Character Zone Assessment 8

University Science Area

Oxford Central (City & University) **Conservation Area**

Zone includes:

- The University Museum of Natural History
- Rhodes House
- The Dunn School of Pathology
- The Radcliffe Science Library

University Science Area Character Zone
Oxford Central (City & University) Conservation Area

The Conservation Area Appraisal divides the Conservation Area into nine character zones. This chapter contains a detailed analysis of one of these: the University Science Area Character Zone. It can be used to understand the history, character and appearance of this part of the Conservation Area, and to inform planning application and development proposals.

This Conservation Area Appraisal aims to promote and support developments that are in keeping with, or enhance, the character of the Central (City & University) Conservation Area. This section is concerned with the reasons for designation, defining the qualities that make up its special interest, character and appearance. It is not possible to describe every facet of the area that contributes positively to its character. The omission of any reference to a particular building, feature, space or positive contributor should not be taken to imply that it is of no interest. Additional positive contributors will be identified through the development management process.

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8.1	An overview of character and special interest
8.2	A brief history
8.3	An analysis of character (considering use, street and townscape, green space, buildings, roofscape, landmarks and views, movement and activity, archaeology)
8.4	Further useful information

Icons

Throughout, icons direct you to relevant sections of the Conservation Area Appraisal and links to other relevant documents.


relevant layers of the conservation area map / GIS mapping


relevant character themes in the appraisal


relevant sections in the appraisal


suggestions for further reading


information relevant for planning


sources of further information

Maps

The maps below are extracts from the Conservation Area mapping set, which consists of layers of useful information ranging from archaeology and historic maps to green space, listed buildings and street materials. Please note that maps may not show the full extent of listed buildings and do not show curtilage-listed structures. If you are unsure if your building is listed check the National Heritage List for England and seek the advice of the City Council's Urban Design and Heritage Team.

Picture Credits

8.1 Overview of character and significance

The University Science Area developed around the University Museum from the late-nineteenth century and is historically significant as the location for many important scientific discoveries. Its distinctive character as a self-contained campus is formed of large, densely clustered institutional buildings, occupying substantial plots. It contains buildings of a wide range of styles and materials, reflecting its piecemeal development over the course of the twentieth and twenty-first centuries.

The following aspects of the zone contribute positively to the character and appearance of the conservation area:

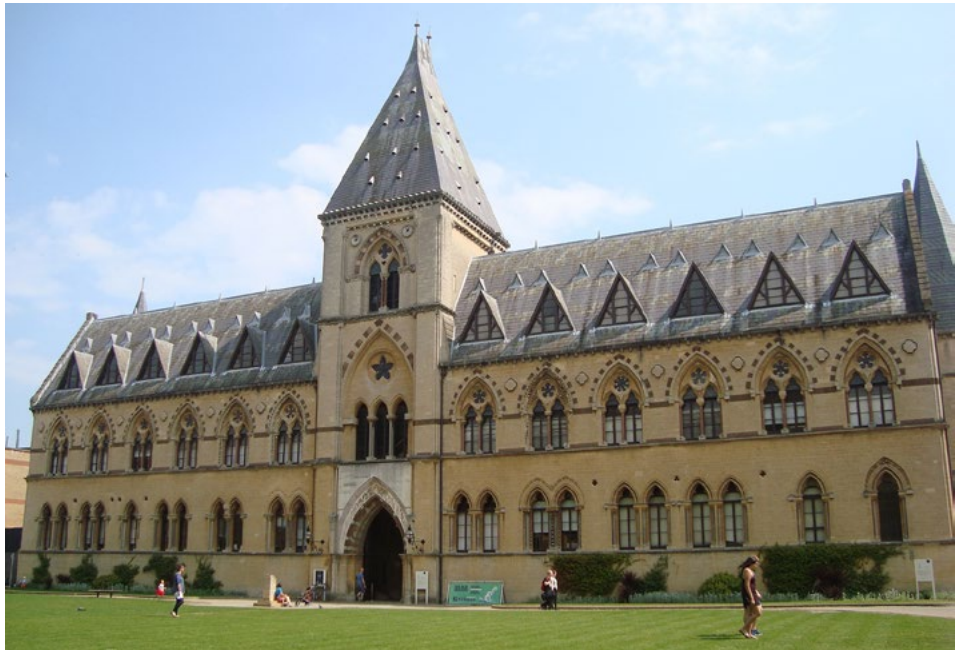
- The functional character and history of the area as a scientific campus of the world renowned University of Oxford is of special interest.
- The University Museum forms the core of the zone; it is a seminal building of the Gothic Revival and its roofscape is visible in long views from the city centre and the University Parks.
- Large, imposing institutional buildings along South Parks Road, which exhibit a wide range of twentieth and twenty-first century architectural styles and materials.
- The two substantial surviving Victorian villas on south side of South Parks Road, significant as the last survivors of the substantial Victorian and Edwardian villas which previously lined the road.
- The University Parks once covered the majority of the area and is an important backdrop to the buildings on the north side of South Parks Road
- A unique street pattern created through functional adaptation

The principal aspects of the zone that harm character and appearance are:

- Poorly designed plant equipment.
- Buildings whose materials, massing, architectural quality or contribution to townscape is not of comparable quality to other scientific buildings within the zone, including the buildings lining the south side of South Parks Road, which are overscaled and relate poorly to the street.
- The weight of traffic along Parks Road and South Parks Road detracts from the setting of the buildings.
- Unplanned/ad hoc use of spaces around buildings over time with poor quality public realms that impacts negatively on the setting of listed buildings.
- Infill buildings and extensions to older buildings on back plots that lack architectural interest.
- The narrowing of the pavement on the south side of Parks Road together with the interruption of the pavement on the north side by a series of crossovers, which makes it more challenging for pedestrians.

Opportunities for enhancement within the character zone include:

- The provision of further street trees, and improved management of the existing street trees which contribute positively to the character and appearance of the zone. This includes consideration of appropriate space and ground conditions for existing trees, and to allow for succession planting.
- Improving the spaces around and between buildings to define coherent boundaries and separation, to aid movement through the area.



The University Museum of Natural History forms the core of the Science Area

Overview
University Science Area

Key

- Oxford Central Conservation Area boundary
- NAME: Neighbouring character zones
- Reference point

8.2 History

8.2.1 Prehistory

- Significant archaeological remains located near the Science Area include a late Neolithic henge at St John's College and a Bronze Age barrow in the University Parks.

8.2.2 University Museum

- The area remained fields and parkland on the edge of the city until the mid-Victorian period.
- University reform and academic development prompted the University to buy a large tract of land from Merton for the construction of a new scientific University Museum as a focus of scientific teaching.
- The building was completed in 1860 to designs by Benjamin Woodward, while the remainder of the land was laid out as the University Parks in the 1860s.
- Scientific departments were originally accommodated within the Museum complex, but there was soon pressure for more facilities, initially clustered around the Museum: the Clarendon Laboratory (1868), with the Old Observatory (Charles Barry Junior, 1875) set further back into the University Parks.

8.2.3 Expansion of Science quarter

- As the study of science at the University became more formalised in the early twentieth century, several substantial buildings and laboratories were constructed on the north side of South Parks Road: T G Jackson's Science Library (1901, Grade II listed) and Electrical Laboratory (1910), the Dyson Perrins Chemistry Laboratory (Paul Waterhouse, 1916, Grade II listed), and the neo-Georgian school of Pathology (E P Warren, 1926).
- Nine acres of the University Parks were allocated for expansion of the science area in 1924, and a masterplan by Southwell & Griffiths in 1934 led to comprehensive development on north side of South Parks Road, completed in 1950s.
- The architectural practice of Lanchester and Lodge were responsible for the majority of these buildings including Physical Chemistry (1939–40) and Inorganic Chemistry (1954–60) on South Parks Road, and the New Clarendon Laboratory (1948) and Physiology building (1949-53) at the north of the Science Quarter site.
- By the 1960s, the boundaries of the Science Quarter on the north side of South Parks Road had reached their present extent.
- Concerns about the construction of several tall buildings in the Science Area and the Keble Road triangle to the north-west led the City Council to draw up height guidelines for future buildings in 1962 to preserve the city's skyline, limiting the height of new development.
- Since then, further piecemeal development and infill buildings have densified the site.

8.2.4 South side of South Parks Road

- The south side of South Parks Road was lined with substantial Victorian brick villas set in detached plots and constructed from the 1860s onwards.
- Expansion of the science area south of the road began in the 1960s with the monumental Zoology and Psychology building (the now demolished Tinbergen Building) by Sir Leslie Martin, completed in 1970.
- All but two of the remaining Victorian villas lining the road were subsequently cleared to accommodate additional science buildings. A group of architecturally non-descript but for purpose buildings were erected in the urban block to the west of the Tinbergen site.

8.2.5 Twenty-first century development

- Development in the Science Area has continued in the first decades of the twenty-first century, with the new Biochemistry building by Hawkins\Brown winning a RIBA Regional Award in 2009.
- The Earth Sciences Building by Wilkinson Eyre opened in 2010.
- The new Beecroft Building (Department of Physics) designed by Hawkins\Brown opened on a site opposite Keble College Chapel in 2018.
- Most recently, construction has begun on the Life and Mind Building on the site of the old Tinbergen Building.
- The Radcliffe Science Library buildings have also undergone comprehensive refurbishment to accommodate Reuben College, the University's youngest college, founded as Parks College in 2019.
- Because of the road layout and proximity to University Parks, there is no provision for lateral expansion of the University Science Area. Therefore, to retain the presence of experimental scientific research and teaching within the city centre, recent developments have had to adapt existing buildings and infill between plots.

8.3 Character

8.3.1 Use and access

Historic urban characterisation

Theme 2: university
Theme 3: association with historical figures

- The predominant uses in this character zone are institutional and educational, with the Science Area being home to world class, internationally significant research and development.
- The University Museum is open daily to the public, free of charge.

8.3.2 Streets and townscape

The Science Area is bounded by two main streets, Parks Road and South Parks Road, with smaller access routes within the Science Area complex.

Street pattern

Building lines and gaps; Saxon and medieval streets; Medieval plot boundaries

Theme 18: street layout of the Saxon burh

- Parks Road is medieval in origin, a straight, wide and tree-lined avenue leading towards North Oxford.
- South Parks Road originated as a track leading from Parks Road towards Holywell and followed the line of the Civil War fortifications.
- Within the Science Area, there are many smaller modern access roads, several controlled by vehicle barriers.

Public spaces

Theme 19: public space

- The only significant area of public space in this zone is the grassed forecourt of the University Museum, which provides an important area for visitors to rest, linger and enjoy their surroundings.
- The visible benefit of University Parks, where the borrowed landscape of significant tree canopies and setting give the possibility of long views from the Science Area.
- Spaces immediately around buildings where functions are encouraged to spill out, such as the cafe outside the Biochemistry Building (Biochem 1).

Plots and building line

- The Science Area is characterised by detached buildings with large floorplates, which meet the road in a variety of ways, including shallow verges, planted borders and large forecourts.
- The University Museum was set back for architectural effect behind a generous forecourt bounded by a low wall with handsome cast iron railings.
- Behind the main streets, infill buildings are squeezed together, arranged on a much disturbed loose grid pattern.

View looking east towards Department of Pharmacology off Mansfield Road (ADP, 1989), showing typical tarmac access road within the Science Area, controlled by vehicle barriers

The University Museum forecourt provides the main area of publicly accessible green space in this area

The Forestry and Botany building (Hubert Worthington, 1950) with a large shallow forecourt on South Parks Road

The streetscape of South Parks Road is softened by mature street trees and grassed verges

Pavements and street materials

Street materials

Theme 14: materials

- Within the Science Area complex, tarmac is the predominant street material.
- Street materials are mostly new, although on the north side of South Parks Road and St Cross Road there are surviving runs of granite sett gutters which contribute to historic character; more may survive under the tarmac surface.

Street furniture

- The street furniture in this zone is mostly modern.
- There is a surviving Victorian wall-mounted post box on the corner of South Parks Road and Parks Road, which has historic interest.
- A much adapted succession of masterplans based around significant building development, new buildings and adaptation of existing buildings is intended to address the piecemeal growth of public realm and to provide some sense to routes and activities through the area.

The Inorganic Chemistry building on South Parks Road is characteristic of Lanchester and Lodge's architecture in the Science Area, using rubble stone in a restrained neo-Georgian style

The Pathology Building on South Parks Road (E. P. Warren, 1926) is a large, detached institutional building of three generous stories, which is characteristic of this area

8.3.3 Green Space

Public access to green spaces

Theme 22: views in the conservation area

- The main area of accessible green space in this zone is the University Museum's large, grassed forecourt, which provides an important public amenity, but the zone is bounded by the University Parks – the largest area of accessible public green space in the city.
- The streetscape is softened by the mature trees lining Parks Road and South Parks Road, grassed verges and planted forecourts, a legacy of the area's previous inclusion within the University Parks.
- The avenue of lime trees on South Parks Road are a significant positive contributor. Planned succession is needed if this feature is to be preserved.

The Anatomy building (H W Moore, 1873) is a handsome late-Victorian building constructed of Bath stone ashlar and tucked behind the Pitt Rivers Museum

8.3.4 Buildings

Designations

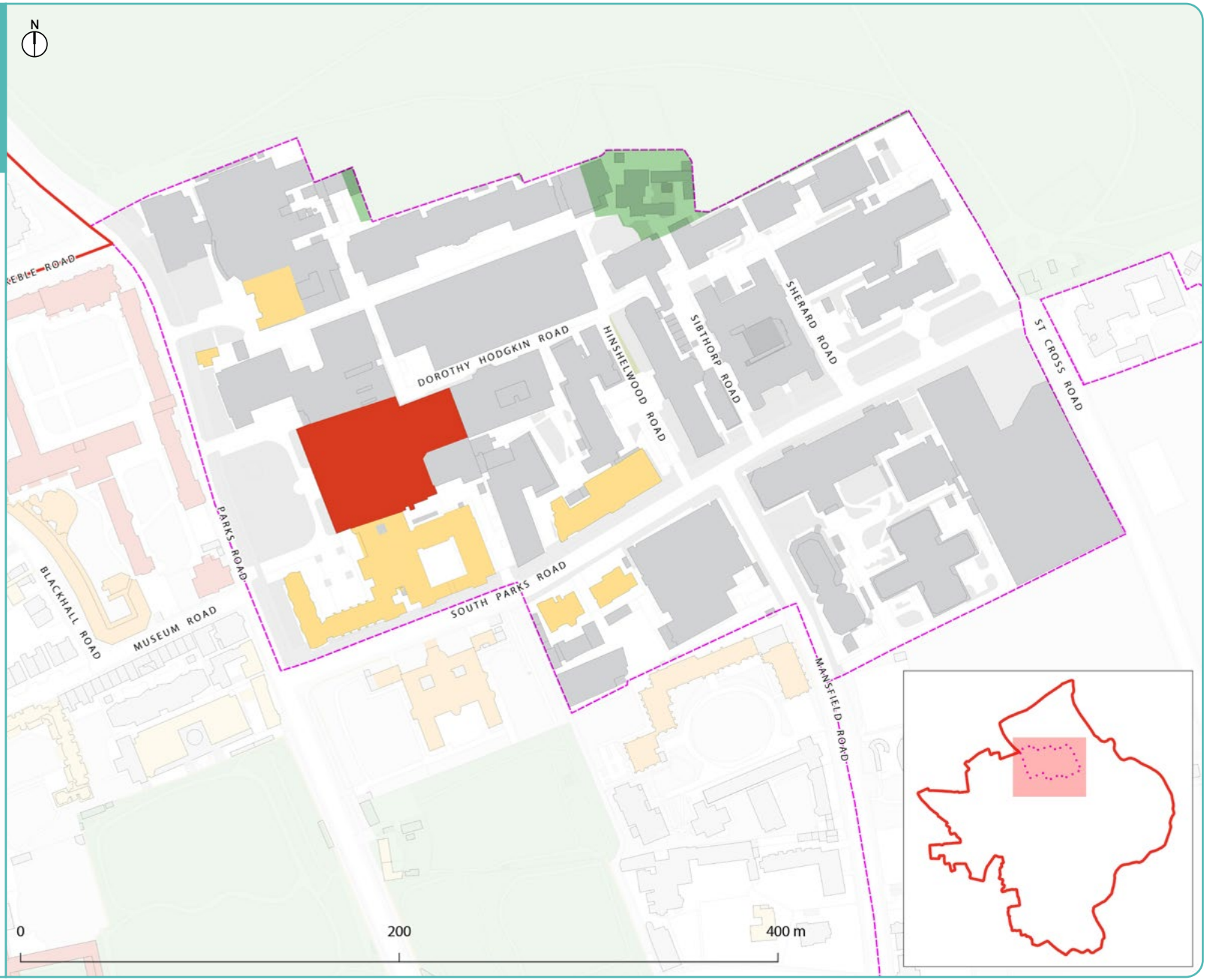
Theme 14: materials
Theme 15: architectural details

The Science Area contains buildings of a range of styles and materials, reflecting its piecemeal development over the course of the twentieth and twenty-first centuries. Its overall character is of a series of large, detached but densely clustered institutional buildings, occupying substantial plots, which is distinctive to this part of the conservation area.

Some buildings do not contribute positively to the character of the zone because they relate poorly to the street

Designations
University Science Area

Key
- Oxford Central Conservation Area boundary
- Grade I listed
- Grade II* listed
- Grade II listed
- Scheduled monument
- Registered parks and gardens



Typology

- The University Museum forms the core of the zone; it is a seminal building of the Gothic Revival and one of the most important examples of museum architecture of the nineteenth century.
- The most architecturally distinguished buildings are grouped along the east side of Parks Road and the north side of South Parks Road; these are stylistically varied but the majority are designed in a restrained neo-Classical or neo-Georgian style.
- Some common characteristics can be identified:
  - large, detached laboratory buildings
  - occupying substantial plots, but densely clustered
  - consistent height, generally three to four generous storeys.
- Behind the buildings fronting the main roads are later piecemeal and ad hoc buildings of more mixed quality.
- On the south side of South Parks Road, the two listed Victorian villas in yellow brick with red brick detailing are significant as the last survivors of the substantial domestic houses which originally lined the road.

Details

There is a wide range of materials, corresponding roughly to the decades when the buildings were designed: Bath stone ashlar; red brick; rubble stone; exposed concrete; buff and yellow brick; coloured cladding and glazing.

The Electrical Laboratory by T. G. Jackson, (1910, Grade II listed) has a pitched and tiled roof enlivened with pediments

The Physical Chemistry building (Lanchester and Lodge, 1940) has a horizontal roof profile which is characteristic of buildings in this zone; it has also had additional storeys added

Recent additions, such as the Biochemistry building (Hawkins Brown, 2008), now known as the Dorothy Crowfoot Hodgkin Building, contribute positively when they are sympathetic in scale to their surroundings and thoughtfully detailed

8.3.5 Positive contributors

Positive contributors

Buildings which contribute to character are sympathetic in scale, thoughtfully detailed and where relevant address the public streets successfully:

- Handsome late-Victorian buildings, such as the two-storey ashlar Anatomy building by H W Moore and the characterful and quirky Old Observatory by Charles Barry Junior.
- Stripped-back neo-Classical buildings designed by Lanchester and Lodge, using a restrained palette of rubble stone with stone dressings (popularised in Oxford with the construction of Rhodes House on the opposite side of South Parks Road) or buff brick: Inorganic Chemistry, Physical Chemistry, New Clarendon Laboratory and Physiology buildings.
- The Forestry and Botany building (1950) by Sir Hubert Worthington: also constructed of rubble stone with stone dressings, this relates well to other buildings he designed elsewhere in Oxford, such as the Faculty of Music on St Aldate's.
- Dunn School of Pathology at the east end of South Parks Road: this is a handsome neo-Georgian building in red brick with stone dressings and elegant curving double staircase to the front entrance.

The Dunn School of Pathology at the East end of South Parks Road (OCC)

Positive contributors
University Science Area

Key

- Oxford Central Conservation Area boundary
- Positive contributor (non-designated)

8.3.6 Roofscape

Roofscape

Theme 21: roofscape, skyline and landmarks

Building heights

- Building heights are mostly three or four storeys of generous dimensions, frequently over basements, reflecting internal laboratory use.
- Several buildings have had an additional storey added e.g. Physical Chemistry; Physiology.

Roofscape and skyline

- The majority of buildings in this zone have a horizontal roof profile with flat roofs or shallow pitched roofs concealed behind parapets. The exceptions are the pre-1900 buildings, most notably the University Museum, which has a dynamic roofscape with steeply pitched roof and central turret, which is visible in long views from the city centre.
- The surviving Victorian villas on the south side of South Parks Road also have pitched roofs with chimneys providing vertical accent, while T G Jackson's Electrical Laboratory has a pitched and tiled roof enlivened with pediments.
- The nature and use of buildings in the science area often require plant equipment that has had an effect on the roofscape. The most successful buildings have integrated this into the design, rather than being an add-on.

View looking south from the University Parks towards the Science Area, showing the new Beecroft Building on the right

8.3.7 Landmarks

Roofscape

Theme 21: roofscape, skyline and landmarks
Theme 22: views in the conservation area
Theme 27: setting of the conservation area

The neo-Gothic masterpiece of the University Museum is the defining landmark of this area and its central turret is visible in long views from the city centre.

Landmarks within the character zone

- University Museum, Parks Road.
- Radcliffe Science Library, Parks Road.
- Inorganic Chemistry Building, South Parks Road.
- Dyson Perrins Chemistry Laboratory, South Parks Road.
- Physical Chemistry Building, South Parks Road.
- Plant Sciences Building, South Parks Road.
- Dunn School of Pathology, South Parks Road.

Landmarks outside the character zone

- Keble College, Parks Road.
- Rhodes House, South Parks Road.

Roofscape
University Science Area

Key

- Oxford Central Conservation Area boundary

Building heights

- 0m
- 5m
- 10m
- 15m
- 20m
- Flat roofs
- Elevated panorama
- Designed public view
- Focal point
- Landmarks

Source: Building height data based on environment agency lidar DTM and DSM 2m

The Beecroft, Biochemistry and LAMB buildings have been updated from available planning information.

8.3.8 Views

Unfolding views

- This zone is primarily experienced as a series of densely clustered, large institutional buildings in unfolding views along South Parks Road.

Designed views

- The large forecourt of the University Museum provides it with a generous setting in views from Parks Road, while the tower of the museum is visible in longer views and elevated viewing places such as the tower of St Mary's Church.

Views from University Parks

- The Science Area forms a dense layering of large buildings running around the southern and western boundaries of the Parks, with the turret of the University Museum forming a distinctive feature in long views from the north and east. Several of these building, such as the Sherrington Building, were designed with formal well detailed north elevations , designed to be viewed and enjoyed from the University Parks.

Other views

- Views of the area can be obtained from the east of the city, specifically, Mesopotamia, Marston and Headington Hill. There are also views from the north west corner of University Parks, along Mansfield Road and looking north across the sports and playing fields to the south of the area. The area can also be viewed from high points in the city centre.

8.3.9 Movement and activity

Theme 26: tranquillity

Although this zone is on the periphery of the city centre, it is a busy through-route to North Oxford.

Traffic

- South Parks Road forms provides an alternative route for traffic banned from the High Street during daylight hours.
- There is therefore a steady flow of vehicles along South Parks Road with frequent queues at the traffic lights with Parks Road.
- Delivery and service buildings move through the area at all times of the day throughout the week.

Cycling

- Cycle lanes are marked on South Parks Road and Parks Road, and a short stretch of off-road lane is provided by the University Museum.
- Both roads are busy cycle routes for cyclists travelling towards the University Parks and North Oxford.

Pedestrian

- There is a regular stream of pedestrians passing up Parks Road to visit the University Museum and University Parks.
- The forecourt of the Museum is often busy with school and tour groups.
- Further within the Science Area complex, footfall is far lower and the area feels quiet.

8.3.10 Archaeology

Theme 12: archaeology

Oxford Archaeological Action Plan further detail and guidance

- Until the nineteenth century, this character zone comprised fields and parkland on the edge of the city centre. The area is rich in archaeological remains that include Late Neolithic/early Bronze Age flat graves, barrows and monumental linear monuments, Iron Age and Roman settlement remains, a Roman cemetery and parts of the Royalist Civil War defences.
- The Science Area has been densely developed, which has caused some localised disturbance to the archaeological record, however presence of modern buildings cannot be interpreted as implying the removal of archaeological interest from the building footprint.
- Therefore the below-ground archaeological potential of the zone to reveal evidence of past occupation is considered to be variable in areas which have already been developed, but high in the few undeveloped areas. For example the site of the Beecroft Building (2018) yielded evidence of Roman occupation, medieval pottery, and remains of the Civil War defences.

8.4 Useful documents and further guidance

Refer to the following Historic Urban Character Assessments on the Oxford City Council website for detailed accounts of the character zone. The key plan shows their boundaries.

- HUCA 38 Holywell and Northeast Expansion: Mansfield Road

Other useful documents include:

Oxford Heritage Walks Book 3: On foot from Catte Street to Parson's Pleasure, Malcolm Graham 2015