soon after Mrs Coade's death, the lease on Belmont seems to have reverted to the town Corporation and for the next sixty years, the rent rolls and censuses reveal a succession of residents. The head lease passed initially to Mrs Fewtrell (or Fewtrill), whose name is recorded on Drayton's survey map of 1824. She was the widow of the Revd. John Fewtrell. Mrs Fewtrell is recorded in the tithe apportionment of 1844 as leaseholder of Belmont and owner of the large paddock to the south (previously 'Mrs Tozer's field'). It is Mrs Fewtrell who first called the house 'Belmont' – she was a sociable lady, also well known for festivities at Belmont. Its grounds changed considerably with her acquisition of the lower paddock. Mrs Fewtrell was probably responsible for establishing the kitchen garden along the northern boundary of the paddock, whose cold frames etc first appear, indicatively, on the tithe map of 1841. A newspaper cutting from the *Dorset County Chronicle* for 30<sup>th</sup> March 1843 records that Mrs Fewtrell's gardener Mr Reynolds was growing peach trees along the garden walls at Belmont that yielded ripe fruit an impressive 10-12 inches in circumference.

She died at Belmont in 1856 and left 'Her dwelling house in Lyme Regis and all furniture, household goods, linen and china' to her sister, Anne Marshall, for life, who was probably already living there. It was then to pass to her nephew William Marshall and niece Ann Battiscombe or their heirs. Ann Marshall, also a widow, also died at Belmont in 1858, aged 86. Her daughters Mary and Sarah were both middle aged spinsters are described in the 1861 census as 'fundholders' of independent means, living at Belmont with two servants. The sister are still there in 1871, but in 1874 Frederick Arthur Jackson of Belmont, Lyme Regis was elected to the British Association for the Advancement of Science, and a local *Directory* of 1874 lists Captain James Henry as living there. In the 1881 census, Belmont is occupied by a young widow, Helen Banks, with her five children and two servants. This rapid succession of tenants suggests the house was being let on the market after the Marshall sisters' death or relocation elsewhere. The house changed little during these decades.



**Dr Richard Bangay as a young man, probably taken c. 1862 around the time he qualified as a doctor.**

Richard Bangay, MD (1834-1933)<sup>32</sup>

In 1881, the head lease on Belmont came to an end and the freehold was put up for sale. By time, after a succession of brief residencies, the house was probably in need of major refurbishment. Belmont was bought by a 46-year old medical doctor called Richard Bangay, who moved south from a successful practice in Cheadle, Staffordshire, in search of a better climate for his second wife, Agnes's health, whom he had just married. Agnes Dorrington was the daughter of a wealthy cotton manufacturer, and Bangay had cured her of tuberculosis after the death of his first wife. We may infer that Agnes's father was newly deceased, or at least that she brought a generous settlement from him, since the Bangays moved south with comfortable affluence. It had not always been so for Richard.

Richard Bangay was born in Sharrington, near Holt in Norfolk, on November 13th 1834. His mother, Alice Bangay, was the seventh and youngest child of William Bangay, a carpenter. Alice was a nineteen-year old dairy maid and unmarried when Richard was born. The identity of his father is unknown; although on his marriage certificate to Agnes of August 4th 1880, Bangay gave his father as 'Robert Bangay, farm labourer, deceased,' this was a fabrication to avoid needless embarrassment.

Alice and her son stayed at the family home in Sharrington until 1844 when Alice married Henry Parnell, an agricultural labourer and lay preacher. They moved to a nearby village, Saxlingham, but the stepfather treated the ten-year old Richard harshly and resented the influence that the local cobbler, a 'free thinker', was having on Richard who had no formal schooling. When he was about 12, Richard went to work on a farm as a crow scarer, ploughboy and general labourer.

By 1852, and now seventeen, his home situation had become intolerable. Richard and his mother walked to the quay at Blakeney where he boarded a coal coaster

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<sup>32</sup> Most of the information in this section of the album is contributed by Dr Paul Bangay, MD, grandson of Richard Bangay's son Raymond and so great-grandson of Richard Bangay, and to whom grateful thanks are due.

bound for Newcastle-on-Tyne. There he found work as a pit boy at the Seaton Delaval colliery.

In his spare time, Richard would walk into Newcastle to haunt a bookshop owned by Thomas Pallister Barkas, described as an 'intellectual and author.' Under his guidance and encouragement, Richard's thirst for knowledge increased. He taught himself to read and write, and at the shop heard famous authors read from their work: William Thackeray from *Vanity Fair* and Charles Dickens from *David Copperfield*. This was a long walk each way after working underground all day. After missing a night's sleep, on one occasion he had no time to clean his lamp and was severely reprimanded.

Leaving the colliery, he worked for a year at a pharmacist's shop, where he learned to mix and dilute the various medicines. By now in his twenties, he formed the ambition to train as a doctor. Thomas Barkas helped Richard raise the money for the training, writing to the Duke of Northumberland to ask for financial assistance in a letter that vividly describes Richard's life since he arrived in Newcastle, and also reveals his very early interest in astronomy:

April 28th, 1858

*The circumstances are as follows - a young man, named Richard Bangay, 23 years old, the son of a poor parents in Norfolk.....came to this neighbourhood about five years ago to work as a collier in one of the Seaton Delaval pits. He worked down that pit for four years and for the last twelve months has been in Newcastle in the shop of a chemist at a salary of 12s a week, out of which he has to pay board and lodging etc, etc.*

*He has never been to school and four years ago being unable to read or write, he resolved to improve his mind.....having gained a knowledge of the alphabet and being able to read such words as to, if, so etc he took the Bible with him into the fields and by care, industry and perseverance managed with very little assistance to teach himself to read. His labours down the pit occupied about ten hours per day, he allowed himself about six hours for sleep and the other eight he devoted to study. Living upon about 6s a week he spent the remainder on books, instruments, and a telescope.*

*His progress was most rapid and was accomplished under the most disadvantageous circumstances; his only place of study being an attic with a very bad roof which let in the wind and the rain to such an extent as to blow out his candle. Under these circumstances he acquired a considerable knowledge of reading, writing, arithmetic grammar, use of globes, Latin.....*

*Ten months ago I introduced him to Dr Embleton, lecturer at the Newcastle school of medicine who kindly granted him free admission to his lectures on anatomy and physiology.*

*He is quite determined to become a Medical Practitioner and in order to pay for his education in the medical school and infirmary will require £150. May I ask the favour of your Grace....."*

It is not known whether the Duke obliged but seems likely that he did, since later that year Richard entered the Newcastle College of Medicine. In 1859 he was awarded the First Year Exhibition scholarship, and under the progression to the day, qualified as a Member of the Royal College of Surgeons in May 1862. In 1863 he qualified as MD at St Andrews University after three days of intensive oral examinations, for which he received a large and imposing certificate in Latin.

Dr Bangay's first medical job was in Corbridge in Northumberland, but the past ten years of hard physical work and privation had taken its toll and he was advised to take a sea voyage. On February 6th he set off as ship's doctor on the *Bayswater*, a sailing ship, taking emigrants to Brisbane. The journey was fully described in the weekly news sheet, *The Bayswater Chronicle*, which reveals the young doctor at the heart of life aboard. He shot albatrosses, watched whales, organised (and participated in) dramatic performances, danced hornpipes aboard a passing Spanish vessel, acted as ship's magistrate in case of theft and drunkenness, and oversaw five births, three deaths and the sad loss overboard of an eight year old child. He shared his knowledge of astronomy in a lecture to the passengers and crew on astronomy, using only a turnip to illustrate the movement of the planets.

After a continuous thirteen week voyage, the *Bayswater* arrived at Moreton Bay in Australia. For the next four years Bangay travelled around Australia and New Zealand and practiced medicine in Smythedale, Ballarat, Victoria.



for his night's entertainment, and from thence went to the throne, in mid-ships, when the ceremony commenced. Dr. Bangay, and Messrs. James Duncan, W. Bigg, W. Twentyman, (saloon passengers), were separately brought before Neptune for initiation; the Doctor was the first, and was escorted by four constables; he pretended to be very unwilling to be taken, which produced much merriment and laughter; once he almost succeeded in getting away from the constables, but was at length secured and brought to the foot of the throne, where Neptune very condescendingly gave him his hand, and introduced Doctor Ipecacuanah, who in the most extravagant burlesque manner examined his patient, and administered (which by the bye had been made up by Dr. Bangay himself and were not pleasant) nostrums to him. It is proverbial that Doctors generally make up doses which they do not like to take themselves, and in this case was vividly illustrated, as he pulled a frightful face at each dose. The candidate was handed to the tender care of Shango Fango Kino, the Barber, and his assistant Latherem. The latter plied his brush, accompanying it with such hideous grimaces and contortions of the body as to produce roars of laughter; Latherem lathered away, the Doctor spat back the lather in Latherem's face, who dabbed more lather into the Doctor's mouth, until at length he was sobered down a little with a sight of the razor which S. F. Kino flourished about his head, indeed a most frightful looking blade, somewhere about four feet in length, which he carved about the Doctor's face with great dexterity, taking away an immense amount of lather at each scrape; this done, the Doctor was turned heels over head into the arms of two Bears who waited to receive him in the bath, which was constructed by a studding sail being tied up at four corners and filled with water, placed behind the barber's platform. After the Doctor had been considerably hugged and ducked in the water by the Bears he was released to make room for the next patient. The other three gentlemen underwent similar operations, after which the chief steward (Mr. Timlin), the second steward and cabin boy were duly inducted into the order of Neptune. The foregoing had the pleasure of having their faces bedizened with good clean soap lather, but the sailors who came after them "saw another scene." A tub of stuff of horrible compound was their lot,—tar and slush! applied to their faces, and even plastered over them down to their waists by Latherem, with a large mop in hand, presented hideous spectacles to the eyes of the on-lookers. The whole of the crew who had not crossed the line before were submitted to the operations we have described, which occupied the time until about one p.m., when the boatswain, who had received the signal, commenced playing the hose upon the whole crowd, who, up to then, had been packed as close as herrings, intently observing the ceremony. The water, however, scattered them in a few minutes, and ended the day's proceedings.

THE WEEK.

THERE has been little incident of importance to chronicle during the past week, except the visit of King Neptune. The weather has been extremely fine, with the exception of yesterday, when we had heavy squalls, accompanied with copious showers of rain. The heat on some of the days was intense, especially in the 'tween decks; and whilst on this subject we cannot refrain from mentioning that a large number of both passengers and crew showed very visible effects of having exposed themselves to the "sun," in spite of the many restrictions the Doctor had placed upon the grog bottle. Yes-

terday we spoke the ship *La Houle*, homeward bound.

To-day bottle-nose whales were seen in numbers quite close to the ship, and a party was got up to go after them, to whom the Captain had kindly given permission to have one of the boats lowered. The party consisted of Mr. Pritchard, in charge of the boat; Dr. Bangay, Messrs. Bigg, Simmons, Boddy, Littlehale, Carrow, W. Duncan, and Lloyd, and were supplied with harpoons, tomahawk, &c., from the ship. Several of the gentlemen had rifles with them, but the line was left behind, which rendered it impossible to have made fast to one of the whales if an opportunity had offered. The boat was pulled by four of the crew, and got within a short distance of one of the fish, when he turned up his flukes and sounded before a chance was got of having a shot at him. After pulling about in a circuit of three or four miles they returned to the ship, highly delighted with their boat excursion.

On Wednesday last Mr. T. J. Simmons held a sale by auction on the quarter-deck, which was really the source of as much amusement as anything that has been brought on the boards; his comments on the various articles, which were of a motley description, produced mirth and laughter. We are of opinion that it ought to be encouraged, as it is a means of killing for a portion of the day the dreadful monotony of a voyage.

A Concert was given last evening by the Bayswater Choral Union on the afterdeck of the vessel. The performers were, with two exceptions, composed of the crew, and we think this concert was the greatest success of any of our musical reunions. Mr. Timlin, as usual, kept his audience in roars of laughter; his "Courtin' in the Kitchen" was quite a *chef-d'œuvre* of comic singing. Mr. R. T. Pritchard, in his beautiful song "The March of the Men of Harlech," called forth the most hearty *encore* we have heard on board the ship. Mr. Simmons sang one or two songs, the best of which was "The Heather Bloom." Mr. Pugh appeared in true sailor's costume.

THE BAYSWATER CHRONICLE.  
No. 6.

ADVERTISEMENTS.

SALE BY AUCTION.

MR. SIMMONS begs to announce instructions to sell by auction, on WEDNESDAY next, at 10 a.m., on the afterdeck, a valuable lot of SUNDRIES. Terms at sale.

CONCERT.—MR. SIMMONS begs to inform the Passengers and Officers of the *Bayswater* that he is making arrangements for the service of some of the best VOCALISTS on board, and trusts that the next Concert will be a better display of talent than any hitherto brought out on board this ship. A further notice will be given, with more particulars.

BIRTH.—On the 9th instant, on board the *Bayswater*, the wife of Mr. Porter, of a daughter.

SHIP'S RECKONINGS.

Date	Lat.	Long.	Dist.
March 6	Lat. 1° 43' N.	Long. 20° 40' W.	34.
" 7	Lat. 2° 25' N.	Long. 21° 2' W.	" 26.
" 8	Lat. 1° 17' N.	Long. 22° 7' W.	" 75.
" 9	Lat. 0° 1' S.	Long. 22° 52' W.	" 96.
" 10	Lat. 1° 24' S.	Long. 24° 15' W.	" 83.
" 11	Lat. 2° 55' S.	Long. 25° 4' W.	" 87.
" 12	Lat. 5° 39' S.	Long. 27° 7' W.	" 116.

SATURDAY, MARCH 12, 1864.

"Scire Facias."

THE DOCTOR'S LECTURE.

It gives us more than unusual pleasure in having to chronicle the lecture given by Dr.

BANGAY on Tuesday last, as it goes far to prove the assertion we made in our first number, that there is poetry in everything, especially in the heavenly bodies, and which constituted the material of the lecture in question, the Doctor's subject being "Astronomy."

A large number of the passengers, both male and female, attended, and showed themselves much interested in the learned Doctor's remarks.

In opening the meeting, the CHAIRMAN (Captain MORRIS) stated that Dr. BANGAY had substituted the subject of "Astronomy" for that of "The Human Eye," in consequence of his not having proper materials for illustrating the latter subject, which, however, he would treat upon in another lecture on Tuesday next.

The Doctor commenced by saying, that he was not about to give an elaborate discourse in language they would not understand, but in such simple words as might be used by themselves, so that the whole might be intelligible; should there be anything in his discourse which any one of them might not understand, he would be glad to explain it after the lecture. After the above preliminary remarks, the Doctor took up his subject, intimating that he would confine himself to the Solar System, that is, the particular Solar System to which this earth belongs, of which the Sun is the centre, and fixed body of 880,000 miles in diameter, revolving on its own axis once in twenty-six days, and whose attraction kept the other bodies of its system in their places, these bodies move on one level or plane from east to west alike; corresponding with the centre of the Sun, these he observed are denominated revolutionary motions, describing a path called the orbit. The Doctor had supplied himself with a turnip rounded off to represent a sphere, a piece of stick put through the centre served to illustrate the poles or axis, but he explained, in the case of the planets, there are no actual poles, but an imaginary point at the two extremities, upon which each body rotates. After giving many interesting details respecting the Sun, which, for want of space, we are compelled to omit, he took up the various planets, Mercury, the Earth and its moon, Mars, Jupiter, Saturn, Uranus, and Neptune, touching upon many very interesting facts in relation to them. Altogether the lecture was a most interesting one, and considering the materials the Doctor had for illustrating his subject (only a turnip) it was most ably handled.

At the close, the CHAIRMAN rose and addressing the meeting, said—Ladies and gentlemen,—I must say I understand a little of the subject put to you this afternoon by Dr. Bangay, and am of opinion that it could not have been more simply or correctly explained.

Mr. SIMMONS rose and expressed himself to the effect, that this meeting is greatly indebted to Dr. Bangay for the care he has taken in simplifying the science of astronomy as he had done this afternoon; and gave the Doctor an assurance that they sincerely thanked him. (Hearty applause.)

THE WEEK.

ON Sunday last we enjoyed one of the greatest treats that would possibly occur to any one on a passage out to Australia. On the evening previously a sail was in sight which, with the very light breeze, was gradually nearing us, and by Sunday morning had got within three or four miles of us. Dr. Bangay kindly obtained the consent of Captain Morris to have a boat lowered for the purpose of conveying a party of us, on a visit to the vessel in question,

The edition of the *Bayswater Chronicle* that recounts 'The Doctor's Lecture', illustrating the sun with a turnip.



Bangay returned to England in 1869 and became the Honorary Surgeon to the Eastern Dispensary in Bath. From there he went to a practice in Cheadle, where in 1873, by now aged thirty nine, he married, Margaret Jackson, a widow with two children, Frederick and Beatrice. Dr. and Mrs. Bangay were leading lights in the Cheadle Literary Institute, a project to provide Cheadle with a reading room to promote the moral and intellectual well-being of the local residents by providing a reading room, library and lectures. The initial premises were built in the 1850s, but in the early 1870s, first steps were taken to construct new larger premises through donations from leading local figures. Demonstrating his commitment to education for all, Dr. Bangay was the leading force behind the Institute. Mrs. Bangay is said to have been responsible for its design. Whether last statement is to be taken literally in a professional architectural sense is not clear. <sup>33</sup>

Sadly, Margaret Bangay died in childbirth in 1875. The sad inscription on her tombstone reads "O my Madgie, venio". Dr Bangay took on the care of his two step-children Frederick and Beatrice from her previous marriage, and remained in Cheadle near Manchester where the Dorringtons, wealthy cotton merchants, were among his patients. One daughter, Bessie, had died of tuberculosis and their other daughter, Agnes, was suffering from the same disease. The accepted treatment then was to keep the patient warm and indoors possible, but Bangay had more advanced views. He threw away all Agnes's medicine bottles, opened her windows, halted the disease and in June 1880, he married the patient.

After the birth of their first child, Frank, in 1881, the Bangays sought a better climate to safeguard Agnes's delicate health. By now a prosperous GP, and perhaps further helped by his wife's wealthy background, Bangay bought Belmont and a medical practice in Lyme Regis to go with it. The family lived in Belmont for 17 years and had 5 more children together.

The Bangays extended the seaside villa dramatically, adding two large, two storeyed, gabled wings to either side, with mock timber framing by an unknown architect.

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<sup>33</sup> <http://www.stockport.gov.uk/2013/2978/8803/9020/12299/cheadlevillagetextapp2> page 14.



**As these mid-20th century photos show, Dr Bangay transformed Belmont into a large Victorian house, adding two large gabled wings and covering the rear with conservatories.**

The rear of the house was completely covered with large conservatories (described in more detail in a following section). Continuing Mrs Fewtrell's development of the garden Dr Bangay planted many exotic species, turning the long slope into a veritable botanical garden.

As part of the same construction phase as the west wing, Bangay also constructed a three storey observatory tower with a revolving roof. During our restoration of the tower, we found 'BANGAY 1881' inscribed in pencil on one of the wooden roof shingles. The misspelling of the name suggests it was not Bangay himself who wrote this 'graffiti' (perhaps instead the builder's merchant or one of his carpenters) but it does give a clear indication that the tower and therefore the west wing into which it was built were constructed very soon after the Bangays came to Lyme.

The census record of 1891 gives a flavour of what life was like at Belmont in its late Victorian heyday. On the night of the census were present:

Richard Bangay (54), general practitioner.  
Agnes Bangay (42), wife.  
Frank Bangay (10), son.  
Madge Bangay (8), daughter.  
Raymond Bangay (7), son.  
James Bangay (4), son.  
Bessie Bangay (1), twin daughter.  
Evelyn Bangay (1), twin daughter.  
Beatrice Jackson (25), step-daughter.  
Frederick Jackson (27), step-son.  
Jean Green (35), cousin.  
Henrietta Dorrington (31), sister-in-law.  
Olive Dorrington (12), niece.  
Ethel Dorrington (11), niece.  
Charlotte White (24), cook  
Annie Nurcombe (21), parlour maid.  
Emma Newberry (19), housemaid.  
Elizabeth Bourman (17), kitchen maid  
Annie Parsons (22), laundry maid.  
Annie Biffin (28), nurse.  
Jessie Stephens (21), French maid.



**Dr & Mrs Bangay in the garden at Belmont, c. 1890.**



In the cottage in the garden were the gardener, his wife and children. The Dorringtons may have been visiting coincidentally on census night: discounting them, Belmont seems to have been home to a household of seventeen Bangays, Jacksons and their servants.

Dr Bangay soon became a prominent member of the town community. In addition to his thriving medical practice he also took on a number of voluntary roles:

Surgeon & Medical Officer of Health to the Urban Sanitary Authority.  
Surgeon and Medical Director of the Cottage Hospital, Sidmouth Rd.  
Medical officer to the 1<sup>st</sup> Dorsetshire Artillery.  
Medical Officer of Health for Lyme Bay.  
Admiralty Surgeon and Agent.  
Medical Officer to Court of the Foresters (Pride of the West).

He soon gained an excellent professional reputation in the town, not least for treating the poor for no fees, long before the National Health Service. The matron of the cottage hospital remarked that he was the first doctor she had seen to boil their instruments to sterilise them, rather than using the more usual carbolic acid to disinfect them. Perhaps not surprisingly given his own background, Bangay was ever keen to improve the living standards of the poor, to encourage the education from which he had so benefitted, and to share the areas of knowledge that so fascinated him.

He became an active member of the Dorset Natural History & Antiquarian Field Club, organising outings and talks, including to Belmont. He was interested in fossils and geology and their implications for evolution; religion played little or no part in his life. Sometimes Dr Bangay's theories were perhaps a little farfetched: John Fowles noted with scepticism Bangay's theory that there had been a Roman villa beneath the stables at Belmont. Fowles knew of Dr Bangay's time at Belmont, but not, it seems, the detail of his earlier life.

This report of a visit to Belmont by the Field Club in 1891 gives a snapshot of Bangay's sociable life:

*'After luncheon the party separated; some under the guidance of Doctor Bangay were conducted over the private observatory of Sir Henry Peek ; [owner of Rousden]*

*At 7.30 the members dined together at the Golden Lion Hotel by the invitation of the Mayor of Lyme, Mr. T. E. D. Philpott [sic], and at 8.30 an evening meeting was held in the Town Hall, where several of the municipal documents of this ancient borough were exposed to view, and proved of great interest. Many other objects were exhibited in the rooms ; for instance, drawings and engravings of the old Cobb, or breakwater, the landslip, and of various buildings in the town, books, and specimens of the local industry of cushion lace. For the care and trouble taken in arranging this exhibition the party was greatly indebted to Dr. Bangay, of Lyme Regis.*

*From Highcliff the party were conducted to Belmont, the residence of Doctor and Mrs. Bangay, who had taken a very active part in the successful arrangements of the meeting. Here tea was served in the garden, and one object amongst others excited much interest a fine specimen of a fossilized Calamus, which had been discovered on the sea beach near Lyme. It measured 30 feet in length, and was taken up in seven sections and fixed against the garden wall. The party then took leave of their kind hosts, and started for the Axminster Railway Station. This brought another thoroughly successful meeting to a conclusion.'<sup>34</sup>*

Dr Bangay also initiated the Belmont Lectures, which were open to all. Some of these lectures were delivered by very prominent individuals: among them were Joseph Lister, 'the father of antiseptic surgery,' who lectured on 'The Nucleus of a Cell' and also had a house in Lyme. Bangay knew William Morris's sister, and this brought Morris to Lyme to lecture on textile design. Other topics included 'Birds of Siberia' and 'Mosquitoes'.

Bangay gave many of the lectures himself on botany and geology but his greatest interest was astronomy, and these lectures were especially popular. 'Astronomy was made more attractive and instructive by the use of a profusion of diagrams,

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<sup>34</sup> Proceedings of Dorset History Society  
[http://www.archive.org/stream/proceedings13dorsuoft/proceedings13dorsuoft\\_djvu.txt](http://www.archive.org/stream/proceedings13dorsuoft/proceedings13dorsuoft_djvu.txt)

globes and experiments,' according to the *Bridport News*. He used the observatory in the garden of Belmont not only to look at the stars himself but also to teach the principles of astronomy to others.

By the time he left Lyme Regis in December 1896, aged 62, Dr Bangay had become a much loved and respected member of the community. He had 'endeared himself to the people of Lyme professionally educationally and socially...Rich and poor alike shared in this sense of impending bereavement', wrote the reporter for the *Lyme Regis Mirror*. There was a public collection and a meeting in the guild hall ('notwithstanding the rain, the hall was well filled') to present him with a fine watercolour view of Lyme, the latest edition of the *Encyclopaedia Britannica* in a walnut bookcase and a purse of gold. Dr Bangay expressed his thanks for 'this bounteous love-feast' on behalf of himself and his wife, the *Encyclopaedia Britannica* 'above all things a possession for which I have many years longed.'

After leaving Lyme, Dr Bangay did not stay anywhere long. He moved with Agnes and the family to West Bournemouth for the next 4 years, as well as taking locums in Brighton, Tunbridge Wells and Kew. In 1900 the family moved again, this time to a house in Finchley where Bangay spent what little leisure time he had making summer houses in the garden from heather and wire netting. In 1907 Agnes died and the family continued to go their various ways. Dr Bangay remained as restless, first moving to Reading with his twin daughters and then going to Canada to practice in British Columbia. Bizarrely, his medical credentials were not recognised there, and so he returned to England in 1911. He was now 77 but, unwilling to retire, he returned to his mining roots, working in New Tredegar and Pontypridd in the Welsh valleys. Aged 83, he moved back to the northeast and a post in St Helens, Bishops Auckland. He finally retired at 90. As a leaving present, his last set of grateful patients gave him a leaving present of an up-to-date astronomical telescope 'trusting that Dr Bangay be long spared to scan the stars and at the same time to think of his warm hearted friends he has left behind at St Helens.'

Dr Bangay moved to Chesham with his twin daughters, Evelyn and Bessie from where he could go by bus to the museums and exhibitions of London. When Alan Cobham, the World War I flying ace, brought his aeroplane to Chesham and took customers for 'flips', he had one and enjoyed it so much he frequently went to Hendon for some more. At the age of 96 he was dissuaded from hiring a plane to observe the eclipse of the sun, a passionate astronomer to the end.

Dr Richard Bangay died in September 1933 aged 99 after a short illness and a remarkable life. His daughter Evelyn described him thus:

'He had very strong socialist views and enormous energy as well as remarkably good health for most of his life. He was of fine physique and had a beautiful speaking voice with no trace of a Norfolk accent....He attributed his longevity to much exercise, plenty of fresh air and never wearing an overcoat.'

### JAMES DORRINGTON BANGAY, MRCS, LRCP, OBE

One of Richard & Agnes Bangay's sons became a Surgeon Captain in the Royal Navy. James Bangay was born in Lyme Regis in 1887, and spent his early childhood at Belmont. After his medical training, he served in the Royal Navy during the First World War and was awarded the Order of the British Empire 24 Dec 1920. At the outbreak of World War II he was serving at the Royal Marine Infirmary at Victory Barracks, Portsmouth, and on 6 Mar 1940 he was appointed to another shore establishment, HMS Wildfire at HM Dockyard, Sheerness. He died from tuberculosis nine days after the end of the war in Europe. He does not appear on Lyme's War Memorial as he was not a resident of the town at the time of his death even though he died in service.



**Surgeon James Dorrington Bangay, OBE, spent his first years at Belmont.**

## Victorian Observatories

There was huge interest in astronomy in the Victorian age, with amateurs as much as professionals scanning the universe. It was a time of self-teaching, helped by earnest journals like the *English Mechanic* and while the leading edge of the discipline became increasingly professionalised, the enthusiastic observations of amateur historians like Dr Bangay across the country also added greatly to the body of knowledge. In the late 19<sup>th</sup> century, there was great enthusiasm for little amateur observatories, almost all based upon an article by the Reverend Berthon of Romsey in the *English Mechanic & World of Science* in 187, describing one he had built himself. Most such 'Romsey observatories,' such as 'any village carpenter [could] build in less than a fortnight' were little more than wooden sheds and very few have survived or even been photographed. Few were as grandly elevated as Dr Bangay's three-storey tower, but it seems sure that he based his top floor observation room upon the Romsey design.



**A partially deconstructed Romsey observatory in Greenwich Park in 1874.**

(National Maritime Museum)



The English Mechanic

WORLD OF SCIENCE AND ART.

PUBLISHED OCTOBER 13, 1871.

ARTICLES.

ON OBSERVATORIES.

By Rev. E. L. THURMON, M.A., F.R.A.S.

THOUGH it too frequently happens that great aspirations, when tested by experience and the stern logic of facts, are found to be but the over-ambitious evolutions of fanciful minds, yet it does, from time to time occur that what was conceived for humbler purposes proves itself worthy of a higher place, and with this conviction the subject before us—viz., the construction of observatories or telescope houses—is presented, not only to amateur astronomers, but to the more serious consideration of those eminent men who are devoting their powers to the advancement of the noblest of all sciences, physical astronomy.

The degree of perfection already reached by optical instruments demands a more careful study of their surroundings, including the question of all influences that may affect their free and perfect performance. Of these influences—after the almost insensible differences of atmospheric disturbance in different places—the effects of our buildings upon the definition of our telescopes is the most important consideration.

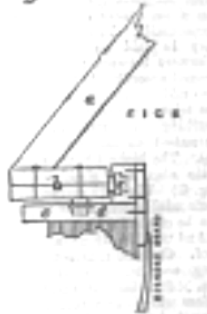
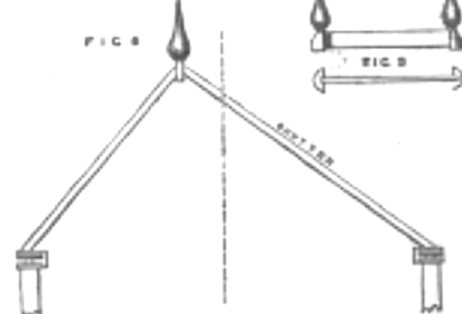
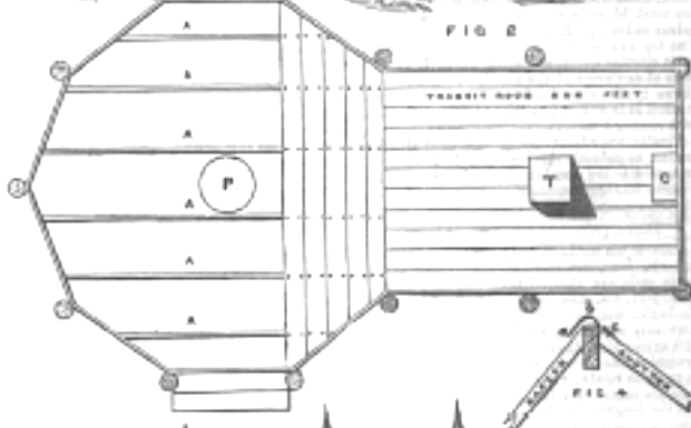
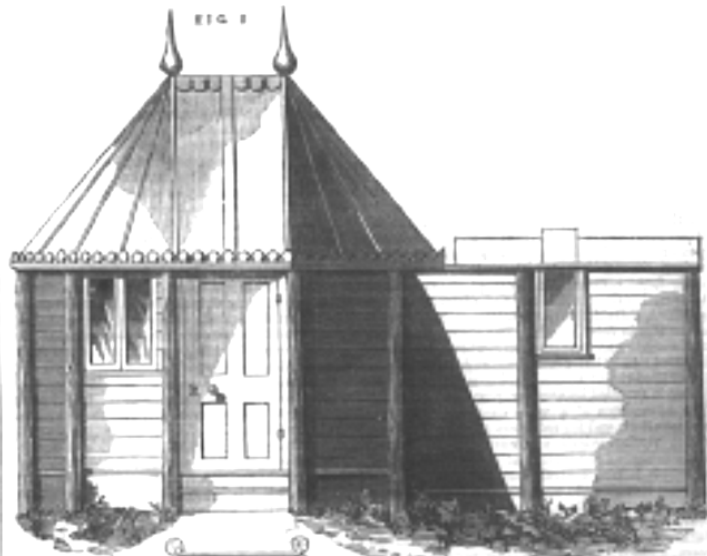
With the large apertures now in the hands of so many amateurs, the disturbance of the visual rays is so great and annoying, and so large a part of it is manifestly due to the observatory itself, that some of the most enthusiastic observers prefer the open canopy of the skies to the comfort and shelter of a revolving roof, when it is purchased at such a price; and it is not without good reason that Mr. Browning condemns such buildings as general for the amateur. With regard to the matter so well. But it is now confidently hoped that these observations, based upon the experience of eight years, will go far to dispel an error which tends not only to destroy that perfect personal comfort so necessary to the free exercise of the delicate senses of an observer, but the fine protection which a good telescope deserves.

Striking, then, without further preface, in outline viz., we boldly assert that the construction of telescope houses has proceeded hitherto upon a wrong principle. The instruments are generally, so to speak, smothered in the nests built for them and almost "killed by kindness." Where expense is no object, solid structures of brick or stone are raised, with more or less massive domes, at a great expenditure of money and materials; herein lies the mistake, for it is now capable of abundant proof that the optical efficiency of observatories is in the inverse ratio of their solidity, and provided the structure be capable of resisting all the strains that may bear upon it, the thinner it is the better it will fulfil its functions.

The two great desiderata in an observatory are 1, freedom from damp, 2, non-interference with heavenly rays. Both of these are entirely dependent upon temperature. (1) Damp is the condensation of moisture from the surrounding air upon any surface colder than itself—witness a glass of ice or cold water brought into a warm room; but more than this, a chief source of damp is the condensation of moisture from a portion of ground inclosed by solid walls and covered over, and an artificial heat is manifestly inadmissible in an observatory, such a building, especially if it consist only of a ground floor, is simply a condensing chamber, and when any considerable rise of temperature occurs, as in a fire, the walls run down with moisture, and the instruments are coated with dew, all of which is plainly attributable to the fact that the walls, &c., do not rapidly accommodate their temperature to that of the air, and they keep the instruments within them colder than they would otherwise be, and that for a considerable time. Again (2) as to the non-interference with rays from stars &c., this also is entirely a question of temperature. Experiments with our large Newtonians, which were to be peculiarly susceptible to these disturbances, have proved that their performance is

seriously affected by a difference of one degree Fahr. between the temperature inside the building and out of doors. Especially is this felt in summer time, when walls and roof have been raised to a high temperature during the day, and keep on radiating heat far into the night. The question, then, is this, can an observatory be built absolutely and entirely free from these evils and according to perfection the desiderata named

the heat of eight summers, and it is still perfectly good and sound. Not including the adjoining little breakfast-room, it is 10ft. clear inside, twelve-sided, its total cost was £20 10s., and such a one can be built anywhere for a little more than that sum. It is built of the thickest weather boards that, when properly fastened together, can resist a gale of wind, and the revolving roof is composed of nothing but painted



above? To this we reply emphatically, it can, and that in a manner which secures every advantage at a price that places it within reach of all who can afford the delights of a telescope.

The Romney Observatory was the first of a great many that have been built in the last seven or eight years with uniform results. It has stood unscathed the storms of eight winters and

remains on light rollers. Though the heavy pedestal of the 9 1/2 equatorial which is founded on concrete in the ground the floor of the building is raised a foot above the soil without any footings, so that there is a clear circulation of air beneath. In this slight building, from which the rain is excluded, has never rusted, and the steel plates of the sidereal clock are as bright after

two whitens as when they were first polished. Yet, strange to say—to clear certain views—this little observatory stands in the widest possible position, over the edge of a large cistern of water, and water is continually trickling within twelve inches of its boards. No such for dryness, which any reader of the *Enquirer* might have been welcome to satisfy themselves about if they had it convenient to come.

(3) As to the other distribution. Two Newtonians of the same size, excellent, and kind of equatorial mounting have been repeatedly tried against each other on the same stars, &c., and with the very same eyepieces, one instrument was in the building the other outside, ten yards distant, at the same height. If there was any difference it was in favour of the observatory, which perhaps arose from the comfort experienced by the observer, and the quietness of a sheltered eye, to any rubbing of the advantage of greater darkness in viewing delicate objects.

Refracted in an elevation, with general plan and sections, of certain details of the construction of the Romney observatory, which with the full description annexed will enable any village carpenter to build it in less than a fortnight; and whose extraordinary finish and decoration is depicted, the cost calculated, except about London, increased 210 or 215; but the dimensions here specified, suitable for any telescope not exceeding seven feet in focal length. The observatory does not include the transit-room, which has been inserted in the drawing, and which may be omitted if not wanted, and the plan of its foundation supplied by another post and heading. The advantages of a wide opening in the roof are manifest, and for reflection (Newtonian), with which vertical views are easiest and best, it extends beyond the middle of the ridge, the edges of which is not wanted, but farther from the opening side so as to command these views with ease.

If the transit room be added, the floor of it should be about six inches less than that of the telescope room, other wise the roof will be very low. The top must be entirely covered with zinc or zinc galvanised iron. It is best arched 24 in. or 18 in. The top circular cover, being made to the same circular curve, will slide either N. or S. to open at any point of the meridian. A window is shown in the elevation for a terrestrial magnifying glass. It is well to line the end behind the clock with roofing felt.

Finally, the advantages of this light structure are so abundantly proven that it is scarcely presented to the consideration of the very best observational astronomer.

TO CONSTRUCT AN OBSERVATORY OF THE ROMNEY MODEL (WITHOUT THE TRANSIT-ROOM).

Provide ten good straight posts about six, thick and 24 in. long, set them in the ground (if the lower ends are sharked they last longer) in a circle 20 ft. dia. distance to a depth of 15 inches. To do this well and quickly it is best to set up a temporary post in the centre, of the same height, with an iron plate in the middle of the top; upon this a straight radius-bar with a spiral level attached must be used to raise and bring vertical at 270° 0' 0" from the central pin 180° regulate the distance and the height of each post. Upon the tops of these ten posts the plate must be nailed, consisting of ten pieces of inch-board 24 in. wide, placed horizontally. The next thing is the floor, which may be laid on joists 3 x 3; supported by trussmen between the posts, or by struts in the ground according to the fancy of the builder; the two middle joists will be best wide enough for the telescope pedestal to stand between without touching. The walls of this weather-board, will be nailed on inside the posts, beginning at the top. The highest board should be nailed to the plate also, and stand up 1 1/2 in. above it. (See Fig. 5.) Windows can be placed facing the best horizontal views, or the upper panels of the door can be of thick glass.

And now the important part is the revolving roof. Cut out sixteen rafters from 2 1/2 to 3 1/2 in. long, and 2 1/2 in. thick, and two more 2 1/2 x 2 1/2 x 2 1/2 in. for the struts to be hung upon. These will all be attached to the ring about to be described at equal distances, meeting together at the ridge, and nailed to the two middle horizontal boards (see Fig. 2). The ring is constructed as follows:—Some well-measured lath pieces of red lead must be cut into segments of a circle 12 ft. dia. in diameter inside), 24 in. wide. They should be equal in length and sufficient in number to make two such circles. They must then be laid on the plate in two layers "breaking joint," using

the radius-bar to regulate the circle accurately, then all nailed firmly together and the nails checked. When this is done the ring can be lifted down and have its inner edge planed smooth with a concave plane. It is now ready to receive the rafters; it can be placed on stools or trestles, but great care must be taken to keep it perfectly flat by leveling over all the points on which it rests; the ridge-poles being set up by any temporary support, one foot out of centre, or on one side of a diameter (see Fig. 5). The rafters will be cut to the proper length for their respective positions, and their ends cut to the proper bevels for nailing on to the ring and the ridge. The two short rafters to carry the shutters will have an opening—a pentagonum 24 in. wide, and about 24 in. dia. long. The shutters, made of the same wood as the rafters, with transverse struts and diagonal braces, will have three hinges each, and a slip of strong canvas nailed over the joints; a light board 24 in. wide, covered, as over the canvas with which they are covered, is to lap over the middle joint. On their upper ends, where they meet against the ridge, they must each have a piece of zinc or galvanised iron bent like a, b, c, Fig. 4, and nailed over the canvas. The spaces between the rafters being filled by stretching good sail-cloth upon them in gun-stamped pieces, and finally strips of wood 2 in. wide nailed over the laths, and the lower ends of the canvas brought well down over the outer edge of the ring, the only remaining consideration is to make the completed roof revolve.

Produce from any workman twenty such rafters, the larger the better, and let ten of them have the plate one over each post, these are the bearing rafters; the other ten must be dug as guides to prevent the roof sliding laterally. They must be set into blocks of wood, with their pins vertical, and the blocks nailed to the plate, and also to the upper board. (See Fig. 5.)

Though this roof revolves well when the rafters are solid, it is better to have a small tackle consisting of two single blocks, called in the navy a "gun tackle purchase;" the standing block is attached to the struts frame, and a hook on the other block can be transferred conveniently to a screw eyebolt near the top of every other post inside to pull the roof round.

In the eight years that several observations of this kind have stood, not one has had its roof blown off by a gale of wind, the force seems to act downwards on the conical surface, nevertheless it is safest to have short lines about one foot long, to lash it down to the eyebolts in one or two places.

The canvas should be well saturated with boiled linseed-oil, and then have about three coats of paint of the lightest gray colour, and the strips of wool and ornamentation, if any, round the curves painted green.

If the boards are painted the colour should be a light neutral tint, greenish or grayish. Should good tin-posts be used with the lath left on, the partly rustic appearance is pleasing for a garden observatory.

The interior of the building will be finished by papering it on the canvas in the usual way, and say that of light canvas upon the highest board adds to the internal appearance.

EXPLANATIONS TO ILLUSTRATIONS.

- Fig. 1.—South elevation, scale 1/4 in. to 1 ft.
Fig. 2.—General plan. A, A, A, A, A, joints; C, elevated clock; T, transit instrument; R, pedestal of telescope.
Fig. 3.—Ridge.
Fig. 4.—Roof details, a scale.
Fig. 5.—Roof details, scale 1/4 in. to 1 ft. a, rafter; b, ring; c, plate; d, web-roller; e, guiding web-roller fixed to a block of wood.
Fig. 6.—Elevation of roof, N and S, showing the exactness of the ridge.

NOTES OF THE MICROSCOPE OF THE MONTH.

THE Quarterly Journal of Microscopical Science reports Dr. Burdon-Sanderson's "Report of Researches Concerning the Intimate Pathology of Contagion," from the appendix to the thirteenth report of the Medical Officer of the Privy Council. This is perhaps the most important paper in the journals of the current month, and is of sufficient general interest to warrant our making special extracts from it. The question Dr. Burdon-Sanderson seeks to solve is that of the "origin, growth, and development of micro-organisms, to investigate the conditions which are

fatal or favourable to their existence in the liquid and gaseous fluids by which we are surrounded in the hope that by so doing we may be enabled to approach one degree nearer to an understanding of their influence on the processes which go on in the living body." Into a question which arises out of this, that of spontaneous generation, the author does not enter. "Of micro-organisms themselves he gives a complete account. They have, he says, been placed by most naturalists in the animal kingdom, taking each next after man. Some, however, regard them as plants, but this, save as it bears upon their origin and development, is of no practical importance. They grow either in liquids or in solids. In liquids they present different appearances as they are observed in the depths or on the surface. In the former case they show no tendency to assume any special arrangement so much as if they are motile, nor if they are active are their movements governed by any mutual relation. In the latter case, though they individually show indefinite arrangement when they first appear, they soon place themselves in such manner as to form a membrane, the beginning of the "bacterial ocean." In this when it at first appears, each rod stands vertically, one end forming part of the free surface, the other part of the deep surface of the membrane. They adhere together by their sides after the manner of the elements of columnar epithelium, but there is reason to believe this union is not direct.

When common micro-organisms grow on solid surfaces, they with their intervening jelly, sometimes form viscous masses of sufficient size to be copiously by the unaided senses, these masses consisting of a material similar to that of the ocean before referred to.

In these spheroidal masses, and indeed whenever micro-organisms occur in a gelatinous matrix, we observe fact of growth, at which the particles are indistinctly motile and spheroidal; around them are rows of nuclei, already nucleated and disintegrating, which are inhabited by staff-shaped micro-organisms of larger size, which eventually become free and display their proper movements. It therefore seems probable that bacteria contain distinguishing substance, not as rods, but as spheroids. Subsequently they multiply by subdivision. Dr. Burdon-Sanderson is chiefly opposed to the abiogenesis theory of bacterial origin, and chiefly grounds against his words being understood other than that the jelly matrix is expanded to the smallest particles of it, and that being thus organized, and only then, it possesses the power of reproduction.

Of the chemical composition of micro-organisms our author says but little is known. As regards their action on the liquids in which they live, the most important facts are—1. That their growth is attended with absorption of oxygen and discharge of carbonic acid. 2. That they are remarkably independent of the chemical constitution of the medium, provided they are supplied with oxygen; and—3. That they take nitrogen from almost any source which contains it, and use it for the building up of their own protoplasm. It is this last power which marks them out as the producers of, if not the producers of putrefaction.

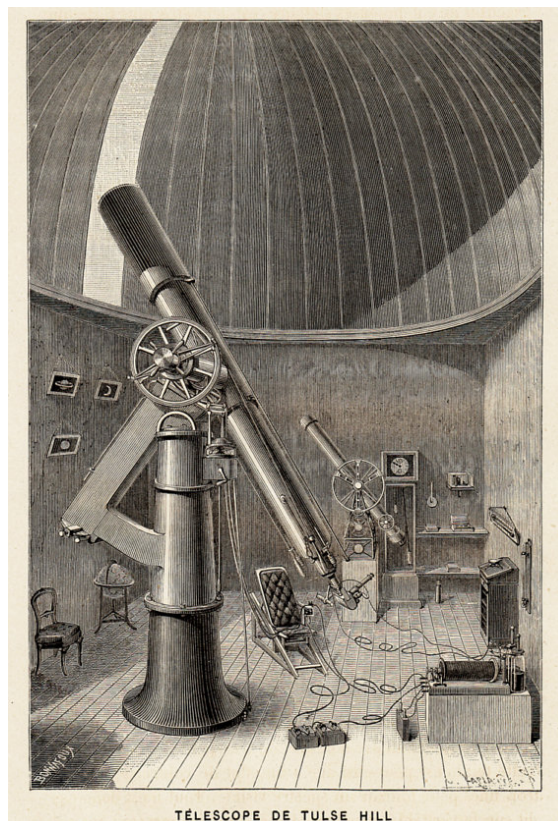
The necessity of a supply of oxygen is so great that they cannot grow over a short time without it, and they are able to use up nearly the whole of the oxygen in any air supplied to them. There seems reason to suppose that bacteria do not use the organic material on which they feed until it has been converted by oxidation, or by splitting, into lower chemical combinations.

Dr. Burdon-Sanderson recounts numerous experiments to prove that bacteria are competent to create putrefaction under certain circumstances, but agrees that there are no grounds for stating that but for them the process would be postponed indefinitely.

Our author gives at great length notes of his experiments with suspended water, but our space will not permit a transcription of them at this moment.

We must postpone until another occasion some account of two very important papers in the same journal; the one by Mr. Shiley in which he discusses on "The Coloring Matter of Blood Spikes;" the other by Mr. H. Roy Leachman, on the "Red Blood Corpuscles, chiefly with regard to the action of the gases and vapours." This last paper is especially worthy the attention of our physiological readers, and will not well bear abridgment. Mr. Shiley discusses on "Circulation"

\* This is perhaps enough to mark that out of it.



**Examples of amateur observation rooms from the 1870s**  
(National Maritime Museum)

## The Coopers

Dr Bangay sold Belmont in 1896 to another GP, Dr Joseph Harry H Cooper, who in turn became Lyme's doctor. In 1944, his widow Margaret Cooper bequeathed the house jointly to their sons Harry and Kenneth Cooper.

After the 2015 TV series *Restoring Britain's Landmarks*, which followed the restoration of Belmont, we received this letter (5 Nov 2015) from Mrs Hilary Sweet Escott, who now lives at Beaminster, giving her memories of the house during the Coopers' tenure.

'My family has a long connection with Lyme. My father was brought back from India as he could not stand the inferno heat of the hot weather. He lived with an aged grandmother and maiden aunt at Tivoli, now Buena Vista, Hotel, a few houses below Belmont. Life was a bit tedious for a small boy, but the bright spot was when he went to play with Harold Cooper in the Tower [at Belmont]. They were both interested in things mechanical. Harold had a 'workshop' cum playroom [in the tower]. Dad must have spent many happy hours there. I have no recollection of telescopes being talked about, though we had one about 3' long with a tripod.

'Many years later in 1945, my father who was I.C.S. brought me back to England to put me into school....my mother Mary Johnston and Margery Small rented the flat at Belmont so they could care for Granny in her dying days. The 'flat' was the suite of rooms overlooking the drive. The summer of 1945 was wet and cold, and the flat was cold and dark, there were so many trees in the drive that needed cutting back. Dr Cooper used to take pity on me aged 13, taking me out in his dinghy which he kept in the Cobb. We went mackerel fishing, he with a line attached to his big toe. The boat was kept in the drive in winter. In his working days as Lyme's doctor he took out Dad's tonsils on the kitchen table with no anaesthetic!

'The Cooper family consisted of Dr Cooper, Mrs Cooper (deceased) [sic] Harold, Phyllis and Kenneth. My aunt Constance was a good friend of Phyllis, she must have looked after Dr Cooper. Harold worked with 'Anglepoise' lamps. Kenneth only had one eye as he had trodden on a mine. Phyllis had a horse (she kept it in the field which is now the car park), she called it 'Slip-en-me-Lad' which it certainly did.

'My memories of the house are minimal, it was rather dark with bead curtains. The garden had lots of small flower beds with paths running in between. I was sent off to school...I think I never visited Belmont again, it was very run down and neglected.'

The letter is of particular interest in confirming that Dr Cooper was also a GP, suggesting that Dr Bangay deliberately sought a replacement in selling on his house. The 'flat' however must have been suite of rooms in the wing added by Dr Bangay on the east end of the house, since the flat at its west end nearest the car park that existed when Landmark took the house was not built until the 1960s.

In 1959, the house was sold to Dr Frederick & Mrs Drene Raynham. A 1962 rating valuation survey described the house thus:

'In 1890 would be among the best houses in L. Regis – little alteration or adaptation since. There is a separate entrance to a flat used by owner's son – some doors seem bolted or capable of being bolted but it seemed from the general set up that it was only 'flat' by name, the rooms being accessible by passages & door from the main parts of the house. Except for the 'flat' area the whole place is antiquated, large useless spaces with lack of natural light, full size billiard room and table used as an apple store, outbuildings all poor. The overgrown and poorly tended garden sloping toward the Marine Parade & Cobb would offer fine views in spring and summer. Two large rooms on the ground floor and on the 1st can claim a fair amount of good natural light & counteract the ancient atmosphere of adjacent useless spaces & dark rooms.'

Despite the fact that the house had been listed Grade II\* on the basis of its Coade association in 1953, but perhaps understandably given the above description, the Raynhams proceeded to knock down most of Dr Bangay's extensions, creating a flat on the footings of a conservatory along the west elevation, accessed from today's dining room (it is not clear whether this is the flat referred to in the valuation survey).

The Raynhams seem not to have spent much time in Lyme themselves and their plans to renovate the house were only partially realised, if at all. In 1968, Belmont was sold to Elizabeth Fowles, wife of the author John Fowles.



## John Fowles (1926-2005)

'In the arid terrain of the 1970s he was an oasis of daring and brio. This book is a paeon to the power of pure story-telling – and perhaps also to its dangers....'<sup>35</sup>

John Fowles, one of the late 20<sup>th</sup> century's greatest novelists, owned Belmont from 1969-2005. Unlike Mrs Coade, and far more so than for Dr Bangay, we know a great deal about his life since he kept detailed journals from 1947 until 1998, published in two volumes in 2003 and 2007. We can hear his voice in interviews online, including the *Desert Island Discs* episode he recorded in 1981. His international literary renown kept him in the public eye; and Fowles gave his biographer Eileen Wharburton open access to his (then unpublished) journals and literary papers, and to other family members, for her exhaustive and readable biography *John Fowles: A Life in Two Worlds*. What follows is the briefest outline of his life.

To put John Fowles's life in context, his novel *The Magus* was a feat of imagination that took the reading public by storm when it was published in 1965. It also brought Fowles under academic scrutiny from an early stage in his career. This was not something he resisted. He acknowledged that his fictional works were transmutations of his own experiences of people, nature and life, and was fascinated by the interior process that brought his writings into existence. He called this the 'ethnology of the novelist', the study of the living behaviour in the artist, and he records his thoughts with an honesty that can sometimes make the reader feel uneasily voyeuristic. 'Nature, art, then life as it is lived' was his creed.<sup>36</sup> He was also a man of his own time, especially in his attitudes to the role of women. If reading his journals and interviews, a man, and sometimes a marriage, are all too nakedly and uninhibitedly revealed, we must remember that they are made so with Fowles's open consent and as part of his creative process.

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<sup>35</sup> Sebastian Faulkes on John Fowles & *The Magus* (The Writer's Table, Waterstones May 2008 – 'books that have inspired and shaped Faulkes writing.')

<sup>36</sup> 30th July 1972, *Journals*, Vol. 2, p. 123.



**John Fowles in the garden at Belmont in 1985. Fowles took deep interest in the natural world.**

His works, however, are there to be enjoyed as engrossing fiction. Fowles stepped forward in the 1960s and 70s as an important bridge between literary modernism (which rejected traditional forms and expressions of art and religion as an inadequate response to a fully-industrialised world, and sought entirely new forms of expression) and post-modernism (which, albeit critically and sceptically, re-acknowledged the validity of preceding forms as justifiable inspiration). He was a proponent of the literary style known as 'metafiction,' in which the author's voice is used as a literary device used to make the reader aware that what they are reading is a constructed fiction. In *The French Lieutenant's Woman*, for example, Fowles's own voice is regularly heard as author interjecting observations and historical perspectives from our own time, posing questions about the relationship between fiction and reality, often with irony and self-reflection. Fowles's own erudition and interests, and the way he folds them integrally into his texts, are very much part of the richness and enduring fascination of his novels.

Highly influential on the modernist strand of Fowles's work and life was the existentialism of French philosophers and authors, Jean-Paul Sartre and Albert Camus. Existentialism emphasizes individual existence, freedom and choice: humans must define their own meaning in life, alone in an indifferent and irrational universe. Meaning can be given to the 'absurdity' of existence only through the rational decision to act in an irrational universe. Fowles studied these philosophers while at Oxford in the 1950s and while he did not embrace their ideas uncritically, they informed his own view of the world. And for him, 'The most important questions in life can never be answered by anyone except oneself.' 'Being an atheist,' he told *New York Times Book Review* in 1998, 'is a matter not of moral choice, but of human obligation.'<sup>37</sup>

Fowles was born in Leigh-on-Sea in Essex the son of Gladys and Robert Fowles. It was a conventional, suburban middle class home. Robert Fowles had trained a lawyer and spent three years in the trenches of Flanders during the First World

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<sup>37</sup> *The New York Times*, 31 May 1998.

War. After the war, Robert became responsible for five young half-siblings as well as the children of his brother and the obligation of raising an extended family dutifully forced him into the family trade of tobacco importing rather than returning to legal practice. He married Gladys in 1925, and John Fowles was born the following year.

Fowles was brought up by Gladys and a young cousin, Peggy Fowles, who was 18 years old at his birth and became his close companion for ten years. Fowles went to Alleyn Court Preparatory School, where Richard Jefferies' *Bevis: The Story of a Boy* became a favourite book as a child. He was an only child until he was 16 years old, when a sister, Hazel, was born. In later life, John Fowles often expressed rejection and rebellion against the conventionality of his childhood – 'I have tried to escape it ever since' – yet its material security and even its narrow horizons must have in part enabled and nurtured the inner world and tenacity that eventually led him to pursue his writer's craft.

In 1939, as war broke out, Fowles won a place at Bedford School, a boarding school a two-hour train journey north of Leigh. Fowles was a pupil at Bedford until 1944, and stood out as an able and athletic pupil, becoming head boy and captain of the cricket team.

When he left school in 1944, Fowles was sent to Edinburgh enrolled for a Naval Short Course, for a commission in the Royal Marines. He completed his training on 8 May 1945 - VE Day. So escaping active service, he was assigned instead to Okehampton Camp on the edge of Dartmoor for two years. Through all these years, John Fowles's lifelong love of nature and need for restorative solitude were already apparent.

After completing his military service in 1947, Fowles took up his place at New College, Oxford, initially to read French and German, although he soon dropped German to concentrate on French. Fowles responded to the heady intellectual atmosphere, but not uncritically, as he was also undergoing a sense of alienation. Upon leaving the marines, he wrote, 'I ... began to hate what I was becoming in

life—a British Establishment young hopeful. I decided instead to become a sort of anarchist.’<sup>38</sup> Such feelings were intensified as he encountered the works of the French existentialists, where he found resonance with his own emerging views of existence. He began to think that he might like to be a writer, but left Oxford with no concrete plan.

He then spent a year at the University of Poitiers, which further developed his enduring love of French literature. At the end of that year, he received two offers: one from the French department at Winchester School, the other ‘from a ratty school in Greece.’ It was representative of his mindset that Fowles ‘went against all the dictates of common sense and took the Greek job.’ It was to be a turning point for his personal and professional life.

In 1951, Fowles took up the post as an English teacher at the Anargyrios and Korgialenios School of Spetses on the Peloponnesian island of Spetses (also known as Spetsai). Among the other teachers was Roy Christy who had a wife, Elizabeth, née Whitton, and a two year old daughter, Anna. Elizabeth was tall and beautiful, from a modest background in Birmingham. It was an intense and happy period for Fowles: he and the Christys became friends, and he and Elizabeth fell in love, although the affair remained unconsummated while at the school. In 1953, Fowles and Christy were dismissed and the three returned to England with Anna.

The next years were messy and complicated. Elizabeth and John were by now having a full blown affair, with little Anna a pawn in the difficult triangle. Roy Christy was unwilling to divorce Elizabeth. Fowles, meanwhile, did not want the encumbrance of a child, insisting that Elizabeth choose between him and her daughter. He took up a position as lecturer and a sort of master of ceremonies at Ashridge College of Citizenship in Berkhamstead, a Gothic Revival mansion in beautiful grounds where paying groups of businessmen, Americans and young ladies from finishing schools came for residential cultural courses.

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<sup>38</sup> *Time* magazine interview, 7 November 1969.



It was a cushy job: luxurious surroundings and a stream of A list celebrity speakers that Fowles was required to entertain and put at their ease. Elizabeth remained in London, struggling to make ends meet and hold down a series of inconsequential jobs, the couple only seeing each other at weekends.

Fowles meanwhile fell into successive, obsessive if unconsummated flirtations with two girls attending the colleges, going for moonlit ramblings and listening to harpsichord concerts. His relationship continued with Elizabeth throughout, however, and their often tortured correspondence revealed her as his true soulmate. Roy Christy finally agreed to a divorce and in April 1954, Elizabeth and John were married. Anna, at this stage remained with her father, to Elizabeth's distress.

The Fowles moved to Hampstead and for nearly ten years, Fowles taught English as a foreign language to students at St. Godric's College, an all-girls secretarial college. He and Elizabeth lived in cramped bedsits, impecunious and mostly, though not always, happy. Fowles was writing intensely on successive drafts of what would become *The Magus*, transmuting his experiences in Spetses and Ashridge into a romantic thriller that is a great feat of psychological story telling. Several early drafts were scathingly rejected by publishers; Elizabeth, who read much of his work, became his sternest, and therefore perhaps most helpful, critic.

Late 1960, Fowles also began working on another novel, *The Collector*. This story, about a lonely young man who collects butterflies and becomes so obsessed with a young girl that he drugs and kidnaps her in the hope that she will come to love him, told in two halves from both protagonists' viewpoints. *The Collector* was accepted by publishers Jonathan Cape and published in 1963 to popular and critical acclaim on both sides of the Atlantic. Its instant success meant Fowles was paid so handsomely for the paperback rights that he was able to give up teaching and devote himself full-time to writing.



**Top: Underhill Farm in the 1960s. Fowles wrote in the shed to the left of the house (below), surrounded by shelves of 18<sup>th</sup>-century New Hall china, which he loved. He too owned a telescope.**

Against his publisher's advice, though with perhaps characteristic earnestness, Fowles insisted that the second book he would publish should be *The Aristos*, a non-fictional collection of fragments and essays on philosophy, while he continued to refine *The Magus* (a final title that was a long time in coming).

*The Magus* tells the story of a self-centered young Englishman, Nicholas Urfe, who, over the course of a magical summer on a Greek island is led by a mysterious, magus-like man called Conchis and by his own swirling emotions for seductive young women, to discover sometimes frightening truths about himself and the nature of life. The reader, like Nicholas, is often unsure about the difference between truth and fantasy in the tale, as Fowles plays with Jungian and mythological archetypes. When published in 1965, it became a defining novel for a generation and brought definitive financial security.

In 1965 the Fowles left London, and moved to Underhill Farm, under the Undercliff just outside Lyme Regis, seeking solitude while still keeping a toehold in London in a flat in Hampstead. John Fowles had a writing room in a hut alongside the somewhat dilapidated farmhouse, where he wrote surrounded by his collection of 18<sup>th</sup>-century New Hall china and, in unlooked for synergy with Dr Bangay, a telescope by his side. Underhill has a dramatic setting, but also a threatening one, as Fowles records in a meeting with old Mr Bowditch 'who has lived here for fifty years...A purple-faced old man with a curious double-bridged nose...' "The land courts the sea here," he says, "'Tis sidling land." I could have embraced him for that first splendid metaphor.'<sup>39</sup> Today, progressive landslips are slowly destroying Underhill Farm.

It was a productive time. Fowles was working on a screenplay for *The Magus* and it was at Underhill that he wrote the novel for which he is now perhaps best known to the public, *The French Lieutenant's Woman*. Set in Lyme Regis in 1867, the book tells the story of the turbulent relationship between Charles Smithson and Sarah Woodruff.

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<sup>39</sup> *Journals* Vol. I, p.647.

Smithson is a leisured young gentleman engaged to Ernestina Freeman and apparently heading for a conventional Victorian marriage; Sarah Woodruff is an outcast in the town, a mysterious woman emotionally scarred by the betrayal of a French lieutenant who had promised to marry her, placing her beyond the pale of Victorian social mores.

However, the Fowles, especially Elizabeth, found Underhill lonely. 'Total solitude gets a bit monotonous,' said Fowles. In September 1968, two days after he sent the manuscript of *The French Lieutenant's Woman* to his editor at Cape, Tom Maschler, Fowles put in an offer on Belmont. It was, he wrote in his journal 'the most attractive house in the place, really.'

The film of *The Magus* was also released in 1969, but this is one of Fowles's achievements best confined to history and absolutely failed to live up to the magic of the book. When Woody Allen was asked whether he would do anything differently in his life if he had the opportunity to do it all over again, he famously quipped he would do 'everything exactly the same, with the exception of watching *The Magus*.'

When the Fowles moved into Belmont, it was in a parlous state. It had been owned since 1959 by a Canadian couple, Dr & Mrs Raynham, who had been largely absent. They had converted the conservatories on the west of the house into a flat; the rest of Dr Bangay's Victorian mansion had been un-lived in since they had bought it from Dr Harold Cooper and was in a bad way. A 1962 rating valuation report was scathing:

*'In 1890 would be among the best houses in L. Regis – little alteration or adaptation since. There is a separate entrance to a flat used by owner's son – some doors seem bolted or capable of being bolted but it seemed from the general set up that it was only 'flat' by name, the rooms being accessible by passages & door from the main parts of the house. Except for the 'flat' area the whole place is antiquated, large useless spaces with lack of natural light, full size billiard room and table used as an apple store, outbuildings all poor. The overgrown and poorly tended garden sloping toward the Marine Parade & Cobb would offer fine views in spring and summer. Two large rooms on the ground floor and on the 1st can claim a*

*fair amount of good natural light & counteract the ancient atmosphere of adjacent useless spaces & dark rooms.'*

The Raynhams' response was to demolish most of the late Victorian additions, leaving just two large rooms in the western gable range and an ugly stump of the east gable as a utility area. This was despite the fact that house had been listed as early as 1953: the listing description records that 'The whole of the enrichment is in Coade stone...graded II\* for this reason and for the fact that it was built for Eleanor Coade.'

As taken on by the Fowles, there was still a huge amount of work to be done, although they initially approached the project with some relish. Fowles spent the first night there alone in Dec 1st 1968, and registered 'the feel of the house, almost a gratitude that something is going to happen after its ten empty years. It has a kind of female feel, this Belmont, I don't know why; a bit of an old whore, with its splendid façade and all the mess that lies behind the façade rooms.'<sup>40</sup>

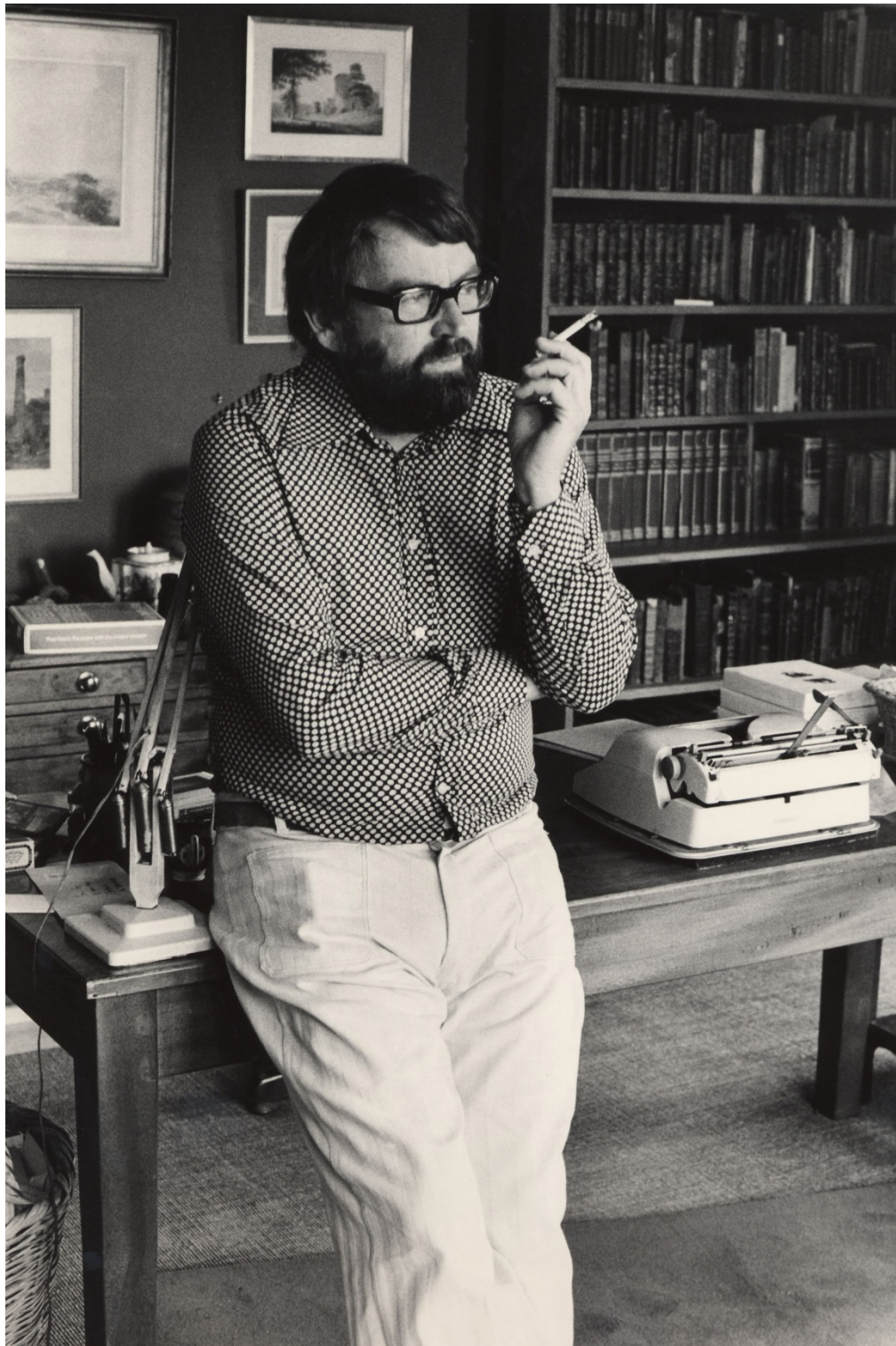
As the months progressed, both would become depressed at times by the attrition of repairing and then maintaining an old house. For the first four months, they lived in the flat annexe. The house had to be completely rewired, the walls were damp, the drains leaked, the stables were collapsing and there was no central heating or adequate kitchen. 'A plank of sound wood becomes a kind of miracle' as Mr Quick and his builders moved in, imagined by Fowles as poachers and smugglers, 'the whole thick underworld of Lyme; very rich and unstudied,' he wrote in a letter of 9<sup>th</sup> December 1968. There was no heat until the following March; a newly repaired ceiling collapsed under the weight of snow. Gales, 'the worst in Lyme's recent history,' blew down trees.

Gradually, order was restored. Fowles was especially excited by the garden, 'full of terraces and lost corners' with thirty years of brambles choking Dr Bangay's and then Dr Cooper's exotic plantings. The garden would be both an enduring delight and a distraction from his work to Fowles. He never succeeded in entirely conquering it, but always delighted in the flora and fauna it sheltered.

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<sup>40</sup> *Journals*, Vol. 2, p.55.





**John Fowles in 1974 in his writing room on the first floor at Belmont. He finalised the proofs of *The French Lieutenant's Woman* and wrote several of his best known works.**

Fowles made the first floor sitting room his writing room, lined with shelves of books and his beloved New Hall china, with its views over the Cobb, the sound of his typewriter keys drumming away through the house. He corrected the proofs of *The French Lieutenant's Woman* here and it was published in 1969.

The novel once again found immediate critical and popular success. An American book tour followed, cementing a passion for Fowles in the United States that persisted for the rest of his life, even if the somewhat puritanical Fowles was repelled by the druggy culture of the 1960s. Since then, *The French Lieutenant's Woman* has been translated into many languages, and established Fowles's international reputation. It was adapted as a feature film in 1981, directed by Karel Weisz, the screenplay this time by Harold Pinter, one of the century's most acclaimed playwrights. The novel, partly at Elizabeth's suggestion, has alternative endings, and the screen adaptation plays cleverly on Fowles's metafictional approach by making it a film-within-a-film, playing out a parallel relationship between the supposed (and actual) actors who play Sarah Woodruff and Charles Smithson, Meryl Streep and Jeremy Irons. The shots of Sarah's hooded figure standing on the Cobb staring out to sea must count as among the most iconic of cinematic history. The film was mostly shot in Lyme Regis and the south west, and the Fowles were at the heart of the process, although there is relatively little about the filming in the *Journals* as published.

Fowles lived the rest of his life at Belmont. His works *The Ebony Tower* (1974), *Daniel Martin* (1977), *Mantissa* (1981), and *A Maggot* (1985) were all written here. In 1977, he reworked *The Magus*, again providing an alternative ending. Belmont was once again a sociable house in the 1970s and 80s; passing friends and students remember warm welcomes. From her mid teens fully reconciled with the couple, Anna Christy spent school holidays at and Belmont, and in 1974 her wedding was celebrated by a large gathering of family and friends in the garden.



**John and Elizabeth Fowles sitting outside the kitchen at Belmont in the 1980s.**

(Private collection)

Mary Scriven, a young mother Fowles met on the beach, became his secretary, 'a treasure,' typing up his proofs and revisions at Belmont, often to tight deadlines and initially on a manual typewriter until he took pity and ordered her an electric one. She remembers his kindness to her, and that he once brought a sprig of jasmine for her desk.

From 1978 to 1989, Fowles was curator at the Lyme Regis museum, latterly in partnership with Liz-Ann Bawden. He was fascinated by local history and the forgotten nuggets of knowledge to be found in the local archives. Founded in 1901 by Thomas Philpot in honour of his aunts, who were fossil collectors and friends of the great self-taught Lyme fossil hunter Mary Anning, the museum had become run down by the 1970s. John Fowles brought new life and ideas, as well as money from his royalties. According to curators there, while Fowles always pretended that acquisitions were funded by the Friends of the Museum, they were in fact his own purchases, which added considerably to the museum's collection.

John Fowles annual curator's reports are a goldmine of snippets of information for local historians (a full run of these can be found in the Landmark bookcase). His scholarly labels for the museum exhibits are still peppered throughout its displays, where some of his (and Elizabeth's) oral history interviews with elderly local residents can still be heard. Fowles published his own *Short History of Lyme Regis* in 1982, and was ever generous in lending his name and forewords to the publications of local authors. He supported the project to preserve the tiny island of Steep Holm in the Bristol Channel (visible from Woodspring Priory on a clear day) and nurtured rare Steep Holm peonies in the garden at Belmont that we hope to re-establish. He occasionally intervened in matters of local preservation. He also struck up a regular and enthusiastic correspondence with architectural historian Alison Kelly, who was conducting a major study into the life and works of Eleanor Coade.<sup>41</sup>

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<sup>41</sup> This correspondence was deposited by Sarah Fowles at V&A Museum Archives in Olympia.





**John Fowles writing room in 2007 when Landmark acquired Belmont, two years after his death. The New Hall china, now bequeathed to Lyme Museum, is again in evidence.**



In 1985, Fowles provided a chip from one of the Coade gateposts at Belmont for Kelly for analysis under an electron microscope by Dr Ian Freestone of the British Museum, the first time such analysis had ever been done (Dr – now Professor – Freestone’s brief 1991 article on his findings is appended to this album).

For all this, John Fowles became an increasingly reclusive figure during the 1980s. He began to feel alienated from his public persona as literary star. Both his and Elizabeth’s health was failing – they were both heavy smokers - and he resented the advancing years.

The couple could not do without each other (Fowles never learned to drive, for example) but Fowles’s journals record the tensions of their relationship with often painful honesty. Knowing him better than anyone, Elizabeth was ever his most insightful, if sharpest, critic and often felt frustrated in her own life as the sacrificial enabler of his profession as writer.

In February 1988, Fowles had a mild stroke. It affected his balance, and his journals became his only writing activity. His perception of life was as acute, and as acerbic, as ever. Elizabeth herself was increasingly unwell, until in February 1990, she was admitted to hospital and found to have advanced pancreatic cancer. She died just two weeks later.

Fowles was devastated and there is a sense that his next years were spent adrift without a mooring. It is no coincidence that his published journals end in 1990. He never smoked again. He could not cope with a solitary life in Lyme, and it was at first suggested that Sarah Smith, the daughter of Leonora Smith who was an old friend of John and Elizabeth’s in Lyme, might leave a London job in advertising that she disliked, and relocate to live in the Belmont flat to housekeep for him. Sarah declined.

Fowles, by now in his mid-sixties, still yearned for female companionship, and there followed a couple of intense friendships with women, the first, almost immediately, with an Oxford student in her early twenties who took advantage of his financial generosity and, sensationally and uncharitably, brought his letters to



**Sarah Fowles (née Smith) at Belmont in 2007. Mrs Fowles's mother Leo was a close friend of John and Elizabeth Fowles.**

her into the public domain by putting them up for auction in 2008. Fowles wrote about these friendships in his journals and letters with an intensity similar to that he had poured out at Ashridge forty years earlier. Here indeed is the 'ethnology of the author.' In 1991, he sold his literary papers, except his journals, to the Harry Ransom Center at the University of Texas at Austin.

The journals were archived at Exeter University, where he intended to continue to work on them. He found his early 'priggishness' disconcerting at times, but remained adamant that 'the value of past records must lie in the writer's honesty about what he was, not what he is. I don't want to cosmeticize the corpse of my own past.'

By 1996, Sarah Smith was becoming ever closer to him and in 1997 she bought a cottage across the carpark from Belmont and became an increasing part of his life, helping him with his literary engagements and commitments, while keeping up her own busy life in London. On a literary tour of America in 1998, Fowles asked her to marry him. John Fowles and Sarah were married that September, and his world increasingly revolved around her. They were happy together, and she shielded him from his own increasing confusion.

Sarah also encouraged Fowles's hopes for the future of Belmont, which he set down in a memorandum of wishes in 1999. He wrote:

*'I have always been very happy here in Lyme Regis, I suppose not quite westward enough to satisfy the truly fastidious, yet also not remote enough from London to be completely outrageous....I sometimes tell people that my affection for this area is so great that it has become for me like some sort of shrine or church. It has taught me a great deal about who I am and what the world is, and I have always liked the thought that perhaps those who come after me might also gain from the experience of it and indeed in all the countless dilemmas the pursuit of their chosen art has given them....The usual destiny for large houses and gardens in Lyme these days is to be bought up as hotels. I am determined to avoid this; and hoped that the house and two-acre garden (large by local standards) may have some kind of permanent educational function.'*

The Fowles approached various institutions – New College, Oxford, the University of Texas, Exeter University - and looked at setting up a John Fowles Literary Trust to provide the necessary funding, since none could commit to taking the house without an endowment. At one stage, it looked as though the University of East Anglia might take Belmont on as a conference and study centre, through the agency of Fowles's longstanding friend Christopher Bigsby, Professor of American Studies, but again the lack of an endowment proved a stumbling block.

Finally, Sarah suggested the Landmark Trust, having had links with Lundy in the 1960s. Landmark holiday use, she thought, might be able to take the house on without an endowment while also being able to fulfil at least some of Fowles's aspirations for access for other writers. Landmark visited several times in 2003 and 2004. Architecturally speaking, and from the outset, it was the Coade connection that most interested Landmark as a buildings preservation trust. There was also talk of Belmont being left to Landmark as a bequest, although Fowles's own faculties by this stage were increasingly vague.

John Fowles died of heart failure in hospital in Axminster in November 2005. When his will was read, it was discovered that Belmont had not been explicitly left to Landmark and that we would now be required to purchase it if we were to acquire it. This placed Landmark in a difficult position. However much we wanted Mrs Coade's villa, the trust has no dedicated funds to purchase its buildings, especially one that, despite dire need of major cyclical maintenance at that stage, was not really at risk of survival in Landmark's terms. There was an impasse. Just as a definitive decision had to be taken, Landmark received a large and serendipitous financial bequest from Mrs Joyce Hanson, another Dorset resident. Landmark's Trustees agreed that, in the light of the Coade connection but also as the only way that John Fowles's own wishes for the house could be fulfilled, the purchase of Belmont was an appropriate use for these funds. The purchase from Sarah Fowles completed on 1<sup>st</sup> June 2007.

Every year, two study breaks are offered at no charge to creative writing students, at the time of writing from the University of East Anglia, to fulfil Fowles's wishes that other writers might also benefit from his home. We hope many Landmarkers too will sit and write in his writing room, once Mrs Coade's drawing room, with its lovely sea view over the Cobb.



### A note on the books in the Landmark library at Belmont

In John Fowles's day, many of Belmont's rooms were lined with bookshelves. Fowles was a lifelong bibliophile and collector. At his death, Sarah Fowles placed his entire collection up for sale through Charles Cox Rare & Antiquarian Books and Maggs Bros of London. It would not, in any case, have been practical for a Landmark to house and curate such a large collection of books, but this sale at least generated a meticulous and comprehensive three volume catalogue of Fowles's book. A copy of this catalogue has been bound and is on the Landmark shelves.

With reference to this catalogue, we have also gathered a larger library than is usual in a Landmark of this size, in an attempt to reflect John Fowles's literary legacy and interests as well as the rest of the history of the house. We aim to gather copies of all Fowles's works, and many of the books on the shelves are copies of titles he owned himself. In the weeks before Belmont's completion, a visit was made to Charles Cox at Treglasta in Cornwall to buy what we could of the books that, ten years after Fowles's death, remained unsold from his collection. It is a particular pleasure that some of the books on the shelves bear his Reynolds Stone bookplate or blind circular stamp, and some even his annotations.

Outsize books and most of the children's and astronomy titles are in the small side cupboard in the sitting room.

## Scientific Analysis of Coade stone

### SHORT COMMUNICATION

## Forgotten but not lost: the secret of Coade Stone

Ian Freestone

FREESTONE, I. 1991. Forgotten but not lost: the secret of Coade Stone. *Proc. Geol. Ass.*, **102**(2), 135–38. Coade Stone was widely used as a decorative building material in the Georgian Period, and its success has been attributed to some secret process or formula. Analysis using optical and scanning electron microscopy with energy dispersive x-ray analysis has shown it to be a stoneware ceramic made from well-known and readily available raw materials. A formula for artificial stone which was published in 1850 gives a similar composition, so that the mystery which is associated with the material is unlikely to be justified.

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### 1. INTRODUCTION

Coade Stone was widely used to embellish the neo-classical buildings of Britain in the late eighteenth and early nineteenth centuries. It is an imitation or artificial stone, a ceramic with a creamy or off-white appearance making it an excellent complement to the widely used pale limestones. It had a high reputation in its day, and pieces were commissioned by many leading architects. The outstanding quality of the designs and the technical achievement implicit in their execution are still recognised. In addition, Coade Stone also shows a remarkable resistance to weathering so that it is frequently very well-preserved relative to both contemporary works in natural stone and the later terracottas of the Victorians. Its qualities and the apparent inability of others to match them have caused its production to be regarded as something of a mystery. The idea of some secret process or ingredients is well established and widely repeated, most recently in these *Proceedings* by Thomas (1990) in her review of the building materials of West Dorset.

Mrs Eleanor Coade became proprietor of her artificial stone manufactory in Lambeth in 1769. Over the following seven decades an extensive repertoire of architectural ceramics was produced. It included plaques, medallions, statues, vases, capitals, and the keystones and associated rusticated blocks of Georgian doorways such as those still seen in Bedford Square, London. One of the best known pieces of Coade Stone is the lion on Westminster Bridge but there are many equally impressive examples such as the pediment of the Royal Naval College, Greenwich and the screen of St George's Chapel, Windsor. Fig. 1 shows the *River God* in front of Ham House, Surrey, a large piece some 3 m in length. The definitive work on the history and use of Coade Stone has recently been published by Alison Kelly (1990) and this includes many excellent photographs and a comprehensive gazeteer which lists the many examples known.

Some years ago, we undertook the analysis of a

piece of Coade Stone provided by Miss Kelly. Although the results were published, they are unlikely to have been encountered by geologists with an interest in building materials (Freestone Bimson & Tite, 1985). Furthermore, improved SEM facilities and understanding of the composition of post-medieval glass have allowed refinement of our original description. Here I summarize the conclusions which suggest that the production of Coade Stone owed a good deal more to practical skills than to secret ingredients.

### 2. SUMMARY OF ANALYTICAL RESULTS

The Coade Stone sample was examined as a polished thin section in the petrological microscope and in the scanning electron microscope (SEM) using back-scattered electron imaging, now standard techniques in the examination of materials of archaeological and historical interest (Freestone & Middleton, 1987). Oxide compositions were determined using energy dispersive X-ray spectrometry in the SEM.

The main components of the material may be seen in the SEM photomicrograph (Fig. 2). The fine-grained matrix contains SiO<sub>2</sub> at around 60%, Al<sub>2</sub>O<sub>3</sub> around 30%, TiO<sub>2</sub> ~ 1.2%, FeO ~ 1.4%, MgO ~ 0.5%, CaO ~ 1.4%, Na<sub>2</sub>O ~ 1.3% and K<sub>2</sub>O ~ 2.8%. This is close to the composition of a ball clay, with Na<sub>2</sub>O and CaO a little on the high side (Holdridge, 1956). This ceramic matrix shows extensive vitrification (partial melting) due to the effects of the firing. Refiring experiments suggest that the firing temperature was in the range 1100–1150°C.

In the matrix can be seen angular fragments of crushed glass. These are calcium silicate rich and correspond to the expected compositions of the common bottle glass of the period (Cable & Smedley, 1987). They are devitrified and appear to have lost most of their alkalis which have diffused into the surrounding matrix, enhancing the vitrification of the clay. Also present are large angular grains of crushed flint, up to about 1 mm diameter, and abundant grains of very fine quartz sand, around 0.1 mm. Less

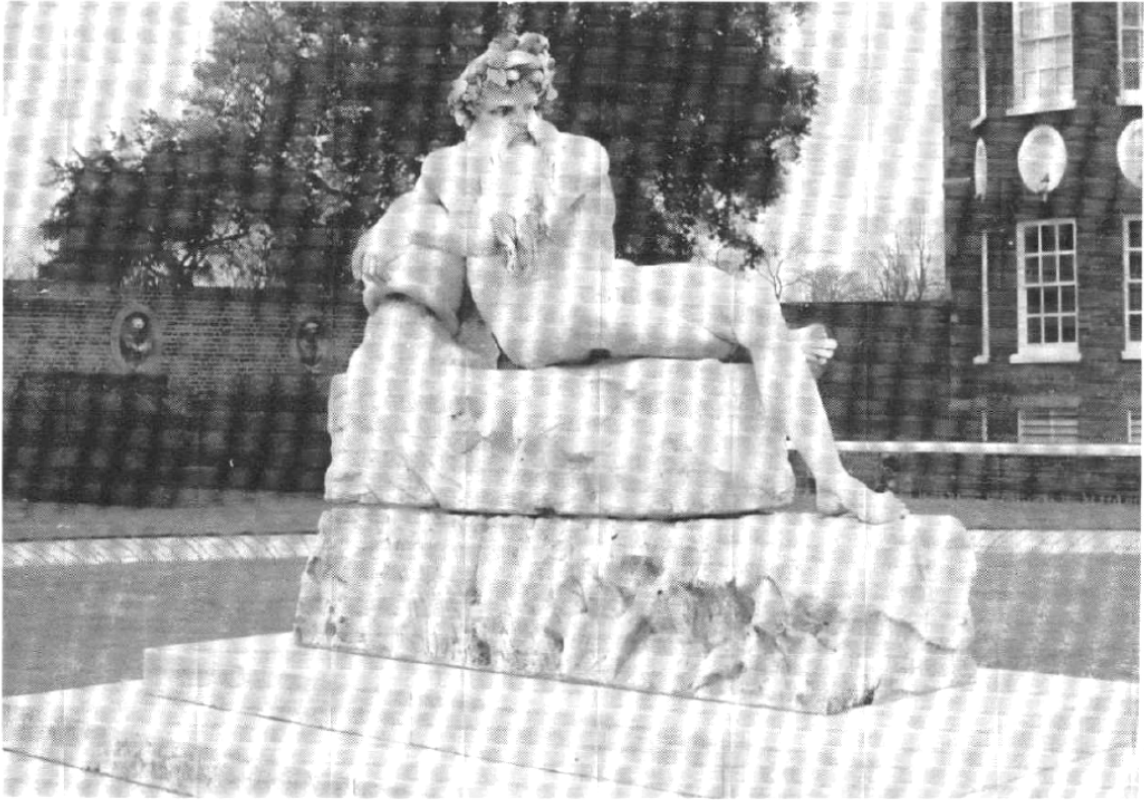


Fig. 1. The River God, Ham House, Surrey. Coade Stone *circa* 1800. (Photograph by Miss A. Kelly).

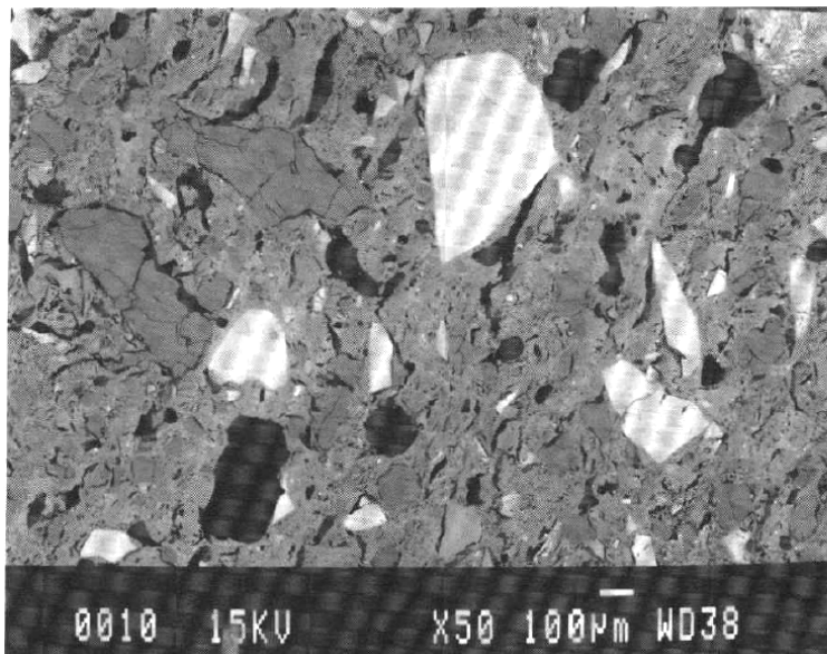


Fig. 2. SEM photomicrograph of Coade Stone. White angular fragments = glass; grey, coarse angular fragments = flint; fine sub-angular particles = quartz sand; black = voids. Careful examination of the photograph, e.g. just below top right, reveals several more dense and vitrified areas which represent grog.

apparent in the SEM photomicrograph, but clearly observed in thin section, are grains of *grog*, previously fired ceramic which has been crushed and mixed with the clay. These *grog* particles are denser and more vitrified than the matrix suggesting an earlier firing at a substantially higher temperature or for a substantially longer period. They have essentially the same composition as the Coade matrix and in ceramic terms correspond to fragments of a stoneware.

### 3. DISCUSSION AND CONCLUSIONS

The analysis indicates that Coade Stone was prepared from a ball or pipe clay, to which crushed glass, *grog*, very fine sand and crushed flint were added. We estimated earlier in the region of 20% of these non-plastic additives (Freestone *et al.*, 1985) but the improved back-scattered imaging now at our disposal indicates that this figure should be put closer to 50% (Fig. 2). The advantages conferred by these included materials were several. Firstly, they reduced the shrinkage of the clay body when it was dried and fired by about 50% (*cf.* Kelly 1990, p. 56). Secondly, the *grog* and the glass were not strictly inert. While the inclusions of sand and flint are not well bonded to the ceramic matrix, the already vitrified *grog* has clearly reacted to a greater degree. The glass particles bonded strongly and in addition contributed additional fluxing agents ( $\text{Na}_2\text{O}$ ,  $\text{CaO}$  and  $\text{K}_2\text{O}$ ) which increased the degree of vitrification. Normally the addition of *inert* non-clay inclusions substantially lowers the strength of a ceramic body but in the present case this effect will have been substantially counteracted by the fluxing properties of the materials used. Finally, the high proportion of included material gave Coade Stone a coarseness of texture which more effectively mimicked natural stone than did more typical ceramic fabrics (Kelly, *op. cit.*).

Coade Stone is a dense, hard, high-fired ceramic more akin to stoneware than to the red terracotta favoured in the Victorian period. Its success very likely owed something to the formulation of the body which, as discussed, was highly suited for its purpose. Even with this advantageous material, however, it would have been necessary to exercise careful control over the preparation and mixing of the ingredients, the details of the structure of the pieces, such as joins and wall-thicknesses, and over the firing process itself, which is reported to have lasted for four days and nights (Kelly, 1990). The durability of Coade Stone, which has so often been remarked, is due to the low porosity and physical strength of its vitrified body as well as its chemically resistant composition, consisting

of some 90% alumina plus silica.

It is far from clear that the ingredients and formula of Coade Stone were inaccessible to contemporary craftsmen. Mrs Coade herself at one time advertised her stone as 'lithodipyra', a name based upon the Greek for 'stone twice fired', an allusion to the presence of *grog* and glass in the body. Such a hint to the major components of Coade Stone does not suggest an obsession with their secrecy on her part. Sand and flint were common ceramic components, while the use of *grog* in specialised ceramic bodies already had a long history, for example in ceramic refractories (Freestone & Tite, 1986). The addition of glass is less well documented, but the eighteenth century was a time of considerable experimentation with ceramic ingredients with a view to the production of porcelain. Recently, crushed glass, very similar in form and composition to that in Coade Stone, has been identified in the bodies of crucibles excavated at the workshop of the late seventeenth century experimenter John Dwight and also in mid-eighteenth century porcelain from the recently excavated manufactory at Limehouse (Freestone, unpublished). Thus the components used in Coade Stone were not novel and are likely to have been familiar to Georgian ceramists.

Whether or not the formula of Coade Stone was commonly known in the late eighteenth century, it was widely available by the mid-nineteenth. Charles Fowler, writing in the *Civil Engineer and Architect's Journal* for 1850, notes that a number of manufacturers of artificial stone were using the Coade formula at that time. Furthermore, he gives the recipe for artificial stone as 'white potter's clay forming about one half; pulverised stoneware from one-third to one-fifth; ditto glass, from one-fourth to one-ninth; and some add, for finer purposes, a small portion of white Reigate sand and powdered flint, about one-tenth part of each'. The foregoing corresponds very closely to our analysis of Coade Stone and it appears that by this time, about ten years after the Coade manufactory itself ceased production, the formula for the material was well known and quite widely used. In the intervening period it has been forgotten. It seems that the 'mystery' of Coade Stone is itself something of a myth.

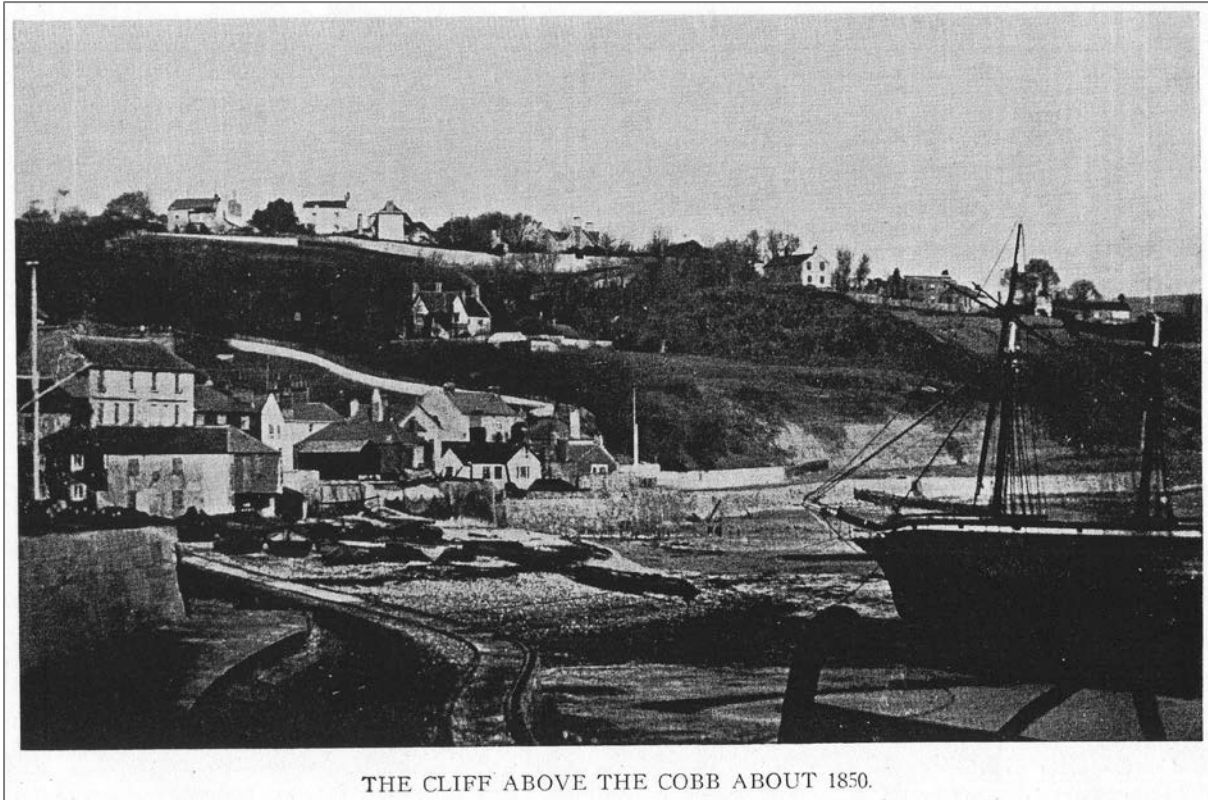
### ACKNOWLEDGEMENTS

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Early images of Belmont

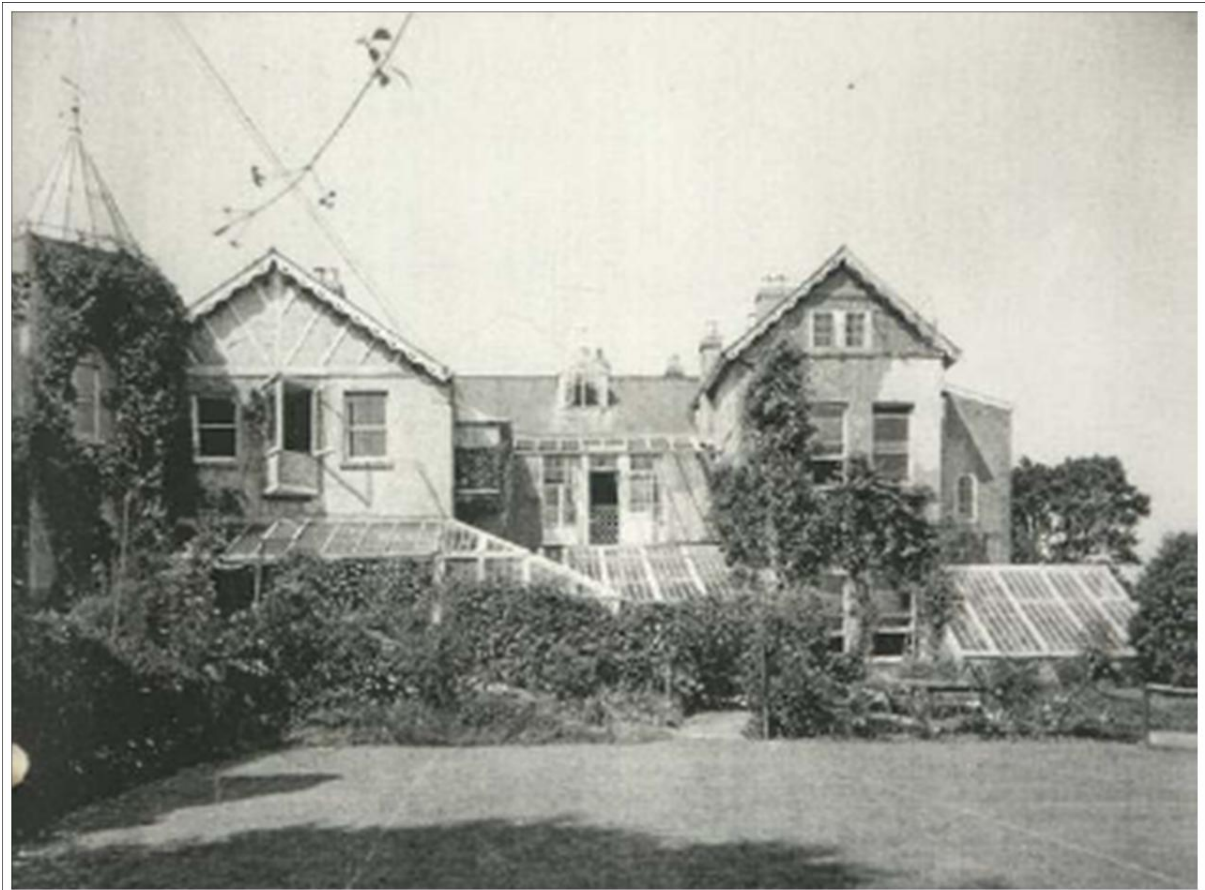


**This photo is the earliest known image of Belmont (first house on the left on the escarpment). It shows the house before Dr Bangay's extensions and so formed a crucial part of our confidence that, in combination with the archaeological evidence, we could restore Belmont to its Regency form. (Cyril Wanklyn, *Lyme Regis: A retrospective*, 1927 edition.)**



**Though grainy, when enlarged the form of the house with its veranda can be made out, together with service lean-to's on the east elevation.**





Two photos from the mid-20<sup>th</sup>-century showing Dr Bangay's 1880s conservatories and extensions at their full extent. Note the first floor projecting link connecting the first floor of the gable with the sitting room.





**A 1948 photo of the front elevation of Belmont reveals that the house was more or less encased in vegetation front and back.**



**The rear of Belmont in 2007.**



Belmont as it was at Landmark's acquisition in 2007



**Today's ground floor bedroom in 2007, with the Coade fireplace as it had been relocated (now reinstated in the sitting room) and no partition wall to the hall.  
Below: today's dining room.**







The rear parlour had become an open thoroughway to the 19<sup>th</sup>-century extension.



The view through from the rear hallway to the later extension, as knocked through during the 20<sup>th</sup> century, with the partition wall beneath the cross beam also removed.





The first floor sitting room was Fowles' s writing room. The fireplace had been boarded over.





**John Fowles's collection of 18<sup>th</sup>-century New Hall china lined the walls of his writing room. It was bequeathed to the Lyme Regis Museum.**





**In 2009 in support of our planning applications on the basis of the evidence, architect James Hall drew these impressions of what the restored building might look like.**

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## The Restoration of Belmont

### Philosophy of repair

At the beginning of every project, Landmark undertakes extensive archaeological and documentary research to understand the building and arrive at an overall philosophy of repair, against which to calibrate the many decisions once on site. Depending on the building in question, a range of (often overlapping) approaches present themselves: conservation as found, restoration, reproduction, new build. Our role as an organisation also means that we must prioritise the architecture and fabric of a building: Landmark use means our buildings can be neither museums nor shrines. The default is usually to conserve, but occasionally the state we find a building has become so it odds with its core significance that conserve-as-found is no longer appropriate.

We soon came to the conclusion that this was the case at Belmont. The house is listed Grade II\* on the basis of its Coade associations, but when we bought it in 2007, this pretty 18<sup>th</sup>-century villa was masked and blurred to the sides and rear by the remnants of the late-Victorian extensions, most of which had been demolished by the Raynhams in the 1960s to make the house more habitable for 20<sup>th</sup>-century life. To either side, these remnants had become ugly utilitarian blocks: on the east side, part of the ground floor of the large added gable had become a utility room; to the west, a poky flat had been added in the 1960s using, it seemed, the footings of the earlier conservatories. To the rear, just two large rooms were left, both with awkward changes of levels internally (the ground floor was never intended to be accessed from the main house but only from the garden). Most of the windows in these extensions had been 'pragmatically' altered to uPVC replacements. Key links to the main house had been altered or lost; none of the additions were 'considered' architecture, or by known architects, and none were noteworthy examples of their period.



Figure 1: Belmont: Phased plan of ground floor

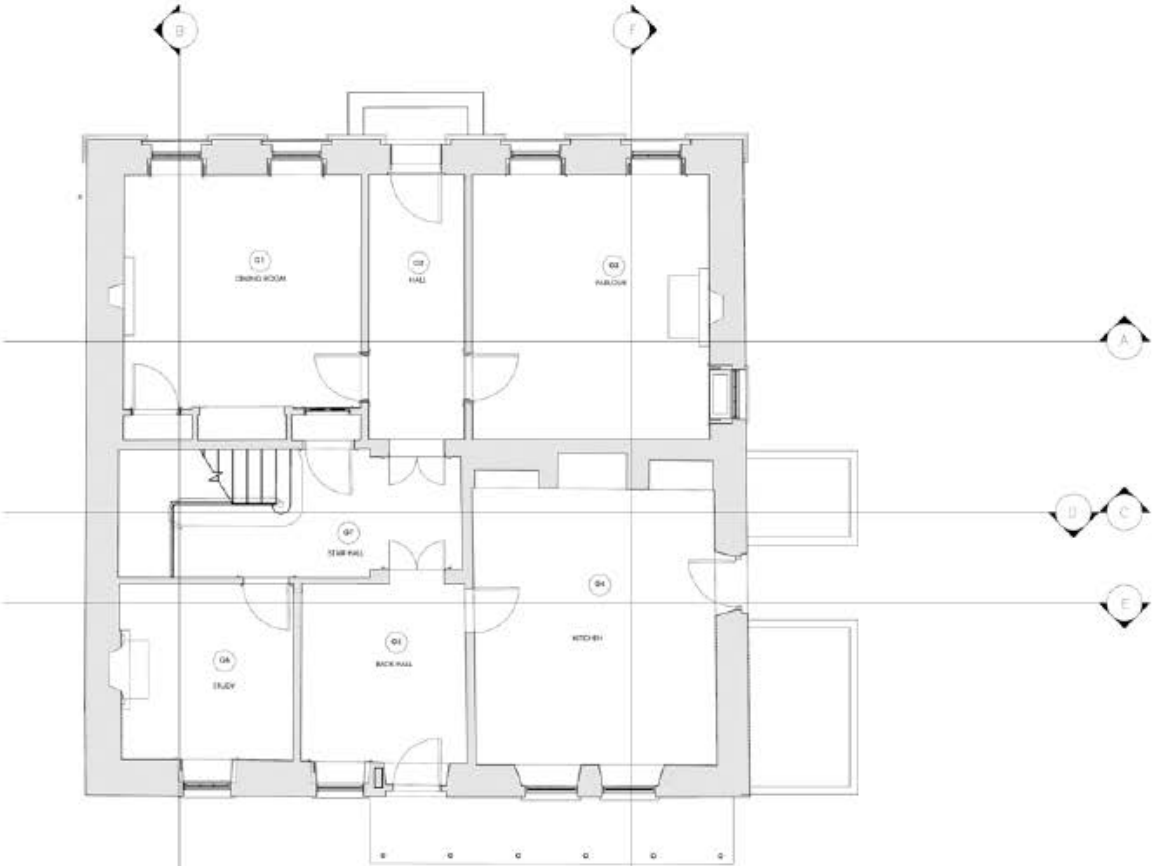


Figure 2: Belmont: Reconstructed plan of ground floor in Period 1-2 (James Hall)



Figure 3: Belmont: Phased plan of first floor; chain lines represent the first floor bridging beams

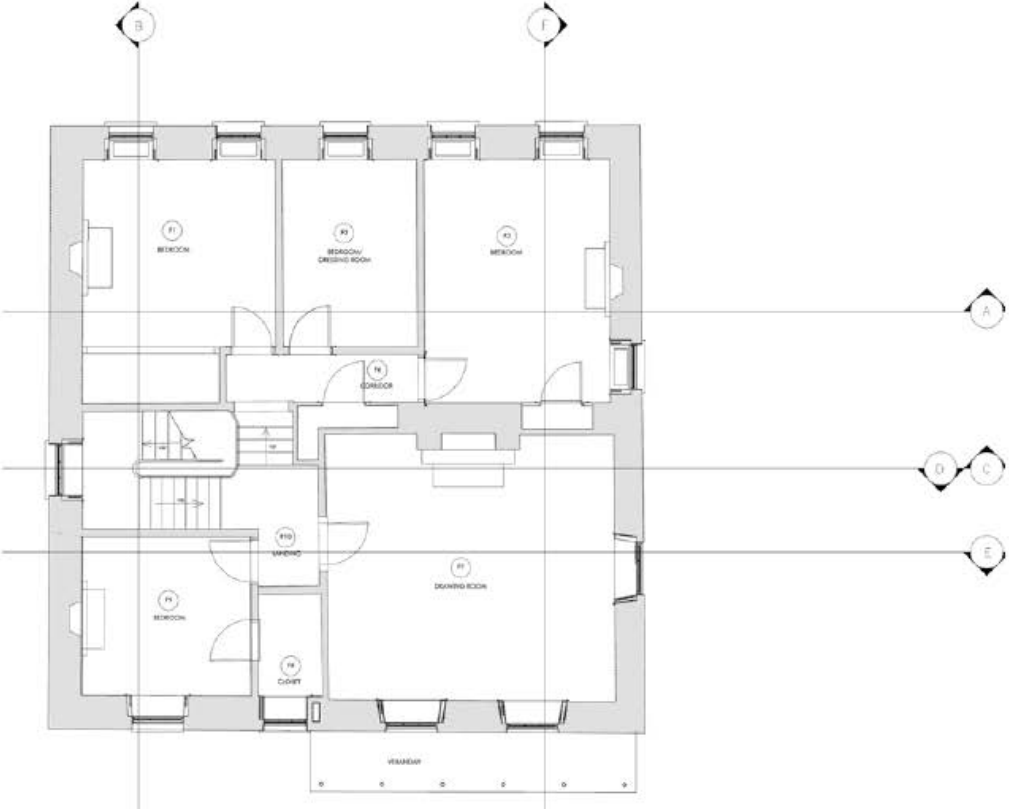


Figure 4: Belmont: Reconstructed plan of first floor in Period 1 (James Hall)





Belmont front and rear in 2013 before work began.

By contrast, the 18<sup>th</sup>-century kernel remained largely intact as a very good example of a Regency seaside villa, in addition to the Coade glory of the front elevation. Building analysis also reassured us that we had all the evidence we needed to reinstate lost features (primarily the rear fenestration).

Dr Bangay's observatory tower was however noteworthy. It is a rare survival of a once relatively common, but often ephemeral and specialised building type, and is an important landmark in the views of Lyme from the Cobb. It therefore warranted conservation.

The John Fowles connection is of course also highly significant, but we came to the conclusion here that his legacy at Belmont was essentially intellectual rather than architectural, and could be preserved in other ways. He was keenly interested in Mrs Coade, but he was pragmatic in his approach to the fabric of the historic home he and his wives inhabited, and their repairs and maintenance reflected this.

All these strands of significance are weighed and discussed in the Conservation Plan for Belmont, commissioned from independent historic buildings consultant and archaeologist Paul Drury, who also worked with us at The Grange. This is a very detailed record of everything known about Belmont's structures and of salient information about its past owners. Working from the objective statements of significance arrived at in the Plan, we therefore defined our philosophy of repair for Belmont as being a return to the character and appearance that would have been familiar to Eleanor Coade. With the help of architects Peregrine Bryant and James Hall, this guided our listed building and planning permission applications, which were duly granted. The philosophy of repair also provided a lodestone for the detail of works on site.

Having got the necessary permissions, it was also decided that the thoroughness of the work done thus far by the architects and the condition of the house meant that this was a restoration that could be masterminded by

Landmark's internal team, rather than employing a main contractor project managed by an architect. Landmark's surveyor for the South West, Carole Paton, was therefore appointed project manager, ably assisted throughout by experienced Landmark craftsmen, Stuart Leavy, as site manager, and Carl Dowding as site supervisor. Carole and Stuart appointed and managed all the subcontractors, as well as two Prince's Trust Foundation apprentices who joined the team for several months from September 2014 and again in January 2015. Six volunteers also gave up their time to take on some particularly time consuming tasks, like fixing lathes and cleaning later paint layers off the cornices and internal Coade stone decoration.

### External restoration

The site was set up in October 2013. Taking down the southern rooms and the large utility room on the eastern elevation began in November (the 20<sup>th</sup>-century flat to the eastern side near the public car park was retained during the early months as site team accommodation). Re-usable floor timbers and cast iron radiators were salvaged for re-use and moved off site for safe keeping. The flat roofed utility room was the stump of one of the Victorian wing and we knew from early maps that this had replaced service rooms of some kind from the 18<sup>th</sup>-century. We found signs of the entrance to a cellar beneath the utility room, but this had been filled in at a previous date. The historic presence of service rooms at this end of the house also justified the construction of the timber clad easy access bathroom and utility room/cloakroom on the same spot.

Winter 2014-15 brought some severe storms to the South West with winds up to 50 mph, but sheeted scaffolding and a shelter roof were erected on schedule and from early in 2014 until November, the whole house disappeared from public view. The parapet urns were removed to the workshop of Coade conservator, Philip Thomason (see below). Internally, the building was extensively propped to stabilise it while structural work was carried out.

We had anticipated the probability that the surface of the local, friable blue lias stone, of which much of the house is built, would have spalled and need some replacement. However, as selective areas of the hard modern render were removed, the full extent of this problem was revealed and gave rise to particular concern on the east elevation. Surprisingly, the west elevation which was revealed later after the removal of the 20<sup>th</sup>-century flat, and where larger problems were anticipated, was not so badly affected, probably due to re-rendering in the 1970s that protected the vulnerable stone.

The front, parapet wall had to be dismantled to just below first floor window height to remove timber lintels and wall plate that had rotted away causing the parapet wall to lean backwards alarmingly. This was rebuilt in brick to mark our intervention, as were all replacement areas. Extensive work was undertaken to the south elevation after the taking down of the Victorian rooms, with the primary window disposition carefully reinstated according to the archaeological evidence. All five window arches on the front elevation had to be dismantled to remove rotten timber and ironwork, which were replaced with stainless steel fixings. Smaller areas of replacement were galleted (small brick tiles set endways into mortar) and masonry ties were introduced wherever necessary to prevent further delamination. In places the external and internal skins of stonework were separating so stainless steel anchors were inserted to tie the whole together. The timber ground used to fix the Coade stone guilloche band was rotten so this timber was removed, and replaced with masonry and stainless steel ties.

Because of the stone delamination issues, we introduced stainless steel flexible mesh 'wrapping' to give added tensile strength to protect the stonework beneath before rendering. This also brought the advantage of allowing the lime render to be sprayed on. Most of the house is now covered in three to five coats of lime mortar, the exception being the front elevation at ground floor level where we matched the existing Roman cement, a highly hydraulic lime identified through analysis.





The northeast corner at first floor level was in a particularly bad way and we had to remove both the render and the Coade stone window dressings and goddess keystone for its repair. The advantage was that we discovered the keystone was dated 1785 and inscribed 'J. Brabham fecit' meaning 'J. Brabham made this.' This is a rare glimpse of a Coade craftsman.



Stone mason Ian Gray repositions one of the vermiculated Coade stone window dressings, now anchored with a stainless steel tie. The vermiculated blocks are cleverly mirror each other in orientation, so that variation is obtained even though they are cast from the same mould.

This 'cement' allows a sharper finish on an otherwise undulating building, and can also be cut back so that it looks like stone, especially when lined out as ashlar. The pink external colour matches the primary shade identified through paint analysis.

Meanwhile, work on the roof was also underway. The roof slates were all stripped: we had hoped to be able to salvage a worthwhile number of slates both from the dismantled south gable and the main roof, but the injected polystyrene foam that had been used as a means of securing failing slates meant that very few came off intact. The foam had also trapped water, resulting in extensive rot to the roof timbers. Steve Spears, our lead carpenter, worked patiently through every roof timber repairing wherever possible to conserve as much as possible. With Wayne Dean, he fabricated a new oak truss to replace the one mysteriously removed in one or other phase of remodelling.

Many of the roof coping stones were found to be 20<sup>th</sup>-century replacements in concrete. The tall chimney stacks were perilously unstable: the stone had literally dissolved away and flue dividers were not keyed into the brickwork. The stacks were re-built and –rendered, such roof works requiring careful sequencing of trades and scaffolding drops. The mismatched chimney pots were replaced with pots of the correct period.

All these aspects had to be repaired, and stone mason and conservator Ian Burgess of Osiron became another key member of the on-site team for the masonry. New coping stones were carved and a new oak roof truss and replacement purlins were instated. The front parapet was partly taken down and rebuilt, carefully leaded behind for added protection and given two new stone sections of cornice carved to match the existing. On the south facing roof slope of the valley between the two ridges, we installed solar heating panels, each the size and approximate colour of a roof slate. Not visible from below, they help heat the water at Belmont. The 'real' roof tiles are Welsh slate.





Removal of the roof tiles underway beneath the shelter roof. Note the ill-advised use of polystyrene foam, 'gluing' the tiles down and preventing air circulation, and also the precarious state of the chimney stack.

Below: leadworker John Watts weatherproofs the verges behind the rebuilt front parapet.

The wrought and galvanised iron veranda is a reproduction of the original feature, working from the 1850 photo and a surviving panel of the original. Paint analysis revealed it was originally painted Brunswick green, which we have matched.

### Repairs to the external Coade stone decoration

#### The parapet urns

The Coade stone urns on the parapet were taken down for safe keeping and repair at an early stage of the site works, and it was instructive to examine these up close. They are hollow, and fired in three pieces, the lid, bowl and base held together by wrought iron rods. When such rods rust, they expand and delaminate, and in two cases this had cracked the lids. The crack on one was repaired using Coade formulation slip and then re-fired. The other lid had delaminated so badly that a new one had to be made. A partially surviving lid had its missing piece re-made and similarly re-fixed with slip and re-fired, to retain as much of the 18th-century fabric as possible. To our great excitement, the underside of one of these cracked lids was inscribed '1782'. Even if supplied from existing Lambeth stock, this provided our first accurate evidence for likely construction date. Another exciting discovery in a wall buttress, but sadly only after the urns had been repaired and reinstated, was a fragment of Coade stone that we think was one of the missing finials from the urns. This is now part of the display in the stable block.

Interestingly, the lids of the two of the urns had also weathered so badly that they needed to be replaced (proving that even Coade stone could go wrong in a poor kiln firing). As for the iron rods, two were found to have spalled so badly in this exposed spot that they looked like an explosion of giant iron filings. Needless to say, stainless steel rods were used to re-fix the urns.





The iron dowels used to pin Coade pieces together can rust and split the work – typically the only reason for Coade stone to fail.  
Below: The frieze is ingeniously designed so that the oak leaf drops disguise the join between the individual plaques.



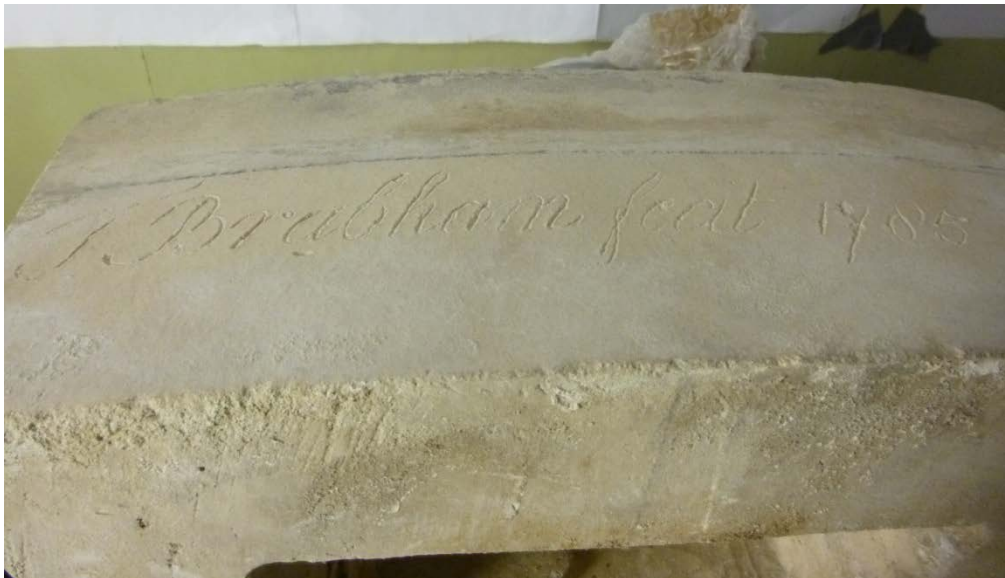




**Above: Stone conservator Ian Burgess re-fixes the frieze onto the repaired parapet.**

**Below: As it imitates natural stone, Coade stone was not mean to be painted, even if today it often has been. We found simple steam cleaning removed the impermeable modern exterior paint from the wall and cleaned the embellishments.**





**Cleaning the Coade stone revealed incredible detail, like Amphritite's lace collar and the dimpled acorn cups. Even more exciting, the goddess we had to remove temporarily from the NE corner was signed in flowing script by the craftsman who made it: 'J. Brabham fecit 1785.' Coade stone is more typically stamped, if marked at all.**

All the Coade stone embellishments on the front elevation and the parapet urns were stained and dirty but fully intact (unlike the stone cornice above them, which was badly eroded). Uncertain how best to clean the Coade stone, we decided to trial the simplest method first: straightforward steam cleaning in situ. This brought immediate and spectacular results, revealing even such tiny details as the lace on the goddesses' collars and the dimples on the acorn cups of the oak leaf frieze tied with ribbons. The decoration is pure Robert Adam and was all the rage in the 1780s. The ceramic Coade stone was left unaffected by the steam, and the technique also worked well on the Roman cement that had been used to render the ground floor.

The Coade stone frieze had to be dismantled and stored for safe keeping during the structural works, and this enabled the technical proficiency of its design to be fully appreciated. The frieze is cleverly designed so that the oak leaf drops hide the joins between component blocks, meaning that a single continuous run is presented to the world.

Neptune had a broken point to his crown and was also taken to the Thomason workshop for repair. The top left Amphritite or sea goddess also had to come down while this corner was being rebuilt (see below) and this revealed an even more exciting discovery: the base was inscribed 'J. Brabham fecit 1785.' Here is a very rare, possibly unique, illumination of the name of one the Coade manufactory craftsmen – not a great sculptor but skilled nonetheless. Here too is further 'post quam' evidence of construction date. The Amphritites are more personalised items and less likely to have come from stock than the urns: Belmont's probable construction date, or at least when it was being finished, is therefore 1785. All the keystones were boxed for protection during the structural works, but as an affectionate reminder of their form meanwhile, lifesize laminated photos were nailed onto the boxes by the site team.





**Left: Project manager Carole Paton repositions a replacement urn.**

**Above: The Coade stone frieze is re-fixed along the repaired parapet.**



**Coade stone craftsman Philip Thomason and Site Manager Stuart Leavy share a joke as they reposition Amphitrite after the repair of the northeast corner.**

The 'vermiculated' quoins are also Coade stone. These are named after the worm casts they resemble (*vermiculus* is Latin for 'worm') and were a common feature in Classical architecture where they were generally used to identify lower status ground floors. They became ubiquitous in late Georgian architecture simply as decorative emphasis. Close examination of those at Belmont reveal how over-symmetry is avoided simply by orientating the Coade blocks one way up along one side of an opening, and turning them the other way up along the other. The front door, its fanlight and doorknocker are all Regency in period. The doorknocker polished up beautifully.





**Top: the winding mechanism on the tower roof was cleaned and reinstated by a group of local volunteers christened the ROBOTS – Restorers of Belmont Observatory Tower.**

**Below: Carl Webster and Stuart Leavy repairing the observatory roof.**

## The Observatory Tower

In May 2014, work began on the observatory tower, now a detached structure and also fully scaffolded. While the winding mechanism remained in situ, work on the roof in the 1960s meant that it could no longer turn. It was relatively straightforward to reverse this to reveal the original Ham stone coping stones below. The decorative cast iron roof railings were cleaned, restored and then simply re-seated in their original housing in the copings. The roof could move again – a hugely satisfying moment for the team.

A group of retired Lyme engineers, who christened themselves the ROBOTs (Restorers of Belmont Observatory Tower) volunteered to get the winding mechanism back in fully sound working order and it was carefully removed for a good clean, reboring and packing the spindle. Once replaced and oiled, the roof was once again rotating. Once the masonry walls of the tower had been closely inspected and repaired where necessary, attention turned to repairing the conical roof.

We were excited to find 'BANGHEY 1881' written in pencil on one of its wooden planks. The misspelling makes it more likely that this was written by a carpenter or the lumber yard than Dr Bangay himself, but this did give us a construction date for the tower. The wooden roof was found to have rotted due to water penetration through its lead covering, so the design of the leadwork was altered and improved to prevent this in future. The weather vane was beyond repair and so a new one was made.

New wooden stairs had to be created for access, since the tower was originally only accessible at first floor level and above from the now demolished bedroom. A different external paint colour was deliberately chosen for the tower compared to the house, to indicate their different construction dates.



After the false start of the telescope procurement captured during the television series, and which need not be repeated here, a simple astronomical telescope has been placed on the top floor of the tower, where Landmarkers can observe the stars through a fixed opening in the roof.

### Landscaping works

As so often with historic buildings, external ground levels had risen at Belmont, especially at the front where the lower plinth had become completely submerged. This meant a later cobbled dressing to the front drive (including '1785' set in pebbles) had to be scraped away.

An unpleasant shock when the 20<sup>th</sup>-century flat was taken down was the discovery that the west boundary wall had no foundations and, as we corrected the ground levels, the walls were stabilised and given a retaining wall. A fragment of iron railing was found embedded in the old wall, raising the interesting possibility that Belmont was once railed around on a low wall, the house sitting proud like a pocket-sized country house amid green paddocks.

Ground levels were also corrected at the rear, where the lawn now echoes the form and dimension of the Regency period garden indicated in the 1824 Survey.

Considerable tree works were necessary front and back, to open up views and cut back undergrowth. We had also undertaken a major programme to eradicate Japanese knot weed. The Land Trust have taken up the management of this area of 'managed wilderness' below the lawn, using volunteers. Sarah Fowles has retained ownership of a strip of ground on the eastern side of the curtilage, as a wildlife reserve; it is our intention too that the whole of the site below top lawn should remain a domain rich in the flora and fauna in which John Fowles took such delight.

At the front, new rendered gateposts were built up on the footings of their originals which we found below ground, and based on the known dimensions of the surviving Coade stone gatecaps and the 1920s watercolour in Lyme museum. One of these original gatecaps, which probably originally acted as stands for tall lanterns, was given by John Fowles to the Lyme museum. The other he kept and is in the stables – neither was reinstated in situ because we felt they would be too vulnerable to damage. Instead, new Coade stone gatecaps were made by Philip Thomason and his workshop. The wrought iron gates were a salvage yard find.

### The stable block

A building is shown on this site as early as 1824, but probably existed from around 1790. It was built against the flank wall of 15 Pound Street next door, as this wall was found to be limewashed inside the stables. However, No 15's flue is of (cheaper) red brick below the line of the stables eaves and yellow brick above, suggesting that the two were contemporary. From the scars on the wall of No 15, the stable block originally projected further towards the pavement. The building probably housed a chaise in the front section, and tackroom in the central section below the stairs. Above was a hayloft and perhaps sleeping accommodation for the groom.

The first horse house from the road had been made a 'loose box' by its additional partition along from the door. The second and third remain 'stalls', in which the horse was tethered facing away from the entrance, by a weighted rope passing through the metal ring fixed on the side of the stall. This allowed the horse some freedom of movement while preventing the rope becoming tangled in its legs. The stable block was altered several times over the decades in a fairly utilitarian way.

As we found them, the stables had hardly altered since the last horse left and in making them an interpretation room, we have tried to retain this atmosphere.

Even so, considerable work was needed to make them sound: the wall plate needed repair as did the roof structure, including leadwork. Joinery repairs were also undertaken and the door onto the pavement unblocked and remade. The repaired partitions and walls were redecorated. The stable block is now an information room open free to the general public on Friday afternoons through the summer season and manned by volunteers.

### Steep Holm Peonies

Another footnote to the garden are the Steep Holm peonies. John Fowles was actively involved with the preservation of Steep Holm, a square mile of tiny granite island in the Bristol Channel, just off the coast from Landmark's Woodspring Priory. Steep Holm is not unlike Lundy geologically, but is much smaller, and home only to rich wildlife and some decaying remnants of WW2 fortifications. Thanks in part to the efforts of Fowles and local campaigner Rodney Legg, the island was opened to the public in 1974 as a memorial to their mutual friend, the naturalist Kenneth Allsop. The statue in the back garden, which can be seen from the writing room east window, was a gift from Kenneth Allsopp to John Fowles.

On the island, and on Flat Holm, an adjacent and even smaller outcrop, grow a colony of wild peonies, *Paeonia mascula* or the Wild Peony. This herbaceous perennial grows 0.5–1.5 metres tall, has leaves of three segments and large pinkish single petalled flowers in late spring and early summer turning to distinctive 'jester's hat' seed pods. Native to the Mediterranean, they are thought to have been brought to the island by early monks and are found nowhere else in Britain (elsewhere, they grow natively around the Mediterranean, where they are at risk from collectors).

To nurture the Steep Holm colony, John Fowles established his own from seed in the garden at Belmont. Unfortunately, we found it impossible to find these peonies in the tangled, overgrown garden, but thanks to botanical Landmarkers, have been able to obtain both a slip and some seeds from plants established on the mainland. We are now nurturing them ourselves, and hope to re-establish a Belmont colony.

A seedling Cyprus pine grown by John Fowles was given to Carole, our project manager, by Sarah Fowles soon after the house came to Landmark. Carole nurtured the seedling and it is now planted in the front border where we hope it will thrive.



**Peonia mascula, the Steep Holm peony,  
and its distinctive 'jester's hat' seed pod.**





**Left: Angus repairs floorboards, retained wherever possible.  
Right: Jim and Steve working on the reinstated stair finial, created from a bedpost.**



**Removing layers of paint from the Coade embellished dado rail on the stairs and from cornices elsewhere was a time consuming and painstaking task, on which we were grateful for volunteer help.**

## Internal restoration

By the end of September 2014, all external masonry and structural works were complete, and the focus turned to internal works. New partition walls were reinstated to return the ground floor to its 18<sup>th</sup>-century floor plan – the wall to the left of the hallway as you enter the front door to create downstairs bedroom (opened to the hallway during the 20<sup>th</sup>-century) and the east wall of the back parlour. An entrance was created to ground floor bathroom by knocking through a puzzling ogee topped alcove, probably formed in Dr Bangay's time in the house.

The large window in the stairwell had been altered at least twice, although its original pulley blocks were found to be still in situ. As we found it, its lower lights had been blocked. The frame was removed and taken to Uploders near Bridport where David Lockyear skilfully repaired it. It was then returned to its original position, confirmed by the lintel ends which were still in their primary position. The stairs themselves had been altered over the years: we re-narrowed the lower flight to reintroduce the open well now seen. The handrail, spindles and curved string are all new. The corn sheaf bottom bannister was created by the workshop at Wormington from an old Regency bedstead. The frieze is of Coade stone, the paterae showing minute female faces within sunbursts. The missing section on the west wall was confirmed by paint analysis to have been moved to flank the front door externally.

The recreation of the back parlour and its doorway allowed the creation of an understairs cupboard, now housing the boiler and hot water cylinder.

Upstairs, an ensuite bathroom and lobby space at the end of the corridor, created in the volume of the end bedroom in the 20<sup>th</sup>-century, were removed, so that all the rooms along the front of the house have been returned to their original dimensions.





**The joinery mouldings in the house represent a careful hierarchy. Scribed profiles were taken to replicate them as necessary.**

**Modern power tools have their place alongside such traditional techniques.**



A bathroom was created in the second room off the upstairs corridor, and a shower room in a former landing area from which a ladder stair formerly led to servant's rooms in the garret.

The 18<sup>th</sup>-century windows on the front elevation were repaired, but elsewhere in the house new windows had to be made to replace later fenestration, including new shutters, shutter boxes and linings throughout. Sashes were then re-hung with their weights. Picture glass was used for a couple of damaged panes on the front elevation; new glass for the new windows on the rear elevation. Bedroom chimney breasts were stabilised.

Large areas of the walls had been plasterboarded in the 20<sup>th</sup> century. This was removed, and the walls re-lathed and plastered. Large areas of damaged ceilings had to be repaired. All this was done using traditional lathes, many of them fixed by volunteers, and then plastered with lime. In the first floor sitting room (John Fowles's former writing room) a later cupboard was blocked. This is now accessed from its original opening off the corridor and forms a linen store.

Profiles were taken for the timber architraves, skirtings and dado wherever necessary and new runs were made by the Landmark joiners at Wormington. A board was created on site to make sure that the complex hierarchy of mouldings was understood by all the carpenters on site and no mistakes were made in the reinstatement work. This board is now in the stables.

The plaster cornice in the drawing room was removed off site for cleaning and restoration, and new lengths were made to replace damaged sections, using a specially created mould. The lengths of plaster were individually prepared to follow the contour of the early and undulating reed ceiling. The plaster cornices in the dining room and ground floor bedroom were cleaned of later paint finishes in situ, a laborious task. The tiny balls in the downstairs bedroom cornice were particularly tiresome, frequently pinged in off in the cleaning process like ball bearings, and having to be found and reapplied.



The paint colours in the house are all on the theme of the colours identified through paint analysis, with the exception of the warm pink in the dining room which was the allowable whim of our furnishings manager.

### Belmont's chimneypieces

Only one original Regency chimneypiece survived in its entirety, in the downstairs reception room that is now the ground floor bedroom. We were very surprised, as were the Coade craftsmen, when paint analyst Catherine Hassall identified its very fine decoration as Coade stone, as indeed was that of the architraves in the first floor drawing room. While the Coade catalogues show that such fine embellishments were created, it seemed surviving originals of such tiny and detailed examples of the formulation had not previously been identified. The delicate Adamesque decoration has a distinctly feminine feel and theme and, when cleaned, revealed incredible nuance of moulding. This can now be especially admired in this chimneypiece's central medallion, of a female figure mourning her dead husband whose Classical armour hangs behind her, which has been left devoid of paint for this very purpose. This chimneypiece is now reinstated in the first floor sitting room, since we soon identified from the discrepancy of the fireplace with its grounds that the ground floor was not its primary position, and that it instead corresponded exactly to the flue surround revealed behind later plaster board in the main sitting room.

The decoration of the chimneypiece in the back parlour was also Coade stone, but this one was missing its top tablet and had been cut down. We knew its height and width but had no motif that fitted the tablet. In the first floor bedroom at the top of the stairs, the mantel tablet alone survived as a mantelpiece without uprights.

Both these chimneypieces were taken to the workshop at Wormington for cleaning, after which casts of the fully revealed decoration were taken. John Evetts and joiner Mark Smitten then took great satisfaction in creating a series

of new chimneypieces to replace the others that had been long since lost using decorative detail from existing pieces. The dimensions of the grounds of the original fireplaces in the dining room, ground floor bedroom and first floor bedrooms were identifiable and new timber chimneypieces created. The side slips to the hearths are fabric found on site (with the exception of the slate slips in the dining room which were created from the remains of the slate header tank at Astley Castle!)<sup>1</sup>

Moulds were taken of all the surviving Coade fireplaces' decoration and were then cast in resin. Individual elements were then used to assemble different hierarchies appropriate to the relative status of the room. For example, the 'politest lady' is reserved for the sitting room; the bedrooms use instead the lion paterae and flower motifs from the back parlour fireplace. All the fireplaces have been gently stippled with one coat of paint only to preserve the crispness of their detail.

The problem of the missing tablet in the back parlour chimneypiece was serendipitously solved when John found the perfect fire grate, whose entwined dolphin motif so closely matches the Coade stone impostes that flank the front door. A mould was taken from the grate, and resin dolphins now perfectly grace the chimneypiece in what the team all like to think of as Mrs Coade's parlour.

There is a postscript to the tale of the chimneypieces. We found a shadow line for the profile of the writing room dado on the door architrave. When joiner Mark Smitten was asked to replicate this, he found he already had the cutters. He had been using them to extend a section of chimneypiece moulding. This piece of moulding we had was decorated with swags and drops, but mysteriously the drops were upside down. The section appeared to be part of the missing dado, and so is what the decoration on the dado is now based, albeit in resin rather than Coade stone.

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<sup>1</sup> The biggest slabs from this tank with the lovely fossil ghosts of giant prehistoric ferns now of course form the outside table at Astley Castle.



Belmont's restoration was achieved by a skilled and hardworking team of craftsmen. By August 2015, their work was almost done.

## Additional notes by room

### **Entrance hall**

A small internal porch was removed. The partition wall to the left of the front door was reinstated, the cill of its door still identifiable below floor level and its head encased above. To the right hand side, the rail of the panelled dado survived. The screen with fanlight facing the door is original and was formerly matched by a similar screen that led to the rear lobby, whose arch remains. We decided not to reinstate this last to keep this central area of the house as well-lit as possible.

### **Dining room**

Dining was identifiable as the original purpose of this room from its primary buffet alcove, which was flanked by closet doors. The closet door nearest the hall was always blind on the dining room side, its existence revealed below later wallpaper during our investigations, with a pencilled '1861' revealing the date at which it was concealed. Its pair opened into the dining room.

To the left of the fireplace, there was a modern doorway, now blocked, that led to the demolished flat. The chimneypiece is our creation after Coade as described above, and replaced a late Victorian one. The plaster cornice and dado rail are original. The shutters are replacements.

### **Ground floor bedroom & bathroom**

This room would probably have been a front parlour originally, perhaps for receiving less intimate visitors less grandly than in the main sitting room. For Landmark today, it fulfils the need for an easy access bedroom perfectly. When we took the house on, a door to the left of the fireplace led to the utility/store room formed out of the stump of the Victorian gable. To the right of the fireplace was another, rather odd ogee topped alcove that we never fully understood, its line cut by the unequivocally primary fireplace. Perhaps it was a



later adaptation of a window looking across the bay, or perhaps of a doorway to the service extensions shown on the 1824 Drayton Survey. A jib door was cut into this alcove; the doorway remains but the alcove as been removed. The window frames cornice and dado rail are original; the shutters and chimneypiece formed part of the restoration as described above. The alcove moulding has been reused in the bathroom to frame the handbasin alcove.

### **Kitchen & utility room**

Lacking any kind of decoration and with the largest flue, this room has clearly been the kitchen throughout Belmont's life. It was also here that we first discovered the evidence for Bunter's Castle, identified by a stud partition (timber framing with brick infill) embedded in its walls and subsequently confirmed at first floor level by lias ashlar above. A door to the east (that we have retained) was later created from a window in the 'castle.' The floor was noted as of stone flags in the 1960s and probably always had been, but they had not survived as it si possible they had been re-used externally for the terrace. The kitchen units were also made at the Wormington workshop.

### **Back parlour**

When we took Belmont on, today's back parlour and the rear hall were one single open space, a rather uncomfortable 'through' area to the large ground floor Victorian room, reached down two steps. Evidence below the floorboards allowed us to identify the original line of the partition wall and the door cill into the parlour, and the position of the south facing window with its sea view (once much more open). The room has therefore been recreated, a snug and private parlour.

### **Main sitting room / John Fowles former writing room**

This large room with its fine sea views is the best room in the house, and was used by John Fowles as his writing room. As we found it, it was lined with plasterboard that also blocked off the fireplace. The plaster cornice is primary; the door and window architraves are Coade. The window cases largely survived

but with large Victorian sashes; the east window did not survive and has been reproduced. The central south windows had been made into doors, and we have returned them to the full height sash windows favoured in the Regency period, which slide into the wall structure to give head height to the veranda by stepping over the cills. The ceiling is primary; we re-lathed and –plastered the walls and introduced the dado rail with its replica Coade decoration. Closets on either side of the fireplace had been ‘turned round’ to open into the sitting room; these openings were blocked and the cupboards returned to their original orientation.

### **Back bedroom & shower room**

This little bedroom had become a rather awkward antechamber to the large first floor bedroom in the demolished Victorian wing, which was accessed as we found it by a rather awkward step up through the opening to a former south window. To compensate for the loss of that window, a new one had been created facing west, with an unfortunately direct view of the public car park. We reinstated the south window and have blocked the later west one. There was originally a small fireplace in the west wall, but the room is so small that we decided this had to remain blocked if it was to function as a double bedroom.

We have created a small shower room in the rear landing, where a ladder access formerly led to (very basic) servants’ rooms under the rafters in the roof space.

### **West bedroom**

The alcove behind the door was no doubt always intended to hold a bed, as it now does again. The fireplace has been recreated as described above.

### **Bathroom**

As found, this room had a connecting door from the west bedroom, and probably functioned as a dressing room. We blocked this doorway for privacy and sound insulation.

**East bedroom**

In the 20<sup>th</sup> century, a bathroom had been inserted at the east end of the corridor with a lobby entrance. We removed these and the partitions to return the bedroom to its original dimensions. Its fireplace was unblocked and a chimneypiece recreated as described above.