Oxford

The Tradition of Modern Architecture

The Tradition of Modern Architecture in Oxford is a document prepared by the Oxford University Estates Department to assist the public in gaining an understanding of the rich history of modern buildings in the city. We hope that it will be used to support planning applications so that it can be shown that the University is working within an established continuity. In this document we offer themes to help piece together why modern architecture in the city is like it is.

In order to understand the character of the modern building stock, we have looked at the dominant architectural character of Oxford, which is strongly influenced by college and faculty building types designed in Gothic, Baroque and Gothic Revival styles. Very few modern buildings were constructed in the city during the first half of the 20th century. Therefore there is little evidence of the style directly influenced by French and German High Modernism. Most modern buildings were conceived after the mid-1950s when architects had become more concerned with context and history. Therefore Oxford's best 20th century buildings are part of a movement characterised by critique and reflection. Many show the influence of the Gothic and Baroque traditions in ways that might not be immediately apparent.

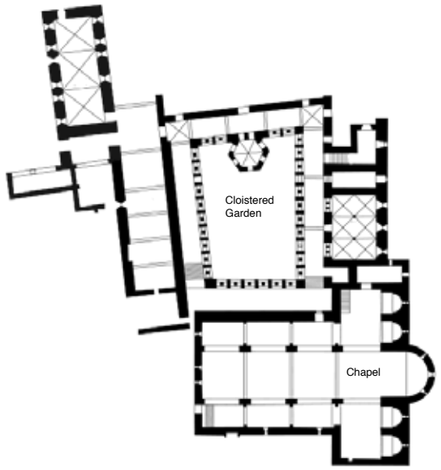
The document is divided into three main sections. The first one looks at the established tradition of buildings in the city and the dominance of certain themes that emerge again and again over the centuries. We describe High Modernism, contrasting it with later developments in modern architecture. The second section takes 12 themes and examines them in relation to modern buildings in the city. Naturally, certain buildings appear under numerous headings. The writing style is meant to open questions and invite comparisons rather than to provide definitive judgements about architectural quality. The third section looks briefly at building elements and offers comparisons across different architectural styles.

One clear ambition we have is to persuade readers that modernism in Oxford is not homogenous. It is made of many strands that compete and intertwine. We hope to encourage a debate about what makes a good modern building in this precious setting. We believe that some modern buildings are already established architectural assets that contribute significantly to the rich texture of the place.

Context

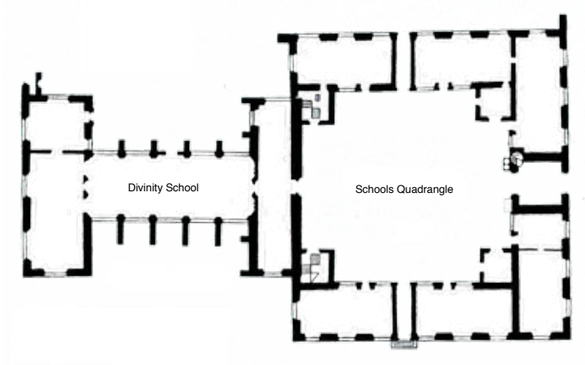
1.1 College and Faculty Buildings

One dominant feature of the centre of Oxford is the cluster of colleges around the central University area. These contribute significantly to the character of the streetscape, the relationship between public and private space, the skyline and the overall texture of the city. The college as a building type developed from the Christian monastery, which is a building that represents the spatial organisation suitable for people of shared faith living in a structured community. The independent faculty building is another form of organisation with no significant residential component and no primary space for worship. It is a workplace characterised by cells of different sizes suitable for individuals, or groups, to carry out specialised activities. The urban form of the area around South Parks Road is one manifestation of this way of organising buildings. They seem bigger and denser. They sit as independent blocks on their own sites.



Monastery
Le Thoronet Abbey

The 10th century monastery of Le Thoronet shows a typical arrangement of this building type. The two principal organising elements are the chapel and the cloistered garden. These are consciously juxtaposed, the chapel as the site of the liturgy and the Eucharist, the enclosed garden as an image of God's perfection. The refectory and library are important secondary elements. Individual monks' cells are arranged around the cloistered court. The buildings that face outwards from the central cluster are associated with utilities and management of the land.

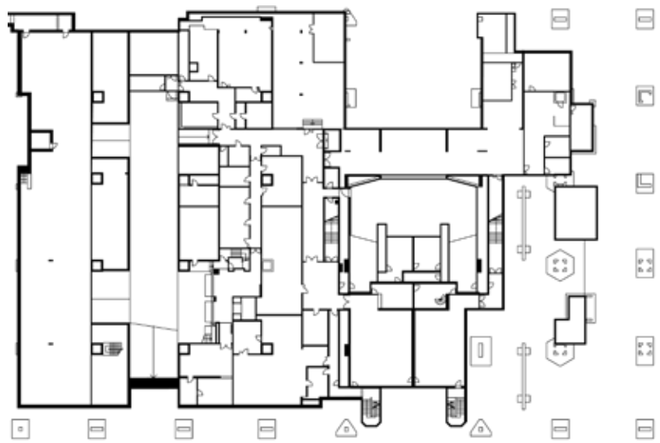


Faculty Building
Bodleian Library

The sequence of development of the Bodleian Library shows the emergence of a new building programme and its development in relation to the monastic arrangement. The original proposal for the Divinity School was for a roofed hall like a simple chapel. The design was changed, following Duke Humfrey's bequest, to accommodate a library on a floor above the hall. The subsequent development of the Schools Quadrangle follows the cloistered form but contains specialised teaching spaces rather than residential rooms. This is not a garden with a colonnaded perimeter but a small public square serving as an entrance to all the parts of the building. The presence of the Library above the Hall of the Divinity School tells us it is not a monastic chapel. This hybrid organisation uses certain organising principles from the monastery or college but departs emphatically from the way in which these spaces are used and understood.

College
Merton College

Merton College was founded in the mid-13th century as a settlement housing around thirty fellows teaching the liberal arts. The juxtaposition of the chapel with the surrounding enclosed quadrangles housing fellows is similar to the monastic building type. The library and hall bear an obvious correlation to the refectory and library of the monasteries in terms of scale and relative importance within the spatial organisation.



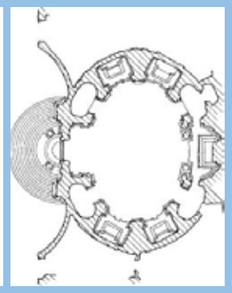
Faculty Building
Zoology and Psychology

Oxford University has relatively few significant independent faculty buildings before the mid-20th century. This may be a result of the strength of the college system. It is not surprising that the most usual faculty buildings are laboratories, a use that would be increasingly difficult to accommodate within a college. The important thing to notice about this building is the overall scale and relative density of the plan. This is a big block with few entrances and it is not interlaced with open courtyards. Public circulation is through corridors and internal spaces are bigger and more homogenous. The development towards the modern faculty building is characterised by larger blocks with independent internal organisation, which improves security, servicing and central administration.

Context

1.2 Gothic and Baroque Form

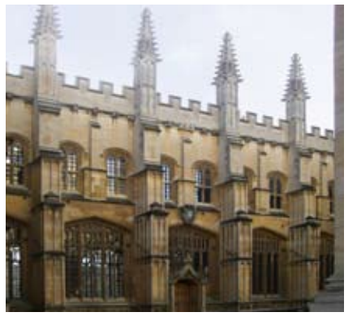
The city of Oxford has a character that reflects the relative dominance of two architectural styles known as Gothic and Baroque. Many of the most interesting buildings are a conflation of the two styles. This is something relatively unusual and it gives the city a very particular atmosphere. The persistence of Gothic form in the city is probably related to a number of overlapping ideas; a reference to the origins of the University, idealising a perceived golden age of scholarship, natural conservatism, a religious revival attempting to recreate a pre-Reformation architecture and finally, a plea for more rational architecture based on sound constructional principles. Baroque architecture is associated with the counter-Reformation. It is characterised by a direct emotional appeal with a muscular shaping of form and space. In England it emerges as a style associated with a consciousness of increased imperial dominance. It asserts English Christianity as an emerging rival to Rome and, as a secondary consequence, it is associated with the Tory cause of King and Church against the Whig movement. The Whig style of architecture is Palladian and it is comparatively rare in Oxford.



Eugène Viollet-le-Duc, engraving of Amiens Cathedral and sketch illustrating an example of vaulting without buttresses

Gian Lorenzo Bernini, Plan of the Church of Sant'Andrea al Quirinale, Rome 1661

Francesco Borromini, San Carlo alle Quattro Fontane, Rome 1634-38



Divinity School, North façade early 1400s

This is the oldest wall in the building. It is composed of an array of buttresses framing delicate screens of stone and glass. It demonstrates a fundamental principle of Gothic architecture. The robust buttress is resisting the horizontal thrust of the roof. The roof is pushing down and sideways because it is pitched. The sideways push is difficult to manage. The buttress acts like a bookend to stop the roof from slipping sideways and collapsing. To do this it needs to be as heavy as possible, so a tower of stone is built up to maximise its weight. The tower is carved as a pinnacle. The walls between the buttresses, freed of their structural obligation, can be as delicate as lace.

Schools Quadrangle Vestibule, East Façade early 1600s

The façade of the Bodleian facing the Schools Quadrangle was built two hundred years after the north wall described above. The blind stone panelling, the tracery in the windows and the pinnacles rising over the parapet are obvious signals of Gothic architecture and they make a direct visual allusion to the older wall of the Divinity School. The difference here is that none of the elements have any legible structural function. The pinnacles sit on the parapet with no buttress beneath, the window is not positioned between structural piers; the panelling is like wallpaper. Compared to the frank structural expression of the authentic Gothic wall, this is like a stage flat. This is an example of Gothic Revival and Tyack[1] suggests that it is a deliberate appeal to associations with a golden age of scholarship in the University during the Middle Ages.

Tom Tower, Christ Church College

The entrance tower was designed by the architect Sir Christopher Wren as part of works to Tom Quad, left incomplete after the demise of Cardinal Wolsey. The tower was intended to hold Great Tom, the bell brought from Oseney Abbey. Wren felt it should be Gothic but "not as busy as it began". Wren was building the great Baroque cathedral of St. Paul's in London at the time. In St. Paul's, Wren goes to extraordinary lengths to disguise the buttressing within the walls to give the effect of simple forms sitting one on the other. Here he expresses the buttressing with dainty pinnacles, which form a little nest for the ogee dome that rises above them. This is a strange and convincing conflation of the Baroque dome and the Gothic buttress.

All Souls College, East Range Towers

Nicholas Hawksmoor was a Baroque architect with an extraordinary gift for sculptural architectural form. At All Souls College he was instructed to produce designs in the Gothic style to match older 15th century building stock. The two towers are strange, dreamlike re-imaginings of Gothic form. The pinnacles and turrets are applied in diminishing tiers reminiscent of his steeple for St. George in the East in London, itself an emulation of the Tower of the Winds in Athens. This is not Gothic architecture in any meaningful sense. It is scenographic and therefore far more like Baroque in spirit if not in immediate appearance.

[1] Geoffrey Tyack - See Acknowledgements

Radcliffe Camera

This building was designed as a new library and it was intended as a public building representing the vocation of the University to the world. The architect James Gibbs had been trained in Rome, the place of origin of Baroque architecture. The circular form may have alluded to classical mausolea. This is a singular expression of Baroque architecture with its massive drum and dome handled with lightness and sculptural confidence.

Keble College

In the early 19th century the architect Pugin called for a revival of Gothic architecture as the true expression of the Christian spirit. He wrote passionately about the truth behind the complex Gothic forms, showing how everything was based on reason. Decoration always only elaborated structural truth. The emulation of Gothic constructional principles gained a sense of moral rigour and adherence to true principles. This coincided with the spirit of the Oxford Movement which sought to ally Anglo Catholicism with a pre-Reformation English Catholic identity. Keble College was founded by Tractarians associated with the Oxford Movement. They appointed William Butterfield who designed the vivid, even hallucinatory, woven texture of brickwork that dominates the buildings.

University Museum

Ruskin was the guiding influence behind the commissioning of the Museum Building. He directed the appointment of the Irish firm Woodward and Deane to produce designs in the spirit of his Venetian Gothic principles. They came with their ragged band of stone carvers from County Cork who created the notorious playful decoration on the columns and window reveals. Ruskin was obsessed with the spirit of the craftsman expressed in the delineation of the carving. This is set against the huge skeletal interior in industrial steel. The eclectic pointed form tries to hold together the old world of individual craft with the drama of the emerging railway age.

St John's College, Residential Range

During the late Nineteenth century a new architectural theory emerged. It was known as Structural Rationalism and Viollet-le-Duc championed it. He studied Gothic architecture, not for its appearance, but for its abstract structural principles. He developed the idea of the independently articulated structure. He compared this to skeletons and Gothic cathedrals. The architecture that resulted is starkly modern in its abstraction. In St John's College, by Philip Dowson, the structural frame is pushed out onto the exterior of the building and the walls and windows are treated as independent screens, which do not carry structural load. The columns and staircases rise beyond the parapet to create a spiky silhouette. Despite the lack of superficial similarity, this building is appealing to Oxford's Gothic spirit. It does so with more substance than the scenographic confections at All Souls and the Schools Quadrangle.

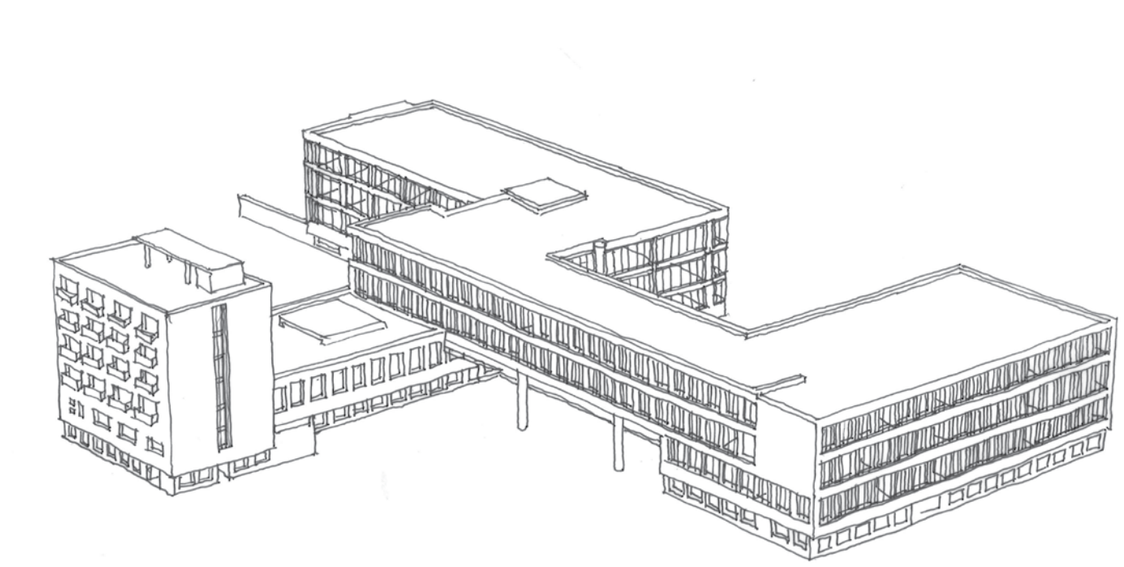
Context

1.3 Modernism and Reaction

In the first half of the 20th century a radical form of modern architecture emerged. It claimed to represent the *Zeitgeist* of the industrial age. Buildings were designed with a combination of technical logic and wild fantasy about ships, cars and aeroplanes. The metaphor of the building as a machine was common. This sometimes obscured the relentless instrumental logic that was being applied to making cheaper, cleaner, standardised building stock for the era of the masses. High modernism was considered to be the expression of a broader ideology of social modernism incorporating universal suffrage, improved social conditions, standardisation and the technocratic management of society. The architect villain Dr. Silenus in Evelyn Waugh's *Decline and Fall* was directly modelled on Walter Gropius, principal and designer of the Bauhaus School in Weimar Germany. He is the embodiment of the English fear of technical utopianism. Needless to say, this movement had almost no influence on Oxford. While Gropius conceived the Bauhaus, Fielding Dodd built Rhodes House on South Parks Road.

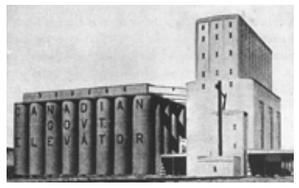
From the mid-1930s on, a revisionist spirit emerged in architecture. While many of the principles of modern architecture were accepted, for example large windows and plain walls, the way in which the buildings are designed changed dramatically. They were no longer seen as extreme expressions of a machine aesthetic. Instead, there is a return to natural materials, a new respect for place, a concern for history and an evolving respect for nature. In particular, public space has an important social character.

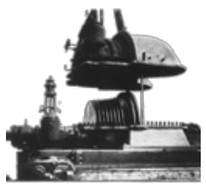
High Modernism



Bauhaus at Dessau

Gropius said "*The Bauhaus believes the machine to be our modern medium of design and seeks to come to terms with it.*" It promised the injection of design sensitivity into machine made utilitarian objects. The Bauhaus building was intended as a total work of art, synthesising furniture, architecture, weaving, and painting. The building has a strong centrifugal form. It needs to be experienced in wide-open space. Rectangular blocks are held in pinwheel formation as though they might spin away at any moment. The walls are austere and undecorated, framing great arrays of crystalline plate glass.





Le Corbusier Vers une Architecture 1923

'*An architecture of our own age is slowly but surely shaping itself; its main lines become more and more evident. The use of steel and reinforced concrete construction; of large areas of plate glass; of standardized units (as, for example, in metal windows); of the flat roof; of new synthetic materials and new surface treatments of metals that machinery has made possible; of hints taken from the airplane, the motor-car or the steamship where it was never possible, from the beginning, to attack the problem from the academic standpoint-all these things are helping, at any rate, to produce a twentieth-century architecture whose lineaments are already clearly traceable.*'

Reaction

Louis I. Kahn. Watercolour sketch of San Gimignano, Italy 1929

Louis I. Kahn, Alfred Newton Richards Medical Research Building University of Pennsylvania 1957-65

Modern architecture begins to appear in Oxford after the Second World War and, with some important exceptions, the approach is contextual and rooted in a new respect for the spatial and material character of older European cities. Most of the work we shall now look at comes from this important revision to modernist thinking. It is possible to see how modern principles of construction and new forms of building organisation are married to natural materials and an attempt to respect the particular character of the existing buildings and spaces in Oxford.

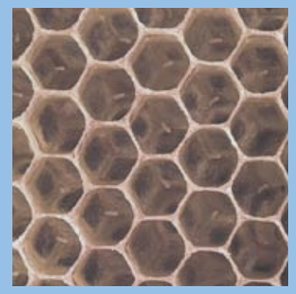
Alvar Aalto
Säynätsalo Town Hall
1949-52

Alvar Aalto
Sketch of the amphitheatre at Delphi, Greece 1953

Themes

2.1 Knitting-in

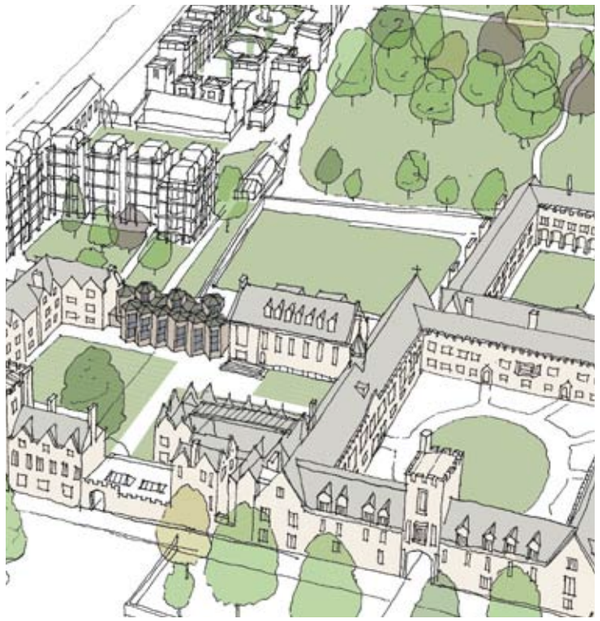
In the late 1950s two residential buildings were designed for the already developed setting of older colleges. The Beehive Building at St. John's College and the Student Accommodation at Brasenose College. Both buildings use Portland Stone, an unusual material for Oxford, probably for superior durability. Both use plate glass windows and unadorned walls. In many other ways they are unlike our perception of High Modern architecture. The buildings are carefully knitted in to their setting. They seek to enclose the older forms of courtyard and quadrangle. They respect the scale and grain of their neighbours.



Hexagonal chemical forms

Carlo Scarpa, Querini Stampalia Foundation, Venice, 1961-3

Beehive Building St John's College Architects' Co-Partnership 1958-60



The Beehive Building designed in 1958 by the Architects' Co-Partnership expresses a cellular accumulation of interlinked rooms and staircases. Each hexagonal room is clearly identifiable on the exterior. The only horizontally continuous elements are the floor slabs and plinth. Compare this to the Bauhaus building on the previous page. The roof lanterns appear above the level of the rooms, giving a satisfactory sense of layering. The dense cellular form is supposed to relate to molecules and cell structures, but clearly it appeals to an older sense of small scale agglomeration of individual units.

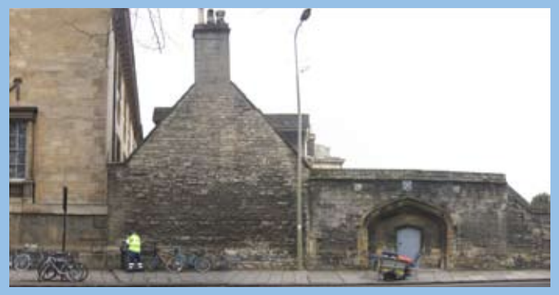
Student Accommodation Brasenose College Powell and Moya 1959

The Student Accommodation for Brasenose College by Powell and Moya was built in 1959. By closing the gap between older buildings, it sets up two new courtyards, which have an intimate domestic scale. While the large plain walls signify modern abstraction, the detail of stone, lead, concrete and metal round the windows is very intricate. It is a carefully crafted building. It constantly shifts and alters its architectural language to deal with the particular situations that surround it.

Themes

2.2 Buildings and Walls

Demesne walls bound most of the older establishments in Oxford. These originally delineated the broader grounds of colleges, hospitals or religious institutions. As they developed, the buildings within pressed closer to the edges of the properties. The emerging historical consciousness of the late 20th century meant that some of these walls were preserved rather than destroyed. Architects were obliged to refine their designs so that they entered into a positive relationship with these significant historical boundaries.

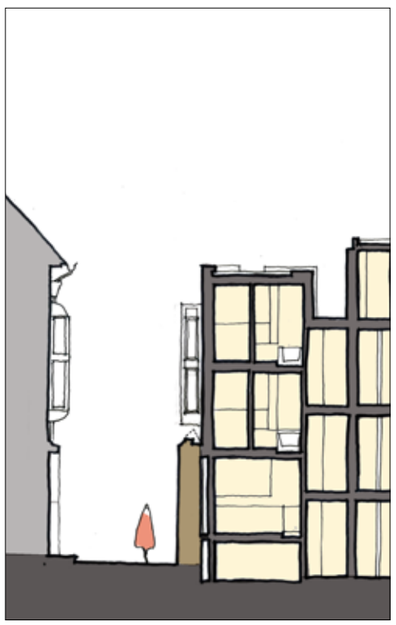


Worcester College, wall and buildings as seen from Walton Street

Alison and Peter Smithson Upper Lawn Pavilion 1959-1962

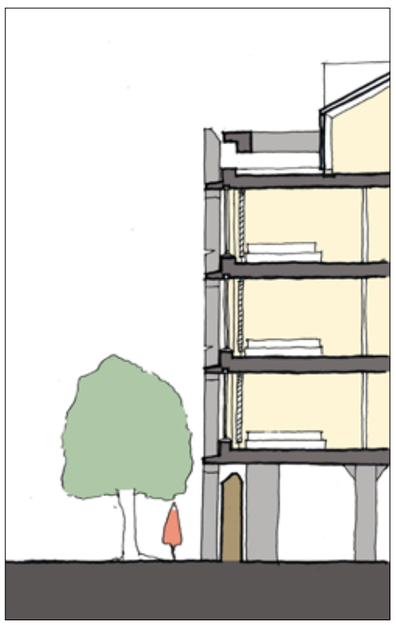
Blue Boar Quadrangle — Christ Church College — Powell and Moya — 1964-67

A continuous old wall runs the full length of Blue Boar Street. It marks the boundary of Christ Church College. The buildings behind are pressed close to the edge. The horizontal sweep of the wall becomes the first layer in a complex composition. The buildings are given a pronounced vertical emphasis so that they pop up behind the wall like dentistry. The arrangement of the vertical pieces is restless as it shifts and slides back and forth against the sweep of older masonry. If you look a long time you recognise a basic order of rooms, stairs and passageways repeating along the length of the building. It is never resolved into a simple modular order. There is always something interrupting mere repetition. This is most unlike the relentless, machine-like march of High Modernist design.



Far right: Typical section through Blue Boar Street

Sir Thomas White Building — St John's College — Philip Dowson/ Arup Associates — 1976



The old demesne wall along the Lamb and Flag Passage is thick and sinuous. You sense the persistence of an ancient country lane. The great tree emphasises a quality of timelessness. The new building, set behind the wall, has an extremely regular logic based on the expression of the structural frame. Stone staircases and crystalline corner windows are set within it. On Blue Boar Street, seen opposite, the building is constantly changing to accommodate the wall. Here the building only makes one or two very simple moves. It steps back, then steps forward again. This produces a rich and complex arrangement. The moment where the columns step out over the wall is both contextually sensitive and self-possessed. The two structures are literally woven together.

Far left: Typical section through Lamb and Flag passage

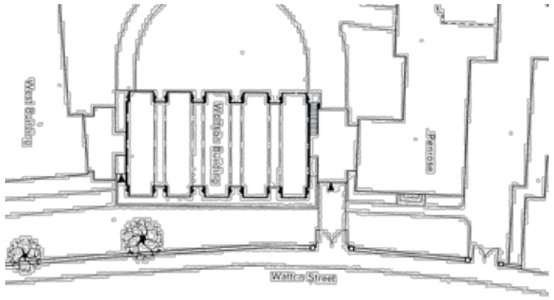
Themes

2.3 Bay Windows

The bay window is a very attractive element. It allows us to step outside the room and look along the length of the street. It brings in light from more directions and it makes a boundary space between the private interior and the public street. Seen from outside, it suggests a breakdown of the scale of the building, expressing the identity of individual rooms. High Modernism suppresses the expression of individual rooms in favour of a horizontal sweep of space. One major manifestation of that is the ribbon window, a continuous horizontal strip of glazing going right to the edge of the building. Uninterrupted by vertical incident, your eye speeds up as it runs along the façade. We will see some ribbon windows later, but they are relatively uncommon in Oxford. Instead, we have a modern development of the bay window. Where older bay, or oriel, windows were often one-off incidents, the modern bay window is often part of a larger cellular array expressing the logical arrangement of rooms behind.

Holywell Street looking west

Oriel windows, Queen's Lane



Philip Dowson/ Arup Associates
Wolfson Building, Somerville College
1964-67

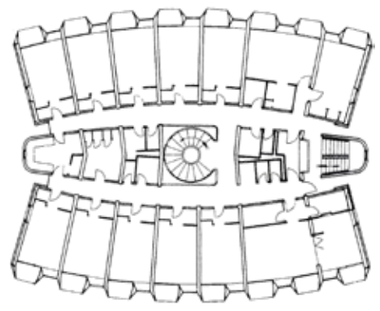
The bay windows appear as abstract glass boxes sitting within the externally expressed structural frame. It appears logical and it gives a sculpted depth to the outside wall making a much more interesting composition when viewed along the length of the street.

MJP Architects
Jowett Walk, Balliol College
1996 & 2004 [Phase I & II]

The bay windows are composed into larger, two-storey, elements and their arrangement is syncopated vertically. They appear to rotate in relation to the planar walls, some projecting square from a wall, some diagonally and some breaking out from the corner.

Rick Mather Architects
Arco building, Keble College
1995

The windows project in a triangular wedge, so they appear completely different from opposite directions. They are reminiscent of Alvar Aalto's Villa Mairea in Finland. They are particularly elegant set against the sinuous sweep of the brick wall.



Howell, Killick, Partridge and Amis
Wolfson & Rayne buildings St Anne's College
1962-68

These very repetitive elements are, in fact, balconies made from pre-cast concrete. The 45-degree arises on all edges of the projections and gives an origami-like quality to the arrangement. This is set against the slight curve of the wall.

Themes

2.4 Structural Exoskeleton

A significant theme in modern architecture is that the building tells the truth about itself. It directly expresses constructional and utilitarian matters in favour of other representations. Different architects represent materials, use, resistance to gravity and management of the environment with more or less emphasis. This is a uniquely modern idea, hardly known to architects before the 18th century. Philosophically, it is intended as a resistance to the debasement of authenticity characterised by industrial society.

The 19th century writers Augustus Pugin and Eugène Viollet-le-Duc praised Gothic architecture for its structural clarity. Viollet-le-Duc proposed a new architecture for the industrial age based on the overt articulation of structural logic. By telling us how it holds itself up, the building is communicating something both true and unique to itself. This movement became known as Structural Rationalism. It is often characterised by a clearly articulated external structural frame. One thing, which we should recognise, is that a Gothic structure like the Divinity School pushes its structure outboard to resist the lateral thrust of the pitched roof and to achieve lightness on the interior. None of the buildings shown below have a pitched roof or an especially light interior. This opens up a tricky argument about truth and representation.

Philip Dowson/ Arup Associates
Wolfson Building, Somerville College
1964-67

The vertical posts, rising above the roof, and the horizontal columns, extending beyond the walls, are trying hard to bring themselves to our attention. They give the building a slightly spiky quality. The glass windows are treated like objects held within a system of shelves. Without thinking, you intuit that the frame holds up the windows.

The Smithsons
The Garden building, St Hilda's College
1968-70

This unusual combination of concrete frame and timber trellis seems to relate to the garden setting. We assume that the architects intended it to be covered in growing plants. This has only been partly achieved. So, a bold modern form is asserted, then partly erased. This is typical of a mid-century English ambivalence to modernism demonstrated by the Smithsons in much of their work. The timber detail seems to come directly from drawings by Viollet-le-Duc.

Philip Dowson/ Arup Associates
Vaughan & Fry buildings, Somerville College
1962-66

In the Wolfson Building (above) the columns poke above the roof and the beams jut out from the wall. In this building, by the same architect, the column and beam junctions are rounded off so that the structural frame becomes like a lacework. The windows are not boxes, so the glass object sits clearly within the concrete lacework. This favours a reading of the building as a whole over the expression of individual rooms set within the frame. Note the concrete balustrade at the top. It has a relatively limited function but it acts visually as an abstract cornice. The two concrete superstructures sit above a brick podium, which respects the line of the street.

Philip Dowson/ Arup Associates
Sir Thomas White Building
St John's College 1976

This is a clear articulation of the external skeleton. The bronze windows, timber blinds and stone staircases are set against the base line of the repeating concrete structure. Sometimes stone is held within the frame, sometimes it sits between sets of frames. Here the glass is fully framed, there it forms a crystal corner. By relatively simple means, a rich architectural rhythm is achieved in a manner reminiscent of polyphony. Different elements come forward in turn while others recede. The architects exploit the perceived depth of the external wall. Elements are pushed in and out of an implied interior. In sculptural terms, this building deserves to be compared with Gothic and Baroque compositions in Oxford.

Themes

2.5 Cluster of Towers

Before the Second World War, highly flush white walls with sweeping ribbon windows could almost define modern architecture. The 1950s saw a new emphasis on vertical articulation. This is most lyrically expressed by the American architect Louis Kahn's drawings of St Gimignano, which he later idealised in his Richards Research Building (right). Paul Rudolph's Art and Architecture School in Yale gave this a robust monumental articulation. The allusion to medieval defensive buildings is evident. St George's Tower at the Castle would sit well in these compositions. It is not clear that this change in form was intended to please. It belonged to a kind of drawing-in, perhaps a step back from the sweeping ambition of the earlier period.

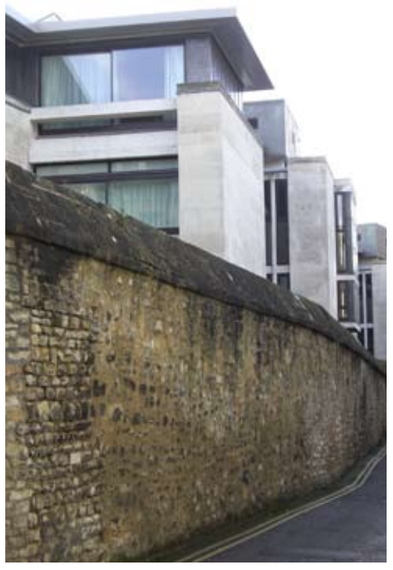
Louis Kahn, San Gimignano, Italy Watercolour 1929

Louis Kahn, Alfred Newton Richards Medical Research Building, University of Pennsylvania 1957-65

Paul Rudolph, Art and Architecture Building, Yale University 1958-62

The Hayward and De Breyne building Keble College ABK 1973-77

This cluster of chunky brick walls could withstand a comprehensive siege! The angled podium emphasises the defensive posture. The windows are treated as vertical slots running straight to the sky, forming large scale castellation. The wall snakes around like a fortress curtain wall. The stair towers are bastions. This tells you to keep out. The only giveaway is the tiny glimpse of verdant lawn seen through the vertical gaps. Who could imagine that this contains such a dazzling visual surprise on the interior? (See 2.8)



Blue Boar Quadrangle Christ Church College Powell and Moya 1964-67

Student Accommodation Brasenose College Powell and Moya 1959

The vertical articulation allows these buildings to be uniquely sensitive to their tight sites. Typically the dominant walls and stairs are vertical and made of stone. Rooms, floors and windows create a horizontal weave behind the principal motif.

Leslie Martin, Zoology and Psychology department building 1966-71

This is a big tough building created by horizontal layers made from rough concrete. Great vertical risers punctuate the strata like exclamation marks. It is a laboratory, so we guess these towers carry vertical pipes and services. It makes the building legible if not loveable.

Themes

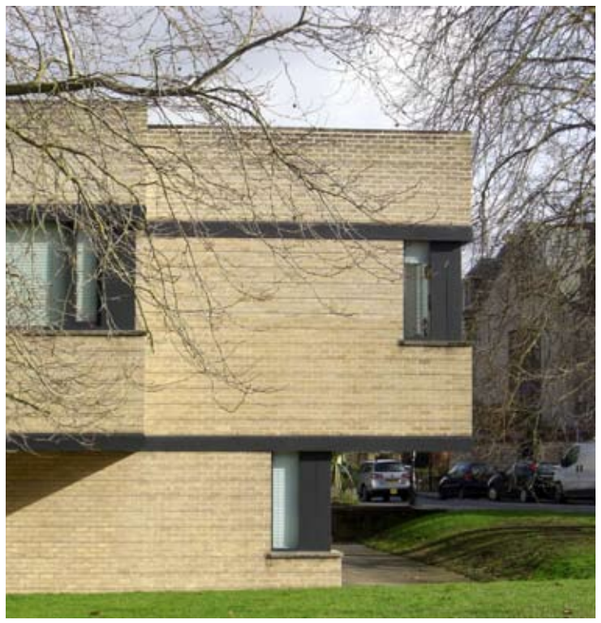
2.6 Horizontal Strata

The great American architect Frank Lloyd Wright invented the Prairie Style in the first decade of the 20th century. His Robie House, shown opposite, illustrates this. The roofs and walls are given a strong horizontal emphasis and the windows are set deep into shadow in recessed bands. The effect is that the roof and walls seem to hover above each other and the ground. This seemed especially appropriate to the endless expanses of the mid-West. This sense of a building composed of horizontal tiers, like a landscape, became a major trope in 20th century architecture. Visitors to the National Theatre in London will recognise the compositional principle.

Frank Lloyd Wright, Robie House, Chicago 1910

Denys Lasdun National Theatre, London 1976

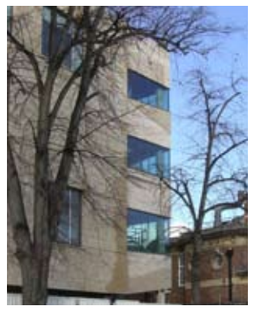
St Cross Building English and Law Faculties Leslie Martin 1961-64



The basis of this arrangement is a series of horizontal layers sliding over each other as they push away from a central outdoor staircase. The layers are elaborately cantilevered out at the edges to underline their implied centrifugal movement. The two key elements of the composition are indebted to the Finnish architect Alvar Aalto (shown above). The broad staircase leading to the entrance forms an anchor to the floors and windows, restraining their horizontal movement. The black ribbon windows allude to Aalto's Pensions Institute in Helsinki. The metaphor of landscape is apparent here. Imagine yourself in a stratified sedimentary landscape, climbing a broad stair cut into the rock, arriving at a modest Acropolis at the summit.

Above right: Alvar Aalto, Säynätsalo Town Hall 1949-52
Above left: Alvar Aalto, National Pensions Institute, Helsinki 1956

Sainsbury Building Worcester College MJP Architects 1983



MJP Architects, Sainsbury Building Worcester College 1983

The shallow pitched, over sailing roofs, the broad bands of brickwork and the tiered configuration make explicit reference to the architecture of Frank Lloyd Wright. This is the American prairie brought to the edge of the Chilterns.

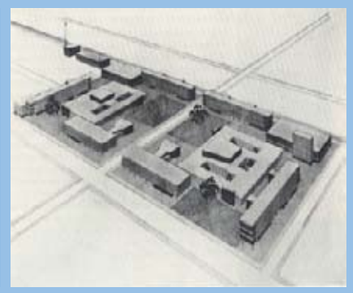
Wilkinson Eyre, Department of Earth Sciences building Under construction

This new building, incomplete as we write, makes literal reference to geological strata. The stone façade facing the street has conventional square windows set within its walls. As we turn the corner, another layer appears to slide out from behind it. This has ribbon windows and zigzag stonework like bedding planes in rock. We infer that this is a metaphor for the hidden layers beneath the earth's crust. Behind the public façade, we are told, lies a more energetic hidden order. The high modernist ribbon window seems ready to burst forth onto South Parks Road.

Themes

2.7 Modern Colleges

The original monastic form is a cluster of quadrangles and cloisters gathered around the body of a church. Older Oxford colleges emulate this. Spatially this feels like a gathering together. It is inward looking. The space of modern buildings and settlements tends to push out towards the horizon. It is centrifugal rather than centripetal. There are two typical modernist layouts. The open grid of pavilions is derived from Japanese temple architecture. The pinwheel of zigzag arms held, as if in rotation, comes from avant-garde Dutch art in the 1920s. The two examples, shown opposite illustrate this. The IIT Campus by Mies van der Rohe is a laconic arrangement of glass prisms on an open grid. The Bauhaus at Dessau by Walter Gropius is a broken-cross pinwheel pushing away from the centre.

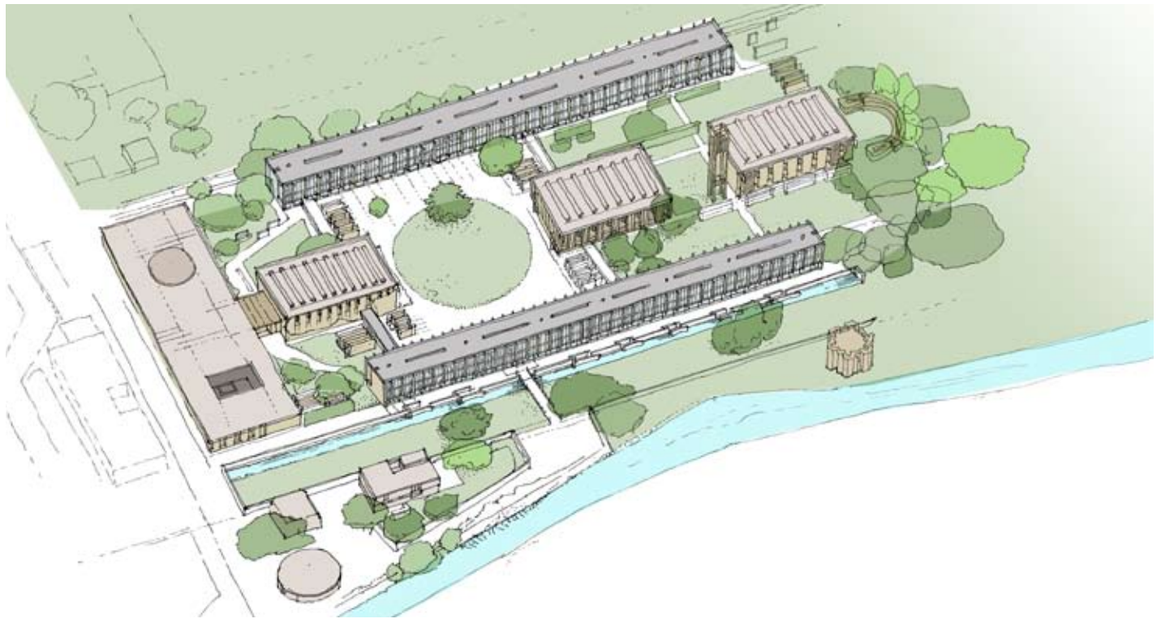


Abbey of Saint Gall, Switzerland, 719

Mies van der Rohe, Illinois Institute of Technology Chicago, 1938 -1958

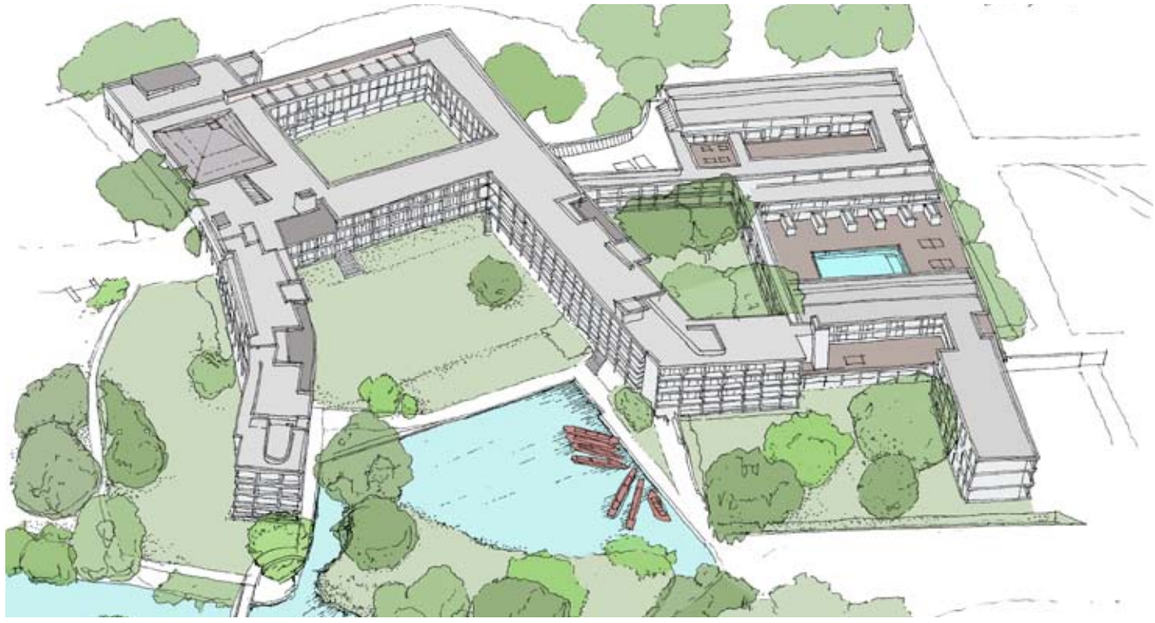
Walter Gropius, Bauhaus building, Dessau, 1919 -25

St Catherine's College Arne Jacobsen 1960-64



The Danish Architect Arne Jacobsen created a new college by the river. He has set out to make a modern version of an Oxford College. The arrangement of buildings is highly reminiscent of the IIT Campus by Mies van der Rohe. Each glass building is set down as an independent piece in a matrix. However, this particular arrangement creates contained quadrangles between the boxes. No such enclosure exists at IIT, which is in essence an open arrangement. In addition, the inward facing walls of the boxes here project overhead to form covered arcades reminiscent of cloisters, underpinning the enclosed nature of the form. The abstract sculptural tower reminds us that we are not too far from the monastery. This elegant group of buildings is a conflation of two very different ways of imagining the world. The architecture critic Rayner Banham called it '*the best motel in Oxford*'.

Wolfson College Powell and Moya 1969-74

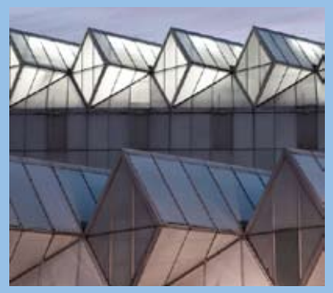


In these new buildings the traditional enclosed, arcaded cloister opens out into a more expansive pinwheel arrangement. You enter into a simple, four-sided quadrangle, which opens at its corners to spaces of different character. On one side there is another quadrangle, on the other an expanding open space like a harbour opening out to the river. The balance of inward looking and expansive space is seductive. The links between open courts is elegant; perhaps it is influenced by the diagonal sequence of quads at Brasenose College which these architects had worked on earlier in their careers.

Themes

2.8 Kaleidoscopes

In the 20th century, glass was primarily valued for its transparency. Large areas of glazing allowed you to look right into a building and see its inner organisation. This quality was seen as an important part of a building's truth-telling capacity. There was another, equally prized quality to glass. This was its reflective quality. The glamour, drama and confusion of the 20th century metropolis are identified with the distorting reflections of plate glass shop windows. The buildings on this page use glass as something you see, not as an invisible membrane. They take pleasure in its sensuous, glossy, reflective properties. They use it to play with distortions of the surroundings.

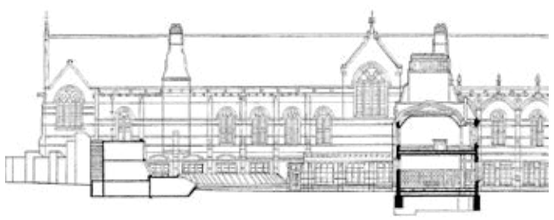


James Stirling, The Engineering Building, Leicester University 1959

Foster Associates, Willis-Faber & Dumas Building, Ipswich 1974

I.M. Pei, The John Hancock Tower, Boston 1976

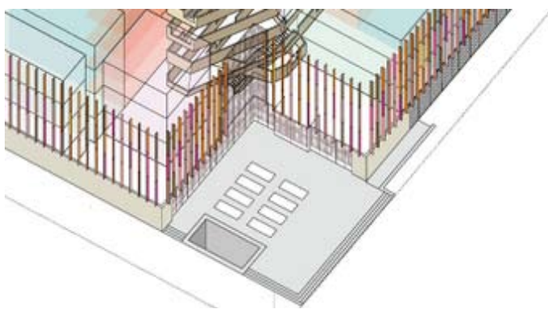
The Hayward and De Breyne building Keble College ABK 1973-77



When you pass through the stern, defensive brick walls of the Hayward and De Breyne Building, you find yourself in a courtyard between two very different buildings. The older college buildings by Butterfield have an intense, woven tapestry-like quality. They use many colours of brick in rigid geometric arrays. The new buildings are positioned opposite them and they are made of dark reflective glass. The fenestration is arranged horizontally and vertically like tilted scales. It produces extraordinary reflections. The crazy stitching of Butterfield is thrown into a hall of mirrors. This is one of the most daring architectural set pieces in England. This is built form as a kind of hallucination. Would it ever be possible to get planning consent for something like this again?

Florey Building, Queen's College
James Stirling, 1966

James Stirling was the most extravagantly talented 20th century architect. His buildings are difficult, reckless exercises in virtuosity with little concession to amenity. They mock the idea of architecture as a machine. The Florey Building is like a useless spaceship built by a Victorian bricklayer at the end of his garden during the weekends. The glass interior courtyard alludes to Joseph Paxton's Crystal Palace. By setting it under the trees by the river it sets up a highly charged set of internal reflections between trees and glass. It is interesting to see that this arrangement clearly influenced the Keble Buildings opposite, but those architects carried it out in a more joyful, less sardonic, spirit and produced an altogether different result.



Biochemistry Building
Hawkins Brown, 2008

This block is contained within dark narrow streets. The architects have attached coloured decorative fins to the façade which, when seen obliquely, set up a pretty visual field. The entrance court of the building is dominated by a Rorschach Pattern artwork on the façade alluding, perhaps, to mysterious scientific processes within. This quasi-figurative decoration is very different in spirit to the modernism of the 20th century.

Themes

2.9 Rationalism. Grids

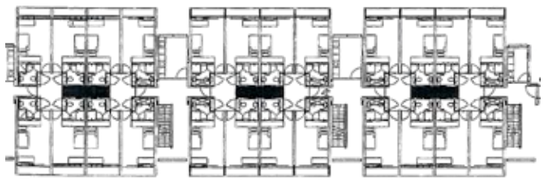
The presence of an even grid-like organisation on the facades of modern buildings is a signal that the architects are projecting themselves as rational designers, uninterested in expression for its own sake. These concrete grids represent the underlying constructional order but they also allude to a latent classicism. Most architects working in this way will seek ideal geometries like squares and golden sections and the buildings may be composed using complex systems of regulating proportions. They do not want to display any virtuosity of a conscious kind. Architecture, they say, is serious, about measure, concerned with eternal certainties.

Giuseppe Terragni
Casa del Fascio, Como Italy, 1932-36

Le Corbusier, State Assembly Building, Chandigarh India 1956

Josep Sert, University of Boston Students' Center, Boston, 1960-65

St Catherine's College Extension Stephen Hodder 2006



This building is not entirely consistent in its architectural presentation. The concrete, coffer-like bays are regular, harmonious and self-controlled. They are divided by stainless steel panels that set up proportional fluctuations within and beyond each structural bay. Blocks are divided into groups of six and eight suspended squares. They manage to create a strong sense of containment around a difficult car park space. This is an example of rational composure. The end bays of the ranges, containing staircases and entrances, are rather more excitable. They are more willing to please with little tricks and flourishes. This, perhaps, undermines the austere clarity of the principal architectural order.

The Ruth Deech Building, St Anne's College Kohn Pedersen Fox, 2008

The arrangement of bays and the expression of the grid form show a clear influence from St. Catherine's College by Stephen Hodder, built a few years earlier. Here wooden blocks and balustrades break up the bays. The staircases and entrances perhaps break this sense of pure rational measure and control.

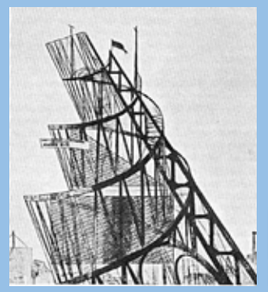
Wolfson College Powell and Moya, 1969-74

The expression of each floor as a flat band and the articulation of the columns as freestanding cylindrical elements imply a latent classicism. The windows divide the structural bays into simple squares. Walls facing different directions are divided in a way that appears logical in relation to purpose and orientation. The pleasure of this kind of architecture is that you rarely catch the architect trying to please you. It is not ingratiating. Yet it makes a sequence of ordered, harmonious spaces that can be enhanced and modified by occupation.

Themes

2.10 Constructivism & Expressionism

Constructivism and Expressionism are two early 20th century movements that have had periodic revivals throughout the last 100 years. They do not look on the modern instrumental paradigm in a rational or empirical fashion. Instead they register the shock, dislocation and thrill of modern life. This is architecture as self-conscious virtuosity and subjective expression. The original Constructivists sought to give form to the new energies released by the Russian Revolution. They created sculptural constructions from collaged fragments of industrial hardware. Their buildings can be read as a montage of heraldic elements expressing the explosive release of powerful forces. A Constructivist building was once described as breaking apart and sending out messages about its own self-destruction. Expressionism seeks to compose architectural space and form as pure endless flow.

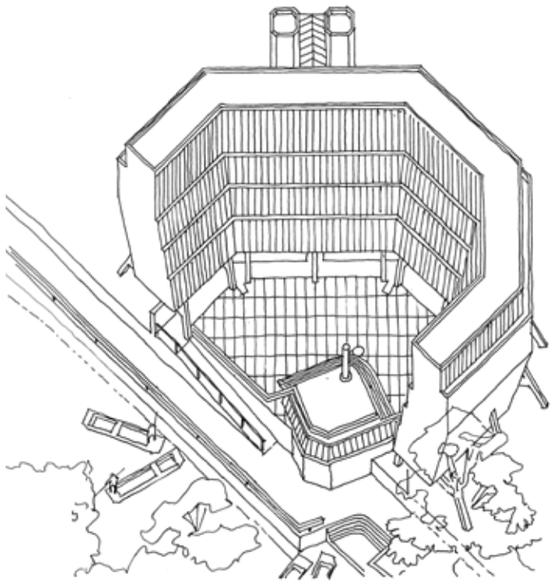


Vladimir Tatlin, The Monument to the Third International, 1920

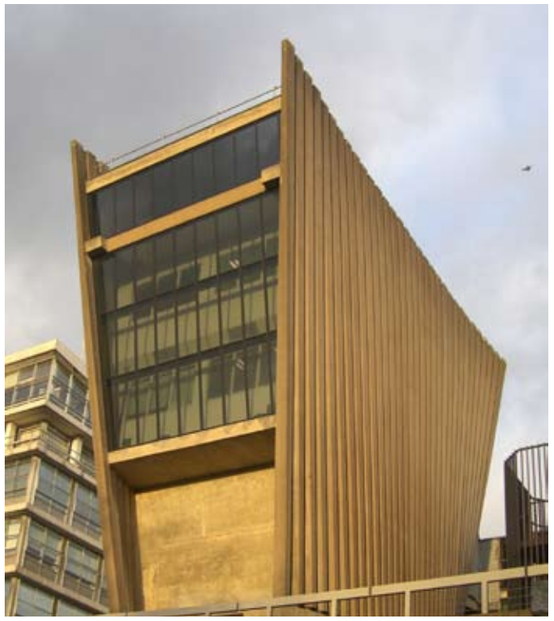
Erich Mendelsohn, Einstein Tower, Potsdam Germany, 1921

Konstantin Melnikov, Rusakov Workers' Club, Moscow 1927-8

Florey Building Queen's College James Stirling 1966



James Stirling's revival of the Constructivist spirit shows a combination of passion and measured irony. The Florey Building uses a mechanical language of assemblage as a form of playful parody. The building is like a great marooned ship supported on splayed crutches. It is encrusted with figurative elements like projecting staircases, ventilation ducts and ramps. The horseshoe shaped space facing the river is like a stage set for a play with mechanical marionettes watched by endless blank windows.



Dyson Perrins Laboratories, Basil Ward, Ramsey Murray White & Ward 1957-59

This building by Basil Ward is a direct reference to Konstantin Melnikov's Rusakov Workers Club in Moscow from 1927. The tilting up of the concrete form suggests a suspended auditorium. The recent brick addition placed beneath the raked soffit ruins the effect of structural daring and the sense of a building poised for flight.

Nuclear Physics Laboratory, Philip Dowson Arup Associates 1967-70

Constructivism's sense of barely contained explosive energy must have seemed an obvious reference for the forces released within this concrete and glass building. Here built form is used as a metaphor for radiating power.

The Middle East Centre, St Antony's College, Zaha Hadid

Zaha Hadid speaks of architectural space as a continuous intertwining flow of outpouring energy. The sinuous extrusions and curved forms of her buildings express endless movement. This project is not yet built.

Themes

2.11 Modern Eclecticism

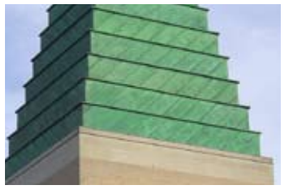
While many designers might wish to conceal their imaginative sources in order to enhance their perceived originality, the modern eclectic will wish to display their references. These two buildings make explicit reference to other built works, but they do so almost in quotation marks. Their pleasure is in demonstrating the originality of their collage technique. These buildings aim a nod and a wink at passing architects in the know.

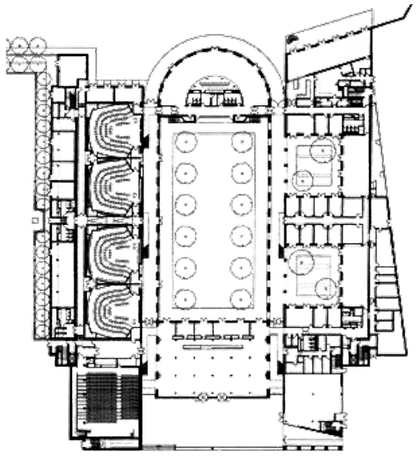
Deane and Woodward, Oxford University Museum, 1858

William Butterfield, Keble College 1868-1882

James Stirling, Neue Staatsgalerie, Stuttgart, Germany 1977-83

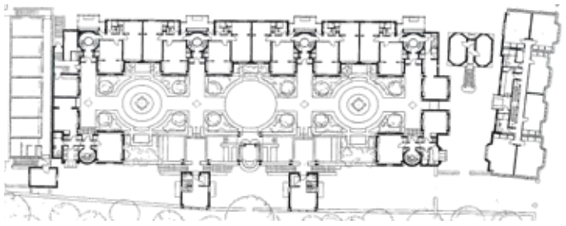
The Saïd Business School Dixon Jones 2001





The building sets out a classical, almost symmetrical arrangement with two tall airy cloisters facing a central courtyard faced by a grand hall and steel portico. On examination, the side facing the station presents a giant order of brick piers to the car park while its opposite side is a knowing composition of backstage industrial structures. In this way the semblance of symmetry is subtly undermined to express the complexity of the surrounding streets. The great portico at the front is an explicit reference to Mies van der Rohe's New National Gallery in Berlin. In case we miss the point, the steel column at the centre has the same iconic cruciform shape as the similar column in Mies' building. This in turn alludes back to the 19th century master Karl Friedrich Schinkel. The copper tower links it to all Oxford spires, but particularly to the spire above the tower on Nuffield College nearby which is also clad in brightly carbonated copper. The form of it seems to echo those Baroque steeples by Hawksmoor that, in turn, were re-workings of monumental structures from the ancient world. The building has ribbon windows, square fixed windows, big glazed walls and tall casement windows. This variety of types is typical of the eclectic collage principle.

The Garden Quadrangle St John's College MJP Architects 1989-93



If eclecticism in the Saïd Business School is a form of collage, this building uses weaving to absorb its myriad influences. The organisation of space has a warp and weft quality which might refer to Frank Lloyd Wright's California Houses in the 1920s. The ghost of Alexander Greek Thompson is here too, and the towers feel very like that Elizabethan masterpiece, Hardwick Hall. The arrangement of the garden with its under croft connects us to the villa designs of Karl Friedrich Schinkel. The resolution of tiny details is a nod to the Venetian master Carlo Scarpa while the other varied influences, including that of Sir John Soane, are witnessed from the peaceful central garden.

Themes

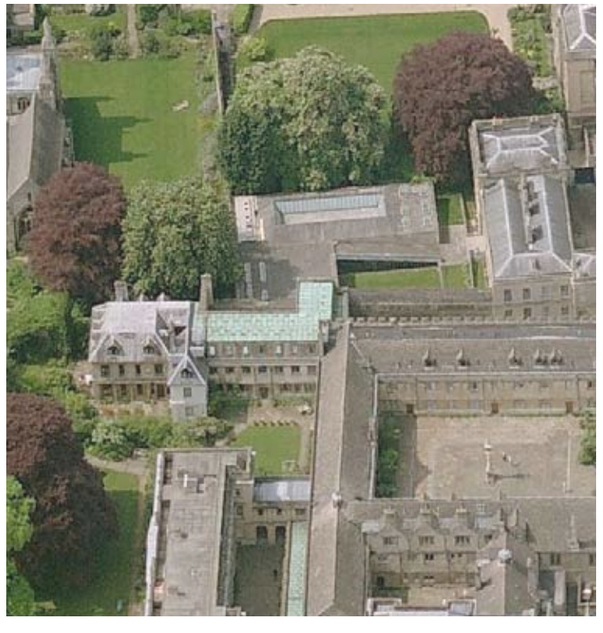
2.12 Sculpting the Ground

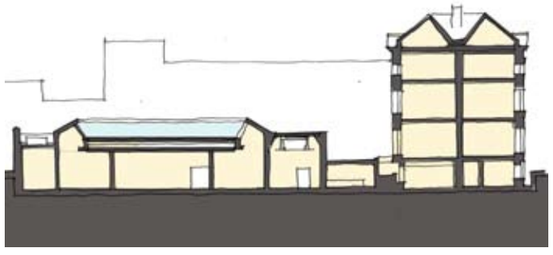
Sometimes the main architectural move is not the building. Here are some examples of significant sculptural alterations to the ground itself to enhance or support the architecture. The tradition of making art from landscape was very important in the last quarter of the 20th century. It was influenced by the land art movement.

The Arco & Sloane Robinson Buildings-Newman Quad Keble College Rick Mather 1995-2002

Two recent buildings have been completed in Keble College around the Newman Quad. Part of this project has been the significant excavation of the quadrangle, removing almost a storey height from the level of the ground. This may have had practical benefits for the organisation of the site, but the theatrical effect is marvellous. Now you can stand below the level of the Victorian William Butterfield buildings and look up at them. It completely changes the way you experience the architecture. The sweeping grass slope plays beautifully against the tapestry of brickwork. When you look up at the buildings they seem more grand and a new sublime effect is produced.

The Picture Gallery Christ Church College Powell and Moya 1967-68





The gallery seems to spiral around a quadrangle, sinking into the ground. The level of the ground itself spirals up so that building and courtyard are experienced as one composition. The tilted planes of grass and glass create an unusual harmony between built form and landscape.

Elements
3

Structural Frame

1. Gothic pinnacled external buttress with delicate stone curtain wall in between.
2. Baroque portico with Doric columns.
3. Reinforced concrete external frame with metal and glass curtain walling behind.

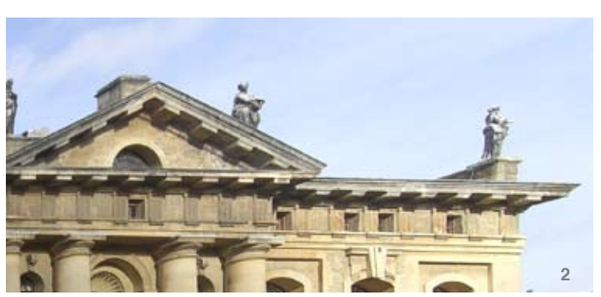
Windows

1. Deep punched Baroque windows with heavy reveals and alternating keystones.
2. Fragile Gothic curtain walling.
3. Horizontal ribbon windows emphasising open space and flexibility within.

Wall

1. Gothic curtain wall between supports.
2. Glass curtain wall between supports.
3. Glass curtain wall behind supports.

Roof



1. The Faux Gothic pinnacles at All souls College rise above the roof creating vertical extension.
2. The projecting cornice at the Clarendon creates a clear top to the building.
3. The projecting cornice at the top of the towers halts the vertical movement.

Acknowledgements
3

The text in this booklet is intended as an easy-to-read quick guide to modern architecture in Oxford. Much of what this writer learnt about the architecture of the city came from reading Geoffrey Tyack's Oxford An Architectural Guide. We owe a little to Pevsner. For those who would like a deeper understanding of the architecture of the city we recommend these two books.

Oxford An Architectural Guide
Geoffrey Tyack
Oxford University Press 1998

The Buildings of England - Oxfordshire
Jennifer Sherwood and Nikolaus Pevsner
Penguin Books 1974, Yale University Press 2002

Modern Architecture Since 1900
William J.R. Curtis
Phaidon Press Limited 2001

The photography and illustrations in this booklet are by kind permission of the following colleges, schools and departments:

St. John's College
Photography and images are by kind permission of the President and Fellows of St John's College

St. Catherine's College
Photography and images are by kind permission of The Master and Fellows of St Catherine's College in the University of Oxford

Christ Church College
Photography is by kind permission of the Dean and Canons of Christ Church

Keble College
Photography and images are by kind permission of Keble College

Wadham College

Worcester College

Somerville College

Wolfson College

Queen's College

St Antony's College

Corpus Christi College

St Anne's College

Faculty building, Zoology and Psychology departments

The Saïd Business School

Oxford University Estates Department

The photographs of the Sainsbury Building, Worcester College and the plan of The Garden Quadrangle, St John's College in Sections 2.6 and 2.11 are by kind permission of MJP Architects

The photographs of the Jowett Walk Accommodation, Balliol College in Section 2.3 are by kind permission of MJP Architects,
Credit © Peter Durant/arcblue.com