## A YOUNG FABIAN PAMPHLET 3S6D

# architecture: art or social service?

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**Y.F.G.** 5

#### Introduction

DESIGN is not usually regarded as a political question. It is regarded as a matter of personal taste, to be left to æsthetic pundits. If there is any Labour Party attitude to design, it is the feeling that architects should be given more scope to exercise their talents, freed from some of the commercial pressures which undoubtedly make for shoddiness and vulgarity in their work. Architectural design is certainly not regarded as a field in which a direct clash of principles, principles of an essentially political nature, is taking place. Yet this is so. Design in both architecture and town planning hinges upon questions of social priority, questions of how people are to live and work. The architect or planner, because he is generally trained in a tradition which is above all æsthetic, is constantly tempted to produce an architectural monument at the expense of the convenience of its occupants. Architectural monu-ments can and do cause suffering. Ill-planned hospitals waste life. Wrongly designed housing can produce domestic squalor. Unconsidered school architecture stunts the education of children. Monumental prestige office blocks can result in business inefficiency. If this is true, then it is important that a politician, whether a local councillor or a potential Minister, should know how to distinguish a socially welldesigned building from a bad one.

It is not easy: only a close look at different approaches in practice can clearly separate the two schools. What architects say about their work can be misleading. The word *functional*, for example, often means no more than *expressing the means of construction*. In this pamphlet the two architectural schools are called functionalists and formalists. *Functionalists* are architects whose over-riding consideration is the needs of the user, who speak of architecture as a *service*, who tend to favour teamwork, consumer research and programme bulding. The functional ideal is an *environment*. *Formalists* are architects who will base a design on æsthetic consideration, who tend to work independently on isolated works (*one-off jobs*), who believe in the free exercise of their creative *intuition*. The formalist ideal is a *monument*.

The clearest example of the two approaches in practice is in schoolbuilding.

### 1. The Two Schools

FROM the distance most new schools look remarkably similar. Their clean lines, flat roofs and large expanses of window are a familiar symbol of modern British architecture. Post-war British schools have been acclaimed in the press at home and distinguished by critics abroad as one of our best achievements in architecture. Yet when publicity is given in newspapers, or in the volumes of *The Buildings of England*, or in a survey such as Kidder Smith's *The New Architecture of Europe*, usually THE WORST SCHOOLS, just because they are those conceived as architectural monuments, ARE THOSE SINGLED OUT FOR ATTENTION. The reports will explain that their formal plan—gener-

ally a symmetrical rectangle, but sometimes a hexagon or even a pentagon—has a *functional* justification, and that costs have been reduced by shortening the outer walls to a minimum. The fact that very often the size of the classrooms has been reduced to the minimum size permitted is not normally mentioned.

It is worth looking closely at one of the most famous of England's post-war schools, Hunstanton Secondary Modern. Designed by Peter and Alison Smithson, it has been the rallying point of a whole school of young architects, who believe in the simple rational plan, and the plain use of basic materials. (*Plate 1*).

Certainly the school *looks* rational, and as an architectural design is extremely impressive. Rigidly symmetrical, a long two-storey, polished glass and black steel box set off on the entrance side by balanced boiler-house chimneys and to the south by a great open field, it is neatly planned round a central hall. The brilliant use of the white boiler-house chimney and black water tank on stilts as æsthetic features, the bare brick walls and steel concrete ceilings, the exposed pipes and electric equipment, and the use of an undercoat orange for the scant paintwork, combine to give the impression of a work of art conjured out of the barest elements. Since it was built in 1950-53 it has been visited by some 3,000 architects, and according to the headmaster most of them have left greatly impressed by its architectural qualities. But are the teachers and the 480 boys and girls who use it equally pleased?

The school has two obvious virtues. One is that the classrooms are all well lit, with two whole walls of windows. The other is that in each case one window looks over a courtyard towards other classrooms, so that the school has a valuable sense of coherence. Its disadvantages are numerous. The structure, which was experimental, was not suitable for an exposed site with strong salt sea winds and fluctuating temperatures. Insufficient allowance was made for expansion and contraction of the steel frame, and as the door and window frames have twisted the glass has split. The school was originally surrounded by gravel, which was easily kicked up to break more windows. The salt air has corroded the metalwork. Much worse, rigid symmetry of the plan resulted in unsatisfactory allocations of space. The classrooms are nearly all minimum size, and a good half of the school is either staircase or corridor. There are ten staircases, constructed with suspended wooden treads, which act as drums. This, combined with noise through the ceilings, makes an incredible din when any number of children are moving between rooms, and the curriculum has to be arranged to reduce movement to a minimum. There is no provision for several vital facilities ----no stockroom, no toolshed, no groundsman's store, no greenhouse----and nowhere for animals, these latter essential in a country school. In contrast there are two medical rooms (used once a week), a large 'broom cupboard ' in most classrooms, and some rooms with no function at allas well as the wasted circulation space. The two grass courtyards, which could have provided extremely attractive and useful outdoor space, are scarcely used; they each have but one badly placed door.

The details were equally unsatisfactory, and consequently have been extensively altered. The exposed walls and undercoat paint gave the atmosphere of a workhouse rather than a school, and were soon scribbled all over by resentful children. The classrooms were lined with hardboard, too hard to stick pins into, and unwashable. It is not possible to move blackboards round the room; they can only be on one wall. In a large number of rooms the electric lighting was inadequate. The exposed conduits and pipes create a terrible dust problem. The windows cannot be opened by children owing to their design. The hall cannot be used for films in summer, because the upper lights cannot be blacked out; and so on. Perhaps the perverse sense of priorities is best illustrated by a contrast between the needleroom and the broom cupboards. The cupboards, unnecessary luxuries, have expensive doors, made of reversed hardboard and running on elaborate ballbearing mechanism into intricate locks. The needleroom, occupied by children as opposed to brooms, was denied all luxury; just a plain, bare room with a brutish sink (not even a tile surround), inadequately lit, with no facilities for fitting (essential to dressmaking), and not enough electric points.

Hunstanton is not dismissable as a rare freak. It is a much admired building, praised and illustrated in the latest Buildings of England; and designed under conditions demanded by many architects; the Smithsons were given a free hand, and it was built without any modification by the County Education Committee (although they have since had to spend a lot of money on improvements to it). It would not have been difficult to take a completely different school, such as Bousfield Primary. The Boltons, Kensington, by Chamberlin, Powell and Bon, and point out planning failures where the æsthetic intention is much more sympathetic. Bousfield is formally planned, but visually it is delightful, and well deserved the award of a bronze medal by the R.I.B.A. Kidder Smith calls it 'one of the best schools in Europe'. Even so, the headmaster did not share this enthusiasm. However enchanting a school may appear, to those who use it the noise from the central halls, the inadequate provision of lavatories, and the small sparsely equipped classrooms which 'restrict anything but rather formal work', are fundamental drawbacks, not bad details to a good design.

When compared with most of the pre-1930 schools still in use, with schools without hot water or with earth closets in a backyard, or with traditionally conceived neo-Georgian schools built in recent years, Bousfield and Hunstanton are of course an undoubted improvement. Nevertheless they have failed to provide a setting in which education can fully flourish. Modern architecture can do much better than this.

#### The Hertfordshire approach

The alternative approach was pioneered by the post-war schools in Hertfordshire. The Hertfordshire schools are remarkable in two ways. Firstly, they were a response to a drastic shortage, a need for schools as urgent as the present national need for housing. Secondly, they are meticulously based on a knowledge of educational method and theory and the needs of teachers and children. They are educational buildings, not architectural monuments. To a degree unique in modern architecture they combine speed and economy in production with a use of resources based on human need scientifically measured.

In 1946 Hertfordshire was already faced with an acute shortage of schools places, and on top of this it needed to prepare for the building of the New Towns and the growth of population in outer London. It was quite clear that traditional building methods could not provide the 'crash programme' required. Both materials and craftsmen were in short supply. The team of architects in the county office-men and women like Stirrat Johnson-Marshall, David Medd, Mary Crowley, Oliver Cox and Cleeve Barr-therefore decided to make use of their wartime experience of pre-fabrication and organised production. But they rejected the old inflexible system of pre-fabricating whole classrooms, because they were as much concerned with the quality of schools as with the speed with which they were to be produced. During 1946-47 they evolved a new system of building, based on a standard set of prefabricated components-structural parts, windows, roofing and so onand organised on an 8 ft. 3 in. planning grid. They were able to make advance orders for the production of these components in light engineering factories, and assemble them on the site with a minimum of skilled labour. The first of these schools was an infant wing for Cheshunt Primary School, built in 1946; the first full programme was in 1947. The schools were a success, the crisis met.

By 1948, as a result of the post-war 'bulge', the whole country was faced with the prospect of over-crowded schools. The Ministry of Education decided to take up the Hertfordshire method. A development group was set up, led by Johnson-Marshall, Medd and Mary Crowley, which in co-operation with various local authorities explored new methods of school-building and school planning, studying different materials and different types of schools. The Hertfordshire schools had been single-storey, in steel and concrete. Multi-storey buildings, concrete and timber frames, and types of school other than primary were now also attempted. At Wokingham, for example, a secondary school was built on a new type of plan which by grouping rooms on the basis of functional analysis avoided both the old problem of the Victorian 'three decker' (noise, bad ventilation and bad aspects for many rooms) and also the new problems of the advanced designs of the 1930's (sprawl, wasting valuable land, spending almost as much money on corridors as on classrooms, and making the school difficult to administer or supervise). The reduction of wasted money on useless corridor space has been especially successful in the Ministry's primary school development: it has been possible to increase classroom space from the 520 square feet minimum to 900 square feet or more, while reducing the total floor area of the school by 40 per cent. Through its Building Bulletins issued to describe these projects, the Ministry has been able to exert a healthy influence on local standards of school design.

The best known recent application of the Hertfordshire method has been CLASP—the Consortium of Local Authorities Special Programme. Nottinghamshire in 1955 was wasting 10 per cent of its school building costs on precautions against mining subsidence; there was a severe shortage of skilled craftsmen; and even steel and cement if not ordered in advance suffered from arbitrary scarcities. Some schools were taking three years to build. The new county architect, D. E. (now Sir Donald) Gibson, set up a development group under D. W. Lacey and Henry Swain, two architects from Hertfordshire (Lacey is now Notts. County Architect), which evolved a modified pin-jointed steel system based on a Ministry school at Belper. Its diagonal steel bracing made it stable without being rigid; its parts could be pre-fabricated, and on the site the school built in four months with a minimum of skilled labour. In order to get the full economic benefits of factory production, other mining counties were approached, and in 1957 the consortium known as CLASP was set up; seven authorities joined at first and more since. Gibson moved to the War Office in 1958, which then joined the con-A typical CLASP Primary School, exhibited at the Milan sortium. Triennale International School-building Congress in 1960, was awarded the top medal, and as a result, West Germany and Italy have made longterm agreements by which they receive CLASP working drawings and architectural advice. A similar school building congress was held in England in 1962, spreading the idea further abroad, while a second consortium of English authorities, SCOLA, has now been formed.

Progress of this kind has not been universal. The Ministry is not able to impose its improvements on local authorities, and some, such as Surrey, stick to symmetrical formally planned schools with pitched tile roofs, providing cramped accommodation expensively. But the Ministry has established maximum cost limits and imposed revised minimum planning standards, and fixed building programmes two or three years ahead to make production economies possible. The result of even these limited measures has been impressive. Without them we should have certainly built fewer schools at a much greater cost during the last decade. National building costs rose by over 60 per cent. between 1949 and 1959. But school building costs have actually been reduced. In 1949 the average primary school place cost £190, the average secondary school place £325; in 1959 they cost £150 and £255 respectively. Certainly some of this reduction is due to excessive Ministerial cheeseparing, and the Government has chosen to use most of the savings for less useful purposes than education. Nevertheless it has saved school building from the worst of the cyclical axe.

#### Educational Value

It is very easy to mistake this achievement for a simple advance in building technique-just better systems based on factory production replacing the essentially pre-industrial approach of traditional builders. It is much more than this. On the constructural side alone the methods by which systems are evolved, using teams of specialists, bringing the manufacturer and builder together before the design is made, break down the isolation of client and architect, and of architect, specialist and builder. The technique of cost analysis relates each aspect of the construction or plan to the whole, so that its worth can be rationally considered. 'If we are to get value for money, we must know where each penny goes in the building. This means that the cost of previous buildings must be analysed in detail and a systematic method found of comparing the results. Comparison reveals what is economical and what is extravagant, what can be afforded within the cost limits and what cannot be afforded. Techniques for measuring costs to a fraction of a penny per square foot have been devised '.<sup>1</sup> Cost analysis is as important to educational as to structural advance in building; the real value of each space cannot be assessed unless the sacrifices made to produce it are known. Consequently the earliest Hertfordshire schools were able to give an unprecedented importance to educational needs against external appearances. The Nottinghamshire CLASP schools are designed on a basis of educational requirements derived partly from the Ministry Development Group and partly from local headmasters and inspectors. The process of investigation, experiment and follow-up must be continuous to be successful. In the Ministry Group it has become a fine art. Their experimental schools have been economic because they have been humane, built around teachers and children instead of fitting them into an architectural pre-conceived structure. This is their lesson.

Consider Amersham (Woodside) Junior School, completed in 1957. It is not even pre-fabricated—it was intended to show that rational planning and organising building methods were equally effective when local builders were employed. Yet it is the most important single step forward in school building since the first Hertfordshire school in 1946. In Mary Crowley's words, 'the process of design started with the education of the designers.' They already had their Hertfordshire experience: they now set out on an intensive course to broaden their knowledge, reading and discussing with educational experts the traditions and latest trends in primary education, and visiting 30 schools to watch teachers and children at work and consider the design implications-'to watch . . . crowds of children lining up to wash out their paint brushes under one tap placed awkwardly in the corner of a room, and to decide, therefore, to design a long sink with several taps. . . .' The Building Bulletin<sup>2</sup> eventually issued by the Ministry describing Amersham is packed with minute and telling observation of children in these schools, and gives a tremendous feeling of sympathy for the friendliness and exuberance of the atmosphere which they usually found. The actual design began with furniture, which largely determines the use made of a room. Yet little furniture had previously been designed specially for use in schools (because few people work simultaneously in the fields of education and furniture design), and had therefore been selected in bulk from manufacturers' catalogues. The effect was obvious-' the chalk-board that would not wipe clean, the child writing with his cheek almost touching the table top, the ink spilled as a table was moved, the books without shelves, the drawings stuck to plaster walls or even to windows, the untidy stacks of equipment, the rubber boots piled on the floor beside the shoe lockers.' Instead of basing a design on the body measurements and postures of children, adult furniture had been sentimentally scaled down to child size. Much other equipment, such as basins and lavatories, was on an adult scale. A complete new set of equipment, which is now generally available and widely used, was therefore designed-chairs, five types of table, window seats, wallbenching, easels, display units, woodwork benches, lockers, and so on. The new basin, with taps providing pre-mixed water on pressure, the

<sup>1</sup> Britain's New Schools, XII Trienale of Mileno, M.O.E., 1960. <sup>2</sup> Building Bulletin 16, Junior School, Amersham, M.O.E., 1958. angle of spray and shape and size of the bowl all calculated, works more easily and saves hot water. The new classroom sink uses original tile designs, so that the work of an artist contributes to an object in everyday use, instead of being put in some ceremonial passage. (*Plate 8.*)

The design of the rooms was based on the furniture and the activities of teachers and children, and the school planned as a whole by considering the movements between the various rooms. With class-rooms, for example, it was decided that the essential needs were: —

(1) Space for 41 people to move about in comfort;

(2) Space for 41 people to sit at tables, arranged both formally and informally;

(3) Space for smaller groups to make things of great variety, with wall-benching, water, display surfaces, tough flooring and walls and plenty of light;

(4) Space for living objects of many kinds (such as plants, tadpoles, birds);

(5) Space for inanimate objects, also of great variety (such as rocks, pulleys, lenses);

(6) Space for the study of books, and for individual research;

(7) Space for acting, dancing, singing and playing of instruments in small groups;

(8) Space for storing materials, tools and work;

(9) Outdoor space for growing things and for other activities in fine weather.

Round these needs the shape of the classrooms, with their shallow bays, evolved. (*Fig. 2, page 33.*) In order to make the classroom as large as possible, corridors were almost eliminated, and the circulation round the school is planned through a garden courtyard. (*Plates 2 and* 7.) This courtyard is given typical treatment as a place where children can meet and play in small groups, or read quietly, or watch pond life; or where a teacher can bring children to work, or to act some historical scene. The layout is deliberately intricate, with complicated shapes, different textures, colours and surfaces, trees and plants, changing levels, water, seats, a summer house, a shady verandah with wide shallow steps, a low parapet to sit on or climb over, and views into or through the school building. It is a brilliant miniature of the whole Hertfordshire approach.

Another Ministry School shows how a similar richness can be achieved inside a building. Finmere Primary School in Oxfordshire, designed by the Ministry Group in 1959, is for 50 village children of varied ability, aged 8—11. Architecturally it might be considered the return to the primitive shed—it is just a low-roofed square. (*Plate* 5, *Fig.* 1.) Inside there are no set classrooms, just as there are no set classes. The children work in fluid groups, different for different work and individual needs, but mixing older and younger. The children get on by themselves without constant supervision, allowing the teachers to concentrate in turn on a particular group. The plan is therefore a series of small working areas, all with some privacy but all part of the whole—a covered outdoor verandah, a kitchen, and a sitting room for the younger children with rocking chair, window seat and fire; a bedroom alcove, three studies with tables and chairs, display panels and

bookshelves, a library corner, and two workshops. Lavatories are incorporated in a civilised way in the corner of each classroom instead of as a battery at the end of the yard. In the centre of the school is a central space for dance, drama and music, and by folding back the movable partitions the whole school can become a single space. Watching a group of children reading in an alcove (*Plate* 4) it is incredible to think that this school, providing a civilised—one is tempted to say adult— setting for education, costs no more than its equivalent in the old institutional formal manner.

Of course neither of these two schools are perfect; for it is the essence of the Hertfordshire method that their faults should be sought out, in order to be corrected. The storage space provided is better arranged at Finmere than at Amersham, for example. In both schools the exterior, partly due to the use of an anaemic yellow brick, carries its plainness too far. This is not because the architects did not care about appearances. At Amersham they made a deliberate attempt to recapture for cheap traditional building some of the elegance of the pre-fabricated school-by the provision of splayed reveals from floor to ceiling, the extension of door and window frames to the ceiling, the use of door linings in thick walls, suspended ceilings, and the omission of framed opening lights above window transomes. The æsthetic care taken with the new fittings is obvious, and internally Finmere is an intricate spatial masterpiece of a very exciting kind. It is difficult to believe that without any internal sacrifice the outside could not have been made more convincing. Certainly the pre-fabricated CLASP schools are much smarter.

These failings are nevertheless minor when compared with the achievement. The two schools convey a wonderful sense of freedom, a delightful setting in which education can thrive. Architecture alone cannot make education, and not all the teachers use the building fully; but none find their work stunted by their surroundings. Amersham and Finmere have given the best that modern architecture can give to society, an environment that is both an inspiration and a means to a fuller life.

#### 2. The Housing Crisis

IN the last few months there has been a sudden realisation that what has been achieved in schools could be applied to housing. Certainly the challenge in both fields is similar. We have a housing crisis, and all the prospects of a growing crisis.

It is a crisis aggravated by planning failures; by the drift to the south in search of work and to the suburbs in search of quiet and fresh air. There is in fact a surplus of dwellings over households in every part of the country except London and the south-east, where there are 220,000 more households than dwellings. Homeless families and caravandwellers are thus one end of the problem. Decaying older housing is the other. We still have over 500,000 condemned slums, and at the present rate of clearance in the worst northern towns, such as Liverpool, they will be the homes for another two or three generations of children. In addition to this, there are over 3,000,000 houses built before 1880, most of which are badly laid out in cramped streets, without bathrooms and often without inside lavatories, and even if improved cannot for long provide an acceptable housing standard. Conversion however worth while in the short run, will at best delay the need for replacement. Finally, we are about to face a problem of even greater dimensions; with the trebling of traffic in the next 20 years, ground and first storey dwellings fronting on to trunk roads will become uninhabitable. We cannot be content with housing in which sound sleep is impossible and the atmosphere is permanently polluted by carbon monoxide fumes.

The building industry is at present producing about 250,000 houses a year. Less than a fifth of the population can afford to buy or pay an economic rent for a new house, 1 so that private house-building is concentrated on satisfying the growing needs of the affluent-the proportion of young adults demanding separate dwellings, or city men buying a second house in the country, will go on rising. At present, to prevent housing standards falling (i.e. to keep the number of unfit houses over 100 years old steady), we need an extra 100.000 houses a year. To tackle the problems created by road traffic and population drift, we shall need far more. The Minister of Housing has recognised that it cannot be done by traditional building methods.<sup>2</sup> The shortage of craftsmen will remain while factory work offers a stabler employment. The industry is dominated by small, disorganised firms and craft unions. Two-thirds of firms employ less than five men, under a quarter of the labour force is in the bigger firms with over 500 men although new building (rather than maintenance) occupies two-thirds of the building Building is seasonal, and affected by wet weather, making workers. rational programmes and secure employment difficult, consequently the big firms often suffer from recurrent disputes and strikes.

The housing situation is, therefore, comparable with the crises which produced the architectural revolution in schools. How far have the Ministry and local authorities responded in the same way?

Hitherto the Ministry has played a much less stimulating role. It has criticised designs, but without cost limits, and without a technique of cost analysis. The architects who criticised the designs for the Ministry had no building practice, and there is no inspectorate to report results, as there is in the Ministry of Education. The first major experiment in pre-fabrication was carried out by Barking Borough Council only in 1961. The most important work in co-operating with contractors at the design stage has been the L.C.C.'s Picton Street scheme. Two groups of local authorities now are forming consortia, one in Yorkshire and the other in the Midlands. Various experiments have been made in the planning of housing groups or blocks, notably by the L.C.C., Coventry and Cumbernauld New Town. But all these efforts have been There have been no Building Bulletins issued by the haphazard. Ministry, and building programmes have been fixed from year to year. subject to frequent cuts as the national economy fluctuates. The result has been rising costs, in spite of reduced minimum standards.

<sup>1</sup>A. S. Needman, National Economic Review, November, 1961.

<sup>2</sup> Sir Keith Joseph, at the Conservative Conference, 1962.

This policy has now been reversed in principle. A Ministry subcommittee (Parker-Morris) has made it clear that we are building housing of an unwisely low standard; with badly fitted and ventilated kitchens, inflexible plans, primitive refuse disposal, noise, bad heating, and altogether cramped; and in estates which fail to separate pedestrians and cars, or provide enough play space for children or room for car parking. A Ministry development group under Cleeve Barr and Oliver Cox (both of Hertfordshire origin), has been set up. It has built a group of old people's flatlets at Stevenage, in an adapted CLASP system, planned on a joint study by architects, sociologists and housing managers. It has also designed forty houses in West Ham which embody the main Parker-Morris recommendations, and very recently completed four houses in Sheffield at the same price but in half the time taken to build a normal house. They are built in a new steel and timber light pre-fabricated system known as 5M. Building Bulletins are to be issued describing these projects, and it is hoped to evolve a method of cost analysis.

#### The Housing Future

The danger is that the development group will not be able to tackle the problem at a sufficiently fundamental level. The cost carrot is less appetising. Standards of construction and consequently prices are much lower in housing than in school building, and there is thus less immediate prospect of building development reducing costs. We have got to face spending more money on housing to achieve the necessary increased quantity and higher quality.

Certainly research should bring a much more economic use of housing land. A good illustration of the possibilities here is the L.C.C. scheme for the Deptford river front, on which work has just started. It uses a scissors plan worked out by a development team under David Gregory-Jones. Hitherto there has frequently been a space wasted on awkwardly shaped constricted urban sites because tall flats could only be aligned north-south; otherwise either one half of the flats would have all rooms facing north, or else access would have to be by an outside balcony along the north side—unpleasant, expensive, noisy, and destroying privacy. The new plan (Plate 5) consists of maisonettes on three half levels, with bedrooms all on one side and living rooms all on the other, alternately stepped up or down in opposite directions so that they interlock over a central corrider which is threaded through them. Thus all the facades are used as window and access balconies are avoided, the flats can be aligned in any direction and the most important rooms can always be given the best light. The method can be applied to lower terraces of flats with equally important results; the stepped section in a six-storey terrace would allow protected room terraces on top and walled gardens below, so that in very high density developments-up to 140 per acre-a large degree of communal open space can be combined with a private roof terrace or garden for a quarter of the households, the terraces perhaps enclosing a public garden and children's playground safe from road traffic.

The virtue of the *scissors plan* is not that it cuts costs, but that it raises the quality of housing. In the same way, the introduction of

pre-fabrication and long-term programmes negotiated with manufacturers and builders will increase speed, but it cannot be expected to lower the present rock-bottom cost of cheap houses. Pre-fabrication in Sweden and Russia has been used extensively, and has proved both quick and cheap, but this is because lower standards of housing have been accepted. The systems used have been inflexible, pre-fabricating large-scale units-the kind of system which was rejected by the Hertfordshire architects. There is a danger that impatience will lead to some crude pre-fabrication of this kind in England; already the L.C.C. have designed an estate of factory-made flats with inflexible room sizes at Woolwich. We shall have to evolve a better system than this. If we fail, pre-fabrication, which in the Hertfordshire school was a great step forward in civilised values, will become a frightening menace. It could mean the mass production of barracks for the workers as degrading as the Victorian Peabody tenements; and to judge by a scheme now rising in Camden Town, built by the Reema Construction Company for St. Pancras Borough Council, the danger is a real one. There is no doubt that these crude pebbledash boxes, relieved of complete monotony only by water stains, primitive in their refuse disposal, ineffective in sound insulation, bleak beyond words, are far far worse than the neo-Georgian tenements which the same authority is building a short distance away.

A real advance will only come when we begin to apply intensive social observation to house design. The most elementary details are often wrong on the best new estates-the refuse disposal bins are too small, the kitchen equipment does not fit so that there is no dining space left, the children's play-spaces are designed as abstract sculptures which are useless for play. Everything is either ordered in bulk from a catalogue or designed by an architect who has no means of discovering its functional success. It is not even possible to know when designing a standard house plan how many people will live in it; the house is just a shell to hand over to the housing manager. It may be the house of a family including three adolescents, or a young couple with one child, or two unmarried people, or a middle-aged couple with a newly-married daughter-one living room and two bedrooms would still suffice. Some would want to use their bedroom as a private sitting-room or study, The plan would not differ. And the most advanced others not. 'modern' house plan, the open plan, ignoring noise and the need for privacy, is functionally worse than the traditional shell. Its attraction is chiefly æsthetic.

It may be argued that to design a house from inside out like the Amersham school would be dictatorial or impracticable, partly because people want to choose their own furniture and find their own use for each room, and partly because the shape of the family is constantly changing. The first problem really springs from the second. If we could evolve a completely new type of housing group, a building structure within which there was room for a family to add and alter rooms as it grew, and to discard them as it contracted, there could be no more objection to a range of fitted bed-sitters, single bedrooms and double bedrooms than there is to a fitted bathroom or kitchen; and there is no doubt that a communal living room designed with an understanding of the variety of its uses could provide a tremendous advance in freedom from the present plain box. But it will need long and widespread social research (not confined to working-class households), and many building experiments. The creation of a really functional internal and external environment may result in something closer to a living organism than a traditional building, a kind of breathing human honeycomb, in which the constant facade is forgotten.

This is speculation. What is clear is that the future of housing depends on the way in which we treat social science. It is worth describing as a warning the way in which, because social observation has not been attempted, social theories can be misused. No English architect has more impressive command of architectural style than Denys Lasdun. His work includes Peter Robinson's in the Strand, the new luxury flats overlooking Green Park, and a borough council housing scheme in Bethnal Green. The Bethnal Green scheme has been much applauded for its novel *cluster-block* plan, a tall block with short wings projecting from a hollow centre. Lasdun has justified the design on the grounds that it creates a sense of community. He had no evidence that it would do so, and a recent survey by Peter Willmott and Edmund Cooney of the Institute of Community Studies suggests that this type of plan makes its inhabitants feel exceptionally isolated. It is difficult for a visitor, seeing the communal drying spaces perched high into the wind with slatted wooden sides and masses of exposed piping, or standing in the well of the entrance, the coarse bare concrete columns pencilled with obscenities, looking up at the fantastic criss-cross pattern of galleries above, recalling perhaps a Piranesi engraving of a prison, not to feel that the architect's real intention (and achievement) was to combine in one building the æsthetic effects of an East End backyard and a Neapolitan tenement.

Another housing scheme, started last year in Preston, was designed by James Stirling and James Gowan with an explicit intention 'to maintain the vital spirit ('Saturday Night and Sunday Morning') of the alley, yard and street houses that the new development is replacing . . . a neighbourliness and a communal vitality which are quite absent in the standard solution—the suburban dilution of the garden city'. To this not unworthy social end they have not only recreated the local Victorian atmosphere by an architectural style derived from cotton mills, acid red Accrington engineering brick contrasted with bands of blue brick and white concrete, detailed with traditional *brick-on-edge* wall coping and *bullnosed* window sills, but they have planned most of the flats so that the entrance is through a service yard with coalhouse and dustbins next to the front door.

## 3. Public Architecture

THE Preston scheme suggests clearly enough that even if architectural policies at the Ministry of Housing are improving, there is a tough battle ahead. The same is true of public building as a whole. Undoubtedly the recent amalgamation of departments in the Ministry of Public Building and Works marks an advance in policy, but a few measures to speed up industrialised building will by no means change the government into an ideal architectural patron.

The full Hertfordshire approach has immense possibilities. They will not be realised without a positive use of state influence in many directions. In universities as well as in schools, in hospitals, in railways and motorways, in the armed services, in the nationalised industries and the civil service, there exists a tremendous field of public architecture either directly commissioned or largely financed by the government. The kind of intense questioning which was needed to produce Amersham and Finmere schools could be used as an agent of progress in itself, sorting out real function from obsolete tradition. But it will not be enough to establish a few building research groups and hope that the universities and the Building Research Station will fill in the gaps in our knowledge. Although the universities and the Building Research Station have done excellent work, there is no denving that its scope and quantity is insufficient. What is needed is a large number of research teams which can attack fundamental problems, ask fundamental questions, test their results by building projects, and finally see their findings applied in general practice. Only the government could do this effectively.

The extent to which research has been neglected is shown most dramatically in the case of hospitals. The Ministry of Health do have a small Research Development Group, but the building of their first project (an out-patients department at Walton Hospital, Liverpool) has only just started. A Hospital Engineering Research Unit was set up at the University of Glasgow in 1960 to investigate the difficulties in planning engineering services (water, electricity, gas, heating, ventilation, etc.) for new hospitals, and although it had not completed its work an interim report was issued in August, 1962, because of the 'dire necessity for information.' It is a frightening indication of the suffering which traditional building can cause, that this interim report is concerned with basic problems such as the ventilation of operating theatres. As far as hospital wards are concerned there is apparently 'virtually no information on the minimum standard of ventilation required. . . . There is no bacteriological or clinical standard for the ventilation rate nor is there any information of importance on the relation of crossinfection to the pattern of air flow between rooms in the unit." In a situation of this kind it is clear that much more extensive building research is essential—indeed very literally a matter of life and death.

The real reason why research has so far been inadequate is that it challenges traditional attitudes. If effective it will blow away the cobwebs of amateur administrative hierarchy which collect in all established institutions; but it is equally likely to be smothered by the cobwebs and reduced to marginal questions. If it has been so successful in the field of primary education, it is because of the progressive attitude of the Ministry and of a growing number of primary teachers to educational method. In secondary education, where official policy is more traditional, the Hertfordshire approach has only been partly exploited. In new building for the universities, where traditional local methods of building are almost everywhere taken for granted, it has been almost entirely ignored. The only exception is Johnson-Marshall's plan for York University. A more typical approach is found in the new buildings for the University of Sussex. The design was inspired by the Colosseum. The architect for the new Churchill College in Cambridge, Richard Sheppard, has been candid enough about his approach. 'You cannot define how a college works. It is not a logical entity. If anything, it is illogical and its design may even be eccentric.'<sup>1</sup> This is not a very cogent argument for not investigating the function of an educational body. If its function can be more precisely defined the money provided for its buildings can be better spent; if the function turns out to be inherently irrational, public money should not be squandered in its support.

Administrative cobwebs are as common in Whitehall as anywhere. This is why it is difficult to greet with unqualified optimism the recent change of government policy towards the building industry. The new Ministry of Public Building and Works absorbs the works departments of the War Office and Air Ministry as well as the old Ministry of Works. The prelude to this amalgamation was a series of exposures of waste. The government's road-building programme had been tarnished by loud rumours of unnecessary extravagance in the clumsy bridges on the M1, the posthumous neo-Georgian bridge by Sir Edwin Lutyens for the Staines by-pass, and the technical backwardness of the Chiswick The Air Ministry, whose works department with an annual flvover. expenditure of £30,000,000 had no architectural post above draughtsman level, had refused to accept the proposals for reform made by a committee of investigation. In contrast to this Sir Donald Gibson at the War Office, to which he was appointed in 1958, had been attempting to apply pre-fabricated methods. He had produced a new standard barrack design which is a characteristic result of functional research. (Instead of mass dormitories, long corridors and little-used large communal rooms, there are bed-sitting rooms each for four soldiers, equipped with wash basins and drying cupboard; without any increase in cost the life of the ordinary soldier has been notably enhanced.) The Post Office, also absorbed, had another active research group. In November, 1962, Gibson was appointed Director General of Research and Development at the amalgamated Ministry.

His job is to co-ordinate and extend all the research and development work throughout the government service, and to encourage the adoption of industrial production and building programmes as widely as possible. The revision of building codes and by-laws, of contract procedure, of architectural education, and of information services are all under review. But so far it is not clear how far these laudable ends are to be accompanied by more funds for research, what opportunities the new Ministry will have for its own building projects, what spheres of building these will cover, and whether the emphasis will be on constructural or functional research. Nor is it clear whether the new building standards will simply relax the numerous unnecessary regulations and local by-laws which make it difficult for private builders to use pre-fabrication, or whether new standards and a series of local building centres are to be used to coerce the building industry as a whole to better methods and higher quality. The possibilities are so far-reaching that it is difficult to imagine their full exploitation by a

<sup>1</sup> Observer, 2nd September, 1962.

Conservative government. Its lack of interest in more than superficial reform, its dislike of public spending and the extension of state activity, are likely to be fatal handicaps.

Whatever progress the new Director makes under the present government, immense possibilities will be open to a Labour government. It is not only the future of specialised building—hospitals and schools, railway stations and barracks—which is at stake. It is a question of the degree to which architecture is to make its potential contribution to the improvement of the day-to-day environment of the people as a whole. It is a question of the quality of factories, offices and housing.

Through the nationalised industries and the civil service the state is one of the largest employers in the country. It should lead research and development in factory and office design. It could be building model prototypes. There is no doubt that they are needed. So primitive is the present state of knowledge, that a report recently published by Peter Manning of the University of Liverpool department of building science showed that the officially recommended minimum daylight provision for factories was only half what was needed in practice. Work in modern factories was quite unnecessarily being carried out by electric light throughout the day, simply because architects had been misinformed.

The same kind of mistakes are made in office design, and the Liverpool building science department is also carrying out pioneering work in this field. A research group, consisting of a physicist, a geographer, an architect and a psychologist, is undertaking a study of the new Co-operative Insurance Society office in Manchester, based partly on observation and partly on a series of surveys of opinion among the office workers, to discover the effects of environmental factors such as heating, lighting, colour and floor layouts. The first survey, producing 80,000 answers for analysis, has already been made. Functional research of this character can make office work both pleasanter and more efficient; in the words of Brian Wells, the psychologist of the office group, 'working in bad conditions, whether the individual is aware of them or not, may result in accumulated fatigue and irritation. The effect on the individual may be both poorer work and social maladjust-There should be no need for this to happen if psychologists ment. and architects tackle the problem of design together.' 1 The Edwardian bulks so recently rising in Whitehall indicate the change of attitude which will be needed before government offices live up to this possibility.

## 4. A Political Choice

FORMALIST schools, neo-slum housing, Edwardian offices are not rare freaks. They are typical products of the present state of architecture. One reason for this is that architects in private practice have not the time for their own research. Another is the commercial pressures on them, the demand that speculative housing should be cheap, that office buildings should contain as much lettable space as can be

<sup>1</sup> The Guardian, 23rd October, 1962.

squeezed on the site. But these buildings are also encouraged by architectural tradition.

A lot of architects dislike, or at best ignore, the Hertfordshire approach. They see it as a limitation to their creative freedom. It is not that the prefabricated building system evades aesthetic consideration. A great deal more care is taken with the proportions of the structural system and far more intense questioning and refinement goes into the shape of each individual part than is possible in a normal building. In their detailing present Hertfordshire schools are marvellously clean and sophisticated. The informality of planning gives tremendous opportunities for imaginative landscaping and for shaping the school to fit the site. For an architect who is prepared to use a satisfactory range of standard elements to produce an environment both internally and in the landscape which is as beautiful as it is useful, rather as an 18th century builder of a modest house used standard elements in a convenient but pleasant way, the Hertfordshire approach is ideal. For those, inspired by Michelangelo, by Corbusier, or by the Victorian Gothic revivalists, who wish to see each building the fresh work of an inspired artist, who will sacrifice convenience for a facade. Hertfordshire is anathema.

But is there a place for such architects in a social democracy? Is there any place in public architecture—schools, housing, town planning —for those who would sacrifice a child's happiness at school for the pleasure of formal design? THE WHOLE ENVIRONMENT SHOULD BE THE PRIMARY CONSIDERATION. Architecture as a pure art, isolated like sculpture, only flourishes in tyrannies like the Renaissance principalities or their modern equivalents. It would be absurd for a Labour government to tolerate it in public building programmes. It is no less absurd that many Labour councils still patronise it.

Architectural policy is in fact a political choice, and a choice which should be clear to the Labour party. If the public does not demand from architects the full advantages which the Hertfordshire approach has shown possible, a great opportunity will be lost. It is a frightening fact that already, because public acclaim for the CLASP schools has concentrated on their prefabricated structure rather than their functional planning, the most recent Nottinghamshire secondary schools show a return to the monumental formalistic approach. West Bridgeford Grammar School may look neater than the earlier careful informality of Tuxford Secondary Modern, but the neatness is achieved at the cost of unnecessary corridors and small unsatisfactorily lit classrooms. The clear lesson, which of course produced the Hertfordshire approach, is that prefabrication alone is not enough.

Only a really enlightened government policy will be able to guide architectural development in the right direction. There are two basic needs: more knowledge, and stronger influence where knowledge exists. In hospitals and housing, offices and factories, railway stations and barracks, no less than in schools and universities, the same double opportunity is open; on the one hand to develop factory-made building systems designed with more attention to essential problems (because in each single traditional building each decision has to be made again), produced more economically on long-term contracts and assembled



By courtesy of "Architectural Review." Plate 1. Hunstanton Secondary Modern School.



By courtesy of "Architectural Press." Plate 2. Amersham Junior School.

PENTHOUSE FLA

Plate 3. Finmere Primary School.

Crown Copyright

GROUND FLOOR WITH WALLED

4 FLOORS OF 'S CROSSOVER MAIS

By courtesy of Oxfordshire County Council. Plate 4. A Study Alcove at Finmere.



By courtesy of "Architectural Press." Plate 5. Deptford: the Scissors Plan.



By courtesy of "The Guardian." Plate 6. Cumbernauld New Town.



Crown Copyright. Plate 7. Amersham Junior School: the Pond.



Plate 8: Amersham Junior School: a Sink.

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quickly on the site unhampered by shortages of craftsmen or bad weather; and on the other hand, to make these quickly constructed building more functional than traditional architecture by an extensive use of social observation, discovering how buildings are really used, how they fail to satisfy their users. This work should not be a government monopoly. The larger local authorities, the New Town Corporations, nationalised industries and statutory bodies which build extensively, such as the Church Commissioners, are all in a position to organise useful research and development work. Nevertheless the government must play the leading role; it must use the building programmes of all its departments; it must provide funds and central co-ordination for research; it must attract back the talented architects who have been forced into private practice by the low salaries in public work; it must give itself a powerful influence in the building industry through the extension of direct work. Progress will depend upon a dynamic and extensive public sector in both the architectural profession and the building industry.

Where knowledge has been won, it must be actively propagated. Ministry Bulletins can describe research projects, and explain methods applying results by forming consortia. But even with this of information available local authorities can remain uninfluenced. The progress in school building has been by no means universal. It is therefore important that far more active efforts should be made to influence local councillors, local authority housing managers and education officers, as well as architects, by means of conferences and tours of research projects. For local councillors on certain committees, such as education and housing, it would be possible to arrange the kind of voluntary but strongly recommended courses which are given to magistrates. Residential refresher courses should be open to local authority officers, including architects, ideally with inducements such as professional certificates or pay bonuses. The initial training for future architects and local authority officers will need alteration. In Sir Donald Gibson's words, architects should not have to go straight from architectural schools to Nottinghamshire or Hertfordshire 'for three years in order to be useful citizens'.<sup>1</sup> Building firms should be sent appropriate propaganda, and local information services provided.

It is important that these educational efforts should not be confined to the professionals. It may be more difficult to influence laymen, but there can be little doubt that a really knowledgeable and demanding client will be the best cure for architecture. In the last hundred years architects have developed something of a professional mystique, and with it a resistance to the interfering client. But this is a relatively new development, and in the past the educated patron, the mediaeval abbot or bishop, the Renaissance prince, the Georgian aristocrat, was a vital stimulant to the best architects. A functional architecture will even more obviously fail if it becomes isolated from its patrons. The attempt to educate local councillors is therefore vital, and it should be carried out through the political parties as well as the government Ministries. A series of practical Labour Party pamphlets on architectural problems, together with conferences of party workers, could have a stimulating

<sup>1</sup>New Society, 22nd November, 1962.

effect.

Finally, there is the point at which influence will not suffice. Cost limits and minimum standards must be used to coerce the backward. They have worked well in school building, and when more research has taken place they can be applied more effectively in other fields. But they must be kept much closer than at present to the standards achieved in better work. In some types of building, such as hospitals, this is obvious enough. And if development work has shown it possible and desirable to build primary schools with classroom areas of 700-900 square feet and outdoor teaching space attached to each classroom, why should the minimum standard be 520 square feet without outdoor teaching space? Why have the recommendations of the Parker-Morris Committee on housing standards, which were considered as desirable minima and are supported by the Ministry of Housing, not been made obligatory? Minimum standards which are not kept constantly advancing are a serious hindrance to progress, for they will always be accepted by a great many architects as a definition of functional requirements, and by as many local authorities as a vardstick of economy. Used imaginatively by a Labour government, and applied to private as well as public building, advancing minimum standards could be a vital instrument of progress.

## 5. The Planners' Hunch

A CIVILISED environment is not made simply by individual buildings; the quality of towns and cities, the setting for architecture, depends equally upon town planners. How does the state of town planning compare with architecture?

As in architecture, there is a superficial rationality in town planning theory. It would probably be generally agreed that town planning should be an art of social co-ordination, based on a fundamental understanding of all the elements of a town, just as a good house and a good school should grow around the study of the spaces and human activity which constitute them. A preconceived formal town plan would be as obviously unfunctional as formally conceived school architecture. Town planning ought to be an unprejudiced co-ordinator, a nerve centre of the physical environment, using the control of land use, of all kinds of transport, of the location of factories and offices, schools and housing, parks and green belts, to build a setting in which an urban community can function successfully. Without claiming that physical planning alone can create successful communities, town planning should be above all a social science, in which the planner's aesthetic skill is expressed in town landscape and environmental detail rather than the appearance of the town map.

Nevertheless in practice town planners behave like architects. This is hardly surprising when a high proportion of them, including most of the best, were in fact trained as architects. Even now there are four times as many architects starting training courses as there are town planners, and top planning jobs, such as New Towns, are almost invariably given to *architect-planners*. The historical tradition of town planning, too, is inseparable from architecture—a tradition of formal squares, circuses and radiating avenues. Worse still, where planners have their own theories, these have tended to be romantic rather than scientific.

This is well illustrated by the way in which the social concept of community is used by planners. It might be thought a vital task, if a difficult one, to find ways of calculating the general effect of planning decisions on the success or failure of a community. Facts such as the number of old or sick people forced into institutional rather than domiciliary care, or the extent of the damage problem caused by bored adolescents can indicate failure without identifying causes. But at least the effect of certain details, such as of differing types of housing layout on social relations between neighbours, can be measured.

The survey made by Edmund Cooney and Peter Willmott of varving types of housing in the East End showed distinct variations. Low terraces of maisonettes were most effective in providing privacy without causing a feeling of social isolation. Flats planned as slabs with long balcony access can seldom provide effective privacy, while tall point blocks, where neighbours only meet in the lift, make social integration more difficult. But no attempt has been made to diagnose many of the other architectural solutions to this problem, such as the terrace footpath housing at Cumbernauld New Town, or the great Park Hill housing scheme at Sheffield, which has continuous wide balconies described as street decks at every third floor, rows of doors meant to foster the old neighbourliness of the street terrace at the new high level. Housing layout-the street, the footway, the open landscape of point blocks, or the enclosed square—is a town planning question which is likely to affect the whole social atmosphere. Yet because the social evidence so far collected is so thin, decisions are made largely on so-called architectural grounds.

#### The New Towns

The town plan framework for the New Town communities was decided in an equally unsatisfactory way. The New Town policy has a curious history. New Towns were used by the Labour government essentially as a better kind of housing estate, providing homes for those displaced by slum clearance in the big cities. Between 1946 and 1951 fourteen were designated, eight within 35 miles of central London. The proposed populations for the London region towns totalled 435,000, for the remainder 305,000. In one important respect, therefore, the New Towns aggravated national planning problems; they played the same role in accelerating the drift of population to the south-east as did the inter-war development of Middlesex. It might also be thought a peculiarly difficult policy to apply to the London region itself. The difficulty of finding a site for a New Town in the densest region of England, where open space and agricultural land need particular protection, and where water supply and sewage disposal problems are acute, is such that when the L.C.C. wished to build a ninth London New Town they were able, after two years' investigation to find only one suitable area in the whole region south-east of the line between Southampton and The Wash, and the site finally chosen at Hook was abandoned in favour of expanding existing towns.

There is also an inherent difficulty in creating a satisfactory community in a New Town populated from the housing lists; the town will inevitably be overweighted with younger working class families. The class composition, and more seriously the age composition of the community will be heavily biased. Unless the town takes less of its population from the housing lists, or at any rate grows over a period of 20 to 30 years, there will be extraordinary problems in turn of primary school and maternity hospital accommodation, adolescent delinquency, school-leavers' unemployment, housing for children when they marry, and finally of old age on a scale but without the resources of towns like Worthing. Again and again there will be chronic needs for services which will rapidly become redundant.

On the other hand New Towns can provide an unprecedented opportunity for experiment for testing solutions to many urban problems; and certainly in decaying regions, threatened by population migration, they offer real hope of regeneration. The New Towns were thus a difficult but a daring idea. But they were not treated in this way.

New Towns were part of the basic theory of town planning. They represented the union of two concepts, which still provide a bogus sociological theory peculiar to town planning-the concepts of the balanced community and the organic town. The balanced community was the utopian ideal of Robert Owen and the Chartists, taken up by Ebenezer Howard in his garden city propaganda, and thence accepted into general theory. The ideal town was one in which town and country were balanced, social classes were balanced, work was stable. It was an attempt to return to the small country town of the 18th century. The theory of the town as an organism. at first young and healthy, but as it grew to a metropolis inevitably becoming diseased, killing all its inhabitants by its unhealthiness, and withering away, was invented by a prophetic Scottish nationalist, Patrick Geddes, and popularised by Lewis Mumford. 'The greater portion of a country's population that is retained in big cities, the surer becomes its biological doom. . . . The growth of the big city is self-limiting, both a symptom and an instrument of biological failure'.1 This theory is manifestly unscientific. The small 18th century country town was a death spot to a far greater extent than the modern city. But this idea, grafted on to Howard's balanced community, and pushed forward with dogmatic fervour by the Town and Country Planning Association, has concentrated town planning thought on the idea of the small new town, rather than on the improvement of the conurbations in which most of our population lives. Worse still, the strange confidence that conurbations would naturally wither was accompanied by a refusal to see the problems inherent in the New Towns themselves. They were treated as obvious solutions, not as laboratory experiments. The difficulty of age unbalance, for example, came as a surprise. The government made no attempt to co-ordinate New Town research work, which it considered was 'primarily the responsibility of universities and non-government bodies'.<sup>2</sup>

<sup>1</sup> Lewis Mumford, Architectural Review, January, 1945.

<sup>2</sup> Lloyd Rodwin: The British New Towns Policy.

This peculiar combination of lofty theory and practical ignorance remains the basic New Town situation. Theories are taken up and discarded with astonishing ease. The best size for a New Town, for example, remains purely speculative. The earlier New Towns, based on Howard's country town ideal, were designated for between 20,000 and 60,000. Within two years the figure for the largest towns was altered to 80,000. The L.C.C. proposed 100,000 for their ninth New Town. The Bow Group in 1960 advocated New Cities of 400,000. The Minister of Housing has recently suggested that the target for Stevenage New Town, originally 60,000, should be revised to 200,000. The justification of all these figures remains obscure.

Another fundamental tenet of the first New Towns was the *neighbourhood unit* as a basic social structure for the town. Neighbourhoods were planned in different sizes, in some cases dependent on local geography, and with a different relation to services. In some towns, such as Hemel Hempstead, they appear to have worked well, developing a real social life of their own. In others they were less successful. Yet without any comparative research, without sufficient effort to discover whether they were a good or a bad social concept, neighbourhoods have been jettisoned in the most recent New Town plans. Cumbernauld, the Scottish New Town east of Glasgow, designated in 1956, is a new shot at the balanced community in the form of the compact town.

Hugh Wilson, the first chief architect and planner of Cumbernauld, has made an exceptional effort to work out the town plan scientifically. It is, for example, the only town in Britain with a road system based on a scientific prediction of traffic flows. It has a complete system of footpaths, separate from the roads, with a bridge or tunnel at each main crossing. It is to have an entirely new type of town centre, conceived more like a multi-decked liner than an architectural piazza, with cars, servicing and public transport at various lower deck levels, and shops, town hall and offices, restaurants, library and perhaps a theatre on the upper decks. New types of wide-frontage housing have been evolved to suit the segregated traffic system. The buildings are sober and simple, grev walls and slate roofs, and the attractiveness of the town comes above all from the careful landscape, the choice of paving materials and street details, the delightful planting everywhere. Cumbernauld is a hill-top town with wide views of grey-green smooth hill country. Parks and playing fields are round the edge of the town, and the hill slopes are being planted as woodland to make a forest park. All these ideas have been hammered out by co-operative teams of architects and specialists. Cumbernauld New Town is undoubtedly the most important experiment in British town planning now being carried out.

Clearly it ought to have been the latest town in a series of experiments. But when Hugh Wilson began to be confronted with the obvious problems which must have faced each New Town in turn, he had to find his own solution, little helped by their experience. Not only was there no central collection of information; few of the New Towns had even bothered to record the kind of information needed. On the basic question of the effect of the plan on urban community, the success of the neighbourhoods, each with school, shops and communal centre, there was nothing. Cumbernauld abandoned the idea. Why? Hugh Wilson says his decision was taken at the very beginning, and was based on a social 'hunch'—that a more compact town, in which communal facilities were all in a single town centre within ten minutes walk of every house, would work better. Perhaps in the absence of past research a hunch was an adequate reason, but is there any justification for not making a proper social comparison now?

The danger is that—just as with housing—planners will use these sociological hunches for purely aesthetic purposes. Even at Cumbernauld one of the strongest motives has obviously been the aesthetic revulsion from the first new towns and their open suburban atmosphere, 'prairie planning', all estate road and verges and semi-detached brick and tile. The atmosphere of Cumbernauld, the flagged footpaths between grey walls and blue-grey roofs, the predominance of two-storey terrace housing, the dogged consistency of the town, has an uncanny resemblance to an old mountain colliery town, even to one of George Chapman's paintings of the Rhondda. Aesthetically it shares some of the intention of the Preston housing scheme (*Plate* 6). In less scrupulous hands the compact town could be dangerous.

### 6. Conurbations

QUITE as serious as the danger of romantic unscientific social theory to future New Towns is the neglect which it has caused in the study of conurbations. Conurbations, not small towns, are acknowledged as the major British planning problem. Yet lack of fundamental research has meant that the conurbations are essentially beyond the control of planners. It is not just that the structure of local authorities needs to be altered, or that their control of office building should be made effective, essential though these measures are. New local authorities would not know what to do with planning powers over much wider areas. If one of the functions of the new Greater London Council is to be the production of a new Greater London Plan, it should be made a statutory obligation to finance the research which will be needed if the plan is to be based on more than guesswork and hunches.

At present it is hard to see how a start could be made on even those policies which are agreed. In principle offices ought to be decentalised. But which? How many companies need central office staff? Could the use of closed circuit television and cheaper telephone calls make a provincial headquarters practicable? Could more of the civil service, or the staff of nationalised industry, be moved out? Or again, it is agreed that a standard of seven acres of open space for every 100 people is an acceptable minimum. But how can this minimum be achieved? It has been frankly abandoned by the L.C.C. as utopian, and at the present rate of progress even a standard of  $2\frac{1}{2}$  acres will not be reached during this century.

Lack of knowledge has meant that even the most encouraging postwar schemes for the conurbations have been attractive ideas flung into a vacuum of ignorance. The Boston Manor scheme, designed by Graeme

Shankland and Chamberlin, Powell and Bon in 1958, was a commuters' paradise astride the underground inspired by the Stockholm suburb already built at Vallingby. It was intended to make the best of the present radial structure of the London region; as in the Copenhagen finger plan, development was to be concentrated along the main traffic arteries. In contrast an article in Keystone (Winter, 1961-62) suggested the radial structure should be modified by encouraging a circumferential movement around a high-density ring with a hollow centre, a return to pre-war ideas encouraged by the success (on a small scale) of replanned Hanover. It is impossible to choose between these ideas without examining the whole system of conurbation with a daily tidal flow of commuters. The aim could either be to provide more transport, more opportunity to travel to different jobs, or alternatively to plan for a reduced need to travel in order to protect the physical health and social cohesion and vitality of the suburbs. To decide we need to use medical evidence of the effect of commuting on efficiency and health. Do London University students, for example, with their long daily journeys, suffer in comparison with residential university students? We need to calculate the economic effects. Is it worth providing subsidised public transport so that Londoners can spend 1,500,000 hours a day commuting?

Commuting is only one of the conurbation problems. To get the planning knowledge needed will require a really massive research programme. The need for research is an easy cry, and therefore easily ignored. It is worth emphasising by a look at the present prospects of solving a very pressing problem—traffic congestion.

#### Common Sense and Congestion

Traffic congestion is the classic symbol of planning failure. It is manifestly absurd, that in spite of the astonishing mobility brought by the motor car and air transport, more and more people are fraying their nerves and wasting their time in traffic congestion. Both political parties claim to have the answer to the transport problem.

The Conservative policy of relying on road building suffers from more obvious weaknesses than the Labour policy of a balanced transport system. To begin with, it has to be justified by a very curious version of the free market theory. Subsidised public transport is discouraged, although for political reasons British Railways are not allowed to charge economic fares for rush-hour commuter traffic, which involves heavy investment in rolling stock only used two hours a day. Road building, which brings no direct financial return to the public and in effect subsidises the motor industry, is speeded up in the belief that it will provide a transport panacea. The economic impurity of this policy has brought attacks even from Conservatives; a Bow Grouper recently argued that car drivers should be forced to foot the bills for road improvements by a *congestion* tax, to be calculated by computers in the vehicle and on the streets.

Apart from its theoretical peculiarity, the road-building policy is fundamentally unsound. In the predominantly urban regions of Britain it will never work. Perhaps the Hyde Park Corner improvement will help to drive home the inherent uselessness of spending enormous sums of public money on marginal road improvements which, because of the new traffic they generate, simply create congestion problems elsewhere. A decade ago the largest American cities were confident that sufficient road building could eliminate the need for suburban railways in a carowning democracy. Road building proved a bottomless pit; new roads generated traffic as fast as they accommodated it. Even Los Angeles, San Francisco and Detroit are now returning to railway construction. The Government decision to allow London Transport to build the Victoria Line is in fact part of a world-wide trend in large cities to return to public transport. An enormous new underground railways system is being constructed in Paris, linking up the main line terminals. And in Birmingham experience has apparently disillusioned Britain's former champion of urban road building.

The designer of the Birmingham road, the most thorough British attempt to force a purely engineering solution to the traffic problem, Sir Herbert Manzoni appears to have become disillusioned. In October, 1962, he told a conference of municipal engineers that "What people need is transport and not necessarily the motor car. . . considered in absolute terms, the car is an extremely inefficient machine. It spends a large part of its life in doing nothing but deteriorate, during which time it occupies expensive land and buildings both in town and at home."<sup>1</sup> He argued that instead of trying to adapt the 19th century form of city centre to 20th century traffic needs by road widening and the provision of car parks, on a longer view we should build moving pavements, escalators and overhead railways.

Full motorisation is one of the slogans of the affluent society. If it means that everybody should be able to use a car under certain circumstances-as for journeys for which public transport is unsuitable or inconvenient, at night, or for weekend recreation-it is a perfectly good slogan. But more usually it means that everybody should have a car and drive it when and where he likes, regardless of expense and inconvenience to the public. It is used in this sense here. There are two fundamental objections to this idea in urban Britain. The first is the simple problem of cost and space. Forty men travelling to work by bus simply occupy seats for a short while, and the bus can go on for the rest of the day transporting others. Forty men in cars need garages or parking space at home, a good half mile of road for safety, and parking space where they work. This may work in a village, but in a conurbation it cannot. The London road system at present is only able to carry about 6 per cent of London commuters to work by private car. A road system which could take even half the commuters would obliterate London. To achieve full private and commercial motorisation in this country would require at least a four-fold increase in motor vehicles. In the United States an ownership of one vehicle to every two persons is expected by the early 1970s, and there is little hope that this will be the limit. When it is remembered that congestion multiplies faster than traffic, the sheer task of road building and parking provision assumes horrifying proportions. Another 250,000 miles of roadway at £500,000 a

<sup>1</sup> Guardian, 13th October, 1962.

mile (the minimum cost, in open country)? This would subsidise the railway system for more than 1,500 years.

The second objection is the effects of motor traffic on health. The motor vehicle is technically a poor machine for congested urban areas. It is noisy and it emits poisonous fumes. As long ago as 1900 the optimistic H. G. Wells did not "think that it is asking too much of the reader's faith in progress to assume that as far as a light powerful engine goes, comparatively noiseless, smooth-running, not obnoxious to sensitive nostrils, and altogether suitable for high-road traffic, the problem will be very speedily solved". Because we have failed to use medical evidence on the extent and severity of ill-health and disease caused by sleeplessness and atmospheric pollution resulting from motor traffic this technical inperfection has been accepted. Public protest against the old English smog and coal smoke pollution resulted in control of smoke from railway engines. We urgently need to know the effects of the new petrol smog, the perpetual mist of carbon monoxide and petrol fumes which in Los Angeles thickens to suffocating unpleasantness in winter, and which is creeping up on our own towns.

Both in the government and in the Labour Party there is an awareness that these problems need investigating. The Ministry of Transport have an adviser on urban road planning, Colin Buchanan, whose report is expected in 1963, and the Labour party have set up a working party to study the effect of the transport problem on urban communities. No doubt both will conclude that full motorisation, in the sense of absolute freedom for the motor vehicle, is either unattainable or undesirable. The truth is that we cannot give this freedom without either sacrificing our environment or spending immense sums of public money. Transport certainly should be regarded as a social service, but it should not be provided at the expense of the other social services. The Hyde Park Corner scheme consumed £5,000,000 of public money and 20 acres of public open space (which were given without compensation). The result of all this spending has been a marginal improvement in the road system and a significant deterioration in the amenity of Park Lane. The cost of real traffic improvements in London which did not damage amenity would be astronomic. If we are to keep our standards without expense on an astronomic scale we shall have to find an alternative to full motorisation. But will either political party have the courage to alter the slogan? The Ministry of Transport has not called a halt in London road improvements or in railway closures. Would the Labour Party face the uproar from the motor industry alone? Or will it, like the Conservatives, pursue a two-faced ostrich policy?

This is exactly what is happening now. Frightened of facing the real issues, planners and engineers are pursuing two contradictory policies, one backed by the Ministry of Transport, the other by the Ministry of Housing. On the one hand the Ministry of Transport is producing faster and larger traffic flows by building motorways between towns and making more intensive use of streets within them. In spite of protests from planning authorities, traffic speed-up is achieved by diversion from overcrowded main roads through hitherto relatively quiet residential and shopping streets. Even the smartest parts of Kensington and Edinburgh New Town, shopping streets like the Kings Road and Bond Street, or the London University area in Bloomsbury, have not been immune from this treatment. Because it is essentially fruitless, this policy has to be pursued in ignorance. The first proper origin and destination survey of London traffic is only now being made, and improvements such as the Hyde Park Corner scheme are still considered in isolation. Decisions are made on engineering instead of planning grounds because no overall London road plan can yet exist. The Birmingham motorway was planned and built before any analysis was made of its expected effect on traffic flows, and when the analysis was made it showed that the money might have been more profitably spent elsewhere. No attempt is made to coordinate road building and railway policy. The whole policy is little better than a political stunt—at the nation's expense.

In contrast to this, town planners are attempting to provide more areas free from traffic dangers. Traffic-free precincts are a matter of life and death for old people and children. In the new housing estates at Cumbernauld and Coventry children can play in safety; access for motor vehicles is funnelled into separate service vards. A complete footpath network links the houses. In Cumbernauld it will be possible for any housewife to reach the shopping centre without crossing a main road, and for all children to walk to school unaccompanied. The shopping centres already built at Coventry and Stevenage provide equally pleasant surroundings, again for pedestrians only, cars hidden away behind the shops. There are many similar shopping precincts in Scandinavia and America, and the idea is now spreading in Britain. The Coventry precinct has been a great commercial success, and provides a thriving focus to the city, full of people, whether shoppers, audiences at outdoor meetings, or just idlers in a pleasant open space. The city now plans to extend it to twice its present area. Of older industrial towns, Newcastle and Liverpool now have very promising schemes for building new roads and restoring some of the old central streets to pedestrians. So far only one old central cathedral city. Hereford, has decided to recover its wide market street and cathedral close, now stifled by continuous traffic, for the enjoyment of visitors on foot; but however difficult the arrangement of adequate rear servicing through an ancient pattern of alleyways may be, it can be expected that other cities dependent on visitors rather than residents will follow.

In the pursuit of these two contradictory palliatives the Conservatives have not been alone. Certainly the splendid work at Coventry springs from a Labour city council. But while it is the government which is tearing London open for the motorist, the assault on Birmingham is at the bidding of a Labour council, cheered on even by the late Mr. Gaitskell, who praised its 'imaginative, exciting comprehensive plan'. In Oxford, a city where one would have expected the combined needs of tourists and a university to make amenity considerations a priority, a temporary traffic solution has been approved by the Government, which will ruin the city's finest open space without providing any compensating pedestrian precinct either for the university or the shopping centre. The most vocal local pressure group supporting the plan was not the motor industry; it was the Oxford Labour Party.

The truth is that the Labour Party is as confused on this issue as

the Conservatives. There are alternatives to full motorisation. A lot could be done to make public transport more attractive as well as more effective. More car parks at stations, better interchange facilities between routes, and more comfort on the journey could be provided. A national integrated road and rail time table, such as operates on the continent, with cross-country links made by first-class only express services, would make the whole public system more useful. In congested cities public bus services could carry far more passengers if they were given a reserved inner lane at the more serious rush-hour bottlenecks. Outside the cities the more popular tourist districts, especially the Lake District, will be completely swamped by private cars if holidaymakers are not provided with really attractive public transport. Other transport methods could be employed, moving pavements in towns, and hired cars in the country are examples. But all these suggestions need working out. The Labour Party has not begun to do this.

If the Labour Party comes to office in its present state of confidence it will face humiliating failure. For we need research not only to work out an alternative transport system, but also to integrate transport with planning, to determine how far transport should be provided just where there is a demand for it. Traffic congestion is not a problem which can be solved by providing more and more transport facilities. It is a symptom of the breakdown of planning, and the provision of more transport merely aggravates the disease.

Labour believes in a balanced transport system. We have this already; in the towns the balance is provided by traffic congestion. Public transport is used when private transport becomes sufficiently inconvenient. This is why although there are well over 1,000,000 private cars licensed in the London Transport area, and as many commuters a day into central London, only 50,000 cars are used by commuters travelling to central London. The effect of London traffic improvements is not a lessening of congestion but a slight increase in the number of these car commuters. It is only the slow rate of London road improvements which has prevented a traffic increase similar to that in the less congested provinces. Congestion in central London has remained the most stable factor in the transport situation; buses move little faster today than in 1914. Improvements in railway transport will have equally little effect on congestion. They will simply increase the amount of travelling in the London area. The number of journeys per head by public transport annually to Greater London was only 30 in 1871; by 1901 it had risen to 129, by 1931 to 437. It continues to rise. The ultimate question is how far this increase of travelling should be fostered, and this is a question which cannot be answered without planning research. The traffic congestion problem is inextricable from the planning problem of the swelling conurbations-the problem which town planners have most seriously neglected. There is little hope that a Labour government, which in the present stage of knowledge can neither provide a rational planning policy for the conurbations nor a co-ordinated transport system as an alternative to full motorisation, could deal any more effectively with congestion than the Conservatives. We are heading straight for another of those fiascos which have done so much to discredit the very idea of government planning.

## 7. A Planning Policy

IT is more difficult to suggest an answer to irrationality in planning than in architecture, both because the situation is more complex and because less progress has been made. But it will be fundamentally similar. It must be based on functional research, more effective minimum standards, education, and a reformed administrative structure. Finally, as in architecture, the balance of activity and economic power needs to be altered in favour of the public.

Functional research must be of many kinds and must be led by the government. But as in architecture the most important kind of research, the kind most easily neglected, is user research; and again it must consist both of social observation and social participation. Participation could be particularly valuable in a democratic society. Effective planning demands decisive actions which will fundamentally affect people's lives. They are decisions which have a strong political element. The use of private cars, the location of factories, the provision of housing, are not questions which can be left to secret conclaves of bureaucrats out of touch with popular feeling. Control by local councillors, unversed in the technical possibilities, tends to reflect only the negative aspect of local feeling. But it need not. The best example of this is Coventry.

It is not true that Coventry is exceptionally well planned just because it suffered badly from wartime bombing. The city has been more unusual in the men it has had as chief architect and planner, beginning with Gibson in 1938. He had already prepared a new town plan before the city was bombed. Since then Coventry has regularly brought its plan up to date as new problems arise. In co-operating with Ministry experiments in school design, in joining CLASP, in its shopping precinct, in its traffic segregation in residential estates, Coventry has always been a pioneer. In its latest planning review it is proposing a dramatic alteration of its road system, based on a traffic survey of 1960; a new skeleton of motorway standard, and a much extended pedestrian area in the centre. And to a unique degree it is trying to base its plans for the renewal of older districts on co-operation with its citizens. Twenty-eight existing local communities have been identified, and in the centre of each a well-publicised meeting held, under an independent chairman. at which the outline proposals for the district are explained and suggestions and amendments welcomed. The frequency of particular suggestions is examined, and the council has allotted £1,000 to each district to deal with the more easily remediable complaints. There has also been an 'ideas competition' publicised by 50,000 leaflets, and an impressive use of information gathered from questionnaires issued to school children. The result of planning through participation is both an awakening of local interest and an invaluable index of the needs which are felt. It opens very exciting possibilities.

With more extensive information it should be possible to devise more effective administrative standards in planning. The problem is not simply that standards have been allowed to lag behind the times. The real trouble is that the standards have become irrelevant. *Site*  density in particular is both bogus and out of date. It is based on the early Victorian theory that the main cause of disease was the infection of the air by smells from graveyards, drains, factories and human breathing, and even if the discovery of germs as the principal cause of infectious disease did not render it obsolete it obviously no longer applies when high buildings are used. What does matter is the relation of development to available services and amenities, to the amount of public or private open space in the immediate surroundings, to car parking and transport facilities, to noise and atmospheric pollution, to distance from hospitals and schools, and so on. Zoning, the other principle standard used in planning administration, has lost much of its importance. It was intended to protect amenity, by separating housing from industrial filth and by preventing needless encroachment on agricultural countryside. It is a very blunt weapon. It does not protect housing from traffic nuisance, which is a far more serious threat to amenity than modern light industry, and which might be reduced by more flexible zoning. It prevents ill-sited building on farmland, but it does not secure access so that the countryside can be enjoyed.

It would be much better to devise a new series of standards, some flexible and some absolute. Medical evidence could be used to suggest an absolute maximum for air pollution from all sources, and where this maximum is already exceeded a complete veto on new sources of pollution, whether from power stations or traffic speed-up, should be imposed. A series of noise level standards, depending on whether residential, commercial or other kinds of development were involved, could also be established by medical research; noise level standards are already applied in some German New Towns. In housing and office developments density figures could also be related to the amount of available open space, and higher densities permitted close to parks. Permission for new or expanded factories and offices should be very closely related to transport planning, and where transport facilities are already overloaded and there is no intention to expand them, an absolute veto on expansion should be possible. It is clear that persuasion alone will not suffice, and it is especially important that loopholes in planning control should be ended. The most flagrant of these, which gives developers a bargaining power as strong as blackmail, is the omission from control of a rebuilding which does not expand existing accommodation by more than 10 per cent. Whether or not this practice is legal, it has been allowed in London even when densities are already by every standard excessive.

With these new standards established urban renewal will become more than an idealistic hope; the need to attack the *twilight areas* will be revealed an imperative duty, a challenge to local government more extensive and so more crucial than slum clearance.

The new concept of town planning will not be adopted without extensive re-education. The methods should be similar to those suggested earlier for architecture (Chapter 3). But the difficulties will be greater. While in the new architecture the aesthetic role of the architect will remain essential, this is less true of the town planner. Town planning, it has been suggested, should be a social art, expressing itself aesthetically in town landscape and environmental detail. The difficulty is that where

town planners have aesthetic training it is as architects rather than as landscape artists. The detail of Cumbernauld was the work of Peter Youngman, not an architect or a planner. Landscape design it not widely taught, and is the province of a small separate profession. Unless the leading role in town planning is to be handed over to planners with no aesthetic training, there seems to be a strong argument for bringing landscape design from its present isolation to an important place in the education and practice of planners. At present we only use landscape design in special circumstances, such as some motorways or new towns. in spite of the fact that our visual environment is formed by town and country landscape as a whole, rather than by building facades as a whole. Architectural design control is by its nature negative, and could not be used extensively to promote minority tastes in architecture. On the other hand, appreciation of scenery is relatively widespread. Landscaping as an active part of town planning-the recovery of derelict areas, the screening of ill-sited building by trees, the burying of the ever-increasing forest of wire and pylon-could make a tremendous improvement in the appearance of this overcrowded island. It would require adequate new administrative powers, including compulsory purchase and government financial assistance, and the transfer of present design control from district councils (to whose singularly unenlightened hands it is usually delegated), to the larger planning authorities. Backed by these powers, landscape could provide both an essential creative outlet for the planner and increasing enjoyment for the public.

#### A Ministry of Planning

Town planning will remain essentially unsuccessful without a change in administrative structure. The system has rotted from top to bottom. At the top there is no longer a Ministry of Planning, no longer the semblance of a national plan to control population drift and work location. Local authorities cannot possibly produce realistic local plans within a framework of national laissez-faire. The Labour Party is plainly committed to restoring physical planning just as much as economic planning —indeed the two are recognised as interdependent. But is it clear about its policy?

There is in general a very disturbing vagueness about Labour statements on town planning, particularly when compared with economic proposals. Where is the equivalent in town planning to the National Industrial Planning Board, and to the much enlarged National Research Development Corporation, the keystones of Labour economic policy? In an article on *Rebuilding Britain*, in the Summer 1962, issue of Twentieth Century, the late Mr. Gaitskell wrote that 'A rigid national plan is unnecessary and perhaps impracticable, but we do need a small national planning staff. It should begin first of all, by recording just what is happening today, in the present chaos, to industrial location, building and transport. It should draw out the consequences, then it must begin to co-ordinate and dovetail the plans of local authorities and Ministries of Housing, Transport and the Board of Trade. Maybe a redistribution of functions within Ministries will be necessary.' The Labour Party pamphlet, *Towns for Our Times*, declares the need for a Minister 'with executive powers over town and country planning, housing, and distribution of industry. And possibily another body is needed (e.g. a Cabinet Sub-Committee) which will be responsible for co-ordinating policies over the broad field of planning and transport.'

A Labour Government which comes to office underestimating the magnitude of its town planning task is bound to fail to solve it within its term of office. Consultative committees and skeleton staff will not suffice. WE CANNOT RESTORE TOWN PLAN-NING WITHOUT A NEW UNIFIED ADMINISTRATION AT THE TOP, without an intensive and rapid research programme, and without new legislation, new administrative planning standards, and methods of re-educating town planning administrators trained to unsatisfactory approaches. This cannot be done without a new Ministry of Planning with adequate powers. It will be essential for this Ministry to reorganise the local government structure in some areas, to produce a national scheme for the public control of urban and suburban land, and to give local authorities the power and money to carry out urban renewal on the scale needed. These policies have been discussed elsewhere and their details are beyond the scope of this pamphlet.<sup>1</sup> But if there is one outstanding lesson to be learnt from the planning muddle, it is that without an over-riding government initiative the muddle will continue.

## 6. Conclusion

IN the past it was wise enough for politicians to leave questions of design to individual taste. The development of a new approach to architecture in British school-building since the war makes a more decisive attitude urgent. The history of architecture is one of reluctance to accept innovation. It is a tragedy that although in 1851 a gardener could design a pre-fabricated building as beautiful as the Crystal Palace, it was over 50 years before architects accepted the effects of machine production and new materials. The Crystal Palace was ignored not as it was a rare freak; there were plenty of other exhibition buildings and stations like it. It was ignored because it did not fit into the traditional concept of architecture. Left to themselves, architects will ignore the revolutionary concept of architecture in the Hertfordshire schools. This is not because these schools offend their taste in design; they show quite clearly that outstanding architecture can be produced by this method. It is because the instinct of nearly every architect, encouraged by the history of architecture, is to sacrifice convenience to superficial beauty. The new concept is that buildings and towns must be judged aesthetically, not by the passer-by, the visiting critic, the response to the avenue or the facade, but by people who live and work in them, and by the convenience and pleasantness which it gives to their everyday existence. Most schools are based on plans and elevations; Amersham

<sup>1</sup> See e.g. Socialist Commentary, September, 1961, *The Face of Britain*: Signposts for the Sixties and Towns for Our Times, Labour Party 1961: New Towns for Old (J. B. Cullingworth, Fabian Research Series 229). grew from furniture and human movement, and was tested by a model of the inside of a classroom before the outside. It symbolises the acceptance of social observation as the foundation of design, and is an important as Walter Gropius's acceptance of the machine.

If it is to prevail without another 50 wasted years the new approach cannot be left to spread of its own accord. It is a matter of politics, and needs political backing. The Labour Party ought to take it up and support it. It should be the policy of a Labour government to apply the same principles to all the fields of architecture and planning under its influence. And in the months or years before we have a Labour government there is a chance for every local Labour authority to follow the lead which has been given by Hertfordshire and Coventry. They could combine to form consortia on the CLASP model, both for school and house building. They could begin the social research which a future Labour Minister will need. They could be prepared, as Coventry was, before the bombing.

To sum up, what are the essentials for architectural and planning progress to be learnt from recent work?

Firstly, the great possibilities of long-term pre-fabricated building programmes in providing more quickly and in some cases more cheaply the housing, schools, hospitals and other buildings we need.

Secondly, that pre-fabrication coupled with social research can produce a great advance in the whole environment, an advance in the quality of everyday life, but without this basis of research it is more likely to stunt the existence of future generations.

Thirdly, that the full benefits of this architecture will only be realised through a great extension of government research and direct public building, through a campaign to educate both professionals and public, and through the use of constantly advancing minimum standards.

Fourthly, that the neglect of research and the influence of irrational romanticism has been still more serious in planning than in architecture, and that lack of knowledge as well as lack of power has caused the planners to lose control of the conurbations and traffic congestion.

Fifthly, that effective planning will require a national research programme giving special attention to user research, a completely new set of administrative standards, an education campaign, a more positive role for landscape design, a more active share in urban renewal for local authorities and an increase in their powers to finance and control this work, and, to provide the framework for all these, a new Ministry of Planning.

Finally, that in both architecture and planning aesthetics need to be put in their place—last but not least in the process of design.



## THE YOUNG FABIAN GROUP

The Young Fabian Group exists to give Socialists not over thirty years of age an opportunity to carry out research, discussion and propaganda upon contemporary problems which they consider important. It publishes pamphlets written by its members, arranges fortnightly meetings in London and holds day and week-end schools.

The Group is autonomous, electing its own committee. It does of course co-operate with the Fabian Society, which gives financial and clerical help. But the Group is responsible for its own policy and activity, subject to the constitutional rule that it can have no declared political policy beyond that implied by its commitment to democratic Socialism.

The activities of the Group are intended to be complementary to, and not competitive with, the activities of other left-wing youth organisations like the Young Socialists, the New Left, NALSO, etc. The hope is simply that a Young Fabian Group, more adventurous, perhaps, than its parent body, may make its contribution to the development of a vigorous and radical critique of presentday society.

Enquiries about membership should be sent to The Secretary, Young Fabian Group, 11 Dartmouth Street, London, S.W.1 (WHItehall 3077).

#### PUBLICATIONS

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