THE INSTITUTE FOR ADVANCED STUDY

## RICHARD LLEWELYN-DAVIES AND THE ARCHITECT'S DILEMMA

BY Noel Annan

# The Richard Llewelyn-Davies Memorial Lectures in ENVIRONMENT AND SOCIETY

March 3, 1985—at the Institute for Advanced Study
The Victorian City: Images and Realities
Asa Briggs
Provost of Worcester College
University of Oxford

November 17, 1986—at the University of London

The Nuffield Planning Inquiry

Brian Flowers

Vice-Chancellor

University of London

October 27, 1987—at the Institute for Advanced Study Richard Llewelyn-Davies and the Architect's Dilemma Noel Annan Vice-Chancellor Emeritus University of London

#### **PREFACE**

The Richard Llewelyn-Davies Memorial Lectures in "Environment and Society" were established to honor the memory of an architect distinguished in the fields of contemporary architectural, urban and environmental planning.

Born in Wales in 1912, Richard Llewelyn-Davies was educated at Trinity College, Cambridge, l'Ecole des Beaux Arts in Paris and the Architectural Association in London. In 1960 he began a fifteen-year association with University College of the University of London as Professor of Architecture, Professor of Town Planning, Head of the Bartlett School of Architecture and Dean of the School of Environmental Studies. He became, in 1967, the initial chairman of Britain's Centre for Environmental Studies, one of the world's leading research organizations on urbanism, and held that post for the rest of his life. He combined his academic career with professional practice in England, the Middle East, Africa, Pakistan, North and South America.

In the fall of 1980, the year before he died, Richard Llewelyn-Davies came to the Institute for Advanced Study. He influenced us in many ways, from a reorientation of the seating arrangement in the seminar room improving discussion and exchange, to the permanent implantation of an environmental sensibility. Through the generosity of his friends and colleagues in both the United States and Great Britain, there was established a fund for a lectureship dedicated to a continuing examination of the questions he so vigorously raised.

It is an honor to present here the third of these lectures which are held alternately at the Institute for Advanced Study and the University of London.

Institute for Advanced Study Princeton, New Jersey Marvin L. Goldberger Director

#### INTRODUCTION

by Marvin L. Goldberger Director Institute for Advanced Study

Welcome to the third Richard Llewelyn-Davies Memorial Lecture, which will this afternoon be delivered by our distinguished guest, Noel Annan.

Since Llewelyn-Davies is the subject of Lord Annan's talk, I shall not speak at length about the man who is memorialized in this series. He was a professor of architecture and urban planning in England, and he designed buildings in many places around the world. In the year before he died he spent time as a visitor at the Institute and apparently formed a warm enough attachment that the sponsors of this series honoring him have found it appropriate that some of the lectures should be held here.

The speaker today has been variously described—as an historian, a university administrator, a public servant, a man of letters. He was educated at Stowe School and then went on to King's College, Cambridge, where he received BA and MA degrees. Entering the army in 1939, he served as a military intelligence officer and ended his military service as a lieutenant colonel in the political division of the British Control Commission in Germany.

After the war he returned to Cambridge as a fellow of King's College. In 1956, he became Provost of King's and in 1966, Provost of University College, London. From 1978 to 1981 he was the Vice-Chancellor of the University of London, a position corresponding to a university presidency in this country.

Parallel with his academic career has gone an outstanding record of public service. He has served on the boards of British institutions loved and valued all over the world: the British Museum, the National Gallery, the Royal Opera House Covent Garden, Churchill College, and others. He took an important part in the post-war development of British education, helping to plan the

new universities there. All these services and others received recognition when he was made a life peer in 1965.

Although Americans could not give him a title, we have also recognized his distinction as a scholar, educator and man of letters.

He is perhaps best known to Americans as a writer who succeeds in the notoriously difficult task of interpreting British institutions, personalities and ideas to an international audience. A few years ago he revised his landmark biography of Leslie Stephen, originally published in 1951, to acclaim on both sides of the Atlantic. He is equally well known on this side as the writer of essays, most recently those reviewing the current outpouring of books by and about members of the British Intelligence Service. Since I myself have had some connections with U.S. intelligence agencies, I found those essays in the *New York Review of Books* particularly interesting. I can almost regret that Richard Llewelyn-Davies was not a spy.

Now you must have the chance to enjoy for yourself the words of a man who describes his recreation as "writing English prose." With great pleasure I present Noel Annan who will speak to us on "Richard Llewelyn-Davies and the Architect's Dilemma."

### RICHARD LLEWELYN-DAVIES AND THE ARCHITECT'S DILEMMA

by Noel Annan

It is an honour to be invited to give this lecture in memory of someone who was a friend who became a colleague, and one who made a unique contribution to the study of buildings and their relation to the setting in which they stand. Richard Llewelyn-Davies was a man with a special sense of integrity, but he had another virtue which does not always run in harness with integrity. He could charm a bird off a tree.

Let me start by asking a very English question. Who was he? I say a very English question because in America a man is judged by his achievements, not by his family; in America no one thinks that descent from Boston Brahmins or an Ivy League education has all that much bearing on the quality of a man's achievement. But in England it is different. We are notorious for our class consciousness, and we ask (nowadays much more discreetly, even shamefacedly): who were a man's ancestors and what was his upbringing? The question may be snobbish, but it is something more than that—England is a country of clubs. In such a small island, with such a tightly-knit culture, every profession is a club, every university is a club and spawns its own clubs, every county possesses its own individuality. Just as London grew from a multitude of villages, all nowadays interconnecting, so there are groups of families interconnected by marriage that influence British culture.

Such family connections are interesting for the social historian because they are often the key to power. Until the end of the nineteenth century the British aristocracy governed Britain not through the House of Lords but through their influence in the House of Commons. Similarly, in the city of London certain families intermarried and wielded considerable power—families such as Baring, Smith, Gridley, and Hoare.

Richard Llewelyn-Davies sprang from a particular social group

in English society, and I think it influenced his work. This group is known today as the intellectual aristocracy.

Some years ago I wrote an article on this group and their influence. In it I tried to show how a particular type of family established an intellectual ascendancy and began to share between their children the spoils of the professional and academic worlds. These families began to intermarry early in the nineteenth century. They joined those who were reforming Oxford and Cambridge and were setting new standards of scholarship there. They filled the chairs at the newly established civic universities in London and the provinces. They provided the headmasters for the public schools, such as Shrewsbury, Harrow or Rugby, which were setting a new standard of moral behaviour and intellectual achievement. When in turn their sons came to marry, what more natural than to choose a wife from the families of their father's friends whose fortune and upbringing matched their own?

They were not a narrow professoriate. They were among the first recruits to the new professional civil service at a time when government had become too technical a matter for the aristocracy and their dependents. They manned the Indian Civil Service; they became, like Matthew Arnold, school inspectors; or they took posts in museums. They edited the Victorian periodicals and joined the staff of the Times. They were a new force among the intelligentsia, but they were not a continental intelligentsia, rootless and revolutionary. No one suspected a Trevelyan or a Wedgwood, radicals in politics as they were, of intending to blow up the House of Commons. They were integrated within their society. For instance, they advocated competitive entry into the civil service and the professions through examination. But it ought to be noted that though this new procedure was undeniably fair and likely to produce a far more efficient bureaucracy, it was attuned to their own interests.

Philanthropy was the magnet which drew these families together. One of the most famous of these alliances was that group

of evangelical Church of England families called the Clapham sect. The children of Zachary Macaulay, Henry Thornton, John Venn, James Stephen, who were all members of the sect, intermarried with the Trevelyans, Huxleys, Arnolds and Booths. It was their interest in philanthropy that joined these families to the Quaker families, some of whom were bankers and brewers like the Barclays, others chocolate manufacturers like the Frys (but none was ever a distiller). Philanthropy again linked these to two other families who were distinguished rather for their lack of religion than for fervour. These were the Wedgwoods and Darwins who grew into an enormous clan. Some of the members of these intellectual families were positivists, or followers of the founder of systematic sociology, Auguste Comte; many regarded John Stuart Mill as their favourite philosopher. But they gradually came to accept a particular view of life: that the world could be improved by analysing the needs of society and calculating the possible course of its development.

They were, then, nonconformists, and not only in religion. They were not at all averse to challenging received opinion and good form behaviour. They despised snobbery. Not for them the ambition to own a landed estate or to mix with, still less marry into, a noble family. Yes, they considered themselves gentlemen, but gentlemen in the sense that the poor son of a parson called himself a gentleman. To have been to a public school was usual but not necessary. But to have somehow acquired higher education or professional status was a necessary qualification. Just as at the beginning of the nineteenth century it was unorthodox in politics to be a utilitarian, or in the Anglican church to be an evangelical, still more a dissenter, i.e., a Baptist or Presbyterian or Quaker, so at the end of the century plenty of their descendants were agnostics like Huxley, or socialists like Beatrice Webb, or feminists like Barbara Bodichon, or social workers in unpopular causes like Josephine Butler. Nor did the strain of nonconformity die out in the twentieth century. Nearly all the Bloomsbury group

belonged to the intellectual aristocracy. Consider the descendants of the greatest English theologian of Victorian times: F. D. Maurice. Maurice had been forced to resign his chair at King's College, London, for holding the view that the wicked, though condemned to hell, might not have to suffer torment eternally. Seventy-five years later his grandson, General Sir Frederick Maurice, was forced to resign from the army when as director of military operations in the First World War he accused Lloyd George, the Prime Minister, of deceiving the public about the strength of the British army on the Western front. General Maurice's daughter, the distinguished follower of Keynes, Joan Robinson, was even more outspoken a nonconformist than her father. With her work on imperfect competition she broke with classical economics and became a trenchant critic of capitalism. But although she gave her lectures wearing trousers and in her sixties fell for Chairman Mao, she rejected Marx's theory of surplus value as an antiquated piece of mumbo jumbo.

John Llewelyn-Davies, Richard's grandfather, bore all the characteristics of this social group. He was the son of an evangelical clergyman. Soon after taking his degree at Trinity, Cambridge, he came under F. D. Maurice's influence and for the rest of his life he held what were then advanced views. He was an associate of the Christian Socialists, and he supported higher education for women. John Stuart Mill, no friend of the clergy, paid tribute to his exceptional fairness in controversy. Llewelyn-Davies also supported the trade union movement. How did this come about? The reason was that he had married a sister of Henry Crompton, a prominent positivist, and the positivists were enjoined by Comte to support workers' organisations. Henry Crompton was the author of a treatise on industrial conciliation which the Webbs referred to as a classic work; and his brother-in-law, Edward Beesly, edited the Beehive, the trade union journal. Another cousin of Mary, John Llewelyn-Davies' wife, was Charles Booth, the social investigator and author of a famous Victorian study of poverty: Life and Labour in London. Booth's wife was a niece of the great

historian Tom Macaulay and the granddaughter of "Radical Dick" Potter who founded the great liberal newspaper, the *Manchester Guardian*. So Richard Llewelyn-Davies was related to such diverse members of the intellectual aristocracy as Beatrice Webb, Stafford Cripps, Malcolm Muggeridge, Desmond MacCarthy and Tess Mayor who was to marry Lord Rothschild.

What is more, when as a young man Richard came to marry, he chose someone from the heart of the intellectual aristocracy. His first wife was Ann Stephen, granddaughter of Sir Leslie Stephen who, as an undergraduate, had been taught mathematics by Richard's grandfather. The marriage did not last long: temperamentally they were poles apart. But the marriage shows how much he was part of the particular status group into which he was born.

John Llewelyn-Davies had eight sons two of whom, Theodore and Crompton, became fellows of Trinity. Crompton (Richard's father) carried on the family tradition of independence of mind. He became a civil servant, but that did not prevent him from being a left wing liberal and supporter of Lloyd George. He married someone even more radical than he. Moya O'Connor was an Irish nationalist and a fervent fighter for Irish independence. She was a friend—rumour had it a great and good friend—of Michael Collins and had a hand in drafting numbers of his speeches. Indeed she was arrested by the British army during the troubles in Ireland after the First World War and taken in an armoured car to Mountjoy Prison in Dublin. She was charged with harbouring firearms in her house, and that was true enough if the term "firearms" was held to cover the collection of eighteenth-century dueling pistols and fowling pieces that hung on the walls.

Somewhat naturally after her arrest, Crompton Llewelyn-Davies resigned from the civil service. He had no difficulty in earning an agreeable income as a lawyer. Later he was called in by Lloyd George to help draft the treaty between the United Kingdom and the new Irish Free State which Lloyd George and Michael Collins were to sign.

The Llewelyn-Davies independence of mind extended to their

son's upbringing which was in one sense highly unconventional. For Richard Llewelyn-Davies must have been one of the last middle class boys never to have gone to school. He always lived at home. Occasionally a tutor was hired, but he used to say that he had to rely on visits to his home by Bertrand Russell to teach him mathematics and G. E. Moore to teach him philosophy. He had no difficulty in passing the very modest requirements of those days for entry into Cambridge, and Trinity College did not require any further qualifications. Was he not the son of a former fellow and the nephew of another? He accordingly went up to Trinity in 1930 to study engineering.

This eccentric education had many advantages. Llewelyn-Davies was immune from the perennial diseases that used to afflict public school boys. E. M. Forster said of them that "they go forth with well-developed bodies, fairly developed minds and undeveloped hearts." Richard per contra was at his ease with girls, his heart was not frozen and his mind was open to new ideas. He had not put it into a straitjacket of *idées reçues* and he was devoid of snobbery and emulation. Others, of course, who went to these schools emerged with free minds, but in those days they had so often to fight for that freedom against the conventions of their class and their schools, that the scars of the struggles never quite healed.

Nevertheless, those who are brought up so entirely at variance with the education of the rest of their age group run a risk. Small boys like to go about in gangs and adolescents learn almost as much from each other as they do from their schoolmasters. To isolate a boy at that age is likely to have a curious effect. There is a famous passage in Gibbon on the Christian martyrs in the second century A.D. where he describes the behaviour of "the virgins of the warm climate of Africa who permitted priests and deacons to share their bed and gloried amidst the flames in their unsullied purity. But insulted nature sometimes vindicated her rights and this new species of martyrdom served only to introduce a new scandal into the church."

Nothing so alarming happened to Llewelyn-Davies. But for his first two years in Cambridge the shock and the delight of mixing with people of his own age, in being able to pick and choose his friends from among dozens in his college and his faculty, had a predictable effect. He did no work at all. Somehow he scraped through and got a degree in engineering. But he was far from idle. His intellectual energies flowed into a different channel.

In his second year at Cambridge Llewelyn-Davies was elected a member of the Apostles. This tiny society had flourished since 1820. In its early years it was transformed by F. D. Maurice into a serious discussion club. Tennyson, Spedding, Sterling, Kemble and other early Victorian luminaries-to-be belonged to it. Speaking of his time as an Apostle, Henry Sidgwick, the utilitarian philosopher, said "I can only describe the spirit of the society as the pursuit of truth with absolute devotion and unreserve by a group of intimate friends who were perfectly frank with each other. . . . Absolute candor was the only duty the society enforced. Anyone could question any proposition if he did so sincerely and not merely from love of paradox. The gravest subjects were continually debated but gravity of treatment was not imposed—humour and banter were frequent—but sincerity was imposed."

The Apostles were—and indeed still are—different from the familiar discussion clubs that flourish in most universities. They were a secret society. The reason the Apostles kept their membership, their meetings and their affairs secret was simple. In the 1850s an undergraduate on the make had sucked up to its members, got himself elected, and then at once resigned with the feather in his cap. So the Apostles decided to become anonymous. But the secrecy is intended only to safeguard the interests of the active members, and as memoirs are written, the names of past members become known. Scholars sometimes say they are surprised that this or that brilliant man was not elected to the Apostles. But it may be that he was the kind of person who was interested only in his own subject, or who was out to win at all costs in an argument, or who

was too worldly and valued glittering acquaintances rather than intimate friends. In those cases, the members rejected him—or in these days her—as not Apostolic. But in any case, how could all the outstanding intellects in a generation of undergraduates be Apostles? How could they be when at any given time only about six to eight rather than the apostolic figure of twelve were active members? But there were times when a generation of Apostles left a particular mark—for instance when Keynes, Lytton Strachey, Leonard Woolf were discussing the implications of Moore's and Russell's philosophy. Sidgwick had said, "No part of my life at Cambridge was so real to me; and the tie of attachment to the society is much the strongest corporate bond which I have known in my life." He could have spoken for Richard Llewelyn-Davies' generation.

For Llewelyn-Davies belonged to the Apostles at a particularly interesting time. It is a time that has become notorious because two of the members were Anthony Blunt and Guy Burgess who were recruited to become Soviet agents by the Comintern. They also belonged to that other less sinister mafia sometimes called the Homintern. But the Apostles were not a hotbed of homosexuals nor were all its members Marxists, let alone spies. Among them, when Richard joined, were Julian Bell, the son of Clive and Vanessa Bell of the Bloomsbury group and hence a first cousin of Ann Stephen, who was killed in the Spanish Civil War driving an ambulance; Harry Lintot who became British High Commissioner in Canada; and Andrew Cohen who later became an enlightened member of the Colonial Office and masterminded the granting of independence to the British East African colonies.

In a society whose object it is to discuss general ideas, inevitably those who study the humanities will predominate. But what was distinctive about that generation of Apostles was that quite a number of them were scientists. There was the future Nobel Prize winner Alan Hodgkin; the Admiralty scientist Alister Watson; the zoologist Grey Walter; and the future chairman of the Agriculture

Research Council, who became responsible for all scientific research in Royal Dutch-Shell, and subsequently was the head of Prime Minister Heath's think-tank in Whitehall: Victor Rothschild. In the thirties, scientists, particularly those at Cambridge, the capital of British science, were beginning to ask whether scientific principles could not be applied to solving social problems far further than had been hitherto thought possible. Some of these scientists such as Bernal or Haldane were members of the Communist party. Others such as Joseph Needham or his chief, the outstanding biochemist, Gowland Hopkins, were sympathetic to a Marxist interpretation of science. Some—Tizard, Bragg and Julian Huxley—took no political line; but others such as A. V. Hill, Keynes's brother-in-law, and Michael Polanyi were vigorous anti-Marxists.

What the controversies of those days taught Llewelyn-Davies was this. For too long social problems had been tackled by applying general principles about human behaviour and by making deductions based on such generalities as the nature of man. The achievements of even such highly successful deductive social sciences, such as economics, were deceptive. Quantitative data should be assembled and analysed before any attempt was to be made to decide what action should be taken. Both Llewelyn-Davies and Rothschild were to represent something not all that common in British public life. They were technocrats. They both believed in making their country more efficient by using scientific techniques to eliminate error, discover the most practical solution and convince the sceptics. It was under the spell of such ideas that Llewelyn-Davies proceeded after the war to undertake his remarkable study of the function and design of hospitals when he was at the Nuffield Foundation.

Let me give one example of his methods in this study. Were nurses, he asked, being used efficiently and humanely? In one hospital he put cotton threads of different colours into the hands of nurses so as to chart their movements. He logged 27,327 journeys

by nurses and discovered that each nurse was making 300-400 separate journeys. Excluding the steps she took round a bed or in an operating theatre after her arrival, a nurse was walking on an average two to two and a half miles in her tour of duty. He made a job analysis of nursing specialists to discover how best they could be organised and what was the optimum space for outpatient consultation. Air-sterilisation, operating theatre design, artificial lighting in wards and the physical environment in hospitals were all subjects of analysis. Garrod's researches in 1944 confirmed Florence Nightingale's conjecture that large windows and fresh air were desirable. (Garrod found that light kills streptococci.) But it was also true that glaring light exhausts patients, and Llewelyn-Davies recommended that wherever possible wards should face southeast and never west. In towns daylight is often constricted by adjoining buildings: all the more important then to calculate the angle of light that could be made available to wards. Wards should be grouped, if possible stacked, above each other. Jean Walter's plan of wards radiating from a hub of central services had much to commend it; but Llewelyn-Davies pointed out just how many benefits would be sacrificed were it adopted.

And yet what strikes one most about the Nuffield report today is how undogmatic it is. Llewelyn-Davies emphasized that he was not advocating a model. No perfect model of a hospital exists. All a dispassionate analyst should do was to set out considerations that an architect should bear in mind because all depended on the environment: where and in what condition and in what setting was a new hospital to stand? And was it not more likely to be an old hospital that an architect was being asked to recondition? If so, what considerations should he bear in mind when he set about his task?

Llewelyn-Davies, like all original architects, was in revolt against past giants. Le Corbusier was one of them. Richard was really interested in how people live and work. He thought buildings ought to be designed, and towns planned, to make their lives

easier and more agreeable. He was interested in how people moved from kitchen to living room and what they did in their kitchens. I am not sure that I would not put very near at the top of his achievements the little houses and social club he built in the early fifties for farm labourers on Victor Rothschild's estate at Rushbrooke in Suffolk.

Perhaps the building that gave him the most enjoyment was that for the Times in Printing House Square. Not only did he have to master the intricacies of a newspaper office and a printing works, but the task presented Richard with a puzzle of the kind that he most enjoyed solving. The puzzle was this. How do you rebuild an entire building stage by stage so that the work of the newspaper continues unimpaired? The solution resembled the famous doublehelix structure of DNA that Crick and Watson discovered. One strand of the helix was demolition of the old and building of the new structure stage by stage, the other strand the operations of the newspaper which were moved section by section round the old building until they emerged into their new quarters. But the end of the story is marked by that special irony so familiar to architects. Within a year the Astor family were selling the Times to Roy Thompson who moved the offices and printing of the Times to Grays Inn Road.

Llewelyn-Davies belonged to the Modernist movement. It is true that much of that aesthetic movement at the beginning of the century that we call Modernism was a protest against the inhumanity of the mechanistic age. But not all its members hated the city and industrial society. Eliot and Pound might be sickened by London, but Joyce was inspired by Dublin. The German expressionists delighted in the technology of the city and celebrated the aircraft and automobile. Certainly the cubists and constructionists were cerebral enough when they spoke of *Die neue Sachlichkeit*. But, whatever the differences between modernists, there is no doubt what they despised. They despised the Victorian obsession with beauty. Ah, that beauty—beauty which cascaded like treacle

over every object in the home and emerged in the shape of stucco moulding, buttons, beading, Berlin wool, lincrusta, papier-maché, buttresses, cherubs, scroll-work and foliage. Richard Llewelyn-Davies was at one with the Modernist movement in distrusting those like Abercrombie and Gibberd who tried to make a pleasing visual effect. To him that was an irrelevance, even a kind of dishonesty. The honest architect was one whose buildings reflected the needs of those who used it, no more, no less. To Richard even the work of Gropius and the Bauhaus still retained traces of a romantic obsession with appearances or, to use his own term of contempt, "form-matter."

Not only did he ask how people lived, he asked how they were likely to live in the future. When he was asked to prepare the master plan for two new towns in Britain, he took as his model the American city most unlike any European city—Los Angeles. He planned his new towns on the assumption that eighty percent of the inhabitants would have an automobile. There was not much acknowledgement that people needed buses to run near their front door. The Milton Keynes plan stated that "because of the high standards of convenience implicit in providing good accessibility and complete freedom to use the car, no public transport system is likely to attract significant numbers of choice riders except at excessively high cost." And indeed the local council has had to make a substantial subsidy to the bus company in order to provide a bus service along every grid road. On the other hand, if the plan did little for a bus user, it remembered the cyclist and pedestrian. Each village within the town is reticulated with footways. These paths wind through the villages and woods at a distance from the grid roads, skirting the schools to which children can cycle.

The Llewelyn-Davies town plan broke with the age-old British tradition of the town and imposed the logic of the automobile age. There was to be no single town centre, no high street clogged with shoppers and their cars, no single industrial area creating traffic congestion every rush hour. Factories were distributed around the

perimeter of the new towns, each with its own hinterland of domestic housing. Research had shown how people were likely to live and the plan was based on the assumption that they could be induced to adopt a style of life that would give them greater comfort and convenience.

But could they be induced to adopt such a style? Many voices in Britain today say they should not. Although it was the planners who invented zoning and green-belts to prevent urban sprawl and a soulless environment, it is they and the architects who are accused today of dehumanising life. The drab street with its pub and corner shop is said to be more of a community in which families gossip, know and help each other, than the tower block in which those on one floor are cut off from those above and below them. Would we not do better to preserve existing buildings and conserve the old forms of street and haphazard development, rather than create with a bulldozer a *tabula rasa*, and upon it erect buildings and trace roads without character or charm?

None of this is new. Ever since the Industrial Revolution, sages such as Cobbett, Carlyle, William Morris and D. H. Lawrence have thundered against industrialisation and the ugliness of modern buildings. I have lived to see Victorian monuments and buildings that were execrated by enlightened opinion when I was a boy praised and patted as delightful old creatures. Perhaps the most influential voice was that of the last poet laureate, John Betjeman, the first laureate since Tennyson to become a national figure, as he evoked on television the beauties of Victorian churches and commercial exchanges and denounced the vandalism of planners and property developers who blithely demolished them and moved on to desecrate the countryside.

I know well that the same concern for preservation is expressed here in America—in New England, or in the gold rush towns in California, or in the South where I have just spent a happy week looking at antebellum houses. But though there are bound to be conflicts of interest between those who want to preserve a sky-

scraper built before the turn of the century and the owners of the site which by now has become immensely valuable, there is a difference between America and Britain. America is so vast, and land still so plentiful and unoccupied. Britain is so small, so filled with aged buildings, or sites of archaeological interest, or simply with people's homes, that to chip away even a fragment of the highly cultivated countryside with its hedgerows and spinneys seems unacceptable. Britain's ancient buildings are small in scale, its terrace houses and squares so modest, compared to the public and domestic buildings of Paris, Rome, Madrid or Vienna. More than anything else the conservationists complain about the reluctance of architects to preserve this small scale and intimate environment that does not dwarf human beings; and the architects are harried on the other side by the developers who complain that the fewer the square meters of leasable space, the less profitable the investment.

This, then, is the dilemma architects and planners face today in Britain. There is no longer the same confidence that there was thirty years ago that modern architects will design buildings that please the eye as well as answer the requirements of their brief. There is no longer the same confidence that those who plan the environment will not create wastes of concrete that divide communities, or desecrate peaceful rural villages. There is no longer the same readiness to accept that derelict warehouses and factories or decaying terrace houses are all the better for being demolished and replaced by office blocks. These are the platitudes of the eighties, but they have their roots in the spectacular setback to planning in Britain that occurred just after Llewelyn-Davies succeeded William Holford as the leading academic planner in the country—when he was at the height of his powers and of his reputation as an international figure in the planning of buildings and cities.

For some years opposition in East Anglia among the well-to-do had been mounting to the selection of Stansted—a small town which is equidistant between London and Cambridge—as the site

of the third London airport. So in 1967 the Roskill Commission was set up to consider the matter. Four years later it delivered its verdict, having spent the hitherto unheard-of sum of a million and a quarter pounds in assembling and analysing data and using the most sophisticated techniques of cost benefit analysis. It recommended to the Conservative government then in power that the airport should be sited to the northwest of London near the village of Cublington. True, a thirteenth-century church would have to be demolished, but this virgin farming land and its proximity to motorways and the Midlands made it, in the view of the commission, the best choice.

The report was destroyed within six weeks. The one piece of research Roskill failed to carry out was into the whereabouts at weekends of a formidable, dynamic and attractive political hostess, Lady Pamela Hartwell. Her country house was near Cublington. She boiled with indignation at this sacrilege and launched a press campaign denouncing the committee with such speed and vigour that the government faced a major revolt from Conservative M.P.'s.

She also had an ally. One of the members of the Roskill commission was a well-known planner, Professor Colin Buchanan. He gave no warning to his chairman that he was going to dissent—and he did more than that. He appeared on the morning when the report was due to be signed with his one-man minority report. This gave the Minister the chance he needed. He announced that he had rejected the report "on planning grounds." Everyone knew that was impossible, for the Minister and his civil servants would have needed far longer than six weeks to rebut the conclusions of the Roskill report. But he was able to cite Buchanan's note of dissent and say that he followed Buchanan's line in deciding to build the third London airport at the mouth of the river Thames on Maplin Sands.

Maplin Sands had indeed been considered by Roskill. The commission had admitted its attractions as a site. Like JFK at New York, the approach by aircraft would have been over the sea and the noise of air traffic that pollutes southeast England today would be diminished. Unfortunately, to build there would mean demolishing large numbers of working class houses in order to drive a rail link and motorway through to London. And where would the motorway end? Slap in the City, the financial centre of London, already choked with traffic. That was why Roskill, using cost benefit analysis techniques, had ruled out Maplin Sands. Three years later the Conservative government fell and the Labour Minister, Tony Crosland, cancelled the Maplin Sands project. He simply announced that there would be no third London airport. It was not a heroic decision, nor was it a practicable decision. And since you may be amused to hear the end of the story, this year in 1987 a Conservative Minister confirmed, twenty years after Stansted was in the process of being rejected as the site for the third London airport, that the third London airport would be sited at—Stansted.

Richard Llewelyn-Davies did not ignore the fate of the Roskill Commission. He delivered a paper on Motorways in the Urban Environment to a conference on "People, Roads and Cities." He had noticed that community groups were becoming more successful in blocking proposals to build motorways because they felt their amenities were threatened. We know, said Richard, pretty well how much each solution would cost in terms of construction and land acquisition. But we don't know how to measure amenity quantitatively and, until we do, people will doubt what real benefit is gained by each increase in cost. Can we measure noise, vibration, dirt deposition, visual intrusion, and so on? Llewelyn-Davies concluded that by borrowing techniques from sociology and experimental psychology we could and should construct mathematical models and in the end create a trade-off model. This could trade off the impact upon people's environment of one proposal to build a motorway against another option of similar cost.

After what happened to the Roskill report, one may think that such faith in cost benefit analysis was misplaced. But with Richard one could never be sure. It was not that he had the naive optimism of the technocrat—the belief that reason must prevail over prejudice. It was rather that he was unsurpassed in the art of massage. I said that he could charm a bird off a tree. He had the power to persuade to the highest degree. Nothing pleased him more than putting together a deal and winning malcontents and waverers to agree with him. When he was rebuilding Euston Station he was faced with the triumphal entrance to this Victorian station through whose arches a London taxi could barely pass. It was a handsome old relic and there was a mild agitation to preserve it. I remember asking Richard whether he was intending to placate the agitators by re-erecting it on the forecourt to stand, rather like Marble Arch in Bayswater, as a useless but inoffensive memorial to the past. "But why?" he said, "It's just a bit of vernacular."

That remark illustrates a particular facet of his character. I do not think it is a service to anyone's memory not to admit that we all have the defects of our merits. Richard's defect was his lack of concern with the visual. It had two effects. Richard transformed the Bartlett at University College London into a school famed for its research. There was no other school that had its peculiar strengths. He wanted the Bartlett to train a Nervi, and that was why for years he insisted that students should have high grades in school mathematics. It was only the iniquitous system of early specialisation in English schools which in the end forced him to relax this condition. But the Bartlett was deficient in one quality when Richard was at its head. It was not as strong on design as it should have been. In the end this was remedied, and in the recent ranking of departments by the University Grants Committee the Bartlett was designated outstanding. But in the process the best of its professors, who more than any other brought about the change, Robert Maxwell, was lost-to Princeton.

I think this defect afflicted one of Llewelyn-Davies's buildings—the extension to the Tate Gallery. The circulation plan is admirable—the public is never at a loss which way to go. As usual you see his concern for the people using the Gallery. The lighting of

the paintings, always so controversial and difficult when curators demand top-lit galleries with natural light, is excellent in terms of the number of units of lux. But the design of the ceiling that makes this lighting possible is oppressive and monotonous, and it is repeated in room after room.

No one knows better than I the difficulty of designing an art gallery. When, a few years ago, I became Chairman of the Trustees of the National Gallery, the Director asked me to press the government to provide funds for a building on a vacant site next to the Gallery. This site was in the shape of a rectangle and ran parallel to the buildings that Wilkins built down to the edge of Trafalgar Square. The store on it had been bombed during the war; and after the site was cleared the state bought it and designated it for the use of the National Gallery.

I told him that since an extension to the Gallery had been built only ten years ago we would be at the end of the queue among museums wanting more space. In any case Margaret Thatcher had announced that her government were determined to cut public expenditure. Our request was indeed turned down and my attempt to find a benefactor willing to advance twenty-five million dollars did not succeed. So I went to the Secretary of State for the Environment and asked whether he would be interested in backing a scheme that would not cost the state a penny. Just as the premises of the Museum of Modern Art and the Whitney in New York were funded by the rentals of the property in which they were housed, would it not be possible to have the top floor of this new building providing top-lit galleries for our early renaissance paintings, while financing the building by leasing, at a peppercorn rent over a term of years, two floors and a basement for office use?

I will not inflict upon you at this late hour the story of the National Gallery extension. The Secretary of State imposed a competition upon the Trustees. The Director of the National Gallery and myself were outvoted by Sir Hugh Casson and the other two judges, and the Secretary of State announced a winner. The Trus-

tees refused to accept the winning design, but they agreed to work with the winner and his developer, who after nine months produced another design. A year later, waiting to hear the verdict of a new Secretary of State and the Inspector who had presided at the planning inquiry, the architect attended a dinner given by the Royal Institute of British Architects, at which the guest of the evening was the Prince of Wales. In his speech Prince Charles chided the assembled architects as being insensitive to the environment, and referred to the architect's design of the extension to the National Gallery as "a monstrous carbuncle on the face on an old friend." To no one's surprise, the Secretary of State rejected the design. The Trustees tried for a third time, having first wisely invited Prince Charles to become a Trustee. This time, through the generosity of three brothers, John, Simon and Timothy Sainsbury, the extension was to be solely for the use of the National Gallery, and they chose after another limited competition Robert Venturi to design the building. His design respects the Wilkins facade and echoes its elevations. It will provide splendid galleries and facilities that the Gallery lacks today-and Venturi's design has leapt over all the planners' hurdles.

You may think this is an unnecessarily long process, but let me assure you that as regards public buildings it is par for the course. In 1859 Gilbert Scott won a competition for a building in Whitehall and he designed a Gothic structure. Palmerston said it was hideous and demanded a building in the classical style. Scott then came up with a design classical in shape but Gothicised. Palmerston then said of the new design "it was neither one thing nor t'other—a regular mongrel affair" and again turned it down. Scott then produced the building that is now the Foreign Office. He sold his original Gothic design to the Directors of the Midland Railway and it became that bizarre feature on the London skyline, St. Pancras Station Hotel. Who shall say that Palmerston was unwise?

On this matter it seems unwise to be dogmatic. I think of that place which was responsible for my formation intellectuelle, King's

College, Cambridge. Next to the renowned sixteenth-century chapel, a most extreme form of perpendicular architecture, stands Gibbs' Fellows' Building, uncompromising in its classical design. When a century later Wilkins was called in to complete the court, he built with remarkable tact a building that was classical in form—a central hall flanked by identical wings of living rooms—Gothicised in its decorative trimmings. His solution reminds me of the French grammarian whose last words on his death bed were: "Je vas ou je vais; l'un et l'autre se dit."

Either approach to architecture is valid. But the architect's dilemma is more profound than the problem of matching or challenging in scale and mood the surrounding buildings. The dilemma is how to arrange a marriage between science and art. Hampered by lack of time, which to the client represents money, the architect neglects to do the research and apply the analytic techniques of which Llewelyn-Davies was a master. Without them he often fails to make the presentation that will convince his client. But it is equally true that the most thorough research, and the most logical scheme that proceeds from that research, is not enough. The architect must have a vision, a conception, an intuition before he analyses. A scientist in the laboratory does not work by induction. First comes the idea, then the falsification or, if lucky, the verification. Both the scientist and the architect are artists first and rationalists second. Let the vision strike the mind first, and then let reason guide it.