The Landmark Trust

SILVERTON PARK STABLES

History Album

Researched and written by Caroline Stanford
May 2008
Re-presented in 2015

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BASIC DETAILS

Built	**c1837-40**
Architect	**James Thomas Knowles senior.**
Patron	**George Francis Wyndham, 4th Earl of Egremont**
Silverton Park House demolished	**1901**
Stable block acquired by Landmark	**1987**
Tenure	**Freehold**
Opened as a Landmark	**June 2008**
Restoration architect	**Allan Konya**
Quantity Surveyor	**Adrian Stenning of Bare, Leaning & Bare**
Site foreman	**Reg Lo-Vel of Landmark**
Asst foreman	**Carl Dowding of Landmark**
Carpenters	**Allan Frost, D E Cottrell, N A Stapleton**
Joinery	**Robeda Joinery of Bideford**
Kitchen & floorlaying	**Mark Smitten**
Masons	**Adrian Pearce, M McLaren, M & R Duthrie**
Painters	**John Bucknall, K P Harris**
Leadwork & drainage	**Ernie Dowding**
Electrical & Mechanical	**Team Technologies Ltd**
Cobbling	**SDS Civils**
Decorative Plasterwork	**Plastercraft Ltd of Bristol**
General plastering	**SJ Warren**
Metal roofing	**JE Gibbings & Sons Ltd of Bristol**
Slate roofing	**Westlake Roofing of Tiverton**
Groundworks & Landscaping	**AJAY Construction Ltd, Bernard Hawkins**

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Key donors were:

An anonymous lead donor

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**We are grateful to all these bodies and individuals, and also to the numerous other private donors who supported our appeal.
Silverton Stables could not have been restored without their help.**

Contents

Summary

Silverton Park Stables is all that remains of a much grander project for this site. Once, to the southeast below the driveway to the stable block, there stood a grand nineteenth-century mansion that was never finished, known as Silverton Park. It was designed by architect James Thomas Knowles (senior, 1806-84) for George Francis Wyndham, the 4th Earl of Egremont (1785-1845) and there is far more to the story than this surviving monumental brick pile would suggest.

Wyndham's uncle was the 3rd Earl of Egremont, an unconventional man who avoided the traditional arranged marriage. Instead, he cohabited happily for many years at the family seat of Petworth House in Sussex with the daughter of a clergyman, Elizabeth Iliffe, known to all as 'Mrs Wyndham.' The children born out of their union were, strictly speaking, illegitimate, and so unable to inherit the title. The Earl's nephew George Wyndham, meanwhile, had been following the career path of many a younger son. In 1799, aged 13, he enlisted as a midshipman in Nelson's navy, and saw action under Jane Austen's brother, Captain Francis Austen, aboard HMS *Canopus* in the Battle of Santa Domingo in 1805. Wyndham rose rather slowly through the ranks to Captain, and retired from the navy in 1825, to live in Reigate, Surrey.

Here he met a young builder and aspiring architect, J.T. Knowles. Knowles was a great advocate for patented metallic cement, for its durability, economy and versatility. In these middle decades of the century when the so-called Battle of the Styles raged in architectural circles, the pragmatic Knowles had scant regard for those who advocated honesty of materials and the pre-eminence of craftsmanship. Instead, he wanted architectural decoration to be available to all and saw in the metallic cement the means to build cheaply and effectively in any locale. Such metallic cements were popular at the time, the 'metallic' element being supplied in this case by the use of ground-up copper slag as aggregate, mixed with lime to provide a very hard hydraulic mix.

Through the 1830s, Knowles gained confidence as an architect for the middling station. In late 1836, the old Earl died and Captain Wyndham, as heir-in-law, became 4th Earl of Egremont. The 4th Earl did not inherit the family seat at Petworth, which went to the 3rd Earl's eldest natural son, nor did he inherit much of the vast wealth of this ancient family. Nevertheless, he embarked at once on a string of ambitious building projects, on which he retained Knowles as architect. First, Knowles adapted Wyndham's Surrey home, Bramley House, but the Earl had also inherited 14,000 acres in Devon and Somerset and his focus of attention soon moved to the West Country. A large Italianate villa was built as the rectory in the village of Blackborough, where the 4th Earl lived initially. Plans were drawn up for a palatial seat to be called Egremont Castle at Blackborough, impracticably placed on a waterless plateau. Soon, however, the Earl settled on the site at Silverton, choosing to erect his ambitious pile around an earlier house called Combesatchfield and diverting the road for greater privacy.

From 1838, Silverton Park mansion began to spring up. It was an extravagant prodigy of endless classical columns and rooms. It was built of brick, but the exterior was faced and embellished with the patented metallic cement, in imitation of stone. Italian craftsmen were brought in to fashion an 'interminable line of ornament' showing the Exodus of the Israelites into Egypt. A later sale catalogue speaks of sixty rooms, but the total is likely to have been far higher, crammed with paintings and antique statues. The childless Earl and Countess must have rattled around inside. Meanwhile, the Earl was borrowing madly from his richer relatives and squeezing his tenants hard for higher rents to fund his grandiose ambitions. He began a quadrangular stable block and coach house to match the grandeur of the mansion, built on a rise in the land. The building accounts do not identify any work on the stables after 1840, and neither mansion nor stable would ever be finished, for the Earl died suddenly in 1845, leaving debts that it would take his descendants another 130 years to clear. His widow lived on until 1876, spending a few months each year at Silverton Park. After her death, the mansion was on the market for many years but the eccentricity of its size and outmoded attempt at Classical design mean there were no purchasers. In 1892, the contents were sold and later the house was sold to breakers, who dynamited it for building materials in 1902.

Only the unfinished stable block remained, an increasingly dilapidated brick hulk that passed into agricultural use. In 1987, it came onto the market again with planning permission to be turned into flats. To prevent this, it was acquired by the Landmark Trust's founder, Sir John Smith. Sir John retired from Landmark in 1990, and for many years Landmark pondered how to restore the stable block. Its sheer scale made both its conversion and funding a challenge. Finally, in 2004, a private donor of particular loyalty and percipience gave a sizeable donation to enable work to begin. Other private and trust donors were then also moved to contribute and, twenty-one years after acquisition, the project was finally completed in June 2008.

The restoration of Silverton Park Stables

The restoration was accomplished in a gradual way by local subcontractors under the guidance of Landmark's direct labour force. The entire building was re-roofed, missing parapets reinstated and the porticos tied back in to prevent structural movement. Later agricultural buildings were removed and all the brickwork re-pointed and reconsolidated. New window frames and joinery were made reproducing the original forms, where these could not be saved. Internally, accommodation for fourteen was created, respecting the original layout as far as possible.

The main carriage entrance to the quadrangle is through the east elevation, through massive wooden doors. These are new, but are hung on the original pintels and are painted a colour that matches the original estate green, found on a fragment of the original doors discovered beneath a flagstone.

Along the left of the courtyard as you enter is the south range, where the only significant changes to the original floorplan were made during the conversion to Landmark accommodation. This was the Earl's carriage house, where his carriages were maintained and stored. It is 'double pile,' having an inner and outer set of parallel rooms. The outer spaces have become the large sitting room and adjoining open plan kitchen. Originally, the spaces on the courtyard side of this range of this double pile range would have been where the carriages were washed down and maintained. They would then have been wheeled through massive sliding doors into two display rooms beyond, where they would have been stored, on wooden floors to protect their iron-rimmed wheels from rust. To allow for a large sunny sitting room, we took down a central wall that originally divided the space into two carriage 'garages.' This also allowed us to open up the central window in the south wall, previously blind because the wall ran through it. We built a wall along the line of the openings into the maintenance rooms on the courtyard side, which would originally have been closed off by the sliding doors mentioned in the building accounts. The line of these openings can be clearly read in what has become the table tennis room on the courtyard side. A flue was built into this new wall to allow the woodstove to be introduced.

To provide access to the sitting room, and also because we felt the kitchen to serve this large sitting and dining room deserved to be open plan, we created a new opening into the room at the east end of this elevation. Set above this opening are two large fragments of the original frieze to the mansion, showing a classicised treatment of the Exodus of the Israelites into Egypt. The original wooden floor for the Earl's carriage house had rotted badly and had to be replaced. Salvaged pitch pine baulk timbers from the London docks were used for this new floor, which used to prevent ships bumping against the quayside.

In the rest of the building, the original floorplan has been more closely respected. In the southwest corner, a former tack room with replacement matchboarded panelling has become a triple bedroom, complete with reproductions of original cast iron tack pegs. An ensuite bathroom has been created in the ancillary tack room that leads off it. Other ironwork has also been carefully reproduced – the recessed ring-and-pushbutton door latches (designed to prevent horses snagging themselves as they passed) and other door furniture.

The building seems to have provided an unusual amount of domestic and sleeping accommodation originally, with two 'houses', effectively, incorporated in the southeast and northwest corners of the block and numerous bedrooms at first floor level, all with their own fireplace. This configuration has enabled us to provide plenty of bedrooms and indeed bathrooms (including ground floor combinations for those of limited mobility) while respecting the original configuration.

The north range, where most of the stabling was, has been left largely as it was found. Surprisingly few horses seem to have been stabled here. While later agricultural use for cattle led to changes in these areas, it seems that a team of four was kept in the stable to the north of the main entrance on the east elevation, then a run of three triple stalls in the north range itself, flanked by small high ceilinged spaces of uncertain function. Stabling three horses together is unusual, unless the Earl favoured a troika, which harnessed three horses abreast. The marks of the former hayracks and stall partitions can still be read in these areas, and also niches for lamps beside the doors into the courtyard. The windows were always blind on both inner and outer elevations, since low-level glazing was not safe in case a horse were to kick it out and injure itself. The north elevation would originally have had a projecting portico to match that on the south elevation but this was removed during the agricultural phase.

The stable yard would originally have been covered with straw that was changed regularly. It was always cobbled but when Landmark took the building on, the surface had become very uneven and thresholds were left exposed. Where necessary, the surface has been carefully lifted, levelled and re-laid. The exact purpose of the central pit is unsure: it may have been part of the drainage system for liquid waste; it may have been a turntable for carriages, or it may have been a simple pond. The well for the stables was in the northwest corner of the courtyard. Considerable landscaping was done to correct the external ground levels around the building.

Today, the stable block is all that is left to remind us of the ambitious plans of the 4th Earl of Egremont and his architect, J. T. Knowles. Yet it deserves its place in history and the Devon countryside, now safeguarded both through the generosity of Landmark's donors and those who choose to stay here in future.

SIMPLIFIED FAMILY TREE
OF THE EARLS OF EGREMONT, 2ND CREATION, 1749-1845

Charles Seymour, 6th Duke of Northumberland
'The Proud Duke'
(1662-1748)

Algernon, 7th Duke of Somerset
(1684-1750)
cr. 1st Earl of Northumberland &
1st Earl of Egremont, 1749

Lady Katherine Seymour m.
Sir William Wyndham, bt.

Charles Wyndham,
(1710-63)
2nd Earl of Egremont

George O'Brien Wyndham,
(1751-1836)
3rd Earl of Egremont

Hon. William Wyndham,
m. Frances Mary Harford

George Wyndham
(1789-1869)
cr. 1st Lord Leconfield, 1859
and inheritor of Petworth House

George Francis Wyndham, RN
(1785-1845)
4th Earl of Egremont
and builder of Silverton Park

The Story of Silverton Park, the Earl and the Architect

The stable block at Silverton Park is all that remains of an early Victorian estate that aimed to be compared with the grandest in the land. From 1837 until his relatively early death in 1845 aged 52, George Francis Wyndham, 4th Earl of Egremont, and his architect James Thomas Knowles set out to build a prodigious house on a remodelled estate. The house was to have been served by a stable block to match its grandiose size – was to have been, since neither house nor stables were complete when the 4th Earl died, heavily encumbered with debt. In 1897, a sale of its contents was held and in 1901, the house itself was dynamited, being judged too tough to dismantle by hand. Only the monumental stable block was left as a memorial to the past activity on the site, an unexpected and strangely romantic presence in the rolling Devon countryside.

The Earls of Egremont and the Wyndhams of Orchard Wyndham

The story of the stable block at Silverton Park begins with the Earls of Egremont, and specifically with the rather unusual domestic arrangements of the 3rd Earl. To understand the ambitions and aspirations of the eventual 4th Earl, builder of Silverton Park, however, it is necessary to go back further into the dynasty.

Both the 2nd and 3rd Earls were great collectors and connoisseurs. The Wyndham family entered the ancient Seymour and Percy line through marriage in 1708 and acquired the newly resurrected earldom of Egremont in 1749. They were of ancient Somerset stock and had given their name to a village in the county called Orchard Wyndham. There had been Wyndhams at Orchard Wyndham since at least the mid-seventeenth century, when the first baronetcy was created. As for the original Egremont title, this was an ancient earldom which dated back to 1449 to the Cumbrian Egremonts, but which became extinct in the sixteenth century. It was revived in 1749 for 7th Duke of Somerset. His father, the 6th Duke, was known as the Proud Duke, a quality he exercised to the point of eccentricity in his multiple careers of courtier, politician, builder and collector. The form of Petworth House owes much to the Proud Duke's remodelling through the

1690s of an earlier house. The architect is not known, but the design seems influenced by the palaces of Louis XIV, the Sun King, and is suggestive of the Proud Duke's own absolutist leanings. The main, state rooms are laid out in *enfilade* along the west front and even today, give the impression of having been conceived in part as a means to display the Proud Duke's collection of paintings and statuary.

Petworth House (west elevation), today owned by the National Trust.

The Proud Duke died in 1748 and his son, 1st Earl of Egremont, outlived him by only two years, dying in 1750. The Egremont title then passed to his nephew, Sir Charles Wyndham, 4th Baronet of Orchard Wyndham, who became the 2nd Earl of Egremont. The 2nd Earl became a great politician through the middle decades of the eighteenth century, having aligned himself with the Whigs, and he too collected obsessively. Horace Walpole placed him among those 'who care not what they give' and whose 'glaring extravagance is the constant high price given for pictures.' The 2nd Earl created a sculpture gallery at Petworth, based on the one at Holkham Hall in Norfolk owned by his friend and mentor, Thomas Coke, 1st

Earl of Leicester, and executed by the same architect, Matthew Brettingham. Holkham is the key to much of the activity at Petworth under the 2nd Earl. While the Petworth stables do not resemble the quadrangle ones at Holkham, by extension and at one stage removed, the famous quadrangular stables at Holkham could have been one influence on the 4th Earl's aspirations for Silverton.

George O'Brien Wyndham, the 3rd Earl, was only twelve when he inherited his title in 1763. He managed to avoid the arranged marriages typical for a man of his station. Instead, he cohabited for years with a clergyman's daughter, Elizabeth Iliffe, with whom he had seven children and who was known as 'Mrs Wyndham.' The Earl was immensely rich and generous in proportion. In his time, the family seat, Petworth House in Sussex, was kept as an open house for artists and friends, 'provided they did not interfere with his habits,' perhaps a reference to his mistresses, for it was said that forty three of his children, with their mothers, also lived at Petworth. J M W Turner too lived in Petworth House for a time, and it formed the hub of a wide social and artistic coterie, for the 3rd Earl too was known as a great patron of the arts.

However, the Earl's offspring were illegitimate, and therefore could not inherit his title, although could inherit his wealth. In 1801, he made an honest woman and countess of 'Mrs Wyndham' by marrying her, although this did not change the legal status of their children born earlier.

George O'Brien Wyndham, 3rd Earl of Egremont.

A son born after their marriage died in infancy, and it seems married life did not suit the couple, since they separated (though did not divorce) in 1804. The question of inheritance of the title was thus left unsatisfactorily at large – unsatisfactorily, that is, to all except the Earl's nearest legitimate heir and nephew, the Hon. Captain George Francis Wyndham. The 3rd Earl's mantle, and indeed that of his great uncle the 2nd Earl, were large ones for Captain Wyndham to live up to. On being elevated from naval captain to earl, Wyndham must have felt the weight of history descending on his shoulders and there is near contemporary anecdotal evidence that Silverton Park was built in part to rival Petworth House. The entrance door for tourists at Petworth today bears a label

pointing out that it has been an entrance for tourists since 1743. Given the hospitable nature of the 3rd Earl's tenure, there can be little doubt that Captain Wyndham would have visited Petworth House, and it may even be that J T Knowles also made a reconnoitre there, given the nature of his commission and client. The long colonnades at Silverton Park, at first thought creating gloomy and unappealing interiors, make more sense as shielding direct light from galleries holding a collection that aspired to rival that of the two of the greatest collectors of recent decades.

The Early Career of George Francis Wyndham

George Francis Wyndham, eventual builder of Silverton Park, was the son of the 3rd Earl's youngest brother, the Hon. William Wyndham, a soldier who left the Coldstream Guards in 1784 to marry Frances Mary Harford, a natural daughter of the last Lord Baltimore, who already had an annulled marriage behind her. Their son George Francis was born in August 1785. This rather racey couple seem to have spent much of their time abroad, and Frances soon took up with another lord – not a very settled background for the little boy. He had two sisters, and a brother who predeceased him.

In 1799, in the midst of the Napoleonic War, Wyndham followed the career of many a youth of similar circumstances and was enlisted, aged only 13, as a midshipman in Nelson's navy. A midshipman was the lowest commissioned officer and the traditional rank for young gentlemen to enter the navy. From Wyndham's obituary in the *Gentleman's Magazine* 2nd April, 1845, we learn that seven years later, he was a still a midshipman. He was now serving on HMS *Canopus*, aboard which he took part in Vice Admiral Duckworth's action off Santa Domingo, under the captaincy of Francis Austen – who was none other than Jane Austen's brother, described by Nelson as 'an excellent young man.' Wyndham's own naval career made a lasting impression on him and indeed seems to have affected his architectural pretensions, so is worth lingering briefly upon it, if only to capture something of his early life.

The *Canopus* was an 80 gun, former French Admiral's ship that Nelson had captured at the Battle of the Nile in 1798. The Battle of Santa Domingo took place in 1805 shortly after the Battle of Trafalgar and is often overshadowed by this more famous victory. Napoleon had crowned himself Emperor of France in December 1804, and prepared to invade England. William Pitt, meanwhile, had concluded the Third Coalition with Russia and Austria and Sweden. Napoleon realized that his enemies were gathering against him and concluded that his invasion of Britain must take place in 1805 if it were to take place at all. He began to hatch elaborate plans by which the British fleet might be tricked and lured away from its position guarding the British Isles. Napoleon's plan was for two of his squadrons to escape the British blockades and sail for the West Indies; the British, fearful of French disruption of their lucrative trade in the sugar islands, would naturally follow. When the French ships reached Martinique, they would rendezvous and promptly sail back to the Channel, which would have been left undefended.

Nelson took 10 sail-of-the-line, including the *Canopus,* and chased the French squadron across the Atlantic, only to find when they arrived in the West Indies that the French ships had turned around and sailed back to France. Disheartened by his failure to stop the French squadron, Nelson took a short shore leave upon his return to England, but soon was ordered back to his command. When the British fleet reached Cadiz on 28 September 1805, Nelson found it was short of supplies, and so dispatched *Canopus* to Gibraltar for water and stores, assuring its command that there was plenty of time to go to Gibraltar and return before the combined fleet took action against the French. In the event, the Battle of Trafalgar took place less than a month later, and so the *Canopus* missed the famous victory.

The decimation of his fleet meant that Napoleon had to abandon his plan of invading England for the time being, and so he decided to try to disrupt British trade in the West Indies in earnest, trade that helped finance the British war effort. Two French squadrons broke out of the blockade at Brest and sailed for

the West Indies. Vice-Admiral Sir John Duckworth, keen for action after missing Trafalgar and by then in charge of the blockade of Cadiz, was despatched with the *Canopus* and five other ships for Madeira. He finally caught up with one of the French squadrons off Santa Domingo in the West Indies. Here the five French ships were all captured or driven on shore, only the smaller vessels escaping.

Captain Austen's official description of the action is reported in his log: 'Five minutes before seven. Enemy's ships are of the line.' At a quarter past ten, he noted, 'the *Superb* commenced to fire on the enemy's van'. By half past ten, the *Canopus* joined the action; 'opened our fire on the first ship in the enemy's line…with one broadside brought her masts by the board…ten minutes to eleven, the dismasted ship struck…Engaged with the three-decker…ten minutes to twelve, gave her a raking broadside which brought down her mizzen mast…'

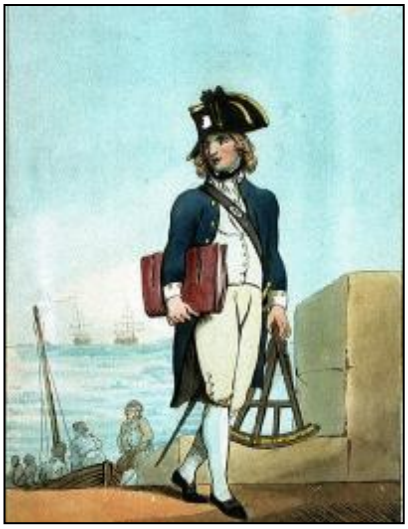
Captain Austen's letter to his fiancée Mary Gibson was a little more descriptive: the first broadside from the *Canopus* 'brought our opponent's three masts down at once, and towards the close of the business we also had the satisfaction of giving the three-decker a tickling which knocked all *his sticks* away.'

The Battle of St Domingo HMS **Canopus** ***Joining the Action*** **(T L Holbrook).**

Duckworth's Action off San Domingo, 6th Feb 1806 **(Nicolas Pocock, National Martime Museum).**

There were heavy losses in the battle with over 1,500 men lost, although the *Canopus* escaped relatively lightly, with just eight dead and twenty two wounded. It seems probable that Midshipman Wyndham owed his promotion in the same year to Lieutenant to his involvement in this engagement, and, like Captain Austen, would have returned something of a hero. In her novel, *Persuasion,* Jane Austen's character Captain Wentworth, 'made commander in consequence of the action off St Domingo, and not immediately employed, had come into Somersetshire, in the summer of 1806,' where he meets and woos the heroine, Anne Elliot. Frank Austen similarly returned to marry his fiancée Mary Gibson (and went on to become Admiral Sir Francis Austen).

Captain Francis Austen



A Midshipman (T Rowlandson)

George Francis Wyndham as a midshipman

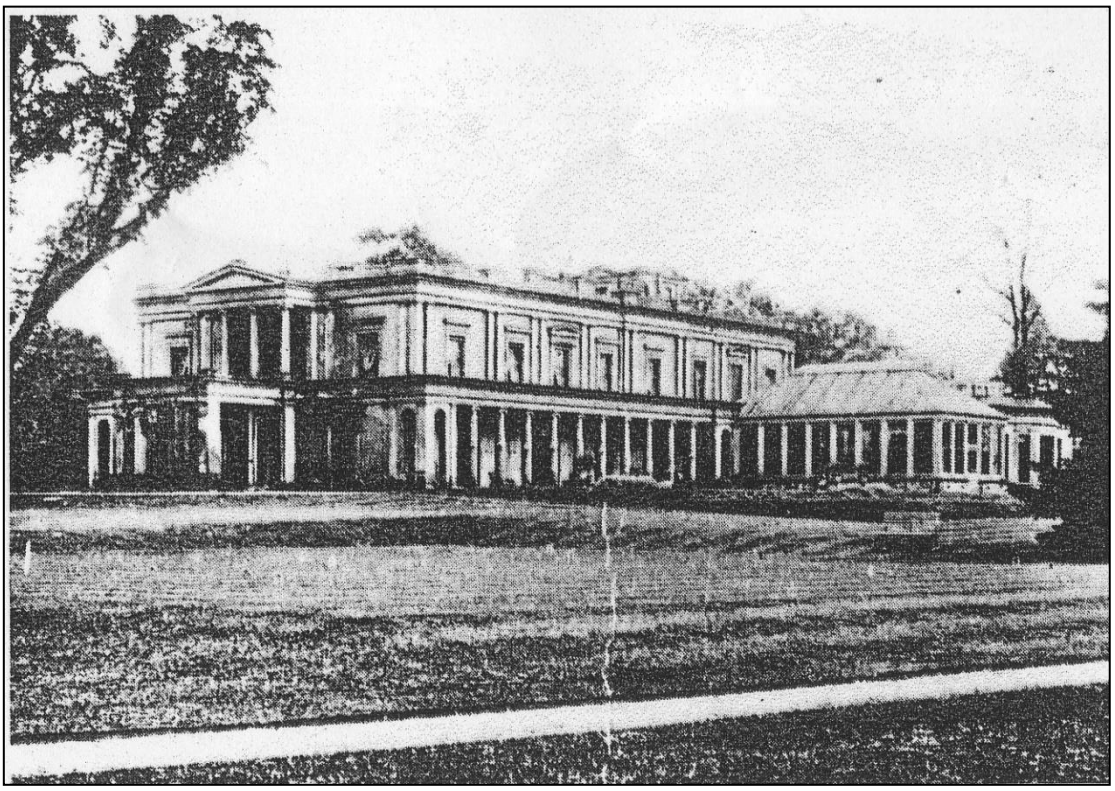
Wyndham's career progressed rather slowly through the Napoleonic Wars: he was made Commander in 1810 of the sloop *Hawk* (a three-masted ship with 14-16 guns) and Captain in 1812, when he commanded a troop ship from 1812-14 in the Mediterranean and at the siege of Tarragona. Family records give the impression of Wyndham being on good terms with his Petworth cousins, of meetings between them in far flung corners of the globe, of snatched encounters on battlefields.

In 1820, Wyndham married Jane Roberts, daughter of the Vice Provost of Eton School, in the chapel at Eton. He seems not to have relinquished his naval career until 1825, at the age of forty. In the same year he acquired Bramley House (or Park) in the village of the same name just south east of Guildford, a house built in the previous century or perhaps earlier.

These would have been years of waiting for the Hon. Captain George Francis Wyndham. His uncle, the 3rd Earl of Egremont, was by now in his seventies. It would have become increasingly unlikely that any other legitimate heir would be born; in the phrase of Rev. Chalk, a Devon clergyman writing in 1910 who rather disapproved of Wyndham, the latter 'had been brought up with great expectations.' The old Earl died, aged 86, in November1836. Wyndham, aged 52, finally inherited the title and 14,000 acres in Devon and Somerset, centred around the family seat at Orchard Wyndham, which had included most of the parish of Silverton since the early eighteenth century. This paled into insignificance compared with the wealth left to the 3rd Earl's eldest natural son, another George Wyndham (1787-1869), who inherited vast mineral wealth from the family holdings in the north as well as the Petworth Estate. In 1859, he was created Baron Leconfield in compensation for his other lost titles. There is an oft repeated thread running through the accounts given of Silverton Park's 4th Earl of Egremont that he resented not inheriting his uncle's entire estate as well as his title, and more of the wealth that benefited his cousins. We have nothing in his own words to suggest such envy, but rivalry with Petworth House is one motive easily imputed for the scale of the architectural project he would soon embark on at Silverton Park.

James Thomas Knowles, architect

First, however, we must return to the house mere Captain Wyndham had bought in Surrey, Bramley Park. Perhaps in impatient anticipation of actually receiving his inheritance, in May 1837 Wyndham knocked it down and rebuilt it as 'a noble erection of Brick and Slate, covered with Metallic Cement, in imitation of Stone…of commanding elevation, and on either side…a long Colonnade.' [1]



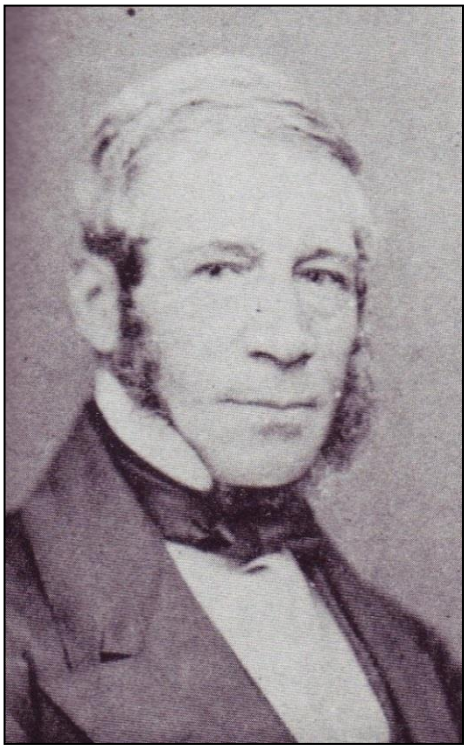
Bramley Park, built for Captain Wyndham in 1837. It would become better known as the childhood home of garden designer Gretrude Jekyll from 1848–68, but was demolished in 1915.

The house was both ceremonial and functional, with a rather elementary symmetry of main rooms either side of a sixty-foot long entrance hall, and in the provision of no fewer than five water-closets on the ground floor. With its lower storey Ionic colonnades and Doric-pilastered upper storey (a 'reversed' and so inexperienced sequence of orders) this was probably a test piece in more ways than one, for the architect was trying out a new patent cement facing material at

[1] Priscilla Metcalf, *J T Knowles: Victorian Editor and Architect* (1980), p. 19.

the time. It was the start of a relationship that would last until the 4th Earl's death, for this was his first commission for architect J. T. Knowles. What is interesting about Bramley Park, and indeed all Knowles' known designs in the 1830s, is the extent to which they represent rehearsals for the grandeur that would be Silverton Park.

Knowles was born in 1806, so was some twenty years younger than the 4th Earl. He was born in Reigate, where nine generations of Knowles craftsmen were traced by his biographer, Priscilla Metcalf.



J T Knowles senior (1806-84)

As an architect, Knowles was self-taught, and the firmness of the self-made man looks out at us from his photograph. His biographer describes him thus: 'In appearance the elder Knowles was below middle height, fair hair always parted on the left and, as time went on, side whiskers framing his shrewd, plain face – keen, small brown eyes, long upper lip, wide mouth shut tight like a trap – a long-

headed, determined, self-reliant and self-satisfied, rather silent man, very much on his dignity, quite humourless.'[2]

His father died when he was just seven, and his widowed mother continued to trade. From 1830-6, trade directories list Knowles as a plumber and glazier, but it is likely that the clustering of trades within the family soon led to contracting for whole buildings. In about 1833 Knowles seems to have designed and supervised his first construction of a complete house, coated with metallic-sand cement and dressed with Ionic columns 'on the borders of Hampshire, not far distant from the sea'. He referred to this building in the paper he would give on metallic cements at the RIBA in 1850, three years after he became a Fellow: 'erected about seventeen years ago.it is the oldest work of my own to which I can refer....executed in a most masterly manner ...which left nothing to be desired'.

That Knowles was a man of self-confidence and ambition can be seen from the fact that, just two years after he built his first house, he submitted a design for the new Houses of Parliament. In 1834, a bonfire of the old tally sticks in the Exchequer got out of control, with the result that much of the old Palace of Westminster was destroyed by fire. A committee was duly formed and it was decided to hold an open competition judged by a Royal Commission of amateurs to architecture, to avoid jobbery or the vagaries of party politics in open debate. Entries were to be in Elizabethan or Gothic style, submitted anonymously, with a £500 premium awarded to each of the designs selected for exhibition. The scale was to be 20 feet to an inch; 'No coloured Drawing of any kind' would be accepted, only three sepia tinted perspectives taken from points specified on a lithographic plan supplied to competitors on payment of £1.

[2] Metcalf, p.19.

J T Knowles' entry for the competition to build the new Houses of Parliament. In the event, the competition was won by Charles Barry, with considerable help from A W Pugin. Pugin and Knowles offer interesting counterpoints to each other, both practising in the same years but one a medievalist and forerunner of the Arts and Craft movement in his respect for honesty of materials; the other an eclectic proto-modernist and passionate advocate of the superior functionality of cement in imitation of more traditional materials.

The winner would be given £1,000 prize, if he were not appointed to supervise the building. There was a huge frontage of 1,000 feet to the river and English architects had little experience of giving monumental character to facades of anything like this length – but Knowles set out to prove that he was the man for the task.

In 1836 Knowles' designs were duly hung with the other entries in the still unfinished National Gallery. According to the catalogue, his outsize plan was to include a 'great staircase' (a favourite feature among entries) and three entrance towers on the riverfront were to be 'so arranged that carriages may conveniently pass through them.' Some of his external Gothic ornamentation suggests Knowles was already aware of the earlier work of Charles Barry and his assistant Augustus Pugin, whose design emerged as the winner. Indeed, Knowles would cultivate Barry's works and society when he moved with his family to Clapham in 1840.

Perhaps partly as a result of his entry to the competition, by late 1836 Knowles is described as 'Architect & Surveyor' as well as Plumber, and by 1838 he is listed only as the former. In addition to his own architectural aspirations, Knowles' success was based on two rather disparate strands that came together in this part of Surrey in the 1820s and 30s – retired naval officers and metallic cement.

In the 1830s, the Earl of Hardwicke, an admiral, was landlord of half of Reigate. Successive generations of Knowleses had worked for Hardwicke, both in Reigate and possibly in Hampshire. Wyndham would certainly have known of the Earl, and it seems likely that it was through such a naval grapevine that he came to know the 30-year old Knowles. Certainly, Knowles's first clients were predominantly retired naval officers, country gentry and Tory peers – in Wyndham all three would combine.

Patented metallic cements

Knowles was also a passionate advocate of so-called metallic cements, which he used to flamboyant effect in all his known designs. As the editor of *The Builder* declared in 1850, 'This is the age of cements!' In fact, such compounds were not especially new in the 1830s. Eleanor Coade had been producing ornaments and embellishments in her famous Coade stone for decades. Sir John Soane also advocated the use of propriety renders such as, in his case, 'Parker's Roman Cement', which survives on a number of his projects, notably at Moggerhanger House. An even more rarefied reference, perhaps explaining the 4th Earl of Egremont's presumed equivalent enthusiasm for the material, is that it was used during the 1800s as 'a composition for preserving ships' bottoms' (this from a trade circular of 1802).

So what exactly was a metallic cement? Essentially, its distinctive qualities came from the aggregate supplied to be mixed with lime to make a hydraulic mixture. Hydraulic cements are materials that set and harden after being combined with water as a result of the chemical reactions that take place. The key characteristic is that the hydrates formed on this immediate reaction with water are insoluble in water and impermeable to it. Most construction cements today are hydraulic. By contrast, non-hydraulic mortars need to dry in order to gain strength, which they do relatively slowly by absorption of carbon dioxide from the atmosphere to re-form calcium carbonate through carbonation. Today, we value the added breathability of the softer, non-hydraulic mortars for old buildings, but there is no doubt that modern construction could not have achieved what it has without the harder, hydraulic cements that Knowles believed in so strongly.

Let the editor of *The Builder* in 1843 explain further:

> *'Metallic cement…is something of a misnomer, the material sold under this name being a metallic sand or powder, coarse or fine as it may be required – which is to be mixed up with lime, with which it forms what may be designated a metallic cement; the epithet metallic, in such case, is aptly chosen, for it is the metallic constituent that gives the peculiar value to the cement, and a most valuable cement it appears to be, not only for joining brick and stone together in the ordinary manner, and for concretes for foundations, but for coating and facing and for moulding in the solid.'* [3]

Such cement can be 'as hard almost as a vitrified mass' when used for foundations, 'so hard as almost to defy breaking into in the case of requiring to work at the gas and water pipes.'

The name for a constituent that provides this hardening is a pozzolan, after the Romans' and Italians' use of aggregates like pumice and volcanic ash to harden their mortars (and hence early hydraulic cements were often referred to as Roman cement). Their concrete properties were especially appreciated in maritime locations, and indeed Landmark's Clavell Tower, built on a clifftop in Dorset in 1830, was rendered with such a Roman cement. However, from mid-eighteenth century the expense and difficulty of obtaining such Mediterranean constituents had led to a search for alternatives.

The cement was usually made of blue lias lime mixed with the metallic sand, the exact make-up of which formed the patented element of the mixture. The sand was generally made from (chiefly copper) slag, containing mainly iron but with traces of zinc, arsenic, silica and other metals. The material was then ground and sifted to various degrees of fineness, depending on what it was to be used for.

Our editor continues:

> *'..whether we would defend the principle of imitation or not, we must subscribe to the admission of* [metallic cement's] *successful exterior emulation – the ornaments, such as modillions, trusses, balusters, pierced parapets, are wrought in it, and have a character and promise of durability which stone itself could not farther boast of.*

[3] *The Builder*, Sept 30th 1843.

'Capitals, delicate capitals of columns, are exquisitely produced in it; and here we have to note a remarkable condition required in the working of it: - the sand and lime are to be used almost entirely dry - not more moistened in fact than the ordinary state in which we find powdered sugar – it is pressed into the mould, or slightly punched into it by a small hand pestle, and soon acquires the necessary hardness and intimate junction to be turned out a stone.'

'Many instances of the application of cement may be referred to, but the most valuable one in our estimation is at Herne Bay, where a small marine turret, or "look-out", has been stuccoed with it for ten years, and is now, we are informed, harder than ever. The Earl of Egremont's mansion at Silverton Park, near Exeter, an immense building, covering, as it is said, an acre of ground, has been in the process of re-modelling, under the use of this material, for the last four years – a large number of foliated capitals of columns, and an interminable line of ornament, are being done in it – these furnish the best arguments or test of quality and fitness; but it was not exposed to them before every proper experiment had been tried on a smaller scale, so as to satisfy the architect as to the responsibility he ran in recommending it.'

The reference to imitation in the first sentence is significant, since we must not forget that these were also the years that saw the first stirrings of the Arts and Crafts movement, with its insistence on honesty of material and quality of craftsmanship. Pugin had been trumpeting such virtues through the 1830s and John Ruskin was already writing of the importance of using local materials for buildings that were sympathetic to their local environment. It was just one aspect of the Battle of the Styles that raged through the middle of the nineteenth century, filling the tightly set print in the columns of the architectural journals.

J T Knowles's view was that of a pragmatic modernist for whom functional performance overrode any niceties about imitating materials. He summed up two decades worth of experience of cements in the paper he gave to the RIBA in 1850, at a meeting that first presented a Royal Medal to Charles Barry for his work at Westminster. The paper was titled 'On the Application of Cements, and other Artificially Formed Materials, to the Exterior of Buildings' and extracts were reprinted in *The Builder* in two parts, and are appended to this album.[4] It is a worthy and thorough paper, in which Knowles defends and urges the use of cements for both rendering and decorating buildings, and claims their superior

[4] *The Builder,* 8th (pp266-7) &15th (pp278-9) June, 1850.

durability to stone. For him, the accomplishment and durability of a design, regardless of the medium in which it was expressed, was far more important than the use of costly (and by implication traditional) materials. In this, he was clearly not aligned with the medieval revivalists like Pugin, and Knowles condemned the trammels he perceived architects were being confined to by 'a small non-professional party and the system of merely copying the works of the middle ages.' Not surprisingly, debate raged in *The Builder's* columns for several issues thereafter.

For advocates of metallic cements, the 4th Earl of Egremont's mansion, even five years after his death, is consistently used as a prime example of the virtues of the material they were defending - which brings us neatly back to 1837, the year the Earl inherited his fortune as well as his title and began, with his architect Knowles, to plan the construction of a seat to live up to his change in station.

Blackborough House

At the same time as Bramley Park was being reconstructed, Knowles was also designing a family house in the West Country for the 4th Earl, at Blackborough. This was an enormous Italianate villa, twin towers and huge chimneys towering over terraced gardens and walled vegetable gardens. The seventy-feet high towers held a peal of bells and a water cistern. While he was awaiting the completion of the Silverton Park mansion, the Earl lived in one half and the rector of Blackborough in the other. Even this house had fifty or so rooms, and, as would be the case at Silverton Park, some of the bedrooms were fitted out in nautical fashion. The Great Hall was almost three stories high, with a glass dome, and it seems this house too was never quite finished.

Blackborough House in 1913.
It was designed by Knowles for the 4th Earl in 1838.

(The remnants of Blackborough House are still inhabited, a rare surviving example of Knowles's work. The house has changed hands repeatedly, and been progressively dismantled. It was sold in 1915 to a Mr Hughes from Bristol, who stripped the interiors and the roof and took the tops off the towers. Rev. Chalk in the 1930s goes on: 'Subsequently the lead was sold; the doors and wainscots were stripped; the central hall became an impluvium; the jackdaws returned to their own, until no human remained, but the brave custodian, Mr Cecil Custance, who, after an adventurous career, ended his days within the dismantled walls.' Chalk records that in 1930 the house was sold to a Committee for a Church of England Home for training wayfarers. It was requisitioned in the war and bought in 1950 for use as a farm and car breaking business, as which it continues today.)

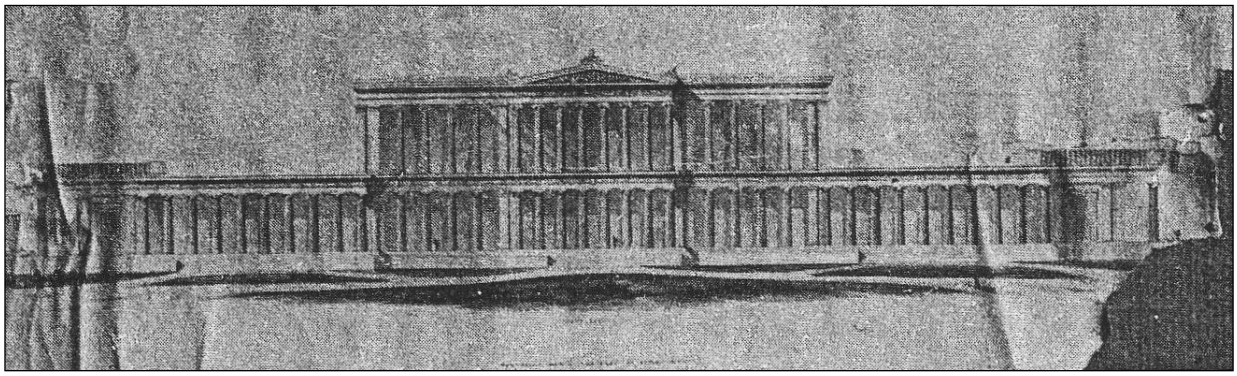
A watercolour of All Saints, Blackborough, designed by Knowles for the Earl of Egremont in the village of Blackborough, near Silverton, and built in 1838 for £1900. The Italianate Blackborough House can be seen on the right. 'This church is a neat structure, in the early English style, and its tower is crowned by an octagonal spire, which is seen at a great distance; the site being about 700 feet above the level of the sea. The interior is neatly fitted up with 283 sittings all free except twenty. Before the erection of this church, the parishioners used that at Kentisbeare, their old church *(Allhallows),* having gone to decay some centuries ago'

- White's *Devonshire Directory*, 1850.

After Earl's death in 1845, All Saints' upkeep fell on the parish, requiring considerable upkeep in its exposed position. As in so many other places, mid-Victorian enthusiasm would prove to have overestimated congregational potential. 150 years later, in 1994, the church was declared redundant and demolished shortly after.

Egremont Castle

However, the true rehearsal for Silverton Park was Egremont Castle. Silverton was not the 4th Earl's first choice of site for his mansion. He initially commissioned a design from Knowles for a mansion on a waterless plateau near Orchard Wyndham, which was to be called Egremont Castle. The surviving elevation shows it have been a colossal 600 feet long, colonnaded throughout and with a temple on top.



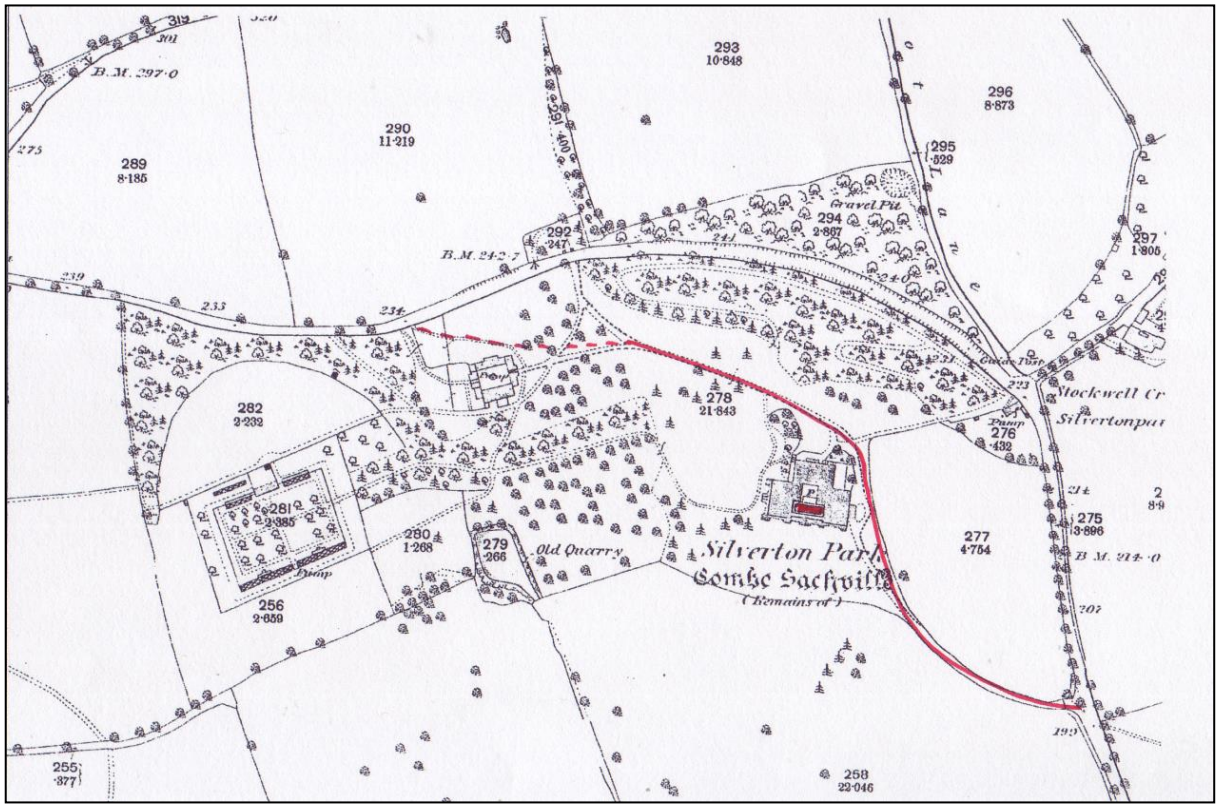
Knowles's design for Egremont Castle, done in 1838 (RIBA Drawings Collection).

The very name Egremont Castle reflects the Earl's architectural idiosyncrasy: something less castle-like is hard to imagine and there is not a whiff of the Gothic. Yet the reference to the medieval castle of the fifteenth-century Earls of Egremont in Cumbria must have been deliberate. This first Egremont Castle had long been a romantic ruin, but had been popularised by Wordsworth in his 1806 poem, *The Horn of Egremont.*

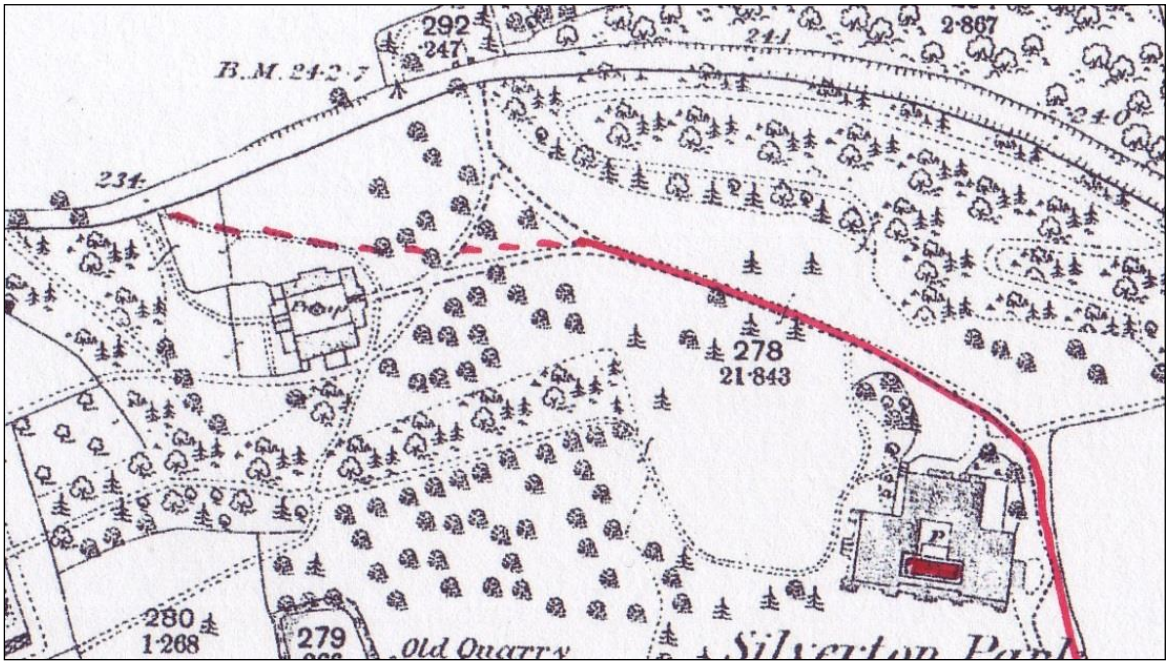
Knowles must also have considered himself to be drawing on impeccable architectural precedents. Priscilla Metcalf draws comparisons between the Egremont Castle design and the east front of Buckingham Palace, where from 1830 John Nash's work had been recast by Edward Blore. James Hakewill's drawing of the palace, engraved for publication before 1838, had scaled this front (inaccurately) for a length of 600 feet.

The east front of Buckingham Palace.

Equally, Knowles's emphasis on the ground floor for the principal rooms reflects some of Sir John Soane's last published designs (though not Buckingham Palace). The multiplicity of columns for Egremont Castle – and then Silverton Park - was also typical of the 1830s' last effort towards new boldness in the Classical, a style that had run its course. It would soon be definitively overtaken by the asymmetry of the Gothic Revival and the greater liveliness of the later Victorian period, to which Knowles and his son would also contribute.



The 1888 OS map allows the route of the earlier road to be traced, past the older house on the site, Combesatchfield (here Combe Sackville) – both marked in red. The footprint of Combesatchfield is also clearly apparent, within the larger plan of the eventual mansion. Note too the walled kitchen garden to the west of the stable block, and the disposition of the various routes connecting the various parts of the estate. The area to the south of the stables appears to have been planted so that it is quite heavily wooded, although the lie of the land is such that the stable block would still have been visible from the mansion. (Not to scale.)



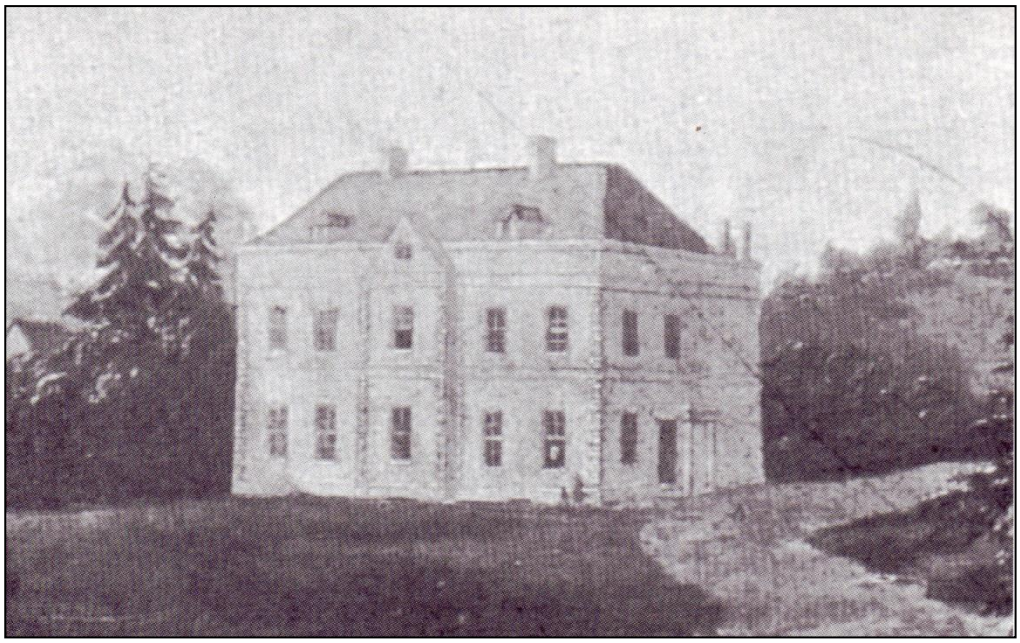
Combesatchfield House and the Siting of Silverton Park

For whatever reason, Egremont Castle was never built, perhaps because of the challenges of a water supply, perhaps because of the inaccessibility of the village, high on the Blackdown Hills and reached only via winding country lanes. That the Earl liked the design of the 'castle' is clear, since he instructed his architect to use an almost identical colonnaded design for the project at Silverton. Silverton is close to Exeter, has better roads and also closer to the sea – the Earl kept a fully crewed yacht, which could dock at Topsham, bringing building materials and, later, statuary.

It is possible that the site at Silverton was under consideration even before Egremont Castle was abandoned, since application was made to Devon Quarter Sessions in 1837 for the diversion of the parish road, which had formerly passed in front of the mansion site but was diverted to run (as it still does today) on an embankment and then through a cutting behind the house. A separate item in the Silverton Park building accounts concerns the building of the Viaduct and Park Walls, with payment for felling trees and taking down hedges, excavating and carting away.[5] The considerable engineering and expenditure involved in the short stretch of road shows the importance the Earl placed on privacy and is, in its own way, as important a part of the history of the site as the building of the mansion. But why was he prepared to go to such effort to build on an unpretentious site in a dip in the landscape?

[5] The building accounts for Silverton Park survive though remain in private family ownership (2008), making access difficult. Rosemary Lauder studied them in detail for her book *Vanished Houses of South Devon* (1997) on which most references to the accounts here are based. A few further bills and accounts are in the Somerset Record Office at Taunton.

The answer to this question merely poses another unanswered puzzle about the architectural schemes of this pair since the 4th Earl chose the site in order to incorporate an earlier building into his mansion. In 1831, the 3rd Earl of Egremont, owner of most of the parish of Silverton already, had added to his holdings by the purchase of a four-square, eighteenth-century house called Combesatchfield.



Combesatchfield House

We know something of Combesatchfield thanks to its association with the family of the poet, Samuel Taylor Coleridge. The Coleridges were a local family hailing from Ottery St Mary. In 1906, the then Lord Coleridge published a book called *The Story of a Devonshire House* (the house of the title is not Combesatchfield, but the Coleridge family home, The Chanter's House in Ottery St Mary).

Lord Coleridge's great grandfather was James Coleridge (1759-1836, known as 'The Colonel' for his efforts in the volunteer militia), elder brother of Samuel Coleridge by some thirteen years. The Colonel's wife was Frances Duke Taylor (1759-1836), whose sister Dorothy (1755-1831) was married to Henry Langford-Brown, whose family had owned Combesatchfield since 1720. Dorothy (Mrs

Brown) had no children, and after the death of her husband, often hosted her nephews and nieces for the summer. These included the Colonel and Frances's two eldest sons, James and John, and it is John's reminiscences, as the future grandfather of Lord Coleridge, that are described in the book.[6]

> *'The great joy of all the boys [the Colonel's sons] was to spend their holidays with 'Aunt Brown' at Combesatchfield. Mrs Brown, the sister of Mrs James Coleridge, was the widow of Henry Langford Brown. Childless herself, she thoroughly adopted her nephews and niece. After the stiff fashion of the day, the two sisters always called each other 'Mrs. Brown' and 'Mrs. Coleridge' and at the beginning of each holiday the same formula was used: 'very well, Mrs. Coleridge, I am very glad to have the boys, only remember I can't answer for them, and if they are drowned - and the ponds are very deep - or shoot themselves, or break their legs, I'm not to blame.' This protest was perhaps not unnecessary when we know that there were two of these ponds on which excursions in tubs were wont to be made, also an old pistol or two, of which the boys had full command, and horses with which they did pretty much as they liked. Orchards too, gardens, fruit at discretion, a famous myrtle walk made Combesatchfield a paradise for the young. The mistress of the old fashioned, stately square built house was in keeping with its character. Too far from the Parish Church for her to walk, she always drove on Sundays in her dark green chariot with two fat horses and a postillion in drab jacket, all over buttons, with white leather breeches, top-boots, a black velvet cap surmounting all, with gold lace on the top, a very vision of splendour to youthful eyes. The postillion was always a Cookesley, a family which had hereditary claims to be part of the household. Every servant was to go to Church, and the House, solitary as it was, to be locked up. She would not relax this rule, although every year, on the Sunday before Silverton Fair, the garden, famous for its apricots, was regularly robbed during Church time.'*
>
> *'The house and its antient features have departed, for on the death of Mrs Brown in 1831 the property passed into the hands of her husband's family, who sold it to the last Lord Egremont. The dignified old Devonshire name of Combesatchfield was not fine enough for him, so he called it "Silverton Park," and proceeded to build a monstrous Italian house clean around the old building, which he never completed, and upon which he spent an idle fortune.*

[6] James Coleridge, 'the Colonel' (then a Captain in the regular army) bailed out his younger brother Samuel when he absconded from Jesus College, Cambridge and enlisted on impulse as a private in 15th Light Dragoons under a false name. Two months later, Samuel regretted his hastiness and it was James who obtained his discharge from the army.

And there is a strange postscript:

> *….A generation afterwards my grandfather, Sir John Taylor Coleridge, paid a visit to the paradise of his childhood. The new buildings were not finished. He entered through the portico, and after walking down a long passage came to the old green front door with its brass knocker. As he stood outside it, waiting for it to be opened, he could hardly help expecting to see old Drewe the butler, and to hear the noise of the bolt being withdrawn as in old times.'*

So it was Combesatchfield that dictated the choice of the exact siting for the mansion at Silverton Park, though why exactly that should have been the case remains a mystery. What is also a mystery is why the 4th Earl chose even to keep the old front door – and also seems to have adopted its Brunswick Green as his estate colour, since this was what was found on a surviving fragment of the grand stable entrance doors.

The Building of Silverton Park

Drawing of Silverton Park by Knowles (RIBA).

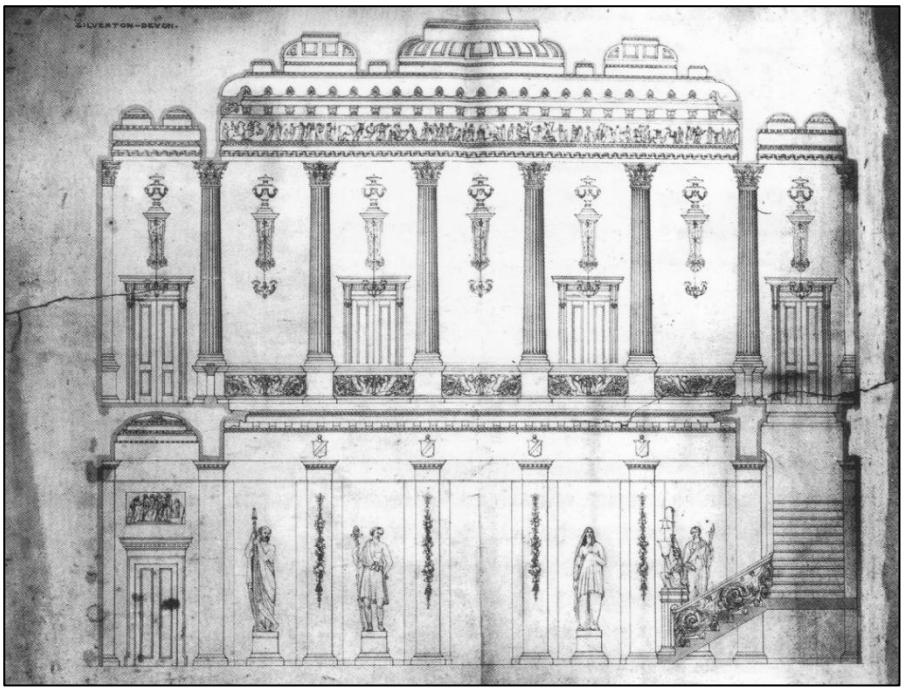
Even if slightly reduced from the Egremont Castle design, Silverton Park would be a house of prodigious size. Other modifications were also made to the Castle's design; in the words of his biographer, Knowles seems to have realised 'that it was no longer fashionable to take the Greek Revival literally; so, gradually, he moderated the Castle design from long-strung out Late Georgian Greek into a compacter Early Victorian Grecian.'[7] The long runs of colonnades had now graduated from misjudged Ionic over Corinthian at the Castle to correct progression of Corinthian over Ionic, threaded through with square piers and intermittent parapets. This time, Knowles made much use of projections and recessions of porticoes and pavilions, to create a modular *capriccio* of mythical proportions, enriched with lion-spouts. No wonder it would become known as Egremont's Folly. At first, however, it was spoken of in more reverential terms and was not entirely out of step with contemporary aesthetics. J.C. Loudon,

[7] Priscilla Metcalfe, *James Knowles, Victorian Editor and Architect* (1980), p.23. While mostly about J. T. Knowles senior's son (1831-1908) it has useful initial chapters on Knowles senior.

perhaps the leading arbiter of the day on matters of taste in gardens, gave an account of the mansion in *The Gardener's Magazine* in1843, reporting that the house at Silverton Park 'is eminently classical, abounding in colonnades and porticoes, without a single vulgar feature externally; the interior we had not an opportunity of seeing.' The writer was less impressed with the site, however: 'The appearance of the entrance front gave us the idea that the house was sunk much too low; but this impression is not made by the pleasure-ground fronts.' [8]

Silverton Park as completed externally, in 1895. The position of the strangely lone tree at the corner is unexplained.

[8] Vol 19 p 242.



Knowles's drawing of the interior of the hall at Silverton Park (RIBA).
This may well have been one of the two drawings by Knowles exhibited in the Royal Academy's Summer Exhibition in 1843. A writer in the *Civil Engineer & Architect's Journal* in June was rather more sophisticated in his architectural critique than Loudon:

Speaking of the mansion in the last No. of the Gardener's Magazine Mr Loudon says "'It is eminently classical, abounding in colonnades and porticoes, without a single vulgar feature externally"; and that there are colonnades and porticos we can plainly see but that it is therefore "eminently classical" we will not decide because we cannot make out the other features very distinctly , nor can we judge at all of the quality of the detail. The interior Mr L. informs us, he had not the opportunity of seeing, and so far we have an advantage over him in some degree, being shown what is, no doubt, the most striking part of the interior – perhaps is made rather more so than it ought to be. This "Hall" is carried up the height of two floors and on the level of the upper one has a peristyle of Corinthian columns. Taken by itself this arrangement is effective enough, though not particularly novel; but we are of the opinion that the general design would have been more classical had the lower orders been omitted. We do not approve of the introduction of two orders, particularly of two such distinct ones as Doric and Corinthian, in interior composition. To use it generally seems to destroy that degree of unity which we naturally look for in an apartment and to cause its sides to look too much like as external elevations. We think, too, that in the present instance, the Doric pilasters carry with them an air of plainness that contrasts rather harshly with the richly painted and decorated ceiling. The best excuse, perhaps, for the introduction for them is, that they serve to divide the walls on which the upper gallery rests, into compartments, each of which is occupied by a large figure on its pedestal (ten of them in all, five on each side). Though decoration has not been spared, it strikes us that there is a certain poverty of feeling and poverty of form – perhaps owing to the endeavour to obtain simplicity, in some of the separate parts; the doors, for instance, would have borne to be made more important and richer features.'

Another later reminiscence provides an account of both the building and the scale of Silverton Park. In 1907, Lady Dorothy Nevill published her book, *Reminiscences.* Lady Dorothy visited Silverton Park several times as a girl (she was born in 1826). *Reminiscences* includes the following passage:

> [The 4th Earl of Egremont] *'sent for workmen from Italy and kept them for many months casting the beautiful frieze which went all around the house and seemed to portray a long procession of people sacrificing bulls and colonnades of Corinthian pillars. There were 187 rooms with 150 cellars underneath the building, the whole occupying an acre of ground. It contained 130 marble mantelpieces and between 400 and 500 tablets formed the frieze around the house. In the centre of the south front was a stupendous high-relief of the nine Gods with Jupiter and his eagle in their midst. Inside the house the numerous bedrooms were no larger than a cabin in a Man of War, 'quite big enough for a bachelor,' said Lord Egremont who had been a sailor. Each contained a bed and a tiny chest of drawers made to fit the rooms. One had no windows but was lit by a skylight in the middle resembling an umbrella. His own bedroom was magnificent and his bath of yellow marble remained a wonder after all else had gone. The house is said to have cost almost a quarter of a million pounds – a stupendous sum in those days.'*

The accounts for the Earl's project still survive, kept by his Wyndham descendants. Rosemary Lauder's essay in her *Vanished Houses of South Devon* gives the fullest account, and what follows is just a summary.

Most of the work seems to have been completed by 1840, when contractor W H J Hooper presented his bill for £67,838 10s 71/2 d, a huge sum which included lesser works at Orchard Wyndham and Blackborough House as well as Silverton Park. Hooper's bill covered work by most of the trades – masons, carpenters, joiners, and plumbers. It is easy to forget these days that haulage in itself was also a significant feature in building accounts before the age of petrol.

The bricks were made somewhere near the site, in a 'brick field', where the clay was dug and fired. For the kilns, fuel had to be provided – in 1838, for example, there is an entry 'Delivered to the brick field, 829 doz of furze - £497 8s , at 12s per doz' – quite an expense in itself. Such handmade bricks were, in that age of growing mass production of stocks or machine-made bricks, a costly item and

somewhat at odds with Knowles' passion for cement. A brick *cadre* would have sprung up first, looking much like the stable block at this stage.

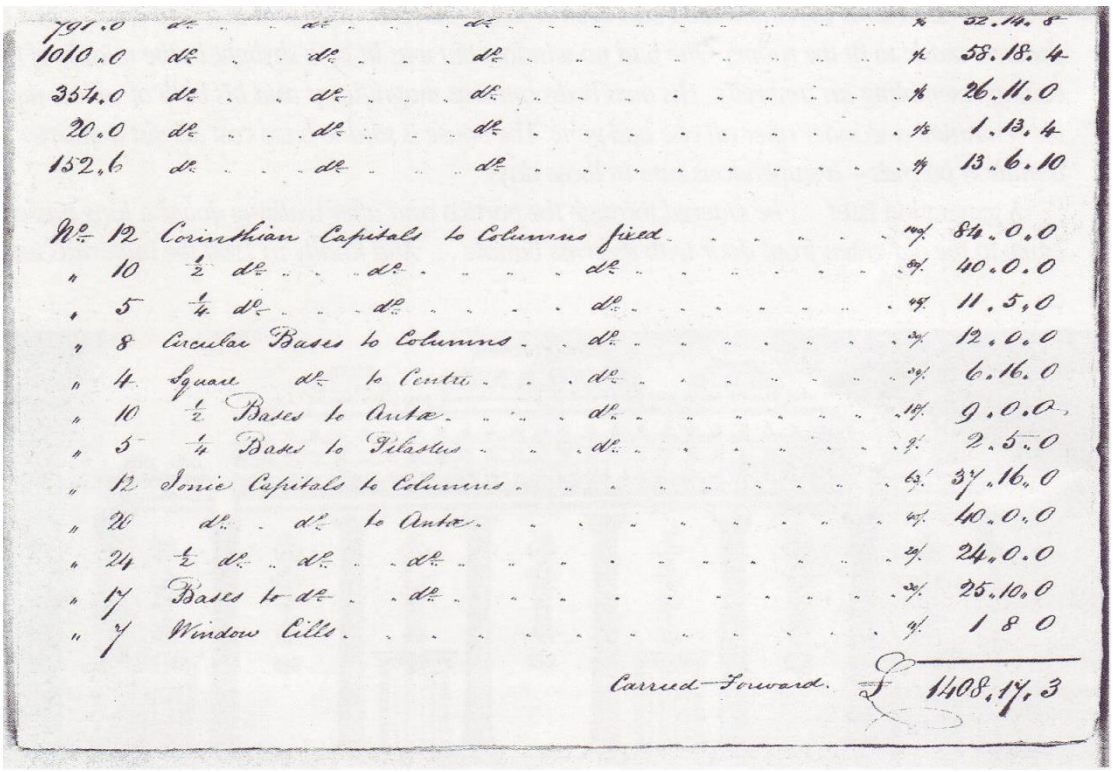
The brickmaker must have died soon after, for in December 1838, the Earl received the following letter:

> Sir,
> *The widow of the late James Phillips Deceased would feel Particularly obliged if you could name a day for the Settlement of the Brick Account As She is in want of cash.*

A lot of the sand used came from Blackborough, although this would have been for the brickwork mortar rather than the external render. The metallic element of the cement, constituted as sand ground from slag with high iron content and other trace minerals, was supplied by Messrs Logan & Dyer from London. 209 tons of it came to a quite reasonable £418 (it was made from a waste product, after all) and this sum included freight, landing and carriage to Silverton – it was presumably landed at Topsham. The lime to bind it, 679 hogsheads of it, was indeed Blue Lias as might have been expected from the descriptions given in *The Builder*, at an extra 5s a hogshead compared with common lime. This would have been used to make the render to cover the brick columns, walls and pediments of the mansion.

References to the old house encased within the new structure are found in carpenter's items for blocking up doorways, removing partitions and taking up and re-laying floorboards.

The processional frieze around the upper storey depicted the Exodus of the Israelites into Egypt, but executed in a Classical style – there was a current vogue for sculpture in the spirit of the Ancient Greeks but 'such as …a Christian of the nineteenth century would produce', as Alfred Bartholomew put it in his *Specifications* (1840). Only the portico frieze of Egremont Castle was to have been thus decorated, but at Silverton the frieze ran all the way round the building



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20.0	do.	do.	do.		½	1.13.4
152.6	do.	do.	do.		½	13.6.10
No. 12	Corinthian Capitals to Columns fluted				½	84.0.0
" 10	½ do.	do.	do.		½	40.0.0
" 5	¼ do.	do.	do.		½	11.5.0
" 8	Circular Bases to Columns		do.		½	12.0.0
" 4	Square do. to Centre		do.		½	6.16.0
" 10	½ Bases to Antæ		do.		½	9.0.0
" 5	¼ Bases to Pilasters		do.		½	2.5.0
" 12	Ionic Capitals to Columns				½	37.16.0
" 20	do. do. to Antæ				½	40.0.0
" 24	½ do. do.	do.			½	24.0.0
" 17	Bases to do.	do.			½	25.10.0
" 7	Window Cills				½	1 8 0
				Carried Forward	£	1408.17.3

Extract from the building accounts for Silverton Park, detailing the elements of some of the columns.

(the editor of *The Builder's* 'interminable line of ornament'). Fragments of this frieze are said to be found in gardens throughout the area, though none have found their way back during the stables restoration project. We found a few pieces in the undergrowth, and the best of these are now mounted above the arch in the sitting room. They seem to be made of an artificial stone more like Coade stone than cement in appearance, a clay-based mixture that is biscuity in colour and very fine in texture, probably containing pre-fired and ground terracotta to prevent shrinkage. More humble embellishment – modillions and *gotti* - was provided with metallic cement mouldings, also supplied by Logan & Dyer. The brick columns were made of hard bricks specially carted from Exeter and bedded in Roman cement, both presumably specified for added strength.

The result of all these many materials and hours of labour was a building of formidable statistics. There is an item for 231 feet of plate glass (still prodigiously expensive at the time); 564 feet 3"of moulded sashes; 4,436 yards of lath and plaster and thousands more yards of skirting. There were *papier mâché* flowers,

and the painters applied up to five coats of oil-based paint throughout the building. There were fourteen patented water closets.

The interiors were sumptuous, or at least were intended to be. A painter's bill gives an idea of this. Presumably working on one of the principal rooms, he describes the use of blue distemper and cream oil paint, a bead picked out with gold, 'Husk ornament Gilt solid flatted and distemper', Grecian scroll ornament, Honeysuckle ornament and one large centre flower and one small ditto', with 30 Grecian pateras (small flattened discs). The same painter also painted, grained and varnished hundreds of yards of panelling – interestingly, the varnish was provided by the Earl. Perhaps he had a reliable source of nautical varnish.

Meanwhile, huge quantities of trees and plants were being laid out in the grounds. If the accounts are to be believed (and there is no reason why they should not be, though it is strange that there is little sign of these activities in the surviving illustrations of Silverton Park) 5,020 large trees were planted in the grounds and on the hill above the new road – oak, elm, Spanish and horse chestnut, birch, lime, beech, sycamore, laburnum, mountain ash, robinia, bigonia, walnuts, cedars red and of Lebanon, laurels, poplars, magnolias and acacias. A wide variety of shrubs were also planted, and seeds ordered for the kitchen gardens and flower beds.

The house gained fame immediately, both for its owner and architect. Even while it was still being built, two views of Silverton Park by Knowles were accepted for the Summer Exhibition at the Royal Academy in 1843. But according to the disapproving Reverend Chalk, 'When measured on completion, Silverton House was found to be six feet shorter than Petworth.' Chalk is another source for the apparent rivalry the Earl felt with Petworth: 'he appears to have been seized with a desire to emulate the opulence and importance of his cousins. In consequence,

the eight years of his earldom were years of the most frantic profusion…In addition he collected furniture and paintings without regard to cost.'[9]

There is just one account of life within the house before the death of the Earl's widow in 1876. Once demolished, it is remarkable how quickly even quite well-known buildings can disappear from the national consciousness. In September 1945, John Summerson, then Deputy Director of the National Buildings Record wrote to *Country Life* to ask if anyone knew the identity of a photograph of 'a Greco-Lilliputian extravaganza' that had been recently deposited with the Record, which the magazine published.

On 21st September, F. Crozier wrote from the Isle of Wight that the house was Silverton Park,

> *'….built by my grandfather's half-brother, the last Earl of Egremont, who died before he had finished it. As a child, I stayed there frequently, with his widow, my great-aunt Jane, Countess of Egremont, who outlived her husband by many years.*
>
> *I can remember the house quite well, and playing in and out of the colonnades as a child, and as a great treat the steward, Corbett by name, and with an enormous bunch of keys, used to unlock the unfinished rooms for my nurse and myself to see. It made a great impression on my childish mind. I remember how the rooms were unboarded, and chimney pieces unfinished and there were large wooden cases, containing marbles and carvings, which Lord Egremont had brought from Italy and Florence in his yacht. I have many sketches of the house in my possession and letters written to my mother from there.*
>
> *I was told, but cannot vouch for the truth, that the house was built to outvie Petworth, Lord Egremont's grief and anger being so great at not inheriting it. My great-aunt used to drive in a yellow coach* [the only reference we have to a coach that might have been housed in the stables!] *from Orchard Wyndham to Silverton and stay a few months at each place – on one or two occasions I drove with her, a great ordeal for a child, as she had a gouty leg and I was told not to go near it.'*

Certainly the Earl set out to rival his benefactor the 3rd Earl as a collector of art, books and antiquities. The house held some 200 paintings: Reynolds, Gainsboroughs, Tintorettos, Van Dykes, Poussins.

[9] Trans of the Devonshire Association, No. 4 1934, *Blackborough*, by Rev E.S. Chalk

He had two Egyptian mummies in their cases, other Egyptian statues and four silver Buddhas. The furniture and everything else in the house was sumptuous. There are bills in the North Devon Record Office for buying cashmere for curtains in London in 1840, and wonderful London shopping sprees from 1839 to 1844, buying caviar, champagne truffles, morello mushrooms…

The extravagance could not last. Although work continued beyond Mr Hooper's submission of his account in 1840, by late 1844 there are signs that the Earl was beginning to feel the pinch. Work seems to have stopped at the unfinished stable block (discussed in volume 2 of this album) in 1840. Moreover, the Earl's steward, a barrister called Counsellor Tripp, had spotted a legal loophole in the terms of various life tenancies granted by the 3rd Earl on his inherited lands in the village of Kentisbeare and Somerset. The 4th Earl began attempting to recover the properties without compensation, to let them again at higher rents. According to Rev, Chalk, this caused great distress in the village, and some evicted tenants faced ruin.

On 5th April 1845, a letter appeared in the *Devonshire Chronicle & Exeter News* from 'A lessee', damning the Earl of Egremont for his actions and the misery and suffering caused by his calling in the leases. The Editor even omitted 'certain passages as the earl is not in a fit state of mind to hear the whole truth at once', an intriguing reference, and one overtaken by events, for the Earl had died three days earlier on 2nd April 1845. His death was described as 'unexpected.' 'This spendthrift consumed £300,000 in eight years and the estates are still encumbered with mortgages,' wrote Rev. Chalk in 1934. 'There seems little doubt that had the earl lived, he would have had to sell the prodigy of his outlandish taste.'[10]

[10] Transactions of the Devonshire Association, Parochial Histories, No. 4, 1934, *Blackborough*, by Rev E.S. Chalk

On 15th April, the *Chronicle* described the funeral:

> *'On Wednesday the mournful and extensive cavalcade which conveyed the remains of the late Earl of Egremont to his last resting place set out from Silverton Park to Orchard Wyndham where the family vault is situate. The procession was accompanied by the tenantry amounting to about 100 persons through Bradninch and Cullompton.. the bells of the respective churches being tolled and continued along the route. On Thursday at Orchard Wyndham the procession was formed from the mansion of the late earl to the church. It was preceded by the tenantry in mourning headed by four mutes after whom plumes of feathers were carried. Then came the coronet of the late earl carried by an esquire and escorted by pages. The bearers followed, after whom came the hearse containing the body of the deceased, placed in a mahogany shell enclosed in a state coffin covered with blue velvet and adorned with silver ornaments. The hearse was escorted by eight sailors comprising the yacht establishment of the late earl, their arms being encircled with crepe. The whole procession was said to extended for one mile. The solemnity if the scene was suggestive of many mournful thoughts in the minds of the spectators as the grave closed over the last lords of Egremont.'*

Presumably, given the dispute over leases, not all the tenantry harboured such 'mournful thoughts'. With no heir, the Egremont title had also died with the Earl (it was revived later in the century). The total Practical Debt on the estate was £251,070 in 1845, all borrowed as private debts from various Wyndhams and other noble relations and friends. The interest alone was over £10,000 a year, and the Earl's poor widow must have had an anxious time of it. The motivation of the Earl remains an enigma. Against what hope of future wealth did he borrow these huge sums given his relatively modest estates in Devon and Somerset? He was 52 when he inherited his title, with no children and a rapidly diminishing chance of producing an heir. The 4th Earl does not even warrant a mention in the family tree of the Wyndhams of Petworth, which passes from the 3rd Earl to his natural son and on through the Lords Leconfield. Just as his mansion was a mere sport and footnote in the history the country house, so the 4th Earl himself has been largely ignored in Wyndham family history.

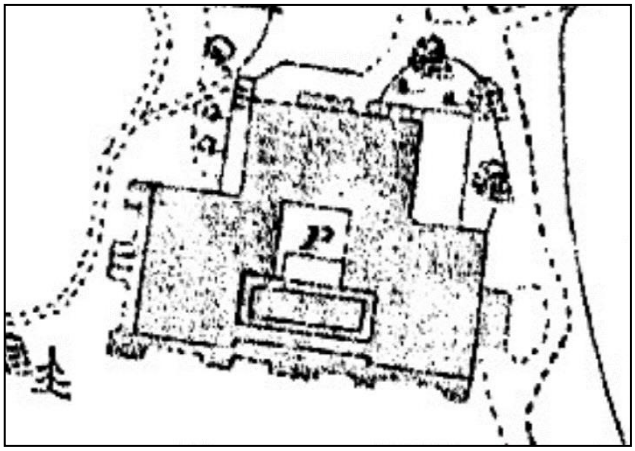
Silverton Park after the Earl of Egremont's death

The state of the estate finances in 1845 is reflected in the speed with which certain items were disposed of. Within a month of his death, there was a sale of some of the Earl's property and possessions at nearby Park Farm. The livestock and equipment sold included five carriage horses (sold for a total of £151, four in pairs) and cob horses, a mare and harnesses and a gig – all, most likely, inhabitants and contents of the stable block. Later that year all the Earl's nautical equipment was sold (though not the yacht itself) and in August, the Countess sold her china at Christie's (Worcester and Sevres services among other items). This sale also included a large quantity of wine – cases and cases of port, sherry, Madeira, claret, champagne, burgundy, Chablis and a case of whisky from the Duke of Sussex's cellar, all selling for a total of £2,211 8s 5d.

The greenhouse stove and plants were also sold: acacias and camellias, gardenias, orange trees (one fruiting), fig trees and yuccas. Rather incongruously, the Christie's sale also included some building materials: two large iron beams, two iron columns and a quantity of Blue Lias lime among other items. Which of the Earl's building projects they came from is not recorded, but it is hard to escape the conclusion that the Countess was hard up, and that building work would now cease.

Little is known about the house between 1845 and the death of Jane, the Countess, in 1876. From F. Crozier's letter to *Country Life* quoted above, it seems the house was only lived in a few months a year, and presumably much of it was kept closed up even then as many of the rooms were unfinished. Tickets for a concert at Silverton Park in 1867 are a chance survival in the Record Office.

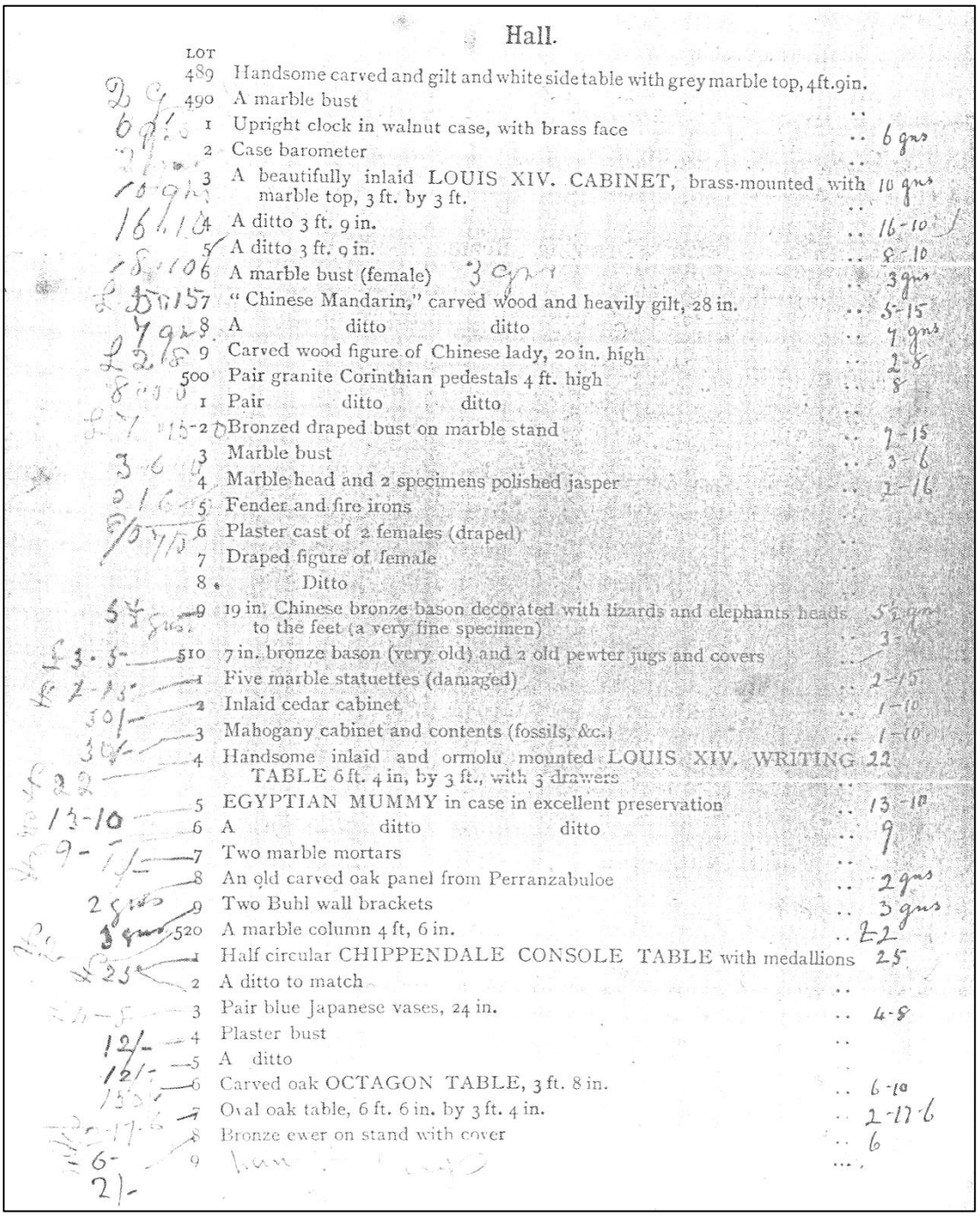
A large watercolour of the west elevation of Silverton Park done in June 1879 by Edward Ashworth, perhaps associated with the sales particulars if the date is correct (compare with the detail of the 1888 OS map below).This is an intriguing image since enlargement shows that the northern block of the house is apparently just a shell, since trees can be seen through its upper colonnade. Surviving photos of the south elevation make this unfinished structural aspect much harder to spot.
(Westcountry Studies Library, Exeter)



If the Countess still travelled by coach, at least part of the stable block was presumably also in intermittent use. Indeed, from a watercolour of 1879 the house and its immediate surrounds seem to have been kept in good order, an impression which is confirmed by the photos from the end of the century. The 1879 watercolour, showing a relatively well-peopled landscape, was presumably done to encourage prospective purchasers, since the house was put up for sale in 1876 to clear the Earl's still enormous debts by the heir, his sister Laura who was married to a clergyman.

There were no takers. Eventually, in December 1892, a sale of contents was held, conducted by Thompson, Rippon & Co. Hundreds travelled to view the mansion and its extravagant contents, though again no one bought the house itself. The catalogue lists the contents of 60 furnished rooms, not the 187 mentioned in the Nevill account, which perhaps included service rooms and unfinished areas. The sale was held over three days between 6th and 8th December 1892, the auction beginning at 11.30am each day to allow buyers to reach Silverton by rail from Exeter and Taunton. Supposedly temporary sheds put up to house the contents for the sale would, many years later, provide the justification for planning permission for the modern house which stands to the west of the stable block.

Today, the mansion's contents can be tracked through the provenances of paintings and objets in galleries all over the world.



Hall.

LOT		
489	Handsome carved and gilt and white side table with grey marble top, 4ft.9in.	..
490	A marble bust	..
1	Upright clock in walnut case, with brass face	.. 6 gns
2	Case barometer	..
3	A beautifully inlaid LOUIS XIV. CABINET, brass-mounted with marble top, 3 ft. by 3 ft.	10 gns ..
4	A ditto 3 ft. 9 in.	.. 16-10
5	A ditto 3 ft. 9 in.	.. 8-10
6	A marble bust (female)	.. 3 gns
7	"Chinese Mandarin," carved wood and heavily gilt, 28 in.	.. 5-15
8	A ditto ditto	.. 4 gns
9	Carved wood figure of Chinese lady, 20 in. high	.. 2-8
500	Pair granite Corinthian pedestals 4 ft. high	.. 8
1	Pair ditto ditto	..
2	Bronzed draped bust on marble stand	.. 7-15
3	Marble bust	.. 3-6
4	Marble head and 2 specimens polished jasper	.. 2-16
5	Fender and fire irons	..
6	Plaster cast of 2 females (draped)	..
7	Draped figure of female	..
8	Ditto	..
9	19 in. Chinese bronze bason decorated with lizards and elephants heads to the feet (a very fine specimen)	5½ gns ..
510	7 in. bronze bason (very old) and 2 old pewter jugs and covers	.. 3-
1	Five marble statuettes (damaged)	.. 2-15
2	Inlaid cedar cabinet	.. 1-10
3	Mahogany cabinet and contents (fossils, &c.)	.. 1-10
4	Handsome inlaid and ormolu mounted LOUIS XIV. WRITING TABLE 6 ft. 4 in. by 3 ft., with 3 drawers	22 ..
5	EGYPTIAN MUMMY in case in excellent preservation	.. 13-10
6	A ditto ditto	.. 9
7	Two marble mortars	..
8	An old carved oak panel from Perranzabuloe	.. 2 gns
9	Two Buhl wall brackets	.. 3 gns
520	A marble column 4 ft, 6 in.	.. 22
1	Half circular CHIPPENDALE CONSOLE TABLE with medallions	25
2	A ditto to match	..
3	Pair blue Japanese vases, 24 in.	.. 4-8
4	Plaster bust	..
5	A ditto	
6	Carved oak OCTAGON TABLE, 3 ft. 8 in.	.. 6-10
7	Oval oak table, 6 ft. 6 in. by 3 ft. 4 in.	.. 2-17-6
8	Bronze ewer on stand with cover	.. 6
9		....

A page from the Catalogue for the 1892 sale of the house contents.

The property was finally sold for builders' materials to Messrs. Atkins & Taylor of Exeter. 300 tons of iron girders and 200 tons of lead were stripped out. Mr Herbert Fulford of Exeter auctioned various fittings from the house, such as the chimneypieces. One of these, of white Italian marble, ended up in the Music Room of nearby Killerton House (today run by the National Trust).

Too resilient to be dismantled, on 12th November 1901, the front of the 4th Earl's mansion was dynamited with three successive charges before a crowd of fascinated spectators. The first charge loosened the solid pillars, the second the centre of one of the walls and the third charge, of 22 fuses, mined two pillars. It is said that the army were called in to help clear the stubborn structure, the above ground remnants not being finally cleared until the 1930s.

On 27th May 1915, at the Rougemont Hotel in Exeter, the Silverton Park, Blackborough and Kentisbeare estates were offered for sale on behalf of Mr W. Wyndham of Dinton Hall, Wilton in Wiltshire, who had inherited the estate on the death of his own father and was still trying to clear the debts of the 4th Earl, which would not finally be cleared until the 1970s. The grounds were described in the sales particulars as still being 'beautifully timbered and shrubbed…. Walled fruit and vegetable garden..sheds, glasshouses and grass paddock.' W Ackland paid £500 for the site, stables and mansion grounds, three cottages and the walled fruit and vegetable garden. So ended the longstanding Wyndham family connection with the area. All that now remains of Silverton Park – Egremont's Folly – apart from the stable block are the traces of the cellars and occasional fragments of masonry in the overgrown area of self-seeded woodland to the south east of the stables. The estate land and the stable block passed into agricultural use.

THE STRANGE TALE OF
THE SILVERTON AMARNA PRINCESS

While Landmark was restoring the stable block, a strange postscript to the 4th Earl of Egremont's fine collection came to light in the activities of the Greenhalgh family of Bolton, the so-called 'garden shed gang.' The son was a skilled, self-taught forger of antiques of all kinds, which he made in the garden shed. He and his father would conduct meticulous research, and his parents, an unassuming elderly couple, would then take the item to the experts, claiming to have found it in the attic, or that it had been in the family for generations, etc. In 1999 the Greenhalghs acquired a copy of the 1892 Silverton Park sale catalogue. Using as provenance the vague description of 'eight Egyptian figures', in 2002 Greenhalgh manufactured what became known as 'the Amarna Princess', a statue of one of the daughters of the apostate Pharoah Akenaten and his wife Nefertiti. Only two other such statues were known to exist. Meticulously researched as ever Greenhalgh's version was apparently made of translucent alabaster.

In fact, the statue was knocked up in the garden shed in three weeks out of calcite, coated with a mixture of tea and clay. His father then approached Bolton Museum with it, claiming his grandfather had bought it at the 1892 sale. After consulting experts at the British Museum and Christies, the museum bought the Amarna Princess for £439,767. It remained on display until February 2006, when the Greenhalghs' whole operation was finally rumbled. They were brought to justice the following year.

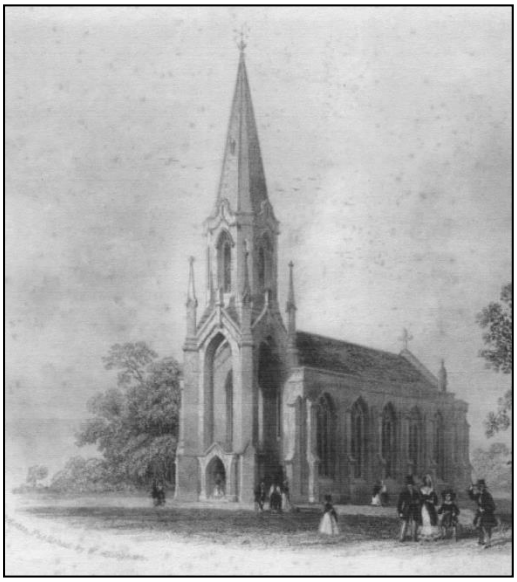
Some Postscripts

The Later Career of J T Knowles

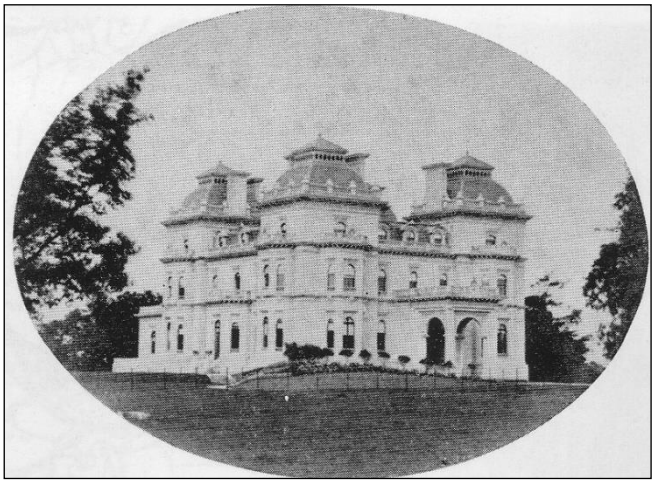
Silverton Park and Blackborough were not Knowles's only commissions for the 4th Earl in the West Country. He also designed a church at Blackborough (see below) and rectories at Kentisbeare and Williton, for which he also designed an unexecuted church. Knowles must have regretted the death of his best client in 1845, but continued to build a respectable architectural practice becoming, in his biographer's phrase, 'architect to the middle station'. In 1847, he was proposed as Fellow of the (then) Institute of British Architects, a membership that required seven years of professional practice. Not all burgeoning architects of the 1840s aspired or bothered to join the Institute, but Knowles was both ambitious and diligent: it must have taken courage to deliver his 1850 paper on metallic cements before the likes of Charles Barry and George Gilbert Scott.

Since 1831, he had had an office at No. 1 Raymond's Buildings in Gray's Inn as well as in Reigate. By 1840, Knowles and his family left Reigate for Clapham Common, where they leased a house. Clapham in the mid-nineteenth century was a burgeoning social and intellectual scene for the professional classes, in which Knowles, and later his son and namesake, would take an active part. Commissions for villas for wealthy men around Reigate continued, and in 1843 Knowles built St John's Church in Redhill, largely recycling the design he had done for the 4th Earl of Egremont at Williton. Like almost all his designs, the church no longer exists. It proved faulty in design and function, being enlarged in 1869, and largely dismantled and rebuilt from 1889.

In 1845, Knowles built a house, Friday Grove, on Clapham Common for himself and his family and later other houses there for lease – all have been demolished. He would also build warehouses and offices in London, and a country house at Hedsor, Buckinghamshire.



St John's, Redhill

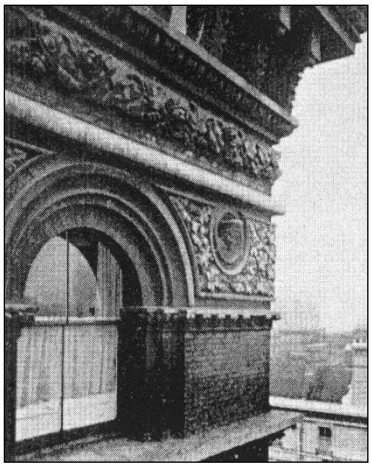


Hedsor, Buckinghamshire

In 1846, Knowles was joined in his practice by his fifteen-year old son, also James Thomas Knowles, who would become a much better known architect than his father and also well-known as founder of the Metaphysical Society and editor of the magazines *Contemporary Review* and subsequently *The Nineteenth Century,* in which he published poetry, notably by Swinburne and Tennyson. Knowles junior was more of an intellectual than his father, participating fully in the literary and intellectual circles of the day and a close friend of Alfred Tennyson, for whom he would design a country house at Aldworth in Sussex. He is also credited with having prevented the building of the Channel Tunnel, which but for his well-orchestrated campaign of opposition in *The Nineteenth Century* might have been constructed in the 1880s, instead of waiting until the 1980s!

In the middle decades of the century, however, father and son worked on several projects together, most notably (since it is a rare building by Knowles senior that still survives) the Grosvenor Hotel at Victoria Station, from 1859. The Grosvenor was not the first station hotel in London but it was the first of a new type.

An early photo of the Grosvenor Hotel near Victoria Station.



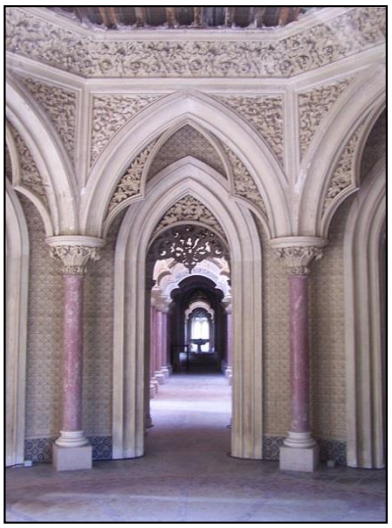
Detail of the intricate mouldings on the Grosvenor, artificial mouldings which the Knowleses helped make popular.

Interior of the Grosvenor Hotel. Though almost twenty years later than Silverton Park, it perhaps gives us a hint of the splendour that the 4th Earl of Egremont commissioned Knowles to provide.

It was only a recent idea that the chief termini should provide fine hotels equal to the demand of the traffic on the lines, to provide a metropolitan equivalent of the 'Railway Hotels' in provincial towns.

It was a high profile commission by the London Brighton & South Coast Railway, to upstage its rival and neighbour, the London Chatham & Dover Railway, described by Sir John Betjeman as the most conspicuous example of railway rivalry anywhere – and the Knowleses, father and son, were the men to rise to the challenge. Their design is characteristic of a type of architecture which still seemed able to resolve the 'Battle of the Styles'. The Grosvenor Hotel was hectic blend of Classical, Florentine-Italian, Moorish and contemporary Gothic design, with rich surface decoration and elaborate curved and dormered pavilion roof. All balconies and railings were elaborately moulded, with extravagant carved friezes and garlands obeying Ruskin's dictates by representing wildflowers, vine leaves etc. (these were contributed by Knowles junior). The first and top floor spandrels to the distinctive arched windows bore medallions with portrait busts of famous contemporaries. This was a groundbreaking work in its time, briefly prompting its own 'Grosvenor Style' and a general generosity of use of mouldings that filtered down right down to terraced houses in Clapham and indeed all over London.

The only other Knowles family commission worthy of comment to Landmarkers for its coincidental link with another of our buildings, Beckford's Tower, is one for Francis Cook, a rich draper for whom Knowles senior did several projects, both commercial and domestic, through the 1850s. In 1856 Cook bought a large and ruinous villa in Portugal, called Monserrate at Cintra – the same villa that William Beckford leased when he fled to Portugal in 1794. Cook commissioned Knowles junior to rebuild it for him, which he did, not unsuccessfully. The design would have been done during the building of the Grosvenor Hotel and provided another unbridled opportunity for the application of mouldings. Today, it stands in a famous park, created by another Englishman, William Stockdale.



Details of the Palaccio at Monserrate, at Cintra in Portugal.

Knowles senior died in 1884 at the age of 78. The RIBA President's Address on Knowles' death showed he was a loyal member to the end: 'a man who, having passed a most laborious life in the active performance of professional duties, might well have claimed in his declining years entire rest, but who preferred to remain amongst us as an Examiner and Member of the Council, where I may safely say his presence was always as welcome as his opinions were valuable'. Knowles died just a few days after his last attendance.

Knowles's paper on Metallic Cements

the designs which are pointed out as super-eminently good come from abroad.

In the first round of the fight, England has gone down!

Without further comment at this moment, we give the names (or mottoes) of *all*, we believe, who have submitted designs, and are not mentioned in the previous lists:—

Messrs. Acollas, Paris; Aickin and Capes, W. Albon, F. C. Anderson, J. S. Austin, W. Austin, A. Beaumont, W. Bell, J. S. Benett, J. Black, E. Blatchley, A. W. Boulnois, W. Boyle, R. Broad, B. Broadbridge; R. Brown, H. P. Burk, J. G. Crace, "C. E. G.," "C. T. G." A. F. Campbell, J. Catt, J. Claringbull, J. Colshurst, J. Colson, C. C. Coote, W. R. Corson, David Cowan; M. Damas de Culture, Paris; G. J. Darley, W. Dennis, Francis Drake, H. Duesbury; M. Duflocq, Paris; M. Dupuy, Versailles; O. C. Edwards, "E. I. C.," J. Elduage, J. Elliott, D. Erskine, W. J. Everitt, M. Théodore Faure, M. Desaint Felix and E. E. White, P. Finlay, C. Folkard, D. C. Forbes, J. Forrest, W. Freebody, L. Fürges, Crefeld; A. Garrard, William Geggie, J. Gibson, R. Gillingham, C. W. Gooch, J. Gould, R. Greene, E. W. Grubb, R. S. Grubb, T. B. Guppy, Naples; J. C. Haddan, Herr Hammann, Hamburg; T. R. Hannaford, O. Hansard, R. Hardy, J. P. Harrison, Thomas Haw, S. Heilton, J. Hendrey, J. Hewitt, W. S. Hollands, G. Horton, A. P. Howell, B. Hurwitz, A. Jackson, C. Jayne; A. Jizkowski, Warsaw; J. Jopling, H. J. Kaye, G. P. Kennedy and R. Kennedy, A Lady, S. W. Leonard, R. Lobb, Locke Brothers, H. Lockwood and W. Mawson, H. Lote, R. Lovely, G. Mackenzie; Magni and Thummeloup, Paris; R. Mallet, Mansell and Elliott, R. M. Marchant, P. J. Margary, W. P. Marshall, D. Mickle, J. Mitchell, J. Montheath, J. Moon, Captain Moorsom, G. Morgan; J. H. Muller, Holland; W. Nethersole, I. W. Newberry, F. B. Newman, C. H. Newton, E. Paraire, T. Peacock, J. D. Pemberton, G. Perry, "Q.," W. Radley, W. Railton, W. Rankin, W. Reed, Reid and Butcher, S. Reilly, G. B. Rennie, H. Ricardo, W. Riddle, A. J. Robertson, W. Robertson, A. M. Ross, "Rough Draught," H. Rouse, H. H. Rassell, E. Ryde, G. Sanderson, C. Sanderson, R. Sandeman, W. Scurry, "Sed quis custodiet Custodes," J. R. Sewell, E. Smallwood, J. M. Smith, W. J. Smith, Campbell Smith, Soyer and Warrener, F. Sternitz, W. Stewart, M. J. Stutely, H. Suckling, G. Tate, J. Taylor, T. Taylor, J. H. Taunton, D. W. Thomas, R. M. Thompson, P. Thompson, F. Thompson, James Thrupp, H. Turner, "Vulcan," J. Walker, J. N. Warren, H. Whitcombe, G. Wightwick, G. Wilkie, G. Wilkinson, S. J. Wilkinson, J. Williams, G. Wilson, R. Wilson, J. G. Wilson, R. Winder, R. A. Withall, F. Wood, and James Wylson.

It will be seen that none of our leading men have competed.

ON THE PROPRIETY OF THE APPLICATION OF CEMENTS,

OR OTHER ARTIFICIALLY FORMED MATERIALS, TO THE EXTERIORS OF BUILDINGS.

BEFORE I enter upon this difficult and much-vexed question, I wish to state distinctly that wherever I may express an opinion of my own, unsupported by actual observations, I shall do so with great diffidence, and with the full conviction that such opinion may be proved hereafter to be erroneous; because I feel that before the nature of cements or stuccoes can be clearly understood, a larger amount of statistical details, and a much more correct knowledge of the chemical changes which are produced by apparently minute differences in the materials themselves, or in the conditions under which they are applied, than is possessed at present, are absolutely necessary.

Although the practice of covering the exteriors of buildings with some description of plastic materials appears to have prevailed from a very early period, it will, I think, be readily admitted, that in our own age and country this practice has been carried beyond all former precedents. It would be impossible, on an occasion like the present, to enumerate all the causes which have produced, or have assisted in producing, this result; but perhaps, as among the most prominent of these, I may mention, the cold and humid atmosphere of our northern climate; the impossibility (in many localities) of obtaining, except at a cost too great to be incurred, such materials as will effectually resist the destroying influences of rain and frost; and a growing inclination on the part of our employers to add something of the beautiful in form to that convenience of arrangement and fitness for the intended purpose, without which the most elaborate productions of our art are really failures, or can at best be deemed but splendid errors.

It is true, that when the practice of employing stuccoes and cements for covering the exteriors of buildings was first adopted, the science of geology had not revealed that valuable page in the great book of nature which has recently attracted so large a measure of study and attention, and that the nature and quality of the materials which compose the crust of our planet are, through the aid of that modern science, better understood by us than they could be by those who were engaged in the art of building before this source of knowledge had been revealed. Yet this additional knowledge, upon a subject so deeply interesting to the architect, has tended to confirm the impression which previously existed, by showing him that in many portions of the United Kingdom no building stone can be obtained capable of effectually excluding moisture, or of resisting, for any lengthened period, the vicissitudes of our climate; and by convincing him that, in order to secure in such cases dry, healthful, warm, and comfortable habitations (especially when buildings are rapidly erected, and occupied immediately after their completion), two things are absolutely necessary, and that a third is exceedingly desirable:—

1stly. That the outer face of all the external walls should have a covering or skin of some material impervious to water.

2ndly. That the moisture from the earth should be prevented from rising into the brick or stonework by the introduction of some water-proof material into all the external and internal walls and partitions, immediately above the ground level.

3rdly. (Where bricks are employed, and a proper amount of careful supervision can be exercised) that the external walls should be hollow, with an air space of 4 or 4½ inches between the external and internal work, excepting at the jambs of the openings and the points of junction with the internal walls.

That the necessity for these, or similar precautions, in the erection of dwelling-houses in exposed situations, is perfectly well known to the elder members of the profession, and that they adopt them in their practice, I entertain no doubt; but as their advantages may not be equally clear to those who have yet to enter upon the practical department of our art, and lest they should imagine that I am speaking theoretically, and not from actual experience, I will mention, that a house was erected about six years ago, in an exposed situation, and on a stiff clay soil; that the carcase was carried up in an unusually wet autumn, and the walls exposed to heavy and continuous rains; that no wall battening was used in any portion of the building, which was roofed in at the end of December, and completed and inhabited by the end of the following October, at which period it was quite fit for occupation; that there has never been since that time the slightest appearance of damp in any portion of it, from the basement to the roof, nor is the smallest settlement perceivable; and this result is, I believe, mainly, if not entirely, attributable to the adoption of those precautions which I have mentioned as being, in my opinion, essential in nearly all cases, and to one other, which is only important on clay soils, that is, the covering of the whole area occupied by the building with a bed of concrete, which should not be less than six, and need not be more than twelve inches in thickness.

To those who have been accustomed to build only in London, or in other towns and cities, it would, I believe, be quite impossible to convey an adequate idea of the difficulties which must frequently be encountered by those to whom the erection of isolated houses in very exposed situations is entrusted; when, as very frequently happens, no such stone or bricks can be obtained as will effectually resist the rain, and prevent it, when accompanied by heavy gales of wind, from passing through the walls.

I could, if time permitted, mention many remarkable instances of the mechanical force with which the rain is sometimes driven horizontally against the walls of buildings in elevated positions; but I will select one only, which made a great impression on my mind. During a visit to a large building in course of erection on Black Down (the highest ground, I believe, in North Devon), I observed a portion of a 9-inch partition wall saturated with water. As the building had been roofed in some weeks before, I was a good deal surprised at this appearance; but I had an opportunity, a few days afterwards, of witnessing what explained to me the cause of it; for, being on the spot during a heavy gale of wind and rain, I stood for some time watching the result, and saw the rain passing through a window-opening across 18 feet of space, and striking with great force against the opposite internal wall, and in the course of about an hour making its appearance on the other side.

Very shortly after witnessing this occurrence, I was called upon to examine a church, which had been erected in a similarly-exposed position, through the walls of which (even those of the tower) the rain found admission to the interior in very large quantities. Three or four years having been suffered to elapse, during which this evil was found to be continually increasing, the walls were covered with stucco, of the kind which I shall have hereafter to describe, which proved in that, as it has done in all other cases with which I am acquainted, perfectly effective.

Contenting myself with this remark, that in no single instance have I known the external application of a well-made and carefully-used stucco to fail in accomplishing the desired object, I will proceed to combat those which appear to me to be the strongest of the objections which are advanced against this mode of protecting and adorning the exteriors of our buildings, viz.:—

That cements and stuccoes are not durable, and require frequent and expensive reparations.

That they are very costly; not so much at first, as by reason of the colouring or painting in oil, which it is thought erroneously I believe) that they afterwards require.

That they are false and deceptive, inasmuch as they, being artificially formed materials, do, in some measure, assume the appearance of natural productions.

That their introduction has led to all that is false in design, and defective in construction.

And that, when employed in decoration, the enrichments are deficient in that sharpness of outline, and delicacy of finish, by which the productions of the chisel are distinguished.

Now, I must readily admit, that a very large proportion of the cement and stucco work which we see in London and its neighbourhood is so faulty in design and defective in execution, that it is difficult to find language strong enough for its condemnation. I know that many of the structures which we see bedizened with what are intended for, and by some, perhaps, are dignified with the name of, decorations are indeed but whited sepulchres. That many of the bricks used in them might, by a strong man's hand, be crushed to powder. That the mortar is composed of earth, dug from the foundations, mixed with a very small quantity of white chalk lime. That the timbers are defective, both in quality and scantling; and, that in short, the whole affair, from the foundation to the roof, comprises all that is miserable in construction, and false in taste.

But I cannot think that these defects are referable to the use of stuccoes and cements, or that by the external application of these materials, structural defects can be successfully concealed. On the contrary, I believe that the cracks and openings produced by the settlement of piers or arches; by the shrinkage of timber, improperly introduced; by the fracture of stone lintels, or other such-like causes, are to the full as conspicuous in a stuccoed building, as in one which is faced with brick or stone, and quite as difficult to repair effectively. Indeed, I feel so strongly the necessity of extreme care being taken in the construction of buildings which are intended to be covered with cement, that I not only turn inverts under all the openings, but frequently omit also the reveal arches and the timber lintels, carrying, instead of them, relieving arches through the whole thickness of the wall. I have never yet seen any cracks or settlements in the walls of buildings thus constructed when carefully stuccoed, and I see no reason why this mode of building should

not be almost universally adopted, when cement or stucco are intended to be used, as it is more effective and durable, and is not at all more costly.

It has been frequently asserted that no chemical or mechanical combinations of matter will result in a successful imitation of what has been effected in nature's laboratory, and that no artificial materials can be made equal in durability to natural productions; yet it would, I think, be difficult to find in England any description of building stone more capable of withstanding, for a lengthened period, the vicissitudes of our climate, than thoroughly well made and well burnt bricks, and terra cotta.

It is true that the firing to which bricks and terra cotta are subjected may be fairly considered as constituting a great difference in their power of resisting atmospheric influence, as compared with any of the cements which are now usually employed; but it is quite certain that cements and mortars have been made, which, for hardness and durability, were almost, if not quite, equal to the hardest bricks. And I cannot doubt the possibility of again doing, in our own time, what was certainly accomplished at a period when, however much grandeur of conception and just appreciation of beautiful forms might have exceeded those with which men's minds appear to be endued at present, the physical sciences were but little known, and contributed only in a very slight degree to the comforts and the social enjoyments of the human race. A proof that I am not overstating the power of resistance to atmospheric influences which mortars and cements, when properly prepared, do undoubtedly possess, is afforded by a piece of Roman mortar, from Wroxeter, now exhibited, which has evidently been used as an external cement or stucco, and which must have been exposed to the action of rain and frost for fourteen or fifteen hundred years.

It is said that failures very frequently occur in works which have been executed in cement, and that the decorations produced in artificial materials are always deficient in that sharpness of outline, and delicacy of feeling, which constitute the great charm of architectural enrichments. But I would ask whether it is not possible to lessen, if not wholly to remove, these very grave objections, by great attention on the part of the architect in designing, and especially in inspecting the modelling of his enrichments whilst in the clay;—by a determination, on his part, to become thoroughly acquainted with the nature and properties of all such cements as he intends to employ for the covering or decoration of his buildings, whether internally or externally, so that he may be enabled to form a correct opinion when he sees the work in progress, whether the materials have been properly prepared by the manufacturer, and then sent to the building in a state fit for use by the contractor, and are being judiciously mixed and applied by the workmen and labourers;—by employing in the execution of his works such men only as are thoroughly masters of their business, making them responsible for the reparations and reinstatements of any portions of the works which may fail within five or seven years after their completion;—and by securing the services of clerks of the works, or foremen, who are well acquainted with the nature of the cement to be employed, and who will keep a vigilant eye over the proceedings of the workmen.

But some will doubtless tell me, that if, in order to prevent failures in the effect, or in the durability, of cement work, all this care and circumspection are required, failures and imperfections are quite certain to occur. This may be true; but if true as regards cement, it is also true of other works required in the erection and completion of a building. And how, let me ask, can the imperfections so often found to exist in the plumber's work, and in the drainage of our buildings; in the carpentry of the roofs, floors, and partitions; in the foundations and the brickwork, be prevented? How can the disintegration and crumbling away of the most prominent members of stone cornices, strings, balconies, and chimney-tops, within a few years after their completion, be avoided, excepting by the same degree of knowledge, care, and skill, on the part of the architect, the contractor, the clerk of the works, the foreman, and the workmen, which I have insisted on as essential to the successful employment of cements?

There are, however, among those who have most strenuously opposed the use of these materials, a considerable number who ground their objections not on the want of durability, the chances of failure, or the extra cost, but on their want of reality, their resemblance to some natural productions, and the smallness of their cost, as compared with the stone casings which they sometimes resemble. Now, however desirable, and proper, and commendable it may be, or doubtless is, to introduce into the structures which are reared in honour and for the worship of the great Creator, the most valuable and the choicest of earth's productions, yet it must, I think, be admitted, that the qualities of the materials in which the thought of a great artist is embodied (so that it possess but durability and beauty), are in all other cases of very secondary importance. I fear, however, that the disposition to place so high a value on costly stones, and woods, and metals, which appears lately to have prevailed amongst those who profess to be the patrons of the arts, is calculated to produce on the minds of the people generally false impressions, because it leads them to admire that which is difficult of attainment except to the possessors of great wealth, instead of that which is truly grand, and beautiful, and original in design.

That species of admiration which is excited by the costliness of the materials employed in works of art, has always appeared to me to partake considerably of the vulgar and the barbarous! for, as much as the heavens are higher than the earth, so much, do I believe, the emanations of the mind to be above and beyond the mere vehicle in which they are embodied. Whatever is really beautiful in form, or truly harmonious in colour, should be enshrined as amongst the most precious of man's productions; and I cannot doubt that the time will come (although, perhaps, not in our day) when the immaterial thought of the artist shall be more highly valued than any stones, or woods, or metals, however rare or costly, in which it may clothed. Much better is it, in my opinion, to have the emanations of deep thought, the creations of those minds which have been embued with a due appreciation of the beautiful in form, embodied in materials which might endure for only half a century, than the eternal stereotypes we now see rising throughout this great and wealthy country, perpetuated in stone which would endure for countless ages."

JAMES THOMAS KNOWLES.

AN ARGUMENT AGAINST THE USE OF CEMENT DECORATION.

THE real source of the satisfaction we derive in the contemplation of architectural decoration executed in *constructive* material, be it stone or brick, is the idea it suggests of the union of decorative features with constructive requirements, and the meaning and propriety which such decoration thereby acquires. It is, in truth, nothing more than a tacit acknowledgment, a sort of homage, *unwittingly* paid to the truths and reality of this last great principle of propriety in architecture, which requires that art be the handmaid of necessity, convenience, and utility,—decoration the drapery of construction, beauty, and proportion, either in detail or in mass,—the skilful and artistic arrangement of those features which the purpose of the building demands, or the constructive framework of the edifice requires; and it is the absence of this *constructive necessity* and propriety, irrespective of other qualities which may be disputed, that renders the use of cement distasteful and unsatisfactory, not only to the educated professional eye, but even to the instinct of sound sense and correct taste.

It cannot, indeed, be denied that cement is purely a decorative and not a constructive material, and that this constitutes its real difference from stone when adopted for ornamental purposes,—that the true and legitimate application of architectural ornament is to decorate essential members of architectural construction, and not to conceal their purpose,

* To be continued.

feature: it would be equally economical and ugly.——Mr. Brandon has four large domes, producing a picturesque and costly pile: the circular arrangement is not expedient.——Mr. Gearing proposes a suspension iron-wire tent, ingeniously ugly.——Mr. C. H. Smith adopts the suspension principle in another shape. ——Messrs. Turner's proposal we described at some length before the competition.——One designed by Mons. Thummeloup is Gothic,* some Hindoo! and some in a mixed style, amusingly indicative of a desire to do justice to all times and countries in the same elevation.

The plan, elevations, and sections which we have engraved of the proposed design (although necessarily prepared in haste, that we might give our readers the advantage of early information on the subject), will explain themselves, and be found in accordance with the particulars we printed last week.† The central entrance will be exactly opposite to the Prince of Wales's Gate, in the Kensington-road, which is obviously desirable. But as this gate is not *exactly* in the centre of the plot of ground to be covered, the majority of the competitors seem to have missed this point, preferring to keep the building the same length on each side of the entrance.

The western half of the building will be devoted to machinery and raw materials; the eastern portion to manufactures and the plastic arts, to which latter also the great hall is to be appropriated. The refreshment places are amidst the clumps of trees. In the brickwork, externally, some variety of colour will probably be produced.

ON THE PROPRIETY OF THE APPLICATION OF CEMENTS,

OR OTHER ARTIFICIALLY FORMED MATERIALS, TO THE EXTERIORS OF BUILDINGS.‡

It is not, I believe, because there exists among our countrymen any lack of mind to conceive, or of constructive skill to carry out the most gigantic undertakings, that so comparatively small a number of buildings, remarkable for beauty, for originality, or for grandeur of design, have lately been produced; but partly because men's minds have been directed more towards other objects than the arts; partly because the carelessness of the public, and the unaccountable apathy of the profession, have allowed a small party to assume the direction of our art, and to introduce a movement of retrogression to the style and fashion of a former age, which must, I fear, if not soon checked, prevent, for some long period, all progress and improvement. And is it strange and unaccountable that architects and architecture are favoured with so small a share of public consideration in the present day, when it is remembered that, whilst in almost everything connected with our social condition, there has been manifested the strongest determination to encourage progress and improvement—those who profess to be the patrons and supporters of this really great and noble art, have exhibited an equally strong determination to go backwards, to prevent, so far as in them lies, the introduction into the ecclesiastical edifices of the nineteenth century, a single form or feature which has not been copied from some mediæval building, and even to disfigure the windows of our churches with such representations of the human form as were produced by the old glass painters, because they were unable to give more correct delineations.

Professor Cockerell, in (I believe) his fifth lecture of last session, at the Royal Academy, speaking of the fashions which have prevailed in architecture, is reported to have said:—

"The proofs of this fact (fashion in architecture) abound. Churches were Grecian, and for the last twenty years have been Gothic; intensely Roman Catholic. The sense has been wanting to understand that we do not want a Greek temple for the reception of a Cryselephantine statue, nor a Roman church for processions, and a sight only of the eucharist; but a Protestant auditorium, suited to the Anglican ritual, to which great purpose all form of dress, of whatever order and fashion, must bend and adapt itself."

In the opinions thus expressed by the learned professor, I believe that many thousands of his countrymen do most cordially agree. Without the slightest intention of making any disparaging remarks on the labours of those architects who have with so much care and skill sought out and given correct and beautiful illustrations of the structures and architectural details of the Middle Ages, I would respectfully suggest that the time has now arrived when the efforts so strenuously made in obtaining intelligence on these subjects may well be slackened, and the talents of those gifted individuals be directed to investigations which may result in the production of novelty, beauty, fitness in design, of greater economy, combined with durability and beauty in the construction of our buildings,—in adapting to the wants of the existing generation those great discoveries in physical science, which may, and ought to, increase so largely the diffusion of comfort and rational enjoyment amongst all classes of the community, and in making our age and country as remarkable for the dissemination of a love of true art amongst the masses of the people, as it is for an amount of commercial energy and enterprise, which stand unrivalled in the annals of the world.

The homes of England have now for many ages been considered as worthy of our best attention, and no small portion of that industrious perseverance, for which our countrymen are justly celebrated, may be attributed to the desire of possessing a commodious and healthful dwelling, which so extensively prevails amongst them. There was a time when men cared little whether or not these homes were situated in the country, so that they contained the requisite accommodation for their families. But this indifference to position, which some time before the introduction of railway travelling had been gradually lessening, has since the development of that wondrous system almost wholly disappeared; and men of all classes and conditions, influenced mainly by the facilities for travelling which are now placed within their reach, appear determined to find or to build in some rural district such habitations for themselves and for their families as shall combine, with every provision for comfort and convenience, as much of symmetry and beauty as the talent of their architect and the means at their disposal will allow. Whilst, however, men of various ranks and stations are eagerly bent upon obtaining the unquestionable advantages of a country residence, and are disposed, in many cases, to incur for the attainment of this object such an expenditure (however large) as may be really necessary, they are almost invariably unwilling to make any considerable addition to their outlay, either for the purpose of building or casing their houses with stone instead of artificially formed materials, or for the introduction of features which, although generally found in ancient buildings, are now from changes and habits and modes of living, no longer useful. That this feeling, whether right or wrong, does very extensively prevail, not only among the professional and trading portions of the community, but that it is also found in many cases to exist among those who are possessed of high rank and station, must be well known to many members of this Institute.

Now if we admit that a dry, commodious, and well-arranged house does very materially assist in promoting the health and happiness of those who occupy it; that the present cheap and easy mode of travelling is leading to a very large increase of private dwellings in the country; that those by whom these dwellings are erected, although for the most part anxious to combine convenience with beauty, will not consent to any considerable increase of expenditure in the employment of natural instead of artificial materials, when the latter are well adapted for the required purpose, and possess both durability and beauty; and that in many localities no stone or bricks can be obtained which, of themselves, are capable of excluding rain or of resisting the destroying influences of frost,—it must, I think, be also granted, that few subjects can be more deserving of our best attention than those artificial coverings or skins which are in many cases really indispensable, and might in many others be most advantageously employed.

To those objections which are made against these artificial coverings on account of the expenses said to be incurred in reparations, and in frequent repetitions of colouring or painting, I attach but very little weight, because my own experience has convinced me that if the right materials are employed no painting or colouring will be required, and that the total cost of reparation (when the materials are of good quality and the work well executed) does not amount to anything like one per cent. on the original cost, within five years from its completion; and after that period has elapsed, I believe that its durability for fifty, seventy, or even a hundred years, may very safely be predicted. That the extent of durability and adaptability which artificially-formed materials possess, or which by further improvements and discoveries may hereafter be obtained, is the really important question, it seems to me impossible to doubt; for it surely never can be seriously asserted that if by an expenditure of 1,000*l*., or the amount of labour which that sum represents, we can obtain in an artificial material more warmth and greater freedom from damp internally, with as much beauty and durability externally, as can be produced for 4,000*l*. in stone, we are to adopt the latter, and reject the former. Shall we not then act like faithful stewards if, in many cases, when called upon to prepare designs for the dwellings of our countrymen—dwellings which are to be numbered amongst the homes of England—we devote the money which might be expended in an external case of stone to the increase of internal accommodation, to the enlargement and proper decoration of the apartments in which our clients and their families are to spend by far the larger portion of their time, to rendering the building proof against the ravages of fire, to providing copious supplies of water and numerous accommodations and conveniences which, although required by the habits of the age, and essential to the comfort and well-being of the tenants, are yet not always found even in the most costly of our houses.

As to the peculiar properties, the excellences, or the defects of the various cements and artificially-formed materials to which the attention of the profession is so frequently solicited, it is not my intention on this occasion to say much. There is, however, one material which can perhaps scarcely be called a cement according to the general acceptation of the term, to which my attention has been a good deal directed, and which has been very extensively used under my directions. It is one with which most are familiar, and I should not venture to offer the few remarks upon it with which I am about to trouble you, if I did not believe that I have had more than ordinary opportunities of testing its capabilities in various ways, and in remarkably exposed situations. As it is one, moreover, with which manufacturers of cements have little or nothing to do, the processes required in its preparation being extremely simple and inexpensive, whatever I may say in favour of its durability and beauty, will not tend much to the advancement of any particular interest.

This material, usually known as stucco, is, in reality, nothing more than mortar, formed either of blue lias lime, ground or slaked, and mixed with pounded slag, from the smelting furnaces; or of the grey stone lime, so extensively used in London, ground and mixed with clean, sharp, carefully washed, siliceous sand, in the proportion of one part of lime to three parts of sand, excepting for the outer surface or facing, where nearly equal parts of lime and sand are generally used. The lime and sand (whether siliceous or metallic) should be mixed well together, in small quantities, and applied immediately to the work, which, in order to insure success, should, in all cases, be first well saturated with water. With this mortar, formed in either of the two ways which I

* Apparently not in the lists issued by the Committee. One "Contributor of Designs" asserts that *many* who sent in designs are not named in the lists published. We may correct a further error in the list which attributes a design, honourably mentioned, to Mr. Bouse; it should be Mr. H. J. Rouse.

† These should be referred to.

‡ Continued from p. 257, *ante*.

have mentioned, and used by experienced and skilful workmen, not only may a durable casing impervious to water be obtained, but mouldings and enrichments of all kinds can be also executed with a sharpness and delicacy of finish which it is impossible to surpass.

In a building which was erected about seventeen years ago, and occupies a very elevated and exposed site, on the borders of Hampshire, not far distant from the sea — the capitals and bases, and the flutings of the shafts of the columns (which were executed in a most masterly manner, and with a degree of accuracy and truth, as to entasis and details, which left nothing to be desired), remain as yet uninjured. And the arrises of the fillets between the flutes, even of those columns which are exposed to the south-west, without protection of any kind from the violence of the gales of wind and rain, with which, from that quarter, we are so often visited, were, when I saw them about ten months since, as sharp and perfect as any which can be formed by the chisel of the mason.

I could mention a great number of buildings, some of them much larger, and more highly decorated, on which the same material has been used successfully. But I have selected this because it was the first of any magnitude on which I ventured to employ it; and is, therefore, the oldest work of my own to which I can refer. It is true, that a period of seventeen years (although much longer than some of the building stones which have been used in this country would endure under the same influences) offers but a narrow foundation whereon to build a hypothesis as to the permanent durability of any kind of material. But we all know that mortar, such as that which I have mentioned, will (if it escape the trials to which it is subjected for the first few years, before the induration produced by the absorption of carbonic acid has made much progress) continue to increase in hardness, for a period of which the limits have never yet been ascertained. I know of one case, where it was used as an external casing about seventy years ago, and has now become so hard and compact as to render it almost impossible to doubt its continued durability. I remember, too, that about a year and a-half ago, in clearing a site for some new buildings, I had to remove a balustrade which had been put up about fifty years before: the capping of this balustrade, which had been executed in Bath stone, was in a most deplorable and dilapidated condition; but the balusters (formed of grey stone lime, and rather fine, but very sharp siliceous sand) were, in all respects, quite sound and perfect, exhibiting not the smallest approach to decay or disintegration: indeed, nothing but the fact of their being hollow, which was disclosed on their removal, would have convinced the workmen that they had not been carved out of some hard and compact stone.

JAMES THOMAS KNOWLES.

...and a flavour of the debates that ensued.

The Builder.

No. CCCLXXXII.

SATURDAY, JUNE 1, 1850.

TWO subjects of more than ordinary interest occupied the attention of the Institute of Architects on Monday, the 27th ult., namely, the presentation of the royal medal to Mr. Barry, and the question of progress in architecture. Earl De Grey took the chair; and Herr Zahn, of Berlin, who has published some fine illustrations of the decorations in Pompeii and Herculaneum, and is visiting this country to study its monuments, was introduced to the meeting.

The President, when he rose, said, that before discharging an agreeable duty that devolved on him, he must interpose a few words about himself. Fifteen times, he believed, they had suspended the standing order which provided that the same person should not hold the office of president more than two years consecutively, and had named him for that office. He was deeply sensible of the compliment, and could assert, conscientiously, that he felt as much pleasure in being of service in the capacity of their president as pride in being elected. His present duty was one of the pleasantest that could occur to him. He had been instrumental in obtaining her Majesty's testimony of goodwill to the profession and respect for art, in the shape of the royal medal. He had, at first, feared there would be difficulty in awarding it. The present was the third presentation; and he must say he thought the council had up to this time shown both disinterestedness and discretion. This year, for the first time, it was conferred on one of their own body. Then addressing Mr. Barry, his lordship said—It gives me great satisfaction, Mr. Barry, to present to you this testimony of the good opinion of your professional brethren. Your earlier works have been long known; but, as a matter of course, it is with particular reference to the magnificent work you have now in hand for the nation, that this medal is presented to you. Your great predecessor, Wren, laid the first stone and the last stone of St. Paul's Cathedral. I trust the same fate may be yours. On that building he was occupied thirty-four years; you have not yet spent half that time upon yours; and if it had depended on yourself alone, more of it would already have been done,—the means have been withheld, and difficulties have been unnecessarily created. Wren, in his building, had but one purpose to consider; you have the Lord knows how many; and what he did was for people who knew what they wanted. This is not the case with you; your masters are legion; and numbers of the gentlemen of the House of Commons, when they ask questions, positively do not know what it is they want. The Westminster Palace is at once the most difficult and most magnificent work ever attempted. The wants are so varied, and the means of supplying them were so little understood, when it was commenced, that the task is most complicated. As one of those appointed to overlook the works, I have had opportunities of seeing the difficulties in your path and the way in which you have overcome them, that others had not. I have the greatest pleasure in handing you this testimony of the approbation of your professional brethren, and trust you may live long to enjoy the recollection of it.

Mr. Barry said, with evident feeling, he hoped they would do him the justice to believe that he was deeply impressed by the honour which the Institute had conferred on him, and the manner in which their respected president had conveyed it. It was difficult for him to speak; he begged they would imagine the feelings of pride and gratification such a testimonial must inspire in him. He felt that he owed it mainly to his accidental engagement on the greatest work of modern times. He was fully sensible of its defects as compared with the wonderful works remaining to us of the mediæval period. These defects proceeded from want of no anxiety on the subject, no absence of efforts to do better, but from the want of time, experienced by all modern architects, and of that proper frame of mind to produce with full effect the æsthetical development of a design. The difficulties thrown in the way by the executive department, too, were great, and would be understood by those whom he addressed. He would consider the receipt of the royal medal an evidence that he had not wholly failed in his endeavour to produce a fine work. Amongst all the honours which had been conferred on him by foreign academies and others, he should ever cherish this as the proudest memorial of his professional career.

The hearty cheers which he received on sitting down, added to Lord de Grey's remarks, must have served as a comforting plaster for any sore caused by the long debate in the House of Commons on the previous Friday, when Mr. Osborne, supported by Sir B. Hall and Lord Robert Grosvenor, repeated the attack on Mr. Barry, and were replied to by the Chancellor of the Exchequer, Mr. Greene, Sir W. Clay, and others. Mr. W. Cubitt, too, came out for the defence, and spoke to the purpose. He said it was easy enough to estimate the expense of a plain building, or even of a decorated building in a style which was well known and practised; but it was different when, as in the present case, there was little previous experience of the style of architecture, and no experience at all with regard to a building of such magnitude. The drawings which were originally laid before the contractors afforded no idea of the decorations which had subsequently been introduced. As to the question of how it happened that the building had become so much more highly decorated than could originally have been anticipated, he could say nothing. But as one who felt some regard for the credit of his country, and who was proud of the honour of a seat in that House, he begged to say that he thought the country did well to erect a structure, which was destined to last for centuries, in the highest style of art that could possibly be produced; and, from what he had seen of it, he had no hesitation in saying that there was no building in Europe which could bear a comparison with what the Palace of Westminster would be when finished. He did not think that a country which was under the necessity of spending between 50,000,000*l.* or 60,000,000*l.* a-year, and which he hoped would be able to afford to spend that sum, ought to grudge 200,000*l.* or 300,000*l.* for ten or twelve years for such a building.

Mr. Barry may think it fortunate that the indisposition of Lord de Grey led to the presentation of the medal being postponed till after the debate in question. One of the charges made on that occasion, namely, that the House will not afford accommodation for the members, and that, according to Mr. Drummond, "make what alterations they please, they must at last knock down one end of it to get room," will probably be replied to by Mr. Barry.

To return, however, to the institute. After the presentation of the medal, Mr. J. T. Knowles read a paper, announced as "On the Application of Cements and other Artificially Formed Materials, to the Exteriors of Buildings," in which the writer defended, and urged, the use of cements for the external covering and decoration of buildings, maintaining their superiority over stone in many positions, for securing a warm, dry, and healthful habitation, and asserting that the work of man's mind, no matter how mean the medium through which it is expressed, should be regarded as far more important than the use of costly materials. A considerable portion of the paper was devoted to the condemnation in strong terms of the trammels, in which, as he maintained, architects were kept by a small non-professional party, and the system of merely copying the works of the middle ages. We shall print some portions of the papers hereafter, and merely say thus much as to its spirit, to elucidate our notes of the discussion that ensued.

The first who rose was Mr. Francis, who expressed his regret that Mr. Knowles had introduced into a paper on cements, matter which he must think was not in accordance with its title.* He must in his turn protest against the doctrine that had been laid down. Cements were very useful in their place, but that was surely no ground from which to deduce the general assertion that modern architects, in emulating, or rather as he should say, endeavouring to catch the spirit of the mediæval artists were merely copyists. In the middle ages, Mr. Knowles had said, the architects of that day would not go back; the architects of the thirteenth century did not copy those of the twelfth, any more than those of the fourteenth copied them. This was quite true, and it was because they were thoroughly imbued with all that had been done, and were following out the style to more complete development. This was not the case with us. He could not help referring to the works of those who were advancing the "novelty theory," which were as bad, he thought, as anything could be, and were nevertheless copies. As to the two buildings of classical character shown by the lecturer,† they did not present a single pilaster, a single ornament, a single moulding, which was not copied from ancient examples. He considered that in our present state we could not do better than endeavour to emulate the mediæval architects. There seemed no objection to covering plain surfaces with cement, but to attempt to introduce it for enrichments and delicate mouldings, seemed to him most erroneous. He trusted that the spread of science would lead to the discovery of means of rendering ordinary building stones able to resist rain, and would conclude by asserting his conviction, that if a new style is to be formed, it would not be through the use of cement.

Mr. Scott quite agreed with the last speaker. He also agreed, he said, with Mr. Knowles in the belief that we were in shackles,—but these were the shackles of knowing too many styles

* Mr. Knowles has since informed us that the title of the paper should have been given, as "On the propriety of the application of Cements, or other artificially formed Materials, to the exteriors of Buildings."

† Exhibited simply as views of early works in cement.

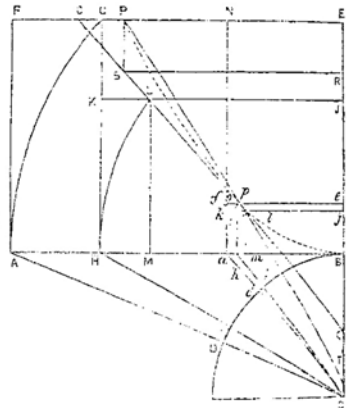
cross stuck over the entrance-door in the west gable, the same nondescript looking bell-cot, plainly showing by its mannerism, to the least initiated, the adoption by the Commission of that wholesale system of designing so unwise, so unartistic, and so unjust.

Had the Commissioners acted with "zeal for the glory of God and the good of the church"—had they acted justly towards the profession, they would have given to the young and struggling artists that are now to be found in the land opportunities of designing these churches, which would, under emulative enthusiasm, have arisen in beauty and harmony to gem the green valleys, romantic glens, and sunny hill-sides of our island.

I shall not now stretch this article to a greater length. I shall return to the subject by taking up the Poor Law Commission, the national and agricultural schools, and other fields of architectural practice, which are also as complete monopolies as that alluded to above.

THE CELT.

THE COMMON CATENARY AND NAPIER'S LOGARITHMS.



LET the tangent AB represent the length and weight of the chain, the radius BC the constant horizontal tension; then the secant AC represents the tension at the points of support.

Make CD equal to CB. Upon CB produced set off BE equal to AD. Make AF = BE, FE = AB, HG = AF, HB = GE, BJ = HI, HK = BJ, KJ = HB, JL = HB, GN = NE, and aB = NE.

Repeat the operations with respect to the point a. Draw OLplQ. Make QR = twice Qe, RS = twice pe, PS = RE, and PE = RS. Draw PpT, making TE = twice Te, and TQ = RE.

Now imagine the secants AC and aC first to coincide with the radius BC, then to increase together continuously, the lines PE and pe also to increase together continuously from the zero point B, the points P and p to trace the curve BP and the portion Bp in the same time; the curve so conceived to be generated is called the common catenary, and is the line of equilibrium of an ordinary chain. The lines PE and pe, the radius BC being unity, are the hyperbolic logarithms of AB + AC and aB + aC, for by the construction PE is to pe as two to one, and AB + AC is to aB + aC as a square to its side, or as a numeral to its square root.

The lines GE and LJ indicate the position of the point P.

J. P. W.

CLASSIC ORDERS IN ROMAN CEMENT.

MANIFOLD are the opinions afloat amongst the cognoscenti on the subject of materialism in construction, and with so much sounding, if not sound, reasoning are they asserted, that it is hard to withhold acquiescence in the theory of each successive disputant. One says it is uncandid to portray the articulations of masonry in a plastic and sham superficies; another that it is dishonest; and a third that it is an outrage on Bath stone and Inigo Jones! whilst a fourth avers that the tracery and ornamentation are meagre and deficient of that sharpness which the accuracy of the chiselled stone always exhibits; but all admit that the general character of street architecture and the especial merits of suburban villa elevation have been wondrously improved by the innovation.

Now, to ordinary observers, this latter result bears with it a strong argument in excuse of the sham.

The cheapness of cement, its great durability, *if good*, the boundless variety of beautiful model castings, the facility and celerity of progress in the finish, give to this mode of accomplishing a fair and finished cuticle an advantage in this our age of economy and utility. What signifies it to the visual observer of an elevation how many blocks go to the formation of an arch? or whether the projecting griffin in the key-stone, or the monk in prayer lolling out his tongue, be really graven on a block which traverses the paries, or is only the mask of piety in plaster? As to the assertion that the sharpness of outline may be deficient in the latter as compared to cunningly-wrought stone, the point may be conceded; but at the respectful distance of some thirty feet, the optics of ordinary observers can hardly perceive the difference, and were it not for the honest complexion of the genuine stone as compared to the washy superficies of the mimic casting, even this would be a difference without a distinction. But at the same time the superiority of stone for ornamentation is of course freely allowed.

For private buildings, however, where the outlay is the paramount object, no one can question the fact, that the prevalent taste for diversity of style is greatly aided by the new and, if you will, the simulated plastic representative of stone. Look at Regent-street, the first innovation on the quarry—look at the terraces in Regent's park—examine St. John's Wood, and all the "alentours" of London, and then consider well before you pronounce a sweeping denunciation of dishonest imitations of the solid and the graceful.

Had we been limited to Bath, Portland, and Caen stone, where would have been our street architecture? where our entablatures, friezes, columniations? Should we not have yet had to gaze with saddened reflections on new Harley-streets, Gloucester-places, and Portland-places, instead of a Westbourne-terrace, a Carlton-terrace, Queen's-road, Notting-hill, and various other diverse, if fantastic, achievements, which relieve the monotony and dulness to which the wandering Oppidan was doomed, whose dreary meanderings were erstwhile limited to a migration from Finsbury to Montague squares?

Of performances in simulation of stone, instance might be made of an example between Coventry-street and Leicester-square, and to another and very different variety in edification which has lately sprung up in the Regent's-park, at the foot of Primrose-hill, namely, a terrace, as yet anonymous, but designed by Mr. Moore. Such performances are of infinite use in every point of view: like a new flower to the horticulturist, they give food to fancy, and offer to the propagators of the mystery another specimen from which the chances of diversity, both in form and colour, may be improved *ad infinitum*.

But all this has nothing to plead for the integrity of art. Granted: plaster is not stone, though it looks something like it. Yet whatever your structure, if it be solid and enduring, it is surely entitled to indulgence. As yet, we perceive no symptoms of decay in those specimens of cement which have been erected twenty-five years back. Can we say so much for Bath stone? I fear not. It is not necessary, nor perhaps fair, to request a lover of the *quarry* to cast a glance at the oft-renewed but mouldering tracery of the Oxford Colleges, or to view the delicate elaboration of Henry the Seventh's Chapel, Westminster: at the same time these being public buildings, the cost of material is of little moment.

Private residences are not built nor calculated to endure for ages; the transitory limit of leases (at most seventy-seven years) forbids this; therefore the cheaper the cost of construction the better, and any, the *worst cement*, will endure for such an interest;—please the district-surveyor as to required and legalized solidity; but above all, please the public taste by diverging from rectilinear solidity, and by creating (although without the privilege of a curve) some novelty that may impart an unthought idea, and impress variety on him who wanders through quadrangles.

As to the observations so artistically treated about styles, by your correspondent who alleges that "man is an imitative animal, that he copies the models of his ancestors, that he only can adhere to or mix the old orders, that he has not genius to invent anything new," &c., &c., that may be all good theory, but it is Greek to me.

What can it signify what he mixes, if the amalgam be good and pleasing? Construction altogether originated from material circumstances, that is, from the materials originally used, and from their adaptation to the uses of man; the column only represents the tree—the projection the traverse timber, &c.

That the inhabitants of various regions should have peculiar characteristics in combination is also natural; for the requirements of climate dictate the form, and the products of the region prescribe the material. The Laplander burrows underground, the Indian plasters his wigwam—as the swallow sticks his nest against a wall, the wren weaves a rotunda, and the *Builder-bird* hangs hers from a righteous branch.

Strict adherence to first principles in art would be a clog on genius, and an obstruction to progress. Let us dismiss the sciolists, and go a-head in design.

If the combination of stone, brick, slate, tile, iron, and cement can be effected together with *unity* of colour, that unity without which (despite the Church of Sienna) no design is complete—then, I say, mix them. But above all, in street architecture, these combinations and the use of cement seem now indispensable; for, as the Irish bricklayer said, "*Boys, our leases are short*, so cement for ever."

QUONDAM.

SOME THOUGHTS ABOUT 1851.

MANUFACTURERS TO WORK!

WITHOUT any preparatory essay to test our own capabilities, in the fulness of our magnanimity, or rather rash confidence bordering on swagger, we have challenged competition with all the world!

You said, and it has been repeated all over the country, "In the first round England has gone down."*

After the failure of 245 competitors in the design for the building, this section of the Royal Commission, comprising the architects and engineers among them, has issued a design and plan to be acted upon. It would be curious to learn, since it is sent into the world anonymously, who is really the architect, if any, who will eventually own the paternity of this proposed edifice, or if it will fall to the lot of some at present mysterious unknown to answer for its sins, and receive at the winding up the honorary distinction of having swamped the 245 competitors.

There can be no doubt but that the Exhibition must take place, and every probability of a monstrous dome being erected in the centre of the building. This feature of it, the size of which was first made appreciable by you, has spread alarm far and wide, lest the colossal structure should become permanent in Hyde-park. Public clamour will not suffer it to remain; and it may be asked what shall be done with it afterwards? I venture to suggest that it form a modification of Professor Hosking's proposition to enlarge the British Museum, by being re-erected in the inner quadrangle. If Government would engage to purchase it for this purpose, a great relief will be given to the pressure on the subscription made for the Exposition; the funds of which, at the present moment, scarcely justify the enormous outlay said to be required for the building alone. It would also be satisfactory, before contracts are made for double the amount of the money in hand, and be but just towards present and future subscribers, to publish at the present time a balance-sheet, stating the amount already received in cash, the amount subscribed and not paid in, and on the other side the amount engaged to be paid in salaries, the expenses of the commission, &c. It will then be seen what we really

* That is, she was let down.—ED.

A Local Industry: Blackborough Whetstones

In the 4th Earl of Egremont's day, the village of Blackborough was home to a highly specialized and localized industry. Travelers on the main Exeter to Honiton road would see a long white horizontal line on the hills to the North-East. This white line was the spoil from the mineshafts of the Blackborough whetstone miners. Whetstones are used for sharpening edge tools. One stratum of the greensand cap of the Blackdown Hills held stone of just the right lightweight porous composition and abrasive surface for whetstones, known as Devonshire 'batts'. Mines were driven horizontally into the hill for up to 400 metres. Dug by hand, they had to be "braced and propped for their full length, every inch" with precious hedge and coppice timber. The tunnels were lit by candlelight, narrow at the entrance and widened and heightened further inside, so that two men with barrows could pass. Cross galleries were dug to extract more stones and in the latter stages of production the mines had lockable doors to prevent pillaging. Caverns could be up to 6 metres high and 40 metres wide. When an area was completely worked out, the whole excavation was allowed to fall in.

Pieces of greensand the size of a horse's head were brought out and worked on the spot. The stone was greenish and moist and could be worked with a unique double-headed tool called a basing axe, made locally in Kentisbeare. After rough shaping, the stones were brought down to the village to be hewn to their final dimensions of about 30 centimetres in length. They were then rubbed down in hot water by women on a large stone of the same material. When dried they were ready for sale.

The stones were mainly used to sharpen the blades of scythes and sickles, used to harvest cereal crops. A farm labourer could get through two or three a day in harvest time as they often broke and were useless unless complete. A scythe in use needed sharpening as often as every quarter of an hour.

Loads of stones were taken to the ports of Topsham and Bridgwater to be shipped to London, the Midlands and South coast ports, and on to destinations as far as South Africa and Australia. Many were sold locally at an annual Scythestone Fair held in May or June in Waterbeer Street, Exeter. The hill folk rose early, taking their loads by ass or pony, or in carts. There was an old proverb in Exeter: "All over in ten minutes like Scythestone Fair". Many people would arrive too late to see the hardy families selling their wares by five or six o'clock in the morning. They returned to Blackborough laden with groceries, and then, as they reached the foot of the hill, filled their panniers with good earth for their gardens on the greensand.

Remains of the mines can still be seen on the Blackdown Hills, overgrown, yet still evocative of a lost industry.

Silverton Park Stables before work began.

Silverton Park Stables in context

The stable block at Silverton Park followed the tradition of the eighteenth century, by when stable blocks associated with a country house had become separate incidents in the landscape. By the early nineteenth century, arrangement around a central courtyard had also become typical. With hindsight, the Georgian quadrangle stable (of which the stable at Silverton Park is the direct descendant) can easily taken for granted, but in fact the design marked a clear transition from that of earlier stables, which were more likely to be attached to the main house. Architectural historian Giles Worsley, who wrote so eloquently about stables in his *The British Stable*, called the Georgian stable 'among the most beautifully conceived of all English buildings; crisp, compact, to the point. Often the work of a leading architect, it is a concentrated gem that often serves to put the house it serves to shame.' It is a statement that could equally be applied to Knowles' work at Silverton Park.

With its whiff of Classicism, the stable block at Silverton Park represents the merest, most final echo of the Palladian design that had dominated British architecture through the eighteenth century. Its impact comes as much from its sheer size as from the symmetry of its (pseudo) porticoes. In fact, such quadrangular stables were not so much neo-Palladian as positively anti-Palladian. In his *Quattro Libri dell'Architettura* Palladio had recommended that stables should be placed in symmetrical wings spreading away from the house, as had become the fashion in England in the latter part of the seventeenth century. Quadrangle stables had existed earlier, but almost exclusively only for royal patrons. The first person to break with the (at that date, somewhat coincidentally) Palladian approach for stable ranges flanking the main house was Sir Robert Walpole at Houghton Hall in the 1720s. His first stable block there, probably designed by Colen Campbell and published in his *Vitruvius Britannicus,* was the first quadrangle stables and only marginal smaller than the house itself. They blocked a key vista, Walpole decided, and therefore demolished them in 1732, but their replacement by William Kent also followed a quadrangular plan. It was undoubtedly such palatial stable blocks that the 4th Earl and his architect set

out to emulate at Silverton Park (Interestingly, though probably coincidentally, the National Trust guidebook for Petworth House cites Holkham as the key influence on the 2nd Earl of Egremont's development of Petworth, under the guidance of Holkham's owner, Thomas Coke 1st Earl of Leicester and great friend of the 2nd Earl.)

Houghton Hall, with stables (1732) on the left (top) and a view of the stable yard.

Keen horsemen would visit their stables regularly and display was still an important element of design. The scale of stables and coach houses had long reflected the wealth of their owner and the scale of the house to which they belonged. The provision of stables at Silverton Park was therefore an essential part of the architect's brief. Similarly, the contractor was probably the same as the one who built the house, W H J Hooper.

A stable block was much more than simple provision of equine accommodation. It also included tackrooms and rooms for the grooms and other servants, carriage showrooms and provision for maintenance of the vehicles. A block such as that at Silverton Park would have held a range of vehicles, for use depending on the occasion and number of people to be transported – troikas, gigs, phaetons, traps, coaches. Nor should the maintenance and care required by the carriages and their teams be underestimated. Carriages, especially coaches, required intensive ongoing maintenance and good storage conditions.

Care of Carriages

Coachbuilders of the 19th century considered that a carriage required as much care as the furniture in a drawing room and that no gentleman should keep his vehicle anywhere that he would not place his wardrobe. The ideal carriage house was to be kept at a moderate temperature similar to that at which the vehicle was constructed. The wooden parts of a vehicle were affected by their storage conditions: if the building was too hot and dry, the wood would shrink and cracks appear; if too damp, wood would swell and iron and steel rust. Rust would also attack if paint chipped from metal surfaces, and spread beneath adjacent paint surfaces. In a damp coach house, brown rust lines appeared between the plates of the springs, and brass and other metal fittings soon tarnished.

The hoods of vehicles were to be kept up and regularly oiled to prevent cracking, as were other leather attachments such as braces and cushion straps. Axles and wheel plates needed greasing at regular intervals according to the mileage covered. Cushions and soft trimmings attracted moths, and it was usual to use cedar shavings and a rubber cloth to deter them. Cedar shavings might even be added to the stuffing of cushions to protect them. Vehicles were not be kept near stables or manure heaps, since the gases emitted were harmful to varnish and could cause it to crack. It was advised that carriages were not left by a window or open door, or exposed to the direct rays of the sun. As described in more detail below, all these tenets are dealt with in the provision for carriages at Silverton Park.

And after every time it was used, the carriage was to be liberally hosed down to remove mud and grit, leather parts being kept as dry as possible. The vehicle was then dried by hand with a chamois leather, taking care not to get oil from the shackles and wheel plate onto the chamois. The wheels were also hosed, as this prevented any shrinkage to their wooden frames within the iron bands.

Given his extravagance in all other directions, we may safely assume that the 4th Earl of Egremont delighted in his carriages and perhaps especially his coaches, which no doubt bore his coat of arms. We know his widow continued to drive in a yellow coach long after his death. The Earl was building at the tail end of 'The Golden Age of Coaching,' during which coaches had benefited from the road improvements arising from toll charging through the turnpike system. After about 1840, the advent of the railways led to a slow decline in coach travel, and indeed in 1842, the railway arrived at Taunton, reducing the journey time from London to Exeter from twenty four hours to twelve. It somehow seems typical of the 4th Earl that he should build his monumental stable block just as long distance coach travel was going out of vogue.

The Design of the Stable Block

This was also the age of the pattern book, and it seems likely that Knowles would have turned to them for advice on this rather specialised structure, and one of which there is no evidence that he had prior experience. One such pattern book is George Tattersall's *Sporting Architecture* (1841).

Tattersall was a surveyor, and in his view, 'Of all the various departments of the builder's art, none has so suffered from the carelessness or prejudices of ages, as that which gives the title to this Treatise....It is only by a close and intimate acquaintance with the nature and the habits of the animal that the designer of a dwelling for the dumb creation can succeed in rendering it such as may be the most conducive to their *comfort*, which carries with it what is even more of consequence, their *health.'*

He gives various pieces of advice for the construction of stables, useful for architects who might not have encountered grand stables themselves:

> *'The atmosphere of the Box is even, pure, and mild. The whitened walls untainted with the usual stains of closeness, or of damp. The place is, in short, healthy.'* (p 10)

Tattersall recommends apertures in the roof to allow air circulation through the stall boxes without draughts, just as we find in the north range.
As for the Straw Yard:

> *'The Yard should be laid with gravel, on concrete, or on hard core, sloping towards a drain or dung-pit in the centre; and so well covered with litter, as to afford a soft and pleasant footing to its unshod occupants, and to complete the proper comfort and convenience of the Straw Yard.'*(p 25)

Despite the existence of such pattern books, there is some evidence that the Earl and his architect had to make up the disposition of actual accommodation in their monumental block as they went along, so that windows that turned out to be part of stabling were subsequently blocked. Although one of the first-floor sashes was found to be dated July 1839 – suggesting the building was almost ready by then – the stables were still awaiting their cement render and decoration at the

Earl's death in 1845, even though they must have been in use for some time. One small surviving section of completed cement rendered cornice suggests either a trial or that this process had already started when it was brought to a halt.

Only a few items in the buildings accounts can be unequivocally attributed to work on the stables. None of these are later than 1840, when the smith submitted a bill for 'work to Mansion House and Stables Buildings' including '141 ton 13cwt Cast Iron Girders including Carriage Hoisting at £16 per ton - £2,266 8s.' The stables had brass door furniture, but these were not the door knobs and the item may relate to the tethering rings. Another significant item was for '365 ft of 3 inch framed, braced, battened and solid boarded folding doors to the coach house £54 16s 4d.' As described below, these massive doors were to shut off the coach house in the southern pile of the south range from the courtyard side, safe from the noxious fumes of effluent.

One of the biggest mysteries about the stable block is why it was built with so much accommodation (and mostly heated by their own fireplaces) when fewer than twenty horses can have been stabled there. Grooms and stable boys were traditionally towards the bottom of the hierarchy, and were often expected to sleep on straw pallets in crowded and communal conditions close to their charges. The very large open space above the coach house (see below) may have been such a space. The living accommodation in the stable block may well have been intended to house other workers and officials on the estate – or may never have got that far. The relevant census returns are frustratingly silent for the stable block, and tell us little more about the mansion itself. In 1841, the only return available during the 4th Earl's lifetime, the Earl and Countess are elsewhere on census night. Housekeeper Sarah Liddon and seven housemaids seem the only likely residents in the mansion on that night. Gamekeeper William Jeffrey and his wife and servant, gardener Roland Job (and wife), builder Thomas Clark (and wife) and three agricultural labourers are also listed under the general heading 'Silverton Park', but presumably lived elsewhere on the estate. A listing for the

estate does not come up for the 1851 or 1861 returns; in 1871 housekeeper Anne Thurslow and three male and three female servants are listed. In none of the returns are the stable block or stable staff mentioned specifically.

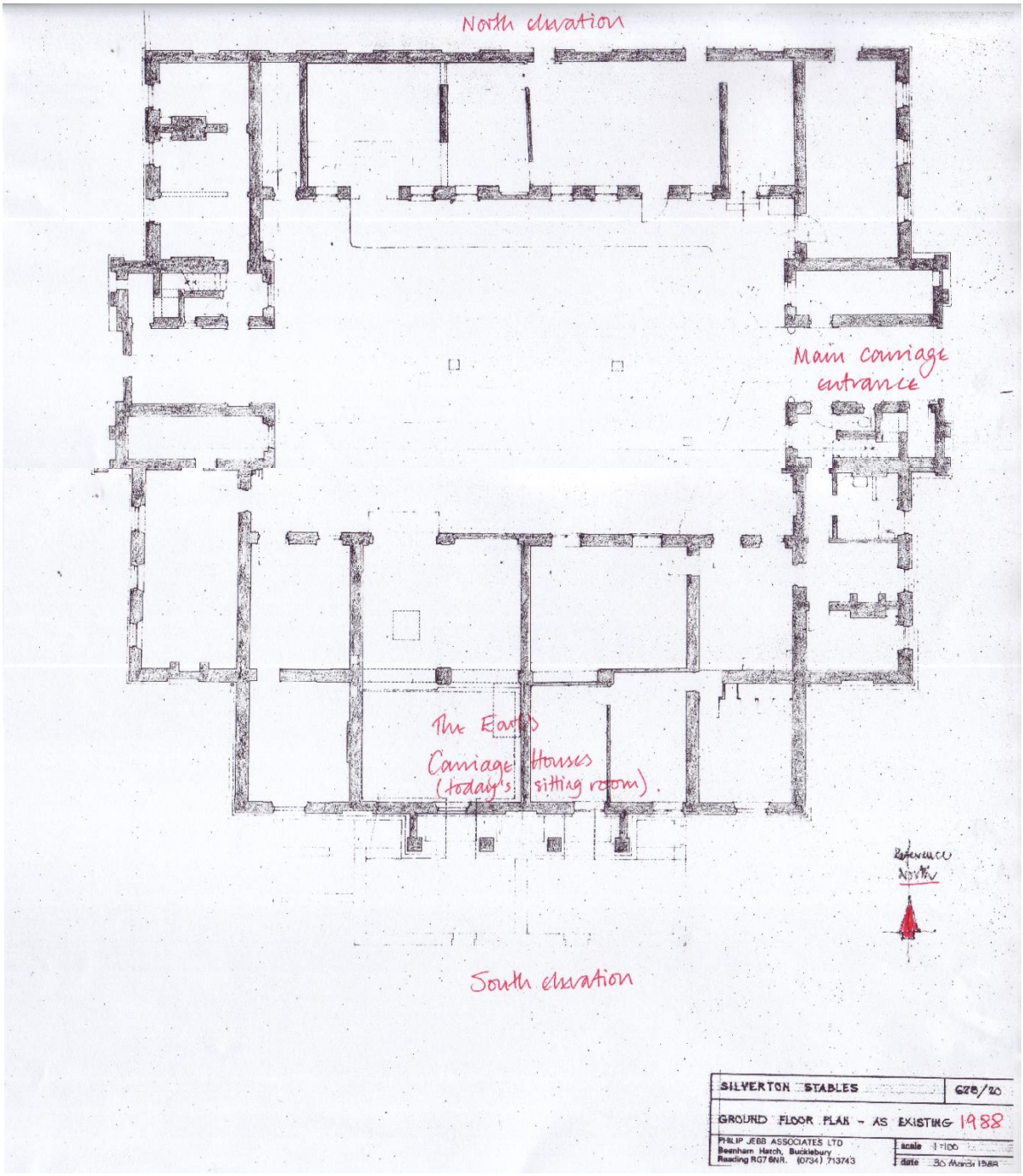
After the Earl's death, the stables seem still to have been used at least intermittently by the Earl's widow, who arrived every year in her yellow coach to spend a few months in the house. Neither the stables nor their contents were included in the 1892 sale, suggesting that the stable block was under separate lease by then. Nikolaus Pevsner, in a rare error and clearly not in touch with John Summerson, mistook the stables for Silverton Park itself in the 1952 first edition of *The Buildings of Britain: South Devon,* describing it as 'in a severely Grecian style and now falling into a not unpicturesque ruin.'

The stables passed into agricultural use and latterly, the southeast section was used as a farmhouse by the farmer Bernard Hawkins and his wife.

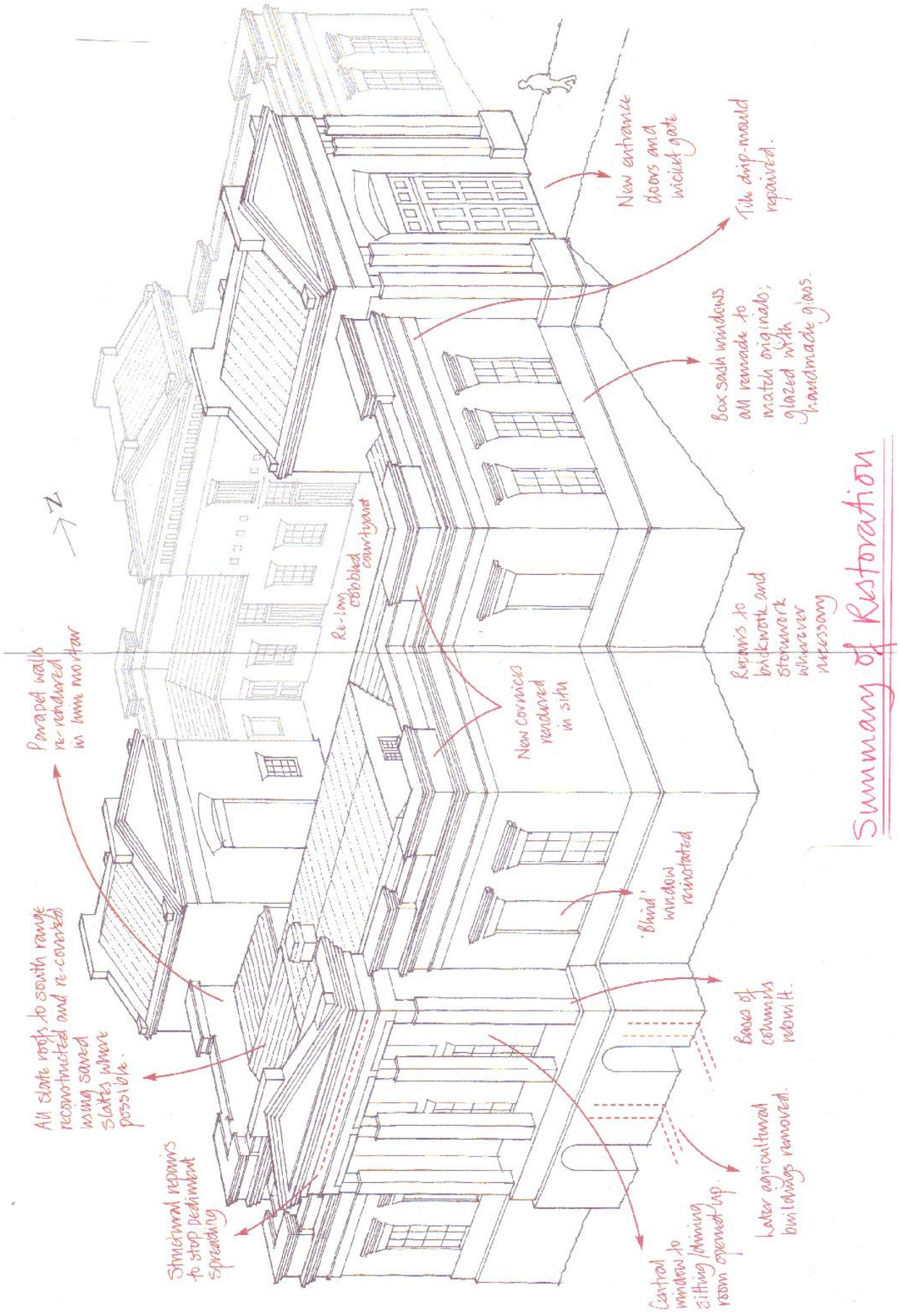
The stables in the 1980s, still in use as a farm. The north portico has been taken down, as has the parapet on this north range, with corrugated iron providing replacement cover. The farmhouse was in the south east corner (below).

The stable yard in use as a farm.

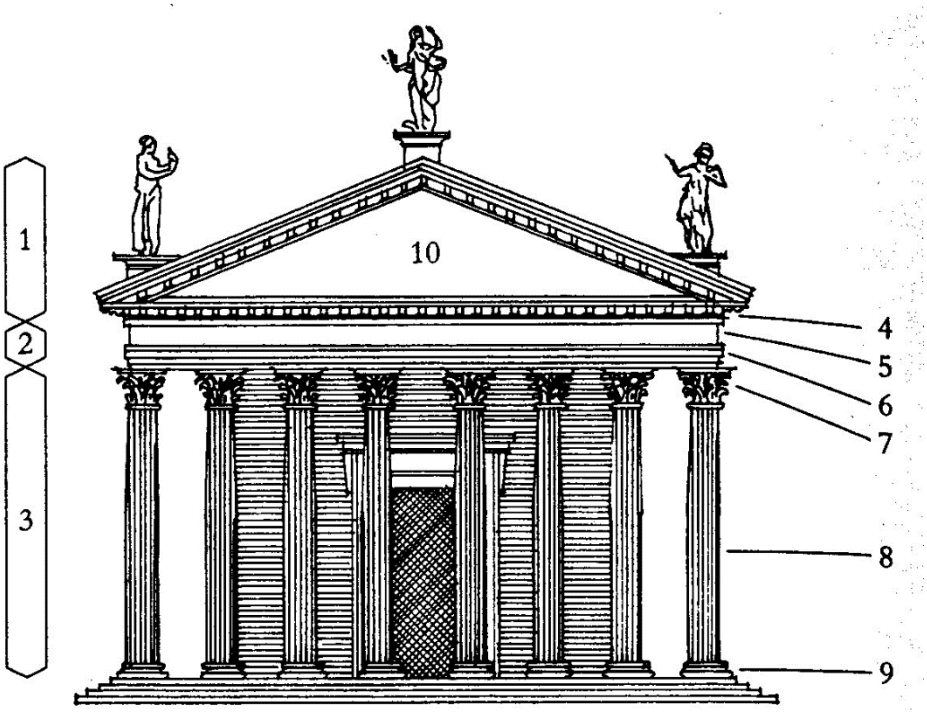
The south elevation before work began.



Ground floor plan in 1988, soon after Landmark's acquisition of Silverton Park Stables


Summary of Restoration
New entrance doors and wicket gate
Tile drip-mould repaired.
Box sash windows all remade to match original; glazed with handmade glass.
Repairs to brickwork and stonework wherever necessary
Re-laid cobbled courtyard
New cornices rendered in situ
'Blind' window reinstated
Bases of columns remain.
Later agricultural buildings removed.
Central window to sitting/dining room opened up.
Structural repairs to stop detriment spreading
All slate roofs to south range reconstructed and re-covered using saved slates where possible.
Parapet walls re-rendered in lime mortar
N

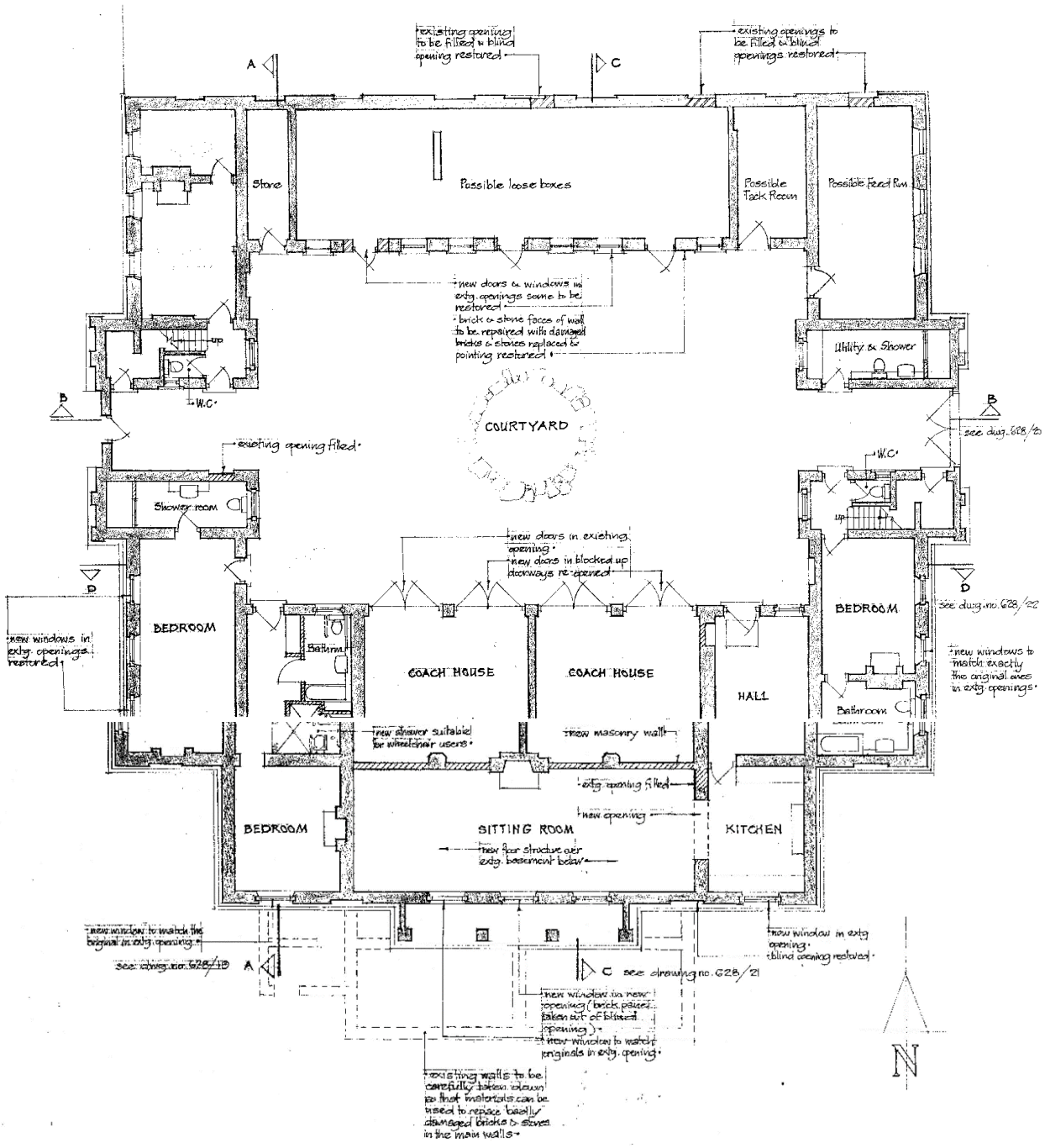
Naming of parts – a quick refresher



THE PARTS OF CLASSICAL ARCHITECTURE
After Andrea Palladio's drawing of the Temple of Jupiter Stator, Rome

1. Pediment
2. Entablature
3. Column
4. Cornice
5. Frieze
6. Architrave
7. Capital (Corinthian)
8. Shaft (fluted)
9. Base
10. Tympanum

Note: As shorthand, the central, pedimented blocks in each elevation of Silverton Park Stables are referred to in this album as 'porticos.' Purists may jib, since a true portico is defined as 'a roofed space, open or partly enclosed, forming the entrance or centerpiece of a façade of a temple, house or church, often with detached or attached columns and a pediment.'



Floorplan of Silverton Park Stables (NB: scheme not quite as finally built. – final plan is shown on page 102).

Building Description and Restoration

The Early Stages

Silverton Stables was one of the last buildings acquired by Sir John Smith for the Landmark Trust, before Sir John stood down from the charity in 1990 (the other late acquisition was the Villa Saraceno, to which Silverton Park Stables making an interesting counterpoint). At the time, the stable block was in danger of being snapped up for conversion into four residential units, for which planning permission had been granted. Sir John felt that this would not be an appropriate fate for this monumental building. At that time, support from The Manifold Trust enabled a speed of action no longer possible for Landmark today, and so Landmark was able to acquire the building. Sir John had a vision for a nationwide network of Landmarks in stables, in which horses too could be brought to join the holiday. Nothing would come of this, although it remains a point of reference at times as we consider potential projects.

Sir John asked Philip Jebb, perhaps his favourite architect, to come up with a scheme. This scheme would have presented the building in a rather formal way, as almost a country house in appearance, as if to replace the lost mansion. Philip Ford and his team, who worked on many Landmarks in the 1980s, were all lined up to start work but then it was decided to start instead with 28 South Street, Torrington, acquired in 1989. Silverton was used for storing materials and a very limited amount of work was done to make it secure, including replacement entrance doors. South Street was expected to be a short project, but in the event it took six years to complete and did not open as a Landmark until 1998. By then, Sir John had long since stood back from involvement with Landmark, and Philip Jebb had sadly died in 1995. A clean slate was called for.

We would puzzle for many years over how best to convert this huge building to Landmark accommodation, or indeed to any practicable new use. An even more intractable problem was how to fund the work now that the Manifold Trust was no longer a source. The stables are listed Grade II, a listing status that placed it

outside most statutory grant aid. The funding possibilities and dead ends took up even more time – an application for increasing the building's status to Grade II* was considered; so too was enabling development by applying for planning permission to build a house on the site of the old mansion. Such schemes came to nothing, but we all felt we owed it to Sir John to come up with a solution.

In the end, the deadlock was broken by a donation from a particularly loyal supporter, who in 2005 made an initial gift to get the project started. Knowing that the budget would be even tighter than normal, we decided to manage the project in-house, overseen by Landmark's surveyors and with Reg Lo-Vel as site manager, managing local sub-contractors for the work.

By this time, the Jebb scheme, which involved both breaching and partitioning the original floorplan and the addition of features for which there was no historic evidence, had come to seem rather interventionist (and expensive) according to today's conservation approach, and so the current scheme evolved instead. Architect Allan Konya, who had worked with Philip Jebb on his scheme, was also retained and Allan played a constant and patient role over the years, providing numerous drawings for the different ideas as they evolved.

It was decided that the Landmark accommodation should be mainly in the sunny southern pile of the south range. The size of the Landmark evolved as work went on: we felt that the whole building was too big to convert and let satisfactorily as a Landmark, and initially planned to create a Landmark for ten, leaving the rest weathertight but unrestored. As the project proceeded, accommodation eventually increased to the current configuration for fourteen, although parts of the interior of the north range remain unrestored, to allow a flavour of the atmosphere of the original purpose to remain.

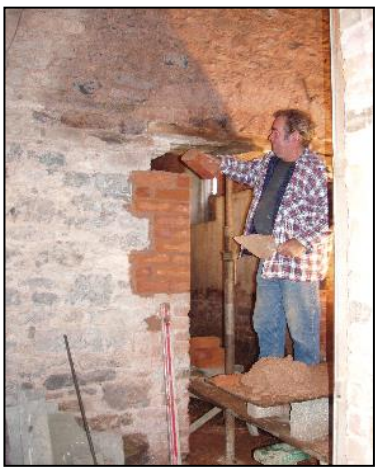
The courtyard in November 2005.

The stable block in October 2006, fully scaffolded.

Initial Works On-Site

The eventual scheme respects the original layout much more closely than the Jebb scheme and, while less grand, we felt it would remain truer to the original character of the building. Initially, we expected to repair the building in 'zones', concentrating first on the south range, where we hoped to get a Landmark up and running, even if the rest of the building was left to be repaired at a later date. In the event, perhaps as our donor hoped and only due to his careful, generous and timely support, the project developed its own momentum. Other donors began to support the effort and it became unthinkable not to continue on site and finish the entire structure.

The essential first phase was simply to get the building watertight. The whole stable block was scaffolded in autumn 2004. As many slates as possible were salvaged and used for the visible slopes of the roof facing the courtyard. The less visible slopes were covered with perfectly serviceable modern Spanish slates salvaged from another Landmark, The Grange in Ramsgate, where they were inappropriate. Terne-coated stainless steel was used for the flat roof areas, and the same material allowed much longer runs of guttering than the series of steps that leadwork would have required. New cast iron guttering and hoppers were installed and painted Brunswick Green, as found on a fragment of entrance door beneath a floor slab.



Repairing decayed brickwork in the southwest corner, Nov 2005

View southwest across the south range in March 2005. The roof of the south range is curious in design. A valley roof might be expected of its double pile; instead, the roof running back from the portico is almost flat.

Graffiti in a ground floor room.

The east elevation scaffolded, with work going on to the cornice.

An obvious decision to be made early in the restoration project was whether to instate a render of some kind, which involved considerable debate among the Landmark project team and Trustees. The eventual decision not to render was based upon several considerations. Perhaps first and foremost were aesthetic and philosophical objections. It would be impossible to render the entire building without speculation, since we did not know what the Earl and his architect had intended in terms of colour or decoration. Rendering the building would certainly have 'tidied it up' – but equally, the building had stood unfinished for the whole of its life, and to render it now would reduce its interest as a historic survival whose history can be read in its fabric. Rendering it would also have risked making it appear as some kind of 'dower house', rather than the essentially utilitarian building it was intended to be. The passage of time had also given the brickwork a certain majesty in its current state.

There were technical reservations too. Today, using a hard cement render such as Knowles had advocated over the much softer bricks and rubble stone would be considered ill-advised, since inevitable cracking of such a rigid covering would

allow water ingress and consequent hidden damage to the fabric behind. A permeable lime render would have overcome these concerns to an extent, but would have been very expensive to execute and then to maintain on such a huge building.

So eventually, it was agreed to leave the stable block unrendered, but to take the opportunity of having scaffolded the building to tie the whole together visually by re-rendering the cornice frieze in hydraulic lime (the one portion that had originally been rendered before work ceased), taking the small section of primary cement render as reference.

Surviving render at cornice level on the parapet on the south elevation – the famous patented metallic cement.

Mortar analysis showed that the binder was indeed Blue Lias hydraulic lime, with little evidence of an additional pozzolanic (hardening) reaction between the lime and the aggregate, which was found to be copper slag. This aggregate was the patented metallic part of the mix, consisting of quartz, grey 'slag' particles and powder and 'often rounded particles of various geological types.' All in all, the patented metallic cement turned out to be a fairly standard hydraulic lime mix.

The painstaking task of rendering the cornice was done by brothers Alan and Stan Flood of Plastercraft, a small local firm from Bristol specialising in such things. Traces of limewash were also found on sections of the external walls, probably dating from the block's later, agricultural use.

Alan and Stan Flood running in the parapet cornice. The former used is known as a 'horse'.

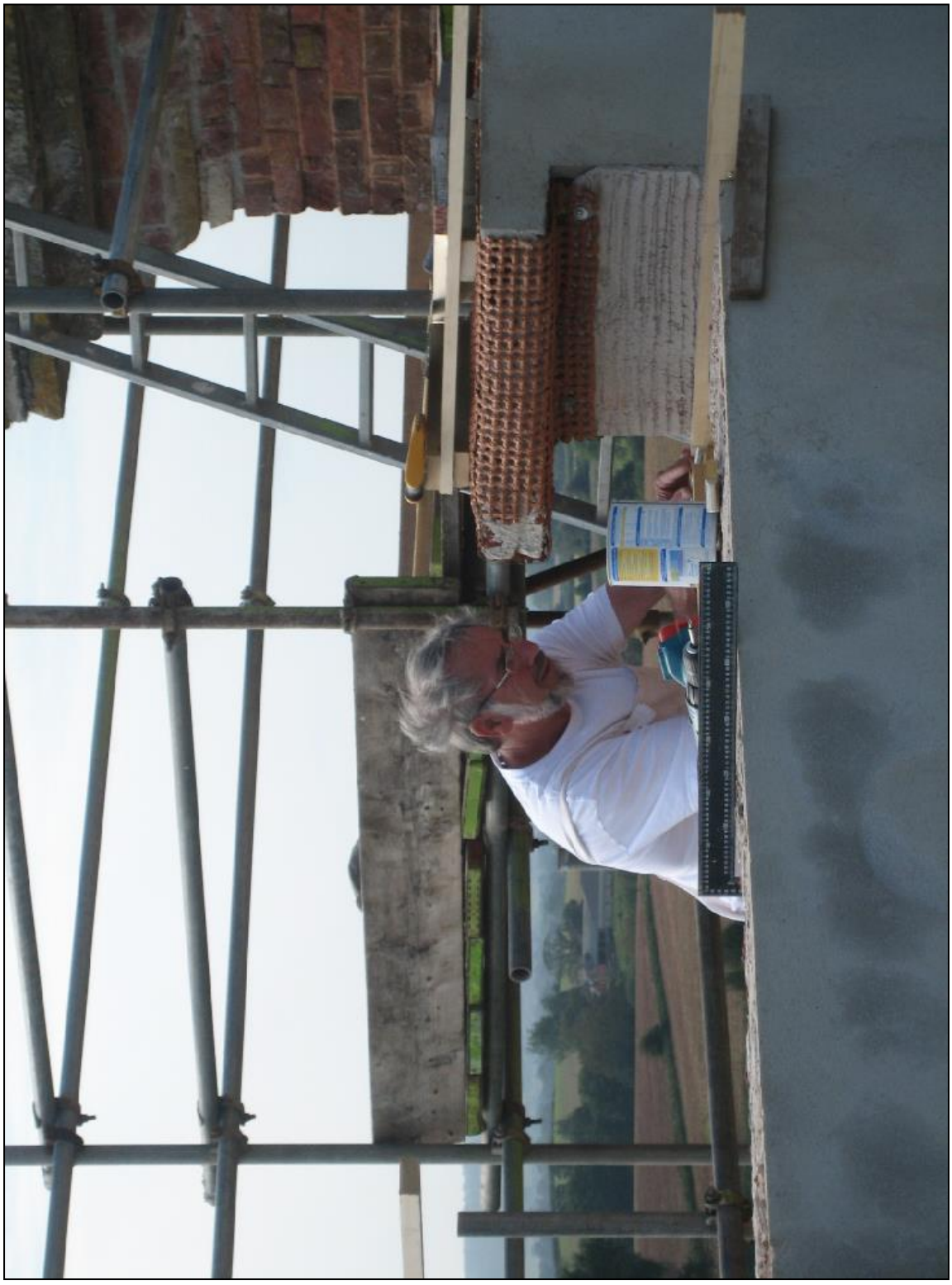
Having decided not to render the entire building, however, we were left with the fact that the rubblestone portions especially were often badly weathered, and differing materials happily juxtaposed without much thought, in expectation of the metallic render. Where straight edges were required, around door- and window-openings, bricks had been used, and where several openings were close enough together, the whole section had been built in brick, using hand-made reds fired, we can infer from the building accounts, in temporary clamps on the estate. Bricks, often chopped back to a rough profile, and roofing tiles were also used as the bases for the intended decorative motifs of the metallic cement. These can be seen in the entablatures and parapets, and also the pediments, where perhaps, until money began to be tight, Classical scenes moulded by the Earl's Italian craftsmen were intended, similar to those on the main house. The whole presented a patchwork in varying states of preservation.

Following a report by a masonry consultant, David Ogers, the walls were gently worked over to remove loose and friable material and repointed where necessary.

In the early 1990s, Landmark had acquired over eighty pallets of handmade bricks in anticipation of the repairs, which had been stored on site for more than a decade. They were a reasonable match for the 19th-century soft reds, and the majority were used up during the restoration, especially on the rebuilding of the northern parapets.

Having described these global works, what now follows is a description of the building and our restoration of it by range, for those who are interested, perhaps suitable to accompany a tour of the building.

The stables are built into the upper portion of a south-facing slope, a position which would have involved some landscaping to create a level surface. Purely for visual effect, the parapet rises quite high above the utilitarian pitched and hipped roofs of the stable ranges. The profile of the building was treated to appear, once rendered, as if it were masonry, stepping up at the corners and echoing the design of the mansion. This implication of masonry by using render over brickwork is, of course, pure Palladio, if you substitute *intonaco* (the local Italian thin, non-hydraulic lime render) for patented metallic cement.



Building up the cornice frieze, using a wire and clay mesh.

The South Range - exterior

The south elevation. It was in the two large, central, south facing rooms, shaded by the portico that the Earl of Egremont would have stored and displayed his carriages. The blocked windows were always blind (the central one has now been unblocked). The wall between the outer two rooms has been removed to form the large sitting/dining room, with kitchen leading off. The later farm buildings below the portico have now been removed.

Largest and most impressive of the four elevations, the double-pile south range was clearly designed as the show front, to be seen from, and look down towards, the mansion below. This also made it the obvious range for the Earl to house his carriages, on an elevated level with a hint of the *piano nobile* about it, above implicitly rusticate storage or agricultural spaces below. The height and emphasis of this range is intensified still further because it projects forward from the west and east ranges and by its tall portico, which projects still further.

The square brick columns of the portico look rather skinny, but are of course missing the render that would have corrected these proportions and formed their capitals. Their exposure to the elements meant they had weathered badly and many of the bricks needed replacing – a very delicate operation given the weight of masonry above. There are shallow set-backs around the top of each column, presumably to take these capitals (and what classical Order would Knowles have chosen, we may ponder, for his coach house? Probably Corinthian!)

The preparatory bedding for the cement mouldings can similarly be seen for the architrave of the entablature, the base of the cornice and the triangular pediment.

During the later agricultural phase, a sash under the portico was crudely remodelled and two smaller window inserted, one immediately to the right of the protico with no regard to symmetry. The original design has been reinstated. We also opened up the formerly blind central window with a sash window to allow a slight rearrangement of the interior, and reinstated the formerly blind window on the right of the portico.

The south portico was found to be spreading sideways and apart, generating real concern about its structural stability. After advice from Professor Bill Harvey, metal ties were introduced, concealed above the timber soffit. The roof timbers on the south range and indeed across the entire building were found to be suffering badly from rot. All the slate roofs on the south range had to be fully reconstructed and re-covered using saved slates wherever possible.

Along the front of the south elevation were the remains of a roughly symmetrical, single-storey lean-to range. Built out of local rubblestone, it was clearly a later addition and has been removed, as has a smaller timber addition to the west.

The courtyard elevation of the south range is mostly of brick because of the width of its primary openings. It is nearly symmetrical, with four tall carriage openings in the centre, which then led, probably through the large folding doors mentioned in the building accounts, into the two-roomed carriage house beyond in the south pile. The carriages would have been cleaned and maintained in this courtyard pile, before being wheeled through once clean into the carriage house beyond. When used as farm buildings one courtyard carriage opening had been partly infilled with timberwork and a doorway, and the other three had been permanently bricked up in fairly recent years. These alterations we have reversed, and we have put back four pairs of carriage doors to the original design based on a surviving section found on site.

Courtyard side of the south range before work began, showing how the doorways into the carriage houses had been bricked up.

The granite thresholds of the carriage houses on this south side of the courtyard are significantly higher than the courtyard's present level, the result of the ground having been made up on this side of the site and then subsiding – with such a differential, the building would soon have been unusable to store carriages or any other, later vehicles, which may explain why the doorways were bricked up.

Painting the new carriage house doors, February 2007.

Brickwork repairs to the north elevation, external face. Here a blind window is being re-filled.

The South Range – interior

The basement level only extends under the central portion of the range and was only ever accessible externally from the south, its northern wall acting as a revetment against the slope. Originally, they would have provided shelter for cattle and storage. Later farm buildings built against the basement floor have been removed.

The ground floor was originally divided into four bays by brick cross walls running across both piles of the range. On the courtyard side, a floor surface of axial dwarf walls supported stone slabs, some of which were removed and replaced with concrete in the agricultural phase. On the southern side of the range, the original floors were timber, of tongue and grooved boards. This was to provide the optimum conditions for carriage storage, since rust would soon attack iron-rimmed wheels on a damp stone floor. The floorboards had rotted badly by the time work began.

New floorboards were found from an unusual source: salvaged from the London docks, they were pitch pine baulk timbers, used to prevent ships from bumping against the quay side. They were massive and broad in profile, so suitably chunky for such a building, but even when they had been cut down into planks, a lot of staining remained. It would take considerable time and skill to bring them back up to a respectable state.

Development of the sitting room

November 2005 – barely watertight.

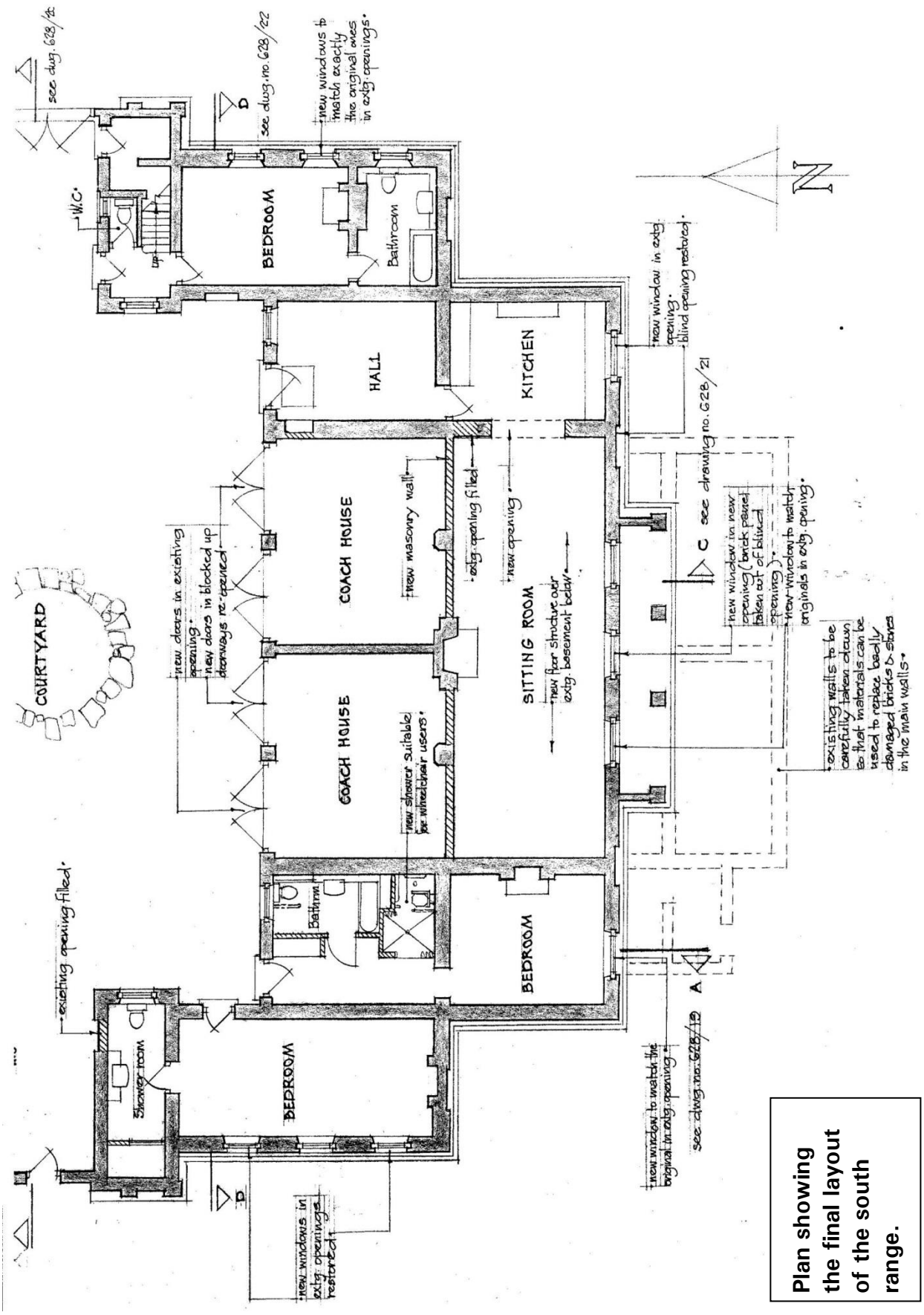
October 2006, central two bays of the carriage house. The dividing wall has been taken down and the central window unblocked. New floor joists have been laid in readiness for new floorboards, yet to be sourced. The wall into the far bay (now the kitchen) has not yet been breached. While ultimately necessary to provide access, this was the subject of much discussion. A sense that head cooks and bottlewashers should also feel part of the group of Landmarkers led to the eventual open plan solution, the arch also making it clear that a new opening had been made.

March 2007: painting the massive skirting boards in the south range. The large openings for carriages between the brick pillars have been blocked up in and a new flue inserted in unmistakeably modern materials, and are waiting to be plastered.

Laying the floorboards salvaged from the London docks, autumn 2007. By now, the whole room has been plastered out.

The sitting room area is the only part of the building where significant changes have been made to the original layout (see floorplan detail below): the removal of the central wall and opening up of the middle window it cut across; the breaching of the east wall into the far (kitchen) bay and the construction of a wall to divide the outer from the inner pile, along the line of the Earl's original folding doors (which, predictably, did not survive). The piers of the original openings between the inner and outer rooms are still apparent in the inner pile. We also inserted a flue on the north wall, to take the multi fuel cast iron stove. The coach house portions were ceiled originally, although little remained of their lath and plaster ceiling. Above the arch to the kitchen are two fragments of the original frieze to Silverton Park mansion, found on site during the works. In full, the frieze depicted the Exodus of the Israelites.

The western pair of rooms (bedroom and bath/shower room) have kept their original configuration, entrances and fenestration. The southern room has its original stone floor and fireplace. The eastern ones (lobby and kitchen) had been altered somewhat during the farmhouse phase but are now returned to their original plan.



Plan showing the final layout of the south range.

Fitting new sash cords is a fiddly business unless you know the system.

The East Range - exterior

The east range in August 2007, with scaffolding up to rebuild the northern parapets.

The east range holds the main entrance into the stable quadrangle and would have been approached along drives from the mansion and under the viaduct. It is a narrow range a single pile deep, with a taller and wider central portico. Originally it would have been symmetrical but had lost its northern parapet. This has been reinstated, although the plastering of the cornice must now wait for a later date. Once again, the brick pilasters would no doubt have been given a decorative coating in metallic cement had the building been completed. The pediment above the portico was found to have been partially finished in render before the original work stopped. The strap hung doors are reproductions of the originals, dating back to the 1990s when the stables needed to be made secure. The lintel is probably cast iron faced in render. The windows to the right (north) were always partially blocked on the inside in case horses stabled in this part kicked the glass out. The windows to the south, like all the sash windows in the building, have been replaced to their original pattern and glazed with a glass that reflects the slightly uneven quality of the 1840s.

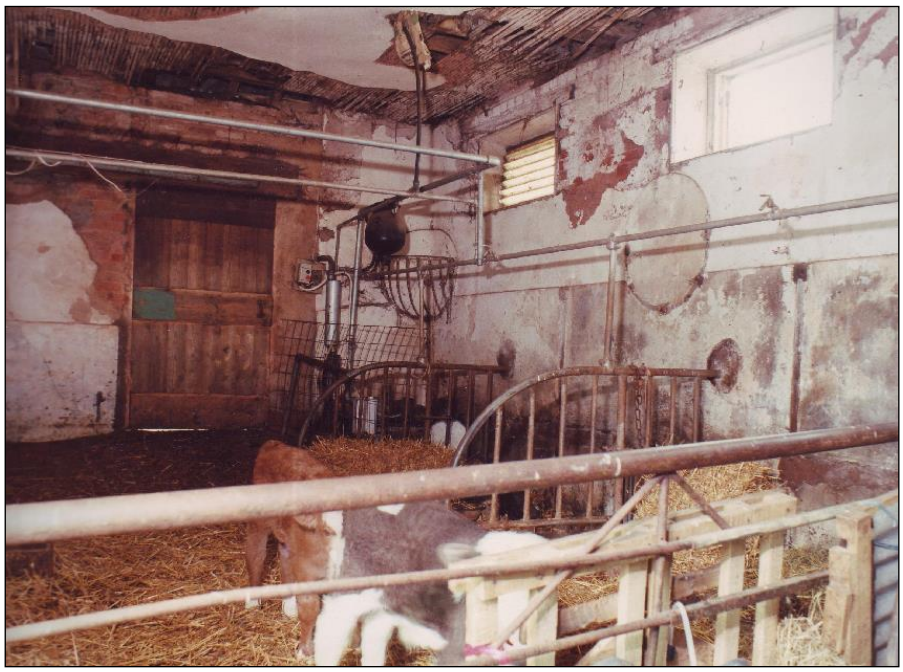
Where joinery survived, repairs were made as conservatively as possible. Here (left) a spliced repair is underway to one of the massive doorposts. The hinges (right) were of a scale to match.

Putting on the scratch coat for a ceiling.

The East Range – interior

Leading directly off the carriage entrance to the north is a full width space lit by a window in the west wall. A later inserted window in the east wall has been reblocked. Now a bath room, this space may have been a office originally.

The section north of the entrance block is a large single space accessed from the courtyard. Formerly used as stabling, it has rendered walls, a hard cement to dado height with a softer plaster above. The floor was formerly cobbled. The positions of curved iron hayracks are still apparent on the walls and scars of lost timber stall dividers show it once had four stalls, with a hay loft above. In the 20th century, it was converted into a cowshed, the old stalls removed and a concrete floor put in.



Interior of the east range when in farm use.

In the equivalent section to the south of the carriageway there are the original stairs with simple iron balustrade and service rooms associated with a house – either a family home or shared accommodation for estate workers, which extends into the entrance block on the first floor. The loo under the stairs is on the site of an original WC. The ground floor was always divided into two rooms, each with their original hearth, as have the bedrooms above. The whole of this area was used as the 20th-century farmhouse.

The southeast corner of the east range when used as a farmhouse.

The North Range - exterior

The north range is a relatively narrow single pile, its north wall being a continuation of the northern ends of the west and east ranges. Its central block is of a scale to match the south portico but designed to be of lesser architectural significance. Its single pile means the central block's walls were always flush with the courtyard walls on the inner side and, today, also on the external side, since creeping dilapidation had led the farmer to take down the external portico that once replicated that on the south elevation. Originally, this projected forward from the main building line externally, as confirmed by the footings found during works. The parapets were also taken down during the 20th century but have been reinstated by Landmark, but funds have not so far allowed the reinstatement of the portico.

The external face of the north range had no openings originally, as its use as stabling made fenestration unnecessary. Instead, a regime of blind windows was introduced for the sake of symmetry and to relieve an otherwise dull elevation. Later crude agricultural openings are also apparent. It is noticeable that much less brick has been used in this elevation, presumably because the absence of openings meant sharp edges were not required.

By contrast, the inner, courtyard elevation was mostly faced with brick. Its external appearance suggests that it has a symmetrical internal layout like the other three sides to the courtyard but this is not in fact the case. Apart from the door in the western corner, the original doorways all had tall glazed fanlights, which survived and have been restored. The window openings, built to match those on the north side, were also originally blind, even though we found the grounds for glazing. It was standard practice in stables not to have low level windows, since lower level glazing would have been at risk of being kicked out by the horses, with the risk of injury for these valuable beasts. Other stable designs by more informed architects and patrons do not set out to imply this more domestic form of symmetrical fenestration (see for example Holkham stables on page 11 above), another suggestion that perhaps the Earl and Knowles

agreed the design before having a clear idea of how the internal spaces would work. It also shows their thrall to the (by now rather out-dated) Classical precedence given to external symmetry above internal function.

During the later agricultural phase, metal-framed Crittal windows were inserted into the blind openings and these we have taken out. The lower section of the courtyard walls were also rendered in cement at a late date; this we have removed.

Above the central doorway is an original loft opening into the first floor section of the central block, for storing hay. On either side are series of open niches, matched by a full row in the upper part of the entablature, roosts or nesting boxes for pigeons or doves. The triangular pediment survives on this elevation.

The courtyard face of the north range before work began.

The North Range – interior

At first floor level there are boarded attics, presumably to store fodder. The absence of too many partitions below allowed the ground floor space to be divided into a series of stalls. Starting from the east end, there is a small room of uncertain purpose, with no light or fittings but with drainage. It might have been a farrier's room, for examining or grooming horses. To the west of this were three doors with fanlights to three three-stall stables. Evidence for the stall divisions can be found in the stone pads and their depressions to take the end posts of each stall in the original cobbled floor. At this date, it was more usual to stable the horses in open-backed stalls than in loose boxes, even though it took more labour to keep an eye on the horses. The horses would have been loosely but effectively tethered by a rope fed through a brass ring, with a weight (often made of heavy lignum vitae wood) which allowed the horse to move freely within the stall without getting tangled in the tether. The stalls would have had open backs, the horses' heads pointing away from the light, and a single drainage channel would have run along the outer corridor.

While these spaces were cleared of the stalls and most of the fittings during the later dairy use, some of the hayracks remain, as do the vented niches for lamps beside the doors. Originally, each group of stalls had a timber louvre fitted into the roof above it for ventilation, as condensation on the windows from the horses' breath could otherwise rot the window frames and provide an unhealthy atmosphere. On one of the doors, evidence was found for a recessed ring and pushbutton form of latch, carefully designed so a horse would not snag itself in passing, as it might on a Suffolk latch. Reproductions have been fitted to each of the doors.

Horses were traditionally stabled in teams and it may seem odd that three horses should be stalled in this way – unless the Earl favoured a troika, like that shown on the title page. (Traditionally a Russian vehicle, a troika drove three horses abreast and gained popularity in England and France in the 1800s because three horses abreast were found to do the same work as two pairs. The little fellow

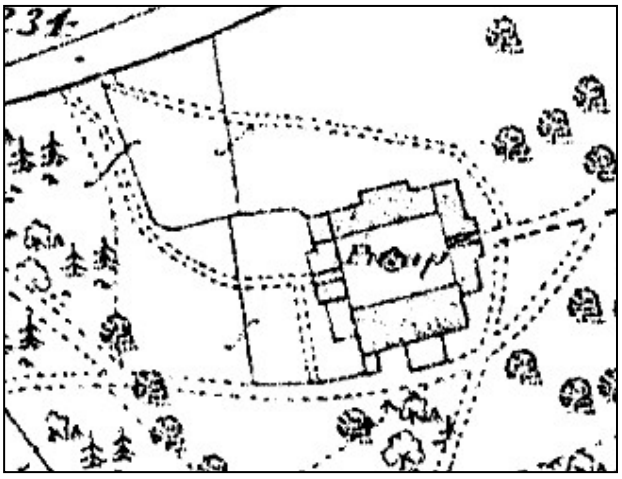
sitting up behind was known as a tiger, from his traditional uniform of a striped yellow waistcoat and was selected for his slightness and ability to sit immobile.)

It is perhaps surprising that the stables seem only to have held teams of horses, with no indication that hunters were stabled here. For all his monumental stable block, it seems the Earl was perhaps no great horseman himself.

The final space at the far west end of the north range is a very narrow room and, like its pair in the other corner, is of uncertain purpose. Perhaps it was used for storing spare carriage shafts or tools.

The West Range – exterior

Originally, the west range offered a 'back entrance' into the stable and a short cut from the main road.



Detail from the 1888 OS map showing the Routes around the stables (not to scale).

The design of the west range is diagonally identical to that of the east range; like the opposite southeast corner, the windows on the northwest side of the portico were always fully open sashes, suggesting original use as another accommodation unit rather than stabling. The lower lights of the windows on the other, southwest corner of this range were, like those in the stable areas, bricked up on the inside although these we have now unblocked to their full extent to make the bedroom more pleasant (see below). The north west parapet had been lost but is now reinstated. Like the south and east porticos, the west would also have been intended to be finished with a full entablature. There seems only ever to have been a foot entrance here, whatever the architect's original intentions: the large entrance was bricked up at an early date, with timber infill above.

The west range before work began. The parapets on this northwest corner have been lost, and the roof patched in with corrugated iron.

Repairs underway to stabilise the west pediment. This was right at the beginning of the restoration project in 2005, when new roof timbers had yet to be installed to replace the rotten ones, already removed here.

The West Range – Interior

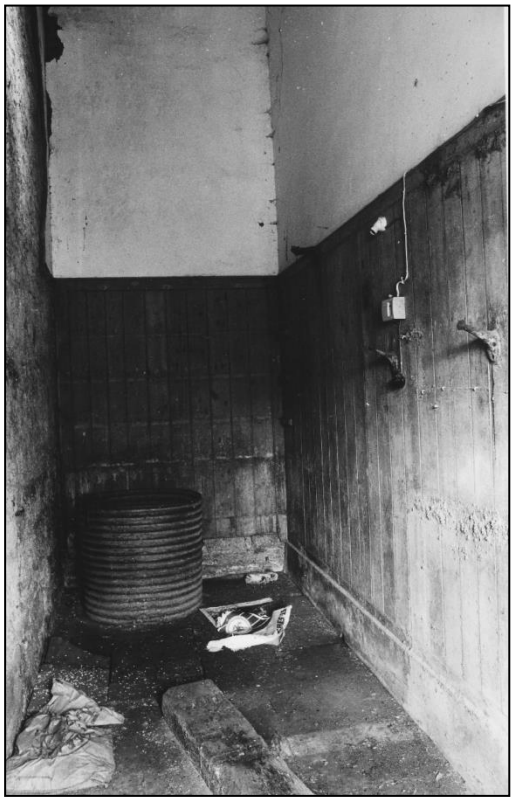
On the ground floor of the northwest corner of the west range, the walls were found to be dry-lined with lath and plaster with the suggestion of a lost dado rail, reinforcing the impression that this area was originally used as domestic accommodation. The floors are stone flags, and other remnants survived, of shutters, four-panelled doors and three simple chimney pieces. Upstairs, two decorative cast-iron chimney-pieces in the angles stacks seem of a slightly later date than 1845, and indeed Richard Morriss, who carried out a detailed building analysis for us, felt that the fittings in this northwest corner generally had a later feel about them than elsewhere in the block, suggesting perhaps that they were finished after the Earl's death. The window frames, however, are of the original design and it was on one of these that a carpenter Mr. Sharland helpfully scribbled his name, *'R. Sharland July 9, 1839',* discovered when the frame was removed for restoration.

In the south west corner of the west range is a long narrow space, today's triple bedroom, that mirrors the one to the north of the main carriageway. This one, however, seems to have been used as a tackroom rather than for stabling. It is a tall space, and the lower two thirds of the windows were blind, probably from the outset, since surviving matchboarded paneling also rose to this height with plaster above. Sadly, the original paneling was too rotten to save, although it has been reinstated, while opening the windows to their full height to allow the views out to be appreciated and provide a more pleasant bedroom. The stone slab floor also survived, and it had a fireplace. Around the walls, several primary large cast iron pegs survived, on which harness would have been hung. These pegs, the heating and the paneling suggest unequivocally that this would have been the main tackroom, adjoining the coach house range. The iron pegs have been reproduced and re-hung at their original spacing and its new use as a 'dormitory' echoes its original, somewhat communal use.

The tackroom as found.

Cast iron tack pegs and door furniture reproduced from originals, waiting to be fitted beneath the fully opened tack room windows in March 2008.

The small adjoining room, lit from the courtyard side and now an ensuite bathroom, was fitted out in exactly the same way, with stone floor, paneling and more iron pegs, suggesting that it was an ancillary tack room.



The small room leading off tackroom in the southwest corner.

The Courtyard

When in use as a stables, the courtyard would have been covered in straw to soften the surface for the horses hooves and mop up their effluent, to be regularly mucked out. The purpose of the central pit is uncertain. It may have been part of the drainage system, collecting mostly liquid waste from the stabling which was then led away to a soakaway. Drains do run in and out of the pit but may have been later. Some 19th-century stable plans show a dung heap in the centre of the stableyard, but this was not recommended due to the danger of water contamination and it seems strange that the Earl should choose to have anything so pungent at the heart of his showpiece stable yard. The well for Silverton stables was in the north west corner of the yard.

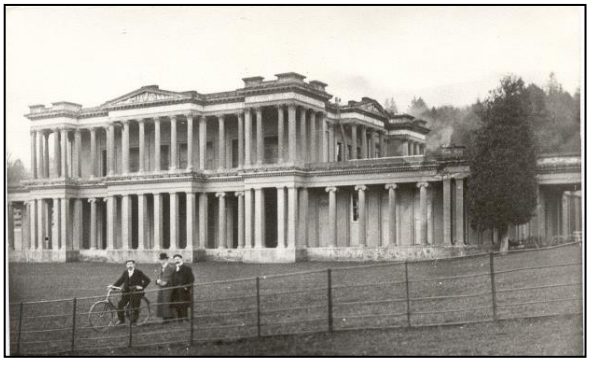
Another possibility is that the pit held a turntable for carriages to be turned through 90 degrees, although we found none of the ironwork or scars that might have been associated with such a use, and the stable yard is large enough for such manoeuvres to have been carried out relatively easily.

The courtyard was always cobbled with small, local pebbles (as indeed was the entire driveway originally). As the photos before restoration shows, uneven subsidence had led to heightened threshold levels into some parts of the building and very bad puddling in wet weather. It was a matter of some debate how to reconcile the need to alleviate these issues and provide a suitable surface, while also juggling the inevitable cost constraints and wishing to retain something of the patina of the original. In the end, two local subcontractors were found who spent weeks painstakingly correcting the levels where necessary and relaying the small cobbles, as far as possible copying their original lines. Considerable landscaping work was also done around the outside of the building, to correct external ground levels.

Conclusion

The restoration of Silverton Park Stables has taken Landmark twenty-one years to accomplish and has probably demanded more stubborn persistence than any of our other buildings – which is saying something. If our lead donor had not progressively unlocked the project through his generosity, so prompting other private and trust donors to contribute to the momentum, the stable block would still be standing derelict. Was the effort worth it, to save this sole remnant of the activities of an extravagant, cadet branch Earl and almost sole remnant of a jobbing mid- Victorian architect? Certainly, there is an irony that nothing is left to mark the mansion at Silverton Park but a few illustrations and few column inches in journals of the day, and that what remains of the 4th Earl of Egremont's project at Silverton Park instead is an unfinished, utilitarian stable and coach house. The unknown writer in the *Civil Engineer & Architect's Journal* was fairly damning when he wrote of the mansion designs' 'poverty of feeling and poverty of form.' The mansion cannot be judged to have been a success, in the light of its later disregard by potential purchasers and eventual demolition.

Yet the architect and the Earl were both very much men of their times and milieus, and their story and the history of the site at Silverton Park deserves to survive for future generations. The stables provide Landmark with the means to do so. The stable block was built to be a monumental statement in the landscape, and Time has lent it dignity. A monument it has now become, an impressive and strangely romantic presence in the landscape, that carries its imperfections with pride.



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