

THE SEVEN DIALS

Erected 1694, Removed 1773

The Morning Chronicle, and *London Advertiser*.

NUMB 1279]

Price Two-pence Half-penny.

MONDAY, JUNE 28, 1773

A correspondent observes, that the column that has been many years placed in the center of the circle called Seven Dials, (and which column has always been admired for its fine proportion and elegant structure, and as an agreeable object to be seen at a good distance from the seven streets leading up to it) is now pulled down, no doubt by what authority; but with what propriety is the question? As public ornaments should not be removed without some good reasons given, which he thinks are not, he is of opinion, that that place will be as much a rendezvous for black-guards and chimney-sweepers, after as before; and a trifling repair, with a railing around, would have prevented much of the trouble complained of, and preserved to that part of the town, a great ornament.

We hear from Portsmouth, that on Thursday evening a genteel young fellow was detected in picking a gentleman's pocket on the Common; he was delivered up to the tars, who gave him a severe ducking in the harbour, and afterwards conducted him to the White House for examination.

At the same town on Friday evening, an elderly man was detected in putting off bad money at a public house in Warblington-street. The landlord took him before the acting magistrate, who committed him for further examination.

We are assured that smuggling was never so much practiced at Portsmouth as during his Majesty's visit there. Perhaps this was meant as a compliment to his Majesty.

TUESDAY, JUNE 29, 1773

A correspondent says, that the Commissioners had an indubitable right to take down and remove the pillar near Soho, known by the name of the Seven Dials; and that when the new pavement took place at Charing Cross they might have taken down the equestrian figure of Charles the First; and certainly would, had it not been for the generous interposition of that worthy nobleman, his Grace the Duke of Northumberland.

A Portuguese man of war, from Rio, is arrived at Lisbon, with treasure on board.

The Steady, Gordon, is lost at Greenland, with two fish.

On Monday evening last, at the Robin-hood, was debated, "Whether the inhabitants of the Strand had any ground of action against the two Mrs. Whiteleggs?"—Passed in the negative. The other question, concerning the late Coin act, was adjourned till Monday next.

SATURDAY, JULY 10, 1773

The removal of that great public ornament the Seven Dials, (or as the French Refugees of that quarter used to call it, *La Pyramide*) and the discontent it has occasioned will, it's thought, make the commissioners, or their deputies, more cautious how they take such liberties again, either from false economy, secret avarice, or partial complaint: It is certain the nuisance complained of is not thereby removed: the centre where the column stood, being a rendezvous for blackguards, &c. as much as ever; but, alas! the elegant object, seen from seven different avenues, is and will be no more, unless it rises again in some or one of the commissioners or surveyor's garden's, or sinks into some body's pocket, while a wide, dreary, and naked prospect of the blackguards, &c. only remains.

About ten years ago a man went about the country pretending he was a prophet; and, amongst many other things prophesied that Constantinople would be destroyed in the year 1773. Whether he was a prophet or not we do not pretend to say; however, there is great probability of this prophecy being fulfilled.

Yesterday 27 prisoners were tried at the sessions in the Old Bailey, two of whom were capitally convicted, viz. Thomas Plunket, for robbing Mr. Dudley on the highway, between Islington and Highgate, of money and some valuable effects; and Alexander Mungemery, for breaking and entering the dwelling-house of Mr. Crago, in Holborn, and stealing a table cloth: twelve were sent for transportation, and thirteen acquitted.

Reconstructed 1988-9

£5

48 pages 90 illustrations.

Published 1989.

Please see our current appeal literature for updates.

THE SEVEN DIALS – THE BOOK

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THE COMMITTEE

David Bieda (Chairman),
Janet Baker, Gabriel Brocklebank,
Paul Draper, Cllr Nicola Kutapan, Robert Noonan,
Christina Smith, Sir John Summerson (co-opted).

Charity No 297350 Company No 2125701

PROFESSIONAL ADVISERS

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James Moseley (St Brides Printing Library) –
Lettering Consultant; Gordon Taylor
(formerly Royal Greenwich Observatory)
– Astronomical Consultant; Whitfield & Partners,
Architects; Banks & Miles Design Consultants; P.E.G.
– Auditors; Sidney Torrance – Solicitors

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Ashby & Horner Stonemasonry Ltd;
Comyn Ching & Co; Taylor Woodrow Construction Ltd; Myton Ltd.

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and Red Mason. The committee wish to thank
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assistance in printing this Booklet, James Pursey for
design and production, and Sweby Cowan for assistance
with the Appeal.

THE REGENERATION OF SEVEN DIALS

On the map of London Seven Dials cuts an odd figure and at once prompts the question "Why?" Why plan a set of seven streets like a spider's web, meeting, not in some spacious circus or ample market-place, but simply at a seven-fold crossing? Thomas Neale MP, the maker of the plan, was a tough-minded economist and is unlikely to have done this for fun. Did he, as David Bieda suggests below, believe that he could squeeze more frontages and a bigger yield from this pattern than from any other? This seems as likely an answer as any, but what is obvious is that he was very pleased with what he had done and signalled his achievement by setting up a pillar with a multi-face sundial on top.

The pillar was removed by official busy-bodies in 1773 and the object of the Seven Dials Monument Committee is to replace it with a facsimile. Again one may reasonably ask "Why?" The Committee has three answers. First, it will give substance and meaning to the otherwise incomprehensible name of the area.

Second, it was designed by the best English stone-cutter of the day, Edward Pierce, a sculptor as well as contractor's mason, and is a work of art. Third, and most important, it will be a symbol of rehabilitation and enhancement of an area of London which dropped far below the standard we should expect in a capital city, but which is now on the upward move.

The pillar is not the only building venture afoot at Seven Dials but it will be the most conspicuous – a central and meaningful architectural gesture. Just as Covent Garden Piazza, a few streets away, thrives in the august shadow of Inigo Jones's famous portico of St Paul's, so Seven Dials, on a smaller scale, will enjoy the slimmer shade of Pierce's column.

This is an imaginative enterprise which has sprung from the minds of people living or working in Seven Dials. History, architecture and the science of horology all have a share in it.

The pages which follow give some details of the historic background and of the work so far achieved; with an appeal by the Chairman for the help the Committee needs to bring the whole to completion and restore artistic vitality and visual interest to a dim but profoundly interesting area of central London.



SIR JOHN SUMMERSON



One of the many vacant listed buildings in Seven Dials (Monmouth Street, 1974), subsequently restored by Marler Estates Plc, as part of their Neals Yard Scheme comprising flats, shops, offices and restaurant.



The old Central Electricity Generating Board Station at West Street in 1973. Demolished by the Greater London Council to provide housing in Earlham/West Street.



The Comyn Ching Triangle (Monmouth/Mercer/Shelton Streets) – viewed from Monmouth Street in 1974 – has been largely restored to provide housing, shops and offices with an internal courtyard.

THE APPEAL

This brochure illustrates some of our work in preparing for and constructing London's first monumental Pillar since Nelson's Column in the 1840s.

The project is part of a story of revival which began in the mid-1970s when Seven Dials was declared a Housing Action Area, and a Conservation Area with Outstanding Status within the Covent Garden Action Area. An unusual panoply of local authority powers were thus concentrated on this small and hitherto neglected area, whose population had declined dramatically since 1914.

By then 90% of the Area's housing stock had been empty since 1945 and many of the listed buildings were in a state of extreme disrepair. The area's long decline was apparent in a general state of dereliction which is difficult to recall today.

From 1977 a programme of improvements was drawn up which gathered pace in the early 1980s with the creation of new public housing, and substantial improvements to many of the individual listed buildings. This publicly-funded impetus was paralleled by the creation of new private housing and by major private schemes such as the Comyn Ching and Marler Estates projects.

A comprehensive programme of environmental improvements began and was continued with monitoring from our Committee. Over this 10-year period the area has been regenerated for residents, businesses and visitors alike.

The idea of a reconstruction arose via the Housing Action Area Committee on which Janet Baker and I served for seven years.

We have found ourselves carrying out a far larger, more complex and costly task than could have been predicted at the outset, and I would like to pay tribute to my fellow Committee Members. Each has played a part, and each has found time to use their expertise towards realising the project.

We all thank our past and current secretary, our professional advisers and the many officers from the numerous Authorities, all of whom are making the project possible.

But we now need help from outside to finish the job. Many companies and individuals are assisting with generous donations. We hope when you've read this brochure, you may feel inclined to lend a hand and return the form at the end of this brochure.



DAVID BIEDA

Chairman, Seven Dials Monument Company Limited

SEVEN DIALS AND THE MISSING MONUMENT

The Seven Dials Monument Committee was set up in 1984. The Committee has raised £100,000 and the unusual engineering works needed for the Pillar's foundations have now been completed – 63' deep piles have been sunk 20' below ground covered by massive beams straddling numerous service pipes and sewers.

We are now launching Phase 2 of our Appeal and are seeking a further £75,000 to bring the Project to completion and erect this major London landmark.

Since Victorian times Seven Dials has had a sinister fascination for Londoners as the reputed haunt of criminals and an area where the Mob was often unpleasantly active. It is referred to in numerous books including Agatha Christie's *Seven Dials Mystery*, Dicken's *Sketches by Boz*, and Claire Rayner's *Seven Dials*.

The reconstruction of the Pillar will make sense of this mysterious empty space, and will help formally to restore a unique piece of London townscape which parallels the Covent Garden Piazza in architectural importance.

Seven Dials was laid out by Thomas Neale MP in the early 1690s. He was one of the most influential and extraordinary figures of late Stuart England – Master of the Mint and Groom Porter during two reigns and one of the period's great speculators. His schemes ranged from raising shipwrecks and mining in North America, new methods of steel and papermaking, to raising £1m for the King via a Venetian style lottery in 1694. His layout of Seven Dials eschews currently fashionable squares. It capitalises on the fact that rents were charged per square foot of frontage, by packing as many houses as possible into a star-shaped street pattern.

Neale commissioned England's leading stonemason, Edward Pierce, to design and construct the Sundial Pillar in 1694, as the centrepiece of his development of Seven Dials. The Pillar was topped by six sundial faces (the seventh 'style' being the column itself).

Every book on London, including the official *Survey of London*, refers to the 'story' that the Pillar was pulled down by the mob in 1773, in a search for buried gold. The Committee's research put this in a rather different, and more accurate light.

The Pillar was deliberately pulled down by order of the Paving Commissioners in 1773 in an attempt to rid the area of undesirables who congregated around it. By that date the increasing

number of sub-lettings meant that a sizeable section of the London Mob lived in the area, and in the infamous rookery of St Giles, directly north of Seven Dials.

The remains of the demolished column were later removed to the garden of the architect James Paine at Sayes Court, Addlestone, but were not re-erected there.

In 1820 the Duchess Frederica Ulrica, widow of the Duke of York, died at Oatlands in Weybridge. A collection was held to build a memorial to her generosity in the area. Insufficient was raised and the remains of the Pillar were purchased. The Dials were replaced with a Coronet, and other alterations were made to the Pillar.

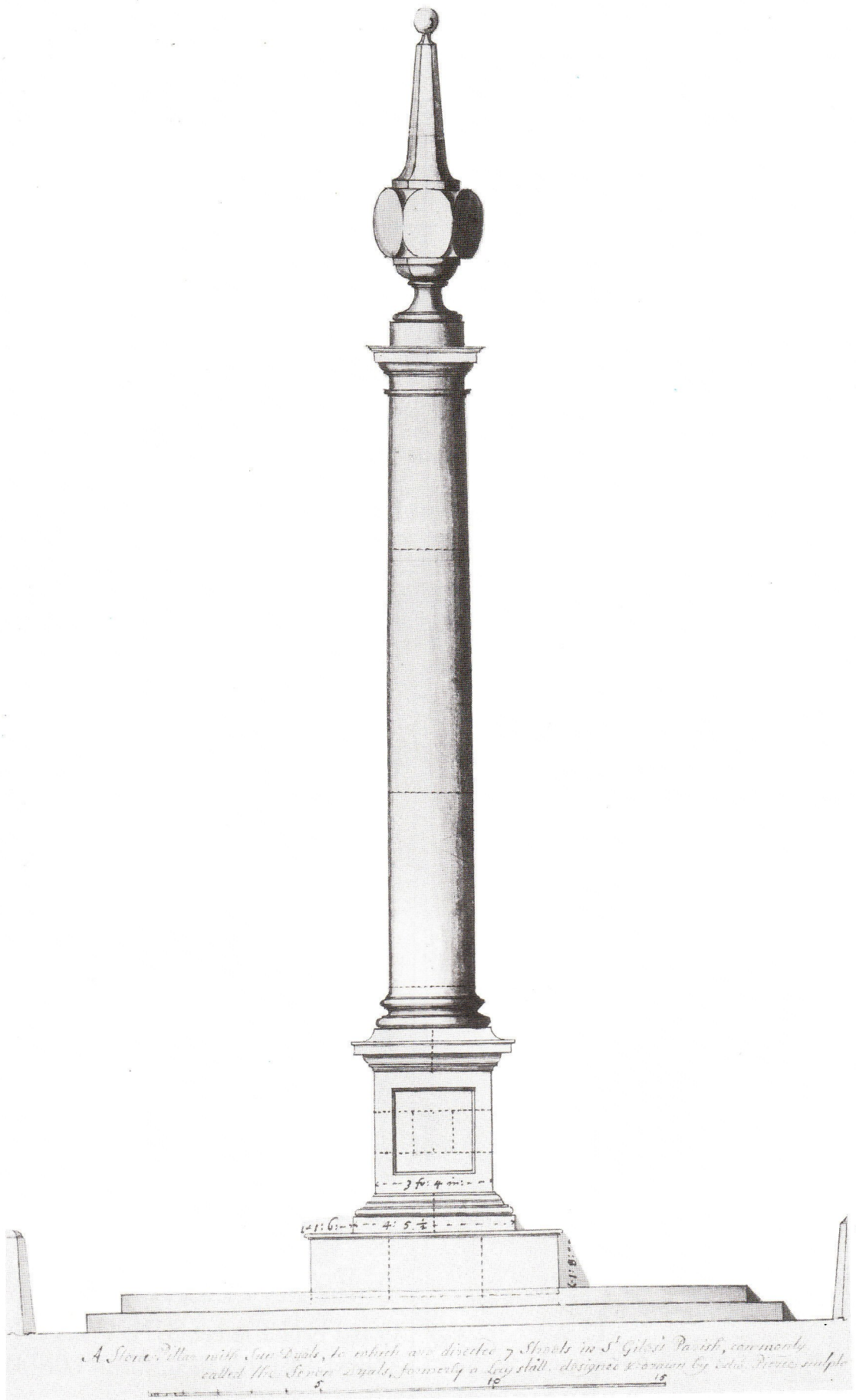
Attempts have been made by the local authority to have the Pillar returned; in 1905 when Holborn Council was set up, again in the 1930s, then by the GLC and Camden in the 1970s and 1980s. Finally Camden asked Elmbridge District Council for 'proof of purchase', which the latter refused to give!

Members of the Committee then had the idea of reconstructing the original, especially since the Weybridge remains are virtually unrestorable. The Committee is able to make an exact reconstruction, because, most unusually, Edward Pierce's original working drawing remains in the British Museum. The drawing, the Weybridge remains, and contemporary treatises, have enabled architect A D 'Red' Mason, to faithfully reproduce this 'great public ornament.'

Since 1984 we have worked with our advisors on these designs and on planning the foundation works, which have now been successfully completed. The final stages are the stonemasonry and erection. We are delighted that the bulk of the masonry works are being carried out by trainees at Vauxhall College and Ashby and Horner Stonemasonry Ltd, so that this project is providing these young people with a unique training experience. The erection of the Sundial Pillar is planned for later this year, depending on the Appeal's success.

1. A Stone Pillar with Sun-Dyals, to which are directed 7 streets in St Giles's Parish, commonly called the Seven Dyals, formerly a Lay Stall. Designed and drawn by Edw. Pierce sculptor.

Edward Pierce's original measured drawing of the Sundial Pillar (1693). Courtesy of the British Museum.



FUND RAISING & PLANNING

The process of researching, planning and implementing this project has been more complex and time-consuming than any of us could have foreseen at the outset.

The Committee was inaugurated in August 1984 at the request of Camden Council with a brief to reconstruct the Sundial Pillar and to promote further environmental improvements based on the proposals agreed in the Covent Garden Action Area Plan.

Our first task in the year before our official launch in mid 1985 was to assist Camden Council in drawing up a major environmental improvement scheme on the Dials, designed to pave the way for the Pillar's re-erection.

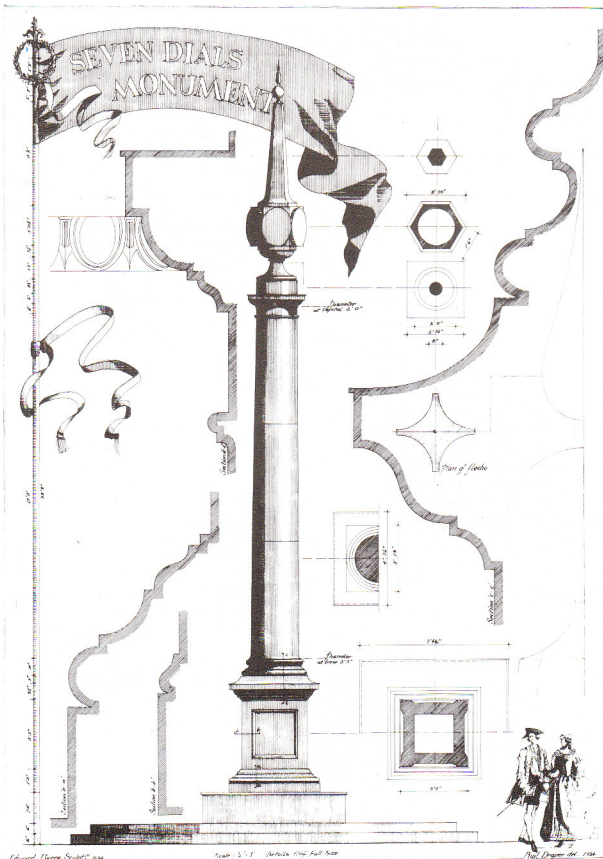
Donations to start the Committee off were made by Marler Estates Plc and Taylor Walker Plc, the first of a large number of companies with local interests, to support the Appeal. Our first drawings of the Monument were made by Committee member Paul Draper, and were based on Edward Pierce's original 1693 drawing which miraculously survives in the British Museum.



The Monument Committee. Left to right: Cllr Nicola Kutapan (London Borough of Camden), Gabriel Brocklebank, Robert Noonan, Janet Baker, David Bieda (Chairman), Sir John Summerson, Christina Smith, Paul Draper.

The Committee has regularly met since August 1984 to plan the various works and has considered reports from Officers of the Planning, Works and Engineers Departments of the London Borough of Camden, our own Architect, Structural Engineers and Astronomical Consultant, as well as planning various events, fund-raising, media coverage.

The Committee has also been involved in promoting further environmental improvements in Seven Dials based on the proposals agreed in the *Covent Garden Action Area Plan*.



Paul Draper's first drawing of the Sundial Pillar before the Committee had established the Pillar's exact dimensions. October 1984.



Reparing Seven Dials. Camden Council, with D.O.E. support, completely re-surfaced the Dials with pavoirs, cobbles and bollards, and created a central island in preparation for the reconstruction of the Sundial Pillar. This was part of an extensive programme of environmental improvements around Seven Dials which has involved tree-planting, pavement widening and traffic management.

It quickly became apparent that our greatest problem was how to design the foundations so as to satisfy all the authorities whose services run beneath the Dials. Camden Council and a number of private firms submitted various suggestions, none of which provided a satisfactory solution, since they were based on moving some of the underground services, at great cost. Eventually this problem was solved by our structural engineers, Hockley & Dawson, who began work in late 1985.

By the Spring of 1985 we had obtained planning

consent from Camden for "the erection of a column at the centre of Seven Dials" and with the appointment of Whitfield & Partners as Architects and Gordon Taylor (Royal Greenwich Observatory) as Astronomical Consultant, work began on designing the sundials and pillar in detail. By June we had obtained quotations from leading stonemasons with a specification from the Committee that youth trainees be involved.

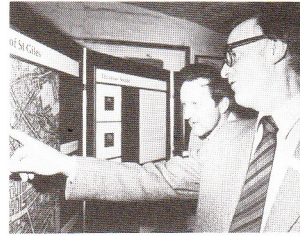
By the Summer our initial work enabled us to launch the project publicly. Committee members put together a small Exhibition setting out the work involved, and with historical material, some of which we have reproduced in this brochure.

Our launch at Smith's Restaurant on July 29th 1985, was attended by over 400 guests and within six months the initial £50,000 had been raised, enabling our consultants to proceed with the final research needed to build the foundations and pillar. Once again sponsorship from local companies made possible both the event and the extensive media coverage.

Major donations were received from the Historic Buildings Board, the Mercers Company and the Heritage of London Trust. The GLC made over to the Committee the prestigious "Otis" award, granted to the Council for its restoration of the Piazza, Covent Garden, and many companies subscribed to our 1694 - 1988 Year Scheme. Each company chooses a year and receives a signed and dedicated collotype from the limited edition of 500 made from the drawing created by Paul Draper for the Committee.

Our fund raising continued on a lighter note in December 1986 when Taylor Walker Plc sponsored a Monumental Barrellthon which encouraged teams from local companies to compete in a horrendous stationary running feat.

By Spring 1987 the work of Hockley & Dawson and Whitfield Partners had advanced sufficiently to receive District Surveyor's approval. We began a laborious series of planning meetings for construction of the foundations on the basis of the new scheme. Approval had to be obtained from a number of authorities who, of course, did not exist in 1694. Additionally the contract itself was difficult to place, since it was relatively small, complicated, and involved works on public land involving potentially major traffic management.



The Monument Exhibition. Architect Red Mason showing a guest "The Marshland" on the 1658 Hollar map. The Exhibition subsequently toured Camden and Westminster libraries and was exhibited at Camden Town Hall and Westminster City Hall.

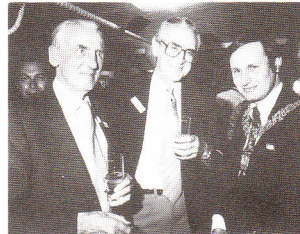
The 1985 Launch Reception at Smiths Restaurant. This was attended by 400 local companies and residents and over £50,000 was raised within 6 months. Further fund-raising events were deferred until the complexities of the foundations were resolved in 1987.



David Bieda, Sir James Richards and Lady Summerson.



The Lord Mayor of Westminster, Cllr Roger Bramble and an unknown admirer.



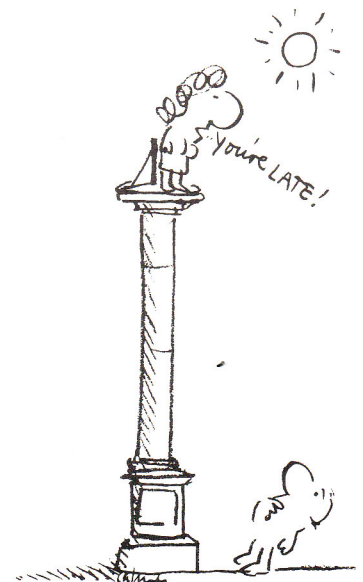
Sir John Summerson, Dennis Norden and the Mayor of Camden Cllr Julian Fullbrook, wearing the Chain of the old Borough of Holborn.



Guests discussing Tetra Design's scale model.



The Limited Edition Collotype. Robert Noonan and Mervyn Warren in front of Paul Draper's limited edition collotype of Seven Dials Circa 1750 created to assist the Appeal.



Luckily Taylor Woodrow Construction Ltd. were on site on the corner of Seven Dials and they undertook the contract at cost. They were also heavily involved with Camden and the other Authorities in planning the works, which they successfully carried out between February and September 1987. We could not be certain of the schemes' success until the final pit was excavated, since neither an electromagnetic survey, nor the plans of the numerous authorities, were guaranteed to indicate the exact position of the many services.

With the foundations completed, the Committee was able to return to raising funds to complete the project, and in September 1987 Mon Plaisir Restaurant hosted a luncheon for companies with major interests in the area. Invited guests included Christopher Chope MP OBE, Parliamentary Under Secretary of State at the Department of the Environment, and Sir Godfrey Taylor, Chairman of the London Residuary Body. Almost £20,000 has been donated so far by those invited to the lunch.

On September 29th we held a "topping-in" ceremony to celebrate the completion of the foundations. Celebrities associated with the area buried a time capsule in the foundations, assisted by the Mayor of Camden and Lord Mayor of Westminster. This event attracted considerable media attention in the national press and on television news. Once again we received sponsorship, this time from the Seven Dials Restaurant, Taylor Woodrow Construction Ltd. and Taylor Walker Plc.

Since the "topping-in" we have seen the completion of the working drawings and most of the work on the design of the sundials themselves. Working drawings for the stonemasons have been completed and all the calculations made for the sundials.

The Committee is now making its main Appeal in the form of this brochure. As with much of this project, we are again being sponsored this time by James Pursey Design who has designed and produced the brochure, Brondesbury Print and Marketing Ltd who have generously donated printing, and Sweby Cowan who are assisting in organising the appeal.

We now have the foundations in place, all the approvals necessary to raise the pillar and the trainees at Ashby & Horner and Vauxhall College have started work on this unique project. We hope you can make it possible to complete by becoming a patron.

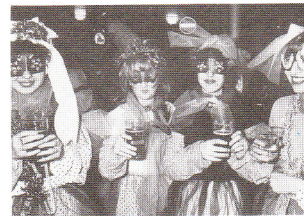
December 1986 Monumental Barrelthon



The Monument Committee beforehand.



Mon Plaisir team beforehand.



"Imagination" team beforehand.



Janet Baker during.



Some of the crowd and jazz band after.



Camden Planning Meetings The Borough Council hosted a series of meetings which included most of the Statutory Authorities involved in preparing for the foundation works. Similar meetings will take place in 1988 to plan the Pillar's erection since this involves construction of a 50' scaffold and gantry at the centre of the Dials.



Surveying the Services. No exact plans existed for the services (the key to the success of the foundations) and architect Red Mason is pictured making an intrepid voyage beneath the Dials, assisted by staff from Thames Water.



Borrowing a Fire Engine. To ensure that the foundation works could be carried out with minimal traffic disruption the Soho Firestation lent us their largest vehicle for an afternoon. It is pictured with representatives from the London Borough of Camden Planning and Works Department, the Metropolitan City Police, Whitfield Partners, Taylor Woodrow Construction Ltd etc.



Professional Team. Surveying the start of Pile Pit no 2, Structural Engineer (Hockley & Dawson), Architect (Whitfield Partners), Site Engineer (Taylor Woodrow Construction Ltd).



The Foundation Site Team are pictured in front of the Piling Rig with the Tunnelling Team on the left and the Piling Team on the right.



Mon Plaisir Luncheon Left to right: Quentin Bell (Chairman, The Quentin Bell Organisation), Michael Thody (Director, Haslemere Estates), David Bieda (Chairman, Monument Committee), Sir Godfrey Taylor Chairman, London Residuary Body)

Topping-in the Foundations September 29th 1987



Joss Ackland watching press and guests arrive.
Courtesy Times Newspapers Ltd



Some of the press at the photocall.



David Bieda, Chairman of the Seven Dials Monument Committee, holds the time capsule now buried in the foundations of the new sundial pillar in Covent Garden. The capsule contains personal items from the Committee, and celebrities Paul Jones (left), Claire Rayner, Joss Ackland, Anthony Dowell and Julia McKenzie, who helped launch the second stage of the £175,000 Appeal.

Courtesy, The Guardian



Julia McKenzie trowelling-in the Time Capsule with Cllr Kevin Gardner The Lord Mayor of Westminster, Ted Dennington - Site Agent Taylor Woodrow Construction, Joss Ackland and Cllr Gerry Williams The Mayor of Camden. The ceremony was filmed by ITV and featured on Thames News and London Plus.

DESIGNING THE PILLAR AND FOUNDATIONS

“Vitruvius has written concerning the general proportion of the Doric Order... I find that the whole of the shaft of the column has in length seven times the diameter, (14 modules in all, one module being equal to half the diameter of the shaft); the height of the Chapter, (the Capital) has thirty minutes which makes one module...”

Parallel of Ancient and Modern Architecture by Roland Fréart. An English translation by John Evelyn of Fréart's *Parallel* was published in London in 1664.

The exact proportions, size and shape of all the parts of a classical column can be determined by reference to one of the numerous architectural manuals which have been published during the last five hundred years.

In the late seventeenth century a master mason anywhere in Europe would have been familiar with the detailed rules which govern the use of the five Classical Orders – Tuscan, Doric, Ionic, Corinthian and Composite. The rules for the first four of these orders were based on Vitruvius, the Roman architect who compiled what we might call a ‘code of practice’ in the time of Augustus. This survived the Middle Ages, was first printed in 1486 and became through numerous elaborately illustrated editions and interpretations the bed-rock of architectural education for the next four hundred years.

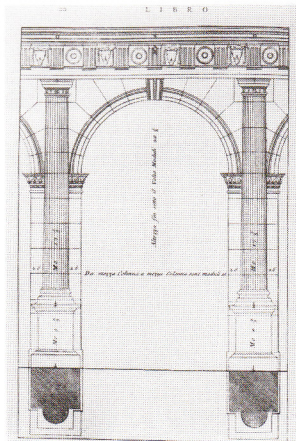
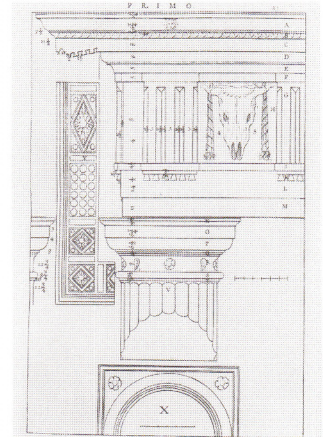
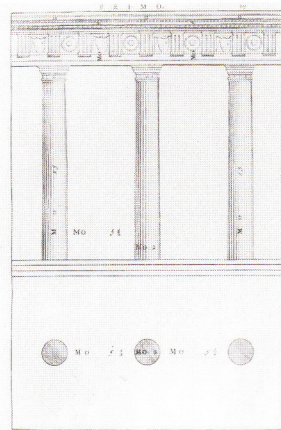
Alberti, Serlio, Palladio and Vignola were the best known authors, and by the late seventeenth century numerous editions including translations were readily available in England. Serlio was popular with the Elizabethans but eventually it was to Palladio that the English pinned their faith.

With these rules to hand, detailed drawings for the Sun Dial Pillar would not have been necessary. As soon as Edward Pierce or his client Thomas Neale had chosen which one of the five Classical orders he wished to use and had settled one of the principal dimensions - either the overall height of the column or the diameter of the shaft, the remaining dimensions and details could be settled by reference to one or other of the numerous published authorities.

For the Sun Dial Pillar in Seven Dials, Edward Pierce chose the Doric Order, a ‘sturdy, masculine’ order well-suited to a free-standing column and the order used in Imperial Rome for commemorative monuments such as Trajan’s Column. The height of the Doric Order, including the capital and the base, is usually between seven and eight times the diameter of the shaft.



Title page of *I Quattro Libri* by Andrea Palladio published in Venice, 1601 (Inigo Jones' copy).



Three illustrations from Book One of *I Quattro Libri*. They illustrate the Doric Classical Order – that used by Pierce.

Using one of the numerous authorities, the masons would have been able to draw the column out full-size in the workshop once the overall height or diameter of the column had been settled. Then a carpenter would have prepared a set of templates for the masons to use when carving the stone.

It has always been assumed that the drawing by Edward Pierce (now in the Prints and Drawings collection of the British Museum) was the design for the Sun Dial Pillar. However this assumption had never been confirmed and was unsupported by contemporary illustrations of Seven Dials. It was therefore necessary to try to check the assumption and to establish which pattern book had been used by Pierce's masons before we could prepare full-size drawings for the masons.

Pierce's drawing is too small to settle these points and there are no notes on it to suggest which pattern book was used. Moreover the figured dimensions contradict the proportions of parts of the drawing itself. We therefore compared several of the most important treatises with his drawing, and the drawing with the remains of the Sun Dial Pillar, which had been finally re-erected on Monument Green in Weybridge in 1822.

The results were conclusive. The Sun Dial Pillar erected in Seven Dials was based on Edward Pierce's drawing, and Edward Pierce did not depart from the accepted canon for the Doric Order as laid down by Andrea Palladio, the most famous and influential of all the Renaissance authors.

With a copy of Edward Pierce's drawing and a translated copy of Palladio's treatise *I Quattro Libri* in front of us, we were now in a position to prepare detailed drawings for the stone masons, following the same steps as Pierce's masons followed in 1694.

While Pierce's masons were waiting for stone to arrive from Portland Bill, the labourers and bricklayers would have been building the foundations. A simple task compared with the problems of building a piled foundation today in the middle of the road in one of the busiest areas of central London. In 1690 the future site of the Sun Dial Pillar was part of a large field, and adjoining the south side of the churchyard at St Giles-in-the-Fields.

There are no surviving accounts or drawings which record the form of the foundations of either the Monument of the Fire of London in the City, or for Edward Pierce's humbler Sun Dial Pillar. However the general arrangement of the



The Architect inspecting the Capitol of the Weybridge Column.



Detail of the Capitol.

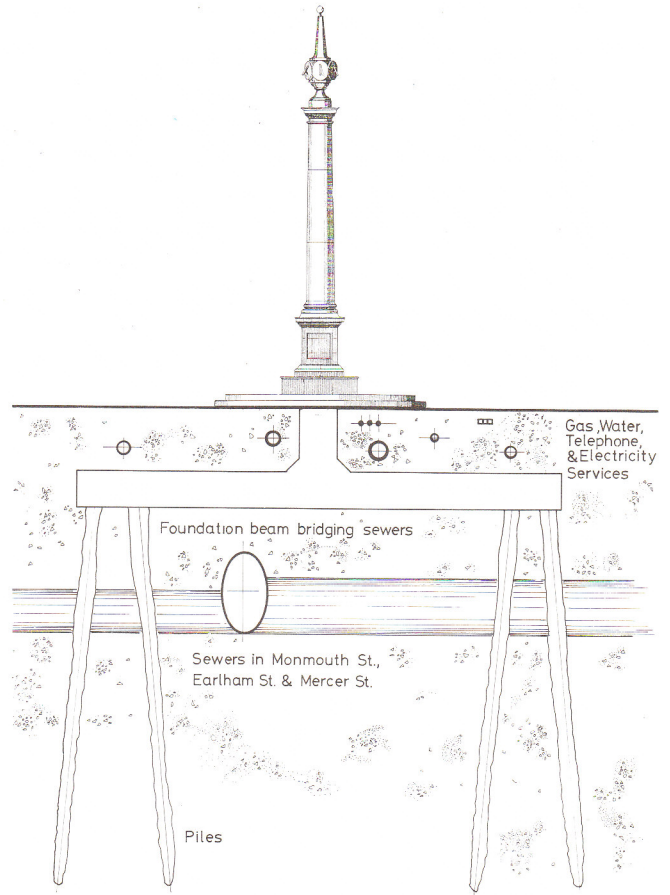
foundations in Seven Dials can be reconstructed from the extensive sections of the foundations which we encountered when building the foundations for the new column were in 1987.

First the labourers would have excavated an area approximately thirty-five feet square by ten feet deep, down to solid ground; on top of this the bricklayers built the first stage of the foundations which consisted of a raft of brickwork, thirty-two feet square by three feet deep. The second stage of the foundations consisted of a circular hollow drum of brickwork, twenty-six feet in diameter and seven feet high, braced by a series of radial walls three feet thick, arranged like the spokes of a vast cartwheel. In the centre, underneath the pedestal of the column the walls were strengthened further by a pyramid of rubble stonework.

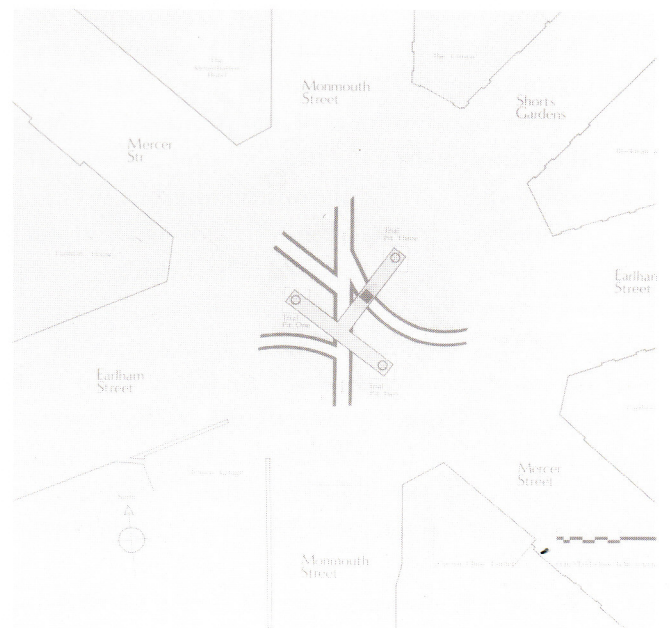
The Monument Committee was faced with a far more complex problem. Over the last hundred years an intricate web of road drains, sewers, water, gas mains, electricity and telephone cables, criss-crossing in all directions, had grown up below the seven roads which met in the centre of Seven Dials. The position of these services effectively dictated the arrangement of the foundations which was finally adopted.

In 1987 three sixty-foot deep concrete piles were constructed inside concrete sleeves which had been carefully threaded through the web of services. Then the piles were connected to each other by a 'Tee' shaped arrangement of horizontal ground beams which span from pile to pile above the deep-level sewers and below the services which are immediately under the surface of the road. The stages of construction, carried out in 1987, are illustrated in the pages following.

As a result of our investigations we can be certain that the new sundial pillar will be identical with the monument built by Thomas Neale and Edward Pierce. Their contemporaries and successive generations of Londoners came to look upon the pillar as a familiar and well-loved landmark and we hope the new pillar will be held in equal regard.



Foundation section showing the beams below the level of all services except the sewers. In the final construction there were three not four legs (piles).



Diagrammatic plan showing the main sewers (black lines), and the T-shaped beams (hatched) with a pile at each end. Each pile was driven down 40', from the bottom of each 20' deep trial hole.

THE LONDON EVENING STANDARD

Touch of magic at a Soho monument

by Tom Pocock

A STRIKING new monument, 40ft high, is to dominate the Seven Dials crossroads between Covent Garden and Soho. But even more remarkable is the feat of engineering which will enable it to be built but will itself never be seen.

The 28-ton replica of the Portland stone column set up at the junction of seven roads in 1694—it was surrounded by six sun-dials, the seventh being the column itself and its shadow

Engineering feat that stays invisible

—presented a unique problem.

David Beida, the 42-year-old Covent Garden resident and former community worker, who initiated the plan, said today: "The original was built upon the foundation of a massive granite and brick drum 13ft deep, which we have discovered."

"But since that time all London services—piped water and gas, electrical and telephone cables and sewers

—have been laid beneath the streets and here we have a major crossroads. When we realised this, we feared our idea might be impracticable."

This seemed to be confirmed when exploratory boreholes were dug. Most main services lay three feet beneath the road and the sewers at 12ft. The weight of the monument would have crushed them but the monument's architect, A. D. ("Red") Mason, solved the problem.

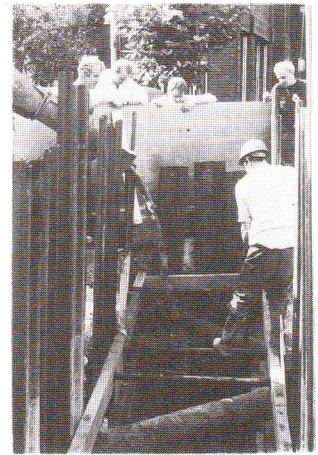
"He planned that the monument should stand upon a narrow plinth that would avoid the mains services and rest upon a massive, T-shaped concrete beam beneath them.

"This would be supported by three 70ft piles, which would bestride the sewers like a huge three-legged stool. This is a unique feat of engineering."

The foundations are now complete and the monument itself will be set up as soon as the money is available.

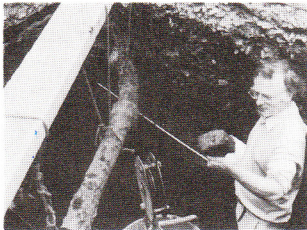
When the plan was announced two years ago, £60,000 was raised to pay for the underground work.

Now an appeal is being launched to raise a similar amount for the column and sun-dials.



Cement being poured to form the T-shaped beam.

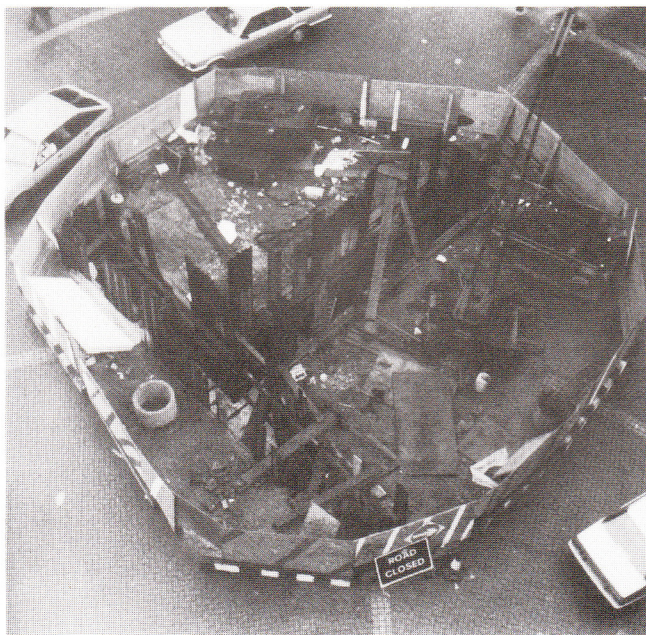
Tom Pocock's 1987 Evening Standard article explaining the basic construction of the foundations.



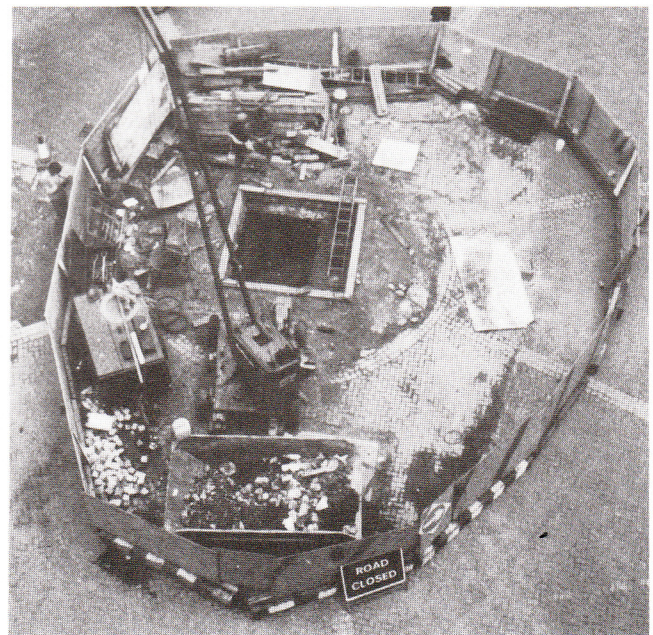
Architect, 'Red' Mason, inspecting the extensive 1693 foundations, which were revealed when digging the first trial hole.



Bob Whitehead, an archaeologist from the Museum of London was given access to each hole, because of the discovery of Saxon remains at other sites in Covent Garden.



Aerial photograph of the final stage of the foundation works showing the T-shaped holes for the beams in the same form as the diagrammatic plan.



Aerial view of the hole at the centre of the T-shaped beam. Similar holes were dug for each of the three piles at the ends of the T. In each case variations had to be made in situ, because each trial hole revealed variations between the plans available and the actual locations of the services.

TRAINEES MAKING THE MONUMENT

The Monument Committee specified that youth trainees should be involved in building the column, and this has been achieved at Ashby & Horner Masonry Ltd by involving their own trainees and through Vauxhall College of Building, Masonry Workshop, where other trainees from the Advanced Crafts Group are making three of the top sections. This involves setting out the full size details for each of the pinnacle stones, producing the moulds and templates and working the stone. The trainees will also be involved in fixing on site.

Whitbed, one of the finer natural beds of Portland Stone has been selected for this monument, as it will both weather well in our London environment, and not prove too difficult to work the very fine detail that has been designed from the original working drawings.

From the Architects drawings, a full size setting out drawing has to be produced, to enable full size sections and bed moulds to be cut. Bed moulds are traditionally cut from card paper, and are for the horizontal sections. The vertical sections are cut from thin zinc sheet and these are applied to the vertical faces by the mason to give the basic line shape as a form of template.

Apart from the three sections of the column, which are being turned by machine, all the other sections are made by hand as they were in 1693/4. After the various moulds and templates are made, they are applied to the stone to give the basic line shapes. The stone is worked using a traditional masons wooden mallet to drive a fine sharp steel tool.

As the stones are by todays standards fairly large, this poses problems of handling in the masons yard and workshop, and will also pose problems with fixing on site at Seven Dials. Many of the stones are long and vertical and to erect the Monument we are having to build a 50' high scaffold to ensure that the lowering and fixing can be carried out with great care. For example one of the pinnacle stones (not the largest by any means) weighs 19 cwt and as the top bed only measures 7" the lifting and fixing poses particular problems so as to ensure that no damage or strain occurs.



First Year Trainees at Vauxhall College, working on the Capital: Scott Meekes, José Batten and Damon Crouch.



Second Year Trainees at Vauxhall College



Tom Flemons working on the Dialstone.



John Lawson working on the Obelisk (Top) stone.



José Batten working on the Capitol at Vauxhall College.

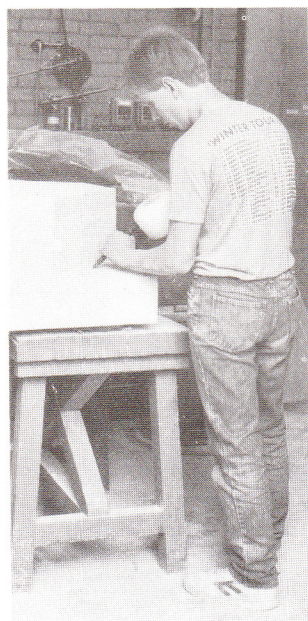
TRAINEES MAKING THE MONUMENT



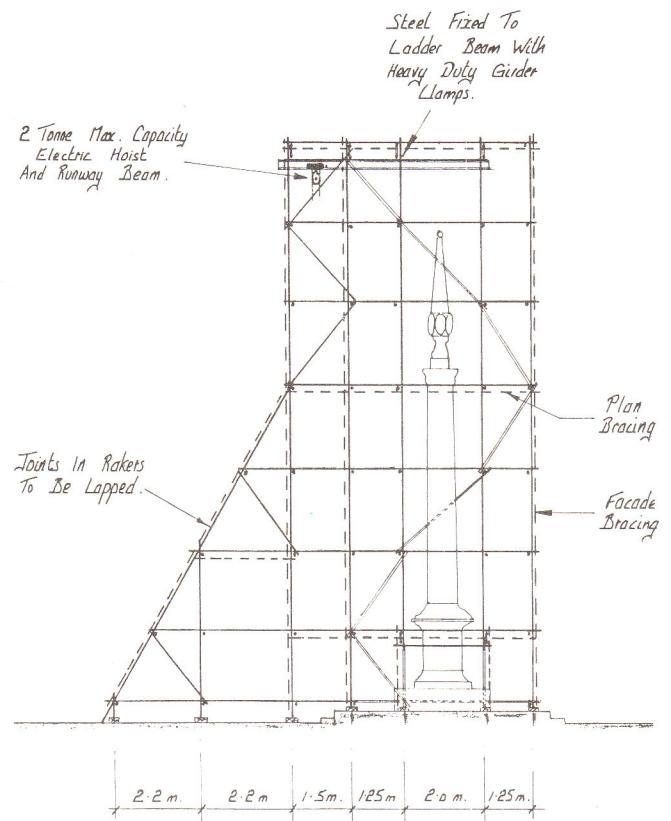
Trainees from Ashby & Horner who are working on the base sections of the Monument: Scott Richardson, Susanne Ower, Mark Haydon, and David Adamson, taken at The Building Crafts Training School where they are on Block Release.



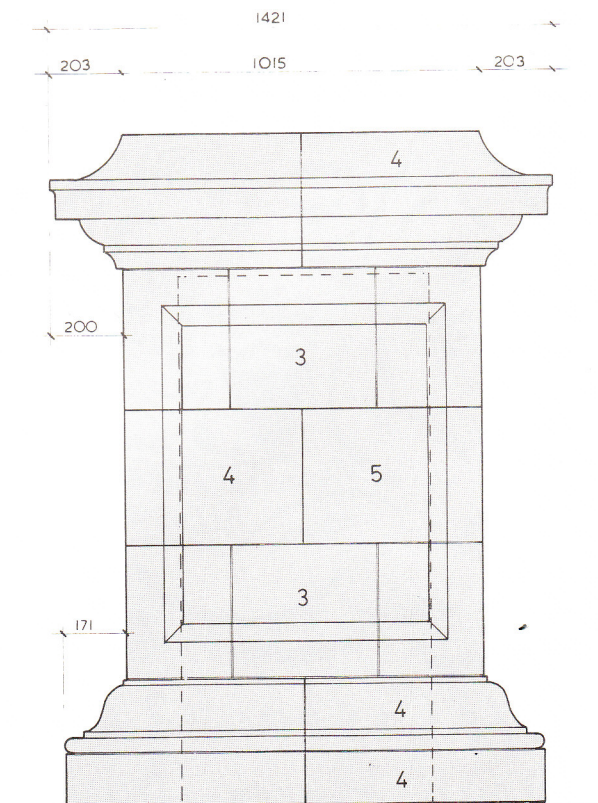
Architect 'Red' Mason and Works Supervisor Alan Watts, at Ashby & Horner Stonemasonry, checking the cornice to the pedestal against the zinc template.



Philip Brant working on the Capital or Chapter Stone.



GKN's scaffolding scheme for erection of the Sundial Pillar.

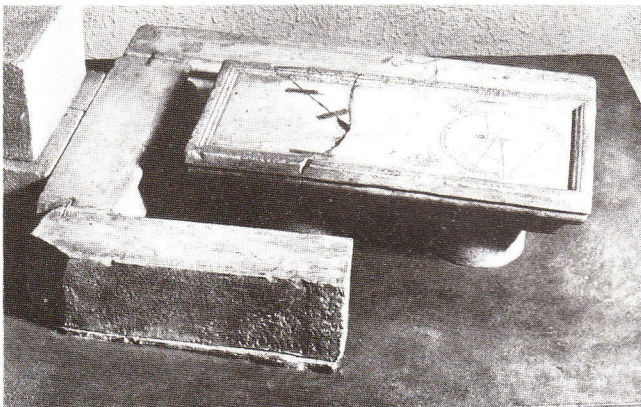


One of Ashby & Horner's working drawings showing the pedestal divided into 5 courses comprising 27 sections.

GNOMONICS - THE CONSTRUCTION OF SUNDIALS

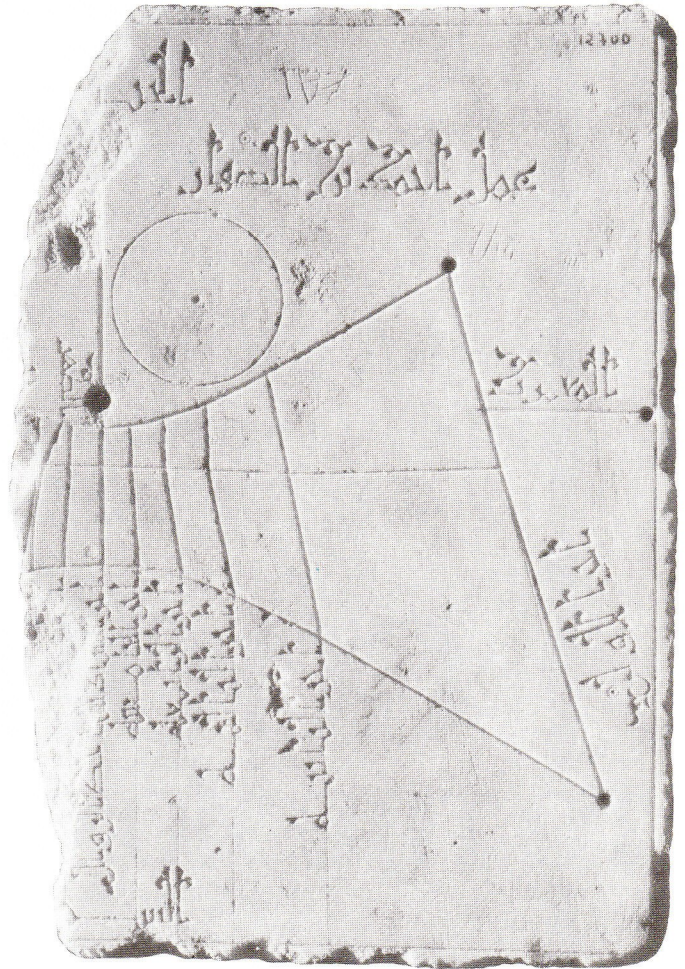
*The gods confound the man who first
found out
How to distinguish hours! Confound him,
too, Who in this place set up a sun-dial,
To cut and hack my days so wretchedly
Into small portions. When I was a boy,
My belly was my sun-dial; one more sure,
Truer, and more exact than any of them.
This Dial told me when 'twas proper time
To go to dinner, when I had aught to eat.
But now-a-days, why, even when I have,
I can't fall-to, unless the sun give leave
The town's so full of these confounded dials,
The greatest part of its inhabitants,
Shrunk up with hunger, creep along
the streets.*

Today, when we can use our digital watches to record times to a hundredth of a second and when scientists measure the duration of a laser firing to a picosecond (one million-millionth of a second) it is hard to imagine the crudity of time measurement at the end of the seventeenth century let alone that which obtained in Rome around the end of the third century B.C. when Maccius Plautus wrote the above verse.



A Roman horizontal sundial in the form of a bench seat, from Aquileia.
Courtesy Museo della Civiltà, Roma.

The earliest known sundial is an Egyptian one of around 1500 BC and the fact that sundials were well known in Roman times is shown not only by the quotation from Plautus but also in the writings of Vitruvius who listed 13 types of dials. Such dials would have divided the hours of daylight into 12 "temporal" hours. The length of each hour would therefore change seasonally being longer in summer than in winter. Although barely noticeable in the tropics the effect becomes more pronounced in higher latitudes.



Fragment of a similar Sundial made by Ahmad Ibn as-Saffâr, A.D. c. 1,000.

Courtesy Museo Arqueológico Provincial de Córdoba.

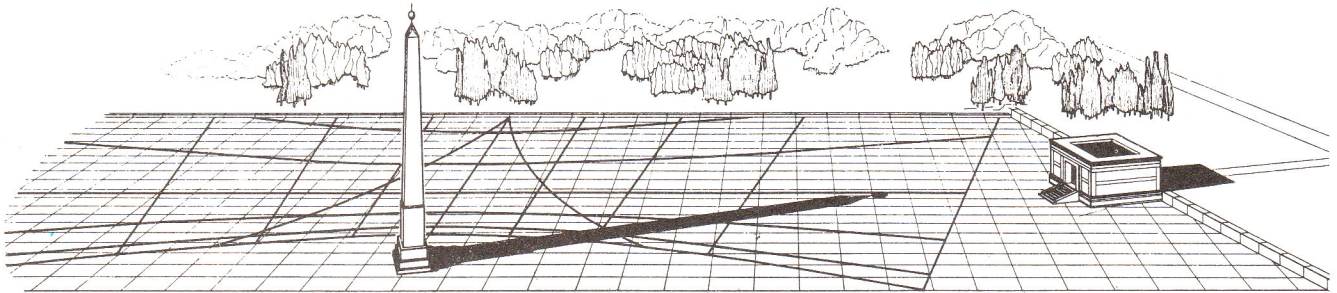
The Sundial Pillar was built at a time when the mechanical development and proliferation of clocks was beginning to provide the possibility of accurate timekeeping - but not entirely succeeding as you will see below. Thus Sundials were still common and were referred to for accurate time-keeping. However, sundials in London and Falmouth would show midday at the same apparent solar time, a difference of 20 minutes in Greenwich Mean Time, because they are 5 degrees apart. The same principle applied as between Athens and Rome in the first century A.D. but was of no significance given the slow pace of travel (and communications).

G.M.T. was established in England because the means of communication within an industrial society demanded a uniform time system, primarily instigated by the development of telegraphic communications and the railway system.

Knowledge of sundial design passed from classical antiquity to Byzantium, and to the Islamic

peoples, and some of this knowledge was transmitted from Muslim Spain to medieval Christian Europe (as we illustrate here) as early as the 11th century. This knowledge was part of the scientific works translated from the Arabic.

wanted a quarter of two: This I averr for a Truth, and desire to know how long I was walking from Covent Garden to the Royal Exchange?



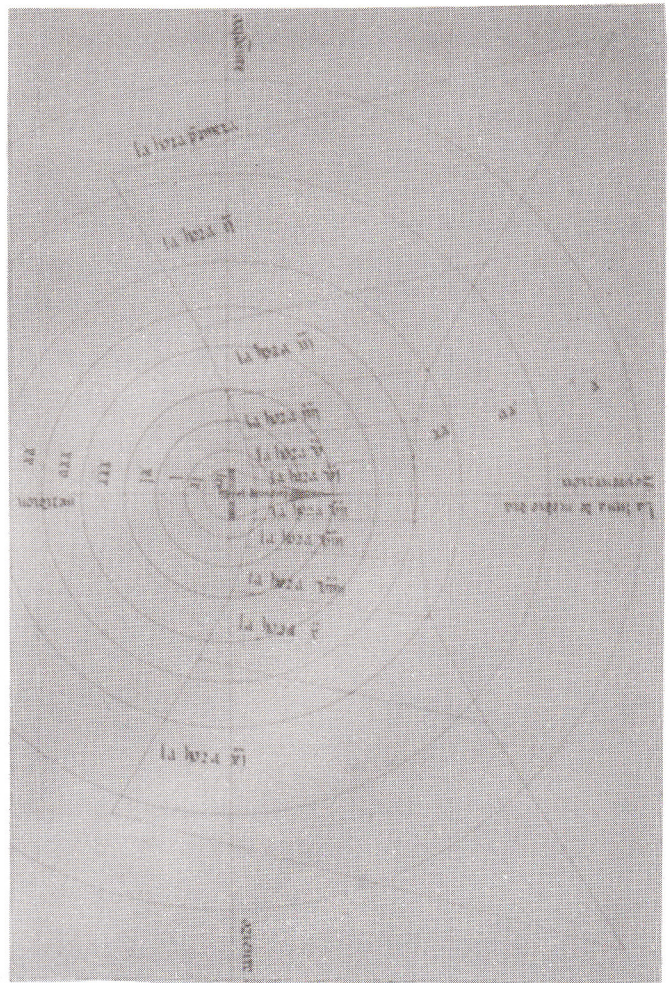
A similar massive Roman Sundial with an Obelisk acting as the gnomon, excavated in 1979/80 at the Piazza San Lorenzo, Lucina.

The importance of timing services in monastic communities, and the need for improved time measurement with the growth of urban and courtly life, led in the later middle ages to the development in Europe of new forms of sundials and the invention of types of mechanical clocks. On early dials the times of religious services were marked by a cross on the hour line.

The mathematical knowledge necessary to construct accurate sundials, whether trigonometrical or the geometry of projection, was part of the rediscovery in Renaissance Europe of ancient mathematics. This coincided with an upsurge of interest in recreational mathematics, and an everyday need for reliable public timepieces. Thus sundials were often erected in public places to regulate the growing number of clocks, which though popular were still unreliable and inaccurate.

This piece in the *Athenian Mercury* of 1692/3 (iv, No 4) the year before the erection of the Sundial Pillar, provides a graphic illustration of the need for sundials:

I was walking in Covent Garden where the clock struck two, when I came to Somerset-house by that it wanted a quarter of two, when I came to St Clements it was half past two, when I came to St Dunstons it wanted a quarter of two, by Mr. Knib's Dyal in Fleet-street it was just two, when I came to Ludgate it was half an hour past one, when I came to Bow Church it wanted a quarter of two, by the Dyal near Stocks Market it was a quarter past two, and when I came to the Royal Exchange it



Drawing of a similar Dial copied from the Manuscript of the *Libros del Saber astrologia* of Alfonso X, el sabio (the learned) of Castile, from the treatise *Libro del reloj dicho dela piedra de la sombra* (Book of the clock, called the stone of the shadow), by Rabiçag, c. 1276.

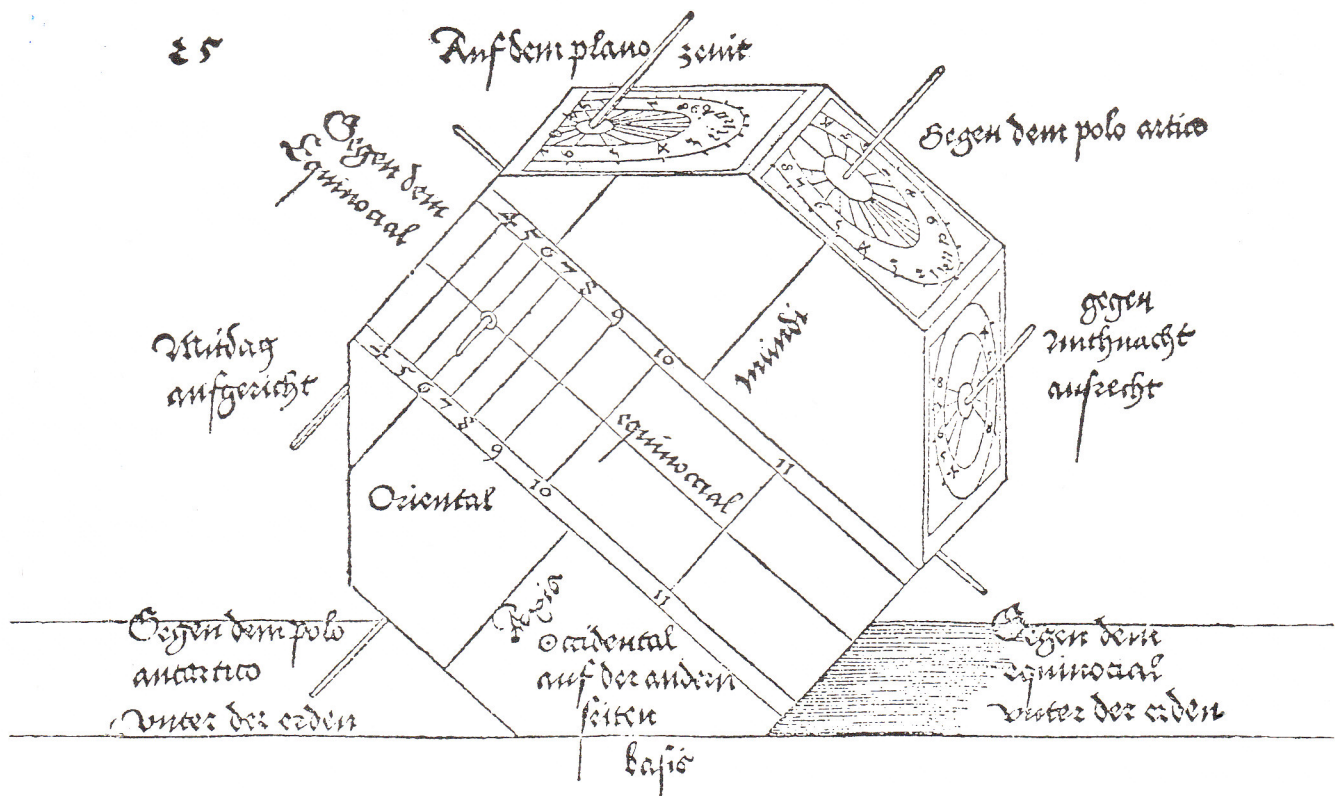
Courtesy the Museum of the History of Science, University of Oxford.

Readers may remember (with a shudder) doing plane trigonometry in their schooldays – simple calculations in two dimensions. To calculate the lines on the sundials of the Seven Dials monument involves a more complicated branch of mathematics known as spherical trigonometry. Here we have to consider triangles drawn on the surface of a sphere, such that the sides are parts of great circles and their lengths are measured as angles from the centre of the sphere. It is believed that it was an Arabian astronomer, Muhammad Ibn Jabir Al-Battani, born in Mesopotamia around the middle of the ninth century, who first solved a spherical triangle, given two sides and the included angle. It was another Arabian, Ali Ibn Omar Abul-Hassan al-Marrakushi, who lived at the beginning of the 13th century, who introduced the idea of “equal hours”; making all the hours of equal length. This idea did not become well established until the 14th century. After the time of the Crusades sundials with gnomons parallel to the Earth’s axis were to be found all over Europe.

By the time of the erection of the Monument it would have been possible to delineate the sundial

arithmetically, geometrically, instrumentally, or mechanically. It was the second option which provided the most accurate result by calculation. Which method was actually adopted is not known since it has been impossible to discover who actually delineated the dial. Almost certainly it was not Pierce, since his drawings show the dial faces blank.

How can we mark out the hour lines on a sundial? Let us look at the principles involved. We can regard the Earth as a sphere rotating around an axis with ourselves, and a sundial, at a particular point on its surface. We also have to consider the position and motion of the Sun. Apart from its apparent diurnal motion it appears to move along a path in the sky called the ecliptic, once a year. The plane of the ecliptic crosses the plane of the Earth’s equator at an angle of 23.5 degrees. Because of the Earth’s rotation the Sun rises and sets relative to the observer’s horizon every day, but because the Sun is also moving slowly along the ecliptic the apparent path in the sky changes slowly from day to day.



Drawing by Albrecht Dürer from the *Underweysung Der Messung*, Nuremberg, 1525, illustrating gnomons parallel to the earth’s axis which made possible the transition from “temporary” to equal hours.

Courtesy the British Library.

Presented by N. J. Ormrod, Esq.

DIALING:

PLAIN, } PROJECTIVE,
 CONCAVE, } REFLECTIVE,
 CONVEX, } REFRACTIVE.

SHEWING,
**How to make all such DIALS, and
 to adorn them with all useful
 FURNITURE,**
 Relating to the
Course of the S U N,
 Performed,
 ARITHMETICALLY, GEOMETRICALLY,
 INSTRUMENTALLY and MECHANICALLY:
 AND
 Illustrated by SCULPTURES, Engraven
 in COPPER.

Comprised in XI. Distinct TRACTATES, the
 Contents whereof follow next after the Preface to the
 READER.

Collected, Methodised and Published;
 By **WILLIAM LEYBOURN.**

L O N D O N,
 Printed for *Awnsham Churbill* at the *Black Swan*, at the
 Lower End of *Paternoster Row*, near *Amen Corner*. 1682.

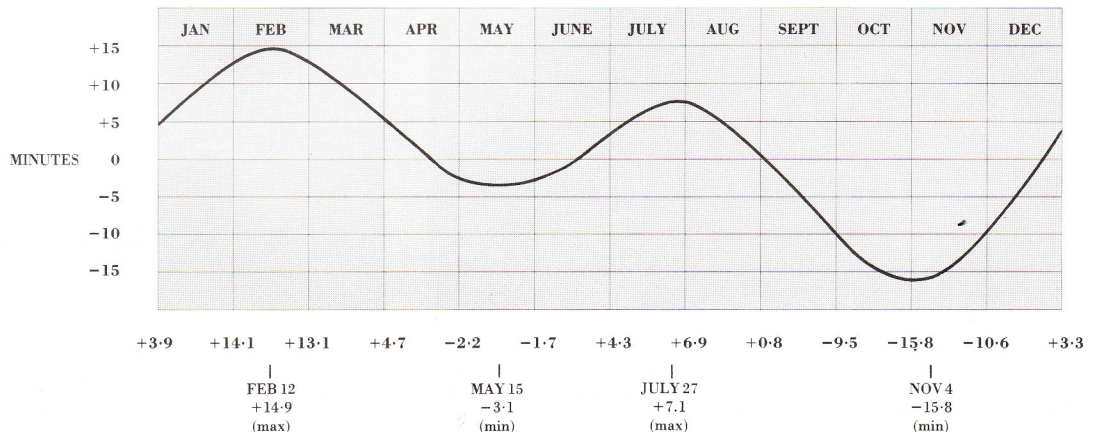
The title page of Leybourn's *Dialling*, the most contemporary manual available at the time of the construction of the Sundials at Seven Dials. Courtesy the Science Museum, London.

We can inscribe the dial on a surface facing any direction but we must ensure that the gnomon (which casts the shadow that indicates the time) is parallel to the Earth's axis. Then the Sun and the shadow of the gnomon will move uniformly around the gnomon during the day at the rate of 15 degrees an hour. (Exactly the same principle is used in an equatorially mounted telescope driven by a clock). The shadow of the gnomon is projected onto the dial and the positions of the lines are calculated mathematically.

Like most sundials the six on this Monument tell local apparent solar time. In this system the sundial will always indicate 12h 00m when the sun is on the meridian (due south). Providing the monument is not disturbed (e.g. by earthquake or subsidence) the dials will continue to indicate the correct solar time for thousands of years. However, solar time does not have a uniform rate so man has devised a mean time system which is kept by all clocks and watches today. The different between the apparent and mean time varies throughout the year and is shown on the graph below.

APPLY TO SUNDIAL TIME TO OBTAIN GREENWICH MEAN TIME (G.M.T.)

To derive Greenwich Mean Time (GMT) use the date to obtain the value from the graph and apply it to the sundial time. For example if on November 1 the sundial time is 12h 00m then GMT = 12h 00m - 16m = 11h 44m.



THOMAS NEALE 1641-1699

'The Great Projector', creator of Seven Dials, Thomas Neale was an MP for 30 years, Master of the Mint and of the Transfer Office, Groom Porter, gambler and entrepreneur.

Neale's projects ranged from the development of Seven Dials, Shadwell (including brewing and Navy victualling), East Smithfields and Tunbridge Wells, to land drainage, steel and papermaking, mining in Maryland and Virginia, raising shipwrecks, to developing a dice to check cheating at gaming. He was also the author of numerous tracts on coinage and fund-raising, and was involved in the idea of a National Land Bank, the precursor of the Bank of England.

The extent of his interests – as a prominent Hampshire figure, as a member of the Royal Household, as a long standing MP serving on dozens of Committees, and as the promoter of an extraordinary plethora of projects – is difficult to comprehend.

He is one of the more extraordinary and most influential figures of late Stuart England, and one of the least chronicled. He used his many contacts garnered via family, court and county connections, to act as middleman between men of money, the Court, other parties, fellow MPs and the general public.

He was known as 'Golden Neal', as a result of his marriage to Lady Gould. Reputed to be worth £80,000, she in fact brought him £120,000. Samuel Pepys described their marriage:

"the rich widow, my Lady Gould, is married to one Neale, after he had received a box on the eare by her brother.. at the door, but made him draw, and wounded him.. She called Neale up to her and sent for a priest, married presently and went to bed. Her brother sent to the Court and had a Serjeant sent for Neale; but Neale sent for him up to be seen in bed, and she owned him for her husband and so all is past."

From 1668 Neale developed his interests as a Member sitting on no less than 62 Committees, and gaining the confidence of the Court party. By the early 1670s he was considered:

"a person of Vast Estate and of great Interest as well at Court as in the City and Country..."

In February 1678 Neale was appointed Groom Porter to Charles II, a post which he also held under James II and William III. He bought the post for £6,000, although it had been committed elsewhere,



Rare Medalet of silver and copper: the obverse shows Th. Neale Armiger and the reverse a figure of fortune and the motto *Non Eadem Semper*.

The only known portrait of Neale bears out Mathew Prior's observation (1698) as to the likeness between James II "*lean worn and riv'led*" and "*Neale the projector*".

Courtesy. The British Museum.

TO PRESERVE The East-India Trade,

In which are set out the National truly for the Good of the Publick, and for the Benefit of the Kingdom, who are most burden'd with Taxes, and are the only Persons can and will suffer in their Rights and Estates, unless concern'd in some way in Interest in the said East-India Trade, may not be prejudic'd, but rather advantag'd thereby, and without paying any thing down for it; And That the Merchants and Owners of the said East-India Stock, which (as has lately been seen) on a visible loss, may be Enrich'd for ever hereafter against it, and certain of Gains, and without paying down more than they have already done, and are entic'd to be plac'd.

Propos'd
For the Benefit of the said Land-own'd of the Kingdom, as well as the Company, who (when they each understand it) is hop'd they both be Petitioners for it.
That the East-India Trade should be settled by Parliament, to be carried on by the new Joint Stock and Company, Exclusive to others, under such Regulations for the good of the Kingdom, as shall be express'd in the Act.
That the said East-India Stock shall be and consist as it (very near) does of Fourteen hundred thousand pound, to be always counted the Capital on which all Dividends shall for the future be made. And that
Whatever in value remains of the said East-India Stock, together with their Charter, Forts, Callins, &c. shall be redem'd together as now it is, and at such rate, and on which 5 per Cent. yearly shall be first always divid'd to the said Owners thereof; and all other Profits to be equally divid'd twice the Land-own'd and the Merchants, as it is herein after express'd.
That the Trade should be managed by 24. Persons (as now a Committee) whereof 12 to be chosen by the Company yearly, and 6 (by Ballot) in Parliament, whom they should be accountable once in 3 years (and that upon Oath) if required.
That the number of Persons shall (by a Commission) be empower'd to dispose of and manage the Effects of the said Company, and at Interest, if need be, to take up any Sum, not exceeding one Million of Money for the well carrying on of this Trade at such time and in such proportions as shall by them be found needful for it.
That the Money so taken up and employ'd in this Trade, shall always be liable to pay Principle and Interest to the Land-own'd, in the same manner as it is now, and as it is required. And
That there may be no fear of borrowing Money (if not enough otherwise) thus to carry on with this East-India Trade, This further Propos'd,
That there should be lent by Act of Parliament for ever, one single Month Tax in a year, after the rate of 1000000 l. per Annum, as a Fund to a perpetuity Interest at 5 per Cent. of 10000000 l. but not to be rais'd, but when found absolutely needful by the Persons appointed to manage the Trade, which never can be, unless all the Money Stock is lost.
So that besides the Money employ'd in this Trade, and the Profit of it, out of which the Interest of the Money is to be borrow'd for the carrying it on, and the 5 per Cent. not to be divid'd, may be easily paid, here will be Land Security as a perpetual Fund for the Interest thereof; so that should the said Stock fall, the said Owners of the Stock, and the Land-own'd of Money will be secure, which will give the Law, any such a Fund, that they can never want Money at their own'd Interest, that any where it can be had. And
That the Profits first arising after 1 per Cent. paid to the new Owners of the Stock, shall go to clear the Money (if any) that shall be borrow'd at Interest; and after that shall be clear and paid, the remaining Profit to be for ever divid'd twice the Owners of Stock in proportion to what they have there, and to the Owners of Land in proportion to their Estates, as is set in this single Month Tax; and to make this more effectual, such share of the Stock and Profits thereof, as by this Propos'd shall be in the power of any man to sell the one without selling the other at all: But as for such Persons as either are, or shall be the Owners of Money in this proposal, East-India Stock, shall be still in their power (and it is design'd that it shall

Tract: *To Preserve the East India Trade 1695.*
Courtesy Cambridge University Library

TO THE FORTUNATE,

And which Unfortunate can beto None, being A Proposal by way of LOTTERY, of Advantage as well as Entertainment, to such as shall bring in the first Millions worth of Hammer'd Silver Money or Standard Plate, to be Coin'd.

1700 PROPOSAL, in, that for the thing of it 1000000 Tickets should be given out that, Viz.
To every Person bringing in 40 Ounces of Hammer'd Silver Money or Standard Plate, on or before the day of
These should Two of their Tickets be given, each of the first Number, but of different Shapes, whereof one of them is to Entice the Bearer to Turn Down in New Money, to be Paid at the Mint on Demand, at any time after Three Months, from the time of its being brought in to be Coin'd. The other to Entice the Bearer to a Chance for one of the benefits propos'd to be the same in number, and of just half the value of those in the late Million Adventure, and to be in the same manner Drawn for, and paid. And
For the doing of this, and all Charges any way relating to it, 1000000 l. per An. is propos'd for sixteen Years to be lent; and if every Visiting House through out the Kingdom, who now will be exid from the charge of keeping Plate in their Houses, were oblig'd to pay only Five Shillings Yearly for a License, and be freed from such Charge, as such License stand them in now, would be Fund sufficient for this 1000000 yearly, to be gathered by the Exchequer, without making any other new Officers, and the Visiting that pay it, will be no Losers by it at all;

The BENEFITS are to be Truly,

To the First Number Drawn besides the Benefit	75 l. Yearly.
1 Ticket of Yearly	100
9 of each 50	450
30 of each 50	1500
50 of each 50	2500
50 of each 12 1/2	625
300 of each 10	3000
1000 of each 5	5000
In all 1500	15000

may come up with it }
To the Last Ticket Drawn, besides the Benefit } 50

Money 100000 l. Yearly.
Note, By dividing the Tickets, and giving out one for the 10 l. and the other yearly run'd into 10 such New ready Money, and Plate is immediately ready for the use of the Owners, and good of the Publick, which will thus way be at no more Charge, than by allowing 50. and 100. on Ounces to draw the first Million of Hammer'd Silver Money and Plate to be Coin'd; It gives him an opportunity to keep out to sell it as he pleases. And tho' such a Chance in itself may not be worth full 100. yet so not to be doubt'd that many will purchase such a Chance at 50. and whoever kills it, has 6 l. an Ounce that Hammer'd Silver Money and Plate, which will greatly Encourage its being brought in to be Coin'd.
Printed February 1700. 1697.
Reprinted Novemb. 16. 1696.
Tho. Neale.

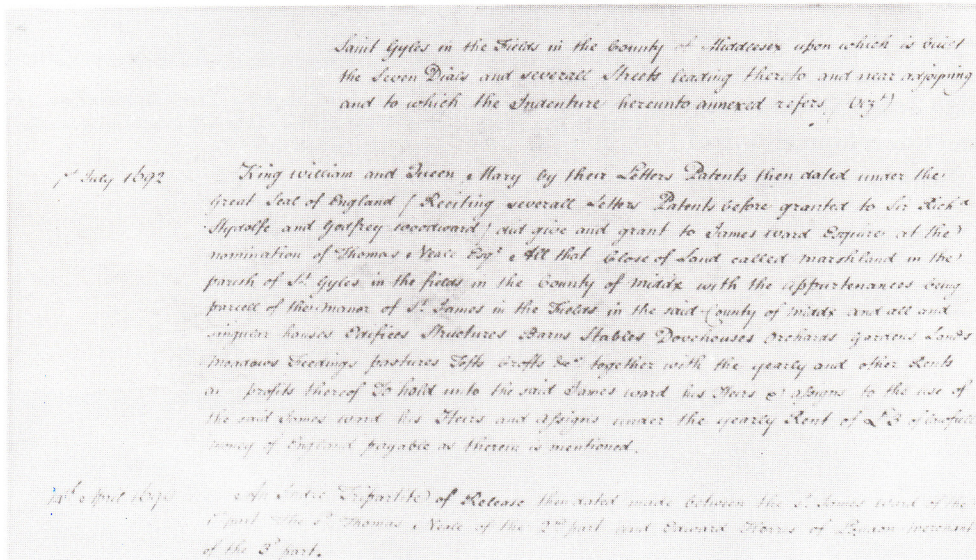
Pamphlet: *A profitable Adventure To the FORTUNATE... A Proposal by Way of LOTTERY... 1696.* Courtesy The Public Record Office

and the official income was only £2 13s 4d. The suites at Whitehall, Hampton Court, and Kensington Palace and the official carriages, gave an entrée to the Court and to a range of contacts which made Neale's vast investment in the post worthwhile.

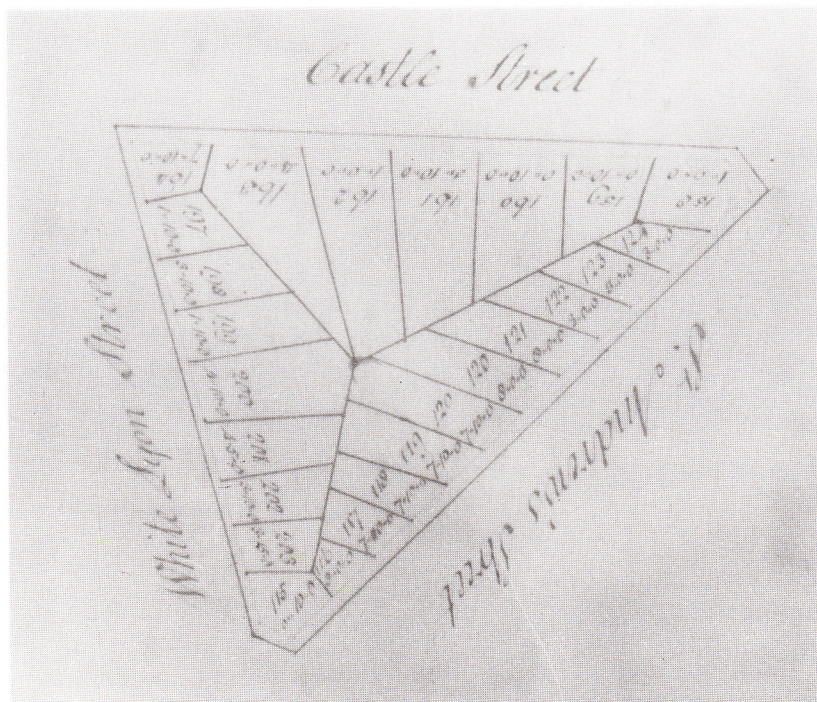
In July 1678 Neale was granted the office of Master of the Mint for life. He took up the appointment in July 1686 and was responsible for producing numerous proposals including proposals for 'The National Land Bank, together with Money...' (1696), and 'The best way of disposing of

Hammer'd Money and Plate...As for Raising One Million of Money in...1697 by Way of a Lottery' (1697).

In 1694 he introduced 'lotteries after the Venetian manner' to raise further funds for the crown. A hundred thousand shares were sold for £10 each. A prize fund of £40,000 was distributed annually to the fortunate shareholders whose tickets were drawn from a hat. John Evelyn records that his coachman won £40, and Samuel Pepys that the lotteries became "the talk of the Town."



Excerpt from the 1733 Lease for the Shelton/Mercer/Monmouth Street triangle. The preamble indicates that on July 1st 1692 King William and Queen Mary granted "All that Close of Land called Marshland" to "James Ward Esq at the nomination of Thomas Neale Esq.. by their Letters Patents then dated under the Great Seal of England".
Courtesy of Comyn Ching & Co.



Excerpt from the 1733 Lease showing the triangle.
Courtesy of Comyn Ching & Co.

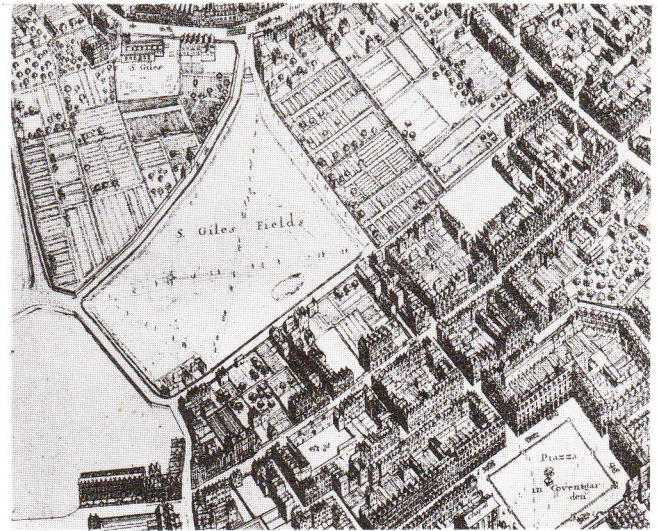
THOMAS NEALE AND SEVEN DIALS

The Crown, in return for services rendered, influenced the grant to Neale of the freehold of an area of land known as the 'Marshland' or 'Cock & Pye Fields'. *The Cock & Pye* was a Public House in the south west corner of the land.

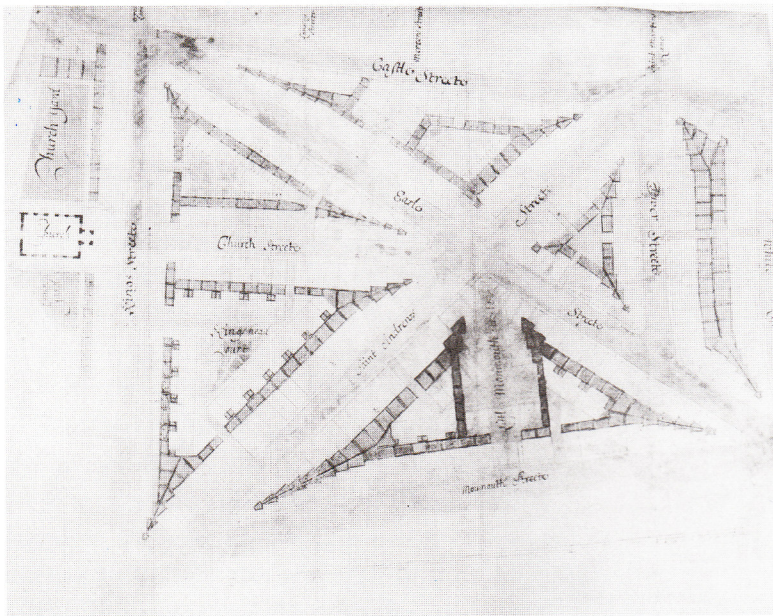
Neale however had to purchase the remainder of the lease, which did not expire until 1731, and to continue to pay the ground rents for the buildings on the east side of the land. The purchase price was £4,000 and the ground rents amounted to £800 per annum.

He was then faced with the problem of how to maximise the ground rents (calculated according to the length of the frontage), in order to meet his financial commitments.

In a city where, since Inigo Jones designed the Piazza in Covent Garden, most developments had included a grand square, Neale's solution was imaginative and ingenious.

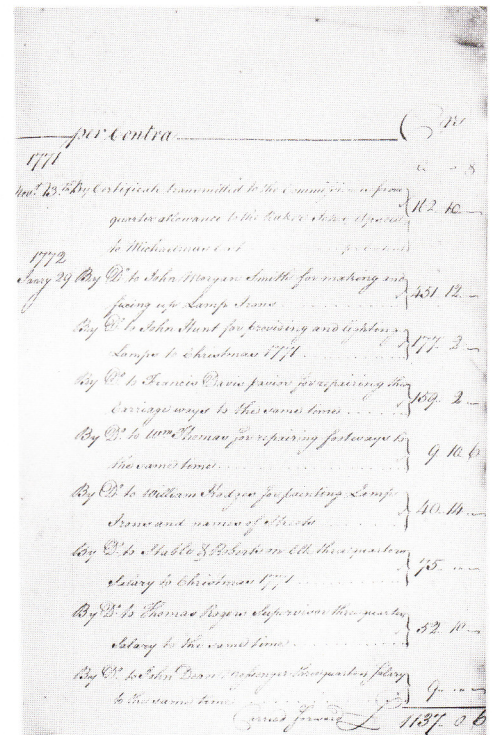


Hollar's Aerial Map of London 1658, showing 'The Marshland' or Cock & Pye Field, later Seven Dials. Courtesy of the Guildhall Library, London



Parchment map 1691 showing 6 streets and Estate Church (never built) – probably Neale's original submission to Sir Christopher Wren, Surveyor-General.

Courtesy of the Local History Library, London Borough of Camden.

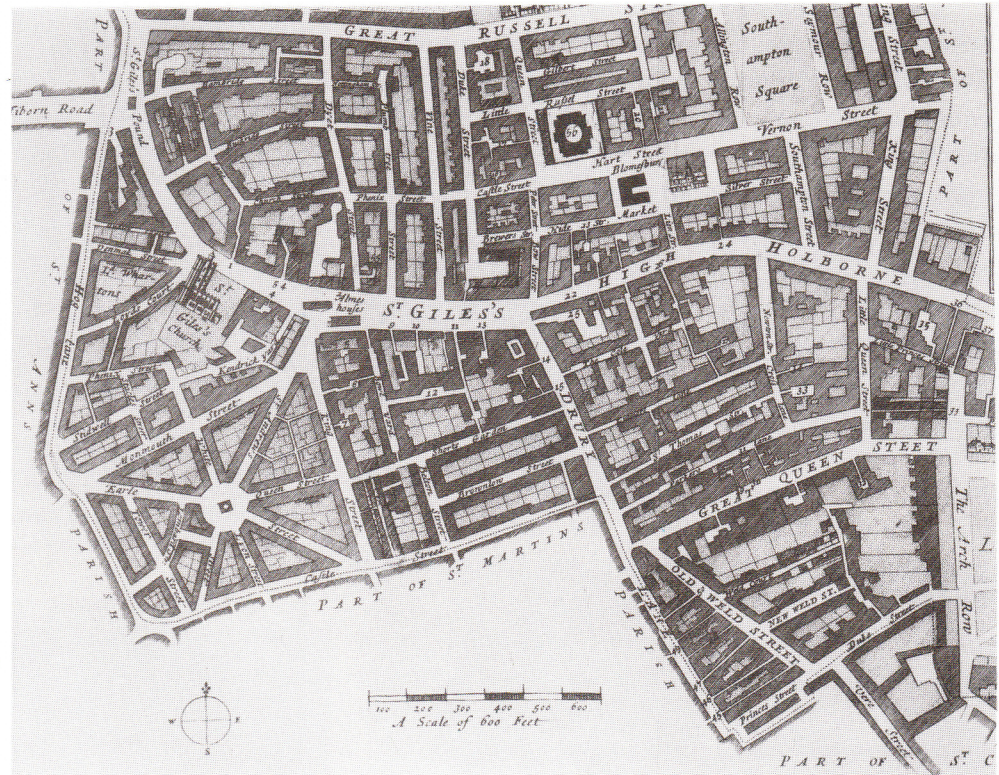


St Giles' Parish Pavement Committee Minutes of 1771

1723 Map of St Giles' Parish showing the final layout of Seven Dials. Courtesy of the Guildhall Library, London

William Hodges' remarkable painting of Seven Dials 1776-77 the only known 18c illustration. The Painting's whereabouts is unknown

Hodges drew at Shipleys in the Strand and was then trained by Richard Wilson in his studio in the Piazza. In July 1772 he sailed with Captain Cook on the Resolution on his second expedition to the South Seas and produced some of the finest records made by any 18c artist of Europe's "discovery" of the cultures of the South Seas. Hodges returned in 1775. The Records of the St Giles Parish Pavement Committee of 1771 (illustrated) show that he was paid £40 14s "for painting Lamp Irons and names of Streets". Probably, therefore, his painting of Seven Dials arises from that association. Courtesy of the Local History Library, London Borough of Camden.



By adopting a star shaped plan with six radiating streets (subsequently seven were laid out), he dramatically increased the number of houses which could be built on the site. This increased the total site frontages and number of plots to be let for building, and thus greatly enhanced the overall site value. In March 1692 he had agreed that he or his assigns would, within two years, build “so many good substantiall Brick houses according to a certain Scheme or Modell”.

Plans (illustrated here) showing no less than 311 houses and an estate church, were submitted in 1692 to Sir Christopher Wren, Surveyor-General, for a building license. As soon as the streets had been laid out, sewers installed and the initial corners developed, the Sundial Pillar was designed and erected by Edward Pierce.

On 5th October 1694 John Evelyn went “to see the building beginning near St. Giles’s, where seven streetes made a starr from a Doric Pillar placid in the middle of [a] Circular area.”

In 1695 Neale disposed of his interest in the site and the rest of the development was carried out by individual builders over the next 15 years. Today Neale’s involvement is recorded only by two street names – Neal Street and Neal’s Yard.

His Monument however is recorded in numerous books in London, probably the first was Gay’s *Trivia*;

*“Where fam’d Saint Giles’ ancient limits spread,
An inrail’d column rears its lofty head,
Here to sev’n streets sev’n dials count the day,
And from each other catch the circling ray’.*



The Morning Toilet, Seven Dials 1874. Courtesy of the Local History Library, London Borough of Camden.



Photograph c1880 showing Monmouth Street and Shorts Gardens. Courtesy of the Local History Library, London Borough of Camden.



Photograph c1900 showing Monmouth Street (south) and Earlam Street. The Monument Committee has pressed for the removal of the petrol station now occupying this site so as to completely re-instate Seven Dials. The site is now being redeveloped.

Courtesy of the Local History Library, London Borough of Camden

EDWARD PIERCE 1630-1695

Pierce was a sculptor, architect, and stonemason, son of a landscape painter; little is known about him until he emerged as a working mason in 1665.

After the Great Fire of 1666 he conducted an important masonry business, taking contracts under Wren for many of the City churches and St Pauls Cathedral. He made the model for the weather-vane on the tower of St Mary-le-Bow in the Strand.

As a sculptor Pierce carved busts of Oliver Cromwell and Christopher Wren (both are in the Ashmoleum Museum, Oxford).

As an architect he designed the Bishop's Palace at Lichfield. There is carved work by him at Emmanuel College, Cambridge and in several great country houses. He died in 1695 and was buried at St Clement Danes. He left behind him an important collection of books, prints and drawings, and stipulated that the architect William Talman was to have the 'choice and picking'. The original drawing of the Seven Dials Monument by Pierce, now in the British Museum Print Room, may have come from this collection.



Edward Pierce by Isaac Fuller.
Courtesy of Sudeley Castle, Winchcombe, Gloucestershire.

The Bishop's Palace, Cathedral Close, Lichfield, by Edward Pierce, c1687. *Courtesy of the Royal Commission on the Historical Monuments of England.*

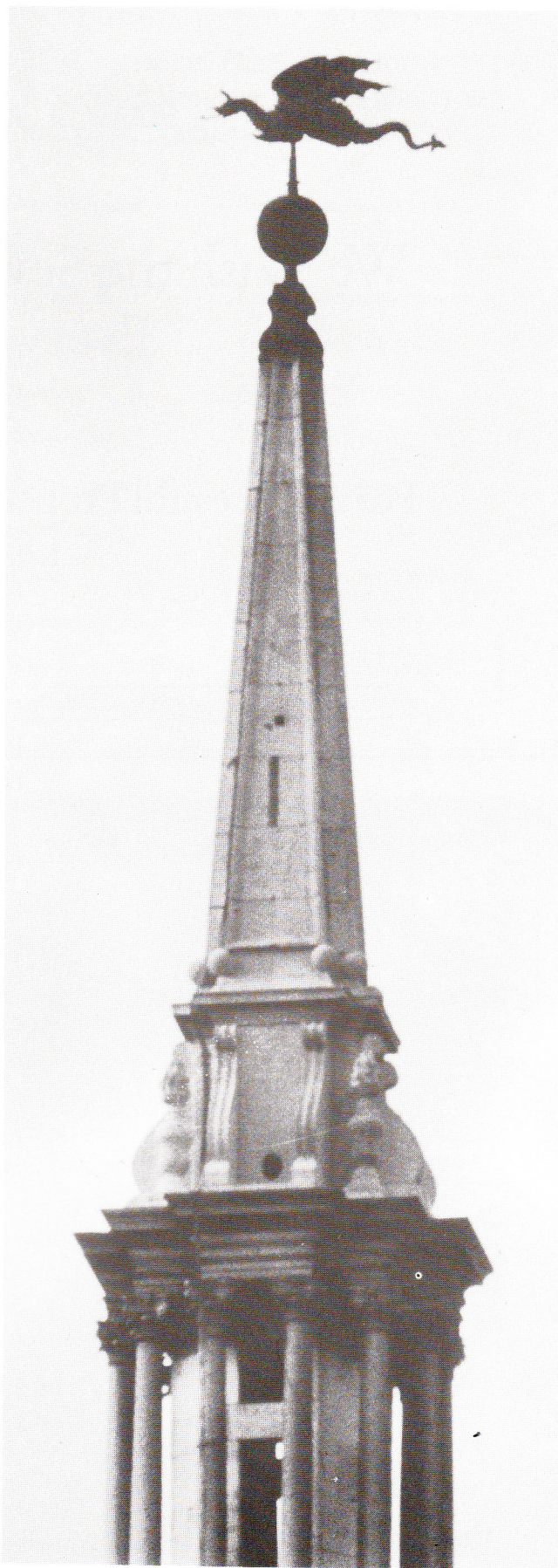




Bust of Sir Christopher Wren, by Pierce.
Courtesy of the Ashmolean Museum, Oxford.



Bust of Oliver Cromwell, by Pierce. *Courtesy of the Ashmolean Museum, Oxford.*



The weather vane at St Mary Le Bow, City of London, by Pierce.
Courtesy of the Royal Commission on the Historical Monuments of England.

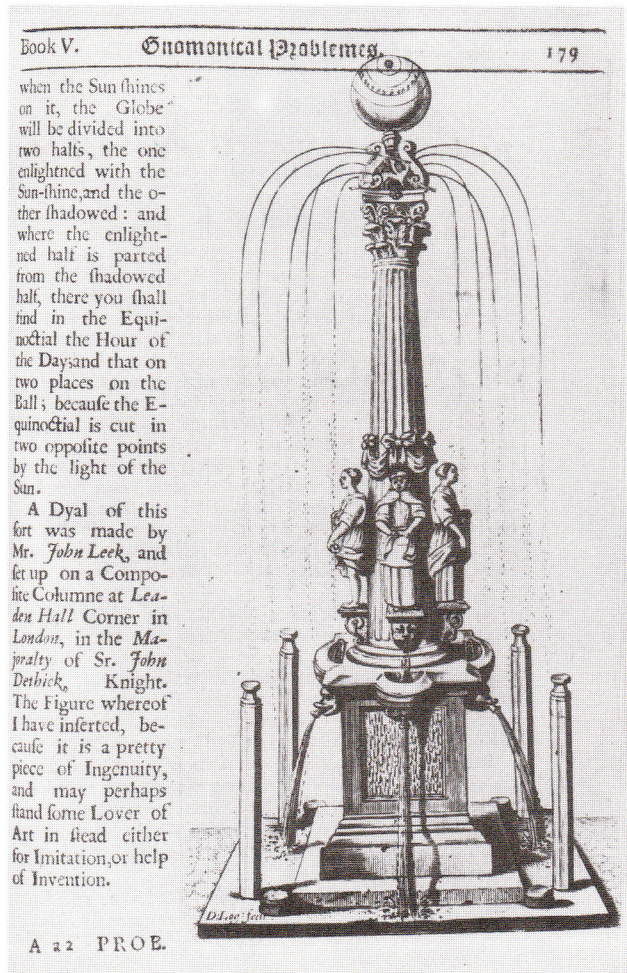
PILLAR SUNDIALS

Pillars surmounted by Sundials were not uncommon in the 17th century. They were a development of the medieval 'market cross', but with religious symbols eliminated and a sundial substituted.

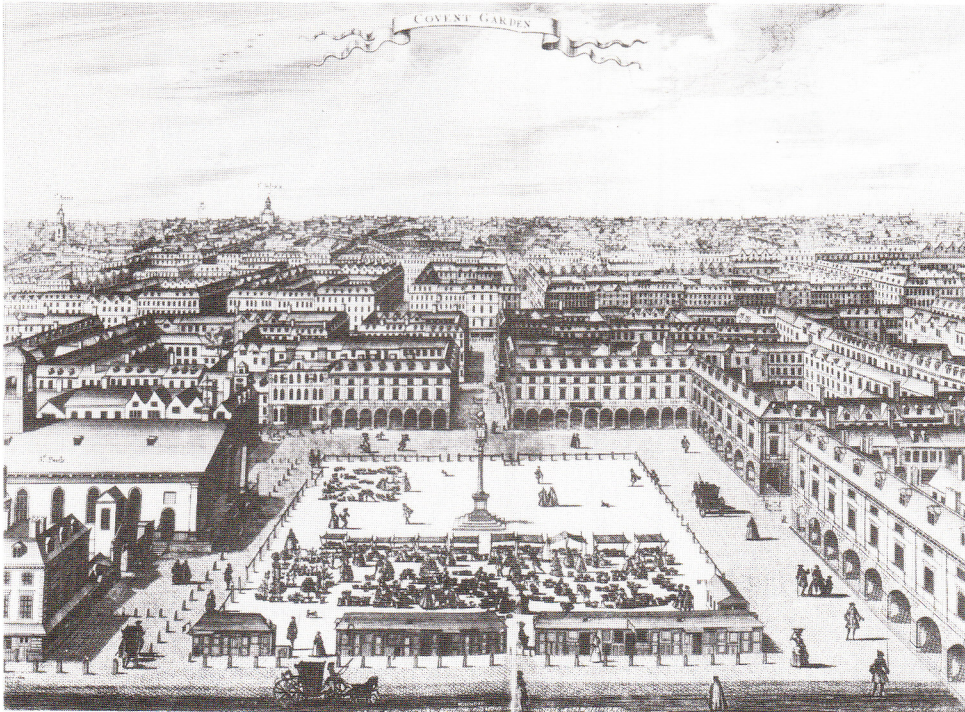
In London, the oldest recorded pillar sundial, built at 'Leadenhall Cross' in 1655 is shown in the engraving from Joseph Moxon's *Tutor to Astronomie and Geography* (1659). It combines the functions of a pillar sundial (the sphere on top of the column being the sundial) with those of a decorative fountain.

Simpler types were erected in Covent Garden (1688), and New Square, Lincolns Inn (c.1700). Nearly contemporary with the Leadenhall pillar, is the simple sundial at Broughman, near Applebey, Cumbria, erected by the Lady Anne Clifford, Dowager Countess of Pembroke and Montgomery in 1656 to mark the spot where she had parted from her mother, forty years before.

Much later (c.1670) the same Countess built the fine Doric pillar at Applebey. This is remarkably close in design to what Edward Pierce was to build for Thomas Neale in Seven Dials. In Carlisle there is another pillar of the same type, but of the Ionic instead of the Doric order. Built as a 'market cross' in 1682, it is still know as the 'old cross'.



The Pillar Sundial at 'Leadenhall Cross' 1655, illustrated in Joseph Moxon's *A Tutor to Astronomie and Geography*. Courtesy of the Guildhall Library, London.



The Sundial Pillar, Covent Garden, 1688. Courtesy of the Guildhall Library, London.

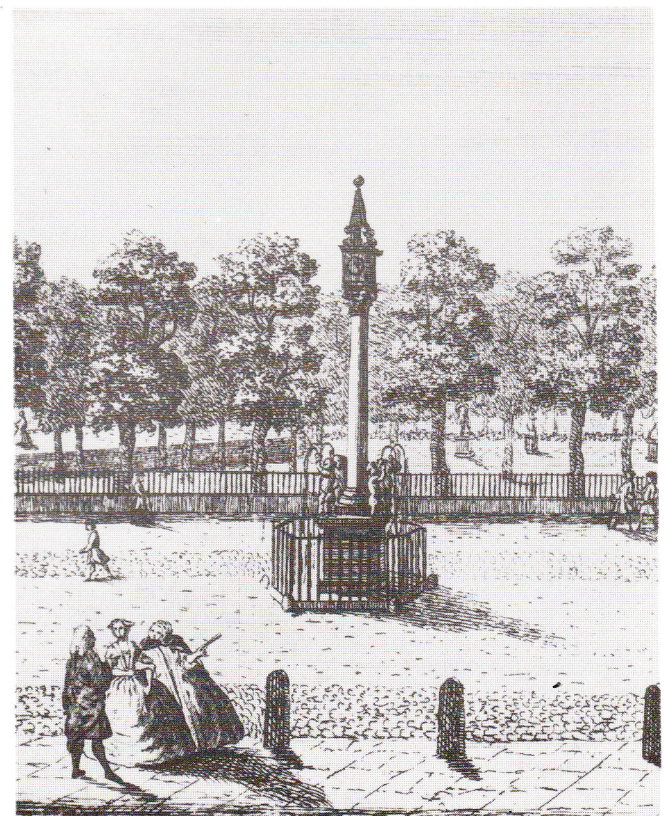
The Sundial at Seven Dials is illustrative of a common phenomenon of the time. A visitor to London in the late 17th Century might have walked from Whitehall up to Seven Dials, and would have passed say 20 Sundials, just as clocks were public ornaments until fairly recently. Of course, Pierce's Pillar Sundial was described by the protesters of 1773 as a "Great Public Ornament": it was more than just a Sundial, and gave meaning to a locality and to a series of views.



Detail of the Sundial Pillar, Covent Garden, 1688 (looking up James Street). Courtesy of the Guildhall Library, London.



The Sundial Pillar at Broughman near Appleby, Cumbria, erected by the Lady Anne Clifford in 1656. Courtesy of Royal Commission on the Historic Monuments of England.



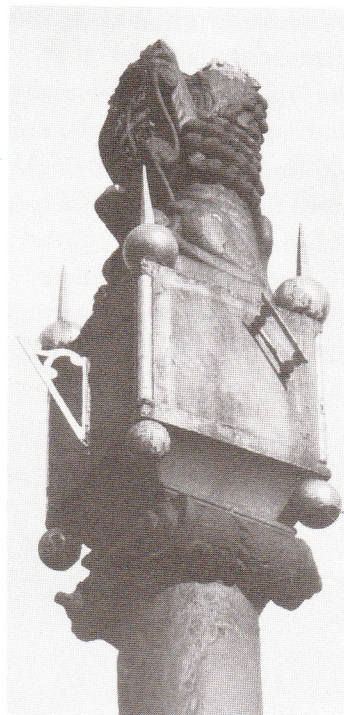
The Sundial Pillar, New Square, Lincoln's Inn, c.1700. Courtesy of the Guildhall Library, London.



Details of the Sundial Pillar at Broughman. Courtesy of Royal Commission on the Historical Monuments of England.



The Sundial Pillar erected at Carlisle Market Square, 1682, the "Old Cross". *Courtesy of Royal Commission on the Historical Monuments of England.*



Detail, The Sundial Pillar, Carlisle. *Courtesy of Royal Commission on the Historical Monuments of England.*



The Sundial Pillar at Appleby, Boroughgate, "The High Cross", erected by the Countess of Pembroke in 1670. *Courtesy of Royal Commission on the Historical Monuments of England.*



A typical Pocket Sundial *Courtesy of Arthur Middleton, New Row, Covent Garden (Hand Courtesy of David Bieda).*

A FEW PRESS CUTTINGS

78

COUNTRY LIFE

MYSTERY OF THE SEVEN DIALS

By GILE



4 HOME/

Pillar and the Seven Dials

By Charles Kneivitt
Architecture Correspondent

The Seven Dials monument which stood near Covent Garden in London from 1694 until it was pulled down by a mob in 1773, is to be rebuilt on its original site.

An appeal was launched on Friday for £50,000 to erect the 40ft Doric pillar topped by six sundial faces. The seventh dial is thought to be the pillar itself.

A reception for would-be sponsors is to be held today at Smiths Restaurant, Neal Street, in Covent Garden. More than £8,000 has already been promised. Portland stone has been bought for work to start later this year, to original working drawings of the pillar, designed by Edward Pierce, which are in the British Museum.

Seven Dials was laid out by Thomas Neale in the early 1690s. Known as the "Great Projector", he was a gambler, entrepreneur, speculator, developer and Master of the Mint. He introduced the first...

THE DAILY

SUNDIAL POINTS WAY TO FUTURE

...remains at Weybridge, Pierce's drawings and the pattern books of the period to build a faithful replica.

The Seven Dials Monument Appeal is at 1 Shorts Garden, Seven Dials, London WC2H 9AT.

Seven Dials i

The Daily Telegraph, Monday, March 3, 1986 13

GEOFFREY FLETCHER'S LONDON

Setting up a sundial

THE space to watch in the coming months is the raised circle of granite (shown alongside) for it is here, if all goes well, that a replica of the Roman Doric sundial from the original design by Edward Pierce (1630-1695) is to be placed.

Pierce, a sculptor and architect, carried out masonry work for Wren in a number of City churches: the dragon weather-vane on St Mary-le-Bow is his. Pillar sundials were not uncommon in the 17th century London. Examples were at Leadenhall Cross (1655), Covent Garden (1668) and at New Square (1670).

acing sundials—since it requires the siting and them—is not recent London on the tower of Westminster

the brainchild ale, an early hood of develop own time have bc in our towns

hen complete, for a time, but their proximity to pokery in St Gi area to go down r in the time its livelihood n dealings in animals is vivin "Sketches"

was demolis they mista a bag of gold was re-ere 1822. In 1

1938 and 1974, various attempts were made without success to persuade the Weybridge Council to part with it.

Now a committee of local resi... man has been



THE TIMES ARTS DIARY

● Seven stars with seven gifts for the future will gather at Seven Dials in Covent Garden on Tuesday for the "topping-in" of foundations and launch of the second stage of a £140,000 appeal to replace the 17th Century monument outside the freshly restored Cambridge Theatre. Julia McKenzie will bury a brass, airtight time capsule into which she and actors George Cole, Paul Jones, Lulu and Joss Ackland, together with writer Claire Rayner and Royal Ballet director Anthony Dowell have been invited to place objects.

CITY LIMITS

RE-DIALING

Centre of the Victorian underworld and star of books by Dickens, Agatha Christie and Claire Rayner Seven Dials has been lacking the pillar which gave it its name since 1773. Now it's to be rebuilt on its original site, and George Cole, Lulu, Joss Ackland, Paul Jones, Anthony Dowell, Claire Rayner and Julia McKenzie launch the second part of the fundraising appeal this week. Each of the seven stars will bury a time capsule containing a personal item in the foundations (the mind boggles). The accuracy of the replica is due to the original design still being in the British Museum. If you want to contribute to the rebirth of part of London's heritage send your shekels to the Seven Dials Monument Co Ltd, 1 Shorts Gdns, London WC2 9AT.



Seven Dials Drawing by Geoffrey Fletcher

JANUARY 9, 1986

SEVEN DIALS RESOLVED

S WORSLEY



£75,000 appeal to replace Seven Dials monument

THE INDEPENDENT Wednesday 30 September 1987

By Stephen Ward

AN APPEAL was launched yesterday for £75,000 to complete the replacement of one of London's landmarks, a 40ft Doric pillar at Seven Dials in central London, after a gap of two centuries. The monument, stood at the junction of seven streets near Covent Garden for almost 80 years from 1694, and was adorned by six dials. The seventh is thought to be the pillar, a sundial. It is being reconstructed using the original drawings of the architect, Edward Pierce, which survive in the British Museum. The 70ft deep foundations for the new monument have been completed, at a cost of £40,000, and the restoration committee hopes to have the pillar standing before the end of next year. Victorian accounts had it that the

ing point for undesirables. The monument had been commissioned by the local MP, Thomas Neale, in 1692, as the culmination of his grand development of seven streets radiating from the spot.

It seems the demolition raised an outcry from conservationists. On 7 July 1773, the *Morning Chronicle and London Advertiser* recorded: "The removal of that great public ornament the Seven Dials, and the discontent it has occasioned, will, it is thought, make the commissioners or their deputies more cautious how liberties again, either openly, secret avarice or

of the column lay in a hole for years, before being placed in a memorial to Duchess of York, in 1820.

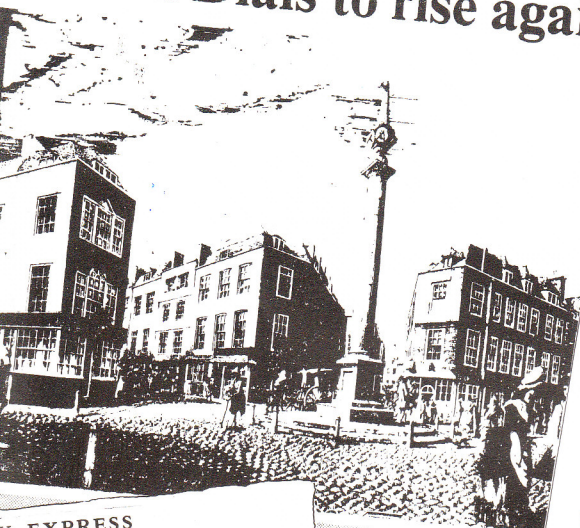


Timeless piece: The column's original dial section, which was moved to Weybridge, Surrey, in 1820.

OVERSEAS NEWS

Seven Dials to rise again

THE TIMES MONDAY



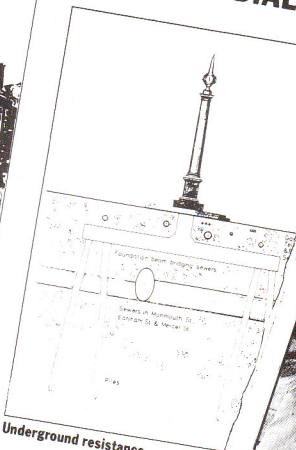
Y EXPRESS

A SLICE of history is coming back to life at Seven Dials, Covent Garden, after a gap of over two hundred years.

Joss Ackland and Claire Rayner were among stars who buried time capsules to commemorate the building of a sundial pillar that is an exact replica of one that was removed in 1773.

1750 (top) before a mob tore down the pillar believed to be underneath, and the site as it is today (Photograph: John

NEWS THE ARCHITECTS' JOURNAL CAMPAIGN DIALS M FOR MASON



Underground resistance.

More than 200 years after the authority demolished Edward and Jane's sundial pillar, the obelisk named Covent Garden junction, an exact copy of the original pillar is being reconstructed. Foundation work is nearing completion, which means the pillar will be standing again. The Dials Monument Committee is raising money to complete the pillar. 'We had to lay off for a year because of the recession,' says committee chairperson David Bleda. 'We thought it a little dishonouring to continue raising money when we were not sure whether it would be worth it.'

The problem had been the foundations for the 40ft Doric pillar, which would still give access to the many services running beneath the column's base.

Last week a massive concrete beam was cast, supported by 50ft piles at either end. The beam sits below all of the

services except for a large Victorian pillar, which is straddled by the piles. The pillar was designed by John Whitfield.

THE GUARDIAN



GARDEN PLANT—David Bleda, chairman of the Seven Dials Monument Committee, holds the time capsule buried in the foundations of the new sundial pillar in Covent Garden yesterday. The capsule contains personal items from celebrities Paul Jones (left), Claire Rayner, Joss Ackland, Anthony Dowell and Julia McKenzie, who helped launch the second stage of the £140,000 appeal to replace the 17th century pillar.

making special arrangements for property values, Beida is confident the remaining money can be found. Contributions can be found at David Bleda, 1 Shorts Gardens, Seven Dials, London, WC2H 9AT.



PATRONS WHO DONATE £250 TO THE FUND CHOOSE A YEAR FROM THE DATE OF THE ORIGINAL BUILDING OF THE MONUMENT IN 1694 TO THE PRESENT AND RECEIVE A SIGNED COPY OF THE LIMITED EDITION COLLOTYPE DEDICATED TO THEM BY THE ARTIST PAUL DRAPER.

PLEASE FILL IN THE TEAR OFF FORM AT THE END OF THE BROCHURE.

The Seven Dials Trust - 68 Dean Street London W1D 4QJ

Tel: (020)7437-5512 | Fax: (020)7437-6612 | email: info@sevendials.com | web www.sevendials.com

THE SEVEN DIALS

Erected 1694, Removed 1773

The Morning Chronicle, and *London Advertiser*.

NUMB 1279]

Price Two-pence Half-penny.

MONDAY, JUNE 28, 1773

A correspondent observes, that the column that has been many years placed in the center of the circle called Seven Dials, (and which column has always been admired for its fine proportion and elegant structure, and as an agreeable object to be seen at a good distance from the seven streets leading up to it) is now pulled down, no doubt by what authority; but with what propriety is the question? As public ornaments should not be removed without some good reasons given, which he thinks are not, he is of opinion, that that place will be as much a rendezvous for black-guards and chimney-sweepers, after as before; and a trifling repair, with a railing around, would have prevented much of the trouble complained of, and preserved to that part of the town, a great ornament.

We hear from Portsmouth, that on Thursday evening a genteel young fellow was detected in picking a gentleman's pocket on the Common; he was delivered up to the tars, who gave him a severe ducking in the harbour, and afterwards conducted him to the White House for examination.

At the same town on Friday evening, an elderly man was detected in putting off bad money at a public house in Warblington-street. The landlord took him before the acting magistrate, who committed him for further examination.

We are assured that smuggling was never so much practiced at Portsmouth as during his Majesty's visit there. Perhaps this was means as a compliment to his Majesty.

TUESDAY, JUNE 29, 1773

A correspondent says, that the Commissioners had an indubitable right to take down and remove the pillar near Soho, known by the name of the Seven Dials; and that when the new pavement took place at Charing-Cross they might have taken down the equestrian figure of Charles the First; and certainly would, had it not been for the generous interposition of that worthy nobleman, his Grace the Duke of Northumberland.

A Portuguese man of war, from Rio, is arrived at Lisbon, with treasure on board.

The *Steady*, Gordon, is lost at Greenland, with two fish.

On Monday evening last, at the Robin-hood, was debated, "Whether the inhabitants of the Strand had any ground of action against the two Mrs. Whiteleggs?"—Passed in the negative. The other question, concerning the late Coin act, was adjourned till Monday next.

SATURDAY, JULY 10, 1773

The removal of that great public ornament the Seven Dials, (or as the French Refugees of that quarter used to call it, *La Pyramide*) and the discontent it has occasioned will, it's thought, make the commissioners, or their deputies, more cautious how they take such liberties again, either from false economy, secret avarice, or partial complaint: It is certain the nuisance complained of is not thereby removed: the centre where the column stood, being a rendezvous for blackguards, &c. as much as ever; but, alas! the elegant object, seen from seven different avenues, is and will be no more, unless it rises again in some or one of the commissioners or surveyor's garden's, or sinks into some body's pocket, while a wide, dreary, and naked prospect of the blackguards, &c. only remains.

About ten years ago a man went about the country pretending he was a prophet; and, amongst many other things prophesied that Constantinople would be destroyed in the year 1773. Whether he was a prophet or not we do not pretend to say; however, there is great probability of this prophecy being fulfilled.

Yesterday 27 prisoners were tried at the sessions in the Old Bailey, two of whom were capitally convicted, viz. Thomas Plunket, for robbing Mr. Dadley on the highway, between Ilington and Highgate, of money and some valuable effects; and Alexander Mungemery, for breaking and entering the dwelling-house of Mr. Crago, in Holborn, and stealing a table cloth: twelve were cast for transportation, and thirteen acquitted.

Reconstructed 1988-9

£2