Scotland: Building for the Future

Essays on the architecture of the post-war era

HISTORIC SCOTLAND

FRONT COVER

Hutchesontown B, Gorbals, perspective sketch of second development area, Robert Matthew Johnson-Marshall and Partners, 1958. © RMJM

BACK COVER

The Scottish Poetry Library, Edinburgh, Malcolm Fraser, 1999. © Malcolm Cooper

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Acknowledgments

The text for this book was prepared by Malcolm Cooper, Ranald MacInnes, Deborah Mays, Dawn McDowell and Miles Oglethorpe with research assistance from Rohan Banyard, David Fleetwood, Pauline Megson, Laurence Parkerson, Dara Parsons, Joan Richardson, and Norma Smith. Illustrations were researched by Rohan Banyard and David Fleetwood, with the assistance of Michelle Andersson. Further assistance for illustrations found in Chapter 4, *Industry and Infrastructure* **was provided by Derek Smart (RCAHMS). Original photography was taken by Mike Brooks, David Henrie, and (on behalf of The House) Sam Sills. Copy and style editing was by Abigail Grater. We gratefully acknowledge comments received from our peer reviewers.**

Illustrations

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Glossary

A glossary of building and architectural terms is included in *Scotland's Listed Buildings: What Listing Means to Owners and Occupiers* **(2009).**

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Preface

Scotland: Building for the Future is a short introduction to the post-war architecture of Scotland. It seeks to outline the principles which underlay the thinking of the time and to capture the flavour of the period. The decades after 1945 were heralded by Reiach and Hurd's *Building Scotland* from 1941 and just as they were looking forward, this book follows the first celebration, Peter Willis's *New Architecture in Scotland* 1977, in looking back.

There is currently debate about which buildings from these years should be protected. As the decades roll into the new millennium fresh research and a greater perspective can inform our appreciation. This book helps to broaden awareness. There are currently less than two hundred buildings erected after the Second World War which have been listed for their special architectural or historic interest. Some fine examples across the country have already been demolished and many more are under threat of unthinking change. There is demand for a responsible assessment and protection of the most significant.

By its nature this publication is a high level overview, identifying only some of the excellent buildings thrown up in these years, illustrating exemplars of their type rather than attempting to provide a detailed study. It does not attempt to touch upon the architecture of defence which will be the subject of a separate monograph.

The purpose of this book is to continue the debate about the protection of Scotland's significant post-war buildings. We believe they are an important part of our heritage. The popularity of recent exhibitions on Gillespie Kidd and Coia and Basil Spence and publications on the period indicate, together with the number of online hits taken from the Dictionary of Scottish Architects for the period 1940–80, that there is a growing interest, and we hope this contribution is therefore timely.

Malcolm Cooper
Chief Inspector
Historic Scotland

Introduction

In post-war Scotland there was a belief among key decision-makers that the world could be made better by design. New homes, schools and churches – even entire new towns – could be planned, designed and built for the benefit of all. Modernism in architecture and design were closely linked with this widespread faith in reconstruction. Architects and architecture were at the centre of this national effort, as they had been for at least 250 years. Scotland had specialised in new towns and a 'rational' approach to development and improvement, and there is a strong echo of the work of Robert Adam and Edinburgh New Town in the 'age of improvement' of the post-war period. Nineteenth-century reconstruction in Scotland had often been carried out on an industrial scale. In the 1860s, the brand new carriageway of Cockburn Street in Edinburgh burst through the historic city to link Waverley Station and the High Street with an enormous mixed development of flats, shops, hotels and commercial enterprises. Later, in Glasgow, the City Improvement Trust replaced most of the medieval centre with residential and commercial development based on nothing less that the contemporary model of Haussmann's Paris. A hundred years later, architects were again at the centre of post-war reconstruction.

Introduction

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Tenements at 202 Miln's Close, Overgate, Dundee, seen in 1920 prior to demolition. © National Museums of Scotland. Licensor www.scran.ac.uk

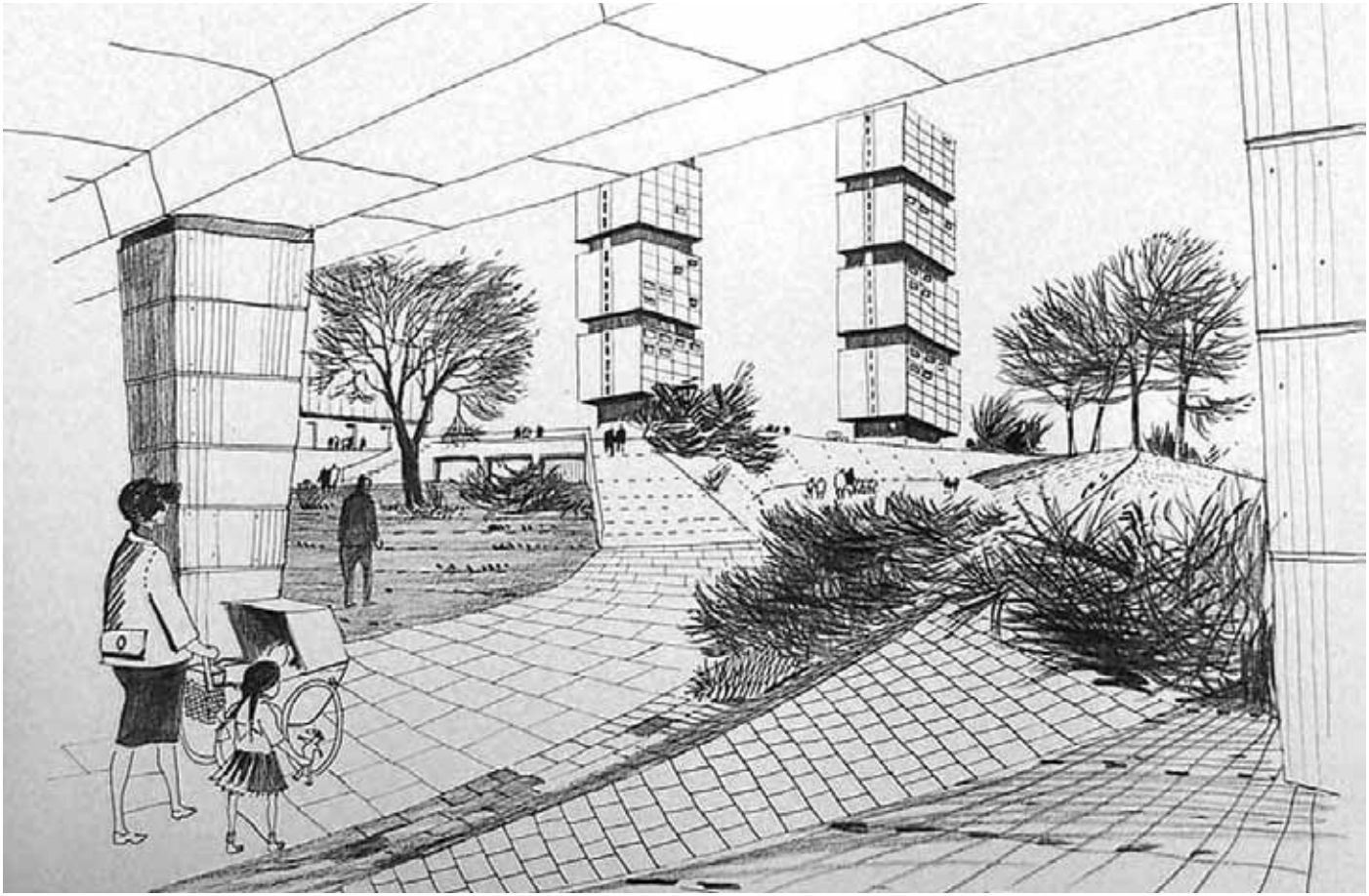
General view of Cumbernauld, 1962. © The Scotsman Publications Ltd. Licensor www.scran.ac.uk

Edinburgh, George Square, David Hume Tower, recently erected with podium under construction, 1963. © The University of Edinburgh. Licensor www.scran.ac.uk

In the 1960s and 1970s, comprehensive development was not new, but the massive scale, the pace of change and the ambition were. This book looks particularly at architecture in this period, mostly connected in some way with the bigger picture of reconstruction, but sometimes conceived as a standalone 'artistic' project. At the heart of all the effort of reconstruction was teamwork. Nowadays, we tend to see architects as talented individuals, in charge of the whole creative process of designing and building; but the post-war period was a time when specialists of all sorts – including engineers, town planners, economists, architects and even sociologists – would work together towards a shared vision. Clients also shared that vision and their enlightened approach often helped to create the architectural legacy which is all around us today.

In general, as our 'Architects' chapter shows, the move at this time was towards a 'corporatist' approach to architecture, away from an older pattern of private practice. By the late 1960s half of the profession was employed by the public sector, and this figure rose to 68% by the mid-1970s. The chapter also demonstrates the wealth of architectural talent that was available to Scotland – and the world. Many of our architects, including Robert Matthew and Basil Spence, 'exported' their home-grown skills internationally with great success. Other architects were more focused on specific areas of work in Scotland; and some of these – such as Isi Metzstein and Andy MacMillan, the principals of Gillespie Kidd and Coia in the later years – have achieved international recognition.

The pattern of patronage had changed. While there were a number of important institutional and private commissions in the post-war period, the patronage of the state and the local authorities was central to the shaping of Scotland's modern heritage. By and large, in the modern period, the public authorities wanted 'Modern' architecture, and that meant that the pre-war vision of European architects such as Le Corbusier and Mies van der Rohe. This vision chimed easily with the Scottish-American monumental modernism of the 1938



Perspective drawing by Alexander Duncan Bell of a pedestrian underpass. Taken from 'Report on a Highway Plan for Glasgow', 1965.

Empire Exhibition in Glasgow. The scope of this patronage in civic and commercial architecture produced some astonishing results, from the United Nations-inspired Lanark County Buildings (1959–64) to Skinner Lubetkin and Bailey's headquarters for the Scottish Ambulance Service in Glasgow (1966–70).

Post-war industry and infrastructure was, of course, central to the vision of a new and prosperous Scotland. The 'white heat' of industry was at first to be generated mostly by coal. The government invested hugely in that industry, with some confident architectural expressions emerging from the new sinkings at Rothes, Killoch, Bilston Glen and Monktonhall. Power stations also provided prominent icons for the new Scotland. The new hydroelectric dams, pipelines and

generating stations also became modern monuments of wonder for the public. However, the best-known scheme was the most remote and unvisited. This was Dounreay Nuclear Establishment, whose golf-ball profile could be identified by any post-war Scot. In terms of transport infrastructure, many daring bridges were conceived and built during this period of great optimism about the possibilities of engineering. The Tay Road Bridge (1966) and the Friarton Bridge at Perth (1978) are two well-known examples, but the Forth Road Bridge (1964) was very much a 'national' project which seemed to reinvigorate and redefine Scottish engineering on an international stage. Glasgow's Clyde Tunnel (1967) was a similarly daring scheme of great regional significance. One other interesting area of national infrastructure concerns contingencies in the event of nuclear attack. We will be looking at defence in the Cold War period separately in a future publication.

Among the factories and industrial plant of the post-war period, the most strikingly 'modern' in the earlier period were National Cash Registers (1946) and Timex (1947), both at Dundee. Paradoxically these two designs seemed to take us considerably forward architecturally from buildings like the fundamentally neoclassical Wills Tobacco Factory in Glasgow (completed 1953). The big industrial plants introduced to the Highlands by the Highlands and Islands Development Board – a paper mill at Corpach and an aluminium smelter at Invergordon – were impressive, purely functionalist complexes similar to oil rigs which sat shockingly unmediated in their Highland settings. Later factories aimed at architectural sophistication included the wonderful Cummins Diesel Engine factory at Shotts (1975–83).

The escape from the materialism of industry and commerce to spirituality provided some of the most innovative and inspiring architecture of the period. Seventeen of the post-war churches of the highly influential firm Gillespie Kidd and Coia are now listed, and many of their contemporaries' work is also protected. Churches were traditionally a building type which demanded the most exacting design sensibilities. The result, as our chapter on places of worship shows, is a rich legacy, from the conservative and traditional Robin Chapel (1949) to the uncompromisingly modern St Gabriel's R C Church, Prestonpans (1965).

School buildings were also given the highest priority during the post-war period. Hundreds were built, occasionally to experimental designs, at a time when the connection between modes of learning and architecture was considered to be crucial. Most schools were designed to maximise light, air and permeability. Universities were less inclined to experiment, and development in older settings such as Glasgow, Edinburgh and Aberdeen tended to maximise the available space by building tall, as at Edinburgh University's George Square (begun 1955) or Glasgow University Library (begun 1961). Where space was available – at the new University of Stirling (begun 1967), for example – the entire campus was laid out on Modernist principles and system-built for ease of construction, simplicity and economy. The most celebrated and programme-driven educational building of the age was St Peter's College at Cardross (begun 1959), a seminary

Construction of the inner ring road at Charing Cross, Glasgow, *c.* 1970.

for the Archdiocese of Glasgow which extended an existing country house within the setting of a designed landscape.

In housing, the idea of laying out whole areas of Modernist construction was given huge impetus after the Second World War. The 'planner-architects' working for the public after the War included important figures such as Robert Matthew, Alan Reiach and, briefly, Andy MacMillan. These designers and others mixed their Modernist inspiration with a desire to respond to the Scottish situation, which was a growing tendency in architectural culture. Cumbernauld was conceived as an ultra-modern 'megastructural' new town centre but it was surrounded by housing designed to reflect the traditional Scottish patterns of the terrace and the tenement. In private practice similar tendencies were applied, whether in schemes like Wheeler and Sproson's Langlee estate in Galashiels or Morris and Steedman's one-off villas in the east of the country. The greatest architectural impact on housing was made in the Gorbals (or 'Hutchesontown' as it was briefly re-named): Basil Spence's Queen Elizabeth Square (1961–6), a Le Corbusier-inspired scheme of tall flats with 'garden-in-the-sky' balconies. In presenting the scheme to Glasgow Corporation, Spence declared that when all the residents' washing was out to dry the building would be like a 'galleon in full sail'! The tendency to drama, height and compactness was also seen in the architecture of health provision. Bellshill Maternity Hospital (1959-62) was rational in inspiration and form. Health was seen as an area ripe for experimentation and hospitals were described excitingly as having, for example, a 'racetrack' plan, as at the Western Infirmary, Glasgow (1965) and Falkirk and District Royal Infirmary (1966).

All social provision in post-war Scotland was seen as a serious business and the same earnest endeavour was at first applied to recreation, sport and culture. The municipal notion of public swimming baths was brought spectacularly up-to-date at the highly expressionist Dollan Aqua Centre in East Kilbride (1963–5), which has an interesting counterpoint in the rationalist, hard-edged beauty of the Commonwealth Swimming Pool, Edinburgh (1967). The later, more relaxed world of 'leisure' in the 1970s and 1980s saw the development of a fun-based, 'flume' experience the earliest example of which was built at Coatbridge by Peter Womersley at the Monklands Leisure Centre (from 1977). Cultural provision also has many highlights, from the Burrell Collection (1978–83) to the Eden Court Theatre, Inverness (1973–6) and the Museum of Scotland (1996).

These are just a few of the highlights, which we look at in more detail in the following chapters. Our final chapter asks the question: 'If these are important cultural assets, should they be protected, and, if so, how will that be achieved?'

RIGHT
Glasgow Corporation housing in the Gorbals, Hutchesontown B, Glasgow, Robert Matthew, Johnson-Marshall and Partners, 1958.


SHOP

Civic and Commercial

THESE DAYS when heritage and 'place' are so highly valued, it is hard to imagine just how significant Cumbernauld was as a world landmark of community planning. The idea of a highly democratic community set among hills and a newly-planted 'Scandinavian' forest, all clustered around a modern 'citadel' containing every necessity of town life from shopping to a library and a dance hall, was incredibly exciting. This was a new way of living that attracted a huge range of people, mostly from Glasgow, but also many architects, engineers and others from further afield who were keen to be part of this social experiment.

The family of the architect Tom Connolly (Elder and Cannon, Architects) was one of those to make the move. Virtually the whole environment was a new creation of mainly low-level housing interspersed with schools and churches. The family house at Kildrum (1957) was designed by Gillespie Kidd and Coia, as was the secondary school Tom attended (Our Lady's High, 1963-4) and the church (Sacred Heart, 1964). *'The essence of Cumbernauld is the rich mix of its topography and landscape,'* says Tom. *'This integrated approach was imbedded in the varying residential neighbourhoods. In the wider and more civic context with terrace housing grouped around and forming landscaped public gardens with the more intimate and private being explored in the typologies of courtyard housing.'* As a designer, he now sees where the influences of the new town lay and the influences its planning had on his own understanding of place.

1.0 Civic and Commercial

During the 1960s, the 'public realm' was hugely extended and its distinction from the private blurred to the point of extinction. The main focus and driver for this democratisation of buildings and the space they occupy was the local authorities, who were responsible – through large-scale housing and transport initiatives – for the reshaping of most of Scotland's cities and towns. All of this was against a backdrop of national reconstruction aimed at delivering a new society.

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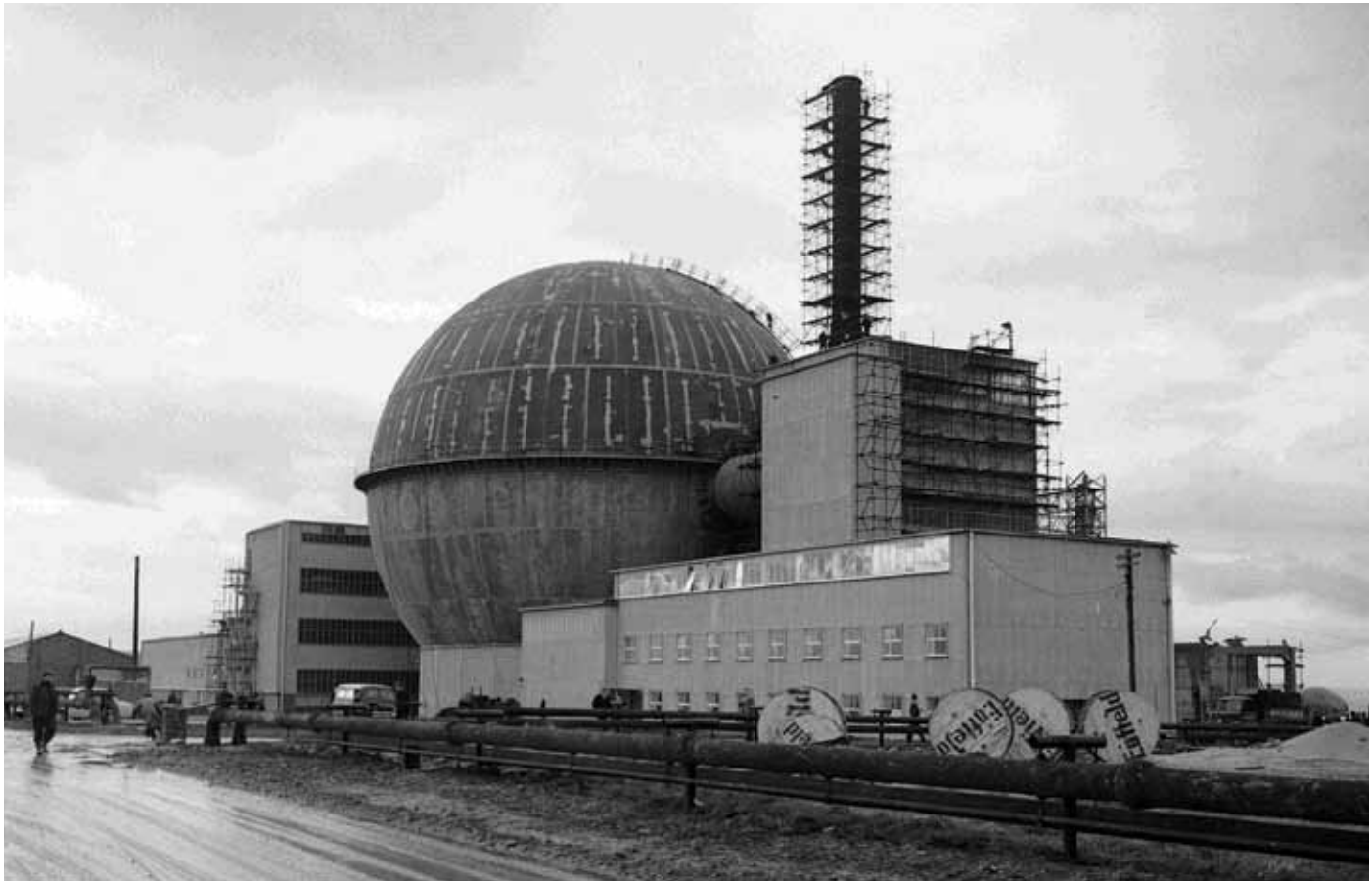
Children seen in Cumbernauld, 1962. The Scotsman Publications Ltd. Licensor www.scran.ac.uk

Reconstruction needed planning above all else. In 1962 the Scottish Development Department was set up to spearhead the big infrastructural changes. The idea was for the state to create wealth by commissioning large-scale projects. A series of grandiose plans was prepared, including the National Plan for Scotland of 1966. A new optimism about the potential of the Highlands led in 1965 to the establishment of a development agency with significant powers to invest – the Highlands and Islands Development Board. Out of this initiative came extensive industrial projects such as the aluminium smelter at Invergordon (although it was ultimately doomed by 1981). The iconic profile of the Dounreay reactor appeared at this time, promising a cheap, inexhaustible supply of power [1.1]. In the era before the fuel crisis of 1973, the road-building drive was also a key part of planned modernisation. The showpiece was the elegant Forth Road Bridge (1958–64), which became highly symbolic of the new optimism. Roads and renewal were consistently linked in the big cities and larger towns. The most ambitious was the Glasgow Inner Ring commissioned by Glasgow Corporation: a full-scale motorway planned on a line of least resistance through designated slum clearance areas.

There were national initiatives but it was the local authorities, empowered by central government, who did the vast majority of the work. In this context,



1.1 Dounreay Atomic Power Station, Caithness, Richard S Brocklesby (chief architect to UK Atomic Energy Authority), 1955–9. © The Scotsman Publications Ltd. Licensor www.scran.ac.uk

where the 'planning authority' sat at the heart of communities, buildings designed to house the local authorities were naturally thought of as symbols of the bright modern future. Two architecturally contrasting examples had a very similar brief. Lanark County Buildings was designed in 1959 for a very progressive, modernising authority with their headquarters at Hamilton [1.2]. The design came out of the Chief Architect's office under the direction of D G Bannerman. The other example is the uncompleted Renfrew County Buildings at Paisley (1969–73), won in competition by Hutchison Locke and Monk [1.3]. The Lanark County building is a 17-storey slab block set in a wide piazza containing a circular, detached council chamber. In its wider flat and featureless landscape setting, the building is visible over many miles

as a grand gesture of civic power, a modern democratic version of the quasi-royal Hamilton Palace which had dominated the area. The whole new set piece seems to refer to an international type popularised by the architect Le Corbusier and seen, for example, at the United Nations headquarters in New York where open space resonates with power. The Renfrewshire County building, by contrast, while housing most of the authority's services along with a police station, crouches relatively low and spreading in its sensitive historic location adjacent to the Abbey. Replacing a district of run-down tenements, the building attempted to give a new dignity to the historic precinct. Both buildings created wide new areas of 'public realm', but the Paisley offices sit quietly and respectfully of their historic setting while the Lanark County building broadcasts its powerful Modernist message.

Most post-war architecture was 'civic' in one way or another, in that it tended to connect with the wider public; indeed there was a general tendency to blur the distinction between the internal and the external. This was the era of the democratising of public space, which flowed through squares, gardens, shopping centres, pedestrian underpasses, and around the major civic schemes and housing developments both public and private. Where Scotland's 18th- and 19th-century new towns were designed to maintain privacy and to segregate one class of town-dweller from another, the post-war city was conceived as open, democratic and available to all. The new Modern type of segregation was according to use rather than social class. 19th-century 'mixed use' was the norm in cities, but its drawbacks were felt mostly by working-class citizens who lived cheek by jowl with factories,

tanneries, stables and other unpleasant neighbours. Thereafter, industry was to be separated from housing. In this new context, the separation of the public and the private now began to seem artificial and unnecessary.

The idea of the positive elements of the past was still strong and there were ongoing attempts to 'save' it or to respect it, often within a civic setting, as at the new municipal plaza centred on the 16th-century Provost Skene's House in Aberdeen, but also even in suburban locations [1.4]. A newspaper report on new housing in Eaglesham, for example, noted that the design 'had kept the simplicity of line and exterior colouring that will not clash with the old cottages in Polnoon Street'. On the whole, however, there was a strong acceptance that modern society needed Modernism and not antiquarianism.

The new town of Cumbernauld was the ultimate 'civic centre'. Whereas East Kilbride New Town (begun 1947) had, to some extent, embraced an existing village, Cumbernauld Town Centre (1963–7) was entirely by itself on a hilltop far removed from the traditional settlement. While the town's housing reflected old Scottish planned-town precedents, the Town Centre

ABOVE LEFT

1.2 Lanark County Buildings, D G Bannerman (Chief Architects Office), 1959-64. © William Young. Licensor www.scran.ac.uk

ABOVE MIDDLE

1.3 Renfrew County Buildings, Hutchison Locke and Monk, 1969-73. © Royal Fine Art Commission for Scotland. Licensor www.scran.ac.uk

ABOVE RIGHT

1.4 Provost Skene's House (1545) set within wider civic plaza redeveloped in 1962 with St Nicholas House in the background. © Robert Gordon University. Licensor www.scran.ac.uk

1.5 Scottish Widows, Sir Basil Spence Glower and Ferguson, 1972-4. Crown Copyright: RCAHMS

seemed utterly Modern – futuristic, even. Cumbernauld's Town Centre was a 'megastructure', designed to combine every single function of town life, and was even penetrated by a full-scale highway. The Centre's designer, Geoffrey Copcutt, conceived the building as a 'nine-level package accommodating most of the commercial, civic, cultural and recreational uses for a population of 70,000 ... a single citadel-like structure nearly half a mile long ... a drive-in town centre'. The tendency to design complex, layered buildings, often with drive-through elements, was very much a theme of later Modernism but it found its fullest expression at Cumbernauld. Architecture students from all over the world are still drawn to it, much to the amazement of its operators.

Commercial architecture in the post-war period meshed closely with the civic. The new civic presence was to a large extent simply a continuation of the old idea of prestigious centrally located headquarters, but some of the new authorities, such as East Renfrewshire Council, placed themselves in a landscape setting similar to the out- or edge-of-town corporate set pieces that were developed in the 1970s and 1980s. The Scottish Widows building (1972–4) at Dalkeith Road, Edinburgh is a case in point [1.5]. Here the architects, Sir Basil Spence Glover and Ferguson, created a landscape within the dramatic wider landscape setting of Salisbury Crags. The building itself is a series of interlocking hexagonal prisms varying in height from one to four storeys and giving the impression of a cut gem-like structure, in contrast with the free geological form of the crags behind. The 'newness' and Modernity of the complex was played off against the geology of the rocks.

Within the cities, one of the boldest and most successful Modernist buildings was, paradoxically perhaps, designed for a highly sensitive location in Edinburgh. Rowand Anderson Kininmonth and Paul's headquarters for the Scottish Provident Society (1961–9) offered a frankly visible structure and transparent exterior to the existing historic context of stone monumentality.

Later, growing attempts to pay due respect to historic context also used glass, but now in the form of curtain walling. Once a symbol of absolute Modernity, modern glazed buildings came to be seen as a 'polite' response

to historical context, reflecting – literally – the older buildings around them. It was a short step to designing 'sympathetic' buildings which 'picked up' adjacent architectural features and a shorter one still to replication. In the late 1970s the old gradually came to be valued more highly than the new. Increasingly, there were attempts to distance new buildings from mainstream Modernism and intimations of a new concern with historic context. Some architects used strong colours and chunky shapes adopted by 1970s shop designers. Examples include Edwin Johnston and Nicholas Groves-Raines's 1971 White House Visitor Centre, Stirling [1.6]. Some late-Modernist schemes sought to reduce apparent bulk, as in the stepped sections of Michael Laird and Partners' Royal Bank Computer Centre, Edinburgh (1978) or James Parr's General Accident headquarters at Pitheavlis, near Perth (1982–3) [1.7]. In Aberdeen, the Town House Extension (1975), by City Architect Tom Watson) attempted to remain 'in keeping' by using granite. An alternative approach which emerged in the 1950s and 1960s involved

1.6 White House Visitor Centre, Stirling, Edwin Johnston and Nicholas Groves-Raines, 1971.
Crown Copyright: RCAHMS

1.7 General Accident Headquarters Building, Perth, James Parr, 1982-3.
© Charles McKean. Licensor www.scran.ac.uk

revisiting vernacular architecture, such as in Wheeler and Sprosons's housing at Dysart (1958–71), a historic burgh in Fife.

A key change of direction occurred in 1976 when the seventh New Town, Stonehouse, was abruptly cancelled and its resources were directed into 'GEAR' (Glasgow Eastern Area Renewal). The city, above all else, was now seen as the appropriate arena for action: not 'clearance' but 'regeneration' driven by a certain nostalgia for a pre-1914 sense of community. At first, new development was low-rise and suburban, but soon the tenement made its dramatic reappearance. This building type – which seemed to sum up a pre-clearance, pre-modern golden age – was previously the bugbear of housing reformers. Soon, the Modernist development itself replaced the tenement as the bogeyman of building: 'inhuman' in scale and imposed from above. The worsening image of the private car also enabled urban motorways to be condemned out of hand – even as car ownership increased as predicted.

Now in the city, there were to be

1.8 The Italian Centre, Glasgow, Page and Park, 1992 (extension 1993-4). Crown Copyright: RCAHMS

small-scale interventions, following patterns established by existing old buildings. There was a renewed reverence for the picturesque mixed-use neighbourhood, strongly advanced, for example, in the rhetoric of the Edinburgh Old Town Committee for Conservation and Renewal from 1984, which emphasised wealth creation and contained an implicit questioning of old-style planning. Within this rather backward-looking context, much civic and commercial architecture referred to past styles. There was a new concern with 'place' so that new buildings began to reflect and even to replicate existing architecture. Modernism was now widely regarded as a destroyer of community – a forward-looking, technology-driven juggernaut that would be stopped in its tracks by a new insistence on the ordinary and the past.

In terms of buildings, the first initiative was the regeneration of Glasgow's Merchant City, a run-down mixture of warehouses, offices and public buildings. From 1980 onwards, investment poured into the area, led by the Scottish Development Agency's City Centre Project. The idea was to push the area upmarket by introducing groups of higher-income dwellings, and by 1990, 1,143 houses had been built or converted in the area. The most complex achievement was Ingram Square (1984–9), a street-block of 'artistic' regeneration, comprising ten separate sites designed by Elder and Cannon. The climax of the Merchant City programme in the 1980s was the Italian Centre by architects Page and Park (completed 1992; extension 1993–4), a street-block of old warehouses converted into a mixed courtyard development 'where external restraint is set against a visually exciting and vibrant courtyard' [1.8]. The high point of the heritage movement was reached at Cathedral Square in Glasgow, where the new emphasis was on making and mending, and relating new buildings to old in an 'organic' manner. At the heart of the complex was St Mungo's Cathedral, whose setting was reorganised by Page and Park in a scheme of 1984–94.

'Postmodernism' had a short life in Scotland. It became a superficial style of labels and signs, and the call soon went out for deeper meaning in architecture. Were the prescriptions of the Moderns so thoroughly wrong? These questions were raised, often by surviving Modernists, in the second half of the 1980s. John Richards (of the architectural practice RMJM) praised the 'vigour' of 1950s Modernism, and Isi Metzstein attacked the 'polyfilla and plywood language of Postmodernism'. Underlying these criticisms was a growing nostalgia for immediately post-war community-based planning, as against the individualism of the 1980s. But was there to be a Postmodern stylistic revival of Modernism? Certainly, 'heritage' had been expanded to include the Modern Movement: in 1993 the Lanark County Buildings tower block was listed by Historic Scotland; and in new buildings there would soon be a much more daring expression of the interface between the old and the new. Elder and Cannon's St Aloysius Junior School (1998) and Page and Park's 'battery pack' extension for The Lighthouse (1999), both in Glasgow, were celebrated contemporary interventions which seemed finally to deal with the lingering issue of pastiche in historic settings.

Housing and Health

ANNIESLAND COURT at the top of Crow Road is a distinctive Glasgow landmark, and makes a clear statement – almost like an exclamation mark – at a major road junction. Historic Scotland has identified through listing the architectural and historic significance of the tower's design, which stands as a unique monument to its type in Scotland, a symbol of the development of the city's outskirts in the 1960s.

Catherine Gavin and Thomas Lindsay, both council tenants, have resided in Anniesland Court since the early 1970s and early 1980s respectively and, even after all these years, still admire the breathtaking views over Glasgow and the West of Scotland. They have come to appreciate the 'ups and downs' of high-rise living, and although they have faced a number of challenges in ensuring the proper maintenance of their building, they feel a distinct sense of pride in the tower, reckoning it to be the best one of all the Glasgow blocks. Many residents still gather weekly at the coffee mornings in the ground-floor community hall.

Built by Jack Holmes and Partners in 1967–8, Anniesland Court is contemporary with Ernö Goldfinger's Balfron Tower and Trellick Tower in London. It similarly offers a separation of lift and stair towers from the residential areas, removing unnecessary noise; and, as at Trellick, provides social and commercial functions in adjoining ground-floor accommodation in a manner inspired by Le Corbusier's Unité d'Habitation. The Holmes Partnership also designed the monumental Clydeway Industrial Estate, a massive flatted industrial complex at Finnieston.

2.0 Housing and Health

HOUSING THE NATION

A shortage of half a million homes in 1944, followed by a sudden surge in the birth rate, led to an unparalleled housing boom which dominated the planning agenda for the next two decades. Today, more than 50% of dwellings in Scotland date to the post-war period. Together with provision for health under the newly formed National Health Service, social housing stood at the core of welfare state planning throughout the 1940s, 1950s and 1960s.

Acres of economy-built estates and towering slabs, designed mostly by architects within local authority offices, sprung up in response to the new demand. However, the speed of their creation, and their apparent disregard for tradition – caused in part by the lack of available materials in the immediate aftermath of the Second World War and the consequent need for structural innovation – resulted in many cases in accelerated deterioration, so that confidence in the new ventures diminished as early as the 1960s. The ensuing backlashes have widely tarnished the reputation of post-war housing schemes; but a closer inspection of the variety within the building type can reveal more positive aspects.

The development of post-war housing is inextricably linked to political concerns. Churchill's new government of 1951, which ushered in a period of economic prosperity that lasted, under Tory rule, until the mid-1960s, enabled a 'bonfire of controls' that bolstered supplies previously diverted to the war effort. Timber and aluminium would be the most useful in terms of prefabricated systems in the immediate post-war period. Brick would ultimately typify ubiquitous post-war construction. However, steel – an increasingly expensive commodity – together with concrete, glass and asbestos would be seen to characterise the larger and more ambitious modern schemes and commissions.

The provision of housing after

2.1 The Inch Estate, Edinburgh, Stratton, Davis and Yates, 1951. Courtesy of RCAHMS

1945 remained the major political challenge it had been before 1939, but with the 1947 Town and Country Planning (Scotland) Act local authorities were required to consider new housing proposals in the context of development plans, and had the right to close involvement in their creation. *Planning Our New Homes* (1944), the report of the Scottish Housing Advisory Committee, identified deplorable overcrowding in Scotland, and, while recognising the inevitable shortage in skills and supplies, set out well-considered recommendations and provided model plans to illustrate the essentials. The *Barlow Report* (1940) had similarly set out new policy to balance the relationship between landscape, population and employment, ultimately advocating population dispersal. Alongside the proscriptive government reports, publications such as Alan Reiach and Robert Hurd's *Building Scotland*, also of 1944, under the auspices of the then Secretary of State for Scotland, Tom Johnston, contributed to contemporary rhetoric on the subject of the Scottish housing problem, recommending a modern

Scottish vernacular injected with Scandinavian brightness and colour. Edinburgh's suburban Inch Housing Scheme (1951), won in competition by Stratton Davis and Yates, illustrates the city council's adherence to some of these Utopian principles. The houses here are given gentle ornament with Regency-style porches and balconies, and are laid out on garden suburb principles – low level, with plentiful green space and functional buildings as focal points [2.1].

Few schemes looked to regenerate town centres in their provision of housing, but there are some exceptions. In Stirling, for example, in Broad, Bow, Baker and Bank streets, Sir Frank Mears and the burgh architect evoked 17th-century domestic design for this historic burgh's post-war requirement. Spence (1959) and Ian Lindsay and Partners (*c.* 1970) tackled continuity in Edinburgh's Newhaven with more transitional modernity [2.2]. Linlithgow's town centre redevelopment by Rowand Anderson Kininmonth and Paul (1960), set cheek by jowl with the historic market cross and Linlithgow Palace, similarly broke from the vernacular

2.2 Great Michael Rise, Edinburgh, Sir Basil Spence and Partners, 1956-59. Courtesy of RCAHMS (Sir Basil Spence Archive)

style in its use of indisputable modernity. Wheeler and Sproson's work in Dysart in Fife (1958–71) made reference to traditional forms when interweaving diminutive tower blocks with the fishermen's terraces, although as realised the buildings are thought by many local residents to be rather unattractive. For those seeking to achieve a modern vernacular, the demands of new building regulations – for example, the need for larger windows – would provide a challenge in design terms to achieving the delicate balance between old and new.

The work of the Scottish Special (Areas) Housing Association (SSHA) led the way in technical innovation and research while supplementing the efforts of local authorities where required, as in the housing at Sighthill, Edinburgh (1950). The SSHA reportedly took further the experimental prefabrication techniques which

2.3 Langlee Housing Estate, Beech Avenue and Larch Grove, Galashiels, Wheeler and Sproson, 1965-7.

had been developed for the military before 1945, and were responsible for housing workers employed in the newly developed industries. The Langlee estate, Galashiels, by Wheeler and Sproson, is a good example of their later contribution from the mid-1970s. It evolved from the Percy Johnson-Marshall masterplan and, landscaped by David Skinner, is still expanding today [2.3]. In the work of these state-sponsored architects, including Wheeler and Sproson, reference was often made to the small fishing towns on the east coast (steeply pitched roofs, pantiles, wynds and pends) which were married with new materials and timber boarding to provide local character; and other work included the conversion of farm buildings which also gave focus to a community. Fishermen's housing was a theme also taken up by the practice of William Kininmonth in its work in the Borders at Burnmouth in 1949, and again the following year by Basil Spence's firm in Dunbar, East Lothian.

In the west of Scotland, a keener welcome was given to the philosophies of the 'Brave New World' and a greater acceptance of novel design solutions, met with larger numbers in need of re-housing, made an increasingly radical impact on the built environment. Driven by powerful personalities such as Glasgow Corporation's 1960s housing convener, David Gibson, the plan for regeneration was determined to keep the population within the city bounds, in contrast to earlier efforts concerned with peripheral low-density, low-rise developments and the mass building of the modern version of the traditional tenement. Gibson's drive to house the people of Glasgow saw the city move towards high-rise tower-block living, convinced of the over-riding advantages of this form of dwelling.

Most high-rise buildings synonymous with 1960s design were in fact by contractors and only occasionally by architects. High-rise was an unequivocal panacea for overcrowding and poor conditions. In the Gorbals, the slab blocks of Basil Spence's Queen

Elizabeth Square, Hutchesontown C ('the Queenies') are the most renowned, built in 1961–6 and each a Scottish version of Le Corbusier's Unité d'Habitation in Marseilles (1946–52), an icon of Modernist architecture. Demolished in 1993, the Queenies' material form is blamed for their demise as much as any community implosion. An architect involved with the scheme noted: 'What we did not realise when we were building things of this nature is that they involve very high maintenance cost. And that cost was impossible for the local authority to deal with.' Sam Bunton's American-inspired Red Road flats (1962–9), at 31 storeys, were not system-built, but rather of steel-framed construction clad in asbestos sheet. Patrick Abercrombie in his wartime strategy for post-war reconstruction had suggested that housing for 136 persons per acre would provide a desirable norm for built-up areas in London. Bunton's Red Road housing scheme housed 212 per acre to satisfy the requirements of the Glasgow Corporation.

In Aberdeen's Hazelhead scheme (1963–4), the tower blocks benefited from variation and a mix with low-rise accommodation as well as an existing parkland setting. The towers of the Dumbiedykes estate in Edinburgh (1959–64) by the City Architect were a striking contrast to the dramatic natural backdrop of Salisbury Crags without the benefit, at first, of a variety of housing types as later built. However, the partial collapse of Ronan Point in London's East End in 1968, following a gas explosion, called into question the suitability of high-rise structures. The maintenance of these buildings has since been found challenging, owing to such period norms as concrete cladding and asbestos insulation. Apparent obsolescence and subsequent stigmatisation of the type make it easy to forget the considerable improvement in quality of life which the high-rise and new tenemented estates had brought, outstripping much of what the poorly maintained Victorian tenements could provide. Ruby Bryden, a resident of forty years in Glasgow's Drumchapel, recalls: 'I thought my new house was brilliant. I was absolutely delighted with my inside toilet and bathroom. We used to have to go to the steamie to have a bath so as you can imagine I really appreciated being able to have a bath whenever I wanted. My health improved dramatically after the move.' Tony Roper has immortalised such sentiment in his play *The Steamie*.

Poor maintenance and management, the lack of understanding of innovative technology, and an apparent social breakdown often imposed by the high-rise form in its perceived isolation and sterile landscape, have already caused much of this achievement to be condemned to redevelopment before it could be more fairly appreciated. Constructing tower blocks was not cheap – nor was it ever claimed to be – and did not compare financially with lower-density schemes where system building was naturally more cost-effective. Anniesland Court (1967–8), an isolated multi-storey block in Glasgow's Crow Road by Jack Holmes and Partners that was largely influenced by the developments of London County Council, is to date the only tower block in Scotland designated as a listed building. With the benefit of time, it is one of the first to be recognised as being of special architectural merit, perhaps because its success as a

2.4 Cables Wynd House, Leith, Edinburgh, Alison and Hutchison and Partners, 1963-6.
Crown Copyright: RCAHMS

unique design, but uncannily similar to its exact contemporary in London, Ernö Goldfinger's Trellick Tower, of which the practice would probably not have known.

Cables Wynd House, Leith (1963–6), by Alison and Hutchison and Partners, with ten storeys and over 200 flats, is one of the best examples in Scotland of the modern form of large deck-access housing which would emerge, perhaps akin to large celebrated 1950s and 1960s schemes in Sheffield and London [2.4]. In the local context, the formula may be seen as a bold reinterpretation of smaller schemes of deck-access flats erected in Edinburgh around 1900, but unlike in Glasgow, where large-scale clearances took place, the 'Banana Flats' (so-called because of the building's plan form)

2.5 Irvine New Town, 1966. Crown Copyright: RCAHMS

were built on an unusual site within the existing town plan.

Scotland's five New Towns owe their existence to post-war legislation – in the form of the New Towns Act 1946 – but their planning to pre-war reaction against areas of dense tenements in the larger cities, in particular Glasgow. Originally, on advice from Sir Frank Mears – whose thinking had been moulded by the great social engineer, Patrick Geddes – eight were considered necessary. These towns were built on Utopian and Garden City principles, and the emphasis on a balanced community predominates; yet each town is distinct in terms of design and layout.

Designated in 1947, East Kilbride was the first New Town to emerge, and succeeded in attracting industry to support its new community. While new residents from Glasgow were reported to experience 'New Town Blues' – stemming from the initial lack of facilities and infrastructure – the town has been a tribute to the philosophies of Ebenezer Howard, the great advocate of Garden City planning. Glenrothes followed in the east, intended to serve the new mining industry along the Firth of Forth, although its growth was challenged early in its history at the closure of Rothes colliery in the 1950s.

Cumbernauld emerged with the specific goal of practically eradicating the housing deficit in Glasgow, as the earlier towns had only begun to accommodate the now famous 'overspill'. By contrast with East Kilbride, the Garden-City-inspired New Town, Cumbernauld was of a new generation and sought, for example, a clear separation of vehicular and pedestrian traffic. It was planned from 1957 by Hugh Wilson with the Corporation team. Its multi-level covered town centre designed by Geoffrey Copcutt is an iconic megastructure, at once celebrated internationally and detested locally. While it won the American Institute of Architects' Reynolds Award for community architecture in 1967, it has more recently won a television competition for its demolition. It is undeniable that the concept was at the forefront of contemporary architectural design and in theory related to social aspirations here. It was also capable of variation and conversion and surrounded by purposeful, tight-knit low-rise developments (such as Seafar and Carbrain).

New Town growth required the relocation of industry, and to satisfy the overspill it was critical that the next town should not compete with existing manufacturing and engineering centres in Scotland. Hence Livingston was chosen, in 1962, to allow for a new focus on industry along the central belt and replace previous dependency on coal and shale. The larger numbers planned for Livingston saw an evolution of revised principles in response not least to universal car ownership. While East Kilbride and Glenrothes had both bordered existing settlements, the fifth New Town at Irvine would consume two – Irvine and Kilwinning – from 1966, but would draw its employment from outside, from the ICI plant at Ardeer and the nuclear plant and the later ore terminal at Hunterston to the north [2.5].

Scotland's sixth New Town at Stonehouse, Lanarkshire, was the last intended to serve Glasgow's overspill. Its development was challenged by competing demands to support failing industry elsewhere and by emerging

plans for repairing the housing stock in Glasgow itself in response to the 1969 Housing Act. The great Scottish cities by this date were prepared to lose no more historic fabric, and further plans for new housing in Stonehouse were stopped in 1976.

The particular context for this actual U-turn in favour of the rehabilitation of existing fabric can be traced to the planning of the Comprehensive Development Areas, whose main concerns related to how land was used in the city of Glasgow. These had formed the core of urban planning in the post-war period and, through 29 different zones, had intended largely to reshape Glasgow's metropolitan form. Most, however, were not executed. The nature of the associated housing developments and their scale, predictably perhaps, bred reaction and led to the emergence of the conservation movement of the later 20th century. In 1971, Lord Esher commented that 'after the rigours of warfare in foreign parts, people had had enough concrete to be going on with' – yet more had been served up on an unforgiving, inhuman scale. As the policies for a 'Brave New World' which led to the post-war schemes began to lose credibility, it is no surprise that the new 'sustainable' policies of the Glasgow Eastern Area Regeneration should move in to take their place.

Late-20th-century housing schemes, following the 'questioning' decade of the 1970s and co-ordinated by the new housing associations emerging in the 1980s, have clearly been influenced by the lessons learnt from post-war schemes. The 1969 Town and Country Planning (Scotland) Act brought a change in philosophy, requiring local authorities to provide local and over-arching regional structure plans considering the future development of their areas from a holistic perspective. The Act required the repair of inner cities to defer to the goals of conservation planning and reject wholesale redevelopment. Initiatives for the repair of tenements – beginning with Taransay Street, Govan from 1971 – would see the gradual evolution of communities as clients.

Housing demonstrates more starkly than any other building type the unequalled scale of Scotland's reconstruction boom during the 1960s, and the lead in this of the public sector. It is helpful to remember that the varying quality of local authority housing in the period was in part dictated by budgetary provision, the pressure of time to supply the acute demand and the restriction on the availability of materials. Few of the many outstanding housing examples of this post-war period detailed in this chapter remain as built. In forming areas of special architectural or historic interest, the type lends itself well to designation as conservation areas, and an audit of the surviving extent could be invaluable.

The scale of late-20th-century housing schemes was smaller than that of their predecessors, not only because of reduced pressure. The landscape was changing: architects' practices would tender successfully for commissions against state competitors, and the low-rise cul-de-sac would become a familiar pattern. While the scale and form of housing has varied in distinctive period essays over the last 50 years, they retain a historical significance which cannot be denied.

THE HEALTH OF THE NATION

The health of the people is of course linked to housing, and in the post-war period it duly fell to the same ministerial department until 1961. The formation of the National Health Service by the Labour government, by statute in 1948, paved the way for new rationalist philosophies in hospital design. With the consequent growth in health care provision, however, a new, larger hospital was required to the west of Glasgow, and Joseph Gleave of Keppie Henderson and Gleave took the commission to build the District General Hospital, Vale of Leven, Alexandria, from 1952, the first complete new-build after the War in Britain [2.6]. While a capacity for expansion had been critical to the Alexandria design, it demonstrated nonetheless the low linear ventilated plan form which was gradually to be replaced, in parallel with the design for schools, by centralised, multi-storey planning and smaller wards. Bellshill Maternity Hospital (1959-62) [2.7],

2.6 Vale of Leven Hospital, Alexandria, Joseph Gleave (Keppie, Henderson and Gleave), 1952. © William Young. Licensor www.scran.ac.uk

2.7 Bellshill Maternity Hospital, Gillespie Kidd and Coia, 1959-62. © The Scotsman Publications Ltd. Licensor www.scran.ac.uk

2.8 Nuffield Transplant Unit, Western General Hospital, Edinburgh, Peter Womersley, 1955.

was among the first to display this new thinking and less institutional approach, as did Robert Matthew Johnson-Marshall and Partners' Ninewells Hospital, Dundee (1961–74).

The design of components of hospitals benefited from new commitment to state provision. The Ross Nurses' Home at Hawkhead in Paisley, for example, was a 1949 reworking of T S Tait's pre-war design for the same, to provide a streamlined residence. Rational planning and critical creation of a sterile environment informed Peter Womersley's iconic and award-winning design for the Nuffield Transplant Unit at Edinburgh's Western General Hospital (1955), while his boiler house at Dingleton Hospital, Melrose is a powerful statement of functionalist expression [2.8]. The planning of Falkirk Royal Infirmary Ward Unit and Theatre Block (1963–6) by Keppie Henderson and Partners was tailored in response to ergonomic requirements following a study funded by the Scottish Office.

New thought extended in the period to general health practice and community planning. In this regard, the Sighthill Health Centre, Edinburgh (1951–3) by Robert Gardner-Medwin revealed, in Festival of Britain garb, the perceived ideal and ground-breaking combination of services around a welcoming courtyard plan. Peter Womersley, working in a village setting, produced a unique and imaginative group of Practice Consulting Rooms at Kelso (1967), originally with futuristic oval-plan pods with a series of interlocking rooms, but which are now altered because of the changing needs of the medical practice.

In more recent times, the design of the Maggie's Centres at five major cancer treatment hospital sites across Scotland from 1996 have resulted in some imaginative buildings by national and international figures in architecture from Frank Gehry to Zaha Hadid and Page and Park. They are the vision of the founder and cancer sufferer Maggie Keswick Jencks, and aim to provide a 'home from home' environment for cancer patients and their families [2.9].

2.9 The Maggie Centre, Dundee, Frank Gehry, 2003.

Hospitals must respond to constantly changing requirements, and the manner in which facilities are upgraded on a shoestring budget may – as with any subject, if not considerate of the building's character – erode the calibre of the original design. Listing the most significant examples provides a check in the process to ensure that due thought is given, from an informed standpoint, to the options available in managing their change.


berghaus

Education

MADRAS COLLEGE'S Kilrymont Road building in St Andrews, which opened in 1967, broke the mould of conventional school design and provided an inspiring and engaging environment for pupil and teacher alike. Stuart Miller, a former teacher at the school which his son attended, enjoyed the benefits of a building full of character, colour, subtlety and imagination:

'I had worked there for fifteen or more years before my son took me on a tour of the building and showed me the significance of its architecture. It was not a mere Chinese pagoda but a whole site designed to reflect the style of the Sixties with more than a hint of an airport terminal of the future. The careful and thoughtful use of a wide range of materials added to the overall impact.

'In recognising the importance of the building through listing, Historic Scotland, working with the local authority, seeks to ensure that any change is appropriate. Together with my son and his contemporaries, I appreciate the value of our local architecture and its place in our heritage. A school is not just a building, it includes staff and pupils who work together for learning and for preparation for life in the wider world. Madras College has done that well.'

The Kilrymont Road building, designed by Fife County Architects, was constructed at a time when Modernist architecture was developing in St Andrews. Andrew Melville Hall (James Stirling, 1964–8) and the North Haugh Technology Centre (William Holford and Associates, 1965–8) were the school's contemporaries.

3.0 Education

Scotland has prided itself historically on having high regard for education. The priority placed on education in post-war Scotland remained high and the 'brain drain' which also occurred during this period evidenced clearly the Scottish system's success. The drive to modernise Scotland recognised that the establishment of high-quality schools and universities was central to achieving this ideal, although the challenge in doing so was significant. Restrictions were placed on available materials, and the pressure to accommodate the rapidly increasing 'baby-boom' generation loomed.

3.1 Our Lady and St Francis Secondary School, Glasgow, Gillespie Kidd and Coia, 1964 (extension to original site).

The pivotal force for school architecture during the period came immediately with the 1945 Education (Scotland) Act, which brought free secondary education for all and raised the school leaving age from 12 to 15. In following its English predecessor, the 'Butler Act' of 1944, it supported the need for a major rebuilding programme. New philosophies in education required more flexible accommodation and at the same time more tailored designs. Different classifications of need and processes of selection and categorisation emerged, and with new requirements also came a clear separation of building types, particularly between primary and secondary schools.

In 1949, the authors of *The Modern School*, C G Stillman and R Castle Cleary, explained: 'All too often a child's first impressions of school are of a bleak expanse of uncompromising tarmac beyond which looms a flinty Gothic institution within the walls of which he is aware of an all-pervading chocolate or green gloom and almost pervading reptilean [sic] dankness.' There was a real move to break the

3.2 Smithycroft Secondary School, Glasgow, A G Jury and City Architects Department, 1964.
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'gloom' in the interwar years, when compact designs of the Edwardian age of urban Board Schools were replaced – where provision was required – with a more linear form, sometimes using finger plans (with regular blocks projecting at 90-degree angles from the main corridor), which brought in more light.

The predominant trend post-1945 was actually to return to a modern version of the dense or compact plan, although there appear to have been some incursions of more sprawling, linear plan forms. The first school designed by Gillespie Kidd and Coia – Knightswood Secondary in Glasgow – although conceived in 1938 and built from 1954, was a variant on the compact design and would show how, from early on, the practice did not conform to any one trend in building and design. While set in spacious grounds and with generous fenestration, the main block contains specialist accommodation for dance and theatre, probably leading to its development into the Dance School of Scotland in 1983.

Gillespie Kidd and Coia responded to the logistics of block design, continuing this, for example, at Our Lady and St Francis Secondary in Glasgow, in the 1964 extension where cantilevered planes sweep up to maximise light to the classrooms while deterring any sense of height through their horizontal emphasis [3.1]. Smithycroft Secondary School, Glasgow, by A G Jury and the City Architects Department, similarly adopted the more integrated approach and expressed this boldly in a circular plan in 1964. The influential design comprised three-storey rings of classrooms facing outward, while the corridors for circulation faced inward over a polygonal assembly hall at the centre of the ring [3.2].

Guidance to assist with design came not least from the report from the Wood Committee entitled *Standard Construction for Schools* (1943). Initiated in England, this committee was set up by the Ministry of Education to consider standardised construction and layouts for the new schools needed after the war. The report recommended symmetrically balanced and integrated design – 'a connected framework to which the whole of the structure must conform' – while respecting the

3.3 Rothesay Academy, Bute, Harvey and Scott, 1956-59. © Rothesay Academy

need for speed and economy. J and F Johnston's design for Berwickshire High School, Duns, although planned before 1939, demonstrated the essence of the recommendations made in the Wood Committee report in its low and long horizontal principal elevation, 50 bays in length, and its use of canopies and box-framed, recessed windows.

However, it was often the case that the dearth of available materials limited the hand of the architect and led to an unavoidable reduction in the square footage recommended. The most ubiquitous building material, more readily available after the war, was brick; the use of glass, concrete and steel (obtainable at a premium) was less common, although some of the more overtly modern examples of school buildings were constructed using them. R S Lawrie and Fife County Council's Kilrymont building at Madras College, St Andrews (1963–7) provided a flagship school through a unique design which sought to enliven the spirit of its occupants, in a rich balance of texture and colour. The architects at Fife County Council continued to provide unique designs in the modern ethos for high schools at Inverkeithing in 1968–73, where such features as the circular ribbed concrete pavilions, partially sunk into the ground, for science and homecraft, and the use of pilotis, add distinguishing character to the ensemble.

The use of pilotis as a component of Modern Movement design also distinguished Harvey and Scott's planning for the Rothesay Academy on Bute, (1956–9) [3.3]. In a commanding location over the town, a classroom is jettied out on columns, and the whole articulated with contrasting colours and textures, so that the burgh's key

LEFT

3.4 Dalreoch Primary School, Dumbarton, Mural by David Donaldson depicting Mary Queen of Scots departing for France from Dumbarton Castle, 1957.

ABOVE

3.5 Music School, George Watson's College, Edinburgh, Michael Laird and Partners, 1962. © The Scotsman Publications Ltd. Licensor www.scran.ac.uk

patron and local landowner, Lord Crichton-Stuart, commented on its 'strange quality of arrested movement, an equilibrium of massive strength and transparent lightness' with 'something of the braced economy of a ship about to be launched'.

Although not strictly consistent with the principles of modern architecture, the inclusion of a decorative component made an occasional contribution to school design in the post-war period. At Dalreoch Primary School, Dumbarton (1953–5), Ninian Johnston of Boswell Mitchell and Johnston engaged David Donaldson, later knighted and becoming the Queen's limner, to provide painted murals of Mary Queen of Scots leaving Dumbarton Castle, and another of Noah's Ark, in 1957 [3.4].

Increasing demands on technical performance and specialised provision have led to some striking additions to

3.6 Hazelwood Primary School, Drumbreck, Glasgow, Murray and Dunlop, 2006-07. © Gordon Murray + Alan Dunlop Architects

existing schools. At George Watson's College, Edinburgh, for example, the trustees chose Michael Laird to provide the new music school in 1962, and here the auditorium was given both pride of place and acoustic sophistication through its hyperbolic paraboloid roof. Its sweeping form invited use as a BMX track, resulting allegedly in structural damage. [3.5]

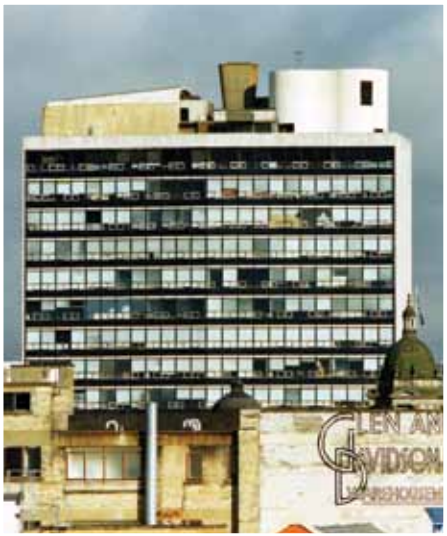
From 1992 under the Conservatives, and then continued under the Labour government after 1997, local authorities across the country focused their attention on the provision of new schools, funded by the private funding initiative known as Public Private Partnership (PPP). The sale and demolition of the existing school, unless already listed, appears periodically to be a necessary presumption in certain PPP packages, to be replaced with buildings for which the school's design and the pupils' need have not been considered adequately. Gordon Murray and Alan Dunlop's recent design of Hazelwood School, Dumbreck, Glasgow (2006–7) has understood and continued the work of previous pioneering decades, where school designs were being customised to the needs of pupils, providing a school which meets the specific requirements of pupils with sensory impairment. At Dumbreck, the long and low formula with generous lighting is taken to a poetic extreme in a sinuous plan in a leafy setting. It is clad in slate, timber and cork, with texture and colour given exceptional emphasis. The respect and warmth that such a considered composition commands for the child and the building's purpose should inform future thinking [3.6].

Tertiary education took a different theme in the post-war period,

particularly in the years between 1957 and 1970 when the focus was on large-scale redevelopment. Typically for the period, change was led by a government paper – that of the Committee on Higher Education chaired by Lord Lionel Robbins, an economist. The report's recommendations, included expansion as a priority and many new universities within the United Kingdom, were accepted in 1963. However, significant university building programmes were already underway in the major urban centres in Scotland in the 1950s, with Dundee and Edinburgh being some of the earliest in the UK, and with further developments in Aberdeen and at Scotland's new campus university at Stirling. Student numbers reportedly increased by approximately 10% over the years from 1967 to 1972.

New theories, both in teaching and in the dynamics of university life, provided a powerful drive for change. Chief among the latter was the idea of communities with separate but connected teaching, communal and residential sectors. In teaching, more interdisciplinary study was required, with fewer lectures and more tutorials,

3.7 David Hume Tower, University of Edinburgh, George Square, Robert Matthew, Johnson-Marshall and Partners, 1959-62 . © The Scotsman Publications Ltd. Licensor www.scran.ac.uk



3.8 Glasgow College of Building and Printing, Wylie, Shanks and Underwood, 1958-64. © Newsquest (Herald and Times). Licensor www.scran.ac.uk

supplying architects with some of the most challenging and sought-after work.

The authoritative figure of Robert Matthew influenced the emerging principles on his return, following seven years as architect to the London County Council, to private practice and a university post in Scotland in 1953, bringing wide-ranging experience. While developing new patterns of architectural practice, such as decentralised grouping, and bringing changes to architectural education, he sought to harness private–public consultancies as a vehicle for the new and reinvigorated universities. He was also keen to exploit the unprecedented opportunities for putting in place personal architectural and planning ideals.

Dundee was not slow to provide accommodation to suit new requirements of the universities, if not initially modern in their attempts for Queen's College (later the University of Dundee). First of these was the Ewing Building by Reginald Fairlie and Partners in 1953, well fenestrated with ashlar facing and lavish detail. Robert Matthew's design for the flagship Tower Building (1956–61) was the first tower be realised for tertiary education in Scotland [see 7.6].

Edinburgh University was among the earliest to moot change in the shape of Basil Spence's development plan for the relocation of the arts and sciences

3.9 University of Stirling, Pathfoot Building, Robert Matthew Johnson-Marshall and Partners, 1966-67. Crown Copyright: RCAHMS

faculties to George Square, at the heart of a Comprehensive Development Area, in 1955. From 1958, Robert Matthew Johnson-Marshall and Partners further developed Spence's concept of quadrant towers, with the podium arrangement and tower becoming key components. The David Hume Tower, the linchpin of the podium group, graces the Edinburgh skyline as a distinctive landmark, but the scheme was not without considerable opposition owing to the demolition of sections of the existing 18th-century square and the tower's unprecedented height in the city [3.7].

Glasgow continued the theme in the provision of complementary tower blocks for Stow College in the urban heartland. The College of Building and Printing (1958–64) by Peter Williams of Wylie Shanks and Underwood was the first of these: at 13 storeys, with single-storey assembly hall and

gymnasium, it bears distinct references to the work of Le Corbusier [3.8]. The College of Distributive Trades (latterly the Central College of Commerce, Charles Oakley Campus) was designed from 1957, also by Williams, but built from 1959 and stands as a foil. At seven storeys in height, it is the junior of the two but bears close stylistic similarities to its near neighbour. Both are generously lit with distinguishing pilotis, Travertine marble cladding and Vitrolite.

Stirling University, established in 1967, reached the zenith for the period in Scotland, the one entirely new 'plate glass' campus born in response to the Robbins Report. Competition for the site was held between Ayr, Perth, Dumfries, Cumbernauld, Inverness and Falkirk, but Stirling won in satisfying most closely the criteria set – that is 200 acres of ground, proximity to a large town and with links to business and cultural communities. The campus plan and design was developed in 1966–7 by Robert Matthew's practice led by John Richards, while Matthew focused his attention on an equivalent at Coleraine in Northern Ireland. The buildings were

3.10 University of Edinburgh Library, George Square, Sir Basil Spence, Glover and Ferguson, 1965-67. Courtesy of RCAHMS (Sir Basil Spence Archive)

system-built in response not least to an acute timescale. The first and arguably the best departmental building on the campus is Pathfoot [3.9]. Because the building was required to provide the university with all its functional space prior to the completion of other main buildings, it was designed as multi-purpose, flexible in its plan, and all in a streamlined and rational form, maximising the inclined site and views of the existing 18th-century designed landscape.

There can be few colleges worldwide as tailored to purpose and powerfully expressed architecturally as that of St Peter's Seminary, Cardross, by Gillespie Kidd and Coia (1959). Le Corbusier's monastery at La Tourette in France may have given some inspiration, but the compact and harmonious form of the communal provision at St Peter's evidences the architects' considered response to the requirements of a closed community [see 8.3].

The library is for many the hub of their college experience, and three universities responded to this in the 1960s, equipping their students with exemplary designs. In Glasgow, William Whitfield and Partners provided a fortified, Brutalist concrete tower evolved from 1961 – a monumental statement for the university, intentionally sited at a dominant point of the new extension as part of the vision of J M Gleave, the University of Glasgow's campus master-planner. At Edinburgh, Sir Basil Spence Glover and Ferguson designed the mannered late Modernist library (1965–7), which completes a second side of the George Square development with anchoring authority and was regarded in planning terms to be superbly adapted for its use [3.10]. St Andrews looked to Faulkner-Brown Hendy Watkinson Stonor in 1972 for a more horizontal and appropriately comfortable design to suit its location on the back gardens of the flanking streets.

Residential facilities were part of the community goal of the new philosophies, and again Matthew provided a large clustered complex for this purpose at Crombie Halls, Aberdeen (designed 1953; built from 1957) – slightly old-fashioned stylistically for its date, harking back to the Swedish vernacular. His intention and achievement was to continue here the small-scale informal civic character which pervades the city's university. The residences included the first ever mixed-sex hall in Britain. In 1956, Edinburgh followed Aberdeen with the classical Modernist Pollock Halls of Residence, by Rowand Anderson Kininmonth and Paul, on the edge of Holyrood Park. The layout here boasts a collegiate atmosphere through the use of 'cloisters', providing one of Scotland's most significant examples of the Festival of Britain style, with the influence of Swedish classical design, in the distinguishing lantern towers.

Gillespie Kidd and Coia designed the five residential blocks at Notre Dame College (later St Andrews College), Bearsden, 1968–9, a more focal position within the wider estate, each distinguished by stepped, cubic articulation [see 7.8]. The University of St Andrews' planned expansion led them to James Stirling in 1964 to design the Andrew Melville Hall on the North Haugh. Situated on falling ground, only one of four sections was built, resulting in a rippling and linear V-plan that makes reference to ocean

3.11 University of St Andrews, Andrew Melville Hall, James Stirling, 1964. © Nick Haynes. Licensor www.scran.ac.uk

liners, and with distinctive polygonal rooms and economical exposed breeze blocks which have inadvertently come to characterise the building [3.11].

The building programme for higher education reached a conclusion by 1970, and was perhaps tarnished in the shape of the Europe-wide student protests in 1968. At a superficial level, the buildings' planning was seen to have bred a neurosis and to be causative; however, this was a temporary and unjustified scapegoat for another constellation of social concerns.

Post-1945 schools are among those being swept away at present in the drive for new schools funded by PPP. Schools in particular are the focal point of many communities and their design, preservation or redevelopment can be an emotive matter. Many university buildings, the fabric for which has come to the end of its original lifespan, are likely to change or be demolished. It is precisely at this time, when the post-war developments have defined more than one generation, that an assessment of the architecture of post-war education is needed to prevent the unnecessary loss of critical historic achievements and major design successes.


MININ

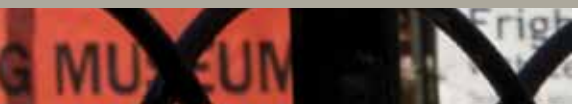
Industry and Infrastructure

LONG BEFORE his election as MP for Midlothian, David Hamilton began work on his 16th birthday in a colliery. His first pit was Easthouses, after which he worked in other older local collieries. These were relatively small-scale pits where most people knew one another, and although conditions were comparatively poor, they were convivial places to work.

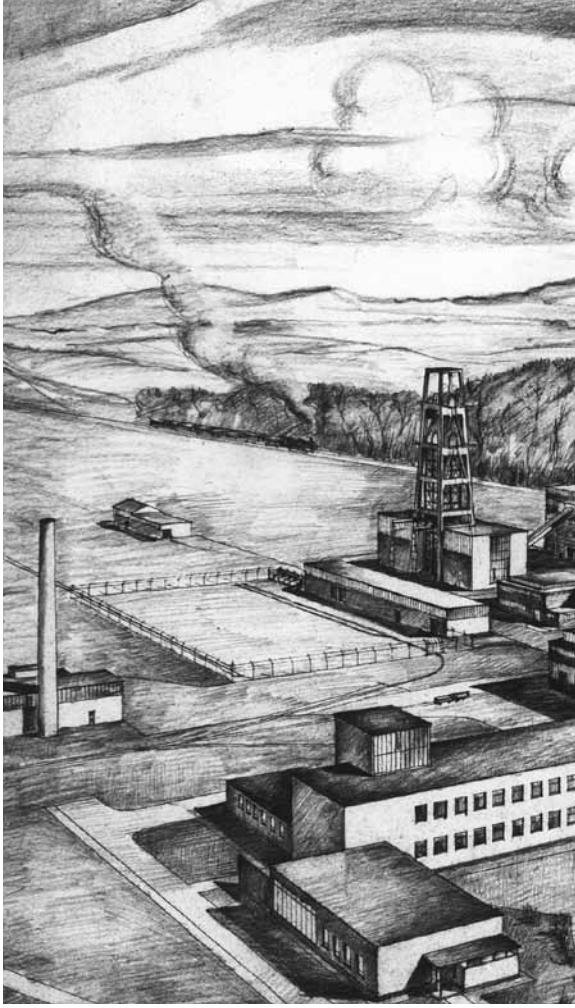
However, two new showpiece 'superpits' had opened at Bilston Glen, Loanhead and Monktonhall near Edinburgh. As the National Coal Board (NCB) closed older mines in the mid-1960s, miners like David were transferred to the new super-collieries. These had been masterminded by Austrian émigré Egon Riss, the NCB chief architect in Scotland. Riss's new collieries were a massive improvement, and included superior medical facilities, canteens and baths, housed in iconic colliery surface buildings.

David moved first to Bilston Glen, which proved to be a shock. With a workforce of over 2,000 men, it was unfriendly compared with the intimacy of the older pits. However, he later transferred to neighbouring Monktonhall, which he describes as being a fantastic modern colliery.

By the time Scotland's deep coal mining ceased in 2002, Monktonhall and all Riss's super-collieries had been demolished, despite attempts to save them. In a strange coincidence, however, a small piece of Riss's work – an overhead reinforced-concrete gantry – has survived at Lady Victoria Colliery where David spent a short spell as a young miner. It is safely preserved as part of the Scottish Mining Museum in the heart of his constituency.



4.0 Industry and Infrastructure



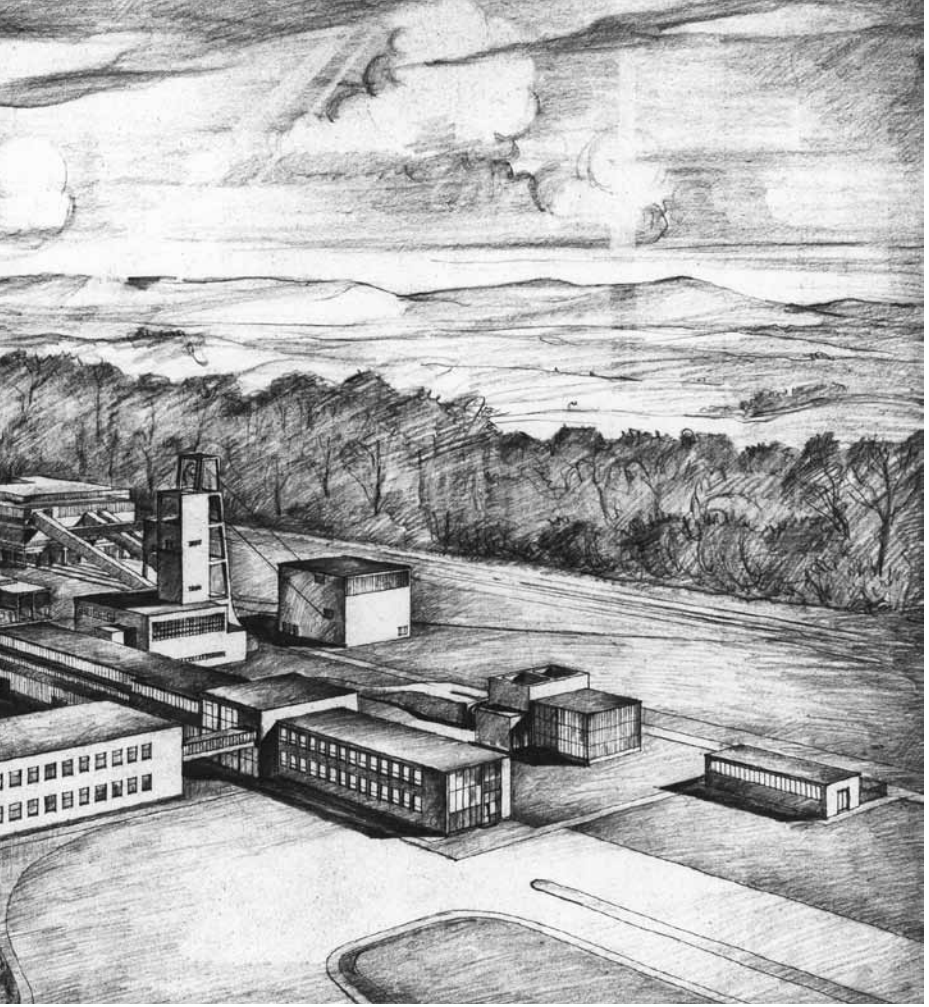
ENERGY

Industry and infrastructure played a major role in the evolution of Scotland in the post-war years, and as a consequence, some of the most important architecture of the period is associated with industrial activity, public utilities and the development of improved transport and communications. Much of the impetus resulted from the general election of 1945, which returned a majority socialist government at Westminster. Although it was only to serve one term in government, the new Labour administration set the tone for a strong state involvement in economic development, extending government influence and investment well beyond the provision of core public services. It is perhaps the confidence of this commitment by the state, combined with what was a particularly exciting phase of technological development, that make this such an interesting architectural period.

PREVIOUS PAGE
Lady Victoria Colliery, Netowngrange showing Egon Riss's overhead gantry from the baths to the pithead. Crown copyright: RCAHMS

Monktonhall Colliery at Millerhill, near Edinburgh. Crown copyright: RCAHMS

Scotland had emerged from the Second World War in a strong position both to contribute to the UK's post-war reconstruction efforts, and to support the drive to repay heavy overseas debt brought about by rearmament and six years of war. At the heart of government strategy was the need to produce energy, and the first focus of the resulting industrial renewal was massive investment by the state in the Scottish coal industry. At the time, coal provided directly and indirectly (through town gas and electricity) over 90% of the UK's energy requirements, and its dominance is well illustrated by the confident architecture of the large new collieries that were sunk in the 1950s and 1960s. Built mostly to the design of Austrian architect Egon Riss (chief National Coal Board architect in



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4.1 Bilston Glen Colliery, perspective drawing by Egon Riss, 1960. © Egon Riss/National Coal Board

ABOVE

4.2 Bilston Glen Colliery, view of fan house, 1989. Crown Copyright: RCAHMS

Scotland), these and some substantial colliery reconstructions included Rothes and Seafield in Fife, Killoch in Ayrshire, and Bilston Glen and Monktonhall in Midlothian. In addition to introducing advanced mechanisation and economies of scale, the new collieries were designed to eradicate appalling working conditions for which coal mining was famous, and for the first time routinely integrated welfare facilities within the surface arrangements of the collieries.

Although the first of the new complexes, Rothes, proved to be an unmitigated disaster, surviving for only five years, other superpits such as Seafield, Bilston Glen, Monktonhall and Killoch were more successful [4.1 and 4.2]. However, massive upheavals in the market for coal in the 1980s ensured their premature demise, and although statutory protection was considered, they were not at the time judged to be suitable for listing. Most were therefore entirely demolished in the 1980s and 1990s to pave the way for privatisation and the selling off of former National Coal Board assets.

In the immediate post-war decades, increasing quantities of coal were used to generate electricity in what was at the time referred to as 'coal by wire'. This coincided with the rapid expansion of the National Grid, nationalisation, the creation of regional electricity boards, and the associated centralisation of power generation, a substantial proportion of which had, like water and gas, been municipalised in the late 19th and early 20th centuries. As a consequence, smaller local power stations were gradually

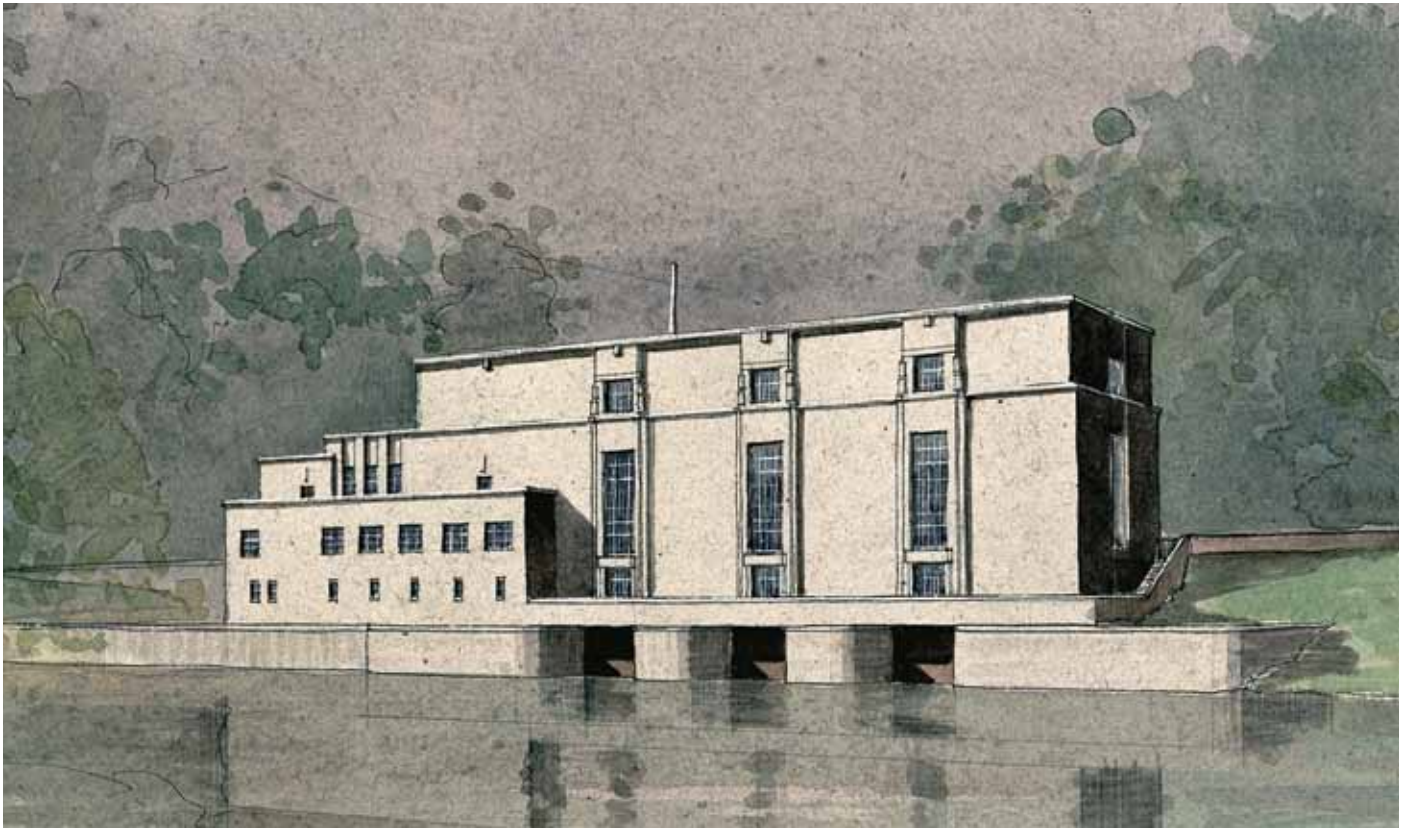
decommissioned as major prestigious coal-fired thermal generating stations were constructed.

Opinions are divided on the design and appearance of the new generation of thermal power stations, but Cockenzie is widely regarded as being the most impressive architecturally [4.3]. It was designed for the South of Scotland Electricity Board (SSEB) by consulting engineers Kennedy and Donkin, and Strain and Robertson, and by architects Robert Matthew Johnson-Marshall and Partners. Contractors on the ground included the iconic Scottish engineering companies Sir Robert McAlpine, famous for its expertise in concrete, and Sir William Arrol, perhaps Scotland's most famous structural engineering firm.

Designed to generate 1,200 megawatts, and located to the east of Edinburgh so that it could be easily linked by rail to its principle sources of supply – Monktonhall and Bilston Glen collieries – the station is dominated by a large rectangular steel-framed glass-clad building housing the boilers and super-heaters, adjacent to which is the steam-turbine hall, which is of similar construction. Two reinforced-concrete chimneys, each 153 metres high, dominate the complex and impose a strong sense of symmetry.

In addition to enhancing coal-based energy, the growth of the National Grid enabled the expansion of hydroelectric capacity, which had already been pushed forward in the inter-war years with the construction of major schemes in the Lowlands and Highlands of Scotland. This process continued after the Second World War, with a flurry of activity during the late 1940s and early 1950s in particular. The most important post-war examples include Clunie Power Station (1949–50) in Perthshire, which was designed by J Guthrie Brown of Sir Alexander Gibb and Partners, one of the most important engineering companies of the period.

Another fine hydroelectric power station was completed in 1950 at Sloy near Arrochar on the boundary of Argyll and Dunbartonshire. Built to the design of Tarbolton and Ochterlony, the station



comprises a two-storey five-bay classical rectangular building accommodating the turbines, with a control room, repair shop, office block and battery room. Although steel-framed, the exterior facing of pre-cast concrete slabs and granite and its corniced pilasters between the bays create a fine façade. The steelwork and pipelines feeding the turbines were the work of engineers Sir William Arrol.

Perhaps the finest of the hydroelectric power stations to have been built in this period was that at Fasnakyle, which was constructed as part of the Affric scheme in the Highlands in May 1952 [4.4]. Built to the designs of architect James Shearer of Dunfermline, its tall three-bay rectangular flat-roofed generating hall is faced with rubble sandstone from Burghead in Moray. The resulting façade is adorned with tall pilaster strips and matching long fenestration with multi-pane glazing. The building accommodates three 22,000-kilowatt

LEFT

4.3 Cockenzie Power Station, architects Robert Matthew, Johnson-Marshall and Partners consulting engineers Kennedy and Donkin, and Strain and Robertson, 1961-64. Crown Copyright: RCAHMS

ABOVE

4.4 Fasnakyle Power Station, architect James Shearer, engineers Sir William Halcrow and Partners, 1952. © RCAHMS (Shearer and Annand Collection)

turbo-alternators driven by Francis turbines. The latter are fed by water captured by the Mullardoch Dam, the largest concrete gravity dam in the UK. The scheme's engineers were Sir William Halcrow and Partners, and the main contractors John Cochrane and Sons of Barrhead.

From the 1950s onwards, the race to develop independent British nuclear weapons also provided the opportunity to develop technologies that advanced the generation of nuclear energy. At the time, and well into the 1960s, this and similar developments were packaged as being 'white heat' technologies, and were promoted positively by both Conservative and Labour governments. Nuclear facilities were therefore recipients of generous state investment, and their functional appearance tended to acquire iconic status. Even though confidence in the nuclear industry was dented by serious technical problems and spiralling costs – the true extent of which have only recently come to light – many of the new power stations became powerful symbols of the technological era, and sat proudly in often scenic coastal locations.

The most famous nuclear facility in Scotland, the Dounreay Nuclear Establishment, has also now ceased to operate, but remains a major landmark on the north Caithness coast and a symbol of the industry [see 1.1]. Work on the original construction of the establishment commenced in 1955, the main civil engineering contractors being Whatlings of Glasgow, with specialist engineering input from Motherwell Bridge, who built 'the sphere'. The first 'fast' reactor began functioning in 1959 and was the first non-military installation to generate nuclear power for the National Grid. It became an important research facility over its 18 years of operation, particularly in relation to nuclear fuels. Based on this experience, a new 'fast breeder' reactor and a prototype 250-megawatt generating station were built by Taylor Woodrow and completed in 1974. The power station ceased operating in 1994, and decommissioning activity has been underway since then.

Scotland was home to four other nuclear power stations: one at Chapelcross near Annan (now closed); two on the coast of Ayrshire in the Firth of Clyde at Hunterston; and another at Torness in East Lothian, to the east of Edinburgh. Of these, Hunterston 'A' is regarded as being the most significant. Built between 1957 and 1964, it is a fine example of the British gas-cooled Magnox reactor design. Commissioned for the South of Scotland Electricity Board (SSEB), it was designed and constructed by a consortium of engineers, including the General Electric Company (GEC), Simon Carves, Mowlem (Scotland) and Motherwell Bridge. Its principal components are two attractive steel-framed glass-clad curved buildings, each containing at its core a Magnox reactor surrounded by a ring of stainless-steel heat exchangers.

Hunterston 'A' was regarded within the industry as the most efficient nuclear power station in the UK, suffering comparatively few problems in its 26 years of operation. Generation ceased in 1990, and decommissioning operations have been under way since then.

INFRASTRUCTURE

Whilst electricity supply was clearly one of the most important foci of state investment in the post-war years, other public utilities also required improvement. Of these, water supply was one of the most significant, especially as rapidly improving housing was now equipping the majority of the population with running water, bathrooms and WC facilities in their homes. The growing demand for water led the Glasgow Corporation to further expand its historic Loch Katrine Water Works in the late 1950s by harnessing water in the adjacent valley through the excavation of a tunnel connecting it with Loch Katrine. Supply was enhanced by the design and completion by Babtie Shaw and Morton, with contractors Mowlem (Scotland), of the Glen Finglas dam in 1965 [4.5]. Whilst not the largest of its type, this is an excellent and spectacular example of the period.

Investment in water supply was not only confined to major catchment schemes. Urban expansion was also putting a strain on the water distribution systems, and Glasgow in particular began to invest in the construction

4.5 Glen Finglas Dam, Babtie Shaw and Morton with contractors Mowlem (Scotland), 1965.
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LEFT
4.6 Garthamlock Water Towers, Glasgow, F A MacDonald and Partners, 1958.

FAR LEFT
4.7 Forth Road Bridge, engineers Mott, Hay and Anderson and Freeman, Fox and Partners, 1958-64 (commissioned 1947). © RCAHMS (Sir William Arrol Collection)

of reinforced-concrete water towers which not only provided local storage capacity, but also generated a sufficient head to permit the supply of water to the higher suburbs of the city. Many of these futuristic towers have become landmarks in the city, and include Cranhill, Tannochside and Garthamlock [4.6]. Of these, the latter is one of the most striking. At over 30 metres high, it is the second tallest water tower in the UK, but has the largest capacity, holding over 4,546,090 litres of water. Completed in 1958, it was built by Holst and Co to the designs of F A Macdonald and Partners.

The post-war period also witnessed massive investment in transport infrastructure. The railways initially retained their position as the principal movers of people and freight, but this was steadily eroded as funds were increasingly focused on the roads network. This is reflected in the lack of high-quality post-war railway buildings in Scotland. In contrast, the expansion of Scotland's roads inevitably resulted in some prestigious bridge projects, the largest of which was the Forth Road Bridge, the central part of which was at the time of its completion in 1964 the longest-span in Europe at 1 kilometre. The project's consulting engineers were Mott Hay and Anderson and Freeman Fox and Partners, and the contracting engineers responsible for the bridge's superstructure were a consortium made up of Sir William Arrol, Cleveland Bridge Engineering and Dorman Long [4.7].

Many other noteworthy bridges have been added to Scotland's road network since 1964. These include the Tay Road Bridge (1966), the Friarton Bridge near Perth (1978), and most recently, the Skye Bridge (1995). To these should be added the Erskine Bridge (1971) to the west of Glasgow,

4.8 Kylesku Bridge, Ove Arup and Partners, 1984.
Crown Copyright: RCAHMS

which was at the time a state-of-the-art cable-stay design. Similarly, the Kessock Bridge taking the A9 over the Beauly Firth near Inverness was the largest cable-stay bridge in Europe on its completion in 1982. But perhaps the most beautiful of the post-war bridges is at Kylesku, carrying the A894 over the entrance to Loch á Chàirn Bhàin. Designed by Ove Arup and Partners, it was completed by Morrison Construction in 1984 [4.8].

PRODUCTION

During the golden age of Scotland's industrialisation in the late 19th and early 20th centuries, considerable effort and resources were often expended on the appearance of factory buildings. This was seen as a worthwhile investment by leading industries because the appearance of the buildings was perceived to reflect upon the potential quality of the products manufactured within. During the 20th century, the visual status of factory buildings receded as functionality and accountancy became the dominant drivers, and the effects of economic depression combined with the national panic brought about by rearmament and subsequent war further relegated architectural factors down the queue of priorities. Scottish industry was not therefore especially image-conscious when it emerged from six years of war in 1945. Since then, the general trend has been for increasingly standardised factory units, often of portal steel-frame design, with brick, concrete-block or crimped-steel walls.

4.9 Cummins Diesel Engine Works, Shotts, Ahrends, Burton and Koralek, Ove Arup and Partners and Landesign Group, 1975–1983.

There are, however, significant exceptions to the uninspiring post-war pattern of factory building. Many of these are once again related to state intervention, and in particular to the policy of attracting inward investment to compensate for the de-industrialisation process that swept through Scotland's traditional industries. The political agenda driving this initiative demanded

the creation of flagship industrial projects that would in themselves attract more inward investment once they had settled in, blazing a trail for new industry.

Amongst the earliest new state-of-the-art factories built after the war were National Cash Registers (1946) and Timex (1947), both on the northern edge of Dundee, adjacent to the Kingsway. Both factories were designed by Beard Bennett and Wilkins. Other prominent examples include the Honeywell Factory at Newhouse in Lanarkshire adjacent to the M8 motorway, which was the company's first production unit outside the USA and was completed in 1955.

As these examples demonstrate, the attraction of North American capital has proved to be especially important in post-war Scotland, and has continued into the silicon era with the attraction of many of the world's most important microelectronics manufacturers. Some, such as Hewlett Packard, have been very successful, whilst others, including Motorola, have been less so. As the microprocessor industry evolved and became more demanding, so the factory units became more specialised, requiring exacting hygiene and environmental standards.

Another industrial firm to choose Scotland as its first non-American production centre was Cummins, an engineering company from Ohio specialising in diesel engines for large vehicles. The company subsequently made a name for itself manufacturing engines for 'Sprinter' trains in the UK and Europe. Having arrived initially in Shotts in 1956, the company chose to redevelop its site in 1975 with the assistance of the Scottish Development Agency. The new buildings, which incorporate a former textile mill, were designed and constructed by Ahrends Burton and Koralek, Ove Arup and Partners and Landesign Group (landscape architects), and were completed in 1983. The complex is regarded as one of the most outstanding pieces of industrial architecture in Scotland in the post-war period [4.9].

Not all inward investment in this period came from abroad. An important example of an English company investing in Scotland was Boots of Nottingham.

The company decided to erect a Scottish factory in 1946 in Airdrie, a Government-designated Scottish Development Area. The building, which cost £27,000 and was to produce a range of pharmaceuticals, was designed by in-house company architects, constructed by H B Kerr, and initially employed 750 people [4.10]. Elsewhere in Scotland, there are a number of other post-war industrial buildings that are of note. These include the W D and H O Wills Tobacco Factory at Alexandra Parade in Glasgow. Designed by the company's own engineers, and similar

4.10 Boots Factory, Airdrie, H B Kerr, 1946.
Crown copyright: RCAHMS

to its contemporary factory south of the border in Newcastle upon Tyne, the building was completed in 1953. The factory comprises a massive square red-brick courtyard block, and following its closure in 1993, was converted to become the heart of the 'City Park' industrial estate.

Other factory buildings of interest include the spinning mill of Tay Spinners in Arbroath Road, Dundee, which was designed by Kenneth F Masson, the chief architect of the Scottish Co-operative Wholesale Society, in 1947. However, one of the most significant post-war buildings is the HMSO Store in Sighthill, Edinburgh. Designed in 1949–50 by Ministry of Works architect Stewart Sim, this is regarded as a pioneering form of pre-stressed concrete frame construction, and is widely quoted in engineering literature.

Industrial buildings are not confined to urban locations, and one of the most visually pleasing post-war complexes can be found at Tormore in Speyside. Tormore Distillery comprises a collection of buildings designed by Sir Albert Richardson in 1958. Most are white-harled with grey polished

ashlar or bull-faced granite margins and dressings, creating a cohesive and attractive group which compares favourably with some of the more modern distilleries of the 1970s.

One of the most exciting recent Scottish infrastructure projects was completed in 2002 with support from the Millennium Fund, and in the process was a core part of the revitalisation of both the Union and Forth and Clyde Canals. The Falkirk Wheel and its associated visitor centre were the result of a collaboration between British Waterways and a consortium including Arup (Scotland), the Scottish architects RMJM, contracting engineers Morrison-Bachy-Solentache, and Butterley Engineering. It has become one of Scotland's most successful visitor attractions, is internationally recognised, and has helped to initiate regeneration through the heart of the central Lowlands. It is therefore one of the best and most recent examples of post-war industrial architecture and engineering in Scotland, and is widely admired throughout the world [4.11].

4.11 Falkirk Wheel, RMJM architects, engineers Morrison Bachy-Solentache, and Butterley Engineering, 2002.

Places of Worship

OUR LADY OF SORROWS church, in the Western Isles, completed in 1965, shows in its remote and exposed setting how effective economic design can be when approached with imagination and enthusiasm. For around £20,000, the diocese provided this island community with a design conducive to the requirements of modern worship, its imposing elevations drawing the congregation to a spacious, thoughtfully lit interior where none of them would be more than 50 feet (15metres) from the celebrant.

'Several months after having graduated with a degree in architecture, but with little in the way of practical experience, I was fortunate enough to be commissioned to design a new chapel for the parish of Garrynamonie in South Uist,' explains the architect, Richard McCarron.

The design was clearly inspired by the work of Gillespie Kidd and Coia, notably the practice's St Paul's Church, Glenrothes (1956), but in a more appropriately massive and block-like rendition. Ceramic mosaic work by David Harding, inside and out, provides decorative touches in contrast to the over-arching simplicity.

'The initial organisation of the building programme involved many practical considerations not normally found to be critical in urban projects on the mainland. Specialist work was sub-contracted but much of the labour was carried out by a number of experienced parishioners employed for the duration of the work. The structural engineer was Dudley Gibb. The tremendous enthusiasm and drive of the parish priest Mgr McKellaig who acted as contractor, and his curate, Fr McNeill, and the response from the workmen were critical.'

5.0 Places of Worship

The architectural legacy of Scotland's diverse strands of Christian belief has added immeasurably to the character and sense of place of many of its towns and villages. After 1945, the church continued to be given pride of place in the planning of substantial new housing schemes catering for 'overspill' and relocation of thousands of people from large urban centres, however much the scarcity of materials required the commission for new churches to follow an economic brief. Some new denominations and religions new to Scotland appeared in the cultural melting pot, and many of the hundreds of new places of worship built are among the most distinguished buildings of the post-war period.

In the early years, a group of architects retained traditional ecclesiological and design principles but infused their work nonetheless with imaginative detail. Alexander McAnally was a key figure in this mould, with works for the Roman Catholic diocese such as St Pius X (1954) in the new housing scheme, Drumchapel, and the larger St Teresa of Lisieux, Possilpark (1956), both in Glasgow. These two buildings date to well before the swell of change that accompanied the Second Vatican Council (1962–5). John F Matthew's Robin Chapel at the Thistle Foundation, Edinburgh (1949) is a survival stylistically of the Arts and Crafts period and was constructed as a memorial church with high-quality craftsmanship throughout, demonstrating the clear influence of the design principles of Robert Lorimer, the founding partner of this practice [5.1]. Peter Sinclair's St Margaret's Glenrothes (1953), for this 'New Town', is also unashamedly designed along traditional lines.

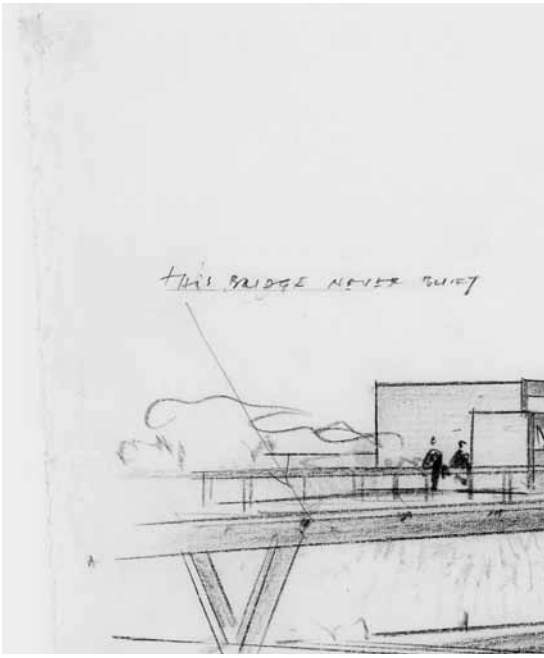
European influences had a role in shaping some of the more outstanding church designs of the 1950s, 1960s

5.1 Robin Chapel, Edinburgh, John Matthew, 1949. Crown copyright: RCAHMS

and 1970s. The early post-war churches of the renowned practice Gillespie Kidd and Coia – St Laurence's, Greenock (1951–4) and St Charles, Kelvinside (1959–60) – show the influence of modern Scandinavian design common to many building types in the decade following the Festival of Britain in 1951. Reginald Fairlie and Partners were seized exceptionally by Spanish precedents in their two Glasgow churches of 1954: St Laurence's and St Augustine's externally echo Ibizan ranches, but the former is further distinguished by an interior inspired by the Dominikus Frielingsdorf Church in Cologne, and the latter by a striking parabolic roof.

Innovation in the church of the mid- to later 20th century was led by the Liturgical Movement. This movement encouraged the active involvement of the laity in the liturgy, in a manner closer to the early Christian traditions with relevance to modern life and with less formal hierarchy. The Movement's continuing search for an appropriate contemporary expression for design was rooted in the later-19th-century reaction to stylistic and ecclesiological revivals. Consequently, after the Second World War, many Christian churches sought to marry realisation of the new liturgy of a 'common priesthood' to Modernist planning, and in so doing brought some striking buildings to the landscape. The similar requirements of the Second Vatican Council for the Roman Catholic Church from the early 1960s also influenced the hierarchical layout and articulation of the interior.

Following the Second World War, a select group of architectural practices, including Gillespie Kidd and Coia, would push the boundaries



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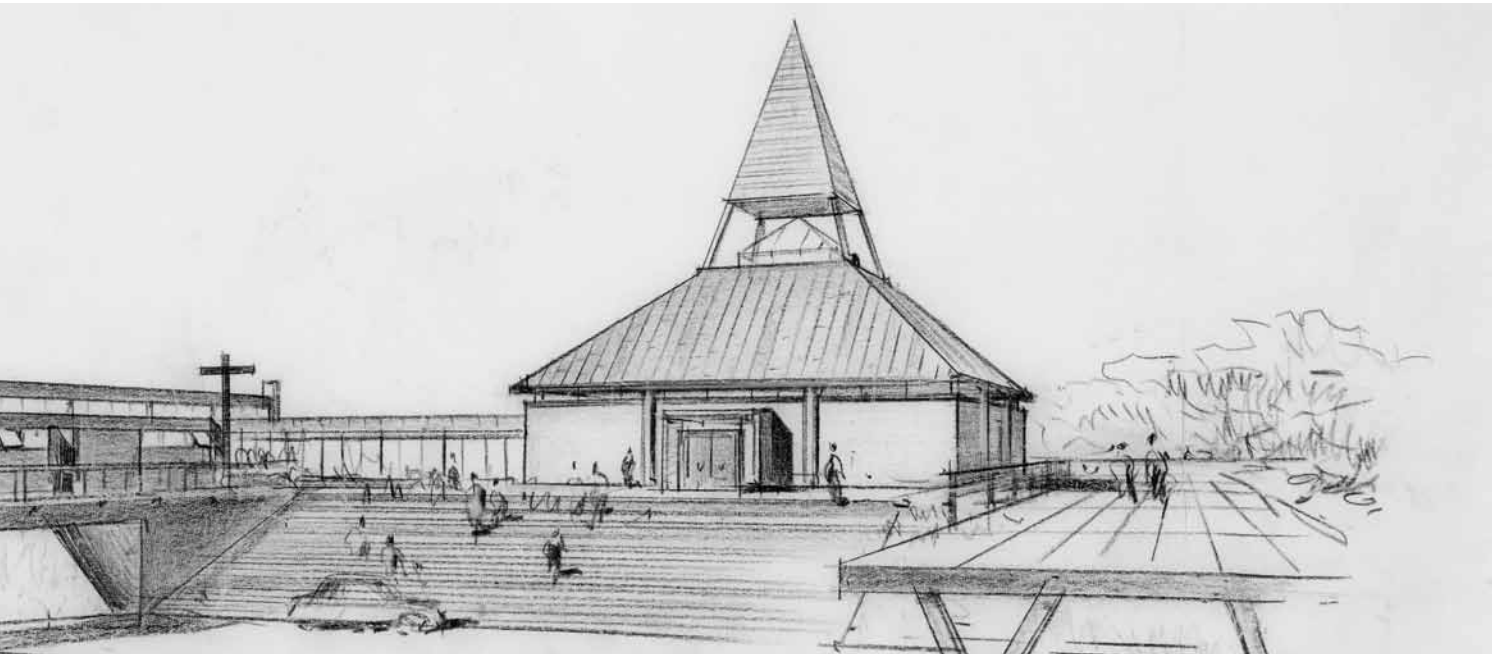
5.2 St Pauls Glenrothes, Gillespie Kidd and Coia, 1957-58. Crown Copyright: RCAHMS

LEFT

5.3 Craigsbank Church, Edinburgh, Rowand Anderson Kininmonth and Paul, 1964-66. © The Scotsman Publications Ltd. Licensor www.scran.ac.uk

of expression away from the purely functional and traditional, seeking to provide powerful church designs. The main contributions to the latter practice by Isi Metzstein and Andy MacMillan secured their ascendancy in the field and, continuing the firm's link with the Roman Catholic community, led to 17 outstanding churches being among the first post-war buildings to be listed. St Paul's, Glenrothes (1957-8), in an intimate wooded setting, broke with the traditional (basilican or rectangular) layout, with a fan-shaped plan and a glazed tower, flooding the interior with



5.4 St. Mungo's Church, Cumbernauld, Alan Reiach, 1963-64. © RCAHMS (Alan Reiach Collection)

coloured light [5.2]. St Mary of the Angels, Falkirk (1960–61) continued this theatrical effect, its interior bathed with primary bands of colour, in a cubic brick form which would evolve into the practice's monolithic design for St Bride's, East Kilbride (1963–4) [see End Note].

St Columba's Church, Glenrothes (1958–62), by Wheeler and Sproson, was an influential and liturgically experimental design [see 8.5]. Centrally planned, the interest was focused primarily on the interior. Here the inclusion of a mural of the Way of the Cross by Alberto Morrocco, together with Mondrian-inspired stained-glass windows, resulted in a strikingly innovative composition. One of the most exceptional designs to show the influence of the Liturgical Movement within the established church was that at Craigsbank, Edinburgh (1964–6), by Sir William Kininmonth of Rowand Anderson Kininmonth and Paul [5.3]. Here, not only is the communion table surrounded by tiered seating on three sides, but the nave is also sunk, in reference to the conventicle churches of 17th-century Scotland and worship in hillside hollows. The same practice's Brucefield Parish Church, Whitburn (1964–6), by the locally born and bred architect, Tom Duncan, shows a theatricality with inspiration from Le Corbusier and Frank Lloyd Wright, distinguishing the surrounding contemporary housing scheme [see 7.3]. Alan Reiach's St Mungo's Church, Cumbernauld (1963–4), with its pyramidal roof, also adds theatricality to the goal of worship in the round [5.4]. Alison and Hutchison and Partners produced the circular church of St Gabriel's, Prestonpans (1965), which

LEFT
5.5 St Gabriel's Church, Prestonpans, Alison, Hutchinson and Partners, 1965. © East Lothian Library Service. Licensor www.scran.ac.uk

FAR LEFT
5.6 Stained Glass for the Moncur Memorial Church, Orkney, Majorie Kemp, 1950-55. © www.undiscoveredscotland.co.uk

is the clearest expression of this and is now mainstream philosophy [5.5].

The importance of sculptural and decorative furnishing within the churches of the period was as always dictated to a degree by budget. However, the stained glass at St Paul's, Whiteinch, Glasgow (1957–60), by Gabriel Loire, was central to the basilican design by Reginald Fairlie and Partners. Here the *dalle de verre* (faceted glass) work is outstanding, and we may assume that Sadie McLellan was aware of its quality when providing further windows in this distinctive form for Gillespie Kidd and Coia's Sacred Heart, Kildrum, Cumbernauld in 1964. Even the more remote churches such as the Moncur Memorial Church, Orkney (1953–5), by Leslie Grahame MacDougall, benefited from stained-glass work by artists such as Marjorie Kemp [5.6]. The fine sculpture work by Hew Lorimer would elevate A R Conlon's work at St Francis Friary, Dundee (1958), while Benno Schotz's *Stations of the Cross* graced the interior of Gillespie Kidd and Coia's St Charles', Kelvinside (1963).

One of the first churches to provide

5.7 Mortonhall Crematorium, Edinburgh, Sir Basil Spence, Glover and Ferguson, 1967. Courtesy of RCAHMS (Sir Basil Spence Archive)

a free-standing bell tower after the war was at the same time the only one by the practice of Sir Basil Spence Glover and Ferguson – that is, St Andrew's, Clermiston, Edinburgh (1953). St Columba's, Glenrothes also has a campanile, as do its near-contemporary St Charles', Kelvinside and Alan Reiach and Stuart Renton's Kildrum Parish Church, Cumbernauld (1960). The loss of the bell tower at St Bride's, East Kilbride has long been mourned among conservation circles, as the complete group may be regarded as one of the most iconic church designs of the post-war period (see End Note).

One of the more recent denominations to arrive in Scotland is that of the Church of Jesus Christ of Latter-Day Saints. John Easton provided a Glasgow congregation with a notable Modern Movement design in Kinfauns Drive, Glasgow in 1960, now converted to serve as a community centre while retaining its characterful Art Deco fins.

Crematoria have, of course, an ecumenical relevance. Examples in this period evidence an inspiration and reverence equivalent to that which created the best of pre-Victorian mausolea. The butterfly plan of Glasgow's Daldowie Crematorium (1950–52), or the Scandinavian Modernism of Greenock's equivalent (1959) – inspired by Gunnar Asplund's Woodland Crematorium (1935–40) in Stockholm, Sweden – evidence a commitment to expressive, dignified designs. Thomas Cordiner's design for Linn Crematorium, Glasgow (1962) continued the pattern with Beaux-Arts inspiration. It was Sir Basil Spence Glover and Ferguson's Mortonhall Crematorium, Edinburgh (1967) which would introduce a strikingly different design for this building type, earmarked by its vertical emphasis, white calcined flint aggregate concrete blocks, zinc roofs and red cedar doors, creating a theatrical contrast and declaring most emphatically its homage to Le Corbusier [5.7].

While Christianity remains, according to the 2001 census, the dominant religion claimed by 63% of Scotland's population, the post-war period of multiculturalism and immigration has seen a slow growth in the representation of other world religions and their architecture. The early built legacy of this new age will in time demand recognition for its distinguishing contribution to the changing cultural grain. Judaism has been firmly established in Scotland for hundreds of years, but no architecturally outstanding buildings have yet come to light after 1945 which compare with the sumptuous Romanesque and Byzantine Garnethill Synagogue by John McLeod, dedicated in 1879. The Muslim faith has a growing population across the central belt, with the largest concentration in Glasgow. Here, the massive Central Mosque of 1984 by Coleman Ballantine Partnership is among a dozen across the city built to cater for this congregation, the ancillary buildings soon to be enlarged to establish an Islamic Centre [5.8]. The Great Mosque in Edinburgh is one of six in the capital, and was designed by Basil Al-Bayati around 1990.

In the context of a decline in the number of practising Christians, with 27% of the population cited as having no religion at the millennium, many of these former central pillars of our communities are facing redundancy from their original function.

An appreciation of those which have contributed most to the built environment cannot be other than desirable in the face of this seemingly relentless tide, not least to inform the search for their adaptation.

5.8 Central Mosque, Glasgow, Coleman Ballantine Partnership, 1984. © Newsquest (Herald and Times). Licensor www.scran.ac.uk

Leisure

FOOTBALL is dear to the hearts and minds of most Scots and it is no surprise therefore that this pride should have been translated into architectural form in the years after the Second World War. Peter Womersley's design for Gala Fairydean Stadium, Galashiels (1963–4), with Ove Arup engineers, is such an eye-catching monument to the sport nestled in this Borders mill town. In January 2007, the Gala Fairydean Football Club celebrated its centenary and in the same year their now iconic modern stand was designated a listed building.

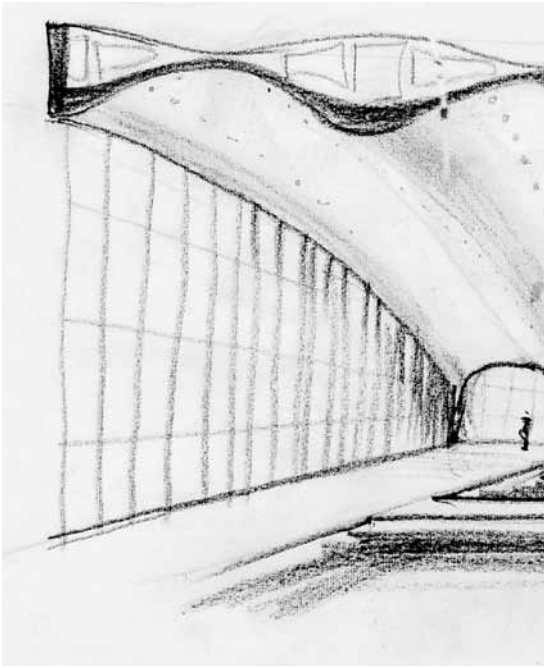
Adam McClory has supported the club since he was a boy and knew what it was like in the days without a permanent stand. Fairydean moved into its current location – a pitch which previously belonged to the Galashiels Rovers rugby club – in 1962, and by 1964 they had successfully raised money through a lottery for the erection of a permanent stand.

The otherworldly name of the club, Fairydean, is based on the local connection found in Walter Scott's novel *The Monastery* where the Glen of Allen, very near Galashiels, is known as the 'Fairy Dean'. It would seem that the ethereal club name would suit a modern building which Adam McClory has noted cannily as *'not really from this country'*.

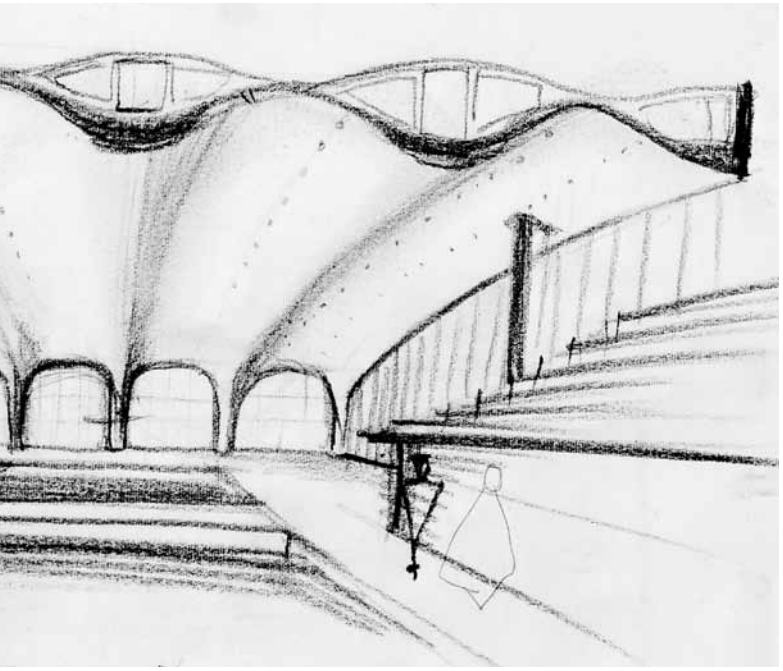
The profiles of the stadium are unique and inspiring, undoubtedly futuristic, from the inverted pyramid of the turnstile canopy to the open-mouthed cantilevered shelter of the main stand, with glazed clerestory adding lightness to the overall design.

6.0 Leisure

Once improvements to Scotland's housing, transport, education and health had been addressed by legislation and state initiative, central government and local authorities alike could turn to leisure and culture. A range of particularly outstanding and imaginative commissions showed how the provision for this essential component of modern society responded to the desire for a higher standard of living.



Recognition of sport as fundamental to health and welfare is not new, and swimming and water sports have been perennial favourites. Public swimming facilities were provided relatively early in the larger board schools from the later 19th century and, in the early 20th century, at the open-air lidos, which were often included at key seaside resorts. With the gradual demise of public washhouses and increasing demand for year-round swimming, a higher grade of recreational facility was sought as a community resource. Among the most futuristic designs of the post-war decades to date was the Dollan Aqua Centre, East Kilbride (1963–5) by Alexander Buchanan Campbell, which was the largest pool built in Scotland at the time [6.1]. Here the parabolic arch is tied down with concrete buttresses in an organic design. It was inspired by the 1960 Olympic complex in Rome designed by Pier Luigi Nervi. An imaginative renovation by FaulknerBrowns Associates in 1995 ensured that the pool's exceptional features could answer the changing needs of its patrons. In contrast to the extravagant design of the Dollan Aqua Centre, Robert Matthew Johnson-Marshall and Partners rose to the challenge



of accommodating the forthcoming Royal Commonwealth Games in 1967, working with a sloping site to provide a striking, low and linear structure as a foil to the rugged crags of Holyrood Park behind. The pools themselves were placed on the lower ground but open to the stunning views beyond. The job architect, John Richards, tackled traditional problems of heat loss, noise, glare and condensation in this design and won three awards in recognition of his achievement [6.2].

Football's supremacy as a sport in the hearts and minds of a large percentage of the population is embodied in the Gala Fairydean Stadium, Galashiels (1963–4), although designs of this quality were rare in a decade which was financially difficult for the sport. Designed by Peter Womersley, one of Scotland's most creative post-war architects, and Ove Arup engineers, the sharp lines and imaginative form of the supremely functional stand are outstanding. The stadium illustrates that the role of engineers in achieving some of the most expressive designs in modern architecture cannot be underplayed. The structure's compact and dramatic achievement can be contrasted with the larger near-contemporary stadium by Stuart Harris at Meadowbank,

ABOVE LEFT

6.1 Dollan Aqua Centre, East Kilbride, Alexander Buchanan, 1963-65, sketch perspective *c.*1962. © RCAHMS (Alexander Buchanan Campbell Collection)

ABOVE

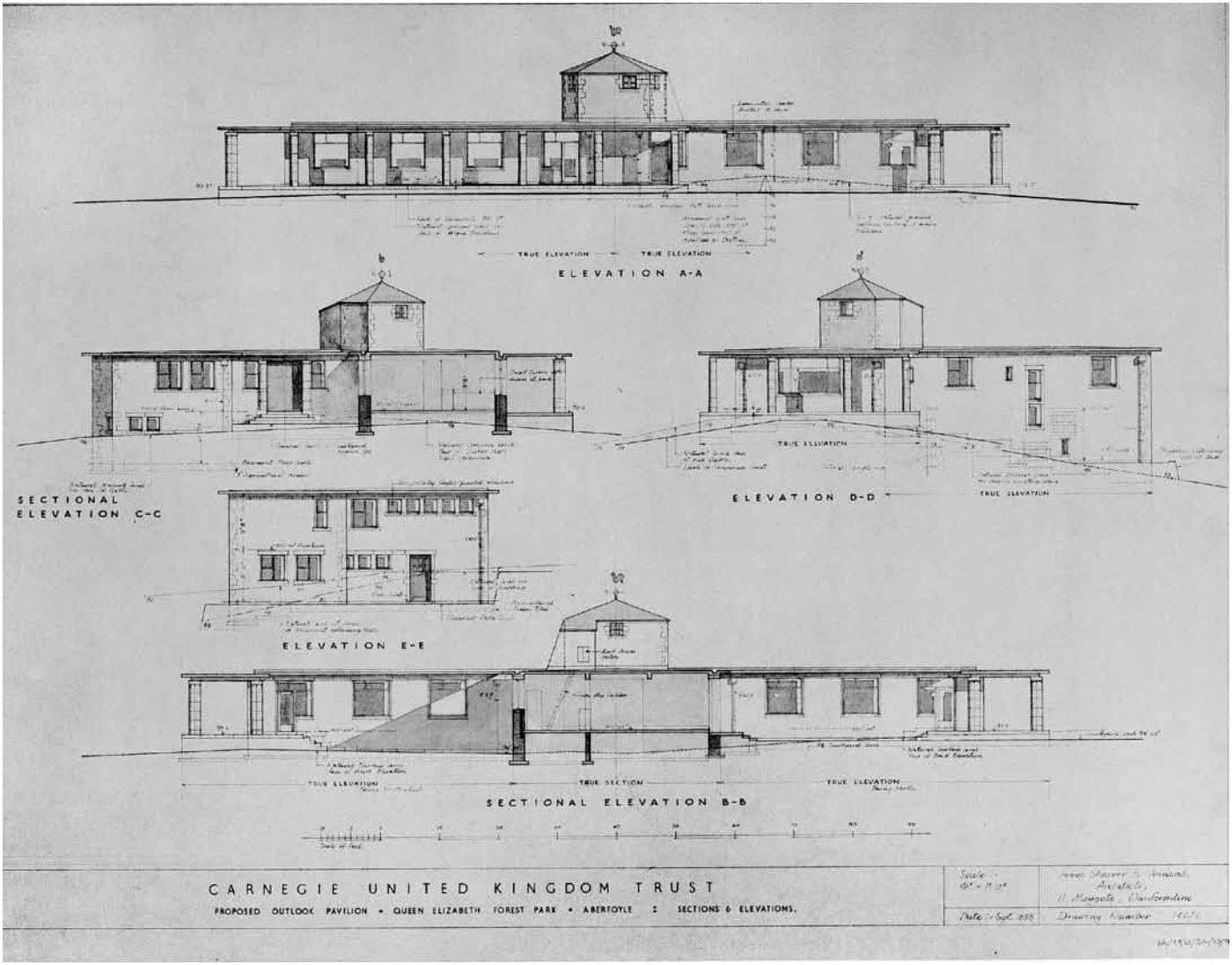
6.2 The Royal Commonwealth Pool, Edinburgh, Robert Matthew, Johnson-Marshall and Partners, 1967, photograph 1970. © The Scotsman Publications Ltd. Licensor www.scran.ac.uk

6.3 British Golf Museum, St. Andrews, Andrew Merrylees, 1988. © Royal Fine Art Commission. Licensor www.scran.ac.uk

Edinburgh, or that by Shearer and Annand in Dunfermline. However, Gala Fairydean's stadium was not to everyone's taste and, shortly after it was built, the structure was derided as being similar to second-rate Eastern Bloc architecture. By contrast, the public's reception of the design for Murrayfield Stadium, Edinburgh (1992–4), by Miller Partnership, with a capacity for 67,500 and carefully tailored to crowd management, has been described in the popular press as a 'structurally expressive cauldron for Scotland's home internationals'. The distinctive 'caged bowl' was barely completed when premature calls for its listing rang through the media.

Golf is the sport for which Scotland holds the passionate claim, and the increasing requirement for outdoor sports after the Second World War not surprisingly saw the erection of a number of new golfing facilities, including a distinctive museum at St Andrews (1988) by Andrew Merrylees [6.3]. However, typical examples of clubhouses of the period could be seen at Cardross (1956), which demonstrated a Modern Movement design giving continuity and identity to the building type by adopting a style chosen for several pre-war sporting pavilions.

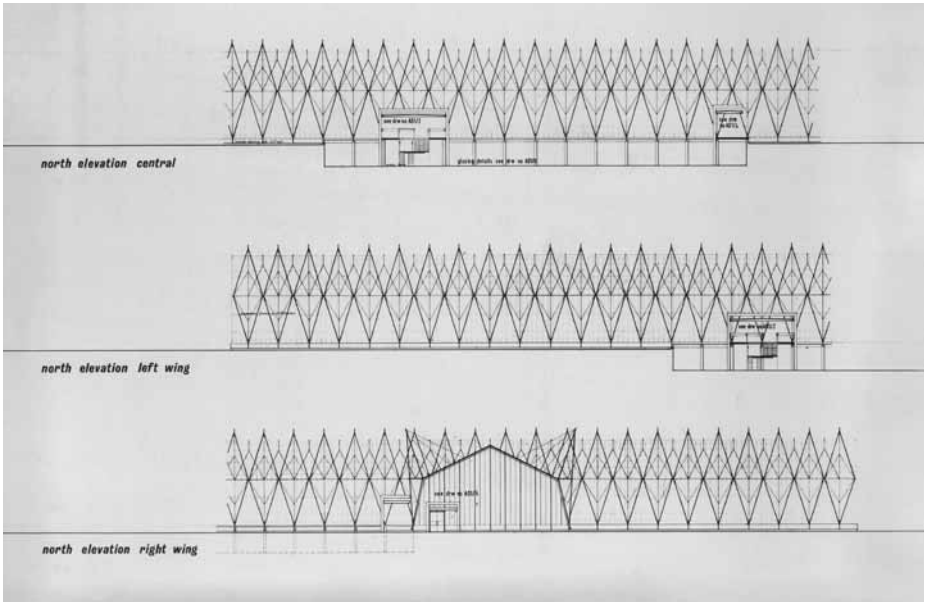
The ethos of the post-war years encouraged a fresh-air culture, and it would follow that architecture supported this aspiration. James Shearer, better known for his extensive hydroelectric power schemes in the north of Scotland, was less well known as the architect of youth hostels. However, his design of the Y-plan David Marshall Lodge (now the Queen Elizabeth Forest Park Visitor



6.4 David Marshall Lodge, Aberfoyle, Shearer and Annand, 1958-60. © RCAHMS (Shearer and Annand Collection)

Centre), Aberfoyle (1958–60) earned his practice, Shearer and Annand, wider acclaim [6.4]. Pinned by a capped tower at the centre and built of drystone rubble slate, the wings include sheltered viewing platforms with column-supported canopies to give free access to the spectacular surrounding views. By contrast, a more open visitor attraction and viewing point was created at the historic site of the Bannockburn battlefield near Stirling in 1964 [6.5]. Here, Robert Matthew conceived a landmark to commemorate the 650th anniversary of the battle, complete with a designed landscape, a circular enclosure and a statue of King Robert the Bruce by Pilkington Jackson. The place of nature in our leisure again seized designers' imagination at Edinburgh's Royal Botanic Gardens [6.6]. George A H Pearce, as architect to the Ministry of Public Buildings and Works, provided in 1967 at the request of the curator, Dr E E Kemp, a long innovative greenhouse with a de-constructivist external structure to give an unimpeded interior for the plants and to allow the maximum amount of daylight. The elegant composition was

6.5 Bannockburn Visitor Centre rotunda, Robert Matthew Johnson-Marshall and Partners, 1964.
© The National Trust for Scotland



6.6 Royal Botanic Gardens Greenhouse, Edinburgh, George A H Pearce, 1967, elevation drawings.
Courtesy of RCAHMS (Pearce Collection)

achieved with a lattice steel tube-frame, fin-shaped concrete piers, deck access and canopied doors.

Certain styles of modern design may possess significance for their period and material qualities which contribute to the architectural character of an area, but their wider recognition may be, for some, a matter of time or an acquired taste. Edinburgh's New Club (1966–9) by Reiach and Hall is indicative of this slow burn [6.7]. It is a traditional middle-class establishment intended to cater for gentlemen's leisure and business needs; but, contrary to its long-standing institutional principles, it displays a strikingly new, Brutalist building. It was in part inspired by the advice of a panel of experts on planning and architecture (their resulting commissions known as the 'Panel' buildings), seeking to relieve Princes Street from pedestrian congestion and to improve its retail performance through the use of a continuous walkway at first-floor level. Its erection was at the heart of a conservation battle at the time, but the architectural significance of its design has since been recognised as historically outstanding.

6.7 The New Club, Princes Street, Edinburgh, Reiach and Hall, 1966-69. Crown Copyright: RCAHMS

A greater accessibility to the performing arts has been an achievement of more recent years. The Eden Court Theatre, Inverness (1973–6), designed by Law and Dunbar-Nasmith (LDN) with theatre consultant John Wyckham, provides a rich example of enlightened thinking [6.8]. Eden Court, controversially, absorbed the historic Bishop's Palace in its conception, making the best of a prominent riverside location, its concrete blockwork characterised with flint aggregate. A recent extension to the theatre by Page and Park, to serve changing needs, has respected the original concept and has arguably added value to the original design. The theatre was conceived to be a centre for performing arts, and has acted as a civic centre in the Highlands. In design terms, the repeating hexagonal motif distinguishes the composition. LDN's reputation also led them to the commission for the Pitlochry Festival Theatre (1979–80), on the banks of the Tummel, externally dressed as a glazed pavilion to take in the views. This also led to their work on the Edinburgh Festival Theatre (1994), which involved the re-fronting and refurbishment

ABOVE

6.8 Eden Court Theatre, Inverness, Law and Dunbar-Nasmith, 1973-6. © Charles McKean. Licensor www.scran.ac.uk

RIGHT

6.9 The Burrell Collection, Pollok Park, Glasgow, Barry Gasson and Brit Andreson, 1978-83. © Royal Fine Art Commission. Licensor www.scran.ac.uk

of the former Empire Theatre with a dramatic scoop of curved curtain wall on the city's Nicolson Street. Theatre design was not exclusively the province of LDN, however; Nicoll Russell Studios also excelled in this field. Their award-winning Dundee Rep Theatre of 1982, an articulated rectangle with a cantilevered stair providing shelter below and a glazed atrium above, was dubbed a 'bravura composition of modern architecture'. It was extended a decade later to accommodate essential facilities for an expanding Community Department. The theatre was in part funded through a local public appeal.

Recent work nearby by Richard Murphy, absorbing a former garage into

the Dundee Centre for Contemporary Arts, continues the achievement of the Rep to create an artistic enclave within the city. Similarly imaginative, Nicoll Russell's rebuilding of the Byre Theatre, St Andrews (2002) on a tight and sensitive town centre site followed a challenging brief: to increase audience capacity and improve technical and production capabilities while retaining the intimacy for which the performance space of the 'old byre' was known. The design won in competition for its 'strong presence and as an enhancement of a well-used facility'.

In the field of galleries and museums, there are probably two great buildings which will come to mind to define the post-war period, both tailored around their collections. Barry Gasson and Brit Andreson's award-winning Burrell Collection (1978–83), in the landscaped and leafy setting of Glasgow's Pollok Country Park, can stake a claim [6.9]. Entered through a church-like gable, the vast red sandstone and glass structure melds comfortably with the natural environment of the park. The second candidate would no doubt be Benson

and Forsyth's extension to the National Museum of Scotland in Edinburgh's Chambers Street of the mid-1990s, seen as a landmark in international architecture and a statement of national status equivalent to those in Ottawa, Canada and Wellington, New Zealand. Indeed, regard for this ashlar masterpiece is such that recent changes to improve access have been criticised by leading authorities as 'tacky interventions' when set against such an original.

New smaller galleries have increased our potential for enjoyment, notably through eye-catching transformations ranging from the former Dean Orphanage conversion for the National Galleries of Scotland (1995–8) by Terry Farrell, through to Richard Murphy's Fruitmarket Gallery, Edinburgh (1991–3), distinctively of its time and creatively revitalising a former rail-side market building [6.10].

Near-contemporary provision for leisure continues to seek fresh and imaginative solutions to enliven our recreational and cultural pursuits for the future. For example, sophisticated, sustainable and timeless conversions of redundant subjects which follow the historic grain are being adapted by some to these functions. Edinburgh's Dynamic Earth (1999) by Michael Hopkins Architects, and the Scottish Poetry Library (1999), Dance Base (2001) and the Scottish Storytelling Centre (2006) by Malcolm Fraser Architects, show what can be achieved within the historic environment. Engineering achievements such as the Falkirk Wheel may, along with other futuristic designs created around the millennium such as Glasgow's Science Centre, be listed buildings of the future [see 4.11]. Already, the surviving mighty Titan cantilever cranes around the Clyde, former Trojans of the shipbuilding industry, can be seen with a new role as visitor attractions of the 21st century.

6.10 Fruitmarket Gallery, Edinburgh, Richard Murphy, 1991-93.


Entrance

Architects

THE PRINCIPAL'S HOUSE at the University of Stirling, designed by Morris and Steedman (1966-7), is a key building in a select group of outstanding Modernist houses in Scotland, many of which have not survived intact. The opportunity to design a bespoke space for the Principal of Scotland's first 'New University', founded in 1966, was made possible by the vision of the first Principal, Tom Cottrell, who selected one of the top practices of the day.

Morris and Steedman, who were leaders in avant-garde house design, provided an innovative, linear plan relating sensitively to a highly dramatic setting on a craggy outcrop in the former grounds of Robert Adam's Airthrey Castle. The interior treatment is simple, using high quality materials and finishes, but the most important feature is the inter-visibility of space with careful attention given to the relationship of internal and external vistas. The architects' understanding of landscape and architecture is akin to the Japanese tradition later reinterpreted in the work of Philip Johnson, Mies Van der Rohe, Marcel Breuer and Richard Neutra, all of whom informed their design philosophy.

Indeed, the building has not much changed, and the University's current Principal and Vice-Chancellor, Professor Christine Hallett, has enjoyed living in the house for the past 5 years, during her time in post. She comments thoughtfully that the building is *'at one with its setting in Central Scotland, with its natural environment and its historic landscape. It was an inspiration to choose this site.'* Professor Hallett recognises that the house is a prized asset of the University.

7.0 Architects

The architects who have had a significant impact on the face of post-war Scotland are numerous. Among those who are most notable for their individual design ideals, some have made a more public impression than others, with high-profile or even controversial commissions.

The usual route to the profession by joining a well-established private practice changed during this period, as a greater number of architects began their careers anonymously under the banner of local authority offices. Around 50% of professional architects were employed by the public sector in the late 1960s, rising to 68% by the mid-1970s, which included city architects departments, nationalised industries and public utilities.

Whether Scottish by birth or Scottish by residence, an interesting picture of the type of architecture produced in Scotland during the post-war period can be gained by examining the output of architects and their practices. Indeed, reviewing the work of these architects for possible listing has proved to be not only practical but also useful, helping to identify buildings which were potentially under threat of major change or even loss. Adopting an essentially thematic approach by focusing on specific aspects of a practice's work or building types – a relatively new way of undertaking the listing process, which is more usually addressed region by region – has not only helped to identify individual buildings of interest, but has also provided an in-depth understanding of social, economic and political relationships which defined the years following the Second World War. Patronage of the state was the key force in shaping Scotland's modern architectural landscape. Nevertheless a number of important institutional and private commissions have also made a significant contribution to the modern heritage of Scotland and beyond, while putting into the spotlight the wealth of creative talent within this country's borders.

PREVIOUS PAGE
Principal's House, University of Stirling, interior view, *c.*1969.

7.1 Thurso Secondary School, Sir Basil Spence and Partners and William Wilson (County Architect), 1954-58. © RCAHMS (Spence, Glover and Ferguson Collection)

Most architects of the post-war period were weaned on Le Corbusier, Mies van der Rohe and Modernist principles set forth by European, particularly German and French, theoretical influences. American ideals, mixed with a French Beaux-Arts or *atelier* model for the education of architects, were ingested earlier on in the 20th century, especially in Glasgow. However, by the time many of the Modernists had emigrated from Europe to America and Great Britain during the 1930s owing to threat of war, the International Style had truly spread itself so wide that it became a

7.2 National Library of Scotland, Edinburgh, Andrew Merrylees, 1985-87, extended 1993-4.

philosophy rather than a singular style. Architectural training in Scotland's art schools during the 1930s and 1940s was still underpinned by the teaching of classical methods, but those architects who came to maturity after the Second World War were able to realise their ambitions not only in private practice but now also in local authority architects' offices. The interwar years were challenging for the established firms such as Rowand Anderson Paul and Partners, Keppie Henderson, Jenkins and Marr, Lorimer and Matthew and Gillespie Kidd and Coia, with Burnet Tait and Lorne probably emerging as the most successful. However strong the culture in Scotland

for maintaining a link to established practices, during the 1920s and 1930s it was common for an old firm to be taken over completely by a new one.

Basil Spence (1907–1976) was briefly in partnership with his contemporary William Kininmonth (1904–1988) in the 1930s but by 1946 had launched his own practice, soon taking on John Hardie Glover and Peter Ferguson. Within less than a decade Spence would become a household name after winning the competition for rebuilding Coventry Cathedral in 1951. The strength of his design work was immediately perceptible, and he was surely one of his generation's most skilled draughtsmen. Early post-war commissions (many instigated prior to the War) included a plethora of school and university jobs for the University of Glasgow and secondary schools at Thurso (1954–8), East Kilbride (1950–56) and Kilsyth (1939 (halted); 1946–54), all of which would build him a solid reputation in Scotland [7.1]. In England he continued to impress with numerous high-profile jobs, including the Festival of Britain Sea and Ships Pavilion (1951), many university buildings, and the highly regarded Falmer House (1964–6) at Sussex University. Spence's vision was remarkable and, as architect-designer, his influence was almost unparalleled. Similarly, his ability to manage his practices both in Edinburgh and in London as a well-oiled corporation, producing architecture at high levels of professionalism and with superlative design acumen that was consistent in its quality and integrity, was incomparable. Although Spence's popularity as a public figure waned in his later life, his practice in Scotland continued to thrive, fostering the likes of Andrew Merrylees (working on the practice's Edinburgh University Library) who would go on to design one of the most significant Scottish public buildings of the 1980s, the National Library of Scotland, Causewayside, Edinburgh (1985–7) [7.2]. The centenary of Spence's birth was celebrated in 2007 with a number of major public events including a retrospective exhibition; the thematic survey of all his buildings and those of his Scottish practice is the subject of a listing review that has confirmed the depth of the practice's talent and helped to define its breadth, from pre-Second World War country house architecture to exclusive urban commissions for the wealthy insurance company, Scottish Widows [see 1.5].

William Kininmonth's legacy was not as widespread as that of Spence, but he can be cited as a pioneer of Modernism in Scotland after he produced his own house at 46a Dick Place, Edinburgh (1934) along the strict tenets of the International Style. His practice – known as Rowand Anderson Kininmonth and Paul – would continue to innovate in the post-war period, with an ever-evolving creative team including Ian C Gordon, Tom Duncan, William Leslie and Richard Ewing. They made a significant impact on Scotland's post-war architecture, mostly in the east, producing important social housing schemes, offices and civic buildings, and particularly expressionistic designs for the Church of Scotland at Craigsbank, Edinburgh (1964–6) [see 5.3] and for Brucefield Parish Church, Whitburn, West Lothian (1964–6) [7.3].

Robert Matthew (1906–1975), Scotland's 'architect-diplomat', reflected the aspirations of the post-war period

ABOVE

7.3 Brucefield Church, Edinburgh, Rowand Anderson, Kininmonth and Paul, 1966. Crown Copyright: RCAHMS

ABOVE RIGHT

7.4 Turnhouse Airport, Edinburgh, Robert Matthew, 1953-56. © The Scotsman Publications Ltd. Licensor www.scran.ac.uk

perhaps better than any other architect. He had returned to private practice in Scotland in 1953 after a distinguished career as Architect to London County Council, with the Royal Festival Hall (1948–51) as the feather in his cap. His vision sought to bridge the gap between private and public practice, part of a wide-scale redevelopment of communities and institutions through planning and, in his own words, 'solving architecturally the most difficult of social problems'. Matthew had assembled a highly skilled team with Stirrat Johnson-Marshall as partner from 1956 and later including Tom Spaven, John Richards and Kenneth Graham. He and his practice would be responsible for some of the most significant building projects of the period, in Scotland and abroad, including Turnhouse airport terminal building, Edinburgh (1953–6) [7.4]; Ninewells Hospital, Dundee (1955–73); the Royal Commonwealth Pool, Edinburgh (1967–70); major new work between the 1950s and the 1970s for the universities at Dundee, Aberdeen, Edinburgh, York, Coleraine and Stirling; ground-breaking social housing schemes, namely Hutchesontown B Gorbals in Glasgow (1958–64); power stations at Kincardine (1953–62) and Cockenzie (1959–67); prestigious commercial buildings for large companies such as British Home Stores in Edinburgh (1964–8) [7.5] and Aberdeen (*c.*1968) and United Distillers and Vintners

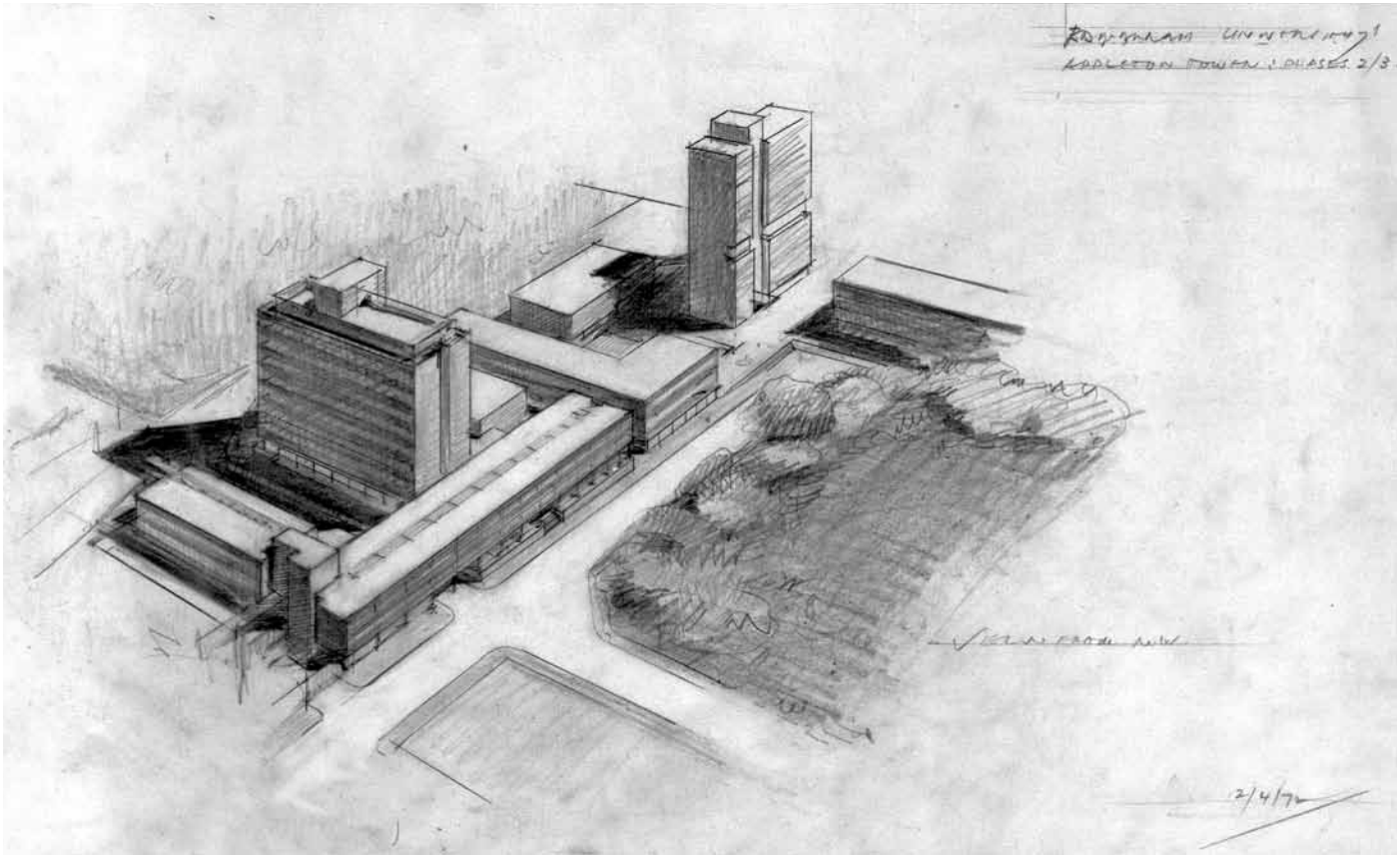
TOP RIGHT

7.5 British Home Stores, Princes Street, Edinburgh, Robert Matthew, Johnson-Marshall and Partners, 1964-68.

BOTTOM RIGHT

7.6 Queen's College Tower, Dundee University, Robert Matthew, 1955-61.

headquarters building, Murrayfield, Edinburgh (1981–4); and many international planning projects in South America, Europe and the Middle East. Although the jobs were numerous and extremely widespread, as the practice evolved over the decades a basic 'problem-solving' philosophy was common to each commission. This approach to architecture not only engendered innovative building systems, such as the bespoke prefabricated structural system at Stirling University (1966–73) [see 3.9], but it also created a vocabulary that actually now defines Scottish Modernism with a clear thought for context and materials, exemplified in the tower blocks for Queen's College Dundee (1955–61)



7.7 Appleton Tower, University of Edinburgh, Alan Reiach and Eric Hall, 1963-66; unexecuted design for extension, 1972. © RCAHMS (Alan Reiach Collection)

and later for the University of Edinburgh (1958–63) [7.6 and 3.7]. The recent deposit of the Robert Matthew Johnson-Marshall (RMJM) practice archive in the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) will enable students, architects and scholars to study the breadth of the work from the 1950s to the 1980s and will potentially contribute to a future thematic listing survey.

The generation of 'planner-architects' working in the service of the state after the Second World War was already heavily engaged in the redevelopment of Scottish towns and cities in the late 1930s, with the end of hostilities giving further impetus to their aim of housing the nation. A critical aspect of this thinking was how Scotland's values and identity could be represented architecturally while providing modern amenity and purposeful design. Many architects

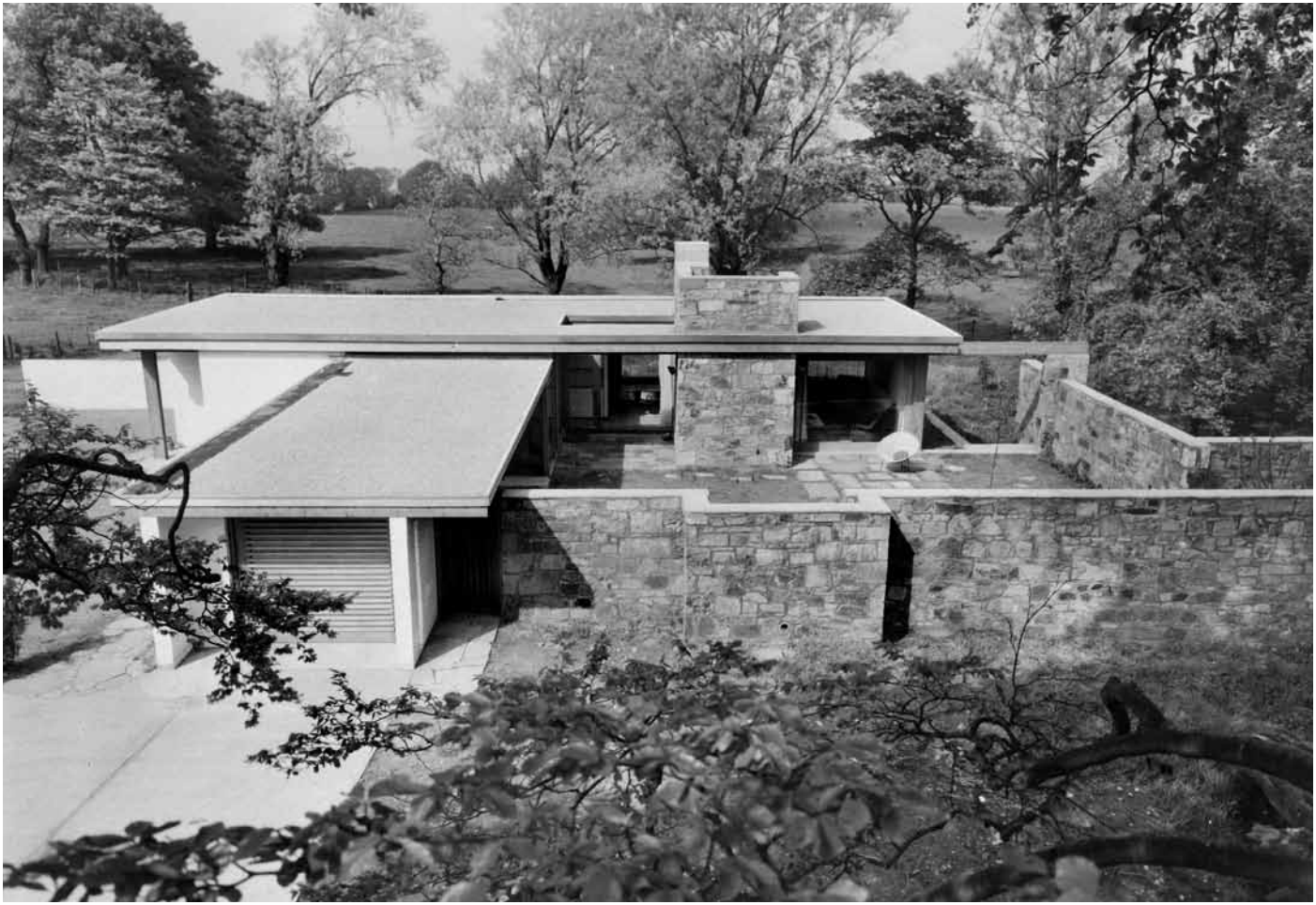
7.8 Notre Dame College residences, Bearsden, Gillespie, Kidd and Coia, 1969. © Glasgow School of Art's Archives and Collections Centre

would launch their private practices later in the 1950s following the achievements of their public work, and most private firms would take part in the reconstruction boom. While employed by the Department of Health for Scotland (DHS), Alan Reiach's (1910–1992) early research into finding solutions to Scotland's housing problem was significant. He entered into partnership with the professional planner, Ralph Cowan, in 1951 and formed a practice which would produce a number of ground-breaking developments over the decades (domestic, institutional and commercial) with the assistance of George Macnab, Eric Hall and, later, Stuart Renton [7.7]. A variety of approaches were taken by many professional architects including, for example, Frank Mears and Partners or Keppie Henderson and Gleave, with some – such as Wheeler and Sproson of Kirkcaldy – specialising in attempts

to revive Scotland's burghs, and with others – such as Ian G Lindsay and Partners, L A Rolland and Partners, Robert Hurd and Ian Begg – choosing a greater focus on the conservation of historic settings. The listing of post-war housing developments has proved to be elusive by the nature of their geographic extent and the large number of buildings or households that they may cover. Indeed, a comprehensive thematic review in the future would greatly assist the identification of individual architects' contribution to this building type.

The work of Gillespie Kidd and Coia from the mid-1950s was largely the product of the combined talents of Isi Metzstein (b 1928) and Andy MacMillan (b 1928) who started working in Jack Coia's practice in 1945 and 1954 respectively. Indeed, their contribution to church building is so great that it became the subject of one of Historic Scotland's earliest biographical thematic listing programmes, in which, in 1994, the pre- and post-war churches of Gillespie Kidd and Coia were reviewed. Their repertoire is, however, wide-ranging, but a particular understanding of the modern mechanics of teaching – either spiritual or pedagogical – saw them excel in numerous commissions for schools and college buildings. Notre Dame College of Education (later known as St Andrew's College), Bearsden (1969) is not only nationally important, but it also reflects the international trend in contemporary architecture when prestige architects were hired to plan entire architectural environments for many public institutions [7.8]. Not only does the college relate to other significant university campus developments in Britain, such as the 'new' universities, but it also shares close similarities with internationally recognised structures such as Moshe Safdie's Habitat for Montreal's Expo in 1967 and many of Le Corbusier's later designs for mass housing, including, for example, the Unité d'Habitation in Marseilles. The influence of Metzstein and MacMillan in the history of Scottish architecture is duly addressed in detail in other chapters in this book.

As the immense volume of work available in the first two decades following the Second World War allowed most practices to turn their hand to any project, it is not surprising to find that some architects came to specialise in certain types of buildings, or, in retrospect, can be seen to have excelled at them. The partnership of James Morris (1931–2006) and Robert Steedman (b 1929) (known as Morris and Steedman), from its inception in 1955, set a high standard for producing some of the best private houses in post-war Scotland which demonstrated principles of design based on how a house was 'experienced', with a less formal plan founded on the division of public and private areas, the use of daylight and the interpenetration of exterior and interior space. Following a thematic survey by Historic Scotland of the private houses of Morris and Steedman, beginning in 2003, 11 major examples of this building type were reviewed and then listed where the character of their original form was mostly preserved. Some fine listed examples include: 32 Charterhall Road, Edinburgh (1962); Scadlaw House, Humbie (1968–9); Calderstone, East Kilbride (1964); and Meadowland, Perth (1964). Avisfield, Edinburgh, built for Dr Tomlinson in



7.9 Avisfield, Cramond, Edinburgh, Morris and Steedman, 1955. Courtesy of RCAHMS.

1955, was their first commission and demonstrated most clearly their indebtedness to their American and European predecessors Frank Lloyd Wright, Richard Neutra, Philip Johnson, Marcel Breuer and Mies van der Rohe [7.9]. Morris and Steedman were responsible for a number of office buildings, including the prestigious headquarters for Salvesen's along with an adjoining group of executive flats in Edinburgh (1969); and, unusual in their repertoire, the Princess Margaret Rose Hospital, Edinburgh (1960–68), arguably one of the most influential post-war designs for a hospital pavilion, regrettably lost after a fire in 2002 [7.10]. In the 21st century this building would be the inspiration for a housing development in the same grounds by Malcolm Fraser Architects.

Also from the 1950s, another architect began experimenting with the workings of designing a modern

Scottish house which would respond to its landscape. As with Morris and Steedman, Peter Womersley (1923–1993) was likewise the subject of a biographical survey in 2006 with a number of his private and public buildings newly listed, including the Brutalist yet enigmatic Gala Fairydean Football Stadium, Galashiels (1963–4); High Sunderland house near Selkirk for the textile designer Bernat Klein (1956–8) [7.11]; and his own house at Gattonside, called The Rig (1956–7). Womersley ran a small practice from the Borders, but would nonetheless make a name for himself with highly individualistic, almost lyrical, designs for a range of building types which explore the sculptural properties of raw concrete (*béton brut*). Some of the earliest examples of this style in Scotland were particularly well realised at the Nuffield Transplant Unit for renal surgery (1955) at Edinburgh's Western General Hospital (now altered considerably) [see 2.8].

Not all the practices which have

7.10 Addtion to Princess Margaret Rose Hospital, Edinburgh, Morris and Steedman, 1960-8. © Morris and Steedman Architects Ltd

7.11 High Sunderland, near Selkirk, Peter Womersley, 1956-58.

shaped the architectural landscape of Scotland will become the subject of a thematic biographical survey, but it is important to recognise the diversity and the strength of Scottish professional talent that has thrived from the boom of the early post-war years. The 1970s saw the decrease of public commissions and the 1980s economic slump, coinciding also with the privatisation of national corporations, and the new battle of 'fee-bidding' for jobs would see many architects unemployed, leaving only the big practices or the self-sufficient single-architect office still standing. Despite this temporary decline, the professional architect has continued to flourish in the post-industrial age. While serving new clients, such as housing associations, or even corporate consortia capitalising on rising land and rate values, one may still perceive the next generation of architects – Page and Park, Elder and Cannon, Richard Murphy, Malcolm Fraser, Gareth Hoskins, Nord, JM Architects, RMJM, Reiach and Hall, Bennetts, Sutherland Hussey – whose body of work demonstrates a social conscience and an understanding of Scotland's historic and contemporary identity, but most of all has created exciting places to live, work and play in Scotland for today and the future.

Protecting Our Modern Heritage

ST COLUMBA'S, Glenrothes (1958-62) was a new church for a New Town but it strongly echoed an older place of worship at nearby Burntisland. The architects, Sir Anthony Wheeler and Frank Sproson, re-visited the centralised plan of the earlier St Columba's (1589-96), which had daringly placed the worship space in a square. At Glenrothes, the form of worship emphasised a new, 'inclusive' approach to public assembly seen in many types of contemporary gathering places. Internally, the richness of a mural painting by the artist Alberto Morrocco (1917-98) contrasts with the simplicity of the church's Modernist furnishings. The roof 'floats' on a continuous clerestory of coloured glass in a highly Modernist manner but externally, the building has a more familiar profile similar to a 19th century pattern of church and steeple.

Eric Christie, Property Convener, accepts that the building presented challenges for conservation but he says that *'getting the building listed was a big move forward'*. Historic Scotland helped with a grant of £125,000 and the conservation architects, Gray, Marshall and Associates, carried out the works of repair and modification, including an ingenious system of secondary glazing which preserved the character of the original windows. The conservation architect in charge of the works, Jocelyn Cunliffe, sought solutions to problems that were 'practical and achievable'. Jocelyn's aim was to ensure that there was *'no damage to original building fabric that remained'*. Carol Gibson, Clerk to the Congregational Board, agrees that it has all been worthwhile. *'The beauty has been restored to the building; we appreciate it now'*.

8.0 Protecting Our Modern Heritage

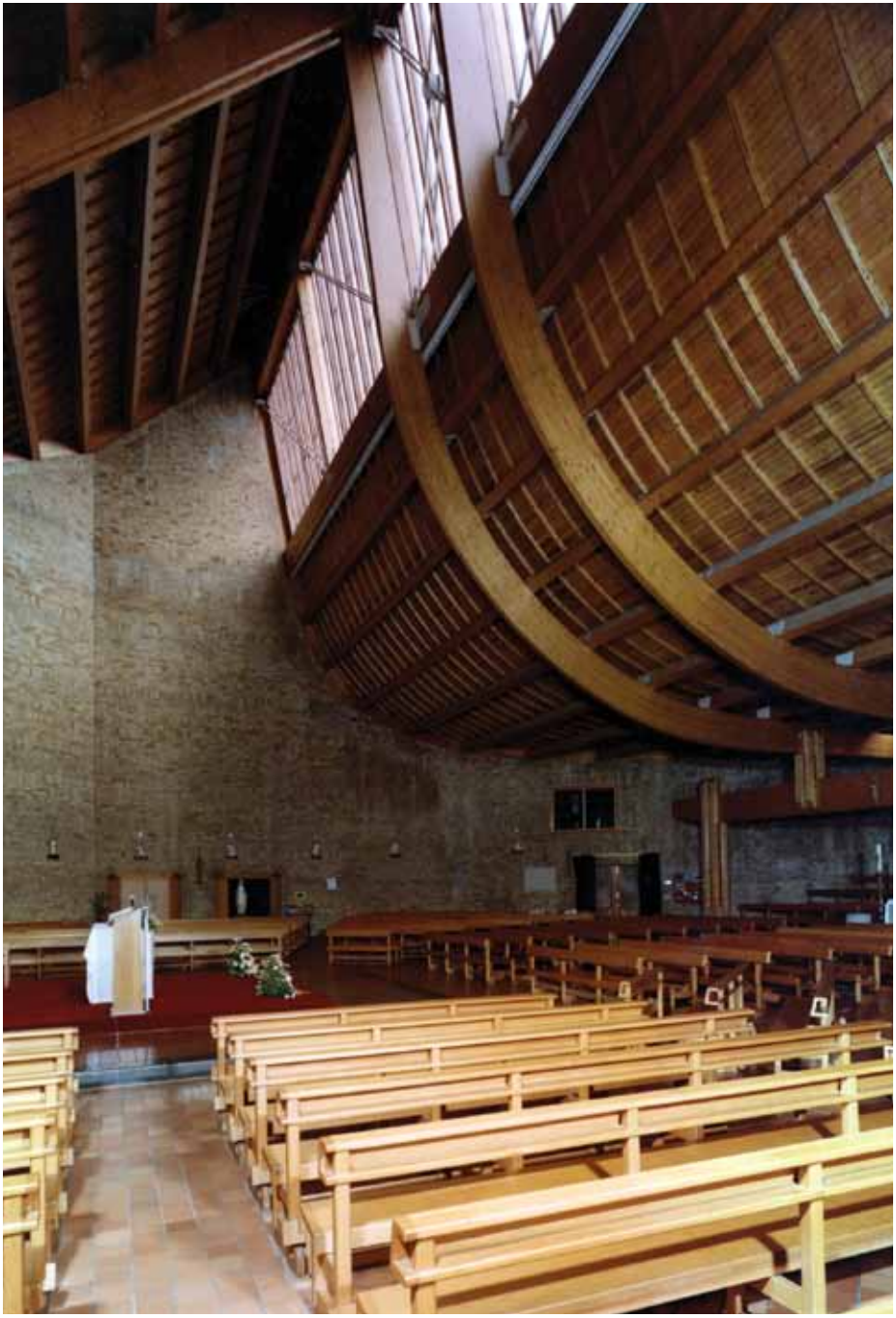
PROTECTION

The post-war decades are of crucial importance for Scotland's history. The nation's architecture formed a key element of Scotland's economic and social agenda and by studying and understanding the architecture we can gain a broad understanding of the period and its aspirations.

It is generally recognised that Scotland had architects of world renown in the Georgian and Victorian periods including Robert Adam, William Playfair and Alexander 'Greek' Thomson. The international importance of Scotland's early 20th century architects such as Charles Rennie Mackintosh is increasingly being acknowledged. It seems reasonable therefore to believe that this internationally important architectural tradition continued into the post-war period. We consider that some of the buildings of this era are of great significance and are deserving of recognition and protection.

And yet, more than any other period, when post-war buildings are being considered for statutory protection the general response is one of surprise and in some cases incredulity. The reasons for this lack of appreciation are complex. They may include the use of steel and concrete rather than traditional materials, the poor maintenance and performance of 'modern' buildings materials, and the scale and dominance of multi-purpose urban complexes. There is no doubt that the period has its fair share of poorly designed and executed buildings and their physical and social legacy has been costly. However, there have also been great successes. This is the heritage of the future, and it is important to consider how to preserve this legacy for the generations to come.

The recent exhibitions in Scotland on the work of Gillespie Kidd and Coia and Basil Spence make a persuasive argument for the importance of their work on an international stage.



8.1 St Benedict's Church, Drumchapel Road, Glasgow, Gillespie Kidd and Coia, 1964-70.

But there are other architects such as Peter Womersley whose work deserves far wider recognition. Regrettably it is often loss of a major example, or the threat of imminent and destructive change which sparks or requires the reaction to protect historic buildings. For instance, John Betjeman's campaign in the 1960s against development plans for the Victorian St Pancras Station, London, is famous for its success in securing a listing and the preservation of the iconic building. Similarly, the demolition of Gillespie Kidd and Coia's St Benedict's Church, Drumchapel, 1964-70 [8.1], led to the crucial decision to give statutory protection to 17 of their other churches. At the time this seemed a bold move, but with the benefit of hindsight the decision was inspired.

8.2 St. James Centre, Edinburgh, Burke and Hugh Martin, 1964-70.

The intellectual challenge of innovation, and the use of modern materials and combinations, requires an open-mind as they have been traditionally misunderstood by each generation. This lack of understanding is compounded by the media which tends to concentrate on architectural failures rather than the many successes. There were of course issues colouring the period. The growing conservation movement identified a planning blight in megastructures which became a symbol of soulless, mechanistic crudity, as seen in the massive car park and multi-function commercial centre of Edinburgh's St James Centre (1964-70) [8.2] by Burke and Martin which is likely to be replaced soon.

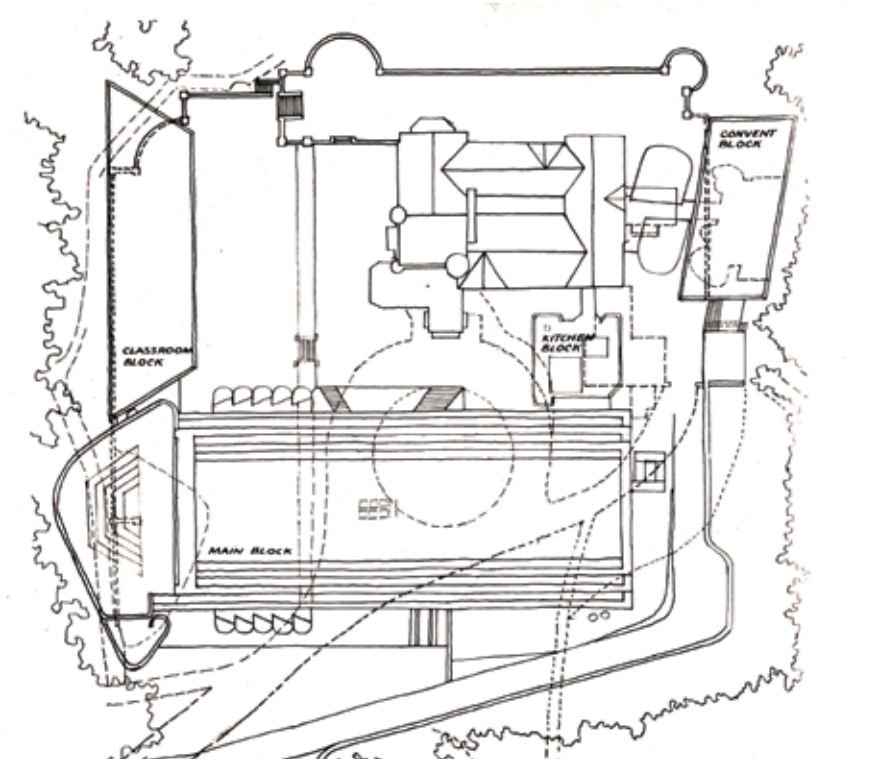
A lack of understanding of the scope and cost of maintenance for some modern buildings resulted in a lack of necessary servicing and often created eye-sores. Early concrete was created as a smooth material but late modern works were to some shockingly rough, often board-marked with the impression of the timber shutters into which the concrete was poured still visibly fossilised on the surface. These board marks were as important to the 20th century architects as artfully-hewn rubble was to the Arts and Crafts designers, yet the Brutalist aesthetic which spawned them has often been imbued with the negative associations of economy, speed, experiment and failure.

As a result, when we endeavour to list buildings from the post-war years the proposal is often received with some surprise by the public and media alike, both more comfortable with the time-assured stone mansion or familiar church. Post-war buildings were built at a time when energy was cheap and plentiful, often without serious regard of the consumption of resources implicit in the design and this, together with the relative speed of construction, has left many with the view that they were built for obsolescence. Listing of course is in sharp contrast to this view and assumes long-term preservation. It is important to remember though that a wide range of buildings and structures have lives far beyond that originally planned.

There is a perception that listing denies change but buildings from the post-war period very often offer significant levels of flexibility in terms of change for new uses. Finding a new use for St Peter's Seminary, Cardross (1966) is of course a more extreme challenge than the average, in its bespoke complexity, but most can be conserved, altered and adapted with

spectacular results [8.3]. St Benedict's Easterhouse, Glasgow, by Gillespie Kidd and Coia, 1965, for example, has been altered to accommodate new use, creating a multi-purpose centre which allows the building to flourish as a landmark for the area and a work of art in its own right, while preserving the essential integrity and character of the building. In these days of sustainability the opportunities to keep buildings in use, rather than replacing them, makes increasing sense, both financially and environmentally.

It is important to stress that listing is not intended to preserve all buildings in aspic forever. Listing identifies why a building is significant and by doing so helps inform the management of change and focuses attention on new alternatives rather than on disposal. It is accordingly forward-looking and in tune with sustainable values. Much work has been done on the technologies and development of skills for post-war conservation though it is clear that conservation of the modern heritage is not essentially different from pre-war conservation concerned with new materials (such as the Portland cement used at Hill House, Helensburgh of 1902). The challenges posed by non-traditional materials are, like the reputed structural and functional failures of the period (notably the 1950s and 1960s), often over-stated: the conservation of new materials has been tackled successfully over time from Roman cement to Coade stone and ferro-concrete. Historic Scotland's Technical Conservation Group promote research in this area and provides a bank of information and source of expert advice.



8.3 St Peter's Cardross, plan of 1st floor, Gillespie, Kidd and Coia, 1966. © Glasgow School of Art's Archives and Collections Centre

SELECTION

8.4 Scottish Ambulance Service, Maitland Street, Glasgow, Skinner, Bailey and Lubetkin, 1966-70.

The selection of buildings of special architectural or historic interest for listing in the post-war period follows the same criteria as those from earlier times, but with a rigour on account of their youth. A broader understanding of what was happening in the period and why, nationally and internationally, is necessary to give the buildings' context and much of this remains new terrain, if with an exponential growth. We do not normally list buildings which are younger than 30 years old in all but the most exceptional circumstances. The former Cummins Factory (now Centrelink 5), Shotts, completed in 1983 by Ahrends Burton and Koralek is the key example of this, listed when it faced threat of radical change and the loss of its defining character [see 4.9]. There are currently under two hundred post-war buildings on the list, a tiny percentage of the nation's built heritage and of the 1% of this heritage which is listed.

Historic Scotland considers the case of each subject against the principles set out in Annex 2 of the *Scottish Historic Environment Policy* (October 2008). Age and rarity have their place. For example, was the subject the first, the only, a watershed? Architectural and historical interest is considered against broad headings of technological innovation, use or quality of materials and craftsmanship, the quality of the design, the significance of the plan form, the building's contribution to setting, and the importance within the building type. Any close historical association on a national level is taken into account, provided it is documented and the subject was more than a simple witness to the association. Our decision is normally informed by wide consultation with the owner, the local authority and third-party experts.

Each case is weighed against the criteria, each one often excels in key areas. The Scottish Ambulance Service in Glasgow's Maitland Street, for example, by Skinner, Bailey and Lubetkin (1966-70) [8.4] was listed not least as the only known building designed in Scotland by the renowned architect of the Penguin Pool at London's Regent Park Zoo (*c.*1960), and for its imaginative, expressive design, which boasts a largely intact interior with distinguishing features such as the striking irregular triangular staircase curved at ground level.

The British Homes Stores, Princes Street, Edinburgh, by Robert Matthew

8.5 St Columba's Parish Church, Glenrothes, Wheeler and Sproson, 1958-62. Courtesy of RCAHMS.

Johnson-Marshall (1964-8), with Ove Arup engineers, was found to be a unique and innovative example of department store design after 1945 [see 7.5]. The premises were tailored as a flagship store, using exceptionally high quality materials for the time. The building was conceived in the round with a roof top courtyard, all while retaining an innovative plan form and Scandinavian decorative schemes. In the Edinburgh context, the BHS was the first of the buildings proposed by the Princes Street Panel to provide a first-floor walkway, critically to separate the street's pedestrian and roadway traffic. This interest led to listing to protect a singular and outstanding building of the period.

Those working with St Columba's Church, Glenrothes have enjoyed the access to expertise and attention which a listing can secure. Listing provides an important check in the planning process so that the holistic value of a property can be properly considered. Here it has ensured the church can continue to bring multiple benefits and pleasure to its community [8.5].

End Note

There is a strong need for a greater awareness of post-war architecture in Scotland and for a broader debate. We hope that this publication will engage all of those with an interest, whether owners and developers, architects, planners, heritage professionals or the public at large.

There is growing evidence that the protection and conservation of post-war buildings can return a heritage dividend, by giving new life to redundant buildings, anchoring a sense of place and attracting investment and support for regeneration. Major buildings from the period (or components thereof) have already been demolished (see montage) and rather than wait passively for the seal of popular approval when many more may have been swept away, we will continue to promote healthy debate and discussion about this important chapter in Scotland's history and the architectural legacy that it has left.

TOP RIGHT
Hutchesontown C, Gorbals, Glasgow, Sir Basil Spence, Glover and Ferguson, 1965.
© RCAHMS. Licensor www.scran.ac.uk

MIDDLE RIGHT
St Bride's R C Church from the south-east, Whitemoss Avenue, East Kilbride, Gillespie Kidd and Coia, 1963. Tower demolished.
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BOTTOM RIGHT
Meadowside Granaries, Glasgow, L G Mouchel and Partners and A Thomson (engineer), 1967.
© RCAHMS. Licensor www.scran.ac.uk

FAR LEFT

Leith Fort, towers, Leith, Edinburgh, Shaw-Stewart, Blaikie and Perry 1957-63. © RCAHMS. Licensor www.scran.ac.uk

LEFT AND ABOVE

Duncanrig Secondary School, East Kilbride Basil Spence and Partners, 1950-56. © RCAHMS (Sir Basil Spence Arvchive Collection)

BOTTOM LEFT

Norco House, George Street, Aberdeen, Covell, Matthews and Partners, 1968-70. Enrance block demolished. Copyright: RCAHMS

BOTTOM RIGHT

St Benedict's, Drumchapel Road, Glasgow, Gillespie Kidd and Coia, 1964-70. Crown copyright: RCAHMS

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HISTORIC SCOTLAND

Historic Scotland is an executive agency of the Scottish Government. It is charged with safeguarding the nation's historic environment and promoting its understanding and enjoyment. Listing recognises a structure's special architectural or historic interest and secures its protection under law through the planning system. Listing is intended to inform the management of the historic environment to reinforce sustainable development and, from this greater understanding, serves to protect Scotland's defining character and its sense of place.

Historic Scotland's Inspectorate can be contacted at:
hs.inspectorate@scotland.gsi.gov.uk

Historic Scotland Inspectorate
Longmore House
Salisbury Place
Edinburgh EH9 1SH

Tel: 0131 668 8600

HISTORIC SCOTLAND
ALBA AOSMHOR

Scotland: Building for the Future

In post-war Scotland there was a belief among key decision-makers that the world could be made better by design. New homes, schools and churches – even entire new towns – could be planned, designed and built for the benefit of all. Modernism in architecture and design were closely linked with this widespread faith in reconstruction. Architects and architecture were at the centre of this national effort, as they had been for at least 250 years. Scotland had specialised in new towns and a 'rational' approach to development and improvement, and there is a strong echo of the work of Robert Adam and Edinburgh New Town in the 'age of improvement' of the post-war period.

ISBN 978-1-84917-014-7

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