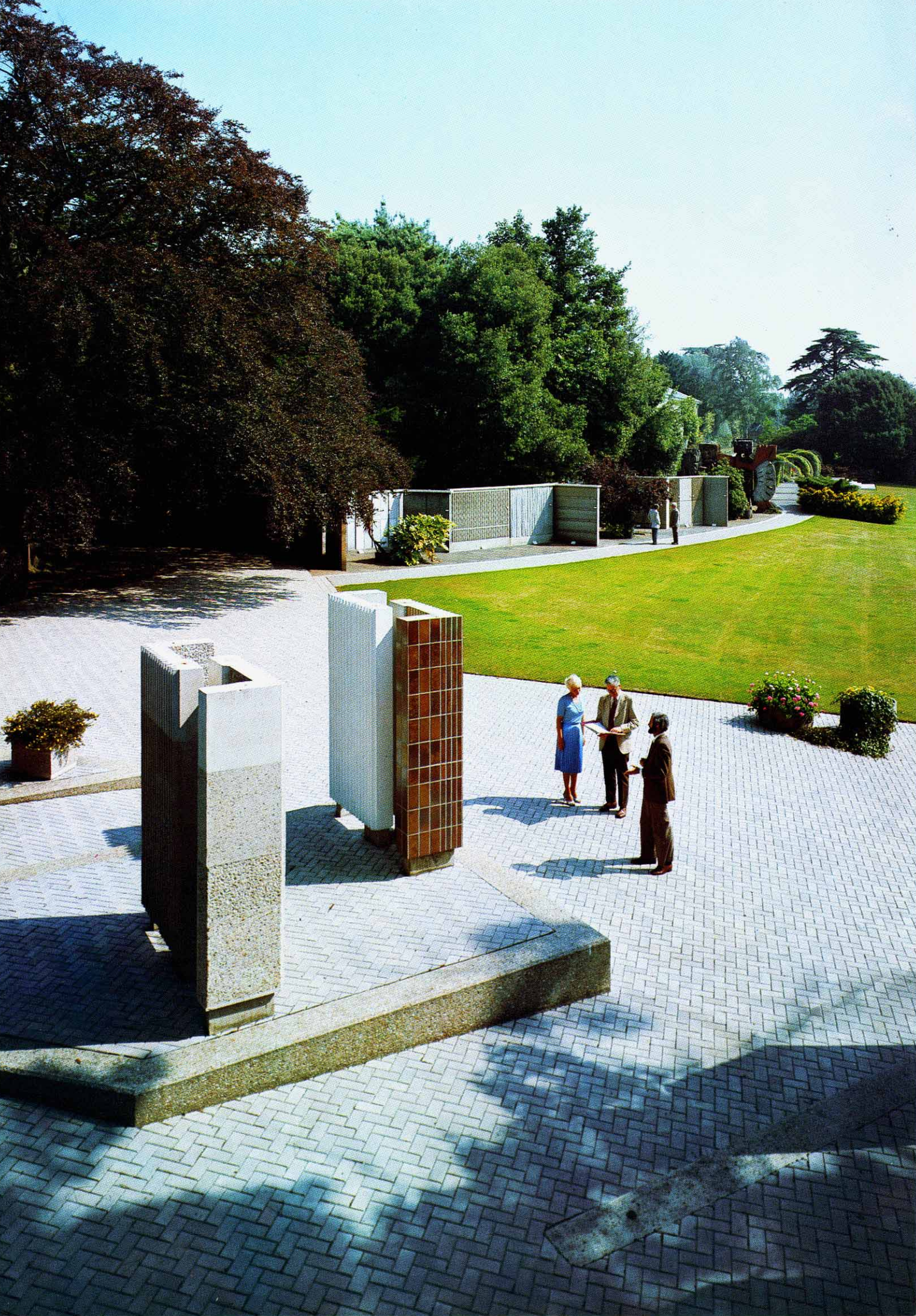


A photograph of a modern house with a red-tiled roof. A man is visible looking out of a window on the left side of the house. The house has a light-colored, textured exterior wall. A brick wall is visible in the foreground on the left, and a brick wall with a sloped top is on the right. The house is situated on a paved area with some greenery in the background.

Cement and Concrete Association January-March 1980: Price £



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A wide choice

From the architectural point of view, one of the main issues with concrete is still the question of surface finish. In this edition of *Concrete Quarterly* several buildings are illustrated, each with a different kind of surface finish showing once again that there are many different approaches to the subject. The first building on page 2, Winslade Manor, takes an almost classical line with textured beams and columns of exposed concrete. The next buildings on page 10 at Rochdale, on the other hand, take a line which is quite opposite with all the concrete covered in ceramic tiles. The housing at Washington on page 16 (see also front cover) and the Dover building on page 32 rely on textured renderings to the concrete structures, whilst the town hall in Norfolk on page 22 covers its concrete structure with red brick and roofs of dark grey asbestos-cement slates. Pitched roofs are nowadays more important than they used to be and it isn't always remembered that concrete tiles and slates are in themselves a type of concrete surface finish which is sometimes dominant – hence the article on page 20 illustrating the use of a new concrete slates on old buildings.

From all this it can be seen that the possibilities are nowadays infinitely great and that architectural theory on the subject is much less dogmatic and restricted than it used to be. The Cement and Concrete Association has of course concerned itself with the development of concrete surface finishes for many years now – as can be surmised from the article on page 40 which marks the retirement of a surface finish expert on its staff, and from the frontispiece photograph opposite: a reminder that the C&CA has an extensive surface finish display area at its Research Station at Wexham Springs, near Slough, to which visitors are always welcome.

FRONTISPIECE:
The surface finish display area at the Cement and Concrete Association's Research Station, Wexham Springs, near Slough. (Photograph: Trevor Jones)

FRONT COVER:
Fatfield housing, Washington (page 16).

WINSLADE MANOR

Winslade Park, Clyst St Mary, Exeter

The textured concrete elements of the new building and the hard landscaping seen against the rendered facade of Winslade Manor.



Client:	London and Manchester Assurance Co. Ltd
Architects:	Powell Moya and Partners Job architects: Eric Lloyd, Colin Garratt, Roger Burr, John Haworth, Richard Faulkner
Quantity surveyors:	Scott and Partners
Structural engineers:	Ove Arup and Partners

Services consultants:	Dale and Ewbank
Main contractors:	Sleeman Construction Ltd
Landscaping:	DOE Contracts Ltd
Precast concrete fascias:	Minsterstone Ltd
Photographs:	Henk Snoek Photography & Associates

Winslade Manor was the winner of the 1979 RIBA Architecture Award for the South-West Region. The Jury reported as follows: "The integration of this large office complex with the existing mansion and stables – set on a sloping site with magnificent trees – is nothing short of masterly. The architecture is simple and restrained with a small range of finishes throughout. Internally, daylight is admitted to great effect allowing a notable variety and individuality of external views. Changes in level are exploited with a deceptive ease and the overall result has, remarkably, enriched the already superb setting. Not least, the eighteenth century house has been meticulously restored."

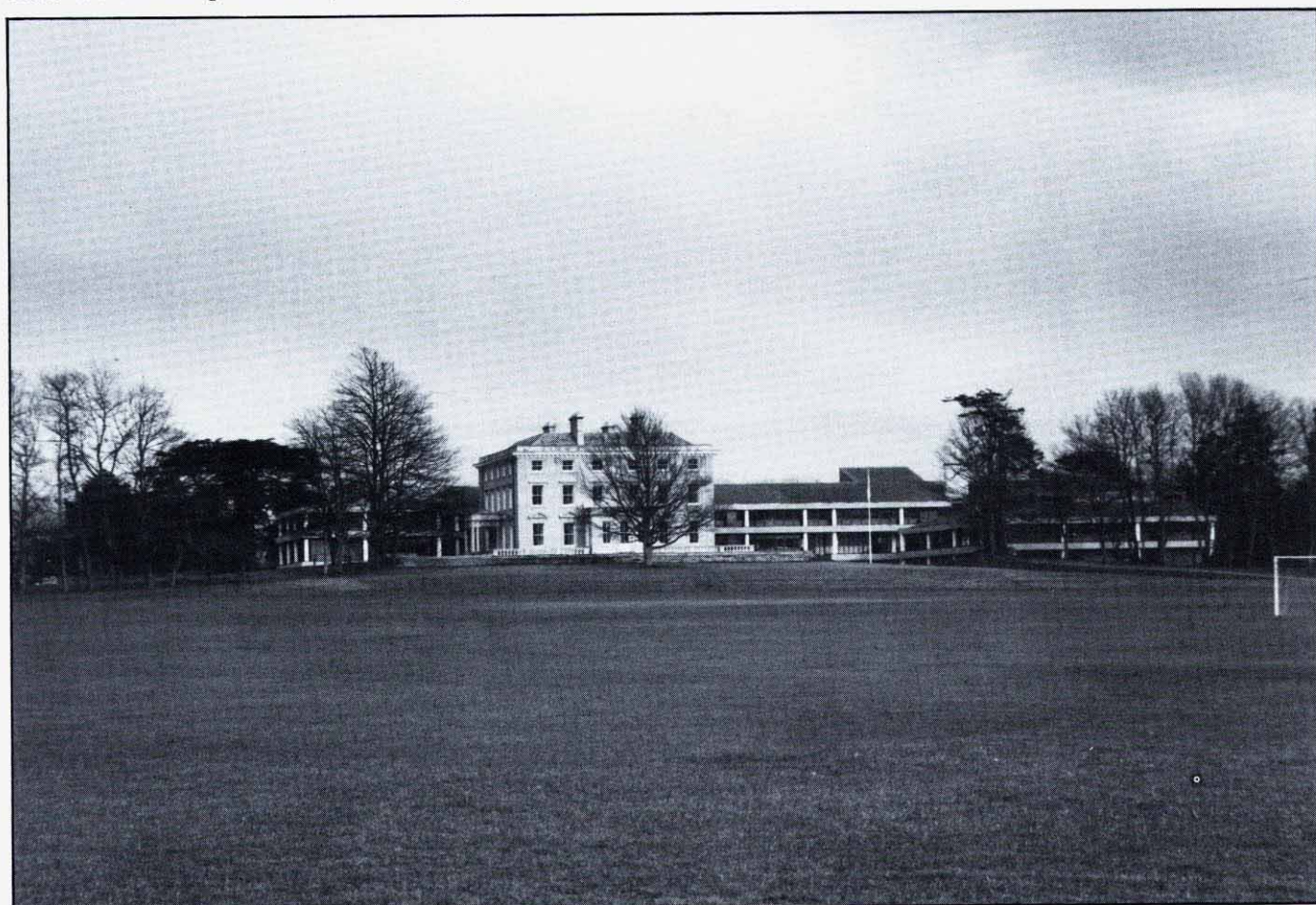
From the concrete point of view, the new extensions to Winslade Manor are an object lesson in the appropriate use of concrete surface finishes. There are three basic types of finish: white bush-hammered concrete for the circular

columns, grey Cornish granite aggregate for the precast concrete fascias to the floor slabs, and slate-grey interlocking concrete tiles for the shallow pitched roofs. The first two finishes are applied to clearly articulated 'post-and-beam' elements with a strong horizontal emphasis, bearing the characteristic mark of earlier Powell and Moya buildings in Oxford and Cambridge. As all the concrete finishes have fairly strong textures and are not used in large flat unbroken planes, they are likely to weather well with the passing of time. In any case, they provide a simple but dignified foil to the classical façades of the existing manor house which has an extensively re-dressed rendering using local sand of a warm slightly orange colour.

Background

When the London & Manchester Assurance Company wanted to move their headquarters out of the City of London to a country site, they acquired Winslade Manor at

The new and old buildings seen in their parkland setting.



WINSLADE MANOR continued

Clyst St. Mary just outside Exeter – a fine parkland site with a manor house (probably 18th century although refaced in about 1840) and a stable block. They did not want the new additions to be an expensive monument: rather they wanted

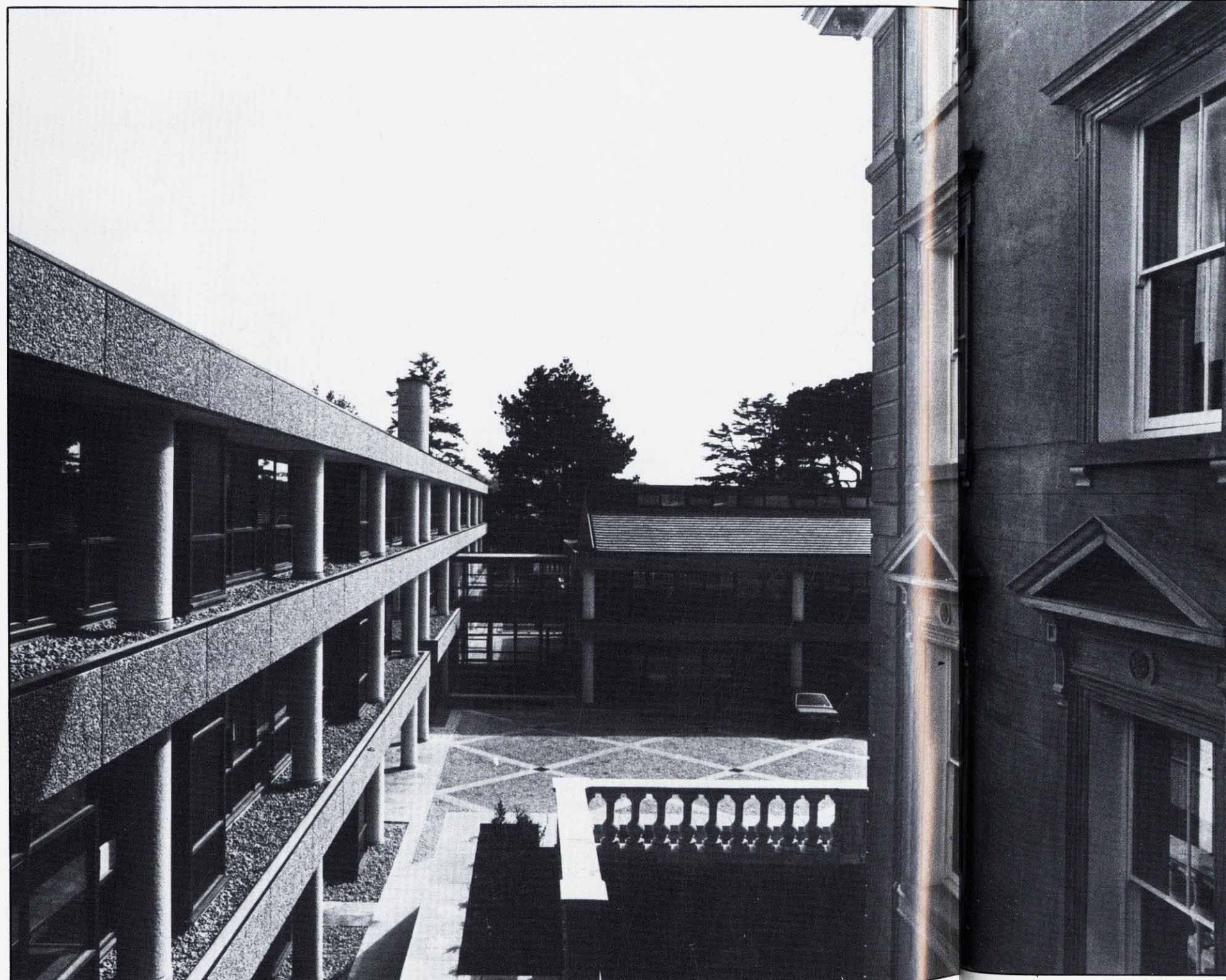
a building in which they would get “common sense value for money”.

The chief design aims were to provide efficient modern accommodation and to retain and respect the scale of the manor house, the parkland, the fine trees, the water and the two-storey stable block, all of which – with St Mary's Church and its cedar of Lebanon – form an attractive group set in a pleasant mature landscape. It was also decided to

restrict the height of the new accommodation to two and three storeys and to plan it so that the manor house and its setting were not dwarfed by a new office monolith and so that the old and new complemented each other. The new buildings have been designed to make the most of the parkland and woodland views without spoiling the views of or from the manor house, and to retain as much of the parkland as possible.

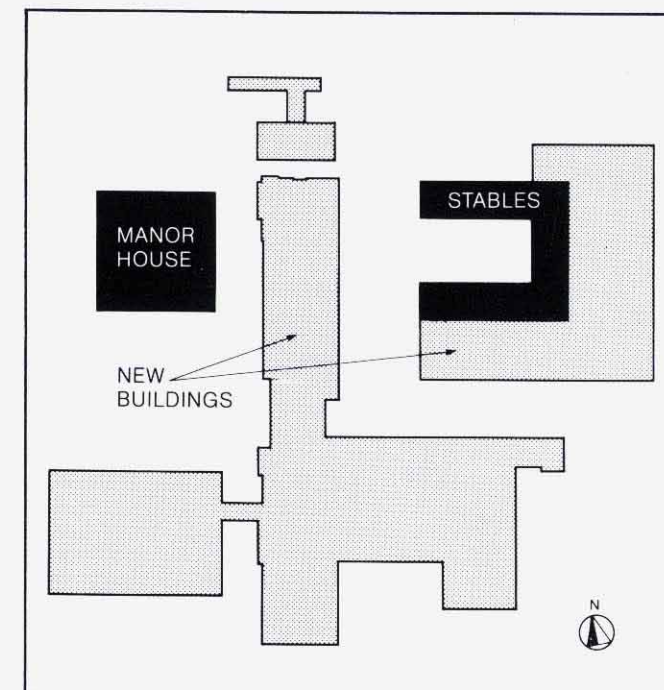
Structure and finishes

The new offices have in situ reinforced concrete floors and columns, the floors over-designed for heavy local loads to give flexibility and as a valuable provision for possible future letting or selling. The two-way in situ reinforced concrete beams are shallow (550mm in depth) to keep overall heights down. This made the 15m span between external columns too great so that a line of internal columns



Left: The relationship between the old house and the new office wing. (Photo: Tony Sleep Photography)

Right: Block plan.



Below: The terraces south of the computer wing with the old house in the background.



WINSLADE MANOR continued

has been provided, set off-centre to give a notional centre corridor, creating unequal spans of 6.6m and 8.4m.

The round columns are freestanding and of lightly bush-hammered concrete cast with white cement and calcined flint. The internal columns are square with

rounded corners and of lightly bush-hammered grey concrete. Suspended ceilings are set flush with the exposed soffits of the downstand concrete beams so that the form of the structure is not hidden and are of fire-resisting acoustic tiles which match the bush-hammered finish.

The projecting floor slabs are faced with precast concrete panels which have an exposed aggregate finish of grey Cornish granite chippings. The top band of panels masks to a large extent the shallow pitched roof behind, which has a

light steel truss and is covered with Redland's 'Stonewold' interlocking grey concrete tiles. The roof spans the entire width of the building, making internal columns on the top floors unnecessary. The roofs are pitched at 18° and have a clerestory light under the ridge. Gable ends are leaded.

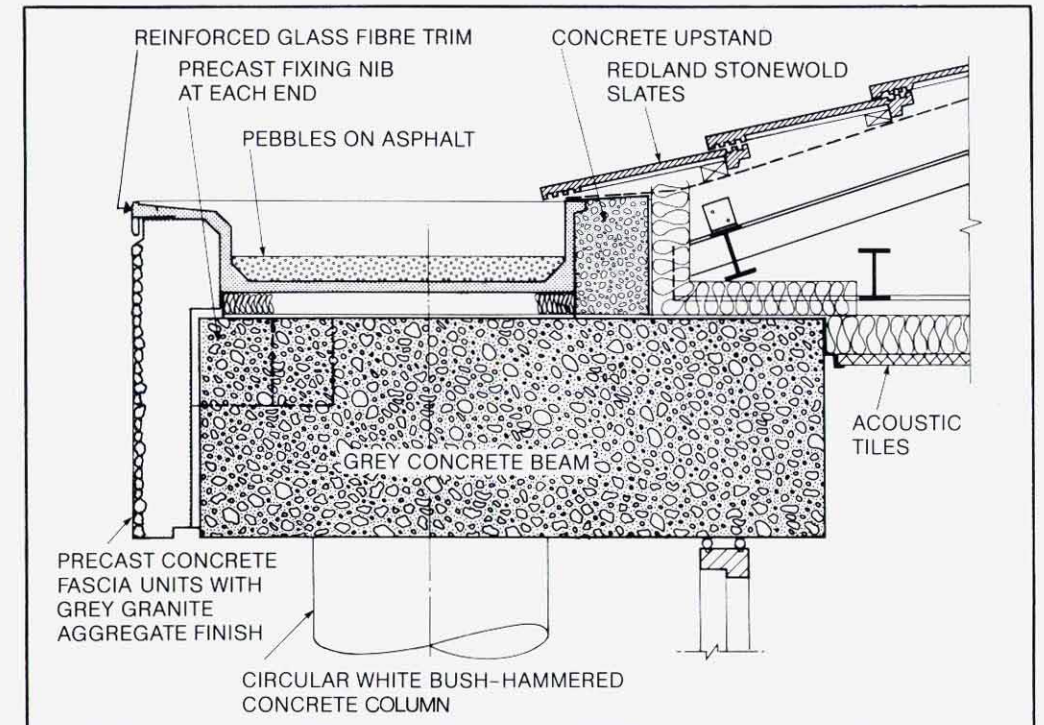
External walls are faced with bronze-coloured aluminium panels framed in dark afromosia. Double-glazed windows have vertical sliding sashes. Internally, solid walls are of concrete blocks plastered and painted white. The main

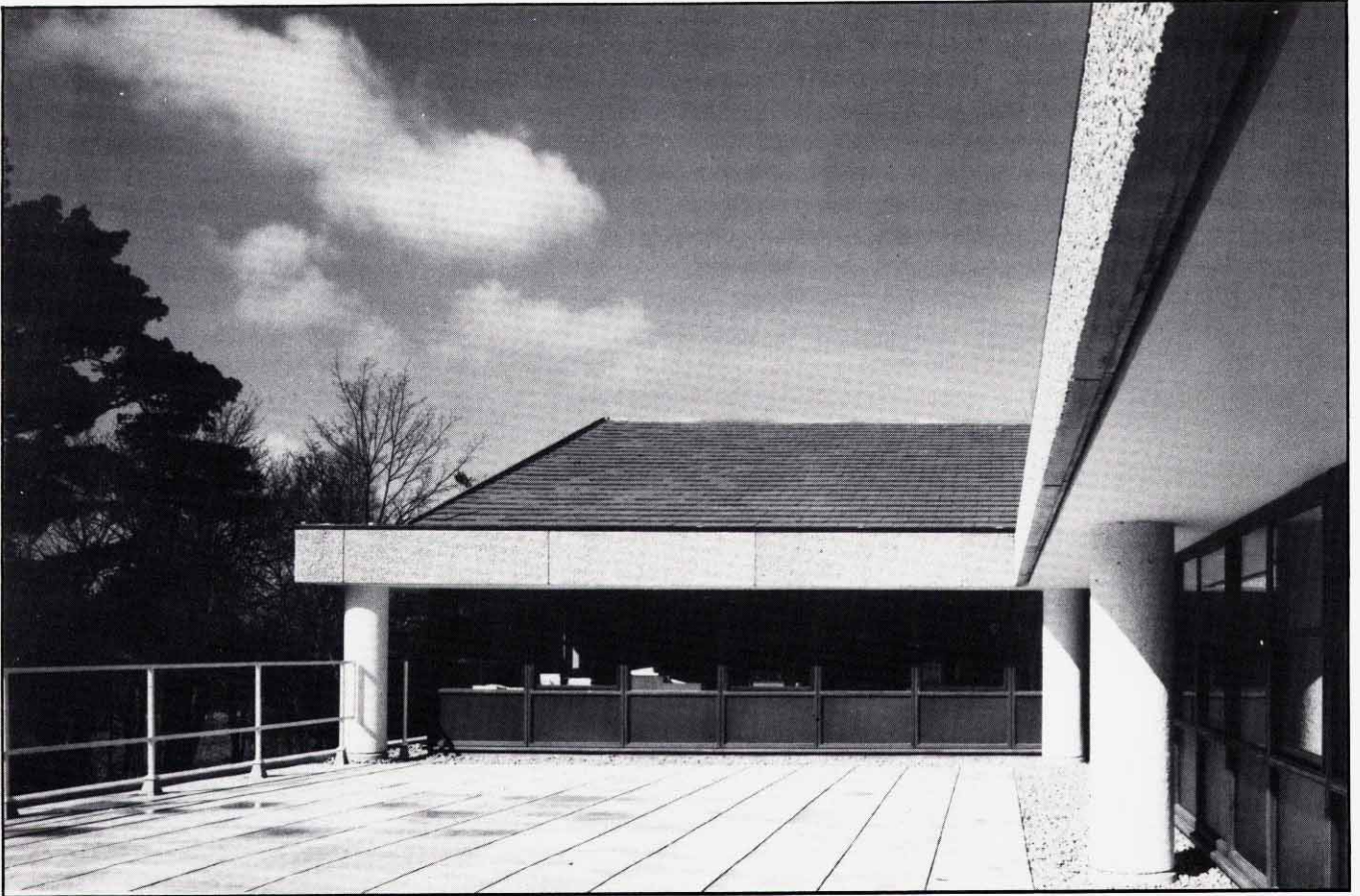
stairwell is faced with plain off-white ceramic tiles and other stairwells with plain blue tiles.

Below Left: Gable end showing the clear articulation of concrete elements.

Top Right: Section detail through edge beam.

Bottom Right: Existing trees and parkland have been retained as much as possible.



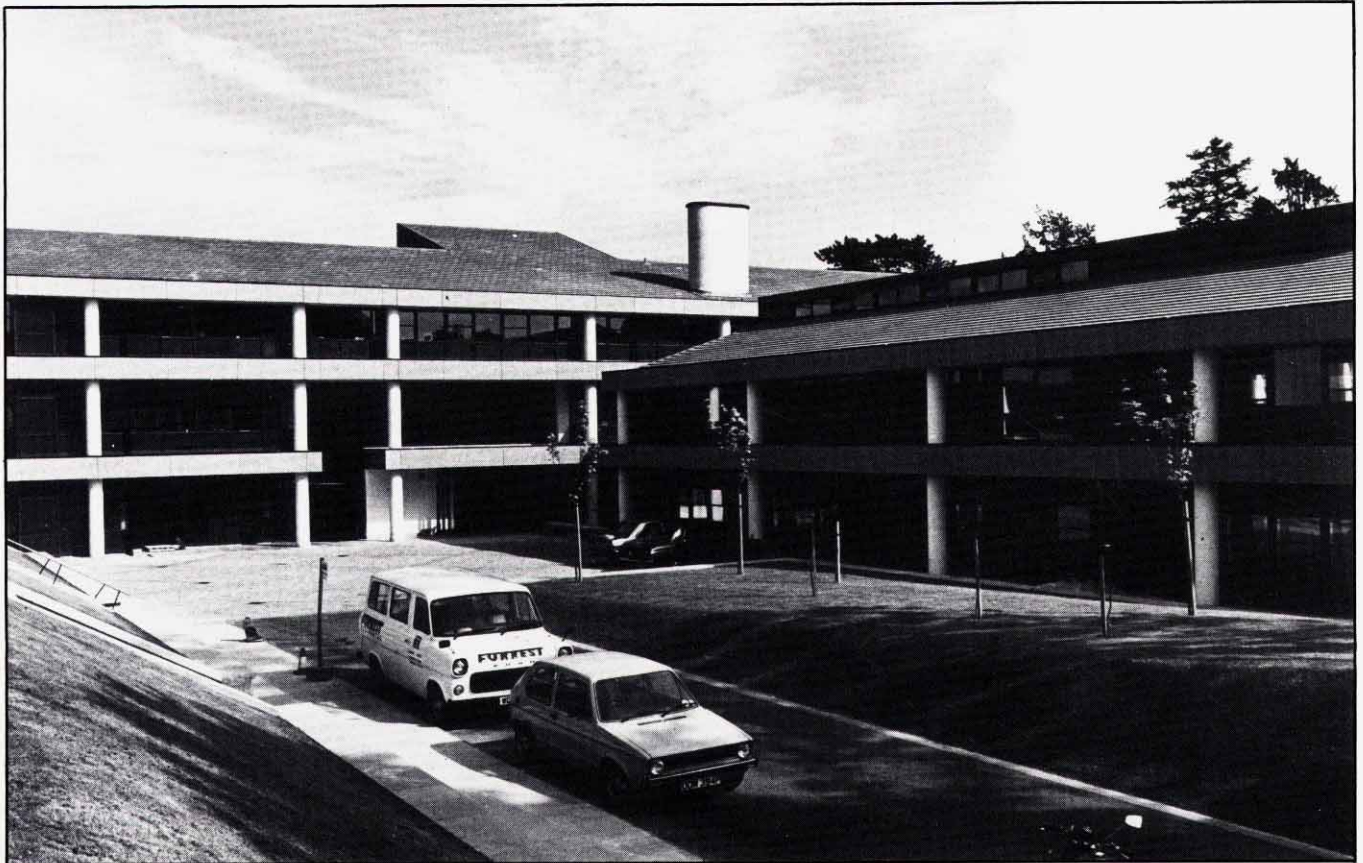


WINSLADE MANOR *continued*

Above: Roofterrace showing the relationship between the white concrete columns, precast textured fascia and grey concrete tiles on the pitched roof.

Right: Detail showing the texture and relationship of the facade elements.

*Below: View showing vehicle access to the new building.
(Photo: Tony Sleep Photography)*





ON THE TILES

Rochdale Central Area Redevelopment

Client: Laing Properties Limited, Manchester

Architects and graphic designers: Building Design Partnership, Preston
Partner: N. Keith Scott
Associate Architect: Mary Smallbone
Project Architect: Stuart Boott

Co-op interior: Building Design Partnership Interior Design Unit, London
Director: Rodney Cooper
Project Designer: John Barker

Structural and services engineers: John Laing Design Associates, Building Services Design Department & CEDD, Manchester

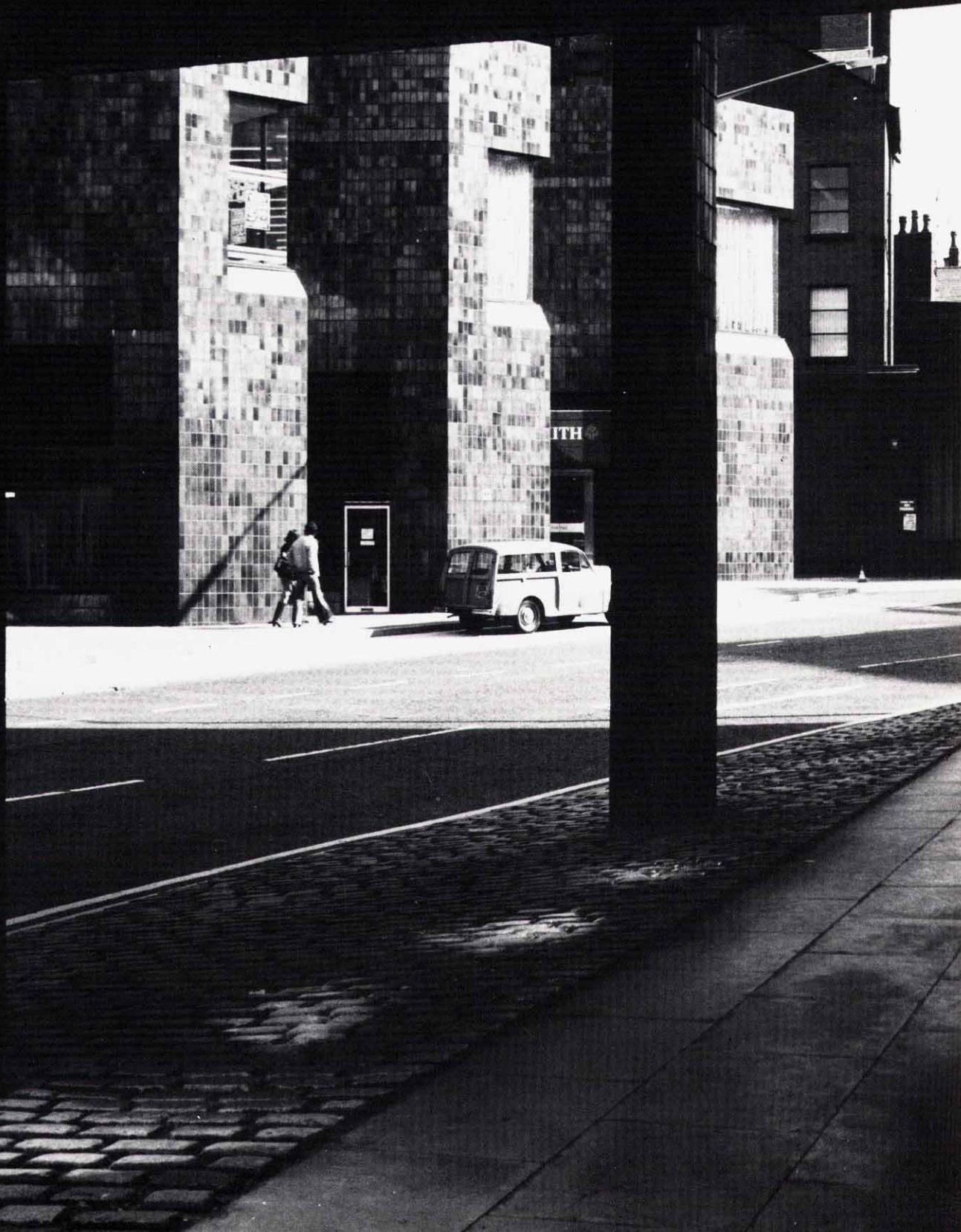
Quantity surveyors: Guthrie & Partners, Manchester

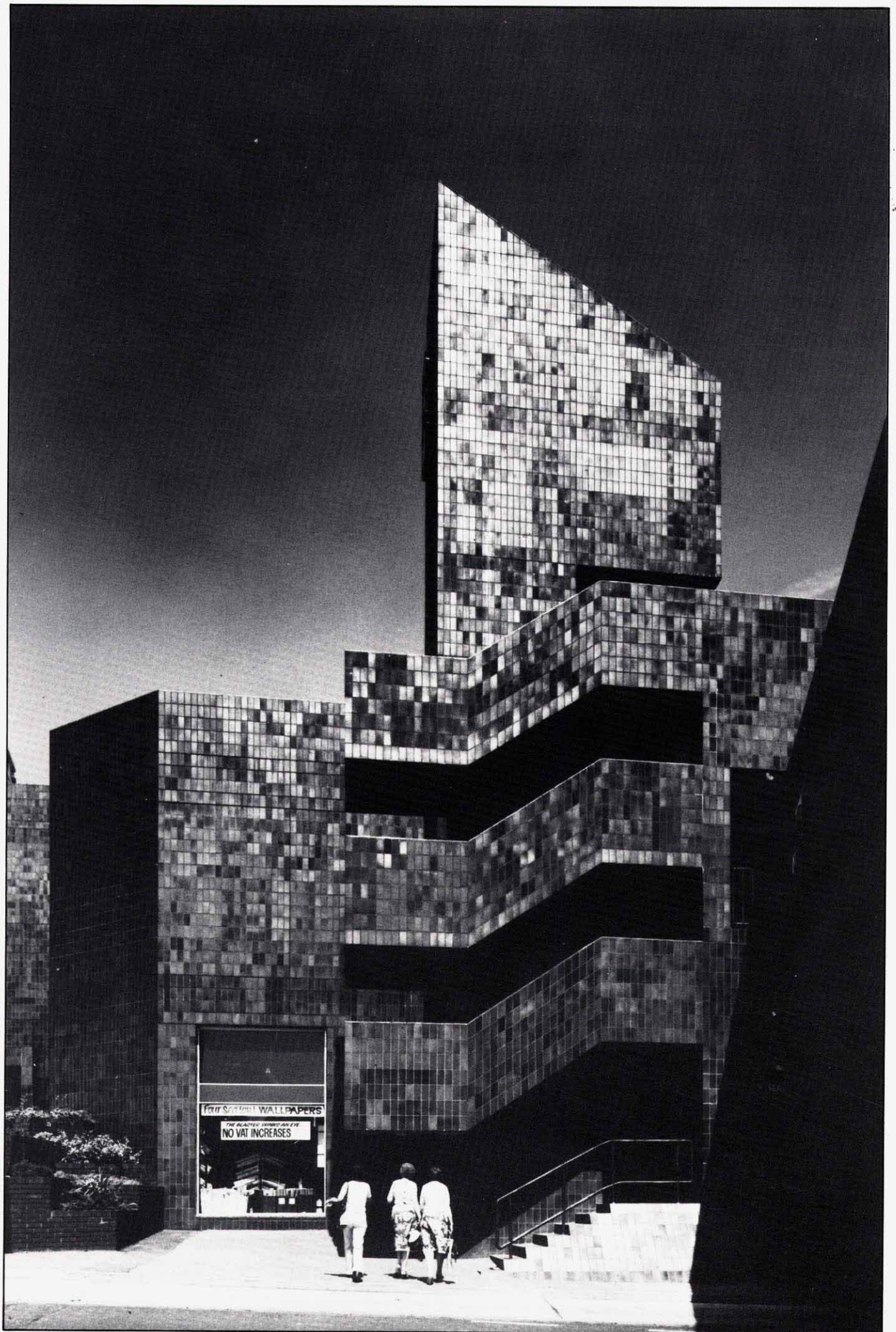
General contractor: John Laing Construction Company, Manchester

Photographs: Roger Park
John Mills

Below: View from Newgate Street.

Right: The tile-faced lift tower and staircase.



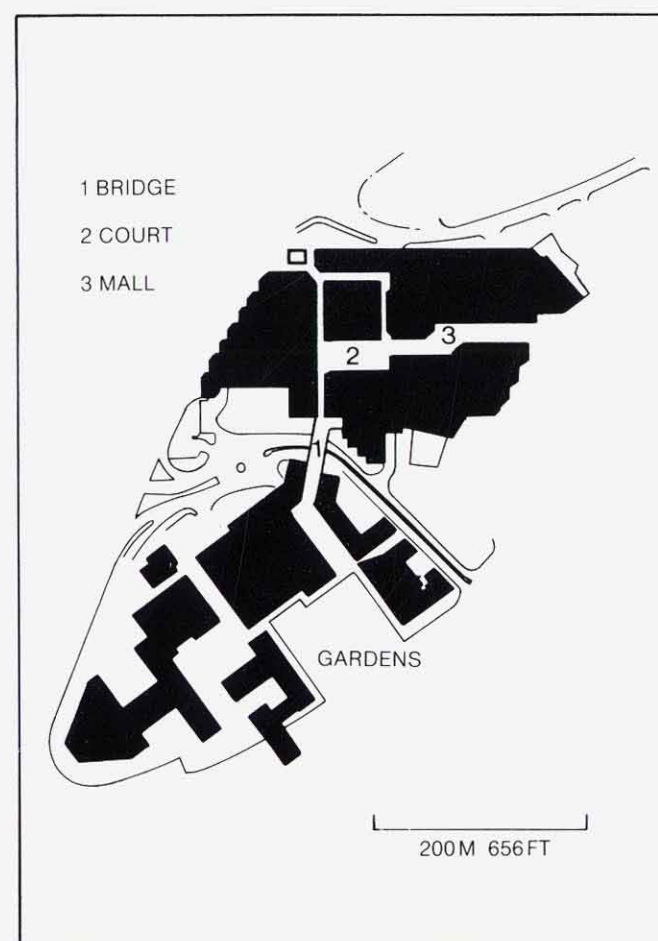
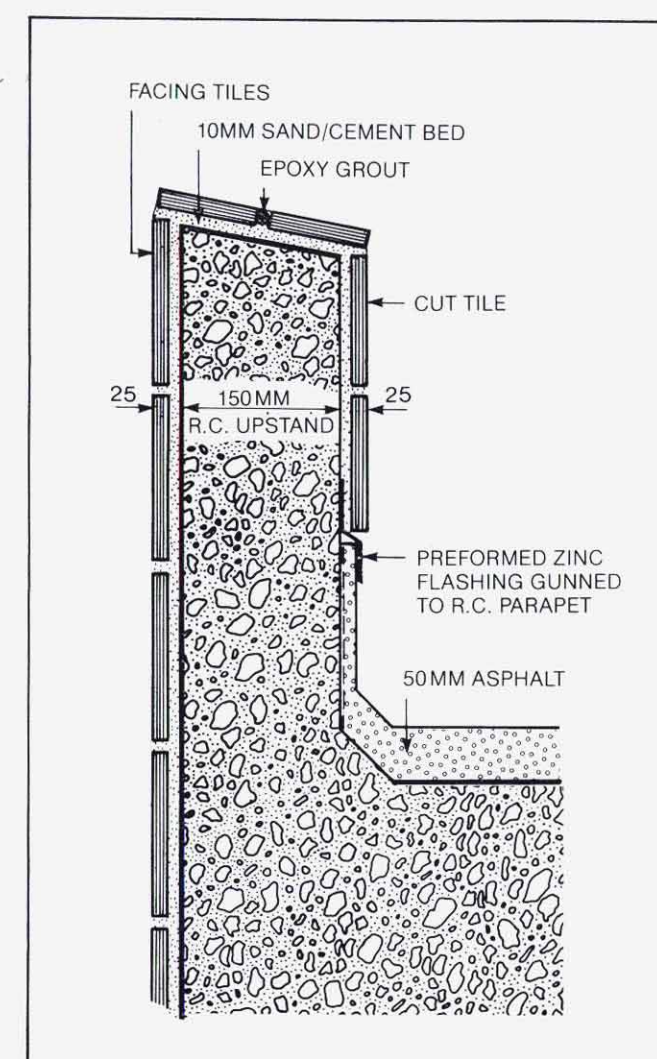


ON THE TILES continued

The question of how best to finish concrete buildings is one that has been well aired in the pages of this journal over the years. It is, of course, quite an emotive subject, as has been demonstrated by public opinion in recent years. Even so, there are still several schools of thought on the subject ranging from the devotees of truth and honesty who think it sacrilege to cover up one particle of the material, to those who consider it anti-social to expose a single speck of aggregate. This journal has for some time tried to steer a middle course, with possibly a slight bias towards applied finishes – hence this article on the Central Redevelopment Area in Rochdale in which the concrete structure is covered inside and out with ceramic tiles: a courageous and uncompromising use of the material if ever there was one.

The scheme replaces an existing market hall and open market and includes two major new department stores, extensions to two existing department stores, and fifty standard units. Parking on the roof and within a multi-storey building is provided for 1000 cars. It was built in two phases, the first finished in September 1975 and the second early in 1978.

The site was a difficult one and could have resulted in a dull building. However a virtue was made out of necessity by breaking up the elevational treatment and giving it a 'dog tooth' character of its own. Protrusions above the roof such as the housing for lift motors were made into features. Shopping malls are an important part of the scheme, following the architects' success with Blackburn Central Redevelopment Area, the first phase of which won a Civic Trust Award.



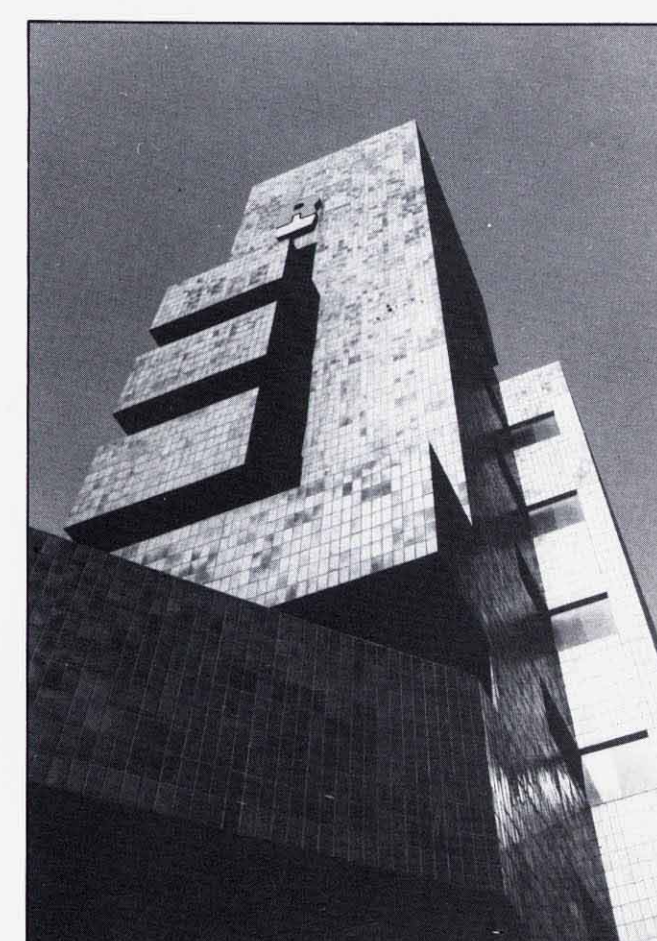
Above Left: View across the footbridge showing the strongly sculptured roof structures.

Top Right: Detail showing the relationship between the tile facings and the concrete structure.

Right: Block plan.

Centre Right: The pedestrianized Yorkshire Street.

Bottom Right: Detail of the lift tower from Yorkshire Street.



ON THE TILES *continued*

When it came to the choice of facing materials, the criteria were ease of maintenance, length of life and resistance to vandalism – apart from aesthetic considerations. Previous experience of ceramic tiles on similar developments suggested that tiles were the correct covering for the reinforced concrete frame and brick structure, unifying these two different types of construction into one coherent statement. The choice of colour – red/brown and blue/brown – caused considerable controversy both within the design team and with the local Planning Authority. Finally the view was taken that the chosen warm brown colour not only reflected the strong tradition of brickwork within the area, but as a colour would not ‘date’. Apart from the colour of the tiles, their natural glaze gives a variable appearance which changes with the weather conditions. A similar tile has been used for the floor and walls of the shopping mall.

Space at the Centre has been quickly taken up. The architects were made responsible for the control of shop-front designs and drew up a set of ‘Notes for Guidance’ for tenants which included photographs of successful solutions in other developments.



Right: Square in the mall adjacent to the covered market.

Below: The market hall.

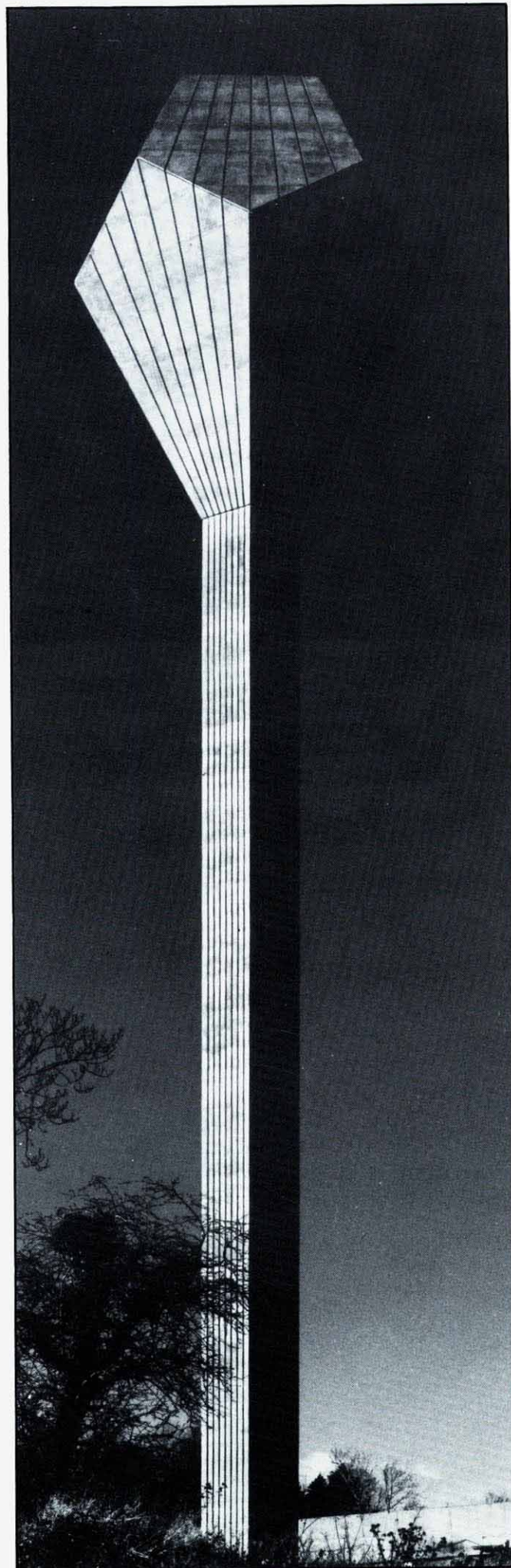
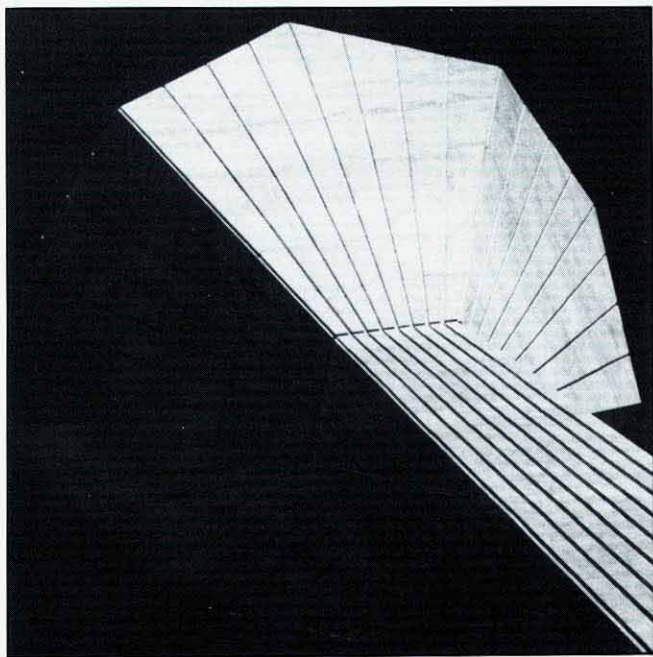


WATER TOWER

Belfield Campus, University College
Dublin

Architect:	A. Wejchert
Structural engineers:	T. Garland & Partners
Contractor:	John Paul & Co
Photographs:	Pieterse Davison International Ltd, Dublin

This water tower at Belfield Campus, University College Dublin, won the 1979 Irish Concrete Society Award. It is a striking piece of concrete geometry, its form accentuated by deeply grooved ribbing. The tower stands 55m high and has a tank with a capacity of 682,000 litres. The geometry of the structure is based on a pentagonal stem with the tank designed as an adjusted dodecahedron. Construction is of in situ reinforced concrete, using sliding formwork for the stem. The tank is of waterproof concrete cast against traditional formwork.





Site plan of Fatfield Village. The part illustrated is in the lower half of the plan.

HILLTOP VILLAGE

Fatfield Village Housing Project II, Washington, Tyne and Wear



Architects:	Washington Development Corporation Chief Architect and Planning Officer: Eric Watson
Consulting engineers:	Washington Development Corporation (structural and electrical) George M. Bilclough Ltd (heating)

Contractors:	G.M. Pearson & Son Ltd
Concrete blocks:	C.A.E.C. Howard Ltd (Hemelite)
Roofing tiles:	Marley Tile Co. Ltd
Photographs:	Photo-Mayo Ltd

Above: View of Fatfield II from the south.

HILLTOP VILLAGE continued

Washington New Town, designated in 1964, is fortunate in having a progressive and enthusiastic architects' department that has chalked up several buildings of quality over the years, including a thriving new town centre and 17 'villages'. Of the latter, Fatfield Village is among the most recent and attractive.

The design exploits the natural characteristics of a steeply sloping site to create an impression of a hilltop village spilling gently over the sides. Terraces wind around the contours and occasionally run up or down to give a sense of enclosure from within and an impression of visual complexity from without. The whole composition culminates at the hilltop around one curving court, and is designed to create a pattern of red textured roof planes.

The houses are planned to take advantage of the sloping site with stepped units and south-facing first-floor living rooms as well as dining-kitchens linked with gardens. Living rooms generally have good views of Lambton Woods across the river valley. Small units are built into the hillside as flats.

Construction consists of cavity concrete block walls finished externally with a coloured roughcast cement rendering and pitched roofs covered with red concrete pantiles.

The majority of houses have direct car access from the main distributor roads which run along the contours of the site. There are also small groups of houses situated on alleyways with adjacent parking spaces. Some of these narrow pedestrian alleys cut between the houses and have dramatic views up and down the hill. A main spine footpath meanders up the hill towards the village centre and is punctuated by playspaces at intervals.

The whole scheme was completed within normal DOE cost yardsticks and contains 138 dwellings on a 3.75 hectare site.



Right: Typical internal footpath.

Below: Play area.

Bottom: Split-level flats (see also front cover).



NEW ROOFS FOR OLD BUILDINGS

Bradstone Roofing
Slates:

E.H. Bradley Building Products Limited

Although most architects will prefer to avoid Ye Olde look when renovating old buildings, the fact remains that the replacement of worn-out materials by new is usually a matter of putting back something as close to the original as possible. A case in point is one of the most interesting of our

traditional roofing materials, the natural stone slate. These slates are commonly found in parts of Dorset, Wiltshire, Somerset, Gloucestershire, Oxfordshire, Northamptonshire, South Lincolnshire and central Sussex. Today, natural stone roofing slates are becoming increasingly difficult to obtain in any quantity. Often enough, they are reclaimed from other buildings and the cost of selecting, re-dressing and laying them can be prohibitively expensive. Fortunately, a more economical and very acceptable concrete alternative now exists, as the accompanying photographs illustrate. One might also note that the material is probably as far removed from the popular – or rather unpopular – image of a concrete finish as possible. And yet, this is a type of concrete finish which makes up – in most of the examples shown here – a good fifty per cent of the external surfaces.

These 'Traditional Roofing Slates' as they are called, are supplied and laid in diminishing courses and random widths. The manufacturing process involves moulding from natural random Cotswold stone slates. They are made in two basic colours of buff and grey-green, the latter

An Oxfordshire church with a restored roof of buff 'Traditional Roofing' slates.

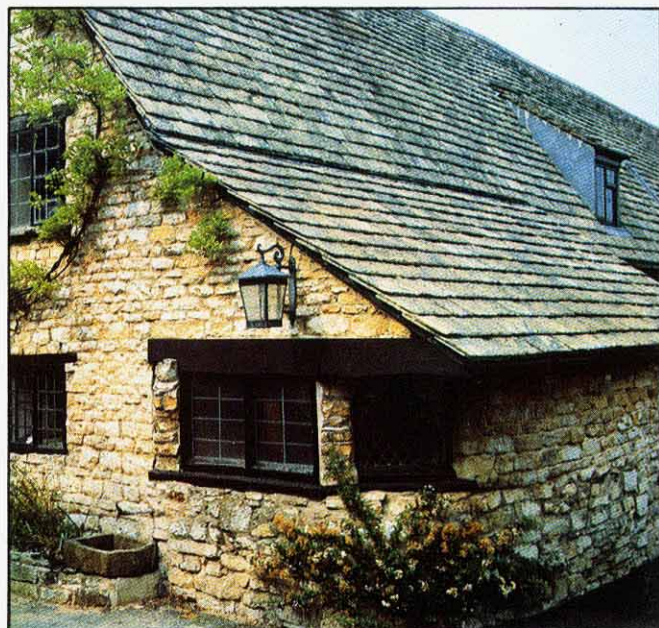


particularly suitable for natural slate areas such as Cornwall, Wales and Westmorland, the former for the counties mentioned above. They have also been found to be a suitable substitute for thatching in cases where this cannot be replaced. It is recommended that, following tradition and good building practice for a double-lapped roofing material of this type, the slates should not be used on pitches below 40°.

Although the examples illustrated here are old buildings, the material is of course frequently applied to modern buildings. It is interesting to note that the slates are now exported to France where a natural stone slate is virtually unobtainable.

Right: A Gloucestershire house, formerly thatched, re-roofed with buff 'Traditional Roofing Slates'. The photograph shows the range of sizes of slates, laid in diminishing courses from ridge to eaves in the same manner as natural stone roofs.

Below: A house near Malmesbury, Wiltshire, restored with buff 'Traditional Roofing' slates.



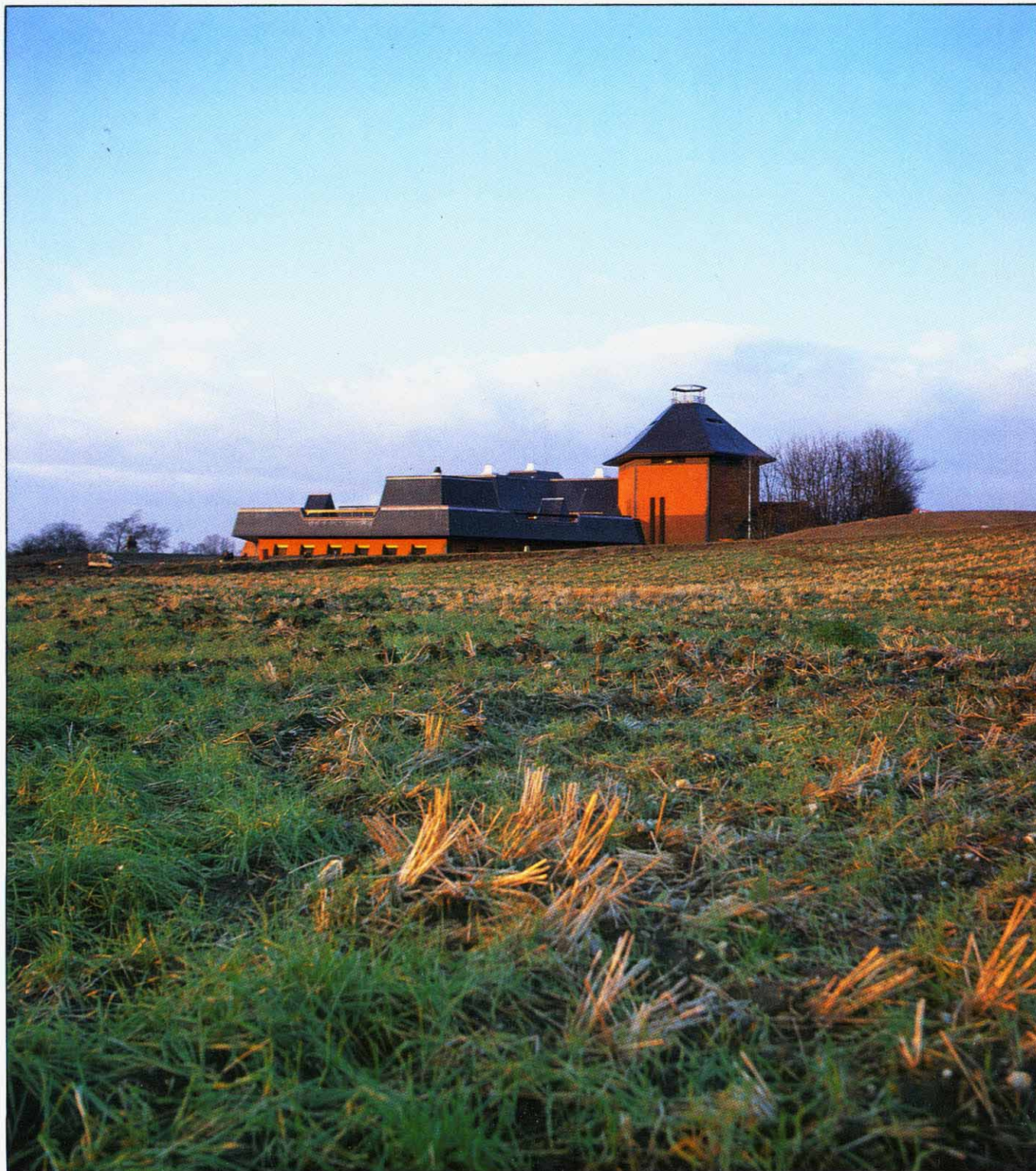
COUNTRY TOWN-HALL

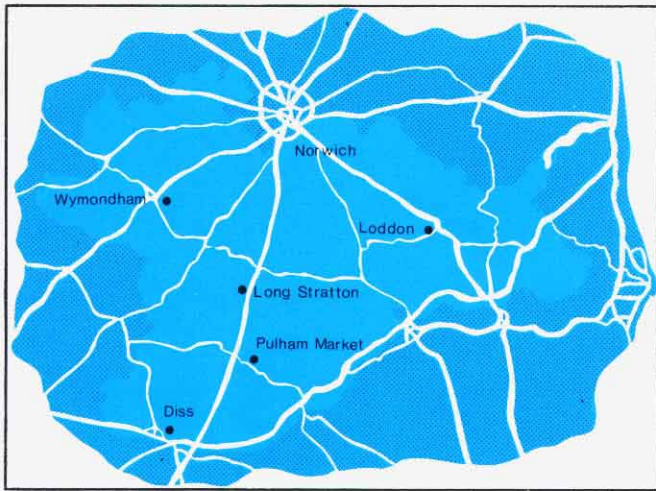
South Norfolk House, Swan Lane, Long Stratton, Norwich

Client:	South Norfolk District Council
Architects:	Lambert, Scott and Innes Partner-in-charge and Project Architect: Michael Innes Design assistant: Brian Chettleburgh Technical assistant: Michael Hobbs
Quantity surveyors:	Phillip Pank & Partners
Structural engineers:	Ernest Green and Partners
Services engineers:	Young Austen and Young Ltd
Main contractor:	Simons of King's Lynn Ltd

Precast concrete frame:	Barvis Ltd
Asbestos-cement slates:	Eternit Building Products Ltd
Slate roof subcontractor:	M.G. Houghton (Roofing) Ltd

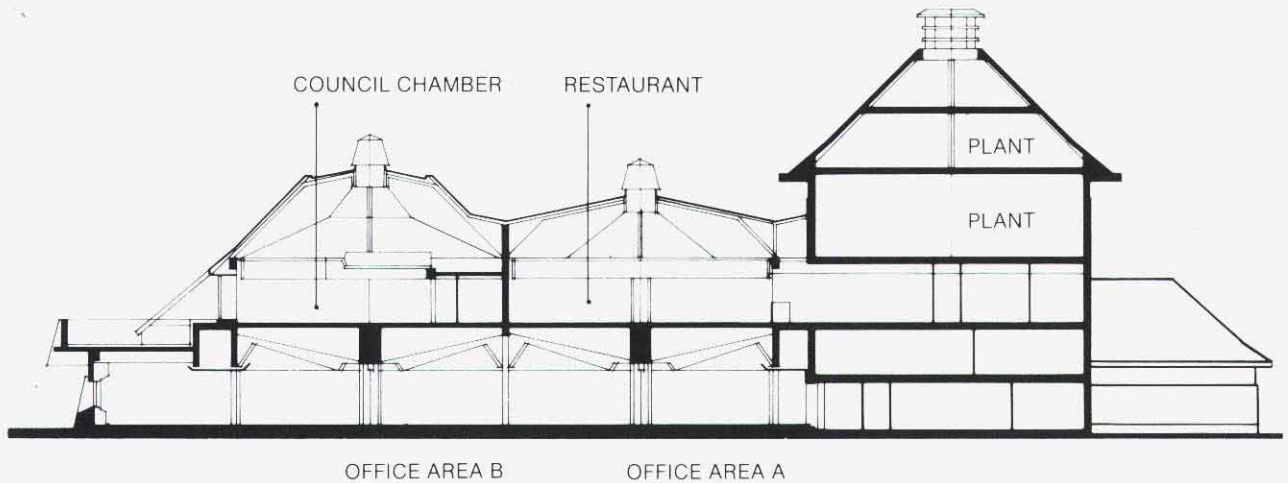
The building in its rural Norfolk setting. (Photo: Michael Innes)





Map showing the position of Long Stratton where the building is sited.

Below: Cross section.



Close-up of the exterior showing the importance of the roofscape, seen here covered with asbestos-cement slates. (Photo: Architects' Journal)



The new headquarters of South Norfolk District Council is a refreshing and original building because it in no way conforms to the conventional image of council offices, and because it is a building that belongs essentially to the Norfolk countryside in which it is sited. Recently, a writer to *The Guardian*, on the subject of modern architecture, wrote: "We long for buildings that have a living, human element in them". This, of course, is very much a *cri de coeur* rather than an intellectual judgement, but it sums up precisely what the majority of people feel about much of the so-called modern architectural movement in this country over the last three decades. It could just possibly be that the sort of building the writer had in mind was something like South Norfolk House.

Writing in the *Architects' Journal*, the architect Michael Innes has said that his intentions in designing the building were "unapologetically romantic", although he did not in fact seek "to emulate a maltings or a tithe barn" as had been suggested. He did, however, seek to "turn elements normally clothed in urban form to good account in the countryside".



*Concrete-paved rooftop terrace and asbestos-cement slate roof covering.
(Photo: Architects' Journal)*

Apart from the appealingly romantic exterior, two of the most important points about the building are, first, its open-plan offices arranged within two linked hexagons on two different levels to make it more human and less vast, and, second, its considerable thermal storage capacity helped by the deliberate use of a heavy internal concrete structure.

The building is actually located in the village of Long Stratton which is the geographical centre of the new administrative area of South Norfolk, established after the local government reorganization of 1974. Apart from the

Right: Council Chamber interior. (Photo: Michael Innes)



Office interior showing the reinforced concrete structure and the low brick and timber screens. (Photo: Architects' Journal)



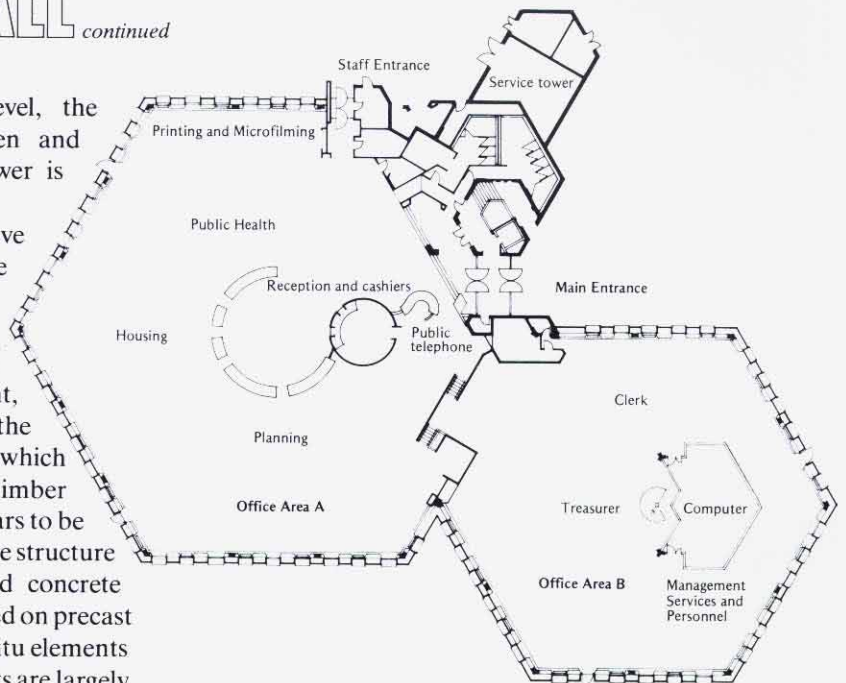


Office interior showing the white-painted concrete structure and the pine-boarded screens and ceiling. (Photo: Architects' Journal)

COUNTRY TOWN-HALL *continued*

open-plan office areas at ground floor level, the building houses a Council Chamber, canteen and committee rooms at first floor level. The tower is used mainly for plant and services.

The architect felt that one of the oppressive and characterless features of so many office interiors is the flat suspended ceiling with lights set flush in it, particularly over very large areas. The core of each hexagon therefore rises up to a central lantern to give extra height, light and ventilation, getting right away from the conventional flat ceiling. The open office areas, which were part of the brief, are divided up by low timber and brick screens. Although the building appears to be predominantly brick-walled from the outside, the structure depends in fact on a fairly complex reinforced concrete structure comprising in situ slab floors supported on precast columns and beams for the central part with in situ elements around the perimeter. The precast frame elements are largely exposed internally and painted white. Ceilings between the elements are of Parana pine boards on a quilt backing for sound insulation.



Ground floor plan.

The building seen in snow. (Photo: Ken Kirkwood)



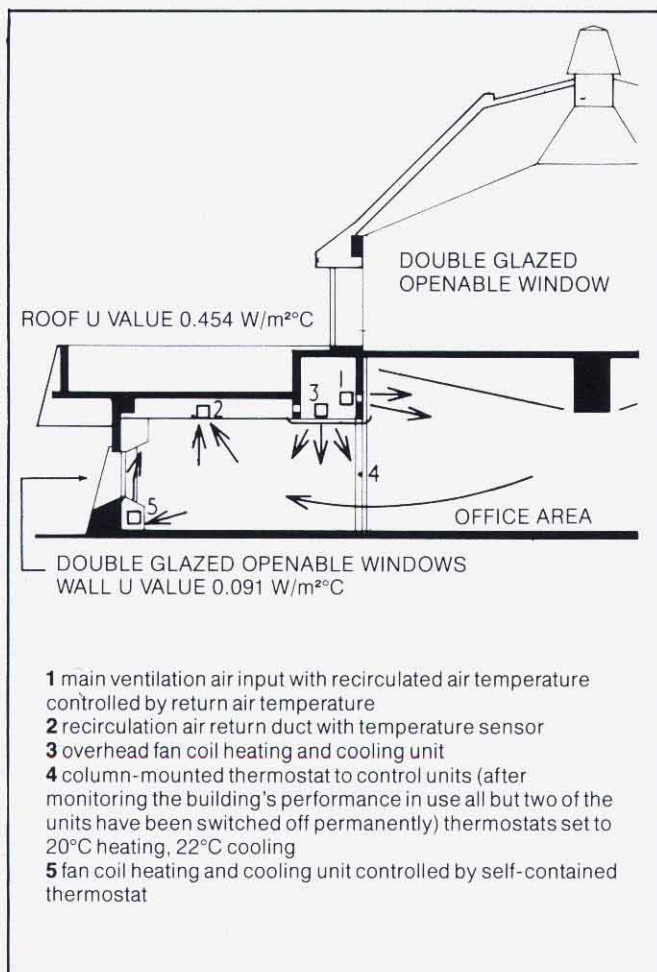
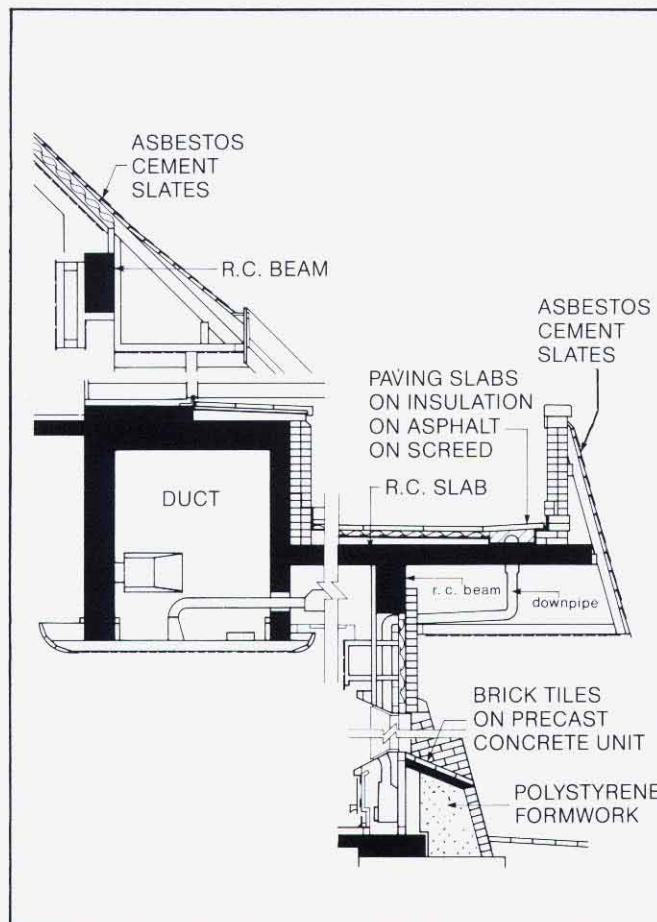


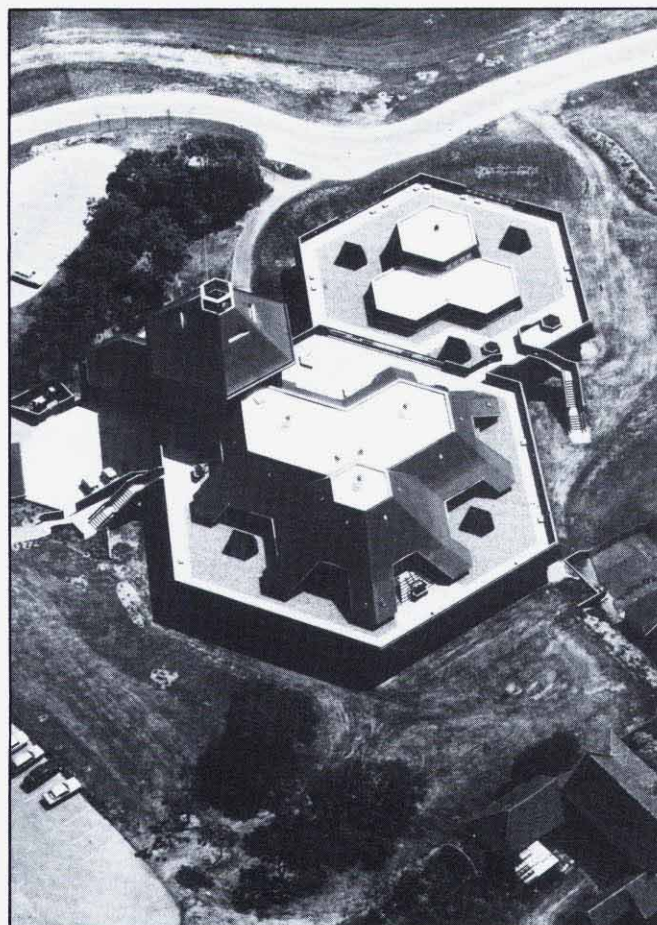
Diagram of heating and cooling system (drawing by courtesy of The Architects' Journal).

Section through ground floor office area and the upper floor of the Council Chamber showing the concrete structure.



To maintain a high standard of thermal insulation in the building, window openings are kept reasonably small and are deeply set within the thick and indented external brick envelope which is built around massive chunks of polystyrene. The reinforced concrete structure is placed within this insulating envelope which is lined internally with timber and fabric. The concrete structure stores up energy and stabilizes the internal climate of the building. Where flat roofs occur, the reinforced concrete slabs are topped by insulating screeds, foam slabs, weatherproofing and concrete paving slabs. To reduce solar gain as much as possible, the ground floor windows are shaded by deep overhanging roofs.

The heating system is based on a series of separately controlled fan-coil units which provide both heating and cooling in the office areas; humidity control and forced ventilation are from a temperature controlled ducted system. The upper areas are simply heated by separately controlled, wall-mounted convectors with ventilation induced by fan extractors. Heating is provided by oil-fired boilers and cooling by an electrical compressor.



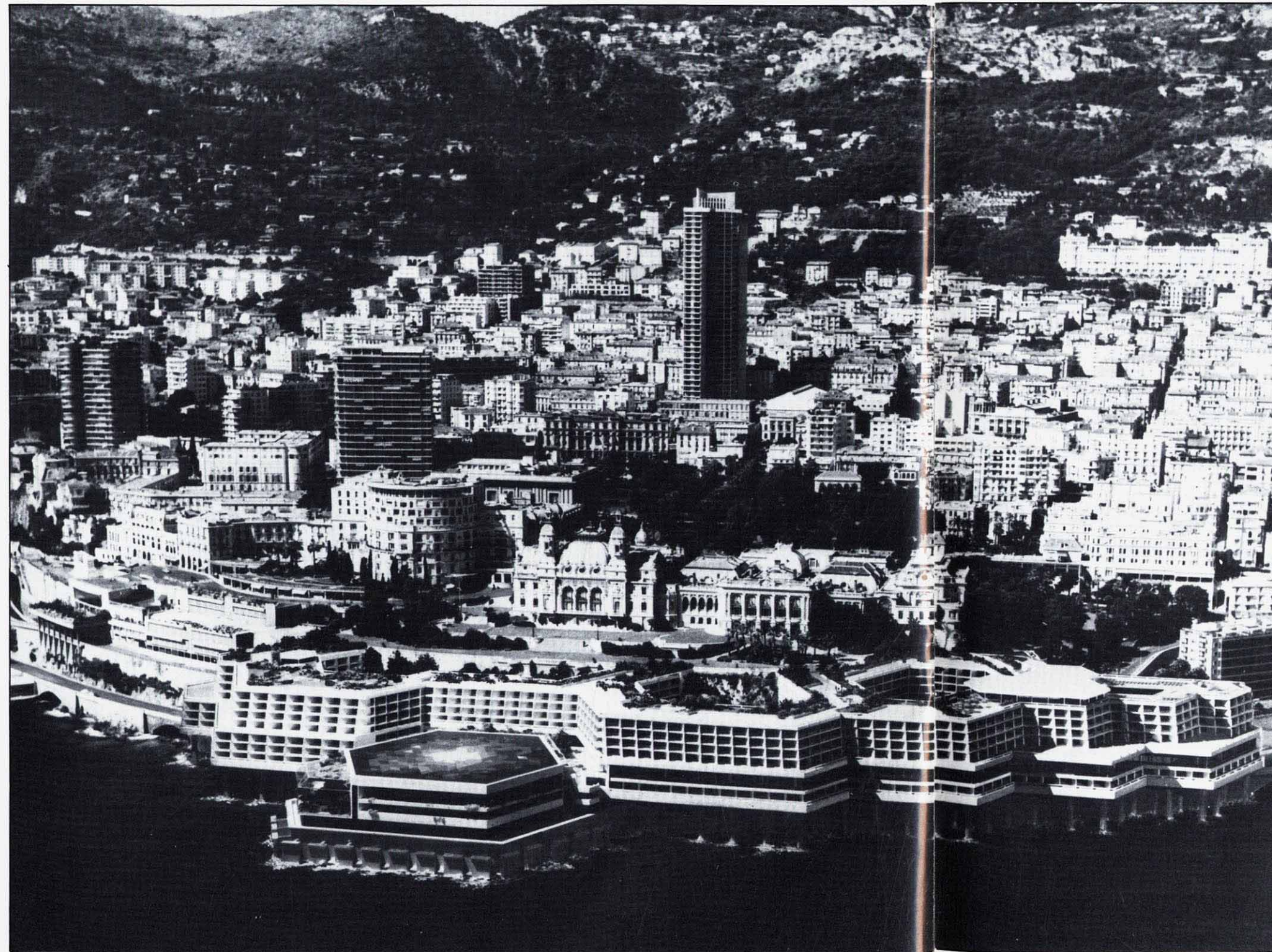
Aerial view. (Photo: Aerofilms Ltd)

THE PLACE TO STAY IN MONTE

The Loews Monte-Carlo Hotel

Architect:	Jean Ginsberg, Paris
Associate architects:	Hubert Weisskamp José and Jean Notari

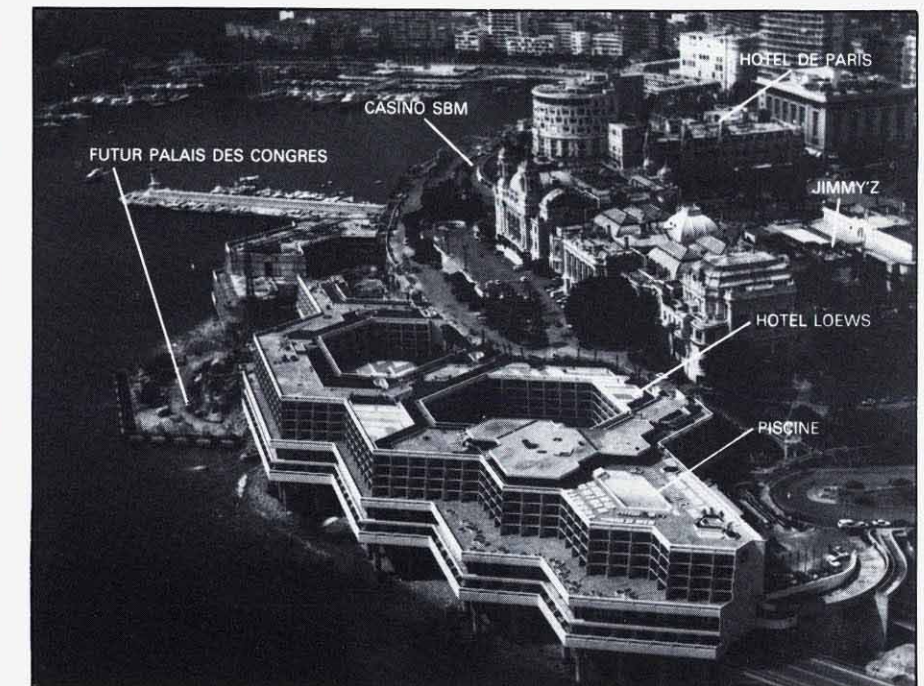
General view from the sea of Monte Carlo with the hotel in the foreground.



The grand seaside hotel is hardly a type of building likely to return to our shores, although there are still isolated examples, mainly on the south coast of England, where they keep going, usually with the help of conferences, business functions and national congresses.

Abroad, however, is different. And in that most traditionally lush of Riviera resorts, Monte Carlo, with its *fin de siècle* aura of gaming and suicides, there is—in this day and age—something fascinating about a vast new modern palace of a hotel rising from the ultramarine waters of the Mediterranean on the key seaside site of the Principality, and with all the stops out.

The Loews Monte-Carlo Hotel opened its doors (15 days ahead of time!) in November 1975, the symbolic ribbon cut by Her Serene Highness Princess Grace of Monaco



Aerial view showing the relationship of the hotel to the casino.

attended by Preston Robert Tisch, President of Loews Corporation. It is officially given four stars in the guides and classed as a "de luxe resort hotel with the Riviera's only American style gaming casino". This casino is made much of in the glossy brochures where they assure prospective visitors that "the casino is under American management and features craps and slot machines in a warm and lively atmosphere". Moreover "everything is electric to avoid pollution". In the suites you will find paintings by Virginia Cantarella, Ilya Bolotowski, Astrid Fitzgerald and Grace Tong. The 640 bedrooms are brightened with original Haitian primitive paintings, and furnished with "King-size length double beds, over-sized fluffy bath towels and fully stocked bar-refrigerators"—something more perhaps than what the French have always traditionally called *Tout confort moderne*. If food is your pleasure, then there are at least four restaurants ranging from a South American steak house and *La Folie Russe* which "in decor and ambiance recalls the Byzantine splendour of old Russia" to *Le Pistou* on the roof which is said to be a typical South-of-France country inn. It hardly needs saying that there is also the 'panoramic terrace' with the heated swimming-pool open all year.

In spite of which, it should not be thought that the hotel relies entirely on wealthy holiday-makers for its income: as

THE PLACE TO STAY IN MONTE

continued

in dear old Britain, a wide and flexible range of function facilities is provided. These amount to "thirteen versatile function rooms", including *Le Grand Salon* for 2,000 people, all with easy access to the pool deck and rooftop terrace which is, of course, perfect for cocktail receptions. In addition, there are four "handsomely appointed conference suites" and, it is suggested, there is always the *Folie Russe* nightclub "for day meetings or group luncheons".

With such sublime facilities, it seems ridiculous to mention that the hotel also features high-class four-star concrete and, because it is not the sort of place to do things by halves, sent 40 frogmen down into the sea to install the 45 ft long reinforced concrete piles on which the edifice is founded. As a tit-bit of useful information "two hundred thousand cubic metres of concrete were used, and there is a

habitable surface of sixty-seven thousand square metres of which the bay windows occupy eight thousand square metres" – facts that might come in handy sometime. But – and this is the interesting point – the height of the hotel does not exceed thirty-five metres which permits it "to blend harmoniously with the casino gardens".

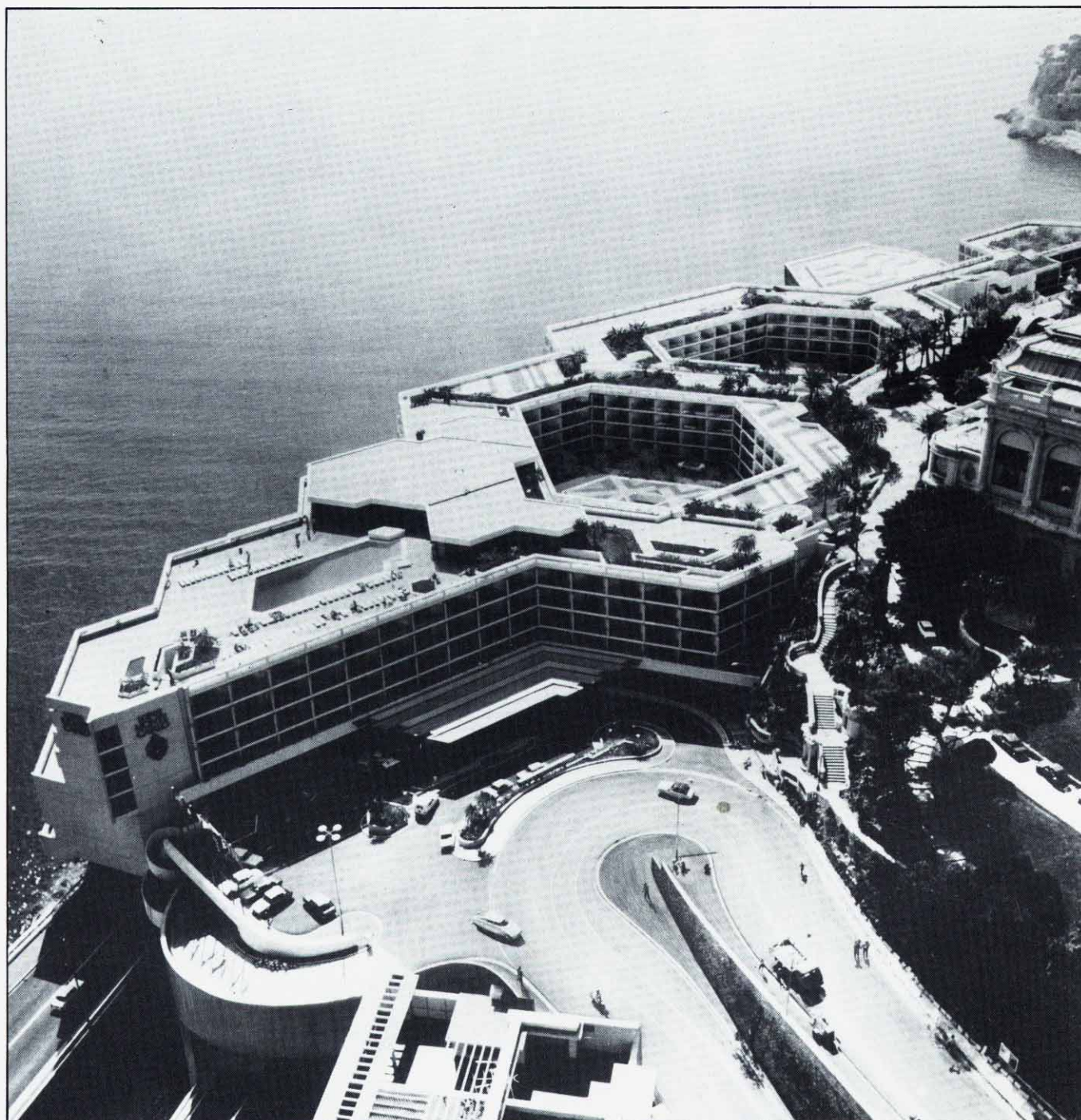
Coming down to earth with a bump, the six-storey structure has a reinforced concrete frame with high-quality white precast units externally of 'Shokbeton' concrete which have a lightly bush-hammered texture. Precasting fit for princes.

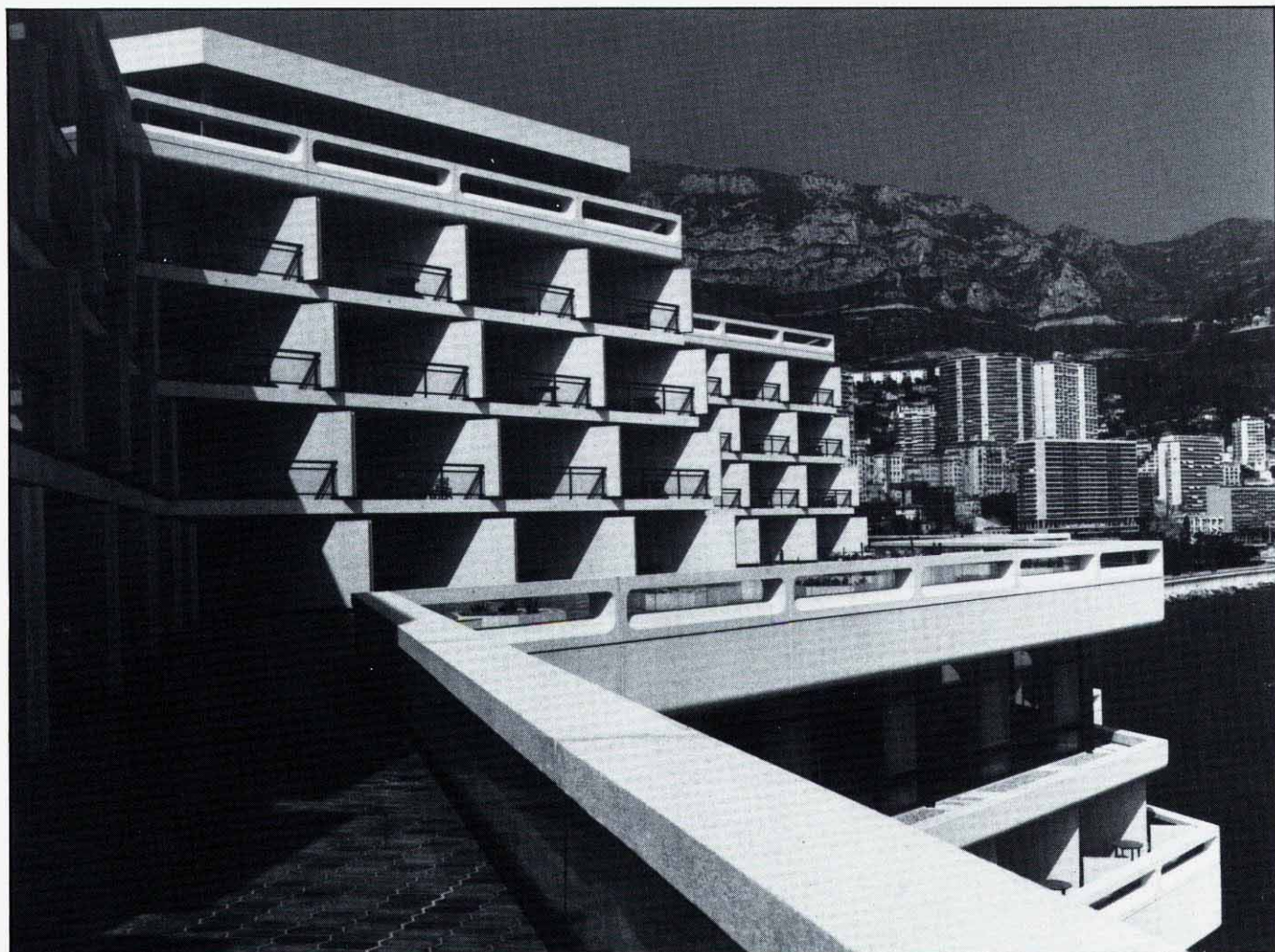
G.P.

Below: Entrance approach.

Top Right: The balcony elements are of high-quality white precast 'Shokbeton' units with a lightly bush-hammered texture.

Bottom Right: Le Grand Salon with seating for two thousand people.





CHANNEL WATCH

H.M. Coastguard Maritime Rescue Co-ordination Centre, Dover, Kent

Clients:	HM Coastguard, Dover SAR Region
Architects:	Property Services Agency, SE Region Principal Architect: A.F.J. Hannaford Project Architects: B. Beardsmore P. Pritchett
Civil engineers:	BMMK & Partners (Consultant) M. Whiffin (Project)
M&E engineers:	W.A. Atkins & Partners (Consultant) R.H. Whiley (Project)
Quantity surveyors:	M. Hounsell (Precontract) P. Bayford (Postcontract)
Main contractor:	R.J. Barwick & Son

In 1978, the Dover region of H.M. Coastguard, which covers the area from Selsey near Portsmouth to Orford Ness near Felixstowe, was involved in over 500 major incidents in which nearly 900 lives were saved. It was also involved in nearly 2000 minor incidents which included animal rescues, the recovery of bodies, warnings, reported sightings of flares, and bathers in difficulty. The figures are perhaps hardly surprising considering that this Coastguard Region spans the busiest international shipping lanes in the world. However, they do underline the need for vigilance of the most efficient kind that modern technology can provide – hence the new Operations Centre near Dover perched on the cliff edge on top of the old Langdon Battery with

commanding views of the Dover Strait and harbour. The Centre provides visual and radar surveillance of the Dover Strait together with regular radio broadcasts of navigational information to shipping. Although one of its prime functions is to reduce the likelihood of collision in the Strait, the Centre is also equipped to be an emergency command post in the event of a major incident such as oil spillage.

From the architectural point of view, the Centre forms an elaborate piece of black-and-white sculpture, its complex indentations resulting partly from operational requirements and partly from the curving and irregular outlines of the existing gun emplacements from which the new building rises. These last were the old reinforced concrete fortifica-

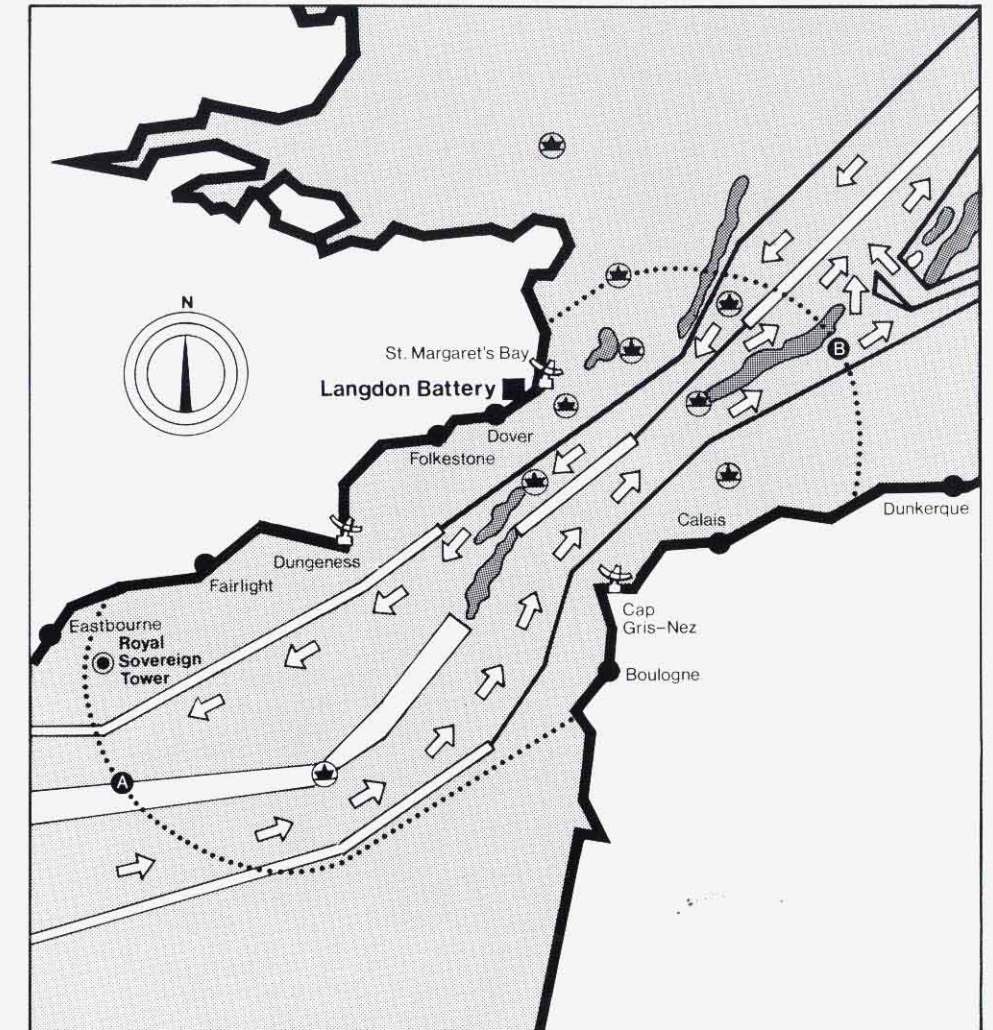
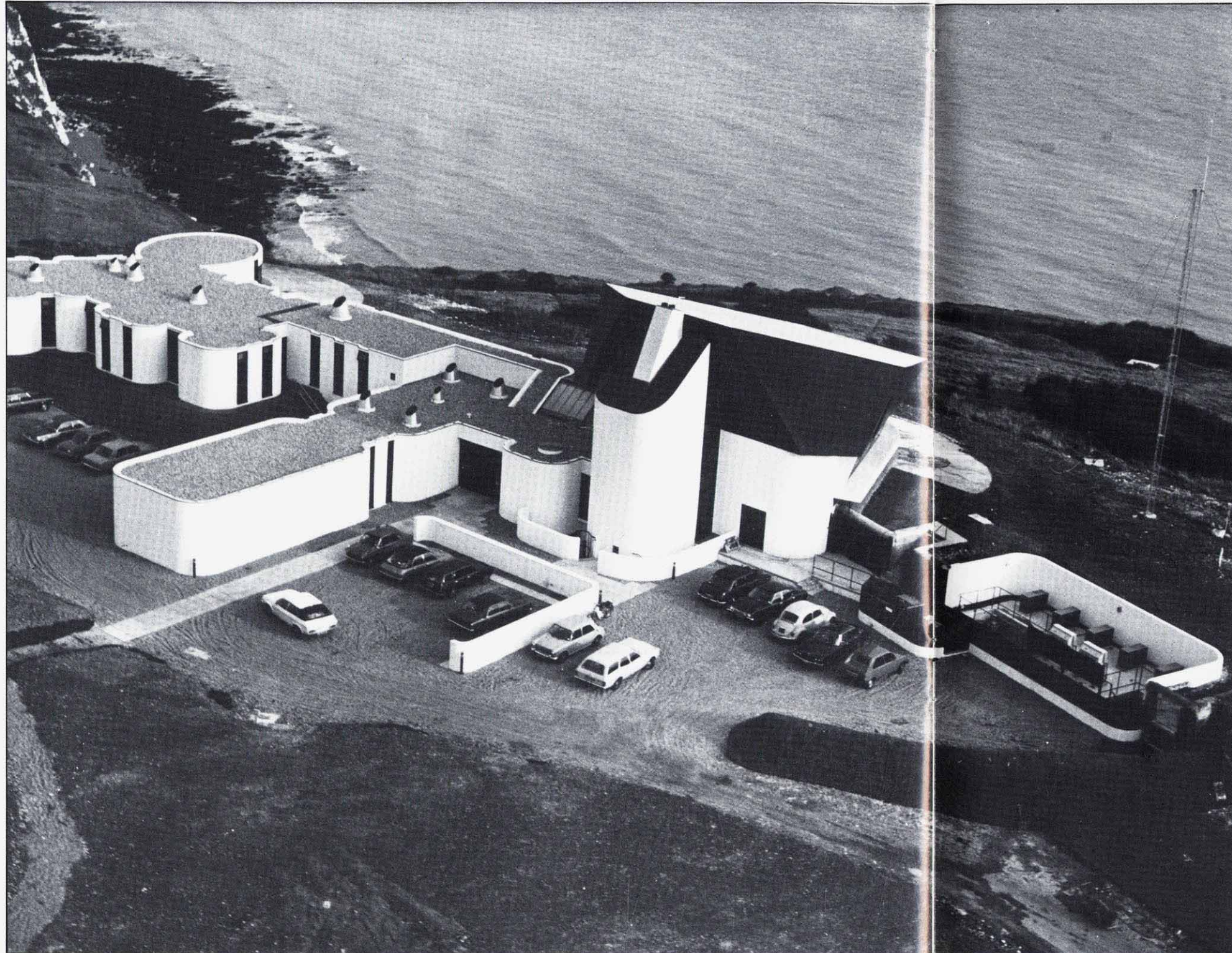
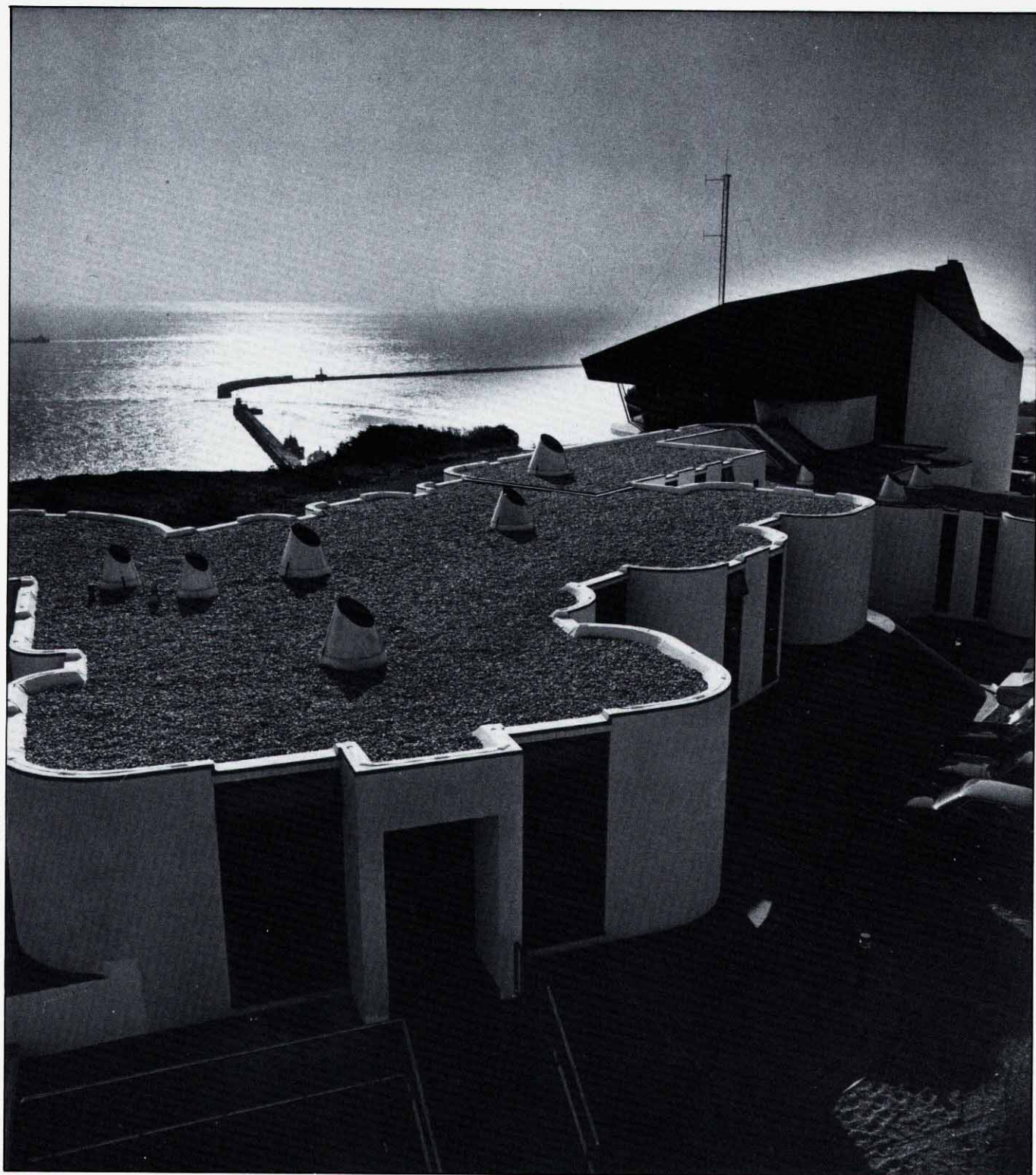


Diagram showing the radar coverage of the Centre and the traffic lanes, separation zones and light vessels.

Left: Aerial view of the Centre sited on the cliff edge overlooking the Dover Strait.



CHANNEL WATCH *continued*

tions of the Langdon Battery built at the turn of the century, and presented a challenge to the team of PSA architects, engineers and contractors in grafting the new structure onto the old.

The building comprises three major elements: the operational areas, the administrative areas, and accommodation for rescue vehicles and stores. The most prominent external feature is the Operations Room which breaks the otherwise low profile of the building.

Construction consists of in situ reinforced concrete walls

for the single-storey part which were designed as deep beams. The Operations Room has a steel-framed roof which is anchored back to wing walls of reinforced concrete designed as a folded plate.

The concrete structure is finished inside and out with a resin-based white textured rendering which is contrasted with blue-black asbestos-cement 'Eternit' slates on the pitched roofs. The sloping tinted windows of the Operations Room are designed for all-round visibility as well as solar control and the elimination of reflections.

Left: The building also overlooks Dover Harbour. The indented form of the building results partly from the irregular outlines of the existing gun emplacements on which it is founded.

Right: The Operations Room in operation.



Below: Exterior of the Operations Room. Roof covering is of asbestos-cement slates.



PARKING ON THE PAVEMENT

Car parking in Old Street, Hackney, on a concrete block pavement.



With the great increases in urban traffic, it is now commonplace to find vehicles parked half on the pavement. Local authorities and the police are placed in something of a dilemma over this because if they ban parking on pavements on grounds of damage or obstruction, even worse obstruction is liable to occur by parking wholly in the road. From the point of view of damage to pavements, the matter is quite serious. It has been estimated that about 10 per cent

of the money generally available for highway maintenance in this country is spent on repairs to pavements. In towns, the percentage is higher and in London the maintenance of pavements accounts for about 14 per cent of the total money available for maintaining roads. Apart from damage caused by parking, essential services are often located beneath pavements and access to these alone can cause considerable disruption of pavement surfaces.

Concrete block paving in Old Street, Hackney.



PARKING ON THE PAVEMENT

continued

Generally speaking, the standard precast concrete paving slab that has served us well over the years is still an ideal material for pavements provided that it is well laid and bedded. This is, of course, absolutely essential if cracking is to be avoided. However, where parking is liable to occur on pavements, then it is generally agreed that the small concrete paving block has certain advantages.

The first experimental areas of block paving were laid on

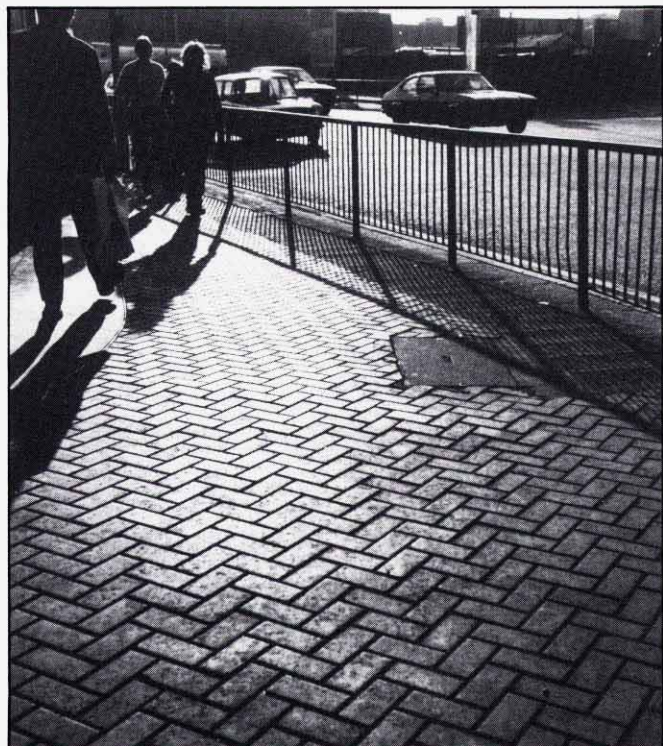


London pavements some four years ago. Recent examples illustrated here include pavements in Brentford, Hackney and Hammersmith – the first two adjoining heavily trafficked roads with a high percentage of lorries, the last adjoining the Underground station where the small paving blocks were mainly chosen because of the complex arrangement of services below which are frequently requiring maintenance, and because they could be readily

arranged around the many manhole covers. The attractive appearance of the blocks was an important issue in all cases.

Left: A pavement at Brentford, London, continually damaged by the over-riding and parking of heavy vehicles, now paved with concrete blocks.

Below: Concrete block paving around the entrance to Hammersmith Underground Station where there are complex services beneath requiring constant maintenance and a number of manhole covers.



FRED'S FINISHES



It is probably true to say that Fred Ward has given more practical advice to architects, engineers and contractors on concrete surface finishes in his 27 years with the Cement and Concrete Association than anyone else. At the end of March this year he officially retired – reluctantly, however, because he says he enjoys his job. Fortunately he will still be around on a half-time basis for, we hope, many more years to come.

During his 27 years with us, he has become known to literally thousands of people concerned with the design and construction of buildings who have sought his advice. When he is on duty, his telephone hardly ever stops ringing. His advice is sensible, down to earth and practical. There's no nonsense about Fred. And it must be a very difficult job to do well. The 'phone rings and a strange voice says "Now I've got this wall . . ." The caller probably doesn't explain very articulately what the problem is. Fred has to unravel it all and think of constructive things to say out of the top of his head.

The beginnings of Fred's life were quite exotic. He was born in Gibraltar in 1915 when the first world war was still on, his father being a Company Sergeant Major in the Royal Engineers involved in building roads and the water-catchment area on the Rock. The Wards lived there for the first four years of his life and Fred still has a family feeling for Gibraltar even though his mother was once frightened out of her wits when she found an ape sitting on his cot. One of the things that Fred remembers from this early part of his life is that people used to go down to the sea to gather cockles – which must have had some influence on him

because when the family moved back to Purfleet in Essex, where he was mainly brought up, he was known to consume as many as 20 twopenny plates of cockles on a single day-trip to Southend. He also recalls that there was a cement works near Purfleet and that his mother was not impressed by what she called 'cement dropping out of the sky', particularly as it turned her washing a nasty shade of grey. Whether or not this had any influence on later events in Fred Ward's life, it is hard to establish – even though he does say, with a touch of wry amusement, that if the cement had been white it might have starched the clothes as well as improving their colour, thereby killing two birds with one stone. In his young days he became a keen footballer and later on could even possibly have turned professional if things had worked out that way. The game has remained a keen interest in his life ever since.

In 1933 he entered the cement world, first with Tunnel Cement and then with a firm making aluminium bungalows in which his job was the development of cellular concrete. It was with his special experience and interest in cellular lightweight concrete that he came to the Cement and Concrete Association in 1953 with the idea of developing dense surface finishes for the material in a way that would appeal to architects. Working first under J.G. Wilson who, as an architect, did more to develop concrete finishes than anyone else in the Association, he soon became an expert himself and has worked in various capacities ever since – mainly as an advisor but also doing practical work on the development of finishes as well as lecturing, writing and demonstrations. His work has included advice on schools in Greece for Doxiadis and, in particular, advice to artists, mural designers and sculptors as well as work on the early development of coloured glass in concrete for church windows. Some of the key buildings he has advised on include the organ arch in Llandaff Cathedral, Knightsbridge Barracks and New Hall, Cambridge (full-size trial sections were cast at Wexham Springs for these last two).

If you ask Fred Ward his views on concrete surface finishes today and the changes he has seen over the years, he mainly mentions a shift of emphasis from precast to in situ work: many of his enquiries today come from architects seeking advice on in situ concrete, including finishes for bridges. Interestingly enough, if you try to draw him out as to his own personal views on the use of exposed concrete, he merely says that a lot of it is too grey: greyness does not on the whole appeal to him, particularly in our climate, and he has strong leanings towards colour. Dirty grey, he says, looks shabby. Dirty white is better. Food for thought there.

Meanwhile, our thanks for the past and best wishes for the future.

George Perkin

ADDENDUM

The subcontractors for the concrete blockwork and reinforced concrete frame in the CEGB Building in Bristol, featured in *Concrete Quarterly* 123, were William Cowlin & Son Ltd, Bristol.

Casting around

a quarterly column of notes and comments



Part of the view from the office window. From left to right, the towers on the skyline are the Carlton Tower Hotel, Knightsbridge Barracks, Bowater House, the circular Park Tower Hotel, Knightsbridge, and the Italianate clock tower of St. Peter's Church, Eaton Square.

Room with a view

Many years ago I remember playing an entertaining game in which you simply made a list of the things in life that you had never had enough of. You then read them out and discussed them with the other participants. I can recommend it for Christmas and after-dinner relaxation – it is quite revealing. Of course everyone puts 'Money', but the point is to avoid the obvious. I was about 25 when I tried it and I remember that my list contained assorted frivolous items such as 'Airline tickets to romantic places', 'Tropical beaches' and 'Things from Fortnum and Mason's'. There were also one or two items that were not so frivolous. One was 'People with the same sense of humour as myself' (I would still put that today). Another, rather surprisingly, was 'Bedrooms with a view'. Well I know what I meant. There can surely be few pleasures more delightful than to wake up to a glorious early-morning sunlit view through one's bedroom window or, for that matter, to retire with a carpet of city lights laid out at one's feet. All of which is not meant to be an argument for tower block living. Of course I did once live for eight years in the tank room of a very tall house in Pont Street which had a small dormer window down a sort of passage, and if you craned your neck round you could just see the cross on St. Paul's Cathedral over the top of Harrod's. My present bedroom looks out across a narrow urban street and sometimes, rather alarmingly, straight into the bedroom opposite if the curtains are not drawn. So that the view can hardly be called glorious and is never actually sunlit in the mornings. But now my life has been transformed although it isn't in fact my bedroom that has transformed it but my new office. And the views are indeed glorious and have even been quite often sunlit, although the Cement and Concrete Association didn't actually move up to its new 8th floor suite of

offices at 52 Grosvenor Gardens until just before Christmas, so we have hardly been here at the best time of year. Even so, I have not yet ceased to wonder at the drama of it all. The room is on a corner and has two windows which reveal a rooftop panorama sweeping round from Lots Road Power Station in the west to the Post Office Tower in the east, taking in en route the landmarks of Earls Court, Kensington, Knightsbridge, Belgravia and Park Lane. Of course I do no work. And I am thinking of charging entry to the room and equipping myself with binoculars (which would be extra) and possibly becoming a *voyeur* like that character in the film 'Rear Window'. You can see what it is like from the the picture.

But how strangely different is life in this rooftop eyrie (I find there are four different ways of spelling *aerie*) and I could go on to say that it's almost eerie in the *aerie* (it is certainly more airy), by which I don't mean sinister but, after what we have been used to, it is amazingly quiet and still. Down on the second floor, where we were before, we learned to live over the years with a very high level of noise caused by traffic thundering along Buckingham Palace Road. Heaven knows what it did to our nervous systems without our realizing it. Now all is deathly hush, the effect heightened by double glazing, thickly woven sound-absorbing carpets and acoustic tiles on the ceiling. I can actually hear myself think which is definitely unusual – a sort of bubbling sound, it seems, unless that is the radiators filling.

But the point that I really want to make is the question of silhouette. As you will notice from the picture, my view is punctuated with various towers and landmarks sticking up on the skyline. Without doubt the most interesting and elegant of them belong to the nineteenth century: the ornate wedding-cake tower of the

Victoria and Albert Museum, the dome of the Brompton Oratory, the green cupola on the tower of Colclutt's Imperial Institute, the spire of St Michael's Church, Chester Square, and the little Italianate clock tower of St Peter's Church, Eaton Square which you will see prominent in the foreground of the photograph, not to mention the chimneys of Lots Road Power Station. All these are fingers pointing to the sky. The blocky towers of the latter half of the 20th century could better be described as clenched fists. And this, alas, is very much a mark of post-war architecture. Consider, for instance, the delicate tracery of the skyline at Westminster and compare it with the 20th century contribution on the South Bank. And what would Oxford be like without its dreaming spires? But there are plenty of opportunities in modern buildings for more inspiring (what a suitable word) roofscapes and silhouettes when you consider the lift-motor rooms, tanks, extract fans and other paraphernalia that have to go on roofs nowadays. It was once very well done by Ryder and Yates in the Gas Council Engineering Research Station at Killingworth (CQ 80). Gottfried Bohm has done it in Germany, particularly with Bensberg Town Hall (CQ 106). And there are quite a few other examples I can think of. So is this not an issue that might be given more attention in future building design? Come to think of it, I don't ever remember it being mentioned in my own architectural training, and I seldom hear it discussed even now. So if you have any strong views on the matter, why don't you Come Up And See Me Some Time?

George Perrotin