Goldfinger

It is particularly appropriate that Ernst Goldfinger's 70th birthday last September should have so nearly coincided with our entry into Europe. Although he has lived and practised here for the last 40 years he has always been the most European of British architects and his work can and should be judged in a continental rather than an island context.

The 'white architecture' of the 1920s and 1930s is obvious from his own work that he has always considered the differences between materials too important to be glossed over. Concrete, brickwork, wood, metal and glass have been brought together with respect for the nature of each, and in this aspect his work in the 1920s suggested this reaction to the 'white architecture' which took place 30 years later.

Another characteristic which has led to a noticeably individual approach is that he has preferred always to return in a scientific manner to first principles, like the architectural pioneers some years his senior, rather than accepting their work as a foundation for his own. This independence of spirit shows itself in all his work, in his buildings, interiors and furniture. Everything he does is inspired by his desire to solve problems from first principles and to arrive at a logical and economical style.

Goldfinger's approach as an architect in England derives from his childhood aim to create a national and vernacular answer to architectural problems—this style is really non-style, in contrast to that 'style' in a mediocrity sense which has always interested architects more in England than in Europe. Unfortunately he has never
tangle in architectural schools but all those who come to live in his office (I very much regret this) to make a great debt to him for his clarity of thought and logic. It is also a pity that the three key articles he wrote for The Architectural Review in 1984, and a monograph on him and his work published in 1985, are as little known. It is really appropriate that he should have been doing an ARA because he is in the best sense an academician, a teacher by example.

Ernst Goldfinger is the whole man, the rational artist (he tests: Is it clear, is it pure, is it beautiful?). He sets an example of classical European thought, a reason rather than intuitions. His work is not romantic, not lyrical, but unambiguously, serious, and, considered, ordered, beautiful, buildings not particularly of today in a transitory sense but of our time, free of stylistic quirks, and free, clear beauty, from literary explanations and obscure interpretations. May he long continue to flourish.

H. T. CADBURY BROWN

THE BLACK AND WHITE OF IT

The basic elements of the RIBA and apartheid controversy are not complicated. The RIBA has a special relationship with the Institute of South African Architects and with four provincial institutes in South Africa. Like the other 28 overseas institutes allied to the RIBA, these are societies in which council believes the members are educationally well qualified and 'that they share with the members of the Royal Institute links of language, professional ethics or concepts of professional practice'. The institute also recognises five schools of architecture in South Africa as being of suitable standard to be exempt from RIBA external exams.

The ISAA is, like all other organisations in South Africa, subject to the Government's apartheid machinery, and so the institute becomes part of the racialist system (it has no black members and only a handful of Chinese, Indian and coloured ones—their numbers are severely restricted because of the inadequacy of South Africa's secondary education system). The Institute and the schools operate an effective colour bar whether they want to or not and every architect who builds in South Africa—whether he be native or from overseas—supports the system in a tangible way (see below).

The South African Government has introduced politics to architecture; nothing we can do will separate them. The main argument is not about whether the South Africans have similar professional ethics to ours or not; they can't have. The question is whether severing the special links will do any good. If links are cut immediately, will South African architects be moved by embarrassment and shame to try to improve their standards or will they drift even further from civilised behaviour? Those who want to cut links argue that the cricket ban in 1970 did dint the previously monolithic edifice of
Help through the maze

The author's earlier version, under the title AT metric guide to Building Regulations, although valuable, were something of a stop-gap. This new guide not only covers the 1972 Regulations but is also more comprehensive than the earlier issues. The guide can eliminate the need for occasional reference to the official Regulations, but for particular purposes it provides what will be needed in a form much easier to read. Layout and typography help, as do good diagrams. Schedules printed adjacent to relevant Regulations make reference easy and useful comments are included. The translation of much of the official wording of the Regulations into plain English is a welcome relief. Relaxations of the Regulations can be obtained only for particular cases. An appendix gives examples of some of the more important exceptions so far. It would be very foolish for any office to be without copies of this book in its library.

C. G. Handyside

Machine for living in
Lived-in architecture by Philippe Boisot, Lund Humphries £7.95

This is an important book whose subject, if not its content, is well known by now. The mid-60s Le Corbusier's housing scheme at Pessac had been adapted by the residents and had become, in many people's terms, proof of an architectural success. Boisot, an architect trained in the Le Corbusier tradition, has written this book in a style which is often received with more enthusiasm than is generally accorded to his subject.

The more recent book in a fresh change, a welcome and too rare approach. Boisot writes clearly and thoughtfully. He offers an enjoyable essay in architectural criticism, but also a serious investigation of the ambiguities and contradictions in such ideas as functionalism, inside/outside, user requirements, and standards which must remain important.

Le Corbusier's Pessac project

If not a great book, this is not far below the angels. If a small book, it is nevertheless strong enough to keep in the forefront of social science (if such articles as these from Condé Jamenson to David Cameron are kept) for years. The potential and open quality of the architecture (at one point tellingly contrasted with Le Corbusier's similar size Wimborne in terms of enclosed, functions, discrete spaces not only lends itself to a dialectic with the communities—there is also a physical critique of 'functionalism' in terms of machine à habiter.

The Owl housing, based on a rational reduction of life into discrete components, offers discrete spaces for specific uses. And in its setting, particularly on an urban scale, Corb soared towards a new utopia. However, at Pessac the space is very flexible in use; for example there is no specific community area, and the space—part of the living room—is also a virtual point of contact and reference. This open form, Corb claims, seems to call for response and all the houses have been changed and more than once. Acceptance of the occupants' positive role is a reaction within rather than against Corb's scheme.

The study is both open-ended and artificial, particularly as the interests are 'non-directive' and the author's presence made so transparent as possible. Where, for example, Herbert Gons in The Tremenheere saw reality in the way people grouped, is a shifting hand in a 'natural' (cultural) empty space, Boisot sees empty space in what people say and do; they are in human in a cultural situation. The more recent book in a fresh change, a welcome and too rare approach. Boisot writes clearly and thoughtfully. He offers an enjoyable essay in architectural criticism, but also a serious investigation of the ambiguities and contradictions in such ideas as functionalism, inside/outside, user requirements, and standards which must remain important.

More Corb

Le Corbusier by Robert Furness, Joan, Dent £4.50

Robert Joanson is an author who can tell a story really well. Too well, perhaps: for the pen of this meticulous stylist he stumbles to the tale with emphasis and eloquence that the facts themselves would allow. Yet his biography of Le Corbusier is a pleasure to read, his interjections often convincing. Nevertheless this is a work—he calls it 'more than a sketch'—which will be better understood by those with some previous knowledge of the subject. With the steadily growing number of studies on Le Corbusier a stage has now been reached when the point of the biography is a virtue; as a man and his periods needs the past, so his image becomes less clear, and the work of the author is to set out the personal and the absence at Paris of Peter Blake's study of Le Corbusier—set about the subject less clearly than his
does. Le Corbusier's prime biographer, the author might have written with more enthusiasm and with a less prescriptive style, but in any case the book is a rewarding and not read it before.

It was somewhat surprising to see the new book on Le Corbusier emanating from the author whose earlier articles had taken a position to what he called Le Corbusier's 'prison dead' attitude. However, the reader is quickly aware of the author's genuine wisdom and sympathy for the Master and the pains which he took to make this apparent. Too apparent, perhaps, for the images of so Le Corbusier does not gain from its lack of critical appreciation. Not this is a book, it is of interest that it is written to the point in the volume that it is written more on the person than on the work. This is

Painting the frame

Structural steel painting by J. R. Vickers, International Decorative Paints, Herrietta House, Herrietta Place, London W1

The painting of structural steelwork is often a repeat of what was done on the last project, rather than a careful study of the structure in detail and in use, thus resulting in the proper specification of a combined with the right paint or primer following research. At the foreword, there is no singe point—mental or treatment which will full of all the requirements and the last stage of products available from the paint industry needs some gold to be given for its help. This book covers the basic problem of oxidation, the preservation of the surface, about 80 percent, the specifications and its isolation on about 40 products of International Decorative Paints. Although there would appear to be an element of self-preservation, the monotonous list of such other products could be specified. This book is well presented, easy to follow and provides comprehensive information. and advice for the price.
**Building study**

*Cheltenham Estate housing*

**Architect’s account**

At Golborne Road, London W10

For Greater London Council

by Erno Goldfinger

associate N. Molin-Folckenstal

group leaders Richard G. Last, Robert Sigrist

assistants H. Bindschedler, J. Bottell, W. Butler, J. M. Copley, M. E. Goldfinger

J. Leong, M. Molloy, F. Nadin, M. Purdy, J. P. Renevey, R. F. Rogers, M. V. Stephenson, S. Xenopoulos, H. J. Yates

quantity surveyor Davis Bellfield & Everest, partner in charge E. R. Parrinder, associate B. A. Imms

assistant A. G. Hollingsworth

services engineer Dale & Elbarth, partner K. W. Dale, associate (plumbing and drainage) J. R. Rudman

structural engineer Charles Weiss & Partners partner in charge, A. S. Saffer, associate I. W. Menzies

clerk of works J. Gilman, L. Poppas

1. Cheltenham Estate from Carlton Bridge over Grand Union Canal. To left of Treilick Tower (block A) is seven-storey block B and (nearest) six-storey block C. Canal side between bridge and estate is due to become open space.

A New layout superimposed on former street pattern.

2. Cheltenham estate layout stages one and two, showing vehicle and pedestrian routes (also old people’s homes, not included in this study).

Planning: an integrated neighbourhood

The Cheltenham Estate will ultimately comprise 317 dwellings, of which 281 have been completed, in block A, B, C and D1 to D4; a further 36 dwellings in blocks E and D5 are to be built after closure of Kensal Road when the junction of Elmstone Road and Great Western Road has been effected at the end of 1972. Rational development required the closure of five streets, roads and courts, and the creation of pedestrian precincts of seven acres. The site will join an open space of some six acres running along the Regent Canal and bordering its north side A, B.

To the west, the site is bounded by Golborne Road, developed into a shopping street connected to the existing shopping and market street by Portobello Bridge. To the south it is bordered by the new Elmstone Road running along the railway line. This road will develop into a busy public...
Cheltenham Estate: blocks A, B and service tower

Floor plans:
- Blocks A and B
- Service tower

Type plans:
- Blocks A and B
- Type G: maisonette, six-person
- Type B: flat, four-person
- Type A: flat, two-person
- Type B: flat, four-person
- Type D: upper flat, six-person
- Type C: flat, four-person
- Type D: lower flat, six-person
- Type F: upper flat, five-person
- Type E: flat, three-person
- Type F: lower flat, five-person

Access to three levels from single enclosed gallery.
Interlocking stairs lead to hall in centre of upper and lower flats.
throughfare. Only the gable walls of the terrace houses and the gardens of the old people’s home will face the throughfare. The new pedestrian area thus extends from the canal to the railway, bordered by Elkstone Road. This rearrangement saved 3340 sq yd (2783 m²) of public carriageway, replacing them by a single traffic artery and segregated pedestrian ways. Services were rationalised and are easily accessible in horizontal and vertical ducts. At night the site is lit by five floodlights from the top of block A (51 storeys), five on block B (seven storeys) and one on block C (six storeys). Lamp standards are used only for lighting Edenham Way (the estate road) and Elkstone Road as required by the local authority.

There are 217 dwellings on the 30 floors of block A and six floors of block B, G; under block A is the nursery school (the entrance to which is on the north side completely separated from the access to the dwellings). Under the nursery school are two floors of tenement stores and three floors of garages K, L. Under block B are two floors of six shops, the higher of which opens on to a sheltered arcade, the lower on to a loading dock accessible from the service yard. There are 36 two-roomed R flats on six floors of block C, which is served by two lifts and heated from the communal boiler house in the service tower.

Four terraces are situated on Edenham Way of seven individual three-storey houses S, T each with their own garage and gas-fired central heating. In stage two six more, similar houses will be built in a terrace and a further block E of six maisonettes. There are two-roomed R flats on six floors, incorporating a further clubroom. The closing of useless streets, roads and courts, as well as the high concentration of dwellings and the stacking of garages allowed the full development of the site for outdoor activities. These comprise a ball games area, a fitted playground with some grassed areas, as well as a toddlers playground, sitting out areas provided with benches (and away from traffic) and a large outdoor space for the nursery school. It was also possible to locate a home for some 60 old people as well as to allocate an area for a future mission hall replacing one which was displaced.

Service tower access

The single access to all the dwellings in blocks A and B is from the west, through the entrance hall in the service tower, at street level in Golborne Road. There is also a service entrance at the service yard level, to be used for moving furniture, or going from the garages to the dwellings. The design of the dwellings enabled their grouping in sets of three storeys Q, so that the lifts stop only at every third floor, is 10 storeys. There are three slightly fast lifts (30 seconds from ground floor to the thirtieth floor if the lift does not stop between). Access from the lifts in the service tower is by means of bridges into the access galleries of blocks A and B. In block A there are in general 18 flats in each group of three floors, except on the twenty-fourth floor, where there are five maisonettes and consequently only 13 dwellings. Block B, on the third and sixth floors, is served by additional bridges; on these floors there are a further 21 dwellings of which six are maisonettes. The bridges sit on non-slip pads to avoid transmission of noise from the service tower. The service tower contains the rubbish chute; three lifts and lift motor room; the boiler room and pump room for circulating direct heating to blocks A, B, C and E; a number of tank and pump rooms; the wet risers for firefighting; the Honeywell console for monitoring faults in the mechanical services; and escape stairs. On the second floor is a clubroom served by the lifts; there are also three drying rooms, two rooms suitable for table tennis or other activities and a hobby room. Many of these are potential sources of noise and have therefore been grouped in the service tower isolated from the dwellings.

The dwellings

Within the rigorous standards imposed by the structure, and totally integrated with it, it was possible to provide nine main types of dwellings, as well as some further variants. There are two room flats (for the elderly or young couples), three room flats, four room flats, five room maisonettes and five room three-storey houses. All the dwellings in blocks A and B are internal and ventilated by extract fans situated on the roof. The majority of dwellings have private balconies facing south in block A and facing west in block B, which are ideal play areas for toddlers.

Fittings and services in dwellings

The fully equipped kitchens have stainless steel (double-drainer) sinks, mixing taps, cupboards and ventilated larders. In addition to individual stores provided for each tenant outside the dwellings, there are cupboards in all except the main bedroom. Windows are either reversible for cleaning (with safety catches) or sliding for easy access to balcony. ‘Stable doors’ are provided between kitchens and private balconies for children’s safety. There are sliding partitions in some dwellings for dividing double bedrooms into two single bedrooms. Electric socket outlets are on a specially designed skirting, the skirtings of which projects only 5 mm from the face of plaster, and contains electrical, telephone and television wiring. Lighting switches are incorporated in metal door frames. Heating from the central boiler room is piped to a hot air
heat exchanger in each dwelling and distributed through specially designed glass fibre ducts. The heated air can be boosted by fans controlled individually by thermostats. Hot water is by means of under-sink electrical heaters providing hot water to sink and bathroom.

**Structure**

*The structural engineer writes:* Blocks A and B, with their freestanding service tower, are constructed entirely in reinforced concrete. The first phase also includes a six-storey block C in loadbearing brickwork with reinforced concrete floors, four three-storey blocks (D1 to D4) in loadbearing brickwork with timber floors, and a three-storey, partially underground, garage block connected to the three lower levels of block A.

In phase two a fifth three-storey block (D5), a six-storey block E, and a further single-storey underground garage will be added. The structure of block D5 is similar to the three storey block in phase one, and the basic structure of block E is similar to block C.

The 51- and seven-storey blocks are of in situ reinforced concrete cross wall construction. Precast concrete is used in the stair flights, the access bridges and the cladding on the long elevations. All externally visible in situ concrete is finished by brush-hammering. The aggregate was selected and the concrete proportions determined to fulfil the structural requirements and, at the same time suit the architectural finish.

The service tower too is in situ concrete construction and finished externally similarly to blocks A and B. Neoprene bearings have been provided at the bridge supports, to permit independent movement of the structures of up to 2in.

The underground garages are constructed in loadbearing brickwork, and have in situ concrete floors and roof. Lateral stability is provided by in situ internal stair and ramp walls.

To permit landscaping and create the play spaces, considerable external works, consisting of retaining walls, ramps, stairs and bridges (in situ reinforced concrete) have been provided. The external works concrete is generally finished by brush-hammering or deep-hacking, but where the activities envisaged required smooth surfaces, surfaced concrete is used.

The subsoil on the site consists mainly of London clay. The low-rise buildings are founded on strip and pad footings bearing on the upper levels of the clay. Blocks A, B and the service tower are founded on large diameter, belled-out in situ concrete piles bearing on the stiff clay at about 660 (20 m) below ground level. Sulphate-resistant cement has been used in all concrete in contact with the ground, and in situ concrete structures to the basement have been designed to be waterproof.

Block D5 and the garage in phase two will be founded on strip and pad footings bearing on the upper levels of the London clay. Block E, due to the greater depth of weathering of the clay and the vicinity of the canal, will be founded on straight shafted cast in situ piles bearing in the blue clay.
A split between 'architectural' and common human values has become increasingly evident to architects—and common humans—over the last five years. It is now a platitude to say that the Ronan Point disaster catalysed a popular revolt against what architects were doing to people. Since then one has seen the ascent of such words as 'participation', 'conservation', 'environment', 'pollution' into the realm of popular cliché, and the descent of such phrases as 'comprehensive redevelopment', 'industrialised building' and 'high rise' from descriptions of ideals into terms of abuse. Among architects, complexity and contradiction have been admitted alongside the canons of simplicity and consistency.

The appraiser, an architect in private practice with long housing experience, was formerly chief development architect to the Yorkshire Development Group. He is a previous contributor to the AJ and The Architectural Review.

6 View from 23rd floor shows mounding on roof of garage, sunken playground and ball games area, old people's home on right, block of two-person flats and terraces of six-person houses beyond.

7, 8 Nursery school at foot of Trellick Tower. Playground on top of lower half level of garage has proved vulnerable to litter tossed down nightly from above.

9 Three-storey, six-storied block of six person flats with Trellick Tower rising behind.
If architectural confidence has suffered some shocks, in compensation there has been a corresponding increase in architectural sensitiveness. At the extremes, the problem may now be architectural nihilism rather than architectural totalitarianism.

The difference perhaps is that 10 years ago (and certainly 20) architects felt their mode of expression was to the public good. There was a belief that if the ideology was right so were its products. Somehow the taste of the cake could be ignored; the exhilaration of seeing the theory on the ground blinded one to its actual sensory and practical effects. If then we were concerned with the morality of our theories, now many of us are apprehensive of the possible immorality of what we may build.

The first and major phase of the Cheltenham Estate was completed about five months ago; the brief was given to the architect in April 1966. However, Erno Goldfinger's Rowlett Street scheme, whose tall block B is a first edition of the Cheltenham project, was completed in January 1968 and its brief given to the architect in 1966. The immediate context of the Cheltenham Estate concept is, therefore, really the mixed development schemes of the 1950s, which by the early 1960s were already tending to be overtaken by more homogeneous high-density schemes such as Park Hill (AJ 23.8.61 pt21-286) and Lillingston Street, these in turn being replaced by the high-density low-rise schemes typically produced by Camden and Southwark. Since then, as has already been implied, the concepts of comprehensive redevelopment and homogeneity have been reinterpreted in favour of a more fine-grained process of integration and renewal. Against such an interpretation of recent housing history the Cheltenham Estate appears to me anachronistic.

It sets out to be an integrated neighbourhood. It does contain dwellings of all sizes; garages, shops, a nursery school 7; and an old people's home. (The latter is for the Royal Borough of Kensington and Chelsea and the nursery school for the Inner London Education Authority.) But though integrated in materials and detailing in form it is not. Its 31-storey and seven-storey linked slabs, its six-storey L-shaped block and three-storey houses are definitely separate entities.

The distribution of dwelling types seems curious. Of the largest units (six-person) no fewer than 25 out of 56 are in the tower-six in the seven-storey linked slab, only the priviledged remainder being in the houses. Two-thirds of the remaining units in the big slab are family units for four persons. Big as the balconies are, not every mother is keen to leave her children behind a balcony with a 20- or 30-storey drop on the other side. And when they are big enough to descend to their allotted play zones, even if she can see her children, it is not easy for her to communicate with them or to help them if necessary. So what happens in practice is that the children descend to the ground aware of the safe distance from their parents; the two tarmac rectangles do not satisfy all their imaginative needs; they find the lifts, stairs, lobbies, even angry old people more interesting. So the inhabitants of the six-storey block, between the tall slab and the six-person houses, are befuddled by and apparently united in hostility towards the two communities. As to the old people's home, some inhabitants are delighted by the children through the fence; others find them disturbing.

One of the clearer findings of the DOE's report 'Living off the ground' (AJ 20.8.69 p459) was that 'a much higher proportion of housewives with children under five felt unhappy living off the ground than any others' though 'high blocks may be satisfactory if occupied by households without children'. It listed one of the advantages of living off the ground as being that tenants 'were away from the nuisance of children'. In short, the splitting up of the inhabitants into their different blocks encourages separateness rather than integration; and the effect is reinforced by the fact that the nuisance of children is suffered by the low living older people rather than the high living families.

What then of the actual environment produced on the site? One assumes that the theory of building so high is to gain
common benefits at ground level. If at 50 households in the acre, it would seem that the 175 households in the 30 floors of the tower should be entitled to their own 3½ acres of ground. But in fact the 34 houses enjoy between them more land than the tower. Of the common open space half goes in a ball games area, and a sunken playground, the remaining half is on top of the multi-survey gauge ingeniously camouflaged with ruminated turf 1. But pretty as it is, is this really the payoff? Apart from the crushing effect of the slab above you, winds are exaggerated, the noise of the railway exposed all along the edge of the site echoes back from the face of the building, and the view rent opens is to the motorway to the east and the railway below 11. The public open space to be formed along the canal should also be some extent relieve the pressure within the site itself, but I fear will not solve its problem.

The Ville Radicule was a ville radicule, a world in which living off the ground was compensated for by the park scale greenery that resulted. Indeed Erich Goldfinger’s Athens Charter housing of 1933 8 reflected just those principles. But something else happens when elements from such a concept are squashed together on a few acres. I can no longer believe that this is the beginning of a new world for which there is a common consensus—not now, in North Kensington. The conflict is not just within the site—it extends beyond, whole worlds of Victorian North Kensington 14 are shattered.

On the opposite side of the road to the tower is a small, thoughtfully, quietly agreeable housing scheme of three linked courtyards 16, through which I walked with some pleasure. On turning round I was confronted by the colossus crushing the domestic intimacy of the courtyards. Even from more distant parts as Swiss Cottage 12 and Camden Hill, scale is distorted as one sights the tower.

This oppressive quality is due I think not only to its size, but to its form and treatment; the superhuman, broad-shouldered, housecomb front 2, the colossal concrete service...
pylon perforated with scale-less slots, and its cyclopean eye (the boiler house) at the top. This is a quality common to other Ernö Goldfinger’s buildings, e.g. the office at the Elephant and Castle 15. It is a quality of almost eerie insistence on total organisation which seems to go beyond normal control. Forms are shaped three dimensionally in patterns with a symmetrical, hieratic, totem-like full front quality which reinforces the effects of size. At first, these forms may seem reminiscent of Le Corbusier; but with him, rigor as was the control, the effect was dynamic, organising to represent the chance relationships that functions demanded. Was Corb, shuttering was, as it were, allowed to create its pattern on the concrete; with Goldfinger it seems as though there every square inch is bush-hammered.

But at this point one begins to receive a payoff from Goldfinger’s control because the bush hammering provides a much better weathering finish than smooth or bored shuttering. The control and quality of detail is impressive.

The entrance hall 23 is lined with marble. Lobby doors at levels are of heavy hardwood with narrow glass strips 21. Along access galleries, the dwelling wall is in glazed tile (a different shade at each access level), and the outer wall is bush hammered concrete 21. The quality of these materials in public spaces does a great deal for the building, although, still not enough to prevent vandals from seeking out the few weak spots (the wired glass and the light fittings) 25, 26.

Goldfinger’s control and organisation is seen at its best at the smaller end of the scale; in the dwelling planning and its control of detail and workmanship. The dwellings themselves are spacious. This is in part because many are over Parker Morris’ minimum areas; it is also because there tend to be fewer rather than more rooms (in the six-person maisonette M there are three not four bedrooms), and they are clearly and generously planned. The exceptionally wide bay frontage (22ft 2in) (6.75 m) helps the proportions of the rooms 28, and

also allows a big central hall 27 which gives value to the whole flat. The balconies are also impressively large 28—5ft (1.5 m) deep for half, and sometimes all of their width—and in the tall block, all face south-west.

Detail within the units is good; such as the windows which turn, securely, inside-out for cleaning 29, the double door between balcony and kitchen 31, the metal door frames and their neat light switches 30. At this smaller end of the scale, the houses are perhaps the most successful part of the scheme. Here Goldfinger’s liking for massive scale gives an agreeable simplicity and sturdiness, realised in bull-nosed 13in (330

24, 25 Despite robust materials, vandals haveingles one weak spots: ‘bullet hole’ in wired glass and smashed light fitting in lift lobby.

26 Wide bay frontage allows generously proportioned rooms and big central hall which gives value to whole flat.

27 Balconies are impressively large (here in a maisonette) and not all mothers are afraid to let their children play on them.
Summary: block A

- Integral structural walls and partitions
- Full floor finish: mainly 2 coats to bathrooms, 3 coats elsewhere
- Stair treads: 9in wide, with 9in parapets; 9in risers
- Door under brickwork
- Hammered slab D in access treads
- Two-coat plaster finishes
- Two-coat wall finishes, with 3 coats to bathrooms
- Integral structural walls and partitions
- Full floor finish: mainly 2 coats to bathrooms, 3 coats elsewhere
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- Two-coat plaster finishes
- Two-coat wall finishes, with 3 coats to bathrooms
- Integral structural walls and partitions
- Full floor finish: mainly 2 coats to bathrooms, 3 coats elsewhere
- Stair treads: 9in wide, with 9in parapets; 9in risers
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**Summary of elemental costs**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost per sq ft</th>
<th>Total Cost</th>
<th>Cost per sq ft</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumatics and insurances</td>
<td>£0.10</td>
<td>£80.00</td>
<td>£0.20</td>
<td>£160.00</td>
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<tr>
<td>Contingencies</td>
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<tr>
<td>Work force lowest floor level</td>
<td>£0.00</td>
<td>£0.00</td>
<td>£0.00</td>
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</tbody>
</table>

**Structural elements**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost per sq ft</th>
<th>Total Cost</th>
<th>Cost per sq ft</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tower</td>
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<td>£20.00</td>
<td>£0.04</td>
<td>£4.00</td>
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<tr>
<td>Concrete columns and windows</td>
<td>£0.15</td>
<td>£15.00</td>
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<tr>
<td>Internal structural walls</td>
<td>£0.05</td>
<td>£5.00</td>
<td>£0.01</td>
<td>£1.00</td>
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<tr>
<td>Pavements</td>
<td>£0.10</td>
<td>£10.00</td>
<td>£0.02</td>
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</tr>
<tr>
<td>Internal and external doors</td>
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<td>£10.00</td>
<td>£0.02</td>
<td>£2.00</td>
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<tr>
<td>Windows</td>
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<td>£5.00</td>
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<tr>
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**Finishes and fittings**

<table>
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<tr>
<th>Description</th>
<th>Cost per sq ft</th>
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<th>Cost per sq ft</th>
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</tr>
</thead>
<tbody>
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<td>Wall finishes</td>
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<td>Ceiling finishes</td>
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<td>Doors</td>
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<td>£0.20</td>
<td>£20.00</td>
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<td>Ventilation</td>
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<td>£0.20</td>
<td>£20.00</td>
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<tr>
<td>Total of finishes and fittings</td>
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<td>£50.00</td>
<td>£1.00</td>
<td>£100.00</td>
</tr>
</tbody>
</table>

**Services**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost per sq ft</th>
<th>Total Cost</th>
<th>Cost per sq ft</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas</td>
<td>£0.05</td>
<td>£5.00</td>
<td>£0.10</td>
<td>£10.00</td>
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<tr>
<td>Water, sewer, heating</td>
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<td>£0.10</td>
<td>£10.00</td>
</tr>
<tr>
<td>Electric services</td>
<td>£0.05</td>
<td>£5.00</td>
<td>£0.10</td>
<td>£10.00</td>
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<tr>
<td>Special services</td>
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<tr>
<td>Total of services</td>
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<td>£25.00</td>
<td>£0.50</td>
<td>£50.00</td>
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</tbody>
</table>

**Cost comment**

This housing project provides interesting cost information on high-rise housing, although it must be noted that "preliminaries" were spread over the whole scheme and have been allocated "pro rata," and that contractors’ rates are averaged out for similar construction in the 31- and seven-storey blocks. The unusual and expressive feature of the scheme is the carefully designed service tower—rising to the full 31 storeys and incorporating the lift and stair core—whose total cost is £292,909 at a floor area rate of £12.94 per square foot. The link access bridges, again an important design feature, are also included in these costs, but their particular cost is not easily identified.

Examining this block in detail immediately shows up the costly elements as external walling (£2.23 per sq ft); heating, ventilation and gas (£2.59 per sq ft); and special services (£2.18 per sq ft) which include all the important lift work. The external wall treatment of bulk hammered 11-in reinforced concrete walls at a unit rate of £80 per sq yd is remarkable economic, but the wall/floor discharge—whose total cost is £292,909 at a floor area rate of £12.94 per square foot. The link access bridges, again an important design feature, are also included in these costs, but their particular cost is not easily identified.

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The seven-storey block has similar constructional treatment with almost identical unit rates, different quantity factors being expressed in varied elemental costs per sq ft. Internal finishes at total £65.60 per sq ft for Trellick Tower as analysed provide a remarkable cost contrast to the structural, with very low elemental costs—wall finishes £0.16, floor £0.28, ceiling £0.06 and decoration £0.16 per sq ft including the plastic compound finish to ceilings.

Foundation elemental costs appear high for all the blocks, but include a considerable amount of accommodation for cars and other service rooms below ground level. Construction also includes deep piling necessary in any case on account of site conditions.

On the contract side the costs all relate to tender dated August 1970 and do not include contract variances. Final costs are not yet available but will have to include fluctuations up to the completion date in August 1972—a five-year period of high rise in costs.

It is perhaps interesting to note that this scheme has a twin (Rowell Street), previously completed at the northern end of the Blackwall Tunnel, and executed by the same contractor.

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**Contractors**


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**How much insurance cover can an employer reasonably be expected to provide for his staff?**

The answer to this difficult question will depend on individual circumstances and for this reason MICHAEL COHEN takes the various schemes in order of cost rather than desirability.

**1 Types of benefit**

1.01 This study is primarily to show those areas where an employer may provide benefits for his staff but should also help those considering their own cover. The information is double-edged, showing the employer what he can do and the staff what they may be able to induce their employer to do on their behalf. But remember that fringe benefits cost money, and, as the ‘womb to tomb’ insurance concept may be, the relative economics must be weighted. The economics are vital to both employer and employee if either are to prosper and the assistant who wants, in addition to his high salary (and of course profit sharing), every conceivable extra from lunch box vouchers to subsidised mortgages is probably ensuring the non-success of his firm. However there is a lot which can be done. How is the problem?