

CALTON HILL

Conservation Plan

August 1999



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1.00 Executive Summary

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Executive Summary

This Conservation Plan has been developed between November 1998 and April 1999 in accordance with the brief for the preparation of a *Conservation Plan for The Calton Hill Buildings and Surrounding Area* issued by the City of Edinburgh Council and dated December 1997.

The research and survey work demonstrates that Calton Hill, its buildings, monuments, burial grounds and landscape **is a Scottish cultural asset of international importance which should be cared for and promoted as such.** Calton Hill derives its exceptional cultural significance from a number of different sources, all of which help us to understand the past, enrich the present, and which will be of value to future generations. It is a semi-natural wilderness in the middle of the city; a public park; a landmark; a viewing point; a focus of architectural, academic and artistic endeavour; a place of science; a place of remembrance and contemplation; a place of inspiration; and, through its topography, architecture and association with the Enlightenment, a potent symbol of National Identity. This complex interaction of physical and cultural factors creates a sublime sense of place, justifiably compared with the Acropolis of ancient Greece, which is of international importance.

This Conservation Plan demonstrates that Calton Hill's current condition is in decline which will continue until serious remedial action is taken. It concludes that the following issues must be addressed:

The protection and enhancement of the hill's cultural significance through the development and implementation of a long-term sustainable integrated Buildings, Monuments, Collections, and Landscape Management Plan.

The development and implementation of an Interpretative Plan.

The identification of compatible uses for its unused buildings in order to secure their future.

The strengthening of pedestrian links with the surrounding city.

The development of appropriate visitor facilities and access.

2.00 Understanding the Historic Site

2.01 Chronology

2.01 Chronology

Chronology of Calton Hill & Environs

- 1456 Greenside Amphitheatre gifted by James II to the city for sport and tournaments.
- 1462 Trinity College Church founded by Mary of Gueldres.
- 1520 Carmelite Friary founded.
- 1550s The Lords of the Congregation meet at quarry holes in the Calton Hill.
- 1551 The lands of Craigingalt feued to John McNeil and his wife Grissel Wilson.
- 1591 Greenside Carmelite Monastery converted to leper colony.
- 1631 Calton becomes Burgh of Barony. Lord Balmerino granted deed in favour of Calton which instituted the Incorporated Trades of Calton.
- 1675 Calton Hill denoted usual place of execution.
- 1718 Incorporated Trades purchase half acre of ground from Lord Balmerino for a burial ground.
- 1722 Town Council of Edinburgh began legal process to purchase the hill for £4083-6-8.
- 1725 Lord Balmerino still pursuing payment.
- 1725 Calton Hill leased to John Eddington.
- 1750 Quarries on Calton Hill exploited for stone for public works.
- 1751 Gibbet at top of Leith Walk moved to Calton Hill.
- 1757 Construction of march dike between Council's property on Calton Hill and Mr Aliston's feu.
- 1762 Burial ground extended southward.
- 1775 First circulatory pleasure walk built round Calton Hill after Council receive petition from David Hume and others.
- 1776 Council received petition from Thomas Short to build an observatory on Calton Hill. Construction work started in the same year.
- 1777 David Hume Mausoleum, designed by Robert Adam, built.
- 1786 South perimeter wall of old burial ground built.
- 1791 Robert Adam proposed sketch design for Calton Hill Viaduct.
- 1793 Observatory opened in the Keeper's House Tower.
- 1795 Robert Adam's Bridewell (his last design) completed posthumously.
- 1795 Herman Lyon petitioned the Council for a burial-place on the Calton Hill for himself and his family. Application approved.
- 1807 Foundation stone of the Nelson Monument, designed by Robert Burn, laid.
- 1808 First notice of a powder magazine on Calton Hill.
- 1812 Astronomical Institution founded.
- 1812 Transit House built.
- 1814 Competition to plan New Town between Leith Walk and Easter Road held.
- 1815 William Stark's Report published.
- 1815 Lancasterian School founded.
- 1815 Gaol Governor's House completed.
- 1815 New Gaol built.
- 1816 Nelson Monument completed by Thomas Bonnar.
- 1819 Regent Bridge completed.
- 1820 New Calton Burial Ground opened.

2.01 Chronology

- 1821 Royal Terrace development commenced, followed by Regent and Carlton Terraces.
- 1822 City Observatory, designed by WH Playfair, completed.
- 1822 Foundation stone of the National Monument laid on behalf of George IV.
- 1825 New walk built around the west of Calton Hill.
- 1825-9 The Royal High School, designed by Thomas Hamilton, built.
- 1826 Building work on the National Monument, designed by WH Playfair, begun.
- 1826 John Playfair Monument, designed by WH Playfair, completed.
- 1828 Observatory Compound Walls built.
- 1829 Work on The National Monument stopped.
- 1830 Burns Monument, designed by Thomas Hamilton, built.
- 1830-9 Greenside Church, designed by James Gillespie Graham, built.
- 1831 Dugald Stewart Monument, designed by WH Playfair, built.
- 1832 Robert Forrest built shed within compound of the National Monument to exhibit statuary.
- 1832 Police petition the Council to erect public toilets.
- 1834 Maria Short petitioned the Council for permission to erect a temporary observatory on Calton Hill.
- 1838 First reference to seats on Calton Hill (although they had been on the hill for some years prior to 1838).
- 1838 Seats and walks repaired.
- 1839 Parapet wall round the High Terrace walks completed.
- 1839 Council agreed to reserve certain areas on Calton Hill for bleaching.
- 1839 Railings erected at south-east precipice at Nelson's Monument. Replaced wooden posts and a rope.
- 1841 Wall built at Greenside to protect houses from falling rocks.
- 1844 Political Martyr's Monument, designed by Thomas Hamilton, built.
- 1848 Trinity College Church demolished.
- 1848 Committee reported to Council about erecting wells on Calton Hill to provide water for bleaching clothes.
- 1850 Sir William Craig informed the Council that Treasury had ordered a Time-Ball to be placed on Nelson's Monument.
- 1853 Time-ball installed in Nelson Monument.
- 1854 West side of hill covered with soil.
- 1857 WH Playfair died.
- 1861 Cable linking Nelson Monument to the castle installed.
- 1866 Forrest's statues removed from the hill.
- 1887 Portuguese Cannon placed on Calton Hill.
- 1893 Old Observatory House extended.
- 1893 Lion's head handrails erected.
- 1895 City Dome, designed by Robert Morham, completed.
- 1895-8 City Observatory interior altered.
- 1896 Royal Observatory moved to Blackford Hill.

2.01 Chronology

- 1928 Railings removed from Playfair Monument.
- 1936-9 St Andrew's House, designed by Thomas Tait, built.
- 1940 Five cannon removed from Calton Hill.
- 1995 Calton Hill included in Edinburgh World Heritage Site designation.
- 1998 Parliament Cairn built.
- 1998 Conservation Plan commissioned.

2.02 History

History

Calton Hill forms part of the Arthur's Seat volcano complex and was formed originally, by volcanic action, during the Carboniferous Period some 340million years ago. Today, the hill stands 355ft high in the centre of Edinburgh forming the principal eminence of the New Town and commanding spectacular views of the City and the Firth of Forth.

The origin of the name "Calton" is not certain but various references have been identified including the prosaic Scots *Cauld Town* in use during the 18thC, the Gaelic *Choille -dun*, meaning a "hill covered with bushes", and *Craigingatt* meaning "rock of the wildcats" dating from the mid 15thC.

There is evidence that Calton Hill may have been used during the Bronze Age but not much else is known about this early period. Mediaeval maps of Edinburgh show the hill standing outside the city walls above the main route to Leith and isolated from the Old Town by the marshy Nor' Loch. Some development had by then taken place on its lower slopes along the roads to Leith and the Cannongate. In the 15thC, during the reign of James II, records show that the low valley at Greenside was used to hold tournaments, open-air plays including a performance of *The Pleasant Satyre of the Tree Estaits* by Sir David Lindsay in 1544, and revels. Grant suggests that the area witnessed the earliest dramatic performances in Scotland.

Greenside was also the location of a Carmelite Monastery which was converted to a leper hospital in 1591 when the Order was suppressed and in 1571 it is recorded that a gun battery was situated on the hill at "Dow Craig above Trinitie College to ding and siege the north east quarter of the burgh" during the contest against the Queen's men. During the 1550s the Lords of the Congregation met in secret in the quarries on Calton Hill to avoid the watchful Catholic Party.

In 1631 Lord Balmerino, who by that time, owned the superiority of the area surrounding Calton Hill, "granted a deed in favour of the Calton which drew all the inhabitants together into a society and laid the foundation for the Incorporation of the Trades of Calton" This deed gave the inhabitants exclusive rights to trade within the Calton and the rights to tax others who wished to trade there. In 1718 the Incorporated Trades of Calton purchased from Lord Balmerino "McNeil's Craigs, consisting of half an acre, as it is now enclosed with a stone dyke, to be made use of for a burial place for the inhabitants of the said Burgh, and others whom they shall allow". This area formed the Old Calton Burial Ground which was subsequently bisected by Regent Road but many memorials, including Hume's Mausoleum, and some of the finest 17thC lairs and monuments in Scotland still survive.

2.02 History

By the 18thC regular public use of the hill as a drying green and for fairs and to celebrate festivals such as Beltane and All Hallows was clearly established but it was not until 1725, when the Town Council purchased the superiority of Calton from Lord Balmerino, that the hill actually became public property. The public use of the hill was then emphasised as Council records show. For example, in making leases, the Council reserved the right to "employ the whole ground or any part thereof hereby set to public use which is hereby declared to be any use but grassing or tilling the ground..." No reason for the purchase of Calton by the Town Council is recorded and for many years the council did not exploit the hill except to lease it for grazing and the extraction of stone for building work; the hill was strategically situated at the junction of the roads to Leith and Restalrig and it may be that the council was simply trying to protect its interests for the future.

The draining of the Nor' Loch and the construction of the New Town, which began in the late 1760s in accordance with geometric plans prepared by James Craig, made Calton Hill much more relevant to the inhabitants of Edinburgh. Its proximity to the New Town made it an attractive place to visit and in 1775 the Town Council heard a petition from David Hume, at that time living near St Andrew's Square, and others concerning the future use of the hill. The petition stated that:

"...what had long occurred to them would be an essential improvement to the Inhabitants of this city in general..."

...The Petitioners had long regretted that the Caltoun Hill, which nature seemed to have particularly adapted for that use to which they wished it to be now partly employed, had not hitherto been disposed into any sort of regular public walks or roads for the health and amusement of the Inhabitants, when it could easily be done at no expense to the city. What the petitioners therefore indicted was, that a circulatory foot road or walk should be permitted to be made around the Caltounhill in such direction and of such breadth as the Honble council should think fit - This whilst it would present strangers with the most advantageous views of the city to the West, North & East, the port of Leith, the Firth of Fyfe with the numerous adjacent and interspersed villas, which must strike every beholder of true taste with equal surprise and admiration, would at the same time be a most desirable and useful piece of policy, contributing not only to the pleasure and amusement, but also to the health of the inhabitants of this crowded city..."

The petition was approved by an Act of Council on 26 April 1775 and the first path, constructed entirely for recreational use, formed around the hill thereafter. Sections of this path still remain and it formed the basis of the network of paths existing today.

2.02 History

During the 1790s, the importance of the hill to the future development of the New Town eastwards and the possibility of an approach to the New Town around the southern slopes of Calton Hill was realised. Various proposals were suggested over a number of years and, between 1815 and 1819 Waterloo Place, Regent Bridge, and Regent Road, which made a ceremonial entrance to the city, were built and access to the hill made much easier. The strength of the city's commitment to this enterprise is reinforced by the fact that the cost of these developments to the city was greater than the cost of the whole central New Town. The Calton Burial Ground was split in two by these developments and the disturbed inhabitants re-interred in the New Calton Burial Ground.

The first observatory, situated on top of Calton Hill was completed in 1793, the same year as the Bridewell, Robert Adam's last project completed posthumously, was built on its southern slopes. The Royal Astronomical Society was established in 1812 and what is now the City Observatory was completed in 1818. Amongst other functions the observatory provided Edinburgh and the ships in the Firth of Forth with their first scientific time-keeping service. The Bridewell was subsequently extensively altered and extended becoming Calton Gaol.

In a spirit of civic pride, building work on the first monument on the hilltop, the Nelson Monument, commenced in 1807 paid for by a public collection. As with the later National Monument, built between 1826–29, funds did not match expectations but, unlike the National Monument, the Nelson Monument was eventually completed, in 1816. Around this time, generally known as *The Enlightenment*, Edinburgh began to gain its reputation as the *Athens of the North* on account of its intellectual and artistic culture. Nearly all the major buildings and monuments on the hill were built during this period, including the Royal High School and National Monument, and all were built in classical styles that alluded to classicism and reinforced the intellectual link with Athens.

In 1812 a competition was held to prepare a plan for the development of Calton Hill and the lands to the north and east between Easter Road and Leith Walk. There was no outright winner and the plans for the development were eventually prepared by W H Playfair in accordance with written recommendations prepared by his former tutor William Stark shortly before he died. Amongst other matters Stark advocated that plans should adopt a less formal geometric design that took account of topography and that there should be no commercial housing development of the hilltop. Development of the magnificent Royal, Regent and Carlton Terraces, designed by WH Playfair, commenced in the early 1820s and the houses in Regent and Carlton Terraces were virtually complete by the end of the 1830s. Royal Terrace was not, however, completed until the 1860s.

2.02 History

During the 19thC a Public Parks Committee was established to manage the city's parks and their records demonstrate that by the mid-19thC the hill was clearly perceived to be a public park; an article appearing in the Scotsman newspaper on 4 October 1854 included "the Calton Hill" within a list of public parks and gardens. In 1861 the first set of Bye-laws relating to the use of Calton Hill was published. These Bye-laws have been updated several times and, as far as it is possible to ascertain, the use and management of the public areas of Calton Hill, including the Burial Grounds is now covered by The Edinburgh Corporation Order Confirmation Act 1993, Part XI. The ninth schedule of that Act limits the erection of buildings on the hill to those such as "Monuments, observatory, church or such other public buildings as the Corporation shall see fit"

During the 20thC there has been very little additional development of note on Calton Hill except for St Andrews House built in the late 1930s. Various proposals have been put forward for the completion of the National Monument although none has come to fruition and there have been other proposals for further public buildings on the hilltop. Appropriate uses for the former Royal High School, which became the focus of a parliamentary vigil continue to be investigated; most recently a feasibility study was carried out to assess whether it could accommodate the new Scottish Parliament. The surrounding area has continued to evolve although not always for the better as the demolition of St James' Square and the subsequent construction of St James' Centre and its bridge proves. Current proposals for Greenside are sympathetic to the setting of the hill and will mend the eyesore of the gap site on Greenside Place. It is not yet possible to assess the possible impact of the redevelopment of the valley between the Old Town and the hill but all such proposals will have to be carefully considered.

The history of Calton Hill and its development is one of apparently unconnected sporadic development. All the surviving developments have, however, responded to the specialness of the hill and without exception have contributed to its unique *genius loci*. In late 1998, recognising the importance of Calton Hill to Scotland and the need to protect its future, the City of Edinburgh Council, with financial assistance from the Heritage Lottery Fund, commissioned Law & Dunbar-Nasmith Architects to prepare a Conservation Plan for the Hill. Once adopted this plan will provide a framework within which all those with an interest in the hill can work to protect its historic significance and make informed decisions about its future.

2.03 Geology

2.03 Geology

The Geology of Calton Hill

Calton Hill has been designated as a Site of Special Scientific Interest by Scottish Natural Heritage on account of its outstanding geology and relationship to the Arthur's Seat volcano complex. The geological structure of Calton Hill has been well summarised in a previous assessment (Cairns 1996) in which the hill is described as consisting of :

'... various basaltic feltstones with ashy inter-stratifications, surmounted by shales and sandstones. The general dip of these beds is easterly, but their strike forms a wavy line from north-west to south-east...' (see Cairns 1996).

The investigation of Calton Hill's geology has generally been instigated by commercial need and consequently geological observations have been opportunistic. Geologists have, however, gained a detailed understanding of the geology by collating information from these "key-hole" views, which include bore-hole surveys and records of the construction of the railway tunnels under Calton Hill, the excavations of the Regent Bridge, the Calton Gaol, the North British Railway Hotel and building works along Princes Street. Two bore-holes for water at Abbeyhill have provided a detailed account of the sedimentary rocks that overlie and underlie the volcanic strata (see Henderson 1881, Goodchild 1899) and lend support to the interpretation of surface observations. Exposures of shales seen overlying the lavas and ashes in Regent Terrace, Regent Gardens and Royal Terrace were linked to the deep beds that were identified in Abbeyhill and were in turn associated with the black shales exposed in Holyrood. Sandstones identified in the foundation excavations for the North British Railway Hotel were linked to those in Craighleith Quarry. Thin beds of tuff, inter-laminated with tuff mixed with shale and sandy-shales, indicative of alternate episodes volcanic activity and quiescence, were observed over the years in exposures on the High Street, and Princes Street (e.g. the basement excavations for Jenners). These same sediments were identified in the Abbeyhill bore-holes, though at a depth of 872 feet (Goodchild 1899, 262).

The rock exposed at Calton Hill is some 340 million years old (i.e. early Carboniferous Period, SNH nd, 29) and consists of volcanic and sedimentary rocks. The sequence of volcanic rocks is similar to those of Arthur's Seat except that the basal beds consist of tuffs inter-bedded with Ballagan type sediments and the Long Row basalts of Arthur's Seat are probably absent. The total depth of the various volcanic and sedimentary rocks is some 244 m (800 ft), comprising of the following:

Abbeyhill Shales (shales of Ballagan type)	23 m	
Mugearite lava with tuff bands	23 m	
Thin tuff traceable across hill,		
Markle type basalts with thin tuffs	61 m	
Agglomerates with fragments of Markle type basalt slaggy, interbedded upwards with thin tuffs	91.5 m	
Tuffs, interbedded with underlying Ballagan type sediments	53.5 m	(Mitchell <i>et al</i> 1964, 49)

2.03 Geology

Although the exposed stratigraphy on Arthur's Seat is more impressive and is used to a greater extent for educational purposes, Calton Hill exhibits many of the same geological strata and structures. The succession of lavas and ashes is best viewed by ascending the steps leading off Waterloo Place (E2) leading onto the Greenside path (C2), at the south-west corner of Calton Hill. The lowest exposed levels consist of two ash beds, related to the Dry Dam ashes on Arthur's Seat, above which lie two lavas of the Craiglockhart Basalt, the lower of which resembles Lava 3 of the Whinney Hill. Overlying the basalt is a thick bed of ash containing an unsorted assemblage of boulders, blocks, and bombs of basalt which are temporally equivalent to Lavas 4, 5, 6 & 7 of the Whinney Hill. Over this ash bed lies three lavas of the Markle basalt separated by thin ash beds resembling Lavas 8, 9, & 10 of Whinney Hill. On the highest Markle flow lies another ash-bed which in turn is overlain by three mugearite lavas interbedded with ash-beds. The highest mugearite lava on Calton Hill is overlain by Abbeyhill Shales (McAdam & Clarkson 1986, 48).

Within the general area of the composite volcano represented by the Arthur's Seat complex, five vents are recognised. Contrary to some quoted opinions, Calton Hill is not a vent but simply a fragment of the complex. No single vent in this group produced all the lavas; instead separate lava flows were produced at various times from different vents. Two types of lava are identified: fine grained basalts and mugearite (NB Henderson refers to them as andesite). The former is generally dark grey to black in colour and often show columnar jointing produced as the liquid rock cooled. Mugearite is a chemically more evolved form of basalt and is derived from chemical processes that occur within the basalt magma below a volcano. It is the later type, mugearite which forms the bulk of the lava on Calton Hill with basalt only occurring on the knoll upon which the prison was and latterly old St Andrews House is built (Goodchild 1899, 264). Two types of ash are also present: consolidated and volcanic ash. Consolidated ash is material ejected from a vent between lava flows (tuff). Volcanic ash is formed from explosive volcanic activity and contains pulverised lava, other fine particles, and larger fragments or 'bombs' (SNH N.D., 4-6). There are no intrusions on Calton Hill.

The commercial potential of the range of rocks present at Calton Hill has been recognised in the past. Generally, the principal target for exploitation has been the sandstones and shales of the Cementstone group but other resources were present and copper ore was discovered during preparatory works for the construction of the Royal High School (Grant 1882b, 110) although there is no record of this vein being exploited.

Archival research has identified quarries in existence, or in operation, on or around Calton Hill in the 1550s but not all cuttings were for immediate profit. A council record of 1602 reports that the cliffs at the east end of Calton Hill were cut away to make the passage between Edinburgh and Leith '...mair easie...' (McQueen 1998, 6, Extracts from the Records of the Burgh of Edinburgh. 1589-1603 p.298). and a document, dated before 1728, records that the council leased the tenancy

2.03 Geology

for land on Calton Hill but were keen to retain the privilege of '...breaking or firing for digging of gravel and sand or stones for the ...publick works...' (McQueen 1998, 4, ECA Council Records 6 October 1725 – 17 July 1928. P.32). Other eighteenth century tacks and leases held similar reservations and in 1757 stone was taken from Calton Hill to repair Leith Wynd. In 1750 there is a record of the discovery of '...very good rock for course stones in the Caltonhill...' (McQueen 1998, 4; ECA Town Council Minutes Vol. 68. Pp. 270-271. 3 January 1750).

Much of the sedimentary rocks overlying the volcanic strata of Calton Hill and Arthur's Seat were removed by some 200 million years of weathering that culminated in the impact of the Pleistocene ice-sheet. The eastward advance of the ice-sheet stripped away the softer sediments leaving the hard rocks of Calton Hill and Arthur's Seat exposed as high ground facing the west. The more gentle slopes produced by this eastward movement accentuated the pre-existing easterly dip of the volcanic rocks. Calton Hill, thus, represents an almost archetypal example of a *roche moutonnée* landform.

A recent investigation in the vicinity of the National Monument describes the rock head as '...a highly fissured and cleaved, weathered volcanic deposit.' (Report to the ECC by Will Rudd Associates, dated 23 July 1996).

The geology and geomorphology of Calton Hill are well-documented and, although less impressive than Arthur's Seat, the fine detail of the volcanic deposits and the interfaces between these and the successive and inter-digitated sedimentary series have a potential for public appreciation and education which has not yet been exploited.

2.04 Ecology

2.04 Ecology

Introduction

The study area comprises a prominent and exposed hilltop plateau supporting open grasslands throughout most of the raised central and sloping eastern zones with woodland or scrub covering the steep slopes to the north-west and southern margins. The site was surveyed in detail in 1996-97 by Cairns Ltd.

Field visits in December 1998 and additional data reviewed from other sources serve to supplement the findings of the detailed Cairns habitat survey. The following section provides a summary of the main ecological issues.

Nature Conservation Interest & Management

The field surveys and relevant information sources do not reveal that any notable habitats or species of special nature conservation interest are present on the hilltop although parts of the grassland have been noted as being of local importance within the City of Edinburgh (Cairns 1997) . The hill, however, does support habitats of some local interest, including extensive areas of relatively unimproved grassland and dense scrubby woodland growth on the steeper slopes. The urban setting of the site gives importance to the open space and ecological merits of the hill although the proximity of the more extensive Arthur's Seat perhaps detracts unfairly from the site's individual assessment; grassland and scrub are well represented on Arthur's Seat but established woodland is rare.

There is a good botanical species diversity represented at the site, mostly of open grassland types, with greatest interest focused on elements of rock outcrops or shallow soils. Some of these include established alien species such as *Cheiranthus cheirii* and *Clematis vitalba*. The woodland diversity is quite high for the woody species but ground flora interest appears to be limited. The habitat range however provides a potentially good resource for wildlife species such as birds and invertebrates, and it is likely that with woodland development over time and grassland management the interest could increase. Ornithological records for Regent Gardens and the hill show a broad range of visitors and residents, further emphasising the value of the open space resource. Scottish Wildlife Trust records may show other species of interest and the discovery of the rare spider, *Sitticus pubescens*, on the Craigend crags on the lower hill above Calton Road shows the potential of such habitats.

In general, there are few areas of notable habitat or species where specific management tasks or conservation measures are needed. However there is scope for general management to retain or enhance the existing ecological interest. There are some areas of high diversity such as the rock outcrop near the Nelson Monument, where the spread of scrub, mostly gorse (and perhaps local ivy) is a threat, and there are similar threats from scrub encroachment or trample erosion at other rocky outcrops and associated diverse grasslands by the paths to the north and west of the Observatory and about the trigonometric survey point.

Woodland management is perhaps of low priority as in many respects it appears to be a developing process and the gradual development of a maturer canopy structure will aid general diversity. The woodland development should, except at the hill crests, not impact on the landscape and historic interest of the site.

Preliminary considerations on the desired canopy would be prudent but apart from concerns over elm death and local frequency of sycamore, the structure appears to be quite diverse, even if including some planted elements. Oak is rare, although it is likely that it would not be an important native species on shallow soils of the escarpment. The ground flora appears to be poorly developed which may reflect past land-use pressures, but for whatever reason, unless springtime

2.04 Ecology

surveys reveal more interest, it is likely that some suitable species may need introducing, ideally from local sources.

The extensive grasslands of the hilltop plateau present a potentially much larger problem for management. In general, there may be a priority to maintain a more amenity-managed appearance of the sward near the monuments for their aesthetic appreciation but there are some obvious issues concerning visitor movement and the resultant wear and tear on the turf. This is most manifest at the viewpoint areas such as the Trigonometric Point and to the east of the Nelson Monument (view of Arthur's Seat etc.), where the short fescue-turf is prone to erosion and bare areas occur. Other turf in this area is of harder-wearing rye-grass, and this is arguably more suitable where visitor numbers are high. However the fescue grassland has a greater semi-natural interest, and it would not be desirable, on ecological grounds, to 'improve' it to other types. However there is scope for a management mosaic recognising visitor pressures and desire-lines, with appropriate sward management, and perhaps some informal guidance paths at heavily used areas.

Elsewhere the grasslands have a great deal more potential for management and a number of options may be considered, several of which could improve ecological interest: a review of recent management practices would help assess how to retain existing features or to promote other trends.

The areas of more acidic, fine-leaved sward should be retained, as these areas potentially could support good herb diversity (unless over-grazed by rabbits). Cutting regimes may help where there is encroachment from coarser grasses such as the false oat-grass to the north-west and in general these grasslands need no nutrient inputs. The areas of false-oat grass adjacent to the woodland area support some invasive scrub (and herbs) and tends to indicate succession to scrub woodland. This may be desirable from purely ecological grounds but with the path network, safe access and viewpoints, such vegetation succession may not be viewed favourably; periodic (annual meadow-type) cutting may therefore be a preferable alternative.

The extensive neutral grasslands, often of low diversity, to the eastern half of the hilltop, away from the main monuments, afford a number of opportunities for management, as the landscape and historic interests are presumably reduced. The more marginal areas could support coarser, meadow-type grassland, perhaps linked to scrub and woodland development, but grading from shorter-cropped turf, producing a diverse range of habitat structures potentially of interest to wildlife. The species diversity of the turf could be encouraged by cutting and low-nutrient inputs, perhaps with soil scarification or inoculation of desirable and suitable herbs.

2.05 Landscape

2.05 Landscape

Introduction

Calton Hill is a natural mountainous landscape, a public park, a prominent landmark and a commemorative site. The wider hill provides a setting for massive 19th century classical terraces, the former Royal High School, government offices, graveyards and public and private open space. The whole assemblage of buildings and monuments is widely diverse in terms of scale and use, but all elements are united by their use of local stone, a small range of architectural styles and the way their forms relate to the dramatic landform.

Early representations show the hill as a lumpen ridge at the edge of the Old Town running parallel with Canongate and rising in two main steps to a knobbly summit, devoid of trees, with a steep west end and a gradually sloping eastern ridge. The hill's volcanic and glaciated origins, which created shallow soils and steep sides, precluded development and grazing and quarrying prevailed for several centuries until the great surge of urban expansion around the hill between the 1760s and 1830s. Appreciation of the picturesque, natural landscape and views coupled with a demand for public walks then made its preservation as open space inevitable. Its inherent characteristics, including poor soil and exposure, also dictated against formal landscape design and planting in the prevailing fashionable styles.

The single most important change affecting the use and perception of the hill was the building of Regent Bridge and Regent Road, bridging the chasm between the hill and the New Town, creating a major new entrance into the town via Waterloo Place and effectively reducing the height of the hill by half in the most frequently seen views. The accumulation of buildings and monuments on the hilltop, described in detail elsewhere, created a landmark out of the hill, rivalling the castle, and celebrated in formal vistas and incidental views. The development of the hilltop as public space with walks appears to have proceeded to no overall plan, although developments followed the prevalent picturesque principles of siting, with paths laid out to meet the demand created by new features and to provide circular walks and access to viewpoints.

Similarly, there is no evidence of any planting structure. Tree and shrub planting has been carried out to complement individual features such as the new road, the Nelson Monument, and to delineate the proposed outline of the National Monument. Other features are incidental or undesigned, such as planting associated with the former cottage garden near the Nelson Monument and the regeneration of woodland on the Greenside slopes of the hill. Planting originating in the 20th century includes replanting of the south slope in the early years and further stocking in the 1980s.

The Old Calton Burying Ground was the first substantial development on the hill, occupying the south-west corner of the lower step of the hillside above the back of Canongate. The retention of its two parts, split by the building of Regent Road, is dramatic evidence of the historical sequence of development. The monuments

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of the graveyards and the Jail Governor's House add to the range of architectural forms on the hill and create a visual relationship with the hilltop monuments in views from the south and south-west.

The hill cannot be considered in isolation from the features of the wider hill which create its setting such as the vista along Waterloo Place, Calton Hill Terrace, the whole of the Regent/Royal Terraces and their gardens which provide a wooded continuation of the hill to the east, the London Road and Regent Road roadside gardens, the former Royal High School, St Andrew's House, and Regent Road which creates such an impressive approach to the city.

The development of the hill and its surroundings has been well documented on successive historical maps and artists have recorded all the best views of the hill's important features in their optimum conditions; in response to the picturesque qualities of the city; to record new developments; and to provide visitors with souvenirs of the sights. Reference to artists' work therefore gives a clear summary of the best views which take in Calton Hill and it is pleasing to note that the majority of these, dating from the 18th and 19th centuries, remain despite expansion and change in the city since then. The following review of the the hill and its features in its setting therefore uses a sequence of historic plans of the city and hill and a selection of the most descriptive paintings to demonstrate relationships at four different scales:

Within the area of greater Calton Hill

Within the immediate city comprising the Old Town, New Town and Holyrood Park

Within the whole city including the 'seven hills' and Leith

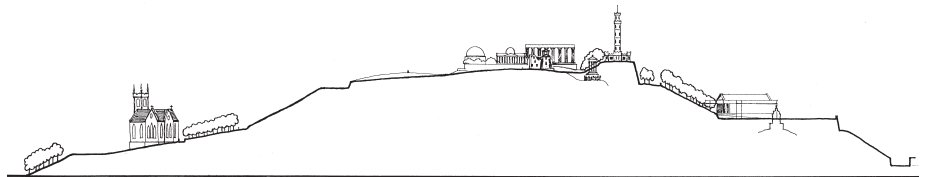
Within the Firth of Forth corresponding to the limits of views from the hill.

2.05 Landscape

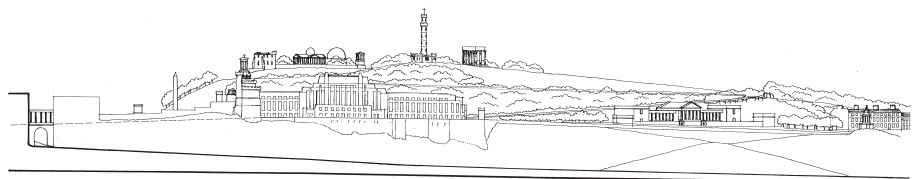
Review of Historical Maps

A 355 foot high hill (height above neighbouring levels, 70m) on the edge of a city centre is bound to have some dramatic views and figure prominently in the development of the city and views from the streets. In a city as remarkable for its geomorphology and topography as Edinburgh, with its castle and old town built on an adjoining ridge and a major area of mountain landscape close by, the relationship is astounding. The landform of Calton Hill has fundamentally affected the development of the city around it and it has a direct relationship with each of the three major components of the city - the Old Town, the New Town and Arthur's Seat. It is the principal feature of the intervening space between these exceptional components and inevitably the physical and visual inter-relationships, both on the broad scale and from within the intricacies of the urban fabric, are complex and varied and have become more so through the stages of the city's development.

Cross section north to south showing relative heights



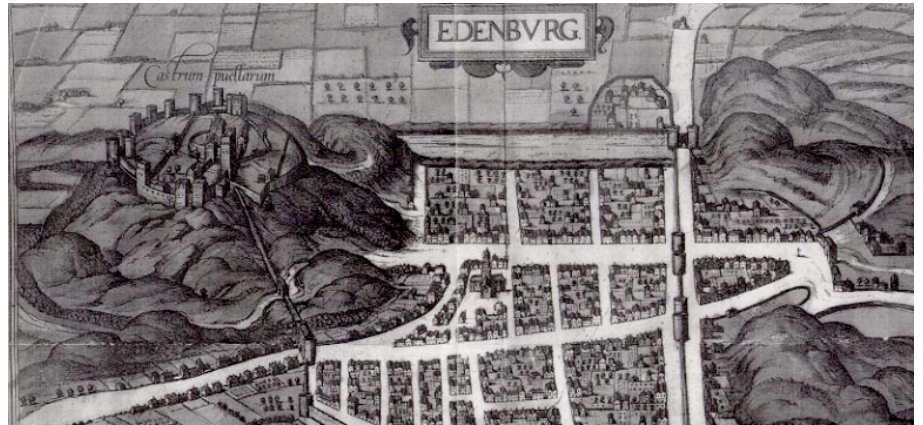
Sectional elevation west to east



Calton Hill related to the development of Edinburgh

Medieval Period, city within its walls

No detailed maps exist for this period.



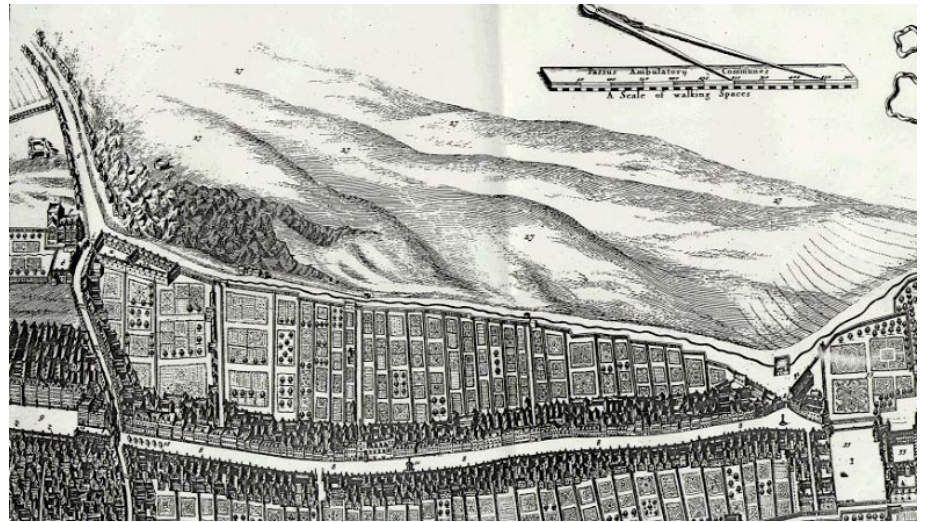
Hogenberg 1582

The city in this period is contained largely within the city walls, apart from the independent burgh of Canongate extending down the ridge of the 'royal mile' towards the abbey of Holyrood, between Calton Hill and the larger mass of Arthur's Seat. Leith Wynd Port (shown on the Hogenburg map, 1582) stood close to the base of the Calton Hill, near where the Trinity College Church was built c.1460. The extent of other development at Greenside and the back of Canongate is unclear. The slope down to the base of the hill on the west served from the time of James II 'as an arena for tournaments, wapenshaws, athletic sports, and dramatic exhibitions' and is said to have been stepped in tiers (Groome 1884 p485). The basic road pattern of the hill positioned between the wester and easter roads to Leith appears to have been established during this time. The hill itself appears to have had no significant features and to have been used as rough grazing.

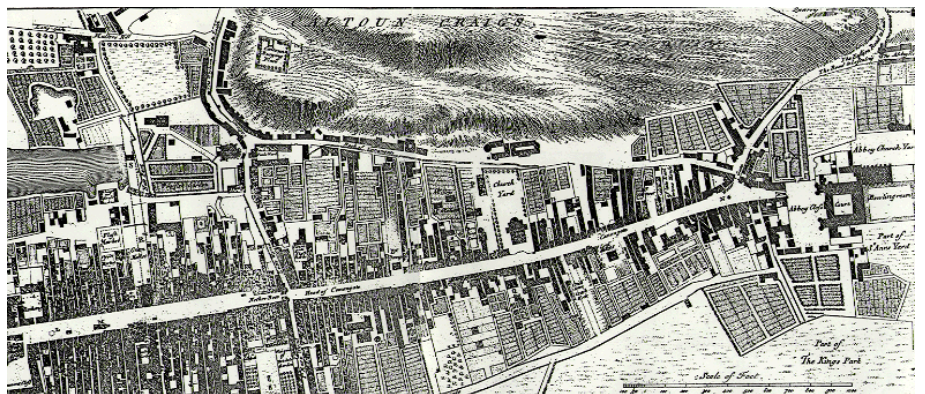
Calton Hill appears to have helped determine the eastward limit of the walled town in this period and to have determined the positioning of the road to Leith and its Leith Wynd Port. With the limited extent of the town and lower building heights of the period the hills of Castle Hill, Arthur's Seat and Calton Hill would have been very dominant and contained the town, as evident on the Hogenburg map.

Old Town to mid18th century

Shown on several maps including James Gordon (1647), the Queen Anne view (1710), Richard Cooper (1759) and William Edgar (1742, 1765)



James Gordon 1647



William Edgar 1742

The maps show development gradually infilling the backlands of Canongate with fairly continuous development along the 'Back of Canongate' (Calton Road) and Low Calton/St Ninian's Row by 1765. The Trinity Hospital 'St Paul's work' and the 'Correction Hou' lie close to the Trinity Church on the south-west of the hill. The first development to be shown on the hill is the 'Caltoun Burying Place' (by 1742). Growing urbanisation in the suburbs of Canongate and St Ringers and the reduced significance of the town walls has changed the relationship of the hill to the city. It now relates to the linear urban area, standing on the north side of the east part, from where the hill would have been prominent from the yards, wynds and closes, including the Canongate Kirk yard. From the Slezer drawing, 'The Prospect of Edinburgh from ye North', and from the Queen Anne view, it appears

2.05 Landscape

that the hill was in use as rough grazing and that quarrying was being carried out on the north-west side, as shown in another Slezer drawing 'The Prospect of Edenborrow from the Quarry holes towards Leith'.

First New Town, 1767 to 1790s

Shown on several maps including Ainslie (1780), Kincaid (1784) and Brown and Watson (1793), as well as various versions of James Craig's development plans



John Ainslie 1780

The development of the first New Town on land to the north of the Nor'loch in the late 18th century offered the opportunity to feature the hill in the axial planning of the town. Princes Street is clearly aligned on the southern summit of Calton Hill as shown in Craig's plans of the 1760s, such as the Circus plan (1766?) and the Begbie engraved plan (1768), although the difficulties of planning road lines and levels to link North Bridge, Princes Street, the old road to Leith (Low Calton) and the new Leith Street, meant that Princes Street initially terminated in an unsatisfactory turn into Leith Street.

Plans of the period show the unresolved nature of the planning of this area, with the Registrar Office and Theatre Royal attempting to resolve the conflicting lines; the row of buildings on the east side of Shakespeare's Square forming a screen at the end of Princes Street, hiding the old street pattern and buildings of Low Calton and St Ninian's; and Leith Street leading off obliquely to the north-east. The original North Bridge provided the link with the High Street and Old Town as well as one of the best views of the hill.

During this period Calton Street, or High Calton now Calton Hill Road, was developed providing access to the burying ground and to the terrace of houses on its north side. From it the first 'walk round the hill' (Kincaid 1784) was developed, instigated by a petition of David Hume and others in 1775. Other tracks link to it from the north back of Canongate (Ainslie 1780).

2.05 Landscape

Other development on the hill included the gothic Observatory Tower (1776) and the first observatory building within a compound. On the lower slopes the Hume Monument was built (1777) to Robert Adam's design, as was the Bridewell, in his castle style (1791). A quarry is shown below the site of the later Nelson Monument on Brown & Watson's map (1793).

The walk indicates the emerging appreciation of the hill for its value as a promenade and viewpoint, although the continuing accretion of functional uses, including graveyard, prison, observatory, and quarry, indicates that this had yet to extend recognition to its picturesque qualities or potential. Few visitor's recording their 'picturesque tour of Scotland' refer to the hill either as a viewing point or landmark. Pennant refers to Calton Hill only as the place beneath which 'those imaginary criminal, witches and sorcerers, in less enlightened times, were burnt' (Pennant 1769 p58); William Gilpin remarks that 'The castle is almost the only object of picturesque curiosity in Edinburgh' (Gilpin 1789 p62); and Dorothy Wordsworth completely missed it from the view from St Anthony's Chapel on the flank of Arthur's Seat (Wordsworth 1803 p244).

Second New Town & Regent Bridge, c.1800 to c.1820

Shown principally on Kirkwood's maps of 1817 and 1819



Robert Kirkwood 1817

The second New Town, on land largely in the feu of the Heriot Trust, north of the ground which would become the Queen Street gardens, developed from 1802 and has no direct relationship with Calton Hill. At the east end, neither the terrace at 'Piccardy' (Kincaid 1784) nor the later alignments of York Place, Picardy Place, and Broughton Street are aligned with views of the hill although all the development present by 1820 along the north-west side of Leith Street, Katherine Street and Union Place may have had views of the hill.

During this period the land between Greenside Place and Nottingham Place at the north-west foot of the hill was developed with wynds pointing in the direction of the hill, later described as 'now all covered with lanes and factories' (Groome 1885 p485).

The most important development was the cutting through of Waterloo Road and the construction of Regent Bridge and Regent Road (completed 1819) to continue the line and level of Princes Street to the hill and then to sweep around the south flank, effectively eliminating the deep chasm between the city and hill and delivering people to the hill already half-way up. Visually it also reduced the effective height of the hill by creating new viewpoints from which only the upper part of the hill was evident. Planting of the south slope of the hill, above the Regent Road retaining wall, appears to have been undertaken on completion of the road and is shown clearly on Ordnance Survey maps from 1852.

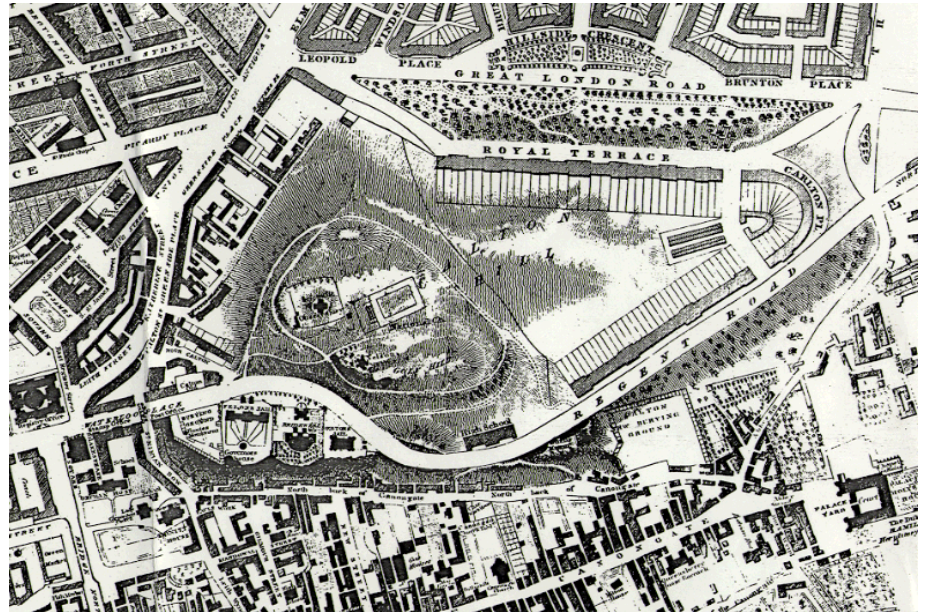
2.05 Landscape

The potential of the hill to be a picturesque site within the town and a vantage point developed with the improved accessibility provided by the new road, the new wider paths onto and around the hill, the construction of the City Observatory, and the Nelson Monument (1807-16) which provided a focus for the view along Princes Street and enticed people onto the hill.

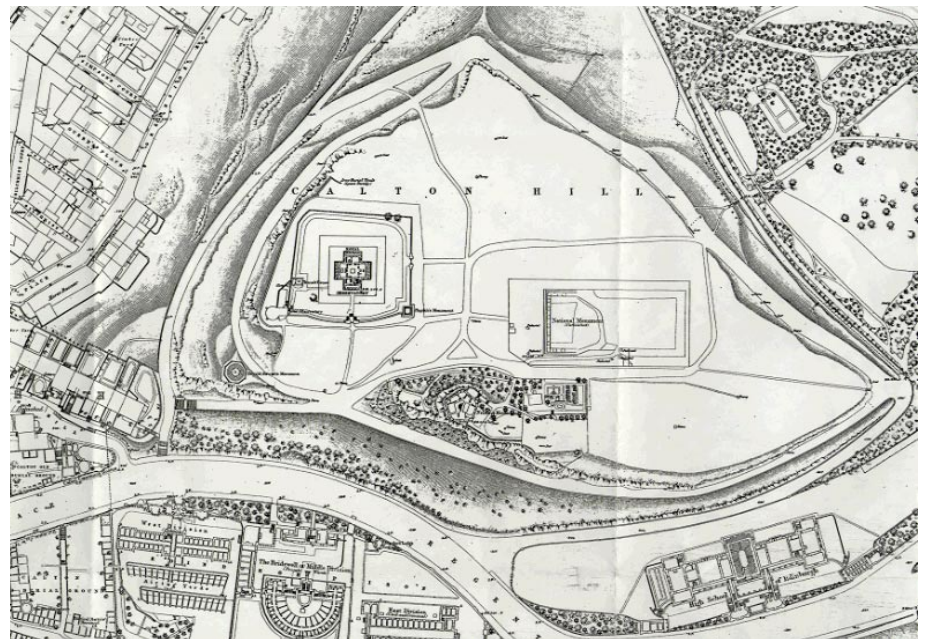
Elsewhere on the hill the Felons Jail and Debtors Jail were built either side of the Bridewell and the New Calton burying ground was developed on the lower east slope of the hill to accommodate the graves displaced by the road building.

Third New Town, c.1820 to 1880s

Shown on several maps and development plans including Kirkwood (1817, 1819), Wood (1823), Kay (1836), Lancefield (1851) and 1st edition Ordnance Survey (1852).



John Wood 1823



1st edition OS 1:1250 1852

2.05 Landscape

A competition for the design of the 'third New Town' mainly on Heriot's Hospital and Trinity Hospital land between the wester and easter roads to Leith, including the publicly owned part of Calton hill, was held in 1812 but there was considerable delay in the development process. William Henry Playfair was eventually appointed in 1818 'to prepare a plan suited to the varied and picturesque state of the ground', reflecting William Stark's observations on the original competition entries and the changed design priorities since the planning of the first New Town. Plans were produced in 1818 and 1819 and elevations for the Royal Terrace, Carlton Terrace, Regent Terrace and Hillside Crescent were prepared in the early 1820s. The majority of the houses in Regent Terrace and Carlton Terrace were completed and occupied by the end of the 1830s, although the majority of the houses in Royal Terrace were not completed until the 1850s and 1860s because of competition from new developments in the west end of town. The V-shaped area of development formed by Royal Terrace, Carlton Terrace, and Regent Terrace enclosed a substantial area of private pleasure gardens, the largest such in the city, other than Dean Gardens, and faced onto two other substantial linear green spaces along Regent Road and London Road. Although conceived as a single complementary development, Playfair's designs for Regent Terrace and Royal Terrace could not be more different, even though both are of immense scale and command superb views. The first is understated, loosely composed row of two storey houses, with sections of three storeys, stepping along the slope with shallowly projecting doorways incorporating Doric half-columns, all avoiding competition with the dramatic mountain landscape of Arthur's Seat and Holyrood Palace which it faces. Royal Terrace, in contrast, is 1200 feet long and built on an unprecedented palatial scale, the longest elevation in Edinburgh, with three storey central sections, organised around three colonnaded units of the Corinthian order, and two storey wings. The terrace occupies an elevated and commanding position addressing the rest of the planned eastern extension area.

The gardens were laid out progressively with the Regent Terrace garden being planted and enclosed by railings c.1830. In the same year the wall enclosing Regent Gardens was completed and laying out and planting the gardens followed in accordance with plans prepared by Playfair. The design exploited the external views to the public part of the hill, south to Arthur's Seat and north to the Firth of Forth and Fife coast. The London Road gardens had a more fraught history which included the reclamation of the old quarry and new quarrying to offset the cost of laying out the gardens. It remained the property of Heriot's Hospital for most of the century, and was let to a succession of tenants who were permitted to use part of the space for nurseries and were responsible for the upkeep of the public grounds. The cottage or 'Royal Terrace Gardens House' was built for them to the design of Alexander Black in 1837. Railings along the upper boundary of the gardens were not added until 1860 and it was 1891 before matching railings were added alongside London Road at the Council's request. Shortly afterwards the gardens were transferred to the city council on a leased basis which has continued ever since.

Regent Gardens forms a wooded continuation of the ridge in views from the east

2.05 Landscape

of the hill while the wooded roadside gardens are major urban form elements which define the 'planned' area of the hill and contribute greatly to its character. The mature trees limit views from the terraces and substantially reduce the presence of these massive built elements in the local area, such as in views of Regent Terrace from Holyrood Park.

During the later 19th century tenemented homes for Victorian working classes were built in the area north of Hillside Crescent rather than the grand houses for the professional classes originally envisaged by Playfair. This development now dominates the view from the hill to the north.

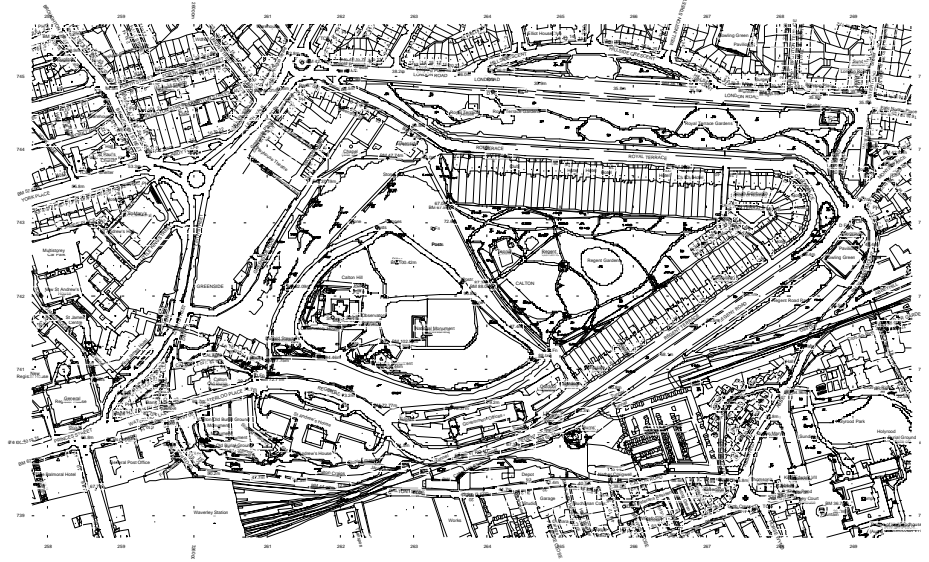
The major change on the south side of the hill in the late 1840s was the building of the railway and Waverley Station involving clearance of the old streets and houses, demolition of the Trinity church, a new North Bridge and tunnelling through the cliff east of Craigend which brought extensive areas of tracks and noise, smoke and dirt into the outlook from Regent Road and the hill.

The period saw the building of the last of the monuments on the hill with the National Monument, an unfinished Parthenon of twelve columns and their architrave (1826), the Dugald Stewart Monument (1836) and, south of Regent Road, the Burn's Monument (1830). The largest and finest of the hill's Greek Revival buildings, the Royal High School by Thomas Hamilton, was also constructed. Later minor additions included the City Dome (1895) and Portuguese cannon (1887, some other cannons later removed).

Within the wider city the scene was changing also with the construction of many of the monuments in the New Town area which we now associate with the view from the hill including the Scott Monument, St Anne's Cathedral and the North British (Balmoral) Hotel.

20th Century Development

Shown on 2nd edition Ordnance Survey and 20th century maps.



OS Map1998

By the end of the 19th century, the city had developed on and around the hill to create the complex interaction of natural landform, primary routes, major urban forms, wooded gardens, and local circulation of streets, drives and paths which are experienced today. The only major change on the hill in the 20thC has been the replacement of the prisons by St Andrew's House (1930s), to a design which integrates well with the scale and landform of the hill in principal views and retains some of the castle-like sub-structure which supports the building on the cliff-face above the railway. The St James Centre, built close to the hill dwarfs other developments and its bridge, which leads to Calton Hill is universally condemned as an eyesore.

In the wider city, development has continued to fill the area between the Forth and the other city hills, predominantly of low rise building, punctuated by high rise flats in Leith. Over the urban fabric the distant features of the major hills at Corstorphine and Blackford/Braids and associated landform continue to define the visual limits of the city as seen from the hill.



Hilltop monuments



Vista up Rock Path



Classic view to Princes Street

The Hill and its Setting

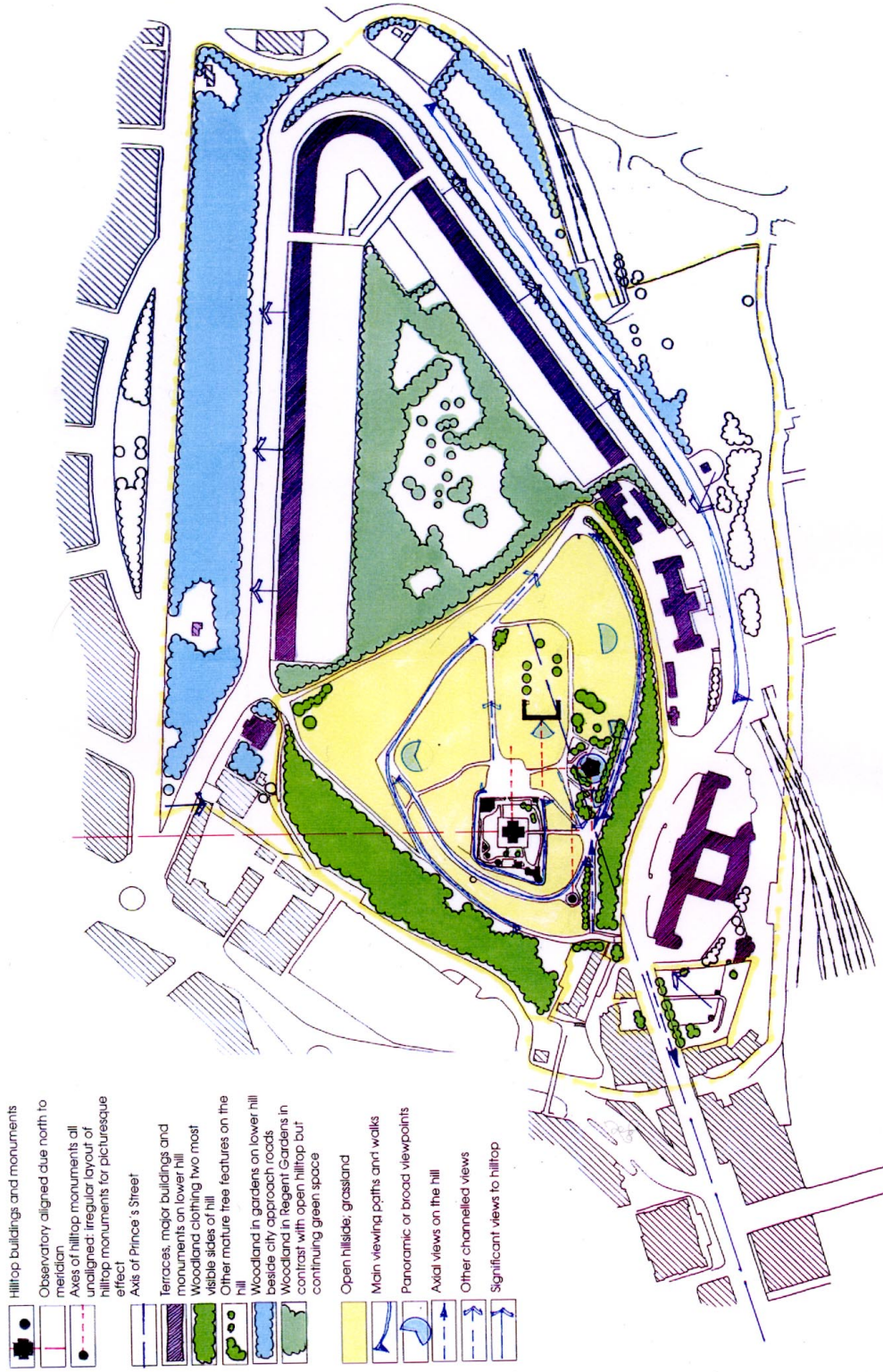
Relationships on the Hilltop

The various monuments on the hilltop were each located in the most appropriate position on the irregularly shaped hilltop commencing with the first Observatory and Old Observatory House which was intended to give the appearance of a hilltop fortification. The later City Observatory was built with its cruciform plan aligned to the points of the compass and the Playfair Monument was constructed as the cornerstone of the observatory compound. The Nelson Monument was built on the craggy point above the former quarry, positioned on the highest point on the hill for visibility and to terminate the view from Princes Street. The National Monument followed on more open ground to the north-east, also within the view channel from Princes Street and aligned parallel with the east face of the City Observatory but sufficiently distant to avoid interference with astronomical observations. The Dugald Stewart Monument was sited on a lower projecting rocky knoll presiding over the New Town but still visible from all the other monuments; generally seen with a background of the city, and, when viewed from the surrounding city, silhouetted against blue sky.

Each monument is positioned asymmetrically between the axial lines of any other pair and despite the varied scale and form of the monuments and their siting on naturally occurring features, apparently with only minor modification, a very subtle composition of constantly changing relationships has ensued; all the monuments are intervisible and can form the foreground for viewing the others. .

The view of the Nelson Monument and National Monument from Princes Street is remarkable given the limited space available on the hilltop (see next section). The only axial views are of Nelson's Monument looking up the steps of Rock Path and of Dugald Stewart Monument from the western straight of Regent Walk. From elsewhere, the irregular positioning of the monuments creates a variety of views, setting the monuments in a dynamic composition. The siting of the Nelson Monument and Dugald Stewart Monument gives them individually the most picturesque setting, particularly against the background of Arthur's Seat and the city respectively.

The Hilltop



2.05 Landscape



Hill from Burying Ground (south)



Wooded hillside from Regent Road



Planned view from Regent Gardens

Views from and to the Hill

In organising this assessment of visual relationship at four scales the distant views from the hill are considered under the subsequent headings, with views within the greater Calton Hill area only considered here. The viewing positions, however, are relevant to each scale and so are listed first here. It is an inevitable fact that from such an elevated viewpoint that stands above the height of adjoining buildings, everything around is visible from the top of the Nelson Monument and from ground level on some parts of the hill, views being restricted only by local landform, trees and other vegetation and the buildings themselves. The main viewing opportunities are as follows:

Viewing walks and paths

- Calton Hill Drive, mid section (C1) south-east view
- Calton Hill Drive, upper section (C1) east view
- Main Walk (C2) north, east and west views
- Upper Rock path and environs (C3) west views
- Regent Walk (C4) south views
- Dugald Stewart Monument path (C8) west and north-west views
- Observatory path (C10) north, east, south and west views

View points

- Nelson's Monument: complete panorama
- National Monument: west views
- Point west of Nelson's Monument: south and west view
- Point east of Nelson's Monument: south and south-east view
- Point on ridge east of Nelson's Monument: southerly views
- Trig point ridge end / Main Walk north apex: views from north-west to north-east

Views on the Lower Hill

- Regent Road/Regent Bridge: west vista to Princes Street, east view to hill
- Old Calton Burying Ground: north-east view to hill
- Top of Jacob's Ladder: west views
- Regent Road (especially westbound): southerly views, north-west to hill
- Regent Terrace: south views
- Royal Terrace: north views

2.05 Landscape

Views from the public area of the hill to the other parts are limited, the most important inter-relationship being between the hill and Regent Gardens. Otherwise the steep hillsides and the form of the Regent/Royal Terraces limits the views possible. Similarly, these features, together with the associated Regent Road and London Road wooded gardens, prevent views of the hill. For example, approaching the New Town along Regent Road the hilltop does not become visible until the Burns' Monument (eg. Hamilton/Clerk print). The axial view from Regent Bridge and Waterloo Place is among the most significant, used by several artists (eg. Shepherd/Tombleson print), as is the often photographed view from the Old Calton grave-yard. From Greenside Place the west side of the hill and the Observatory dominate the view in the absence of buildings. Views of the hilltop monuments are generally best from outwith the hill area.

Views from Regent Gardens to the public area of the hill have been deliberately planned, most notably by the raised walk beside the boundary wall, but also from other paths within the garden to the south.

2.05 Landscape

Old Town, New Town and Holyrood Park

Within this extent lies a myriad of viewpoints of Calton Hill including all the classic ones used most often by artists during the 18th and 19th centuries. The Old Town and Holyrood Park each have a wide variety of views from their northern sides, but the New Town, despite the single most significant view or vista along the axis of Princes Street, only has a few not particularly notable views from its east extremities. A summary of the best views and examples of pictorial representations are as follows:

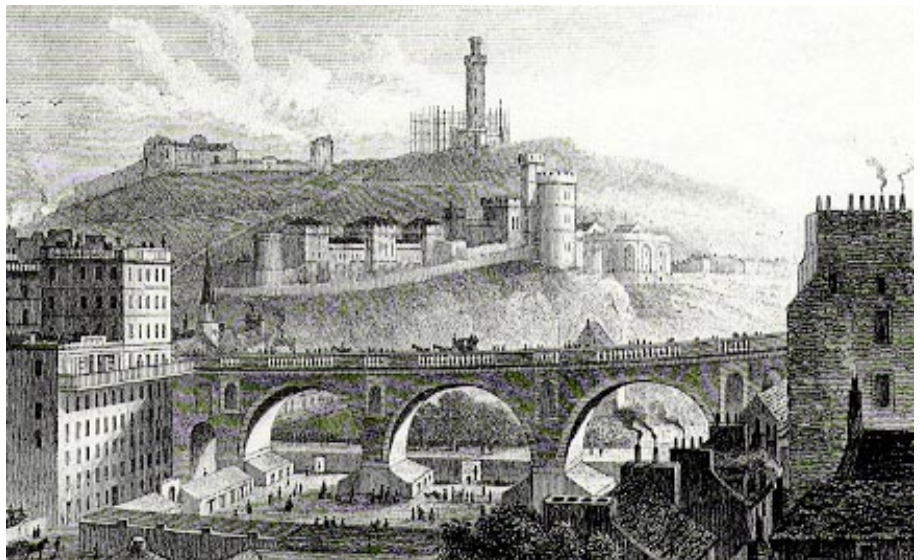
Old Town Views

- North Bridge: the south side of wider hill and all its buildings and monuments (D O Hill)



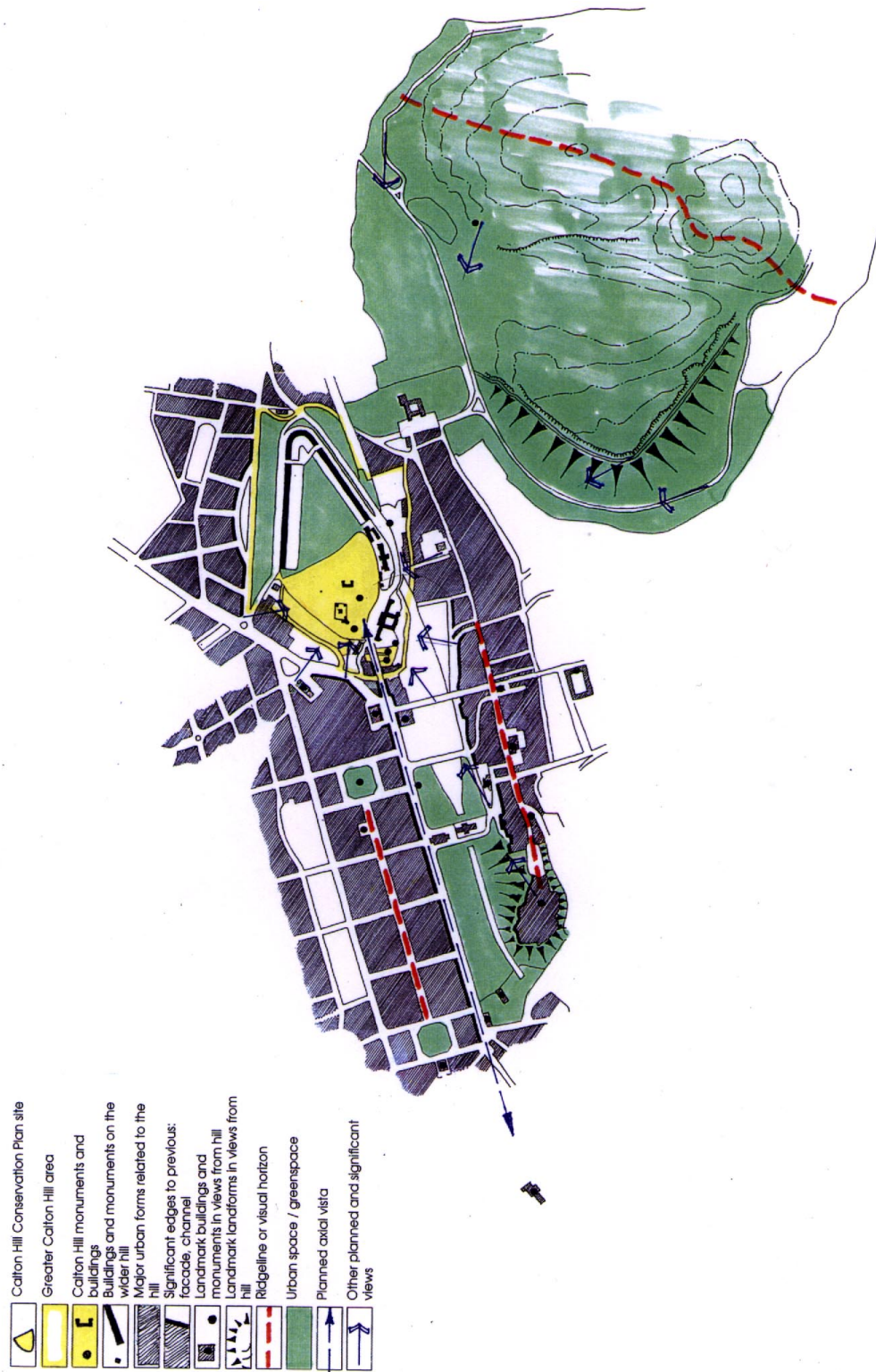
View from North Bridge

- Upper Mound, Royal Bank of Scotland: similar, more distant views ('North Bridge, Calton Hill & c from the Bank of Scotland' Shepherd/Lacy etching)



View from Bank of Scotland c.1828

Old Town, New Town and Holyrood Park



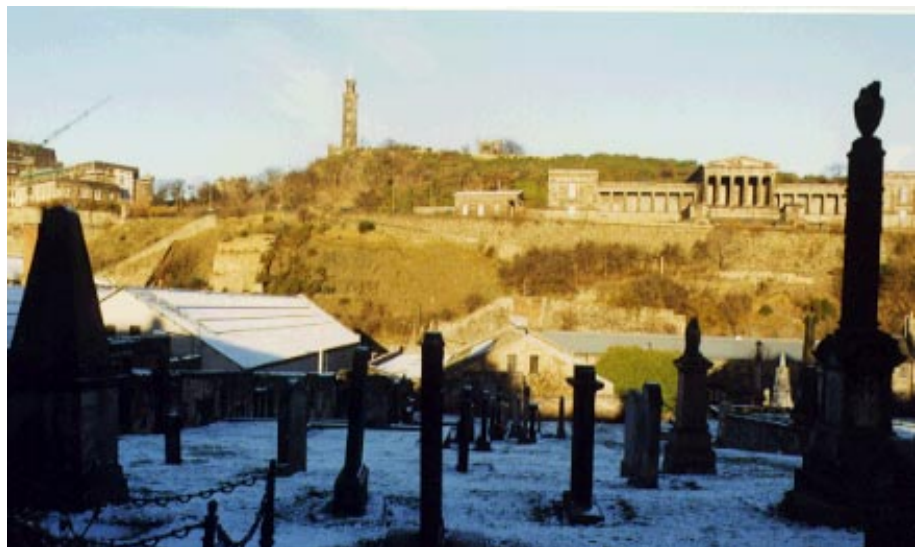
2.05 Landscape

- Edinburgh Castle: similar again, but now restricted by Ramsay Gardens etc and no view from the Esplanade (Paul Sandby c.1750; D O Hill paintings; Crawford/Havell lithograph, 1828)



View from Castle, Sandby

- Market Street/Jeffrey Street: elevational view of south side of hill
- Old Tolbooth wynd, garden etc: restricted views including National Monument and Nelson's Monument.
- Canongate kirk-yard: close view with Craigend crags and the former Royal High School dominant.



Hill from Canongate kirk-yard

2.05 Landscape

Holyrood Park Views

- Radical Road, Salisbury Crags: hill and all its features seen over Canongate with Forth behind (National Monument proposals prints eg. Kemp/Nichol lithograph; also etched version)



Hill from Radical Road

- Queen's Drive, below Salisbury Crags: hill and upper features
- Arthur's Seat summit: whole hill from elevated position ('Edinburgh from Arthur's Seat' H W Williams, c.1820, painting)



Edinburgh from Arthur's Seat, Williams

2.05 Landscape

- St Anthony's Chapel/Well: whole hill including Regent Terrace, together with Old Town and Castle (John Slezer c.1690; John Clerk of Eldin c.1780; 'Review by Queen Victoria, Holyrood Park, 1881' Brown/McLagan & Cumming: Anon. view with National Monument and Regent Terrace proposals, c.1828)



Hill from St Anthony's Chapel



View from St Anthony's Chapel

2.05 Landscape

New Town Views

- Princes Street: a long vista terminated by the National Monument and Nelson's Monument; neither monument is aligned on the central axis of the street, but they are subtly set so that from about the central section of the street near the RSA, from the north side of the street the Nelson Monument appears positioned in the middle of the vista and from the south side of the street the National Monument appears in the middle ('Building of the Royal Institution' A Nasmyth; '... Intended Nelson Monument' as designed by A Nasmyth, Nasmyth/Scott; 'Waterloo Place etc' Shepherd/Barber)



View from Princes Street, north side



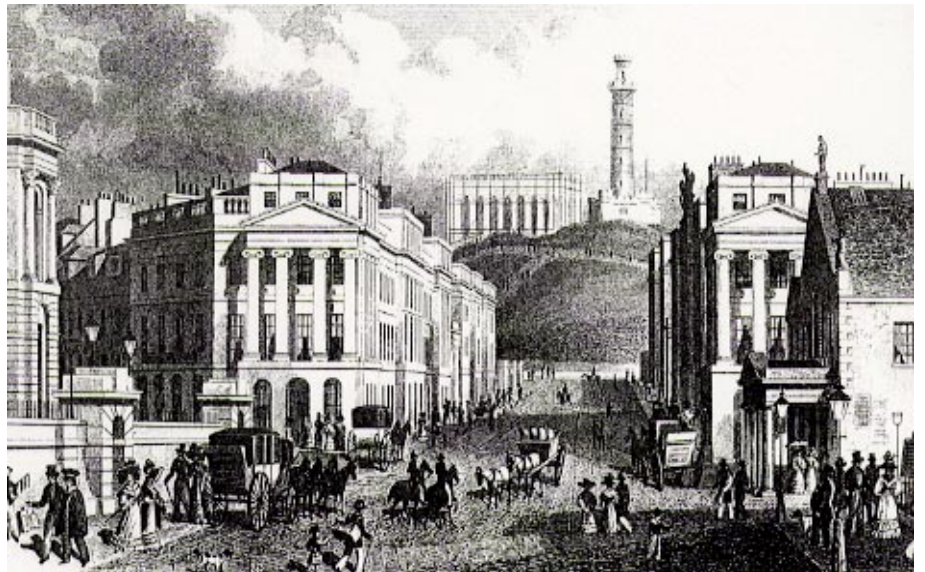
View from Princes Street, south side

2.05 Landscape

'Royal Institution' view, Nasmyth



Waterloo Place view, Shepherd



2.05 Landscape

- St Mary's Cathedral, Leith Street, Picardy Place, St James's Centre: an open view of north-west hillside (over the Greenside Place vacant site) with the Observatory and Dugald Stewart Monument prominent



View from St James Centre

- Broughton Street: restricted views from top and bottom ends with Dugald Stewart Monument prominent
- London Road, west end: as before but the tops of all the monuments, except National Monument, are visible.
- Leith Walk/London Road corner: view of north ridge of hill over single storey Playfair terrace west of Greenside church, designed to preserve this view



North Ridge from Leith Walk

2.05 Landscape

Views from the Hill

As already noted, the views of Arthur's Seat, the Castle and Old Town, Princes Street and, to a lesser extent, the New Town are outstanding from the hill, seen from the panoramic viewpoints, circuit walks and vistas previously listed. The number of paintings, drawings and prints of these views are literally innumerable. The views from the hill, which invariably include parts of the hill or its monuments as foreground, combined with the views of the hill must make Calton Hill the most frequently depicted subject in painting and prints in the city. The abundance of views allows the history of the development on the hill and in the town to be seen from here. As new development occurred, and as individually prominent new buildings and monuments appeared different viewpoints and different views became popular.

A summary of the most significant views and artists includes:

- Panoramas over the whole Old Town, New Town and Arthur's Seat viewed from Old Observatory House or the Nelson Monument (Robert Barker, 1787, from Old Observatory House; James Gordon, snr & jnr, c.1840, from the Nelson Monument)



Arthur's Seat from the Nelson Monument

2.05 Landscape

- Old Town and Arthur's Seat seen from the hilltop ('Prospect of Edinburgh from the North' John Slezer c.1700; Queen Anne View c.1710, based on Slezer)



Edinburgh from the North, Slezer

- Regent Road, Waterloo Place, Princes Street, Old Town, seen from the east or west side of Nelson's Monument ('Edinburgh from Calton Hill' J M W Turner water-colour, 1818; 'Entry of George IV into Edinburgh' J W Ewbank, 1822; 'Edinburgh from Calton Hill' David Octavius Hill; many others)



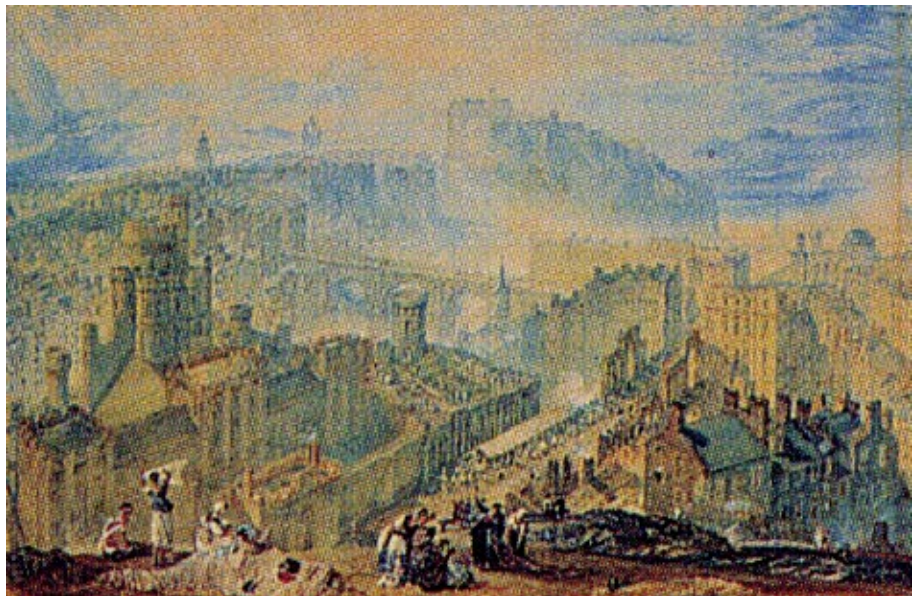
Princes Street from the Nelson Monument

2.05 Landscape

'George IV entry' view, Ewbank



View from Calton Hill, Turner



2.05 Landscape

- Castle, Old Town, North Bridge seen from top of Jacob's Ladder; similar composition to previous with the prison bastions replacing Nelson's Monument in the foreground; view destroyed by demolition of Trinity College church and Low Calton by railway company (Samuel Swarbreck coloured lithograph 1837)



View west from Jacob's Ladder

- Waterloo Place, Princes Street, Old Town, New Town seen with Dugald Stewart Monument in foreground (Samuel Swarbreck coloured lithograph 1837; Greenwood/Groom lithograph, c.1851)



Stewart Monument view, Swarbreck

2.05 Landscape

- The former Royal High School and the Nelson Monument, viewed with Burns Monument in foreground or not (Hamilton/Clerk etching (before Burns Mon.), 1825; Thomas Hamilton painting c.1840)

2.05 Landscape

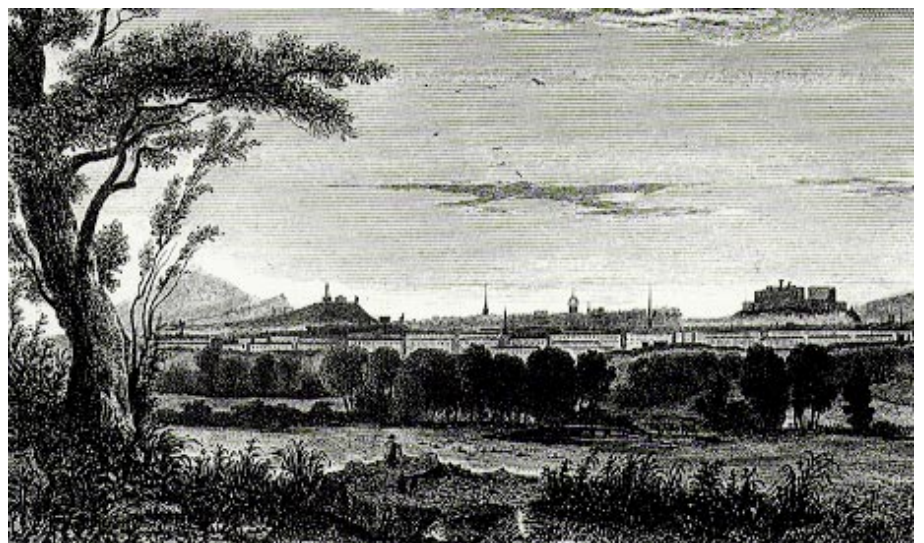
Whole city, 'seven hills' and Leith

In the wider city, distance reduces the impact of built features unless especially large like the flats in Leith or the Granton gasometers seen across the extensive northern suburbs. The outer of the seven hills of Edinburgh, Corstorphine, Craiglockhart, Braid and Blackford, are the most prominent topographic features and form the skyline and apparent city limit for much of the south-west and west.



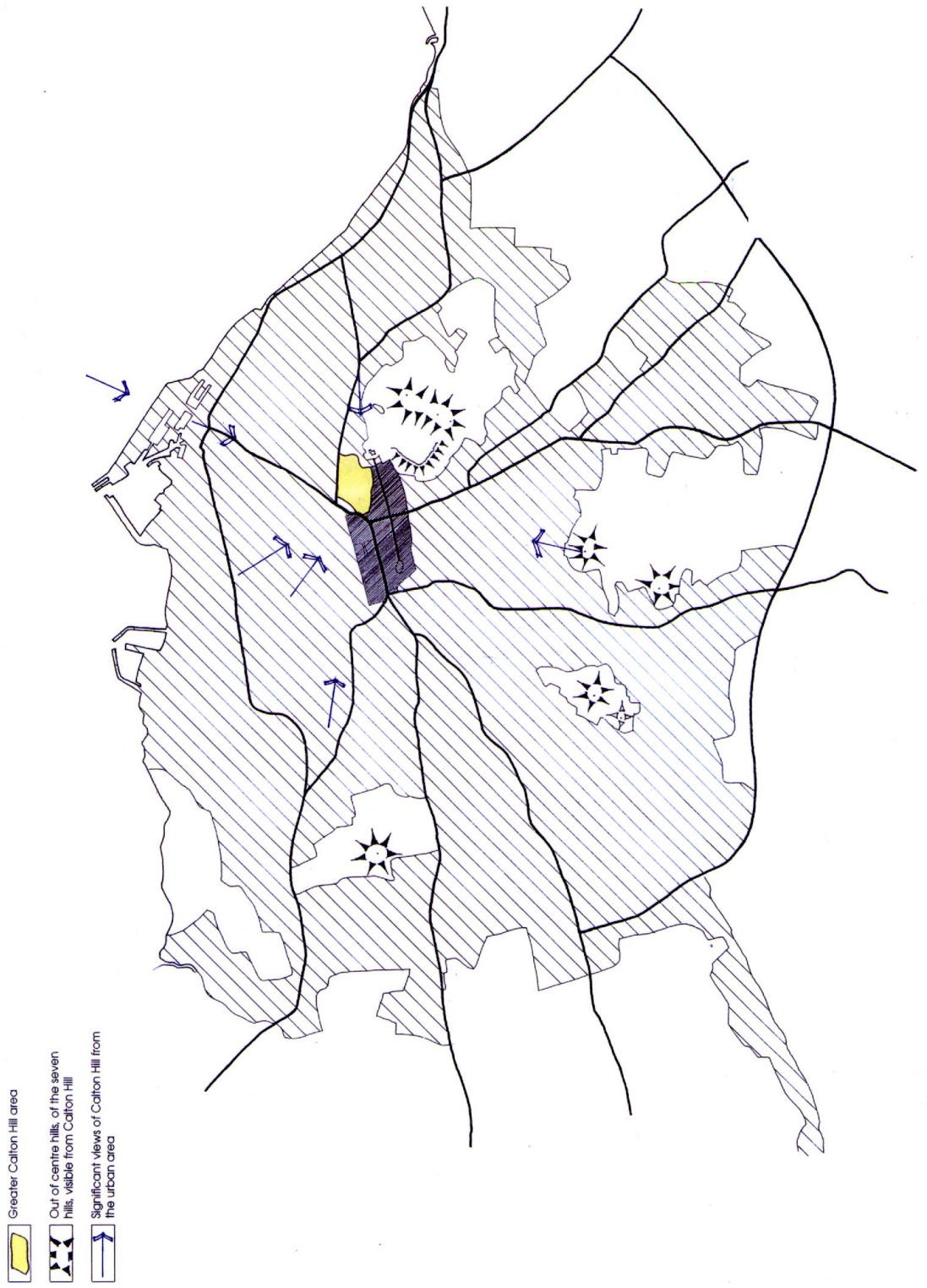
View to North, Stewart

At this scale the views to the hill have changed significantly since the 19th century with the expansion of development beyond the new town areas and the Victorian southern suburbs. The best 19th century viewpoints were where the profile of the city centre landmarks, Castle hill, High Street, Calton Hill and Arthur's Seat, could be seen in line, from the north or south. Where open space remains in the flatter north of the city, these views still exist, as well as from the hills in the south. As photographs show, post-war development such as the St James' Centre has had a detrimental effect on the views that remain.



Edinburgh from North, Ewbank

Whole city, seven hills and Leith



2.05 Landscape

- Broughton: view from north end of Broughton Street of west side of hill with Dugald Stewart Monument and view from top as previously noted; other views from the vicinity are prevented by buildings, though possible in early 19th century ('A View of Edinburgh from Canonmills' John Knox c.1825)



Edinburgh from Canonmills, Knox

- Warriston: view from Ferry Road across Heriot's sports pitches or from Warriston Cemetery ('Edinburgh from the North' Ewbank/Lizars etching, c.1830; 'Edinburgh from the new cemetery' coloured lithograph from a drawing by Daniel Wilson c.1843)



Edinburgh from Warriston cemetery, Wilson

2.05 Landscape

- Craigleith: view of city and hills from beside Sainsbury's car park, formerly from the edge of Craigleith quarry ('Edinburgh from Craigleith Quarry' John Bell, painting, c.1850; same subject, coloured lithograph, William Leighton Leitch c.1854)



View from Craigleith



Edinburgh from Craigleith Quarry, Leitch

2.05 Landscape

- London Road (Meadowbank) / Restalrig: view of city over Holyrood Park with Calton Hill in the near distance on right ('The Prospect of Edenborrow from Listerreck' (ie. Restalrig) and 'The Prospect of Edinborrow Coming from Musselborrow' John Slezer drawings, c.1690; 'View of Edinburgh' William Delacour, 1759)



View from Restalrig, Slezer

- Leith: views from ships to the telegraph mast and later to the Nelson's Monument time-ball were necessary for setting chronometers used for sea-going time keeping for longitude navigation; views from the town and Leith Links were once good, but are now obscured by development, except for a fine vista from the dock gates along Constitution Street ('The Prospect of Edinborrow and Lieth from the links of Lieth' John Slezer, c.1690)



View from near Leith Dock gates

2.05 Landscape

- Leith Roads, views from sea, similar silhouette view as from Leith or the north of the city ('The Port of Leith' Paul Jean Clays)



Port of Leith, Clays

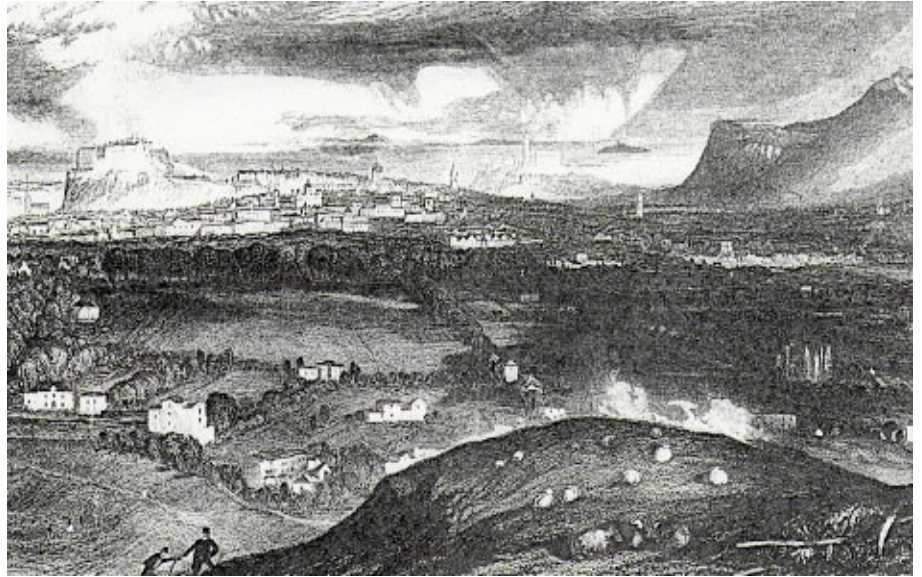
- Royal Botanic Garden, Inverleith House lawn: classic view of city from the north with Calton Hill on left (frequently photographed)



View from Royal Botanic Garden

2.05 Landscape

- Blackford and Braid Hills; outstanding views of the city from the top and north slopes with Calton Hill positioned between Castle hill and Arthur's Seat ('Edinburgh from the South' (from Blackford hill) J M W Turner c.1831).



View from Blackford Hill, Turner

Firth of Forth and Distant Hills

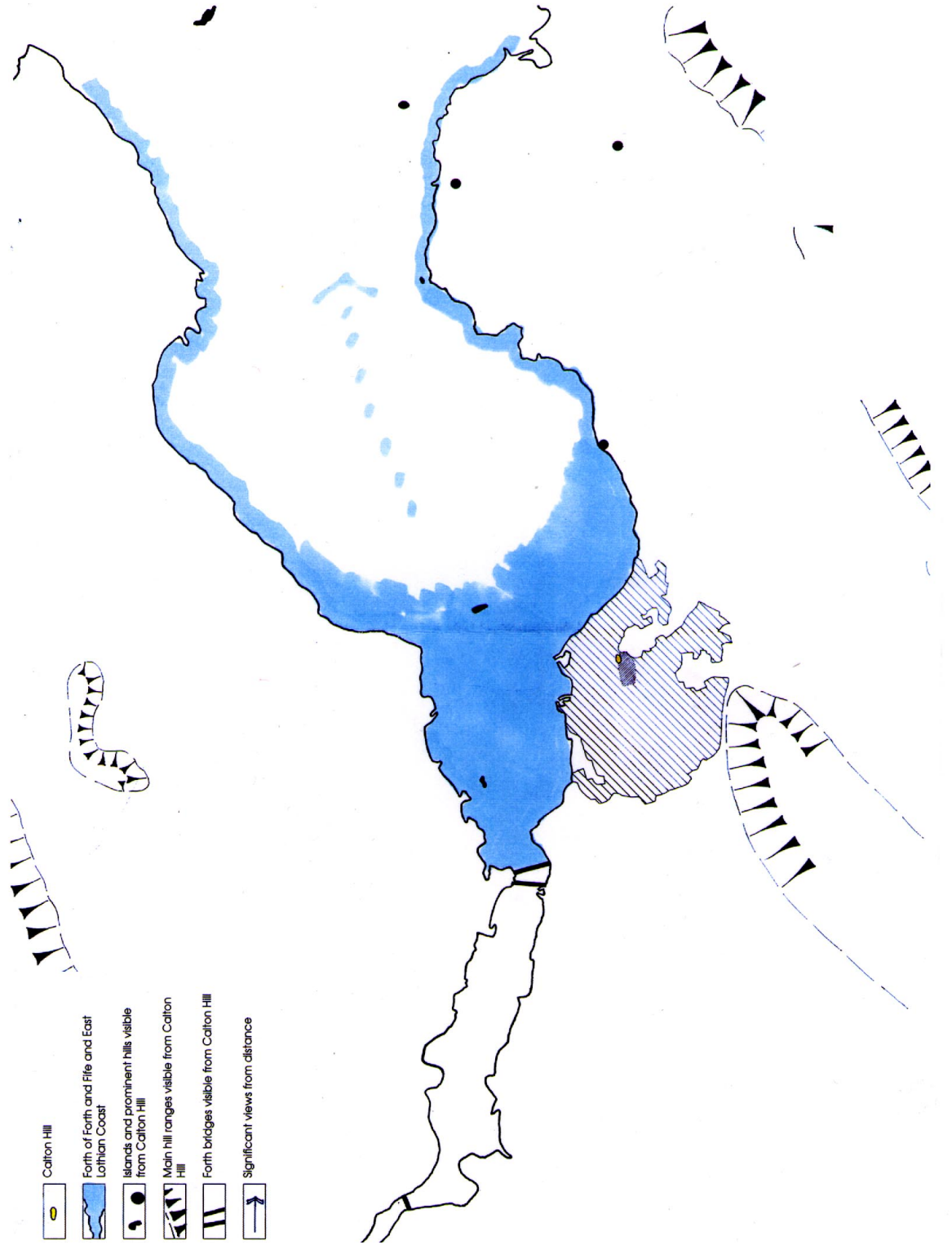
Views to the hill at this distance are not significant except for views from the Fife coast from southerly oriented locations such as Burntisland/Pettycur Bay which have a similar but more distant view to that from the north city and Leith. The Nelson Monument is visible from ships in the Firth of Forth.

Distant views from the hill are dominated by the Firth of Forth and the coastlines of Fife and East Lothian. Distant hills form the horizon beyond. A list of topographic features which can be seen from Calton Hill includes:

- Inchcolm and Inchkeith islands
- Portobello, Cockenzie power station, coast to Gullane
- North Berwick Law, Bass Rock and Traprain Law
- Lammermuir hills
- Moorfoot hills
- Pentland hills
- Forth bridges
- Ben Lomond, Ben Ledi
- The Ochils
- Lomond hills.

These features seen together with the features of the immediate setting of the hill and the wider city create a panorama of outstanding interest and variety which defies description in terms of beauty, picturesqueness or sublimity, but can be any of these depending on the effects of the weather and light. The quality of 360 degree views is best attested by the fact that the first known panorama was drawn here, from the roof of Old Observatory House, by Robert Barker in 1787.

Forth catchment and distant hills



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2.05 Landscape

Maps

1647	James Gordon of Rothiemay
1742	William Edgar
1759	Richard Cooper
1765	William Edgar
1773	Armstrong
1775	Armstrong
1780	John Ainslie
1784	Alexander Kincaid
1793	Thomas Brown and James Watson
1817	Robert Kirkwood (An Ancient Plan of the City of Edinburgh)
1817	Robert Kirkwood (with later additions)
1819	Robert Kirkwood (Plan and Elevation of the New Town of Edinburgh)
1819	Plan and Layout of the Streets East of Calton Hill (proposed)
1823	John Wood
1836	James Kay
1837	W & A K Johnston
1851	Lancefield (pub. Johnston)
1852	Ordnance Survey 1:1250
1877	Ordnance Survey 1:1250
1896	Ordnance Survey 1:2500
1908	Ordnance Survey 1:2500
1914	Ordnance Survey 1:2500
1931	Ordnance Survey 1:2500

2.06 Weather

Weather and Calton Hill

Edinburgh has “one of the vilest climates under heaven. She is liable to be beaten upon by all the winds that blow, to be drenched with rain, to be buried in cold sea fogs out of the east, and powdered with snow as it comes flying southward from the Highland hills, shifty and ungenial in summer, and a downright necrological purgatory in the spring.” (Robert Louis Stevenson, quoted in Massie 1994)

Elsewhere, in more temperate language, Stevenson showed some appreciation of the effects of local weather on the hill: “It is the place to stroll on one of those days of sunshine and east wind which are so common in our more than temperate summer. The breeze comes off the sea, with a little of the freshness, and that touch of chill, peculiar to the quarter, which is delightful to certain very ruddy organisations and greatly the reverse to the majority of mankind. It brings with it a faint, floating haze, a cunning decolouriser, although not thick enough to obscure outlines close at hand. But the haze lies more thickly to the windward at the far end of Musselburgh Bay; and over the Links of Aberlady and Berwick Law and the hump of Bass Rock it assumes the aspect of a bank of thin sea fog”. (‘Edinburgh, Picturesque Notes’ Robert Louis Stevenson, reprinted 1993)

There is little to add to these assessments of Edinburgh’s climate, except to say that the sun often shines and that being located on the east side of the country it is relatively dry. The basic meteorological data for Edinburgh was given in the Cairns report (1997). The exposure of the hilltop means that it is a fine location for experiencing the weather, good or bad, at its most extreme. At present no shelter is provided, other than by avoiding the wind in the lee of the Observatory compound wall, although due to the proximity of the hill to the facilities of the city it is debatable whether this is a problem.

Several writers who describe the hill or their visit to it comment on the weather and it has to be accepted that the prevailing conditions, fair or foul, can add to the experience of the hill.

2.07 Archaeology

2.07 Archaeology

Introduction

Following a review of the publicly accessible archaeological and historical archives, only 28 possible archaeological monuments or monuments with an archaeological component have been identified. Of these, only two can be characterised as being purely archaeological in nature. The rest consist of historically known structures or events that may have left some trace within the study area. From the list of identified monuments, it is clear that many have their origins in recent centuries. These have an archaeological value that may not be immediately apparent and they have an inherent value that accrues from the information that they may retain; it is important to recognise that even well documented sites are seldom fully 'known' in an historical sense. Such sites also have an archaeological potential that accrues from their potential to replace, overly, mask or destroy earlier archaeological features.

The archaeological significance of the two sites that have solely an archaeological dimension is difficult to quantify. The nature of one site, the possible prehistoric fort (A012) is unproven and even the location of the second the Bronze Age Collared Urn (A011) is now lost. Site A012 is interpreted as a prehistoric defended site or a surviving fragment of such a site. The evidence in support of this opinion would not stand up to robust scepticism and requires verification through further fieldwork, but even without that verification exercise, the scant evidence nonetheless imbues this study area with a sensitivity to ground disturbance. Site A011, the Bronze Age Collared Urn, the lost site of a possible Bronze Age burial or ritual monument, has no inherent archaeological significance, but re-affirms that same sensitivity to the study area. This should be manifested in the need for archaeological involvement and supervision in any project that results in breaking of the ground surface. Two current activities can be almost guaranteed to impact upon this archaeological potential. The first and most obvious impact derives from the current use of the Telegraph Knoll (the topographic centre of Site A012) as the site for massive public bonfires at Christmas and spring (Beltane). The second impact will occur primarily in all those areas that were not examined in the walkover survey but is also generally applicable throughout the study area. The Council's programme of management of the hill will at some stage instigate ground disturbance and the potential for discovering and/or disturbing new archaeological information must be considerable.

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List of Identified Monuments

- A001 Carmelite Friary
- A002 Lancasterian School
- A003 Meeting Places
- A004 Old Observatory House
- A005 Collegiate Church of the Holy Trinity (otherwise known as Trinity Chapel)
- A006 Maria Short's Popular Observatory
- A007 Robert Forrest's sheds
- A008 The National Monument
- A009 Places of execution
- A010 Herman Lyon's mausoleum
- A011 Possible Bronze Age Collared Urn
- A012 Possible prehistoric hill fort
- A013 Regent Road main pedestrian entrance
- A014 Eighteenth & Nineteenth century dwellings and gardens to east of the Nelson Monument
- A015 Tunnels
- A016 Wells, public drinking fountains and water supplies
- A017 Public pavilions
- A018 Artillery pieces
- A019 St.Ninians Chapel
- A020 Re-used masonry
- A021 Site of Greenside Row latrine
- A022 Recess in Greenside Row revetment wall
- A023 Blocked arch in Greenside Row revetment wall
- A024 Remains of Nottingham Terrace
- A025 A lost building on Calton Hill
- A026 The City Observatory
- A027 Craig's Observatory (The Octagonal Observatory)
- A028 The Bridewell

Interpretation

Two possible prehistoric features or monuments have been identified: (A011) the Bronze Age Collared Urn and (A012), the possible hill fort. Neither is confirmed and only A012 has been located. All that survives of site A011 is a description of a pot which was identified at the time of its discovery as Roman (Grant 1882a, 10). Unfortunately, the place of its discovery was destroyed (whether wholly or partly has not been established) during engineering works in, it is alleged, 1817. The identification of it as a 'Roman urn' is probably not correct. To judge from Grant's description, in fact the only published description, the pot was most likely to have been a Bronze Age Collared Urn. Unfortunately, this re-interpretation cannot be confirmed and despite an exhaustive search of the records of the Society of Antiquaries and the National Museums of Scotland, no other record of the pot has been traced. During the expansion of domestic housing and services in Edinburgh in the early nineteenth century, numerous other discoveries of archaeological finds were made (see below).

From these near contemporary finds, and from reports of similar more recent discoveries (see Smith 1995), it is possible to reconstruct something of the circumstances of the Calton Hill discovery. The pot appears to have been complete and therefore it is probable that it was buried below the zone of penetration of roots, burrowing animals and the plough (or similar mechanical disturbance). Normally such pots would be found within pits or stone built cists, they often contain the cremated remains of one or more humans or can accompany an unburnt burial. Less commonly they occur in groups of burials. As is shown from the near contemporary discoveries, such features were recognisable to many workmen or their foremen in Edinburgh. It therefore this seems unlikely that the Calton Hill urn shared any of these traits but just how far from the normal circumstance of disposal of such pots is very difficult to guess.

The accidental discovery and reporting of archaeological finds from nineteenth century building or quarrying was probably not predictable at the time and in fact do not represent a single process. Reporting would not have been consistent and certainly not universal. In favour of both would have been attitudes to the non-Christian dead in the early nineteenth century and it is probable that a many disturbed prehistoric burials would have been faithfully reported (not least it there was the chance of an immediate reward). Even if such a respect for the dead did not exist Edinburgh at the time boasted a large population of literate and interested people; many would have been members of the Society of Antiquaries of Scotland and were well able to afford payment for information. The probability that a chance find would go unrecorded must, in these circumstances, be remote. Therefore what we know of the Calton Hill pot is largely all that was observed. It probably did not form one component of a burial group and unless its finders overlooked burnt human bone (which often is found such urns) it did not form the grave-goods for a burial. If this line of speculation is correct, then the pot may have been buried as part of some ritual practice and was the sole relic that the

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road engineers managed to notice. As discussed below, it would not be inappropriate for such a prominent landscape feature to be so adorned and for that feature to accumulate other ritual deposits and it this potential which gives the discovery its modern-day significance.

The possibility of there being prehistoric defences on Calton Hill was first raised by Peter Yeoman, joint director of the excavations within Edinburgh Castle, in a public lecture in 1992. He had observed some slight topographic features partially enclosing the small knoll upon which there is now the Triangulation Point and which in the past was referred to as Telegraph Knoll. As a result of Yeoman's speculation, this area of the hill was deliberately searched for further evidence and some possible archaeological features were identified on aerial photographs. The knoll rises to a height of 100.42 M OD and is the third highest point within the study area. The summit consists of a highly weathered boss of fissured lava and, to judge from aerial photographs, this summit has become more weathered in recent decades; a condition that has been exacerbated by the lighting of huge public bonfires that feature in some of Edinburgh's various alternative cultural festivals. No features are apparent within this weathered surface, but on the north-east flanks of the knoll there appears to be a slight bank and an even slighter linear depression. The latter may take its form from a linear rock-cut socket for a wooden defensive wall or palisade. These features are extensively discussed in the recent volume by the RCAHMS on Eastern Dumfries (1997, 121-126) and a good example is Gibshill (c.f. RCAHMS 1997, Figures 116 to 118). Credibility is important and this report does not claim that the feature is by any degree certain. Slightly less circumspection should be attached to the observed features on the south-western side of the knoll. Here, a continuous delayed parching mark is visible in almost all the aerial photographs that were consulted. The mark is interpreted as the remains of an in-filled linear depression which could be Man-made. The evidence for the latter is that the feature is interrupted by what appears to be a causeway giving access from the south-west, close to the junction of two pathways, the Beacon Hill pathway (C14) and Calton Hill Drive (C1). On the ground, this ramp appears to consist of bedrock, so some doubt must remain.

If the features described above were real then what kind of enclosure is being described? The features delineate a small area (approximately 0.3 ha) but this would not be out of the size range for the smaller forts smaller, such as that on Samson's Ribs (Wickham-Jones 1996, 25). It is also possible that the putative defences are only small component of a much larger system of defence, perhaps akin to an inner bailey. Many of the pre-Ordnance Survey maps illustrate Calton Hill as if it were tessellated with small scarps and enclosures and as such it does resemble the types of forts, known as nucleated forts which characterise later prehistoric royal citadels, as at Clatchard Craig, Fife (Close-Brookes, 1986).

These two possible identifications (Sites A011 and A0012, the Bronze Age Collared urn and the possible hill fort) might seem dubious inclusions in an

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assessment of archaeological remains but they should serve to warn that there could be more extensive and better preserved remains lying undisturbed within the study area. Two pieces of evidence can be used to sustain such a claim. Firstly, the areas known from documentation to have been disturbed are restricted largely to the south-western quadrant of the Hill, with further areas defined by the paths and track-ways that cross the summit and flanks of the hill. The second line of the argument is based on the surprising abundance of archaeological remains that have been discovered when land in Edinburgh, especially on topographically significant features, has been systematically disturbed.

Evaluating the Archaeological Potential of Calton Hill

The search of the documentary archives has produced a short list of two possible sites within the study area. This could be considered quite a reasonable total for an area of ground measuring only 9 ha in which ground disturbance seldom occurs but the figure could be also interpreted as indicating an archaeology with a low significance in comparison with other components of the conservation plan. Should one interpret this seemingly scant evidence as evidence of an absence of archaeological information?

The archaeological significance of an area, especially in the framework of a conservation plan, should not just be based on what is known but also on a reasoned extrapolation from that point. Two factors will configure that extrapolation: the history and process of detection and the potential for survival of archaeological remains. The first part of the question, therefore, must deal with the reasons why so little has been found. If the low number of sites reflects poor detection then there is a greater potential for further discoveries. Estimates of that potential then must be constrained by the factors that affect survival of information.

Factors affecting the archaeological record: the extent of systematic ground disturbance on Calton Hill

Prior to the eighteenth century, the only significant engineering works to take place on Calton Hill were a series of quarries. In the main these were concentrated on outcrops of whinstone and other flaggy forms along the northern edges of the hill and on the southern crags. No quarries are known from the central plateau of the hill. During the 1700s, the hill was enclosed and used as a grazing. There are two references to ploughing, but neither activity has been detected in any other record and may not have been extensive or prolonged. The late 1700s and early 1800s saw the greatest impact on the hill starting with the construction of the Craig's Observatory (otherwise known as the Octagonal Observatory), Old Observatory House, The Playfair Observatory, the Nelson Monument and the National Monument. There were several periods when the area around these fixed structures would have been quite cluttered with wooden buildings and these too would have had some impact on any archaeological remains in their vicinity. The establishment of the various prisons, the construction of the Royal High

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School in the largest of the former quarries, the construction of Regent Road and Regent Bridge and the spread of the domestic and industrial accommodation along Low Calton (now Calton Road) will all have substantially eroded the archaeological resource.

Further ground disturbance activity has occurred during the management of the hill as a public amenity. Formal walks were laid out during the late eighteenth century and were enlarged and extended throughout the nineteenth and twentieth century. Provision of drinking fountains, seats and gas lighting will also have impacted on any remains.

As a result of these developments, about 40% of the study area should be seen as extensively disturbed and there is only a small chance that any prehistoric remains survive in these areas. Craggs and steep slopes occupy a further 38% of the study area and an unknown proportion of these craggs and steep slopes may have been quarried and may also have been replanted with trees. There is potential for archaeological remains in these segments of the hill area but this is unquantifiable. Grassy areas such as the Telegraph Knoll occupy the remaining 22% of the hill. With the exception of the Telegraph Knoll, no surface indications of ancient structures or remains have been identified and any archaeological remains are likely to survive in the sub-surface soil profile.

Factors affecting discovery: the possible nature and extent of prehistoric use of Calton Hill

Had there been no ground disturbance what remains might one have expected? The archaeology of the Lothians is rich in field remains of archaeological monuments although many now survive only as crop-marked indications of plough truncated sites. No such wealth of remains is known within the boundary of Edinburgh but, taking finds of Bronze Age date as an example, the numbers of artefacts found during the expansion of the city in the late eighteenth and nineteenth centuries is impressive. In 1778, marl extraction in Duddingston Loch brought to the surface a large hoard of Bronze Age metalwork (Coles 1960, 116). The collection that now survives in the National Museum of Scotland is but a part a much larger hoard that seems to have accumulated over many years of ritual deposition into the waters of the loch. In effect the loch functioned as a ceremonial focus in the Bronze Age receiving very high status weapons - broken in conflict or in ritual - and preserving them by accident as an isolated sample of the potential wealth of local societies at that time. Even without the contemporary settlement sites it is reasonable to reconstruct the depositing society as extensive and economically successful. Further rich hoards of Bronze Age weaponry was recovered in 1846 from Arthur's Seat and, in 1892, from Grovesnor Crescent (Coles 1960). Lesser hoards were found at Bells' Mill, on the water of Leith, at the Citadel, Leith in 1841 and at Murrayfield in 1892 (Coles 1960). Bronze tools and weapons from earlier periods are known from Canongate, Corstorphine Hill, Balerno and Musselburgh (Coles 1964; 1969) and a fine sword was found on

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Samson's Ribs in 1846 (Grant 1882a, 10). As well as these obviously high status finds, the various expansions of the housing and services in the city brought about numerous discoveries of Bronze Age burials. Burials were found in cists at Royal Circus, in 1822, in Stocksbridge in 1823, at Bellevue Crescent in 1823, in Succoth Place (Skene 1831) and on the site of the new reservoir on Castle Hill in 1850 (Grant 1882a, 10). Bronze Age urns were found at Saxe-Coberg Place (1823), Dean Bridge (1829), on Arthur's Seat, in this case with a female crouched burial, in 1856, at Armiston in 1860, at Magdalene Bridge, Joppa in 1882, at Borourghmuirhead in 1882 and Shandon Crescent in 1891 (Grant 1882a, 10; National Museum of Antiquaries 1892). An 'ancient tomb' was found at Juniper Green sometime before 1860 (Wilson 1863, 271). Other finds of a mostly domestic nature were made at Warriston Close in 1856, at Merchiston Tower in 1852. This list is not exhaustive, but serves to demonstrate the extent of the surviving impact of Bronze Age activity in the Edinburgh area.

If there was such a population in the Bronze Age, why is it so poorly expressed on Calton Hill? The nature of Calton Hill itself may have led to its exclusion from the full panoply of prehistoric activities. The underlying geology of Calton Hill has probably never supported the development of a deep topsoil except in the deeper recesses of its fractured and glacially eroded surface. This absence of a deep soil may have been a discouragement to prehistoric societies when seeking, for example, places in which to inter the remains of their dead. Alternatively it may have provoked the use of other forms of burial or disposal of the dead which did not leave highly visible remains. Burials could have been in cut or natural recesses that may have been overlooked during development works, especially if the burial was of a cremation.

There are other forms of activity, occurring throughout prehistory, which may have been unrecognisable in the circumstances of nineteenth century engineering works. At one extreme, for example, there are the mundane sediments of human settlement: the discarded ash, burnt bone and broken utensils. Modern archaeological interest in such sediments has almost no limits and modern techniques of analysis have raised the significance of these deposits to a level of near primacy for the investment of research resources. The excavations undertaken at Port Seton in 1994 and 1995 (Haselgrove & McCullagh 1996) have engaged botanists, ecologists, metallurgists, ceramic experts, nuclear scientists, statisticians, soil scientists as well as archaeologists. The forthcoming report on the Port Seton project will present an enormous wealth of detail about the social and economic life of certain aspects of Iron Age society (Haselgrove et al forthcoming). Even where rich sediments are not preserved, highly valuable information can be recovered by modern excavation techniques even if it remains very difficult to predict the outcome in advance of excavation. One example will suffice to demonstrate both the inherent difficulty of prediction and the superb results that can ensue. At Ratho, to the west of Edinburgh, an expansion of the modern road system required the removal of part of the dolomite hill. These excavations

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undertaken in advance of the road revealed the remains of a Bronze Age ritual and burial site, a 7th century AD weaver's shed or house and plethora of other truncated features dating, in some cases, to the Neolithic (Smith 1995). The site at Ratho, both in its volcanic bedrock and its single find of a Bronze Age urn, has resonances that may be echoed on Calton Hill. If simple settlement sites or palimpsests of numerous uses represent part of the spectrum of archaeological potential then deposits of a single event represent an extreme. At 'Dail na Caraidh' in Inverness-shire, for example, a small number of copper axes were buried, presumably as the relic of some ritual, at the terminal to a prominent glacial ridge (Barratt & Gourlay 1984). The use of prominent landscape features as places of religious significance seems to have been a significant feature of early religious belief. In fact, such was this significance that occasionally in the absence of a suitable topographic feature one was actually constructed; a good example of this practice is provided by the Cleaven Dyke, near Blairgowrie, which was built in the Neolithic period and was originally over 3 km long (Barclay & Maxwell 1998). In prehistory as in more recent histories Calton Hill would have been a prominent feature in the landscape and possibly a significant feature in the ritual and sacred life of the surrounding communities. It is likely that this landscape was, at the latest by the Bronze Age, heavily under the influence of human settlement and land-use practices. Even if Calton Hill did not offer the optimum conditions for use as a burial site, one of the most common classes of activity recognised in the archaeological record, other uses, including both ritual and profane activities, were possible. The absence of evidence for these activities requires consideration and should not be used as evidence of an absence of significance.

Factors affecting discovery: the nature of the observers and recorders.

In most cases, the discoveries in Edinburgh were made during a period when collectors who were primarily interested in artefacts were assembling the museum and private collections. More specifically their interests lay in artefacts that could be fitted into a chronological development series based upon typology. These collectors would have focused upon items that fitted their preconceptions of archaeological significance and decorated and highly stylised pottery, metalwork and highly crafted stone objects would have held primacy in their typological interests and endeavours. The collecting fraternity in Edinburgh, especially those with connections with the Society of Antiquaries, would have provided the stimulus (often a financial stimulus) to the reporting of discoveries and their particular interests would have pre-conformed the range of discoveries being reported. This same constituency of interest must have operated during the periods when developments occurred on Calton Hill and therefore the 1817 discovery probably reflects the relative frequency of such remains within the study area compared to the wider region.

Are these accounts a complete record of all that was found? It is obviously impossible to reconstruct, with any precision, the extent to which objects that

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were found managed to evade mention or record but there are clues. In the archaeological literature, small lochs are amongst the most likely topographic features to contain ancient remains. Cadell (1993) lists seven small lochs in the Edinburgh area which were fully or partially drained in the nineteenth century but a rich assemblage of archaeological remains was only recorded from Duddingston Loch. In modern literature there is a frequent correlation between standing water bodies and ritual deposits; in that light the absence of any record from the other six drained lochs is surprising and there must be a possibility that many and probably the majority of artefacts from this sort of context were missed or not reported. If such likely sources of materials do not appear in the record then any remains discovered during the more devastating development works (eg the construction of the Regents Bridge) would have been at least as likely to be omitted from the record.

Thus Calton Hill could well have contained more remains but circumstances would have militated against their representation in the record. Nonetheless it is probably fair to claim that Calton Hill contained a lesser number of such remains than other areas of affected by the development of Edinburgh.

Factors affecting discovery: preservational factors

Over most of the hill the topsoil is shallow and freely draining and the soils are acidic. The sub-surface soil profile is therefore a hostile environment for archaeological remains. Organic remains – bone, wood, cloth etc – will not normally survive except in carbonised (burnt) form. Similarly, metal objects – except those made of gold or silver – will probably not be well-preserved. As well as being an inherently unsuitable environment for preservation of organic materials, the actual status of the soil is not stable and is probably highly susceptible to changes brought about by human activity. Tree planting, for instance, will affect the local water-table causing changes to the rates of bacteriological and chemical activity within buried materials. Organic materials are relatively quickly lost, but these variations in conditions will also adversely affect the stratigraphic evidence upon which archaeologists rely. Such conditions are not a deterrent to archaeological investigation, but they do make the task of recognition and interpretation much harder.

In summary, the Collared Urn, discovered in 1817, signifies that Calton Hill was part, at least in the Bronze Age, of an intensively used human landscape. It is possible that absence of further reports of discoveries from the main period of disturbance have seriously under-represented the numbers of such artefacts that were actually found. It is also reasonable to presume that other forms of, less spectacular, archaeological material, would have been overlooked and not reported. Only 40% of the study area was disturbed in recent centuries and more archaeological finds are possible and with modern techniques a greater range of observations and discoveries are likely. It is within this latter context that the identification of all or part of a possible Iron Age hill fort is apposite, but

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expectations should extend to remains of both earlier and later land-use and settlement remains. This optimistic note should be tempered by the probable limitations that the shallow soil would have imposed on the range of activities performed on Calton Hill. Over-arching all these potentials and limitations is the sub-surface environment on the hill. The freely draining, acid soils are likely to have promoted processes of post-depositional degradation to buried artefacts and archaeological evidence. Unfortunately, the extent to which these effects have devalued the quality of that information can only be determined by a programme of on-site analysis.

Other classes of Archaeological Remains

Two classes of events have been identified which may have left archaeological remains or which might have obliterated earlier remains. If there are remains, then they are likely to be easily mis-interpreted because their appearance is not strictly related to their original function. The first class is derived from references to temporary structures or from accounts that infer the erection of some temporary structure. The second class comprises of a series of events that took place on Calton Hill. Some are precisely dated and, in the main, the event is specifically identified with Calton Hill. Other members of this class are events for which a use of the hill might be inferred but for which there is no extant historical reference.

Temporary Structures

1456	Greenside tournament ground
1554	Works to complete Greenside ground
1647	Gordon shows round structure on MacNeill's Crag
1764	John Wesley preached to huge crowd, in May
1791	Construction of the House of Correction and the Bridewell
1797	Haldane, based at the tabernacle on Leith St, preached to over 10,000
1798	Platform erected for Rev Rowland Hill to preach to over 10,000 'on land where the prison was built
1827	Maria Theresa Short - James Short's daughter - built wooden observatory within the grounds of the National Monument, closed in 1850
1832	Robert Forest built a 'hall' to exhibit his own statues and lived in Calton Hill Cottage
1832	Celebratory banquet under canvas to celebrate the Reform Bill
1837	John Wesley again preached on Calton Hill, 73 years after his first appearance!
1849	Cockburn opposed establishment of public washing facilities
1850	Maria Theresa Short moved her Camera Obscura to Castlehill

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Military Events

Historically known events but lacking precise dates:

638	Siege of Etn by Anglians - Iona Annals
934	Athelstane spoiled the kingdom of Edinburgh - Chronicles of Clonmacnoise
954–962	Reign of Indulf in which fortress of Eden abandoned to the Scots - Old Scottish Chronicle.
1288–1314	Wars of independence
1540s	The 'rough wooing' a drawing of <i>circa</i> 1544- 1545 - drawing show a battery of Hertford's army on ?Calton hill
1559–60	Revolution by Lords of the Congregation
1567–73	the civil war between the supporters of King James VI and those of his mother Queen Mary.
1650	Sir Alexander Leslie erected a fortified defensive line from Leith up to Calton Hill to resist Cromwell's army's advance. There were artillery batteries at the Quarryholes and on Calton Hill. Cromwell's attack on June 24 th was repulsed.

Known Dates

1557	Earls of Arran and Huntley fought a skirmish with supports of Lords of the Congregation in a quarry on Calton Hill
1571	Queens supporters set up a battery on Calton Hill during civil war of 1557-73
1650	Calton Hill formed the southern end of Lesley's line of defence against Cromwell

Quarries

The exploitation of the volcanic and sedimentary rock from Calton Hill has a considerable but fairly imprecise history. The earliest record of quarrying hitherto identified in McQueen's study is that of 1602, in which the Council sought to make the road to Leith more passable by the hiring of quarrymen '...to cut the craig...' (McQueen 1998, 6). The quarries at the eastern end of Calton Hill are mentioned as the site of meetings and skirmishes in the sixteenth century. One of the earliest references is to the purchase in 1605 of Quarryholes by Lord Balmerino (Grant 1882, Vol III, 128). In 1677, the Treasurer of Trinity Hospital was ordered to fill the quarry in but it was still open at least until 1691. In 1761 William Jameson rented sandstone quarry on south side of Calton Hill. Finally in 1828 a landslide is recorded in which over 50 tons fell from the crags close to the Nelson Monument

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Calton Burial Ground

The archaeology of the burial ground falls into three chronological phases. The first must deal with the ground before it became a place of burial, the second comprises of the period in which it functioned as burial ground and third covers the period from when Waterloo Place was cut across the burial ground and burial ceased.

There is no definite information on the state of the ground prior to its transformation into the burial ground. From the documents that record the purchase of the land on McNeil's Craigs in 1718, it is clear that the ground that was to become the Incorporated Trades' burial ground was already enclosed. It is not certain how typical such enclosure was on the pastureland around Edinburgh and, as all the references to enclosure identified by McQueen date from later in the eighteenth century, the McNeil Craig enclosure may have been a rare phenomenon. A substantial and seemingly circular enclosure has been noticed on the Gordon of Rothiemay's map of 1647 (e.g. Grant 1882b 103). It is not impossible that this enclosure and that which pre-dated the burial ground were one and the same. The significance of the nature of the ground lies in the depth of soil; although Scottish burial practice has not been researched in any detail for this study, it seems reasonably certain that burial in deeper soils would have been favoured. Indeed in many instances, it has been archaeological sites, such as the broch at Scalloway, Shetland, which have provided the requisite depth of sediment and have been re-used in the Christian era as the burial ground (Sharples 1998). Unfortunately, no records from the Incorporated Trades period of management of the burial ground that contain evidence of any observations made in the course of grave cutting have been identified.

For the middle period in the possible archaeological record of the burial ground, one is left with the very complex history of burial and of grave marking. In 1762, the original half an acre was expanded and it is possible that parts of the earlier phase and enlargement phase of enclosure wall still survive. If so, then there may exist an invaluable resource for the analysis of building. By examining the fine fraction inclusions in mortar, it is possible to distinguish between mortar manufactured before and mortar manufactured during the Industrial Revolution; precisely dated sources of mortar may help to refine this crude chronology.

Throughout the period of its operation, the officers of the Incorporated Trades would have followed Protestant burial rite. This would not have been unchanging and practices of transporting the deceased to the grave, of the use of coffins, mortcloths, candles, incense and gravestones will have changed over time (c.f. Gordon 1984). There will be some physical record of this process, but this information will be extremely difficult to acquire through the practice of archaeological survey or excavation and it is probably likely that much of it remains well, but obscurely, documented. The use of the burial ground seems to have been terminated with its bisection by the construction of Waterloo Place, which

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began in 1815. Commenting upon the plans for the construction of the Regent's Bridge (the writer had, in the January issue, advocated naming the bridge after Wellington and claimed mass public support for his suggestion), an unnamed leader writer for the Scots Magazine (June 1814) reports some opposition to the development. The writer explained that Stevenson's (sic) plans for the new road meant that some damage would be 'unavoidable' and the road would '... encroach for a little space...' on to the burial ground. The report seems to cast scorn upon those who saw the development as 'ploughing up the church yard' and goes on to claim, with no hint of irony, that the plans obtained the '...acquiescence of almost every person of any consequence who had a right to object'. Some idea of the impact of the road is given by a lithograph which shows the site of the Calton Convening Rooms (Edinburgh City Library: Edinburgh Room reference: (18) PYDA 23-25 [4984]). This image, dated 1818, seems to show a deep soil profile retained on the left by the new wall of Waterloo Place and on the right by a large boss of bedrock.

Once Waterloo Place and the Screen Wall had been built the main location for burial in the area was at the New Calton burial ground. Burials could still take place, and still may do so, for those families who retain burial rights to an existing plot. The final change to the outline of the surviving unequal parts of the burial ground occurred soon after the completion of Waterloo Place, with the construction of the Calton Meeting Rooms when the eastern part of the northern portion of the burial ground was removed. Except for the occasional act of vandalism, the burial ground remains substantially unaltered this that time..

Miscellaneous Aspects of the Use of the Hill

Four items have been identified which fit neither in any of the preceding categories nor merit individual classification. Two items in this group refer to activities that left no physical relic on the hill. In 1856 the insignia of the High Constables of Calton were surrendered '... on its final extinction as a separate society...' and presented to the Society of antiquaries of Scotland (Anon 1859). The High Constables of Calton had held jurisdiction within the barony of Calton since the seventeenth century. The various truncheons, batons of office and other paraphernalia are now on display or in storage in the National Museums of Scotland and Huntley House Museum.

During the last war there is anecdotal evidence that both local Home Guard and locally billeted American troops made use of the hill. There are no easily accessible records for either force that deal with the level of detail that is necessary to verify these accounts although, in theory, this would be possible. Unfortunately, it was not possible to trace the evidence for this relatively minor use beyond the records of the Scottish United Services Museum in Edinburgh Castle.

A third item is placed in this category but the fit is somewhat unsatisfactory. A view of Calton Hill is provided by a print of a Paul Sandby drawing, dated 1753 (RCAHMS C71919; EDD/7/6). The view is from the south and looks over the roof

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of Trinity Collegiate Chapel to the almost featureless mass of Calton Hill. On the summit, the print shows what appears to be a two-storey building with, possibly, gable-end chimney stacks. No corresponding record or surface feature has been identified which corresponds with this structure. At the time of the drawing, the only buildings known from the archive search and which might approximate to this position is a 'herd-house' which the tenant was given permission to build in 1757 (McQueen 1998, 7). In the absence of any alternative strategy, it may be more prudent to question whether the illustration misinforms the viewer. The small outline of the house is certainly different to the treatment of other buildings by the illustrator and it is possible that it has been added by the engraver at a later date.

The fourth in this 'catchall' class is the small plaque attached to the rock face below the Nelson Monument on its western side. The plaque is inscribed with two extracts of psalms. It dates from the early 1990s and was set-up in response to an application by a person who wished to erect similar plaques in every capital city (pers comm Jim Mackie). Although of little historical interest, the plaque serves as a reminder of the regard and indeed the religious significance that many visitors and local residents still attach to Calton Hill.

Place Name Evidence

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Dixon quotes the standard explanation, viz Gaelic *calltuinn*: 'hazel'. Calton seems to come into the record fairly late, and looks very Scots and probably derives from Scots: *cauld toun* 'cold town/farm/settlement' and 'cauld-' is certainly a common place-name element in lowland Scottish (minor) place-names e.g. Cauldhame, Cauldcotts, Cauldside'. This supposition is strengthened by the fact that Calton Hill seems to have had a quite different Gaelic name 'Craingalt'. Despite the early 'l' in -galt, Dr Taylor suspects that of the list identified by McQueen (1998, 2) the original form is 'Craingatt', which is Gaelic for 'rock of the wild-cats' (*creag nan gcat*). This is very similar to the Kinghorn FIFE place-name:

CRAIGENCALT

Cragyncat 1358 ER i 564 [in constabulary of Kinghorn]

Craggincat 1457 Dunf. Reg. no.452

Craigncatt 1590s Pont

Cragncat L[och] 1640s Gordon

Craigencat Mill 1890s OS 1" 1st edn.

G *creag nan* (g) cat 'rock/crag of the wild cats' or a 'chait' of the wild cat'.

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2.08 Buildings & Monuments

Introduction

In 1842 on her first visit to Edinburgh, Queen Victoria recorded in her diary:

There was that beautiful large town, all of stone (no mingled colours of brick to mar it), with the bold Castle on one side, and the Calton Hill on the other, with those high sharp hills of Arthur's Seat and Salisbury Crags towering above all, and making the finest, boldest background imaginable. Albert said he felt sure the Acropolis could not be finer; and I hear they sometimes call Edinburgh "The Modern Athens".¹

The designation *Modern Athens* had already appeared twice as the title of books on Edinburgh: Robert Mudie's book of 1825 was followed by Thomas Shepherd's volume of engravings with a commentary by John Britton published in 1829. The architectural identity of Calton Hill that led to this Athenian identity was created during a period of fervent idealism in European intellectual circles, lying as it did between the two great years of Revolution, 1789 and 1848. This section will seek to define the international status of Calton Hill's buildings through an assessment of their stylistic identity and the ideologies that they enshrine.²

The Athens of the North

An enduring myth claims that Edinburgh was first styled the "Athens of the North" in the preface to the first volume of James Stuart and Nicholas Revett's *Antiquities of Athens*, published in 1762.³ In reality, Edinburgh is not mentioned anywhere in this volume, but the fact that posterity believed it to be so underlines the fact that the intellectual basis for the adoption of Athens as a paradigm for Edinburgh's civic identity was laid in the mid-18th century. Intellectual life in the Scottish Enlightenment flourished in the dense and largely pedestrian confines of the Old Town, where the great minds of the University, the Law and the Kirk encountered each other continually in the High Street and the closes.⁴ The University was the 'Tounis College', its own ramshackle buildings physically embedded in the city, and its students either living at home or lodged with local families.⁵ Here, as an English visitor, the King's Chemist Mr Amyat, famously remarked, "I stand at what is called the *Cross of Edinburgh*, and can, in a few minutes, take fifty men of genius and learning by the hand."⁶

As early as 1735 James Thomson's long poem *Liberty* had extolled the virtues of ancient Greece:

In Government well-pois'd, adjusted best
To Public Weal: In Countries cultur'd high:
In ornamented Towns, where Order reigns,
Free social Life, and polish'd Manners fair: ...
In moral Science, and in graceful Arts.
Hence, as for Glory peacefully they strove,
The prize grew greater, and the Prize of all...
HENCE flourished GREECE ...⁷

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Architecture played its part in Thomson's dramatic story:
IN ARCHITECTURE TOO they Rank supreme!
...First unadorned,
And nobly plain, the manly *Doric* rose;
Th' *Ionic* then, with decent matron Grace,
Her airy Pillar heav'd: luxuriant last,
The rich *Corinthian* spread her wanton Wreathe.
The whole so measur'd true, so lessen'd off
By fine Proportion, that the Marble Pile,
Formed to repel the still or stormy Waste
Of rolling Ages, light as Fabrics look'd
That from the magic Wand aerial rise.
THESE were the Wonders that illumin'd GREECE
From End to End . . .⁸

From Greece, Thomson's poem moves on to Rome and finally to "Britannia", where the Virtues of antiquity, especially Peace and Liberty, are now enshrined in the tranquillity of the Union: "Now turn your View, and mark from *Celtic* Night / To present Grandeur how my BRITAIN rose."⁹ That Thomson's poetic vision propelled the future destiny of Edinburgh is proclaimed with a flourish when the opening of the final stanza appears framed in a cartouche at the top of his nephew James Craig's plan for the New Town in 1767.¹⁰

In his *Essay on the History of Civil Society*, published in the very same year, 1767, Adam Ferguson drew on classical civic humanism to inform his model of a society in which political advance could be wisely effected by a body of civilised individuals. Classical learning, flowing from the mainspring of Greece, offered inspiring models, both in myth and history, he claimed, but he also recognised the need to transform and naturalise the paradigm: "A mythology borrowed from abroad, a literature founded on references to a strange country, and fraught with foreign allusions, are much more confined in their use: they speak to the learned alone."¹¹

This powerful exposition of the need for learning to sustain a true understanding of classical virtue forms the backdrop to a remarkable educational revolution in Enlightenment Edinburgh. In the following year, 1768, the classical scholar Alexander Adam was appointed Rector of Edinburgh's High School.¹² His passion for classical language and civilisation led him to introduce Greek into the curriculum, despite opposition from the Principal of the University. In 1772 Principal William Robertson objected: "By this innovation of the Rector's, it is evident that an encroachment is made on the province of the University and he deprives the Professor of Greek of students."¹³ Dr Adam quietly ignored the protest, claiming that pupils should not enter the university "until they can at least read plain Latin authors by themselves, and understand the principles of Greek."¹⁴ For forty years Dr Adam's gentle enthusiasm instilled in his pupils a love of Greek

and Roman antiquities as well as classical language and literature, and his inspiration helped to imbue the city's public with the idea that classical Greece embodied virtues fitting to Edinburgh's aspirations.¹⁵

Calton Hill as the New Town's Castle Hill

For the moment, however, the adoption of Craig's plan for the New Town, with its overtly Unionist agenda, led Edinburgh in a different direction, towards a demure Georgian classicism that expressed the formality and elegance of English polite society. Calton Hill was still largely open country, as the *View from Castle Hill* of c. 1762 indicates. (NMRS photo EDD/1/107, in the British Museum?)

The first major architectural initiatives all concern Scotland's greatest 18th century architect, Robert Adam, directly or indirectly. Adam's monument to the great Scottish philosopher, David Hume († 1778) in Calton Burial Ground was described by Arnot in 1779 as being "in the Greek taste".¹⁶ Adam himself must have known that its tall cylindrical form resembled mausolea of ancient Rome such as the Tomb of Cecilia Metella.¹⁷ A preparatory drawing in the Soane Museum, showing a blind arcade around the upper level, suggests that the mausoleum of Theodoric in Ravenna was also in his mind.¹⁸ Possibly Arnot was aware of this Byzantine model, since Greece and Byzantium were often seen as synonymous.¹⁹ The classical model was appropriate to this well-known religious sceptic, although zealots added a cross to the memorial in 1843 (removed in the later 19th century).²⁰

Above the cemetery on the brow of the hill, in 1776 James Craig, author of the plan of the First New Town, had begun to build an Observatory for Thomas Short, brother of the famous London telescope maker James Short.²¹ This was to consist of an octagonal observatory and a nearby house for the astronomer designed in 1775.²² Any classical aspiration in the design was to be subverted by Robert Adam who, as Arnot relates, suggested to Craig that the astronomer's house should adopt "the appearance of a fortification . . . with buttresses and embrasures, and having Gothick towers on the angles. The beauty of the design was so much admired, that the main object was forgot. The workmen left the observatory already half built, and turned themselves to raise the tower on the south-west brow of the hill."²³ The octagonal observatory, left forlorn and unfinished, may have been modelled on the Tower of the Winds in Athens, like the Radcliffe Observatory in Oxford begun in 1771, but surviving images are hard to read.²⁴ It was demolished to make way for Playfair's Observatory begun in 1818, as we shall see. Robert Forsyth remarked in 1805 that the project failed because the Scots were more interested in projects that yielded "emolument": "This establishment remains neglected, because the public feel themselves little interested in its object."²⁵

Why did Robert Adam feel so adamant that a castellated image was fitting for Calton Hill? As nephew of William Robertson, Principal of the University, he may

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have remembered the castellated design for an observatory in the Old College, proposed in 1736 and illustrated in Maitland's *History of Edinburgh*.²⁶ This was also the period of his finest castellated designs for villas and country seats.²⁷ Adam seems to have envisaged Calton Hill not as a Grecian Acropolis, but as the Castle Hill of the New Town. Craig's design of the First New Town as a rational, ordered and elegant re-working of the Old Town plan, with the central axis running along a ridge, may have justified Adam's aspiration to provide Calton Hill with its own "Castle". It is important to remember that the battlemented imagery did not exclude an analogy with Athenian Acropolis, which at that time still preserved its Byzantine, mediaeval and Turkish fortifications, above which loomed a tall, square tower built by the Franks.²⁸

In his design for the Bridewell, or House of Correction, begun in 1791, Adam expanded on this imagery of fortification.²⁹ Like John Nash in his Welsh gaols of the same period, Adam saw castellation as a fitting pictorial language for prison design, but the fact that the south front was closely modelled on his splendid castle at Culzean in Ayrshire, affirms his Picturesque intentions.³⁰ The north façade, meanwhile, affirmed the "Castle" reference, with its allusions to the royal palaces of Renaissance Scotland such as Falkland, Stirling and Holyrood.³¹ Already in 1790, Adam's Clerk of Works, John Paterson, had proposed a new bridge linking the New Town with Calton Hill, to create a triumphal approach to the city around the south side of the hill, flanked by the imposing pavilions of the Bridewell.³²

In the interior, by contrast, a strongly rationalist programme, appropriate to the ideals of the Enlightenment, adopted Jeremy Bentham's utilitarian principles, based on his design for the Panoptikon, published in the same year, 1791.³³ The D-shaped plan allowed supervision from the hidden eye at the centre, while fresh air and hygiene permeated the building. Looking down on the Old Town, the Bridewell served as a model of civil justice and authority, for those in need of "correction" were perceived to be those remaining in its squalid closes and wynds.

After Robert Adam's death, the idea that castellated imagery was appropriate for Calton Hill was to persist during the period of the military zeal of the Napoleonic Wars. The Monument to Nelson, begun in 1807, predates the column in Trafalgar Square (1840-43) by over thirty years. The proposal by Alexander Nasmyth in the form of an Egyptian obelisk, justified by the Egyptian campaign, was turned down in favour of Robert Burn's castellated up-turned telescope, infused with nautical reminiscences of lighthouse design. Lighthouses were a literal symbol of the Enlightenment, and it may be significant that Napoleonic France was engaged in a fervent campaign of lighthouse building.³⁴ The decision in favour of Burn's project was made ostensibly on grounds of cost, but it demonstrates that Adam's vision for the hill as a citadel was evidently an enduring one.³⁵ When Robert Bonnar added the accommodation in a pentagonal substructure at the base in 1814-16, the ground-plan revealed the influence of Adam's castellated villa designs.³⁶

Calton Hill and the Picturesque

In 18th century Britain, Greek Revival architecture was mainly confined to country seats and their Picturesque parklands.³⁷ Greek buildings were strategically placed in landscape settings, as if in the paintings of Claude and Poussin, to arouse emotional and poetic associations. The philosophy of association, developed especially by David Hume and other Scottish thinkers, was fundamental to Picturesque design -- the viewer had to respond to the sentiments aroused by each view.³⁸ These ideas were still current in Edinburgh in the early 19th century: in 1811 Francis Jeffrey remarked in the *Edinburgh Review*, "There is no such thing as absolute beauty; it depends altogether on...associations."³⁹ In Picturesque landscapes, classical buildings were freely mixed with buildings in other styles -- Gothick, rustick, or even oriental -- each architectural 'event' dependent on its placing in the landscape for visual effect. In 18th-century Britain, however, town and country remained distinct spheres of existence. Edinburgh's First New Town was a strictly *urban* vision, despite its strategic siting along a ridge. It was at Calton Hill that the principles of Picturesque thinking were to be dragged from the countryside into the town. Adam's contributions, already mentioned, had established the Picturesque credentials of the site. Craig's vision of urban design in strict rectangles was to be eloquently challenged by William Stark in his report drafted just before his premature death in 1813 and published posthumously in 1814.⁴⁰ Meanwhile in London in the very same years, Nash was exploring the possibilities of Picturesque principles in town-planning at Regent's Park (1811-13).

First of all, Stark stressed the value of trees and accidents of topography in the townscape, even if "it may injure the symmetry of the ground plan."⁴¹ Secondly he challenged the idea that an orderly city had to be built on a grid plan: ". . .there are not, unfrequently, in a *bending* alignment of street, much beauty and perhaps the most striking effect."⁴² Symmetry and uniformity, he claimed, led to "monotony in execution."⁴³ Instead, he argued for "the importance of strict attention to *accidents of situation*; and that, in doing this, the trees at present scattered over some parts of the property should not be accounted unworthy of regard."⁴⁴ His grounding in Picturesque principles is clear from the assertion that trees and town buildings "must surely be admitted to assimilate well together, since our best landscape painters, Claude and the Poussins, never tired of painting them."⁴⁵ The views from Calton Hill, he believed, were finest from "a moderate elevation, by skirting the brow of the hill."⁴⁶ Higher up, the views assumed "the qualities of a map rather than a picture."⁴⁷

After Stark's untimely death, his vision for Calton Hill was carried through by his pupil, William Henry Playfair, who adopted this recommended mid-height building line for Regent Terrace and Royal Terrace, as drawn up in his plan of 1825.⁴⁸ Meanwhile the top of the hill remained largely open parkland, which Playfair must have considered as the viewing platform in considering laying out the development of the flatter ground to the north of the hill.⁴⁹ Various designs were submitted, and the eventual plan adopts a radial scheme based on ideas from

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Crichton, Nasmyth and Playfair himself. The configuration has precedents both in the planning of Baroque Rome and in the *ronds-points* of Haussmann's Paris. The high viewpoint and the setting, however, suggest that Playfair may also have known Ledoux's ideal plan for the ideal city of Chaux (site of his famous Saline) published in 1804.⁵⁰

The New Observatory

The first indication of a breath of Enlightenment scientific rationalism was wafting across Calton Hill came with the decision to build a new observatory. After much confusion the original octagonal observatory had eventually been roofed, but in 1810 the *Encyclopaedia Britannica* (then published in Edinburgh) remarked that it was "in very bad repair."⁵¹ In the following year, at the instigation of the mathematician John Playfair, the Astronomical Institution of Edinburgh was founded, and the founder's nephew William Henry Playfair provided the designs for a new Observatory. Building was begun in 1818; W.H. Playfair's assiduous commitment to its scientific success is clear from his drawings preserved in Edinburgh University Library.⁵² Recognising the need for extreme stability in the telescope's mounting, he rejected the idea of building a tall tower, the typology that had characterised so many celebrated observatories in the 17th and 18th centuries, such as those at Leiden (1632), Copenhagen (1637), Wren's design for Greenwich (1675), Berlin (1705), Stockholm (1769) and Oxford (1771).⁵³ Playfair turned back to one of the earliest European observatory designs, that of the Danish court astronomer Tycho Brahe on the island of Hven.⁵⁴ As the first astronomer to make accurate celestial observations in the modern era, Brahe's legacy was still an inspiring and relevant one. More interestingly in the architectural sense, Brahe had adopted the centralised villa design like those popularised by Andrea Palladio, whose design principles drew on current theories of universal harmony. Tycho Brahe's Uraniborg, now destroyed, is known only from engravings which clearly indicate the rational centralised plan but portray the elevation with a degree of fairy-tale fantasy. That harmonic proportion could be replicated in building had already permeated English Neo-Palladian eighteenth-century villa design, but its adoption for a scientific institution required Playfair to infuse the model with a new gravity indicative of its seriousness of purpose. The prototype of the Italianate hilltop pleasure villa, so familiar from Palladio's Villa la Rotonda and Scamozzi's Rocca Pisani, was reworked by Playfair using an austere Tuscan order. Although the four identical porticoes adopt Roman Renaissance language, the central hall, surrounding the pier of the main telescope, is articulated with a full Greek Doric order, for which the drawings were provided in 1819.⁵⁵

To achieve perfect stability for the telescope on such a windy site, Playfair paid close attention to the foundations. The surface of the hill was scraped down to the bedrock (not a difficult task as the soil was shallow) and the piers were constructed independently of the surrounding building, a principal still

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fundamental to observatory design today. Playfair noted "Every stone of each pier to be of the best Live Rock that Craig Leith quarry can produce," and insisted that each stone was to be perfectly smoothed in the interests of complete rigidity.⁵⁶ The building was precisely orientated according to the four cardinal points, with the slits for the transit circles (needed for precise time-keeping) cutting across the east and west wings.

Among Playfair's drawings in Edinburgh University Library are numerous drawings of the Observatory's boundary wall, incorporating the Playfair monument which will be discussed below. One of these, an elevation dated 1827, suggests that the old observatory house was to be enclosed in (or remodelled as) a circular peripteral temple surrounded by a colonnade of 20 columns.⁵⁷ In the event this idea was never pursued, and the house remained an extremely modest one -- in 1886, after the Astronomer Royal Charles Piazzi Smyth complained that it was "scandalous to expect a good University man to live in two rooms in an exposed situation", the house was modestly extended in a more ornate Victorian baronial style, but only two years later a Royal Commission recommended that the Observatory be moved to new headquarters on Blackford Hill to escape the smogs of Auld Reekie.⁵⁸

The Greek Revival after Waterloo

Although the intellectual foundations of the adoption of ancient Greece as a model for civic virtue, intellectual achievement, artistic creativity and political liberty had been laid at the height of the Enlightenment in the mid eighteenth century, it was not until after Waterloo that the Greek Revival in Edinburgh's architecture took off. Writing of the end of the Napoleonic wars, Lord Cockburn noted, "It was around this time that the foolish phrase, 'the Modern Athens' began to be applied to the capital of Scotland."⁵⁹ Calton Hill was to become a showpiece of the Greek Revival -- as Henry Russell Hitchcock remarked, "It was in Scotland not in England that the Greek Revival had its greatest success and lasted longest... The result rivals Petersburg as well as Copenhagen, Berlin, and Munich."⁶⁰

As we have already seen, Edinburgh's claims to an Athenian identity had been established in the 18th century, but the architectural beginnings were uncertain. In the case of both the National Monument and the Royal High School a more Roman alternative was seriously considered in the initial stages. The choice to emulate Athens was not simply an accident of topographical likeness -- after all, Rome, too, has its seven hills. And curiously, as we shall see, the Greek choice in each case reflected a totally different political ideology. The Athenian model could be read in a number of different ways.

The first use of Greek language in the New Town's streets was Archibald Elliot's Waterloo Place which provided the grand approach to Calton Hill from Prince's Street.⁶¹ Henry Raeburn's Ann Street, planned in 1814 and half built in 1817, followed closely.⁶² On the diminutive scale of Ann Street, with its innovatory front

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gardens, the Greek style seemed to define a secluded academic élite like an Athenian suburban academy, but Waterloo Place used its imposing Greek orders to declaim the bold Neo-classical ambitions of the hill. In London Nash's great terraces were beginning to frame Regent's Park and wind their way down Regent Street, but this vast scheme of metropolitan improvements retained a Roman elegance. Even Nash's Carlton House Terrace, with its Greek Doric basement, not begun until 1827, lacked the stately gravity of Elliot's commanding overture to Calton Hill.

Edinburgh was beginning to emerge more confidently from the yoke of English cultural leadership, symbolised by the Roman language of Georgian Palladianism. After all, Stuart and Revett declared that Athens had been "subdued by the Romans, with the loss of her Liberty, that love of Glory likewise, and that sublimity of spirit which had animated her Artists, as well as her Warriors, her Statesmen, and her Philosophers, and which had formed her peculiar character, were now extinguished."⁶³ We can be fairly confident that this volume was well-known in the Athens of the North: writing in 1820, Playfair's friend the painter Hugh "Grecian" Williams remarked that he assumed his readership to be familiar with Stuart and Revett.⁶⁴ For the Edinburgh intelligentsia, the Greek style symbolised a search for the fundamental tenets of the civilised society.

The National Monument

The first proposal for a monument to the Scottish heroes of the Napoleonic Wars was that of the Highland Society for a "Pillar, Triumphal Arch or some such architectural Monument."⁶⁵ Although no design has survived, the triumphal arch proposal, for which Gillespie Graham apparently submitted a suggestion, was evidently conceived in a specifically Roman vein. In 1819 Archibald Elliot submitted his proposal for a gigantic circular Pantheon to be sited on the Mound, between the Old and New Towns. This construction drew on megalomaniac continental Neo-classical models such as Soufflot's Sainte Geneviève (1756-90) and Boullée's even larger church project (after 1781).⁶⁶ Elliot's design was duly considered, but no conclusion regarding either the site or the form was reached, other than that the design should be based on a model from antiquity.⁶⁷

The proposal to build a replica of the Athenian Parthenon, then more commonly known by its Roman name of the Temple of Minerva, was submitted in an anonymous pamphlet addressed to the Lord Advocate in 1820, taking up an idea first voiced by Hugh "Grecian" Williams in his *Travels in Italy, Greece and the Ionian islands*, published in the same year.⁶⁸ The pamphleteer regarded the project as a means of furthering the "learning, refinement and intelligence" that had already characterised the New Town development. As Stuart and Revett had claimed in the *Antiquities of Athens*, Athens was "the Mother of elegance and politeness".⁶⁹ The focus of the monument on a British (rather than Scottish) war, its promotion by the Tory periodical *Blackwood's Magazine*, and the laying of the foundation stone during George IV's visit in 1822 suggest that this project was a

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scheme backed by the Tory establishment.⁷⁰ Nevertheless, it served as a symbol of national patriotism, asserting Scotland's individual place within the Union and the Empire through the commemoration of her own fallen heroes.

The hasty laying of the Foundation Stone confirmed the choice of site, granted by the city, as well as the decision -- already announced in a letter to the King -- to adopt the Parthenon as the model.⁷¹ Cockerell was formally appointed to provide the measured drawings for the monument in 1823, with Playfair named as site architect. Playfair eventually produced the first working drawings in 1826; these even included a beautifully detailed design for the fencing of the construction site.⁷² Interestingly his drawings delineate exactly what was executed, namely the base, the first twelve columns and the architrave. It is almost as if, with prophetic foresight, he sensed that this was a form in which the monument could stand alone as built. Although the unfinished state of the monument, abandoned in 1829, was regarded as an embarrassment, the executed portion was a technical and artistic triumph, with its beautifully cut Craigeleith stone and its fourteen-foot lintels, hoisted into place with formidable technical virtuosity on Playfair's part.⁷³ If idealised views of Edinburgh with the monument completed celebrated the nobility of the ambition, the transparent silhouette of the columns had its own sublime grandeur, for as "Grecian" Williams wrote of Athens, "the skies are the principal machinery of nature."⁷⁴ Playfair echoed this sentiment when he wrote to Cockerell in 1829, "When the sun shines and there is a pure sky behind [the pillars] (a rare event you will say), they look most beautiful, but surprisingly small."⁷⁵

It is significant that Playfair's entablature lacked its frieze, for the possibility remained open that Scottish sculptors should provide the reliefs. This aspiration would not only display a desire to appropriate, rather than merely imitate, the Athenian prototype. It also seems to reflect an ambition to compete with England, where the fragments of the original Parthenon marbles had been sold by Lord Elgin to the British Museum in 1815-16.⁷⁶ If England had the Elgin marbles as museum artefacts, Scotland claimed its own Acropolis within its living artistic tradition.⁷⁷ When the sculptor Robert Forrest built a large shed in the shadow of the unfinished National Monument in 1832 to house his own work, the analogy with Phidias carving his marbles on the site of the original Parthenon would have been a tempting one, despite the fact that the sheds were regarded by the Council as an eyesore.⁷⁸

Cockerell's scheme to house vaulted catacombs beneath the Parthenon, to create Scotland's own Valhalla, is preserved in his drawings now in the Royal Scottish Academy. Elliot's proposal to build a functioning church seems to have faded in favour of a more secular memorial to fallen heroes. Cockerell's idea seems to derive from a notion of Crown Prince Ludwig of Bavaria, who suggested a Valhalla to commemorate the defeat of Napoleon at Leipzig in 1813.⁷⁹ In the following year the Prince announced a competition, and in 1815 the German architect Haller von Hallerstein, who was at that very time visiting Athens in the company

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of Cockerell, submitted an entry just two years before his own death. It is intriguing that the German project was revived in 1829, the same year that Edinburgh's Parthenon was abandoned. The conception of von Hallerstein and Cockerell would eventually find its full expression in the huge Parthenon replica at Regensburg, erected by Leo von Klenze in 1830-42. Its inauguration in 1842 was commemorated by Turner in a huge canvas bathed in visionary light, *The Opening of the Walhalla*, now in the Tate Gallery.⁸⁰

The Royal High School

While the Parthenon project faltered, only to be resurrected in Germany, the architect Thomas Hamilton carried through to completion another important Greek-style project on Calton Hill, the new High School. Begun in 1825 and opened in 1829, this erudite and original building was described by Sir John Summerson as "surely the noblest monument of the Scottish Greek Revival."⁸¹

Just two generations earlier, in 1777, the Town had begun a new building for the High School on its old site near the University, to the design of Alexander Laing. This well-proportioned, tripartite Georgian building with a plain Tuscan portico reflected the strong Latin bias in the teaching of the time. Since that time, as already mentioned, the amount of Greek in the curriculum had steadily increased under Alexander Adam's rectorship, until at last it was officially recognised by the Town Council with the award of a medal for the *dux* of the Greek class in 1814.⁸² But the decision to erect a new building was provoked not by the changing curriculum, but by the increasing inconvenience and perceived indignity of the Old Town site after many of the pupils' families had moved to the New Town. Numbers had also increased -- Arnot estimated that the school had 400 pupils in 1779, whereas by 1819 a visiting Professor from America recorded 800-900 boys, taught by only four teachers and the Rector.⁸³ This seems to have been an exaggeration, for by the time of the laying of the foundation stone in 1826, there were only 630 pupils in five classes, taught by an ingenious system of monitors taking smaller groups in side rooms.⁸⁴

The location first considered for the new High School lay in Canonmills, but the Council then turned its attention to St Andrews Square. For this site behind Robert Adam's Register House, Hamilton designed an urbane Roman-style square building raised on a high plinth, entered by a surmounted by a colonnaded drum, reminiscent of James Gandon's Four Courts in Dublin (1786-1802). As in the case of the National Monument, the first project in Roman Neo-classical style was rejected in a favour of a Greek alternative.⁸⁵ This was an important moment of transition in Scotland's cultural self-identity. When the St Andrews Square site was acquired instead by the Royal Bank, the flank of Calton Hill was considered to be the only possible alternative. Given the technical difficulties of the steep slope and the huge area of flatter land then under development in the New Town, this reasoning now seems unconvincing. More plausibly, the prestige and theatricality of the site, as well as the appropriateness of its by now increasingly Grecian

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setting, must have appeared compelling. It is significant that the new route of the approach road from London had finally been redirected from the Canongate, now regarded as increasingly squalid and undignified, to Regent Road in 1817.⁸⁶ Thus the austere grandeur of the new High School, cleverly exploiting the curve in the road, provided fitting scenery for this ceremonial approach road, while the Royal College of Surgeons, the new College of the University and Register House adorned the entry to the New Town from the south.

Just as the Bridewell faced the Old Town with its imagery of "correction", so, too, the site of the High School faced the Canongate, far below, its central axis almost aligned with the Canongate Kirk. The visual dialogue between the Old and New Towns, and between faith and secular learning, was nowhere more dramatically played out. At the laying of the foundation stone in 1825, the Lord Provost expressed the hope that "instead of deforming this much-admired hill, the building proposed to be erected will form one of the finest pictures in the scene."⁸⁷ And indeed, its dramatic staircases rising above the London road rival the massing of visionary Neo-classical schemes on the continent such as Friedrich Gilly's monument to Frederick the Great designed in 1797, and later the steep ascent to the Regensburg Valhalla already mentioned.

The relevance of the Greek imagery was underlined by the Rector Dr Carson in his address at the opening ceremony in 1829:

The schools of ancient philosophy have ceased to be frequented – they have long since ceased to exist – but the unfading sunshine of their glory still continues to irradiate the minds of men with a strong and steady light.⁸⁸

Hugh "Grecian" Williams had written of the thrill of stepping on the very stones on the Acropolis where Pericles, Phidias, Socrates, Plato, Xenophon and others had walked before him.⁸⁹ In a similar vein, Dr Carson reminded his pupils that they followed in the footsteps of the illustrious minds of the Enlightenment:

You are Scotsmen . . . yours is the country that gave birth to a Robertson, a Blair, a Hume, a Ferguson, a Reid, a Smith, a Stewart, and when these, and other admired geniuses of former days are recalled to your memory, let their honoured names fire your ambition and animate you to the most strenuous exertions in a similar career of glory.⁹⁰

"Grecian" Williams's views of Athens had been shown in a memorable exhibition in Edinburgh in 1826, and in 1829, the year of the school's inauguration, his engraved views were published. One of these, entitled "The Academic Grove", illustrates philosophers in discussion in the foreground with the Acropolis in the background.⁹¹ The Propylea nestling under its brow appears so similar in form and siting to Edinburgh's High School that it seems as if the artist were depicting not the Acropolis itself but Calton Hill. Dr Carson seems to have had this very view in his mind when he spoke in his address of "the olive Grove of Academe [which] will, while men dwell upon the earth and continue to be civilised, neither know diminution nor experience decay."⁹²

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The learned references to Athenian antiquities in the High School underlined these noble ideals. While the Propylea with its central portico flanked by projecting wings inspired the massing on the hillside, the order of the central portico was based instead on the Temple of Theseus, illustrated in the third volume of Stuart and Revett's *Antiquities of Athens*, published in 1794. Not only was this Doric temple better preserved than the Parthenon, but Stuart and Revett assert that it also lay beside the seat of a famous institution of learning: "Nor can it be doubted that this is the Temple which both Plutarch and Pausanias place near the Gymnasium of Ptolemy."⁹³ The High School's curriculum now offered the education -- Greek geography, history and antiquities as well as literature and language -- that would explain the ideology underlying the design. The school work published in Dr Steven's *History of the High School of Edinburgh* includes pupils' poems entitled 'On the Acropolis of Athens' (1822), 'Caledonia' (1830), and 'Greece' (1841).⁹⁴

This was one of the first institutions of learning to adopt the architectural language of ancient Greece. William Wilkins' Downing College, Cambridge, designed in 1806, was one of its few predecessors. Apart from Soane's interiors in the Bank of England few town buildings in Britain had so far adopted the Greek style. Smirke's Covent Garden Theatre (1808-9) and Stark's Glasgow Court House (1809-10) are early experiments in placing Greek Doric porticoes in urban settings. From this time on, examples proliferated -- Wilkins' University College London dates from 1827-8, and Smirke's British Museum from 1823-46 -- but no other had the natural advantages of site that Hamilton's High School enjoyed.

As befits one of the great landmarks of the Greek revival, Hamilton's project also embodied another important strain in the Neoclassical movement, the eagerness to express structural logic and technical expertise. The balconies of the central assembly hall are supported by cast iron columns, far slimmer and less wasteful of space than a stone order would have been, while the original windows displayed Hamilton's ingenious "disappearing sashes", sadly removed in the restoration of 1977-80.⁹⁵ Science was only slowly making its way into the school curriculum; natural history and chemistry were not introduced until 1849, but the nearby presence of the Observatory acted as a reminder of Edinburgh's scientific excellence.⁹⁶

The history of Edinburgh High School makes clear that the ethos of the school not only aspired towards classical learning, but also towards liberal values and equal opportunities in education. Dr Adam had been "an ardent supporter of constitutional freedom" who had even, on occasion, allowed his views to be exposed "somewhat unguardedly" in the classroom.⁹⁷ Although the building of the Edinburgh Academy in 1823-4 threatened to draw away pupils from the better families, successive rectors of the High School insisted on the benefits of mixed-rank classes. A distinguished former pupil, the advocate, MP and later Lord Chancellor Lord Brougham remembered that:

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There they were sitting side by side...without the slightest impression on the part of my noble friends of any superiority...or any ideas of inferiority on the part of other boys to them; and this is my reason for preferring the Old High School of Edinburgh.⁹⁸

At the laying of the foundation stone in 1825, the former rector Professor Pillan asserted that the students of the lower and middling ranks were a good influence on the more privileged classes because of their greater diligence.⁹⁹ When Dr Pyper retired from the staff in 1844 to take up a chair at St Andrews, he particularly remarked on "the vast importance of uniting together, during the process of elementary education, the youth of all classes of the community. This is the glory of our Scottish grammar schools."¹⁰⁰ His successor on the school's staff echoed this ideal, "Here the youth of all classes of society -- every sect, -- the peer and the peasant, -- all join in the same form, each possessing no advantages over his neighbour."¹⁰¹

This liberality of spirit must be seen in its historical context, for 1844 was the very year in which Thomas Hamilton's obelisk to the martyrs for political reform was erected in the Calton Burial Ground.¹⁰² The Solicitor General Lord Hope had affirmed at the foundation ceremony in 1825 that "the High School was particularly calculated to inspire the young mind with a foretaste of the blessings which are to be derived from our free constitution."¹⁰³ The ideals of ancient Athens as a democratic *polis* still found a resonance in Edinburgh's polite society -- not by chance are 'politeness', 'politics' and 'police' all derived from the same etymological root. If the National Monument must be seen in the context of Tory dominance under Henry Dundas, Viscount Melville (known in London as the 'Caledonian Hercules'¹⁰⁴), the High School project was infused with Whig reformism, which laid the foundations for Calton Hill as a focus for Scottish constitutional freedom. The Whig party's return to power in 1830 and the hastily drafted Parliamentary Reform Bill of 1832, followed by the Scottish Burgh Reform Bill in 1833, symbolised the liberal ideals of the period.¹⁰⁵ Even after the Bill, only one in five male Scots was enfranchised, but at the time the victory was welcomed by the adherents of political reform.¹⁰⁶

The adoption of the High School as the chosen site for the Scottish Parliament and its zealous round-the-year guarding by Nationalists from 1978 until 1997 seems especially appropriate when one considers the democratic ideals that the building embodied at its inception.

The Monuments of Calton Hill

As the public began to realise that the project to entomb a Scottish Valhalla under the National Monument would never reach fruition, the hill itself came to serve as a shrine to the great minds of the Scottish Enlightenment, beyond the confines of its burial grounds. In 1825 Playfair designed the monument to his uncle John Playfair, who had died in 1819.¹⁰⁷ The inscription, dated 1826, dedicates the

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edifice to "Urania", the muse of Astronomy, to whom Tycho Brahe's observatory Uraniborg had been dedicated. The use in antiquity of simple geometric forms to commemorate the dead -- the cube, the pyramid and the cylinder -- appealed to Neo-classical sensibilities, as the cenotaph projects of Boullée and Ledoux indicate. But how Playfair learned of the square type raised on a high plinth adopted for his monument to his uncle is not clear. The Roman mausoleum known as the tomb of Annia Regilla on the Appian Way and the baker's tomb outside the Porta Maggiore provided precedents for cubic tomb structures, but it is tempting to speculate that Playfair also knew of more similar Greek models such as the Lion Tomb at Cnidus which shares its engaged Doric order and pyramidal roof.¹⁰⁸ John Playfair's monument was incorporated into the boundary wall of the Observatory, literally as the cornerstone of the institution which he had so effectively supported. Its geometrical purity and massive masonry allude to Playfair's two main scientific specialisations -- mathematics and Huttonian geology.

Playfair's monument to Dugald Stewart († 1828) adopts a more festive model of Greek funerary architecture, by taking as its prototype the Choragic monument of Lysicrates in Athens, made famous by its inclusion in volume I of Stuart and Revett's *Antiquities of Athens* (1768). This model had already become celebrated in Scotland through its adoption in Hamilton's Burns monument in Alloa, built in 1820-23, and Playfair similarly opened its Corinthian colonnade to the skies to exploit the Picturesque qualities of the site. Stuart and Revett's account suggested that the Athenian monument was designed to support the victory tripod won by Lysicrates in a musical or theatrical contest, perhaps alluding to Stewart's renown as a brilliant orator.¹⁰⁹ Playfair borrowed the frieze of victory wreaths from the Choragic Monument of Thrasyllus, taken from Stuart and Revett's second volume of 1787. Stewart was also remembered for his outspoken liberal opinions, echoing the radical idealism already blowing around the Calton Hill. The drawings, dated 1831 (while the Parliamentary reform bill was being prepared), include some of Playfair's most exquisite masterpieces, such as his designs for the Corinthian capitals.¹¹⁰

Meanwhile Edinburgh acquired its own memorial to Burns when Hamilton elaborated on his Alloa monument in 1830-32, using the same Greek prototype of the Choragic Monument of Lysicrates.¹¹¹ In this version Hamilton exploited the cliff-top site by blending the Greek prototype with the Roman Temple of Vesta at Tivoli, the dramatic situation of which had been a favourite subject of landscape painters since the 17th century. The monument has a solid cella surmounted by a drum, as Palladio had suggested, but the Greek theme is revived at the top with the 'thatch' of the roof and the victory tripod on the apex. Rising from the brow of the hill in front of the High School, the Burns monument asserted that Scottish poets could rival the great bards of antiquity, thus claiming the Athenian voice as an authentic Scottish one.

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In contrast to the historicism of Scotland's later Victorian architecture, the fervent idealism of Calton Hill was not a nostalgic search for an authentic history. It was a vision of a glorious future, full of optimism and self-confidence. These boldly sited monuments provided models of virtue to inspire future generations rather than sentimental expressions of loss. The Continental passion for pure form and the impact of Durand's rationalism was beginning to override the more emotional aesthetics of the English Picturesque that had guided the early stages in the hill's development. In his travel narrative of 1820 Hugh "Grecian" Williams confirmed that some were beginning to question the doctrine of association:

The ingenuity of philosopher has been exerted in analyzing the nature of our sentiments of sublimity and beauty. While some have contended that all these sentiments are founded on certain associations of ideas, others have supposed that there is in the nature of the objects themselves, which we denominate sublime or beautiful, a certain inherent and original quality.¹¹²

Too often, in Europe, the scale and radicalism of Neo-classical ideals had meant that architectural designs remained on the drawing board, for the revolutionary spirit and the need for wealthy patronage often proved incompatible. But in Edinburgh there were natural advantages of site that favoured the expression of idealistic grandeur, and the quarries at Craighleith allowed the expression of primeval robustness by using huge blocks of stone -- Playfair's drawings for the Doric portals of Regent Terrace specify monolithic columns and lintels.¹¹³ Calton Hill defined Scotland's place within the cultural context of Europe as a whole. Schinkel's visit to the Hill in 1826 ensured that aspects of its memory were projected back into Europe in projects such as his Charlottenhof, near Potsdam (1826-33), with its Greek-style buildings in a parkland setting.¹¹⁴ Schinkel himself shared the belief in the Greek ideal of liberty, which he described as "the most felicitous state of freedom within the law."¹¹⁵

The role of Calton Hill in demonstrating Scotland's artistic and political individuality proved an enduring one. In 1930, when the Government proposed new administrative buildings on the site of the former Bridewell to designs of an English in-house architect, a local campaign was mounted in Scotland, vociferously supported by John Buchan among others, to press for an open competition.¹¹⁶ The eventual winner, Thomas Tait, produced a design which has been compared with Nénot's League of Nations Building in Geneva.¹¹⁷ No more overt claim to a place in the international cultural and political arena could have been made at that time. The dignity of the *beaux-arts* style massing and the exploitation of the dramatic site continued -- in an absolutely up-to-date manner -- the powerful blend between academic discipline and Picturesque sensibilities that had characterised the earlier buildings on the Hill. In Tait's St Andrew's House, "Edinburgh (in contrast to London) might claim to be part of the inter-war architectural community of Europe."¹¹⁸ Calton Hill remained a site where Picturesque landscape, Neoclassical dignity, and political idealism could be united within a single artistic ensemble.

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References

- ¹ Duff, 1994, p. 24
- ² Unless otherwise stated, dates of buildings are taken from the most reliable source on the period, that is Colvin, 1995.
- ³ See, for example, Daiches, 1978, p. 195.
- ⁴ Daiches, ed. , 1986.
- ⁵ Fraser, 1989, pp. 13-26.
- ⁶ Daiches, 1978, p. 151. Here in 1773, Boswell proudly brought Dr Johnson to meet the great minds of his native country, although he sardonically observed: "A zealous Scotsman would have wished Mr Johnson to be without one of his five senses upon this occasion." (Johnson & Boswell, 1984, p. 167)
- ⁷ Thomson, 1986, pp. 61-2.
- ⁸ Thomson, 1986, p. 68
- ⁹ Thomson, 1986, p. 107.
- ¹⁰ Cruft and Fraser, 1995, pp. 26-37. The lines cited appear in the 1986 edition of the poem on p. 146.
- ¹¹ Ferguson, 1995, p. 77. See also pp. 162-3.
- ¹² Steven, 1849, pp. 113-4.
- ¹³ Steven, 1849, pp. 119-21.
- ¹⁴ Steven, 1849, p. 148.
- ¹⁵ An account of Dr Adam's life is given in Steven's Appendix, 1849, pp. 55-65.
- ¹⁶ Arnot, 1779, p. 190.
- ¹⁷ Examples are illustrated in Colvin, 1991, Figs. 54-58.
- ¹⁸ See Rykwert, 1995, pp. 175, 177; and Colvin, 1991, pp. 119-21. The mausoleum of Theodorik has the arcade on the lower tier, but hte massing and articulation are very similar.
- ¹⁹ It is not clear whether Adam could have had direct knowledge of archaic Greek circular tombs such as the low cylinder surmounted by a Doric frieze in the Kerameikos cemetery in Athens, but if he did, its location in a citizens' cemetery on the edge of a great metropolis would have made this a fitting prototype (illustrated in Colvin, 1991, Fig. 20).
- ²⁰ Patterson & Rock, 1992, p. 176.
- ²¹ On the early history of the Observatory see especially Brück, 1983, pp. 2-21; Bryden, 1990.
- ²² Cruft & Fraser, 1995, pp. 108-9.
- ²³ Arnot, 1779, pp. 245-6.
- ²⁴ On the Radcliffe observatory see Donnelly, pp. 44-7.
- ²⁵ Forsyth, 1805, vol. I, p. 53.
- ²⁶ Maitland, p. 375; Bryden, 1990, pp. 449-455.
- ²⁷ Rowan, 1985, pp. 16-19.
- ²⁸ These are visible in the views of Stuart & Revett, for example the first plate in vol. I, 1762, and plate I in vol. II, 1787; and in several views in Williams, 1839 (unnumbered pages & plates). On the state of Athens under the Turks see Mackenzie, 1992, pp. 9-16. The renewed interest in visiting Greece in the 18th and 19th centuries is discussed by Tsigakou. 1981.
- ²⁹ The fullest discussion of the Bridewell is by Markus, 1982, pp. 66-84.

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- ³⁰ The Welsh gaols are those of Carmarthen, Cardigan and Hereford, built between 1789 and 1796. See Colvin, p. 689 for further bibliography.
- ³¹ McInnes, 1993, pp. 14-15.
- ³² McInnes, 1993, p. 15.
- ³³ Illustrated in Markus, p. 74.
- ³⁴ Research in progress, Edward Eigen.
- ³⁵ McQueen, 1998, p. 24, no. 18.
- ³⁶ Rowan, 1985, eg, Plate 48.
- ³⁷ See Crook, 1995, pp. 93-98.
- ³⁸ For a discussion of this philosophy of aesthetics, and Hume's role in its development, see Crook, 1987, especially pp. 16-19.
- ³⁹ Crook, 1987, pp. 18-19.
- ⁴⁰ For a critical assessment of Stark's contribution see Youngson, 1966, pp. 149-52
- ⁴¹ Stark, 1814, p. 7.
- ⁴² Stark, 1814, p. 8.
- ⁴³ Stark, 1814, p. 9.
- ⁴⁴ Stark, 1814, p. 10.
- ⁴⁵ Stark, 1814, p. 12.
- ⁴⁶ Stark, 1814, p. 17.
- ⁴⁷ Stark, 1814, p. 17.
- ⁴⁸ Edinburgh University Library, Playfair drawings, Portfolio 7, Drawing no. 847.
- ⁴⁹ Peter Reed, 'Form and context: A Study of Georgian Edinburgh', in Markus, 1982, pp. 135-48.
- ⁵⁰ Illustrated in Middleton & Watkin, 1980, pl. 316 on p. 192.
- ⁵¹ Bryden, 1990, p. 471.
- ⁵² EUL, Playfair drawings, Portfolio 5, nos. 543-563.
- ⁵³ Donnelly, 1973, pp. 3-56.
- ⁵⁴ Thoren, 1990, pp. 106-111.
- ⁵⁵ EUL, Playfair drawings, Portfolio 5, nos. 559-60.
- ⁵⁶ EUL, Playfair drawings, Portfolio 5, nos. 549, 551, 553. The quotation is on no. 553.
- ⁵⁷ EUL, Playfair drawings, Portfolio 5, no. 565.
- ⁵⁸ Bryden, 1990, pp. 471-2; Brück, 1893, p. 45.
- ⁵⁹ Cockburn, 1974, p. 277.
- ⁶⁰ Hitchcock, 1977, p. 112.
- ⁶¹ Youngson, 1966, pp. 144-48; Gifford *et al.*, 1984, pp. 442-3..
- ⁶² Youngson, 1966, pp. 214-15; Gifford *et al.*, 1984, pp. 405-6.
- ⁶³ Stuart & Revett, I, 1762, p. iv.
- ⁶⁴ Williams, 1820, p. 297.
- ⁶⁵ McQueen, 1998, p. 18.
- ⁶⁶ Illustrated in Middleton & Watkin, pp. 23-6, p. 179.
- ⁶⁷ McQueen, 1998, p. 19.
- ⁶⁸ McQueen, 1998, pp. 18-19.

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- ⁶⁹ Stuart & Revett, I, 1762, p. v.
- ⁷⁰ Lowrey, 1998, Boards 4/2 - 4/3.
- ⁷¹ McQueen, 1998, p. 21.
- ⁷² EUL, Playfair drawings, Portfolio 12, nos. 1486-92. The fence and gates are drawn in no. 1486.
- ⁷³ Youngson, 1966, p. 160. The measurements are given in the drawings in EUL. At the laying of the foundation stone Cockerell had been appalled by the indifference of the Edinburgh establishment to the technical virtuosity required to move such large stones (Watkin, 1974, p. 111).
- ⁷⁴ Williams, 1820, p. 340.
- ⁷⁵ Youngson, 1966, p. 160.
- ⁷⁶ Crook, 1972, p. 108; Mackenzie, 1992, pp. 80-82.
- ⁷⁷ On later proposals to complete the monument, see Lowrey, 1998, boards 4/3-5.
- ⁷⁸ McQueen, 1998, pp. 17-18.
- ⁷⁹ Middleton & Watkin, 1980, p. 104; Basil Skinner, 'Parthenon or Valhalla?' in Hodges (ed), 1983, pp. 3-7.
- ⁸⁰ Middleton & Watkin, 1980, p. 104.
- ⁸¹ Summerson, p. 509.
- ⁸² Steven, 1849, p. 190.
- ⁸³ Arnot, 1779, p. 247; Steven, 1849, pp. 192-3.
- ⁸⁴ Steven, 1849, p. 222.
- ⁸⁵ Hamilton's Gandon-like scheme for the High School is illustrated in Rock, 1984, p. 24, pl. 10.
- ⁸⁶ Chambers, 1868, p. 297.
- ⁸⁷ Steven, 1849, p. 218.
- ⁸⁸ Steven, 1949, Appendix, p. 75.
- ⁸⁹ Williams, 1820, p. 290.
- ⁹⁰ Steven, 1949, Appendix, p. 76.
- ⁹¹ Williams, 1829, unnumbered plates.
- ⁹² Steven, 1949, Appendix, p. 76.
- ⁹³ Stuart & Revett, III, 1794, Chapter I, p. 1.
- ⁹⁴ Steven, 1849, pp. 337-8, 345-50.
- ⁹⁵ Gifford *et al.*, 1984, pp. 440-41.
- ⁹⁶ See Steven, 1849, p. 270.
- ⁹⁷ Steven, 1849, p. 167.
- ⁹⁸ Steven, 1849, pp. 212-3.
- ⁹⁹ Steven, 1849, pp. 221-2.
- ¹⁰⁰ Steven, 1849, pp. 258-9.
- ¹⁰¹ Steven, 1849, p. 261.
- ¹⁰² Turnbull, 1881, pp. 85-6.
- ¹⁰³ Steven, 1849, p. 218.
- ¹⁰⁴ Crook, 1972, p. 81.
- ¹⁰⁵ Daiches, 1978, pp. 202-4.
- ¹⁰⁶ Lynch, 1991, p. 391.
- ¹⁰⁷ EUL, Playfair drawings, Portfolio 5, nos. 569-77.

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¹⁰⁸ Colvin, 1991, pp. 79-80, 96-7, 39-40.

¹⁰⁹ Stuart & Revett, 1762, Chapter IV.

¹¹⁰ EUL, Playfair drawings, Portfolio 20, nos. 2412-2442. The Corinthian capitals are nos. 2423-2424.

¹¹¹ Rock, 1984, pp. 54-57.

¹¹² Williams, 1820, p. 314.

¹¹³ EUL, Playfair drawings, Portfolio 12, nos. 1464-65.

¹¹⁴ See Bergdoll, 1994, pp. 137-67. On Schinkel's British journey, see Snodin (ed.), 1991, pp. 172-4.

¹¹⁵ Alex Potts, 'Schinkel's Architectural Theory', in Snodin (ed.), 1991, pp. 47-56, quoting from p. 51.

¹¹⁶ McKean, 1987, pp. 106-8.

¹¹⁷ Gifford, et al., 1984, p. 441. McKean, 1987, pp. 106-8, sees analogies with the work of both Frank Lloyd Wright and the Dutch architect Dudok.

¹¹⁸ Gifford, et al., 1984, p. 70.

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2.09 Instruments

Significance of the Scientific Apparatus associated with, lodged at or used at the Calton Hill Observatories

The design, manufacture and use of scientific instruments are dynamic processes coupled to the processes and progress of scientific enquiry and discovery. An instrument may be considered significant because it represents a particular stage in the advance of design, or because of a particular advance in understanding achieved through its use or by its use by a particular personality. In hindsight, it is often easy to underestimate the significance attached to an instrument by the public or the scientific community contemporary with one of those evolutionary stages. Prominent discoveries are, often, intellectual palimpsests into which are subsumed numerous minor advances, indivisible from the whole and therefore significant by the contribution to the whole. The total instrument associated with Calton Hill, amounting currently to some 136 instruments or components of instruments and representing the inter-related fields of Astronomy, Horology and Meteorology, truly reflects and tradition of scientific endeavour, representing many important discoveries and several key scientific personalities. This tradition reached its zenith in the nineteenth century and its various components raised the profile of Edinburgh, symbolised by Calton Hill, both nationally and internationally. In tandem with the advances in each of the scientific communities, there was also a raised awareness and heightened curiosity in the broader civic community. This constituency was approached for funding at various times when finance for scientific research and education faltered. In terms of longevity of use, the popular observatory, in its various guises, that was set up on Calton Hill may be seen to have enjoyed a significance that rivalled the academic institutions. Thomas Short's observatory served the very keen public interest in celestial bodies and was maintained by Thomas and then by Maria, his supposed daughter, from 1776 to 1788, when Thomas Short died, and from 1835 - when Maria opened her popular observatory on the hill - to 1851. The latter date was when her observatory was closed. In 1856, she opened a new observatory at 549 Castlehill - the Lookout Tower - and based her business on the Camera Obscura from Calton Hill. In 1861, ownership passed to an instrument maker called Hart although it retained the trading name of Short's Observatory (Wallace 1992). In 1896, Patrick Geddes took over the business and it is thought that Maria Short's instruments were then removed to an unknown destination or fate. (pers comm Graham Rule).

Amongst the instruments, the astronomical instruments might be perceived as taking pride of place, but these were primarily used in the measurement of time rather than pursuit of stellar discoveries. Instruments, such as the 1834 Troughton and Simms Mutual Circle and the Transit Instrument made by Repsold & Sons of Hamburg therefore take pride of place. Intimately linked to such instruments are actual time-pieces, such as Reid and Auld 1813 Time Regulator and the Bryson Sidereal Regulator are of key significance.

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As well as the instruments designed to pursue the high precision measurement of time, there are those instruments that were used to display accurate time keeping to the general public and to commercial, especially maritime, institutions. The first such instrument installed on Calton Hill was John Playfair's 'Politician's Clock'. This was the Reid and Auld regulator (No 14 in Table 4) and was installed in the Transit House in 1814 (Wood 1972, 56). It was to this instrument that mariners would set their chronometers by the simple expedient of taking the journey to Calton Hill from Leith Docks, carrying the ship's clock to the Transit House. With the installation of the Transit Telescope and Mural Circle, in 1830, and of Bryson's Mean Time Regulator (No 13 in Table 4) - a sidereal clock - in 1832, into the new observatory, greater accuracy was achieved. Access to the service was still inconvenient for most users with a trek up to Calton Hill remaining a necessity.

This service was enhanced with the installation of the Time-ball on top of the Nelson Monument. This was introduced under the auspices of Charles Piazzi Smyth, whose remit included the establishment of a public time service (Brück 1983, 25). The date of the actual commencement of a public time service is not altogether certain. In 1850 the council were informed that the Treasury had ordered the device and it seems from council records that installation began in 1850 (McQueen 1998; ECA Council Minutes Vol. 253, P.372). The Time-ball is recorded as being operative in 1851 (Wood 1972, 56) although Brück states that the time-ball was not properly working until 1858 (1983, 25). During its initial few years of service, the Time-ball was released by an electrical signal from the Observatory, although it was wound up by hand. The source of the signal was initially the Reid and Auld Regulator (No 14 in Table 4), but this was replaced in 1855 by a clock built by Dent (now in the National Museum - NMS.T.1961.36) and presented to the Observatory by a single aerial wire (see McQueen 1998, 37). The cable was successfully raised up by sailors (a letter in the Edinburgh Evening News in March 1997 refers to an eyewitness account of this event) and was both the longest unsupported cable in the world. Subsequent further slave clocks were established at Edinburgh University, the Museum in (?) Chambers Street and in the General Post Office. There also exists a setting for a clock within the Council Chambers and it is likely that this represents a further slave clock that was attached to the system (pers comms Dereks Janes). No account has yet been identified that describes how the aerial wire was taken down and what became of any remains.

Meteorological instruments have survived generally in a much worse state of repair and it is their current state that has perhaps lessened the significance of the series of measurements and observation that were crucial, if very protracted components of the development of scientific observation in Edinburgh. For instance, the weather vane that once stood on the Old Observatory roof is now lost, Charles Piazzi Smyth's earth thermometers are mostly although their replacements, made in 1879, are intact. Remnants of earlier experiments may also survive. Close to the Transit House, however, there is a rusted earthfast metal

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pillar. To date no reference has been found which provides an account of its original function, but a very similar pillar is shown in an apparently undated drawing (it possibly dates to 1829) and appears to represent some kind of meteorological station (Winkles nd, Edinburgh City Library, Edinburgh Room, YDA.1829.9. (829)).

The tradition of scientific experiment and observation of Calton Hill fostered commensurate developments in instrument design and manufacture and created a public demand for information. This dissemination of scientific information and of its integration into the worlds of both commerce and entertainment probably represent a significant contribution certainly to nineteenth century Scottish society and it is this aspect of the cultural heritage of Calton Hill that merits the greatest acclaim.

2.10 People

2.10 People

People Associated with Calton Hill

There are two existing houses on Calton Hill. Old Observatory House, the oldest standing building on the Hill top, was originally inhabited by observatory staff, although it has been privately leased for more than a century. The other existing house on Calton Hill is attached to the Nelson Monument and inhabited by the caretaker who has in the past used it to serve teas to visitors. The accommodation was designed for naval veterans but was only used for that purpose for a short time. The only other documented dwelling on the Hill top, known as the "Keeper's House" or "Calton Cottage" and of which no traces remain, was located to the east of the Nelson Monument. Robert Forrest, who held exhibitions of his statuary on Calton Hill, and his wife lived there, as did the Keeper of the Nelson Monument for a short while.

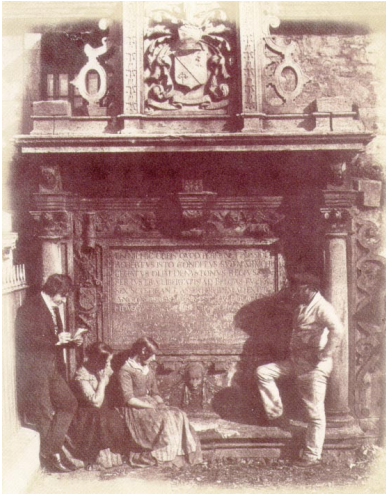
Socially, therefore, the houses on the Hill top are of no great significance but the inhabitants of the area surrounding the Hill, which includes High Calton and the Regent, the Royal and the Carlton Terraces have been comprehensively documented in an excellent book by Anne Mitchell called 'The People of Calton' which reveals a wealth of interesting connections with people who played a significant part in the life of Edinburgh and elsewhere. The location ensured that many distinguished members of the University made their homes there and these attracted visitors from worldwide. Professor Masson, the Professor of Rhetoric and a noted supporter of education for women, was host to Thomas Carlyle and John Stewart Mill. Alexander Low Bruce, Deputy Chairman of William Younger and Co, the Brewer was married to David Livingstone's daughter and entertained both Henry Stanley, the explorer and Louis Pasteur the chemist. Distinguished artists included Francis Cadell, Sir George Reid and the Rhind brothers, Sir Donald Tovey produced his edition of the Beethoven Sonatas and gave lessons to the daughter of another Professor of Rhetoric who regularly welcomed Yeats, Belloc and Chesterton to poetry readings and entertained Pablo Casals. The famous Mrs Maclehose, Burns' Clarinda, lived in High Calton and was visited by him there. Rock House in the same street was the home of the pioneers of photography, Hill and Adamson who also had their studio there. When Charles X, exiled King of France was living in Holyroodhouse, his son, the Duc d'Angouleme lived in Regent Terrace with Charles' grandson, the Duc de Bordeaux, of whom there is a charming portrait playing in the 'pleasure grounds' of Calton with the palace in the background. Perhaps the most unusual- and unwilling- resident was Emmanuel Shinwell, imprisoned as a conscientious objector in the Calton Gaol during the 1914-18 war, subsequently to become Lord Shinwell and Minister of Defence in the post-war labour government. Of more local interest are the residencies of the Constable and Bartholomew families, printers and mapmakers, and of Tertia Liebenthal, whose series of lunchtime concerts in the National Gallery launched a remarkable number of young musicians on their careers. The tone of the neighbourhood is reflected in the cars which lived in the Mews- Rolls Royce, Daimler, Lanchester, Packard, Buick and Crossley.

2.10 People

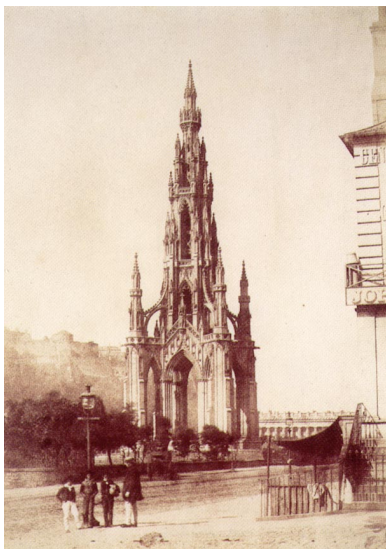
The social set represented by the inhabitants was not very different from other well-to-do parts of Edinburgh, although it was probably more professional and less aristocratic than Charlotte Square or Moray Place. It is unusual however in being one of the only two areas of Edinburgh in which the inhabitants have been so comprehensively recorded which will prove a valuable resource for future social historians.

2.11 The Arts

2.11 The Arts



Greyfriars Churchyard, the Dennistoun Monument with D.O. Hill and his nieces 1843-7



Princes Street, Edinburgh, with the Scott Monument 1846-7

Photography

Calton Hill is famous world-wide as the principal site of one of the most extraordinary and influential cultural partnerships in history. In March 1843, the young Robert Adamson took the lease on Rock House, the highest private building on the hill, with a south-facing garden. Adamson had adopted a new profession, as a calotype photographer, using the process newly-invented by the Englishman, William Henry Fox Talbot. With the uncertain chemistry of the day, it was a fickle process and Robert Adamson remained remarkable in his ability to control it, producing consistently beautiful prints, throughout his brief career.

In May of the same year, Edinburgh was both shocked and deeply impressed by the Disruption of the Church of Scotland, when some 400 ministers walked away from the General Assembly and abandoned their livings on a point of principle. One of the people present was the Academician, David Octavius Hill, who was moved to paint a grand picture of the founding of the new Free Church and began sketching during their meetings. He was observed at work by Sir David Brewster, himself celebrated as a physicist and scientific journalist, who suggested that Hill could take advantage of the new photographic studio in his work.

Hill went up to Calton Hill and met Adamson and, after some experiments, the two men were so fascinated by the possibilities opened up that they entered into partnership in July. For the next four, unexpectedly sunny years, hundreds of important and interesting people came up to have their portraits taken in the studio garden, from the celebrated Scots of the day to important visitors from Europe, Canada, America, India and Afghanistan. The calotypes are portraits of such direct vigour and impact that they established a standard that impressed the world and influenced twentieth-century practice in photography. The great American photographers, like Alfred Stieglitz and Paul Strand, were united in their enthusiasm for the skill and expression of the work. The young Beaumont Newhall, encountering the work for the first time in 1932, spoke of its, 'astounding modernity of feeling.' Ansel Adams, following Heinrich Schwartz, was even more fluent:

a jewel was formed in the matrix of the early nineteenth century, indigenous to its period and sincere in the purity of its presentation. David Octavius Hill succeeded both in making remarkable photographs and in demonstrating one of the basic principles of art: complete expression within the limitations of the medium.

In forays from the studio, Hill and Adamson took photographs of Edinburgh, such as the building of the Scott Monument and Merchiston Castle School - of the heroic fishermen of women in Newhaven, historical views of St Andrews and Linlithgow, and the scientific conference of the British Association in York in 1844.

The site of Calton Hill was particularly apt for photography. The calotype was a comparatively coarse process, printed from and on drawing paper, which needed bright daylight and preferably sunshine to make both negative and positive. Most early professional photographers worked high up on buildings, with the wind

2.11 The Arts



Elizabeth Johnstone (Mrs Hall) and another fishwife

whistling round the chimneys. Hill and Adamson had a sunny, sheltered garden to welcome their sitters and since they were high up above sea level, the sunlight lasted longer. They may have had another curious advantage - the calotype process as they used it was striking for the richness and subtlety of its response to light. It may be that this was partly generated by the smoke from the houses on the Royal Mile, 'Auld Reekie,' filtering and bouncing the sunlight.

The partnership was sadly brief. Adamson died in January of 1848 at the age of twenty-six. Hill mourned him in a letter to his friend Joseph Noel Paton:

...I have today assisted in consigning to the cold earth all that was earthly of my amiable true & affectionate Robert Adamson. He died in the full hope of a blessed resurrection. His truehearted family are mourning sadly especially his brother the Doctor - who has watched him as a child during his long illness - I have seldom seen such a deep & manly sorrow.

Poor Adamson has not left his like in his art of which he was so modest.

The calotypes give us a direct approach to the extraordinary people who lived in and visited Edinburgh at that critical time in the 1840s, public and private individuals, for whom there is a literature and a story. Calton Hill acted as a focus, drawing people in. The partnership was a success from the professional skills of the two men, but also because David Octavius Hill was a friendly man. He continued to live in Rock House after Adamson's death, renewing his practice as a painter. His small sociable household was a warm source of hospitality to visitors and friends, one of whom wrote:

'His quiet and unassuming residence on the Calton Hill is visited by the best men of the day with pleasure, and left by them with regret.'

He married, for the second time in 1861, the sculptor, Amelia Paton, whose work is seen on the Scott Monument and in the statue of David Livingstone in Princes Street. They continued to live at Rock House until 1869, the year before Hill's death, when they moved out to Newington.

The Rock House Studio was occupied by photographers until the 1950s: Thomas Annan, Archibald Burns, Alexander Inglis and F. C. Inglis.



James Linton, Newhaven fisherman, and his bairns

2.11 The Arts

Practical Note:

The broad, general involvement of the City of Edinburgh in the history of photography might be worth consideration. A link could be made, for example, with the camera obscura on Castle Hill.

The principal collection of Hill and Adamson's work is housed in the Scottish National Collection of Photography, in the Scottish National Portrait Gallery, Queen Street, Edinburgh EH2 1JD. This consists of roughly 2,300 of the probable 3,000 images taken by the partnership. The Curator of this collection would be very pleased to be involved in discussions relative to Calton Hill and photography, and happy to provide information. The National Galleries of Scotland have three publications on Hill and Adamson currently in print:

The Concise Catalogue of the Collection of Hill and Adamson

Calotypes...

Printed Light: The scientific art of William Henry Fox Talbot and David Octavius Hill with Robert Adamson (in collaboration with the Science Museum, London)

Hill and Adamson's 'Fishermen and Women of the Firth of Forth'

Their work is also in the City collections and in the albums of John Adamson (Robert Adamson's brother) in the Royal Scottish Museum, who have examples of early photographic equipment on display.

2.11 The Arts



The Royal High School, Edinburgh,
Thomas Hamilton, RSA

Art

The Artist and Calton Hill

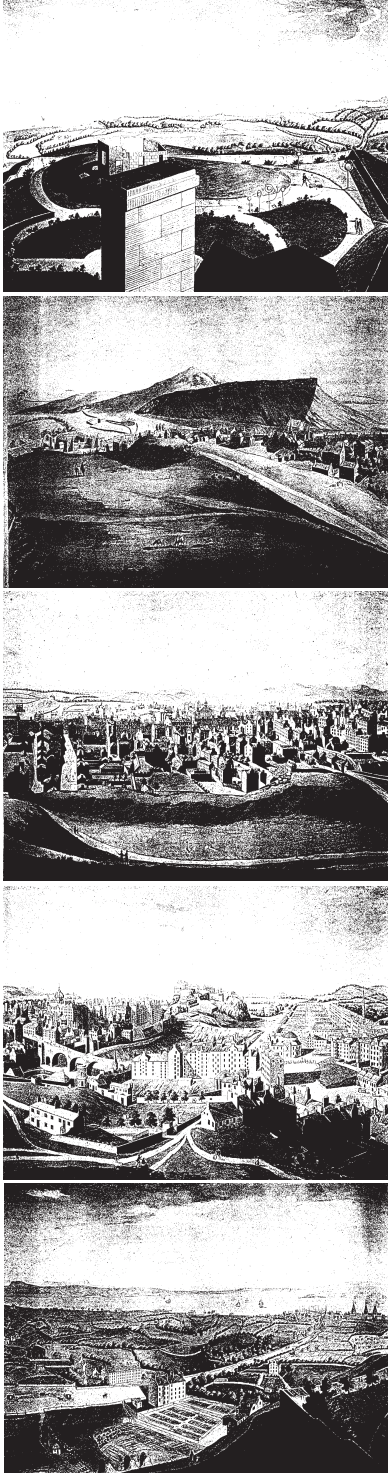
'The view of Edinburgh from the road before you enter Leith is quite enchanting', wrote Queen Victoria on her first visit to Scotland in August 1842. 'It is, as Albert said, "fairy-like", and what you would only imagine as a thing to dream of, or to see in a picture'.

Prominent in the young queen's line of vision was Calton Hill, already for centuries both a vantage point and an inspiration for artists. The hill, rising at the eastern end of Princes Street, provides the best view of the historic and picturesque spine of Edinburgh; Castle Hill, Lawnmarket, High Street and Canongate that form the Royal Mile linking the castle and the palace. Because of its situation - closer to Holyrood at the bottom of the incline than the Castle at its vertex - Calton Hill provides the perfect vantage point from which to enjoy the varied and picturesque features of the Old Town.

It was from Calton Hill that the Dutchman and Chief Engineer for Scotland, Captain John Slezer, sketched views of the city and Leith in preparation for his volume of 57 engraved views of Scotland, the *Theatrum Scotiae*, first published in 1693. One of his most magnificent illustrations, intended for a subsequent book, *The Ancient and Present State of Scotland*, is titled 'the Prospect of Edinburgh from ye North'. A double plate, Slezer's wide-angle view includes the whole of the city from Holyroodhouse to the Castle with Arthur's Seat and the more distant Pentland Hills in the background. The view unfolds like a map and it reveals a map-maker's concern for accuracy and intelligibility.

Fifty years after Slezer another man, trained in a military drawing office, arrived in Scotland to work for the Board of Ordnance. Paul Sandby reached Edinburgh early in 1747, in the immediate aftermath of the second great Jacobite rising. While much of his time was spent with the teams of soldiers and engineers surveying Scotland in preparation for the first detailed map of the country, Sandby's winters, when the weather was too bad for field work, were spent in Edinburgh. During the late 1740's and early 1750's Sandby sketched all aspects of the city and the life of its streets and parks. The bare, unadorned shape of Calton Hill is a prominent feature in several of his watercolour views of Edinburgh. And, for the first time in the work of any artist, Calton Hill is recorded as a feature of interest in its own right. Sandby used the hill as a recognisable landmark to give a specific local setting to one of his works. Allan Ramsay published his pastoral poem *The Gentle Shepherd* in 1725. It was set amongst the Pentland Hills. In Sandby's suite of five etched illustrations to the poem (the first ever made) he included topographical features he had sketched in and around the city to give his illustrations a sense of real locality. The well at Broughton with Calton Hill behind it, which appears as an illustration to Act IV scene 1, would have been immediately recognisable to Ramsay's readers in the mid eighteenth century.

2.11 The Arts



Barker's panorama

A generation later, Calton Hill gained more than local renown. It was the site from where the first 360 degree landscape was painted: the first complete painted panorama in the history of art. Robert Barker was the artist and the view he depicted in 1786 encompassed not just the old city of Slezer's view but the recent New Town with its regular streets and formal squares, the busy port of Leith and the new urban developments on either side of Leith Walk, the road linking the two hitherto separate burghs. Barker's panorama was a great attraction in both Edinburgh and Glasgow where it was first displayed. In 1789 it was moved to London to a room off the Haymarket where it became one of the sensations of the time. Sir Joshua Reynolds, President of the Royal Academy and the doyen of the English art world, 'was a prodigious admirer of the invention and striking effect of the panorama ... and went repeatedly to see it', wrote his fellow artist and friend James Northcote. 'He earnestly recommended me to go also, saying it would surprise me more than anything of the kind I had ever seen in my life, and I found it to be as he had said'. Barker's panorama from Calton Hill led directly to the diorama, popular in Europe and America in the nineteenth century and from thence to cinema.

It was the central position of the hill, high up above the roofs of the city with views in all directions, that appealed to the crowds jostling to catch a glimpse of King George IV on his historic visit to Edinburgh in 1822. No Hanoverian monarch had previously visited Scotland and King George himself needed the eloquent encouragement of Sir Walker Scott to embark on a journey which might well have descended into embarrassment and farce. Due to Scott's genius in grasping the symbolic importance of the state visit - the reconciliation of two countries under a new British head of state - and his success in effecting that reconciliation through pageantry and historic symbolism, the progress of King George through its northern capital as King of Scots was a political and popular triumph.

For two weeks during August 1822 Edinburgh was full of visitors craning to catch sight of the king. Among them were artists eager to make the most of the varied historic and picturesque scenes. Locally based painters like Andrew Geddes, Alexander Nasmyth, William Allan and John Thomson were present and they were joined by Uwins, Collins, Wilkie, Turner and others who had travelled up from London. Turner had been to Edinburgh several times before. He had first visited the city in 1801 and his Edinburgh sketchbook of that year includes a view of the city from St Margaret's Loch with Calton Hill prominent on the right. Working from the sketches he had made on the spot, Turner produced a finished watercolour *Edinburgh from Calton Hill*, which he exhibited at the Royal Academy three years later. In 1818 Turner was commissioned to make a number of watercolours to be engraved to illustrate *The Provincial Antiquities of Scotland*, a commercial venture in which he and Scott were shareholders. Turner returned to Edinburgh to make several watercolours for the book, again selecting Calton Hill as his vantage point. It is not surprising that in 1822 he chose once more to return to Calton Hill to make sketches of one of the principal events of the royal

2.11 The Arts

visit. The ceremony of the laying of the foundation stone of the National Monument took place on the summit of the hill, but the crowds were so great and Turner's chance of being able to record anything of interest from the ground so small that he was allowed access to the top of the nearby Nelson Monument. The watercolour, *Edinburgh Castle, March of the Highlanders*, now in the Tate Gallery, is a record of the colourful scene Turner observed from his secure vantage point. He could see the Highland chieftains and their men, dressed for battle, led by their clan pipers, advancing steadily up to the summit of the hill from the city beneath. Turner's vivid watercolour of this memorable scene was later engraved as an illustration to Scott's *Waverley*.

The Nelson and National Monuments were just two of a number of classical buildings which were erected on Calton Hill during the first third of the nineteenth century, transforming it from a pastoral to a civic space. With the City Observatory, the Dugald Stewart Monument, The Royal High School and the Burns Monument, Calton Hill became one of the principal sights of the city. Edinburgh, for some time known as the Athens of the North, could now boast its own Acropolis.

More and more the hill became the prime platform from which to view the city, with the classical monuments on the hill the perfect foil to the romantic skyline and the landscape of the city beyond. Outstanding amongst the many paintings to record this prescriptive view is David Roberts' *Edinburgh from Calton Hill, Looking West* of 1863 (Guildhall Art Gallery). But the same scene inspired many others, amateurs and professionals alike, the more adventurous of whom, Sam Bough and John McWhirter for instance, varied the standard formula by choosing unusual light effects - painting the cityscape by dawn or dusk.

But by the early years of the twentieth century most modern artists avoided painting such hackneyed scenes as Edinburgh from Calton Hill, just as they rejected the rugged Highland landscape which had inspired their predecessors. There were exceptions, of course. One surprise is Geoffrey Roper's *The Great Murphy Takes Tea* (Royal Bank of Scotland), a large canvas showing a group of navvies brewing up on the hill; but Roper's canvas is more genre than landscape. Quite different and much more original were the temporary 'drawings' made by Kate Whiteford on the hill in 1987. These works - a leaping fish, a spiral and concentric half circles - cut in the ground and filled with white stone chippings, resembled the white horses and long men of Celtic hill art. As Din Eidyn, Edinburgh was a Celtic capital of importance and Whiteford's work is a reminder that Calton Hill has a Celtic as well as a classical history.

2.12 Current Issues

2.12 Current Issues

Introduction

As well as achieving an understanding of the history and development of Calton Hill, it is essential to examine fully the current issues affecting the Hill and their possible impact on its future maintenance and development. The purpose of this section is to summarise these issues.

Methodology

In order to achieve an understanding of the current issues affecting Calton Hill a number of workshops and discussions have been held with representatives of key interest groups and specialists at which issues were identified and explored through discussion. The format of the workshops was designed to allow views to be expressed without prejudice and knowledge to be shared. Generally the other discussions followed the same format.

The workshops, which each lasted approximately two hours, were based around a standard agenda and chaired by Sir James Dunbar-Nasmith. No attempt was made to limit the scope of discussions and each workshop was recorded. Those involved in the workshops included representatives of the:

- Astronomical Society of Edinburgh
- Calton Hill Advisory Group
- City of Edinburgh Council Departments of Recreation, Corporate Services, Architectural Services, and City Development
- Cockburn Association
- Edinburgh New Town Conservation Committee
- Historic Scotland
- Lothian & Borders Tourist Board
- New Town Community Council
- Regent, Royal and Carlton Terraces Association
- Royal Incorporation of Architects in Scotland
- Scottish Natural Heritage

Separate discussions were also held with others whom members of the Calton Hill Advisory Group identified as having specialist knowledge or interests including:

George Bell	City of Edinburgh Council Department of Environmental & Consumer Services
Connie Byrom	local resident & Regent Gardens landscape expert
John Lowery	Edinburgh University Department of Architecture
Angus Mitchell	local resident, author, & Secretary of the Greyfriars Churchyard Trust
Ann Mitchell	local resident & author
Allan Murray	Architect for the new Greenside Place development
Allen Simpson	Royal Museum of Scotland & Alison Morrison-Low
Derek Weldon	Lothian & Borders Police

2.12 Current Issues

Main Issues

The main issues arising from the workshops and meetings are summarised below:

Management

The area of Calton Hill bounded by Regent Gardens, Greenside Row, Calton Hill and Regent Road is owned by the City of Edinburgh Council which is also responsible for managing the Calton Burial Grounds. The Council also own the monuments and buildings which are either managed directly by the Council or sublet:

- The observatory is let to the Astronomical Society of Edinburgh on a three yearly lease
- The police communication aerials and control room in the observatory compound is let to Lothian & Borders Police on a long-term lease
- The City Dome is currently the location for the "Edinburgh Experience", a commercial audio-visual presentation about the history of Edinburgh but its future is under review
- The Nelson Monument is open to the public as a viewing tower and has a full time caretaker, employed by the Council who lives in the accommodation at its base
- Old Observatory House is currently unoccupied and has fallen into disrepair.

Several council departments have responsibility for the management of the Hill but there is no formal mechanism to focus or co-ordinate the resources applied to its maintenance or development at operational level:

- The Heritage & Arts Division of the Recreation Department is responsible for maintaining the buildings and monuments
- The Department of Environmental & Consumer Services is responsible for the management of the burial grounds
- The Parks Division of the Recreation Department is responsible for implementing maintenance of the landscape and burial grounds as well as Regent Gardens
- The Conservation Plan has been commissioned by the Department of Corporate Services.

There was general agreement that the council management structure relating to the Hill should be simplified and that a single division / department should be made responsible for co-ordinating the management and development of the landscape, buildings (and contents) and monuments in accordance with an agreed strategic plan. Any Management Plan should be considered within the context of the whole World Heritage Site of which Calton Hill forms a part.

It was suggested that perhaps some form of Trust should be established to manage the Hill.

Finance

The City of Edinburgh Council does not have a capital investment budget set aside for Calton Hill but there is an annual allowance for maintenance within the Recreation Budget of approximately £11K. This is supplemented by approximately £10K generated by charging an entrance fee to tour buses and fees for the commercial use of the Hill such as for advertising purposes or as a film location: no charge is made for filming on the Hill in connection with news programmes.

Historic Scotland advised that the Historic Buildings Council might be able to contribute to the repair of the built structures subject to approval of a suitable grant application. The Heritage Lottery Fund has partly funded the preparation of this Conservation Plan and is a source of possible future funding, again subject to the approval of a suitable grant application. Some funding has also been made available by Scottish Natural Heritage for the upgrading of paths.

Usage

A visitor survey, based on physical inspection and controlled interviews with some of those using the Hill, is currently being carried out by the Landscape Architect Dr John Byrom. Although not yet completed, his initial findings identified three main groups of people using the Hill:

- Non-Local Visitors: Generally tourists staying in city centre hotels and guest houses within walking distance of the Hill. Most have either heard about the Hill or been directed to it by hotel staff or friends. Most of this group could identify the Nelson Monument but not the National Monument and some could not even identify the Castle.
- Local Visitors: Come from as far as Warrender and Leith Docks. They visit the Hill regularly to enjoy the views either alone or with friends, sometimes in quite large groups.
- Very Local Visitors: Mainly dog walkers and joggers who use the Hill on a regular or even daily basis. Their use of the Hill depends largely on their age. Many use it in loop circuits, with the same point of entry and exit, or vary their routine with half-loops combined with routes along adjacent streets. They tend not to visit the hilltop.

Dr Byrom reported that these groups were quick to emphasise that the Hill's chief attraction was as a viewing point. Non-local visitors generally wanted to know more about the Hill, its buildings and monuments and the chief features of the views. All the groups, when prompted, were happy to agree to improvements in rest and shelter points and new tree planting but were strongly against any new

2.12 Current Issues



Hilltop coach park

building on or near the hilltop. More elderly, usually tour-bus based, visitors sometimes commented on the lack of toilets and cafe.

In addition to the groups noted above, particularly during the summertime, tour buses disgorge tourists in the observatory carpark for 10-15 minutes to take in the views. Generally these tourists wander around the observatory walk and restrict themselves to the area of the hilltop. On busy days there can be a number of buses in the carpark and others on the road leading from Regent Road.

All those attending the workshops agreed that tour buses should be excluded from the hilltop. Lothian & Borders Tourist Board stressed that they were supportive of pedestrian policies that encouraged tourists off buses and on to the streets. They also encourage measures to spread the focus of tourist activity away from the Castle to other worthy spots.

Workers also use the Hill paths as short cuts across town in the morning, lunchtime and evening.

Dr Byrom tentatively concludes that there are three main levels of circulation on the Hill:

- The observatory level
- The paths at the level of the Dugald Stewart Monument
- The David Hume walk.

In addition to the usage of the hill by visitors identified by Dr Byrom the Hill is also used throughout the year for a number of regular events:

- Astronomical Society of Edinburgh weekly meetings in the observatory
- Beltane celebrations including a bonfire
- Small theatrical presentations during the Festival
- The Festival and Hogmanay fireworks
- Destination for the Hogmanay torch light procession
- Various student events
- The start and finish of the Seven Hills of Edinburgh Race.



Telegraph knoll

Its use, particularly at New Year, is becoming more intensive in line with the growth of the organised celebrations. This year those participating in the torch light procession and later on Hogmanay itself caused considerable erosion of surfaces and left behind a great deal of litter on the hilltop.

After dark, some areas of the Hill are used for activities which are either criminal or likely to cause offence to the general public. The police liaise with the Parks Department and the Edinburgh Community Safety Group and tolerate such activities on the basis that, since it is impossible to completely eradicate them, it is sensible to allow these activities to continue there, if reasonably discreet and invisible, in a controlled manner rather than elsewhere more prominent. Although no separate police record of accidents and incidents is maintained for Calton Hill it

2.12 Current Issues

is known that three assaults have occurred in the past two or three years.

The police do not believe that preventing access to Calton Hill at night is either possible or beneficial. Certain areas could, however, be made safer and the police have made several proposals regarding the management of vegetation and provision of lighting. They welcome any moves to reduce vehicular traffic on the Hill and would have no objection to there being further residents on the Hill, such as in Old Observatory House.

Access

It was generally agreed that, except in special circumstances, only maintenance vehicles should be allowed access to the hilltop and that, whilst this might reduce the number of visitors there, the quality of the experience gained climbing on foot to the hilltop and once there would be improved greatly. It was noted that this may have an implication for tour bus parking at street level which would have to be addressed.

Various alternative means of enabling the elderly and people with physical impairments to reach the hilltop were considered. At present, there are no routes by which a wheel-chair bound person can reach the summit except by vehicle: even the vehicular route cannot be negotiated by a wheelchair due to the sleeping policemen. The possibility of building a funicular railway or other mechanical means of transport such as an escalator were discussed but rejected because of their likely detrimental visual impact. It was suggested, however, that there may be a possibility of creating a new route to the hilltop from Greenside Place and that it might also be possible to establish a motorised transport link around the existing paths.

The need to review the layout of roads and paths around the Hill together with the design of its entrances was identified as an issue. The Waterloo Place entrance, for instance, which is the main entrance for tourists walking from Princes Street is badly signed, virtually hidden by undergrowth and uninviting.

It was also suggested that there was the potential to link the routes around the Hill to those in the Old Town which lead up through the New Calton Burial Ground by means of a new footpath adjacent to the Former Royal High School.

The need for better public access to the graveyards was also noted.

Greenside Place

The current state of the development site in Greenside Place at the foot of the north face of the Hill was generally thought to be detrimental to the setting of the Hill, particularly when viewed in the foreground from the top of the Hill. The proposals for the site currently being developed by Allan Murray Architects were explained at each of the workshops and there was a general consensus that they were sympathetic to the setting of the Hill. The massing of the building has been

2.12 Current Issues



St James Bridge

carefully considered to maintain views of the Hill's skyline and monuments from streets to the north. The design and scale of its roofscape, which is prominent when viewed from the top of the Hill, has also been carefully considered. The proposed new public "square" and possible bridge access to the Hill from the development were generally welcomed.

The City Development Department confirmed that the bridge across Leith Street to the St James Centre was built originally to link the Scottish Office with New St Andrew's House, a use made obsolete by the relocation of the Scottish Office to Victoria Quay in Leith. They also confirmed that the bridge had only temporary planning permission, now expired, and that they would support its removal. All agreed that the bridge, which is detrimental to views of the Hill, should be removed as soon as possible. New pedestrian crossings should be created at street level, if necessary.

Visitor Facilities

There are currently no visitor facilities on the Hill and there are very few places in which to shelter from inclement weather. The only public toilets, which are in the observatory compound and only open at certain times, are inaccessible to anyone in a wheelchair.

The possibility of erecting further buildings on the Hill to accommodate Visitor Facilities was discussed at length and, whilst the City Development Department advised that it will not object in principle to proposals for further buildings on top of the Hill but consider each proposal on its own merit, there was a general consensus that the erection of new buildings should only be considered as a last resort. It was accepted, however, that there were a number of under-used existing buildings which could possibly be developed to provide such facilities.

Scottish Natural Heritage noted that they would have to be consulted regarding any proposals which might have an impact on the Hill since it is a Site of Special Scientific Interest.

Interpretation

Although covered extensively in books and archives, very little information about Calton Hill or its buildings and monuments is available to tourists or casual visitors to the Hill. This lack of interpretation was condemned by all at the workshops and various solutions were proposed including the circulation of explanatory pamphlets, additional explanatory signage at entrances and the development of a Visitor Centre. It was noted that interpretative facilities did not necessarily have to be located at the top of the Hill.

The Former Royal High School

The use of the Former Royal High School was discussed at length and everybody agreed that its future was inextricably linked to that of Calton Hill. Various proposals for its use were suggested including an interpretative centre for the Hill, a centre for the study of the Scottish Enlightenment and committee accommodation related to the new Scottish Parliament. All agreed that any future use should reflect its importance and make it more accessible to as many members of the public as possible.

Presentation

The workshops demonstrated the complex nature of Calton Hill: a natural wilderness in the city; a landmark; a viewing point; a necropolis; a focus of artistic endeavour; a public park; a place of science, remembrance and contemplation; and a symbol of National Identity. Everybody agreed that any future presentation of the Hill will have to balance, reconcile and interpret all these aspects of significance.

3.00 Statement of Cultural Significance

3.00 Statement of Cultural Significance

Introduction

The purpose of this section is to identify what aspects of Calton Hill are of true cultural significance in order that they can be revealed or retained and to establish a context within which informed policy decisions about conservation and alteration work can be made and substantiated with rigour and consistency. An assessment of the cultural significance of individual elements is made within each of the appropriate gazetteers.

It is important to note that the fact that an aspect of Calton Hill has cultural significance does not mean automatically that it cannot be altered or changed. Thus, understanding the cultural significance of a place should not simply be thought of as placing constraints on future action; as well as identifying areas of importance that must be protected it introduces flexibility by identifying areas which can be adapted or developed with greater freedom.

The concept of cultural significance, defined in the internationally accepted "Burra Charter" (*The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance*), refers to the qualities of a place that help us understand the past, enrich our present lives, and which will be of value to future generations.

Assessment of cultural significance is based on many different criteria including aesthetic, architectural, archaeological, historic, scientific and social value. Cultural significance also varies in importance and, however apparently objective the analysis, any such assessment is influenced by the current values and perspective of our time: undoubtedly the cultural significance of any aspect will vary over time. The purpose of identifying different levels of cultural significance is to establish a rational hierarchy within which the relative importance of each aspect of significance can be related to the others and that of the whole place.

For the purposes of this study it is considered that five levels of significance are sufficient to measure each aspect of significance and compare it to the others consistently. The levels, their importance and their implications for conservation policy are as follows:

Level of Significance	Importance	Conservation Policy
A Exceptional	International	Reveal, maintain and enhance significance through meticulous preservation, conservation, restoration or reconstruction.
B Considerable	National	Reveal, maintain, and enhance significance but some adaptation and supplementary construction may be considered to accommodate future compatible uses.
C Some	Local	Reveal, maintain, and enhance significance but acceptable options may, subject to consensual agreement based on expert analysis, include alteration or removal in whole or part.
D Little	Site	Interventions, alterations or demolition may be appropriate.
E Intrusive	Detrimental	Alter, remove or demolish.

3.00 Statement of Cultural Significance

Given the size and complexity of issues affecting Calton Hill, this Statement of Significance only deals with the main aspects of significance that are sufficient to inform future conservation and development strategies. An assessment of the significance of individual elements is included with the appendices accompanying this document and as proposals develop for particular elements of the hill further detailed reviews of significance will have to take place to ensure that conservation policies remain relevant and appropriate. For instance, this report establishes that although the City Observatory is of exceptional significance the interior alterations of the past have been detrimental to the clarity of its original design. If it is agreed to remove these alterations, then further investigative work will have to be carried out to establish precisely what fabric should be removed and which should be retained.

The various aspects of cultural significance of Calton Hill are set out on the following pages and the section concludes with a site plan which has been coloured to summarise the findings of this study graphically. The area of the hill covered by the City of Edinburgh Council's brief is highlighted on the plan but inevitably the study area has been extended to surrounding areas which have a fundamental impact on the setting of the hill.

3.00 Statement of Cultural Significance

Statement of Cultural Significance

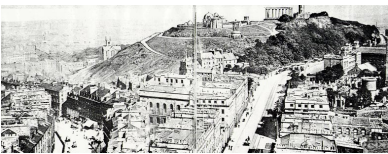
Summary (A)



Calton Hill derives its exceptional cultural significance from a number of different sources which, without exception, help us understand the past, enrich our present lives and will undoubtedly be of value to future generations. It is a semi-natural wilderness in the middle of the city; a public park; a landmark; a viewing point; a focus of architectural, academic and artistic endeavour; a place of science; a place of remembrance and contemplation; a place of inspiration; and, through its topography, architecture and association with the Enlightenment, a potent symbol of National Identity. This complex interaction of physical and cultural factors creates a sublime sense of place, justifiably compared with the Acropolis of ancient Greece, which is of international importance.

The cultural significance of Calton Hill is recognised by its designation as part of the Edinburgh World Heritage Site by UNESCO in December 1995, its designation as a Site of Special Scientific Interest by Scottish Natural Heritage, and the statutory listing of many of its buildings and monuments as being of national historical and architectural interest by Historic Scotland.

Topography & Townscape (A)



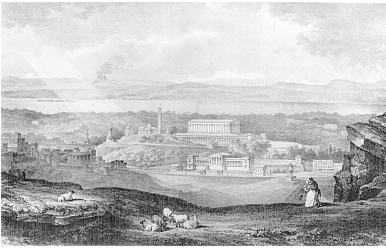
Calton Hill is one of a number of hills, including principally the Castle Rock, which have fundamentally influenced the physical development of Edinburgh and which are essential to the unique character of its townscape. Historically, the hill has been reduced in relative height by urban development around its base and the construction of Regent Road but it is still an important visual element when seen from many points around the city and further afield, most notably along the axis of Princes Street; across the valley from the Old Town and North Bridge; from many locations on Arthur's Seat; from Restalrig; from the dock gates in Leith; and, silhouetted against the skyline, from boats on the Firth of Forth. Its topographic significance has, of course, been greatly enhanced by the monuments which crown it and the construction on its south slopes of the most impressive entry to any city in this country.

That the hill has been kept remarkably free of urban development is due primarily to William Stark, an eminent Edinburgh architect of the early 19th century. Stark was asked to adjudicate between four rival schemes of development for most of the land between Calton and Leith. He rejected all the schemes and wrote a most perceptive paper setting out his ideas of how new development should relate to existing topography. Sadly, he died before he completed his report but his notes were published posthumously by friends. His principles were adopted by William Playfair, Stark's former pupil who eventually obtained the commission, and have survived to this day in the designs he prepared for the area. Stark dismissed any idea of placing houses on the top of the hill, restricting them to its lower flanks

3.00 Statement of Cultural Significance

and allowing them to follow the existing contour of the ground. He noted that “ the Calton Hill is an object of public interest, considered either as a leading feature in the general scenery of Edinburgh, or as a striking and attractive spot, affording the most splendid and diversified views that are to be found assembled in the immediate vicinity of any large city, and within the compass of a few minutes walk.”

Stark’s thinking was a break from the more formal New Town planning adopted by James Craig and others and influenced future developments within and outside of Edinburgh. Stark also identified that the lower slopes of the Calton Hill provided the more interesting views and developed this idea by suggesting that street plans should be designed to relate to site topography, rather than ignore it, in order to create a more romantic composition thus setting the pattern for much of the subsequent street planning in the area between Leith Walk and Easter Road.



The New Town & The Enlightenment (A)

The development of the New Town stemmed from a remarkable period in Scotland’s history, generally known as the Enlightenment, which followed the Act of Union of 1707. It was apparent that Edinburgh would never again be the capital of a self-governing nation and, although this was accepted by the majority, it failed to match the expectations of its more distinguished citizens who were the product of a centuries-old educational system unrivalled in Europe. This system was founded on the teaching of classics and in Edinburgh there was particular emphasis on the language and philosophy of Greece. Thus, Edinburgh came to be associated with the ideals and traditions of ancient Greece: whereas London, the seat of government, was associated with ancient Rome. Such an intellectual conceit, once planted, was quick to flourish, encouraged by the similarities of the topographic setting between Edinburgh and Athens. Informed observers are even recorded as saying that the prospect of the Calton Hill was finer than that of the Acropolis and there can have been little dispute about the views from it. However, the identification of Edinburgh with Athens in people’s minds stemmed initially from intellectual rather than physical similarities and it was the former which gave rise to the neo-grecian buildings which began to appear and which gave confirmation to the idea.

Important as many aspects of the hill are, it is this symbolic role linking Edinburgh to the origins of classical civilisation that is much the most significant and which has been uppermost in the mind of anyone proposing to build on Calton Hill. As a result, every building on the hill is in a sense a monument and even those like the observatories, which were built to fulfil a practical function, were designed to celebrate the importance of their site.

Calton Hill is the principal eminence of the New Town and its most significant topographical feature. Princes Street was precisely aligned with its south summit

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which was later topped by the Nelson Monument which in turn was sited, in part at least, to terminate the vista eastwards along Princes Street. As early as 1790, over twenty years before the eventual completion of Regent Road, the hill's potential to accommodate a dramatic ceremonial entrance route into Edinburgh was anticipated by Robert Adam in his designs for the Bridewell, situated on the south slope of the hill and now demolished, and his un-built proposals for a monumental bridge close to the position of the existing North Bridge.



Buildings & Monuments (A)

The first observatory was built on the hill at the end of the 18th century in a joint venture by the Town Council and Thomas Short, an Edinburgh optician, to house an important telescope originally made by his brother, an instrument maker of European renown, for the King of Denmark. The building was never completed in accordance with its original design (it appears roofless in the first panorama of the hill) and the observatory was eventually opened in the adjacent Keeper's House, designed by James Craig, in a fortified style stemming from Robert Adam's grandiose scheme to give the observatory compound the appearance of a fortification. Only the first part of this was built, now much altered, but it is the only known surviving building by James Craig whose prize-winning plan for the New Town provided the stimulus for all that followed, and is the only known example of him working in association with Robert Adam.

William Henry Playfair (1790–1857), arguably Edinburgh's most important architect, was responsible for many of the other buildings on the hill. His design for the City Observatory, when only twenty four years old, displays his early mastery of classical forms and the brilliance with which this apparently rigid form, based on ideals of Universal Harmony, is adapted to the complex requirements of astronomy is one of the many delights of this enchanting little building.

The walled enclosure which Playfair subsequently designed, incorporating the monument to his uncle as a cornerstone, and the mound on which the observatory sits set it apart from the rest of the hill and emphasise its metaphysical nature.

The observatory enclosure was subsequently developed by others to incorporate a number of other buildings connected with astronomy. None are of the same architectural quality as the City Observatory, their principal interest lying in the distinction of the various astronomers responsible for them and the uses to which they were put: the City Dome has some architectural quality and contributes to the interest of the skyline but others are detrimental to the setting of the City Observatory and the need for their future existence will have to be carefully considered.

The first developments on the hilltop were built for practical use but its prominent location and form made it the inevitable choice for siting memorials to people and events of importance. Although apparently randomly situated, the siting of each

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monument was chosen with care. The first of these, the Nelson Monument (1807–1816), was built on the highest point of the hill to commemorate the greatest British hero of the age and took its rather rustic gothic style, which now looks rather out of place among its Greek companions, from Robert Adam's Bridewell beneath, now demolished. It was followed by the National Monument (1822–26), the Playfair Monument (1825–26), and the Dugald Stewart Monument (1831–32), all designed on the basis of appropriate classical models by William Henry Playfair and then on the hilltop - no more. The glorious absurdities which are the making of the Glasgow Necropolis and which were equally popular in Edinburgh were saved, fortunately, for elsewhere.

The siting of the Playfair Monument, which is not prominently visible, is unusual but was chosen possibly to refer to Professor John Playfair's key role in the development of the observatory and would have been the principal feature of the view from the entrance to the proposed National Monument. The Dugald Stewart Monument is positioned on a projecting rocky knoll where it is silhouetted against the skyline when seen from many vantage points around Edinburgh: it is exquisitely evocative of the character and aspirations of Edinburgh that this monument to a great teacher of moral philosophy, designed in a classical style, should preside over the city.



Beautifully located, designed, and superbly crafted as both the Playfair and the Dugald Stewart Monuments are, it is the National Monument which takes pride of place and which gives the hill such visual and symbolic importance. Designed as a memorial to the British soldiers who had fallen during the Napoleonic Wars by Sydney Cockerell, the most distinguished neo-classical architect of his day, with W H Playfair appointed to work with him, it was intended to be an exact copy of the Parthenon and to be used as a church and resting place for Scotland's heroes - a Scottish Valhalla. The first contract was for twelve columns only, all that the initial funds would allow, but it is clear from the construction that it was envisaged that this might be all that might ever be built as events subsequently proved. Few unfinished buildings, however, have so endeared themselves to a nation's heart and any suggestion of completion would now be unthinkable.



Outwith the hilltop are Thomas Hamilton's monument to Robert Burns based like the Dugald Stewart monument on the Choragic Monument of Lysicrates; his Royal High School, based on the Propylaea, the finest example of Greek revival architecture in Scotland; and Thomas Tait's St. Andrew's House, possibly the best inter-war building in Scotland. Not only are these distinguished buildings in themselves, but the sublime manner in which they respond to their magnificent sites adds greatly to the importance of the composition of which the hill itself is the focus. This composition is completed by the ceremonial entrance to the New Town formed by Regent Road and the grand facades of Regent, Royal and Carlton Terraces built to Playfair's design; all very different but still based on the principles established by Stark.

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Burial Grounds (A)

The three burial grounds associated with the hill contain some of the finest 18th & 19th century monuments, memorials and lairs in Scotland, including Thomas Hamilton's monument to the Political Martyrs and Robert Adam's mausoleum for the great David Hume. The oldest monument is the wall memorial to Thomas Robertson dating back to 1720 and famous people buried there include David Hume, John Playfair (unmarked), Thomas Hamilton, and Daniel Stewart.

Of the three burial grounds the Southern portion of Old Calton, separated from the north by Waterloo Place, has the most impressive collection of monuments, memorials and lairs. An acute sense of discovery is experienced when rising up into the grounds through the unobtrusive doorway set in the long screen wall, designed by Archibald Elliot who also designed the former Incorporated Trades of Calton Meeting Hall across the road, which separates it from the bustle of the busy Waterloo Place and hides most of the monuments. Once inside there is a wonderful air of tranquillity and an elegiac quality marred only in certain places by signs of mindless vandalism that has been inflicted on some of the monuments. The burial grounds, like Greyfriars Churchyard, are one of Edinburgh's little-known hidden delights which deserve to be treasured and protected.

Only one person, a Jewish dentist called Herman Lyon, was allowed a family burial place on the hilltop. This tomb still exists below the north-west corner of the observatory enclosure, although the precise location of its entrance, which has now been built up, is uncertain.



Public Park (A)

In 1725, when the Town Council acquired the superiority of Calton Hill, it became public property. In 1775 the eminent philosopher, David Hume, who was at that time a resident of St Andrew's Square in the New Town, and others petitioned the Town Council to lay out a public walk around the hill for their exercise and recreation. The walk, which was constructed long before most public parks were established and at a time when town councils were only just providing ordinary street footpaths, is remarkable as one of the earliest examples of such a development in Britain. The construction of Regent Road necessitated alteration of part of "Hume's Walk", as it is sometimes known, and other sections were later widened but otherwise the function and circular route of the walk remains as planned today.

After the construction of the Walk, the hill was further developed as a pleasure ground: the construction of Regent Road created an easily accessible approach to the hill and the monuments which were all erected between 1807-1832, necessitated a more comprehensive provision of paths. The term "pleasure ground" is important with its overtones of "rus in urbe" and provided the opportunity for contemplation and recreation. The absence of planting on the hill to enhance its picturesque qualities, as was being carried out in the enclosed

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gardens of the New Town and notably in Regent Gardens, is unusual but probably resulted from natural constraints such as the paucity of the soil, the lack of soil depth, and the exposure of the hilltop as well as the mundane uses, including grazing and drying greens, to which the hill was put.

Hume's Walk and the other paths formed around the hill provided views over a rapidly changing city in a dramatic topographic setting which juxtaposes buildings, landform and the city in picturesque compositions. Although the surrounding townscape has been blighted in certain instances by 20th century development, these walks still provide a series of outstanding picturesque views of across the Old and New Town including the classic view along Princes Street; to Arthur's Seat and Salisbury Crags; and further afield to the Pentland hills, the Firth of Forth and Fife. On the eastern part of the hill, looking towards Holyrood Park, natural features so dominate that the city surrounding the base of the hill can, literally and metaphorically, be overlooked.

The Hume Walk is matched only in impact by the short walk around the observatory which provides a 360° panorama of open views of Edinburgh in its setting, taking in also all the other monuments.

Calton Hill differs from other parks in Edinburgh such as Princes Street Gardens in that it is primarily contemplative. It provides space for people to walk quietly; to meet and converse; to take more vigorous exercise or just sit and enjoy the prospect. Like many city parks it suffers from disreputable uses, particularly at night. Essentially, however, it is an idyllic place that is greatly valued by visitors and citizens alike. The famous biologist, T H Huxley, elegantly summed up the nature of this precious resource in the heart of Edinburgh: "At times a man may be solitary here as in a wilderness, and may meditate undisturbed upon the epitome of nature and man, the kingdoms of the world spread out before him."



Habitat (C)

Due to its severe exposure, the hilltop is covered only with grassland and there is little of major botanical significance. Its lower slopes and other areas protected from the worst of the weather are, however, heavily wooded; much of the vegetation dating from this century.

Although lacking rarities, the hilltop has considerable local wildlife value as a semi-natural area of woodland and grassland located in the city centre, providing a habitat for many small animals including rabbits, squirrels, foxes and birds. There is also a report of an rare arachnid on the crag above Calton Hill (Road) which has also been found on Arthur's Seat.

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Geology (B)

Calton Hill has been designated a Site of Special Scientific Interest (SSSI) by Scottish Natural Heritage on account of its geology and relationship to the wider Arthur's Seat volcano complex. The exposed stratigraphy of the hill, however, shows only part of the sequence of lavas, ashes, and pyroclastic flows associated with the composite Arthur's Seat carboniferous volcano. The absence of the whole sequence and especially the absence of a volcanic plug downgrade the Hill in educational terms in comparison to Arthur's Seat: never the less the whole of Calton Hill is enclosed within the boundaries of the SSSI (File Ref: NT 27/2). Various exposed outcrops of rock, quarry faces, and the south west face below the Governor's House are identified as being of particular significance.



Archaeology (C)

Assessment of archaeological significance differs from the other aspects of significance in that archaeological remains tend to be hidden and therefore any assessment can only be conjectural. Significance therefore is related to potential for the discovery of such remains. Investigations have concluded, however, that over much of the hill the effects of soil processes, vegetation change and the numerous building works have altered the upper levels of the soil profile and effectively truncated any archaeological remains. Few areas of unequivocal merit have therefore been identified. Nevertheless, Calton Hill occupies a key strategic location and has undoubtedly been used often in the past. It is probable, therefore, that currently hidden archaeological remains and materials do exist.

There is evidence to suggest that the hill may have been used in prehistoric times as a fort, possibly located in the area around the triangulation point, although evidence of earlier use of the hill is limited to a reported find of a bronze-age collared urn now lost: the GPS survey carried out in this area was inconclusive. Herman Lyon's mausoleum is also of importance and the precise location of its entrance should be established and marked.

The existing built structures, including retaining and boundary walls, are themselves of great importance as standing archaeology and archaeological analysis of each helps inform knowledge of their development and significance.

Science (A)

The Astronomical Institute founded in 1812 and based on Calton Hill was the first British Society devoted solely to Astronomy. The City Observatory was established as the "Royal Observatory of Edinburgh" by George IV and was the original location of the world-famous Royal Observatory which moved to Blackford Hill at the end of the 19th century to escape the polluted air of the surrounding town. Pioneering astronomical research of international importance was carried out at Calton Hill by, among others, Thomas Henderson, the first Astronomer Royal, who also the first astronomer to accurately measure the distance from earth to a star,



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and Charles Piazzi Smyth who first proposed that an observatory should be established on Tenerife and developed many types of scientific instruments.

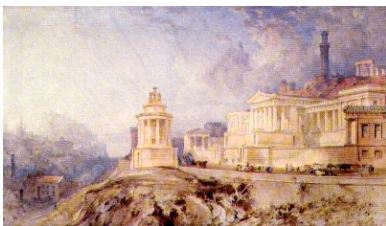
The observatory buildings housed the first scientific time keeping service in Edinburgh which was based on the study of star positions. Installations such as the time-ball housed at the top of the Nelson Monument and the one-o'clock gun at the castle, which for many years was controlled from Calton Hill by a single-span overhead cable, provided accurate time signals for Edinburgh and mariners in the Firth of Forth until superseded by more accurate technology. The time keeping service was relayed, using telegraph signals, to cities throughout the country and British Empire. Many other cities, including Cincinnati, adopted elements of the time-keeping methods developed in Edinburgh.



Scientific Instruments (A)

The collection of instruments associated with Calton Hill is of international importance to the study of astronomy and time-keeping although there are no instruments belonging to Thomas Short or attributable directly to the various Astronomers Royal. The Adie Transit Telescope, first housed in Transit House and now owned by the Astronomical Society of Edinburgh, is on display in the City Observatory and the collection of instruments bought to equip the City Observatory is still largely intact. Several uncatalogued collections of early photographic plates and other miscellaneous items are still stored in the City Observatory. The telescope housed in the City Observatory is the best publicly accessible telescope in Scotland and is still in regular use.

Many of the instruments are currently stored off-site in places such as the Royal Museum of Scotland. The return of them to the observatory will enhance their significance and is an obvious priority assuming that suitable security and environmental conditions can be provided.



The Arts (A)

Considering its location, it is not surprising that the hill has attracted the attention of many of the country's best painters and printmakers who, over the years, have produced a body of work centring on the hill which must be unrivalled, even by that related to Edinburgh Castle. The National Galleries of Scotland's collection of some seventy items in various media includes works by Sandby, Turner and Paolozzi and there are collections of coloured prints in the New Club, the Edinburgh City Arts Centre and City Library. The Royal Commission on Architectural & Historical Monuments of Scotland's database lists some five hundred entries relating to the hill.

The first recorded panorama drawn by Robert Barker, an Edinburgh artist who is reputed to have invented the cylindrically mounted panorama, is a view of Edinburgh taken from Calton Hill which was exhibited in 1788. An aquatinted panorama dated 1793, drawn by Robert Barker and engraved by J Wells, currently on display in the New Club, is taken from the roof of Old Observatory House and

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demonstrates the exceptional historical views from the hill.

The hill also features in many early photographs including late 19th century prints by Thomas Begbie.

Many writers have expressed opinions about the hill including notably Robert Louis Stevenson, Lord Cockburn of course, and Queen Victoria who noted in her journal that "Albert felt that even the Acropolis could not have been finer."

Remarkable, also, is the use by David Octavius Hill of Rock House, the last house in the terrace of High Calton as a residence and studio for his pioneering photographic partnership with Thomas Adamson. During this time, more than four hundred sitters from all walks of life, including many of Scotland's most influential figures, came to Calton Hill to have their likenesses taken in the garden so that the photographer could take advantage of the unique conditions of light occasioned by being just above the level of smoke and fog. As a result, there are now some four thousand calotypes forming the nucleus of the collection in the National Gallery.



The People (C)

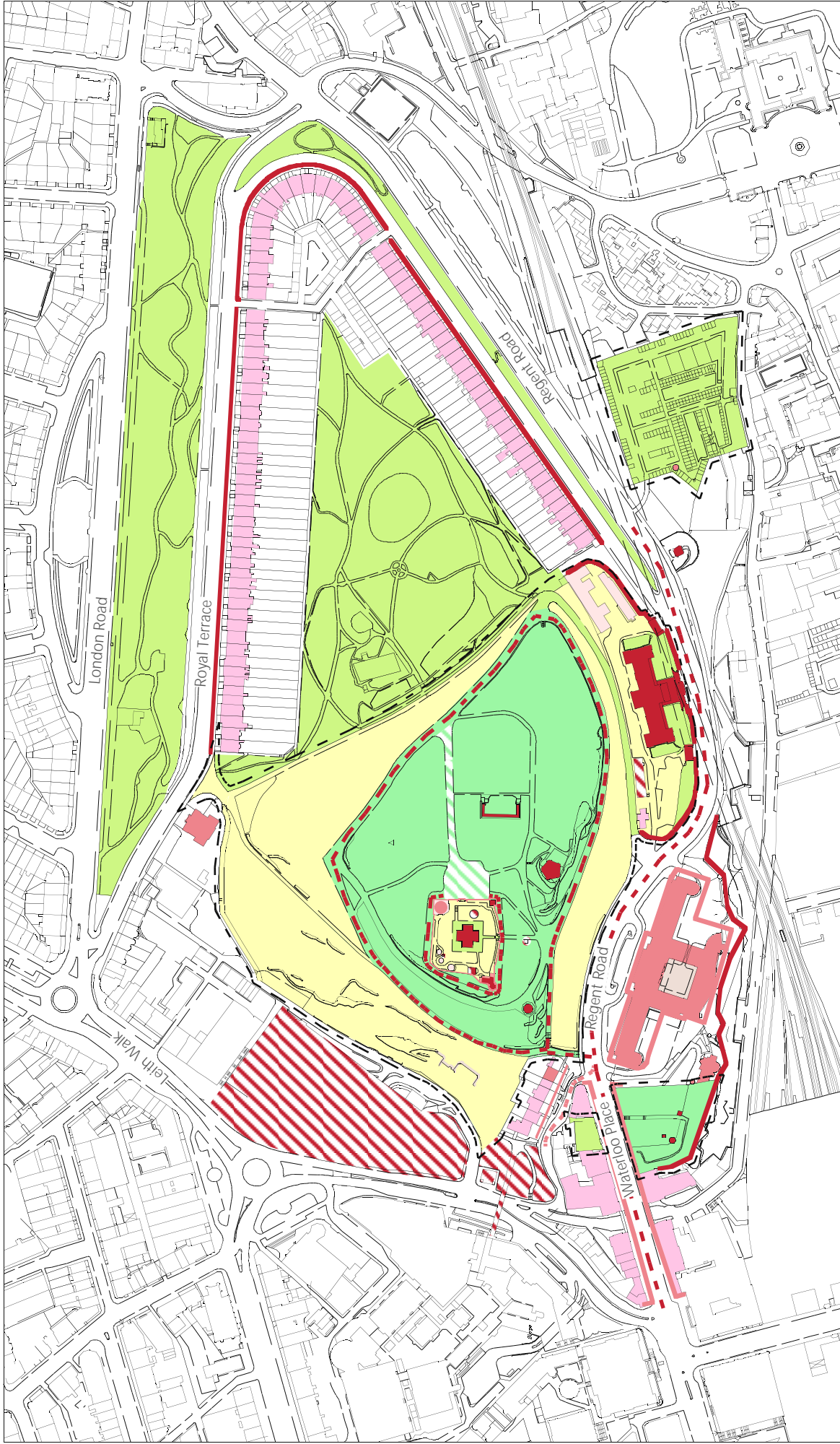
Calton Hill has been visited by many of the most important figures in Edinburgh's history and, since the 18th century, has been enjoyed by the people of Edinburgh for recreation and exercise.

Apart from Robert Forrest who lived for a short period in a cottage adjacent to the National Monument, and the occupants of the Nelson Monument and Old Observatory House, no one has lived on the hilltop. An excellent book titled *The People of Calton* describes people who have lived in Regent/Royal/Carlton Terraces and in High Calton. These include an unusually high proportion of people who have made important and sometimes unusual contributions to the life of Edinburgh, including Robert Burns' Clarinda who lived for part of her life at High Calton.

Thomas Henderson, the first Astronomer Royal, and his successor Charles Piazzi Smyth both worked at the observatory and contributed hugely to the science of astronomy.

The famous preachers John Wesley and Rowland Hill preached to crowds of thousands on the hill and many of the mid 19th century prints show the hill being enjoyed by well-dressed men and women out strolling; children playing with kites or dogs; and usually a uniformed member of the armed services. One of the most well-known photographs of the hill, taken by Thomas Begbie, shows the hill being used by washerwomen with their sheets spread out on the grass and it is entirely characteristic of the hill that such mundane chores should be carried out amongst the monuments. Lord Cockburn was not, however, impressed and recorded his displeasure that the hill was being used by washerwomen "whose eloquence let no prudent passenger provoke", not just for clothes drying, but washing and bleaching which were creating mud and scorching the grass.

Today the hill is enjoyed by people from all over the world, tourists and locals alike, who still come to enjoy the views, take exercise, or simply to spend a short while in contemplation amongst its monuments; weather permitting.



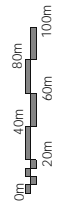
Assessment of Cultural Significance

Location Plan:

(- - - Extent of Site)

Key

- | | | |
|---|--|---|
| Buildings & Monuments: | Routes: | Landscape: |
| <ul style="list-style-type: none"> Exceptional Considerable Some Little Detrimental | <ul style="list-style-type: none"> Exceptional Considerable | <ul style="list-style-type: none"> Exceptional Considerable Some Little Detrimental |



August 1999

4.00 Conservation Policies

4.00 Conservation Policies

Introduction

Calton Hill, its buildings, monuments and landscape, is a Scottish cultural asset of international importance. For over two hundred years it has inspired and stimulated all who have visited, lived or worked there as well as those who recognise it as a symbol of Scottish national identity. It has the potential to provide inspiration for generations to come. Its physical condition, however, does not reflect its importance and issues must be addressed now if its future is to be safeguarded. Sympathetic change, reflecting the needs and aspirations of our time, is possible but it must be in the context of protecting, enhancing and revealing its cultural significance.

4.00 Conservation Policies

Management

The Recreation, Environmental Health and Consumer Services Departments of the City of Edinburgh Council are responsible for managing aspects of Calton Hill. Whilst each department attempts to manage their area of responsibility effectively within tight budgetary constraints, there is no framework within which to make co-ordinated decisions on conservation policy. Consequently, the management and maintenance of the landscape, monuments, and collections can lack focus and direction. The Council acknowledges this problem and this Conservation Plan is the first step in addressing it.

Recommendations

- *Using the knowledge base of information contained in this study, a sustainable integrated and co-ordinated Management Plan, including an appropriate budget, must be developed and implemented.*
- *The Management Plan must recognise that Calton Hill is part of a World Heritage Site and that its monuments, buildings, collections, landscape and burial grounds, are not simply separate municipal facilities but together form a Scottish national treasure which deserves to be managed as such: the plan must identify the most effective management structure for so doing.*
- *The Management Plan must also recognise that the significance of Calton Hill is embodied in the unique and fragile relationship between its monuments, buildings, collections, landscape, and burial grounds and must reconcile the need to protect this relationship with the needs of public access and interpretation.*

The Management Plan should address the conservation issues identified by this Conservation Plan within the context of the core conservation policies set out below.

Buildings

The physical condition of the occupied buildings is generally reasonable although all require some degree of repair. Survey work demonstrated that rainwater is penetrating the fabric of the former Royal High School in several places; there are signs of damp around the flat roof of the Nelson Monument; and the materials of the roof of the City Observatory have reached the end of their useful life.

Recommendations

- *Prepare and implement a comprehensive long-term programme of conservation works for each building. The conservation approach should be one of minimum intervention but restoration, where there is sufficient evidence, should be considered where detrimental alteration work has been carried out in the past. Generally, materials should be replaced "like for like" unless they have failed technically in the past.*
- *The current and future use of all buildings should be thoroughly reviewed.*

4.00 Conservation Policies

Recommendations

The physical condition of unoccupied buildings is generally deteriorating and gives cause for concern. Old Observatory House, in particular, requires urgent repair.

- *Prepare and implement an immediate programme of conservation works for each unoccupied building.*
- *Establish appropriate new uses for all unoccupied buildings: no new buildings should be allowed until the potential use of each unoccupied building has been thoroughly considered.*

The Former Royal High School

Through its physical and symbolic relationship with Calton Hill, the former Royal High School contributes greatly to the significance of the Hill. It is also an exceptionally important building in its own right, designed as a temple of classical culture which celebrates the value that Scottish people attach to education and learning. Historically, its uses as a school and latterly as the seat of the Scottish Grand Committee have matched the ambition of its architecture: its proposed use as the seat new Scottish Parliament would have been entirely appropriate. Currently the building is used irregularly only and its surrounding buildings are occupied by a variety of organisations, none of which have any real relevance to Calton Hill or reflect the importance of the main building, and all of which could be located elsewhere.

Recommendations

- *An appropriate sustainable long-term new use for the former Royal High School must be identified. Such a use must reflect the exceptional cultural significance of the building and its physical and symbolic relationship to Calton Hill.*
- *The former Royal High School is an integral part of any presentation and interpretation of Calton Hill.*
- *Any future use of the former Royal High School should safeguard and encourage public access.*

The Observatory Compound

The observatory walls were built to provide an enclosure for the City Observatory which sits on a raised podium within them. Over time, however, the beauty of this concept has been lost as later buildings were erected and vegetation allowed to develop unchecked. The City Observatory has suffered detrimental alteration work although it still provides, arguably, the best publicly accessible astronomical viewing facilities in Scotland and houses a unique collection of instruments and records. Other buildings in the compound are less significant, even intrusive, and their future must be carefully considered. The police communications centre and radio mast are unsightly although their use is not incompatible with their location.

Recommendations

- *Maintain and promote the use of the City Observatory as a working observatory accessible to the public.*

4.00 Conservation Policies

- *Remove all buildings within the observatory compound which are not significant to the development of astronomy on Calton Hill and which are detrimental to the setting of the City Observatory.*
- *Remove the existing police communication centre and radio mast or replace them with equipment of a more elegant design in keeping with their location.*
- *Review existing planting within the compound and develop new planting proposals which enhance the setting of the City Observatory.*
Restore the City Observatory to its original plan.

Instruments

The scientific instruments collections associated with Calton Hill are either still housed there or are spread throughout a number of archives. All instruments require varying degrees of conservation work.

Recommendations

- *Prepare a comprehensive inventory and develop and implement a long-term programme of conservation work for all the scientific instruments.*
- *Restore the time-ball mechanism in the Nelson Monument including the automatic triggering mechanism.*
- *All scientific instruments associated with Calton Hill should be returned to Calton Hill for public display and possible use, if suitable environmental and secure conditions can be established.*

Intrusive Buildings

A number of buildings and structures, such as the pump housing which obstructs the classic view of Princes Street, are detrimental to the appearance of the hill.

Recommendations

- *Remove and, if necessary, replace intrusive buildings as necessary.*

Monuments

The physical condition of most of the monuments is generally reasonable although some unsympathetic repair work has been carried out in the past. All the monuments however do require varying degrees of repair. (The condition of each monument is itemised in the Buildings and Monuments Appendix accompanying this document.)

Recommendations

- *Prepare and implement a comprehensive long-term programme of conservation works for each monument. The conservation approach should be one of minimum intervention.*

Burial Grounds

The burial grounds are in a serious state of disrepair. Many monuments have been vandalised or toppled over and others are being destroyed by vegetation. Visually detrimental surface materials detract from the setting.

4.00 Conservation Policies

Recommendations

- *Record each monument and text and prepare and implement a programme of conservation work. The monuments and lairs do not require to be “restored” but their fabric should be protected and carefully repaired to prevent further damage. Toppled monuments should be re-erected and vegetation carefully controlled. Where there is surviving evidence, lair railings and gates should be replaced. Consideration should be given to promoting educational aspects of the Burial Grounds and to promoting the Burial Grounds generally as cultural assets and places of interest to visit.*

Archaeology

The existing buildings and monuments are of great importance as standing archaeology and, whilst little physical evidence of underground archaeology has been found, it has to be assumed from historical research and comparison with other sites that any ground-breaking work or any invasive work within the buildings may uncover archaeological remains of importance.

Recommendations

- *An archaeological impact assessment should be carried out in connection with any proposed new building work.*
- *All standing archaeology should be carefully recorded prior to any alteration work being carried out.*
- *Any work involving loss of fabric or excavations must be monitored and recorded.*

Landscape & Habitat

The maintained landscape of the hill has no structure and does little to enhance the setting of the buildings and monuments. Existing paths, most of which have been established through usage both across and around the hill, require substantial repairs and many views are obstructed due to overgrown or self-sown vegetation.

The condition of the landscape and habitat on the hilltop is fragile and its condition is harmed by excessive and unregulated public access during festivals and when the ground is wet.

The planting within the observatory compound is overgrown and does not enhance the setting of any of the buildings.

Recommendations

- *Develop and implement a long-term sustainable landscape management strategies as part of the Management Plan. The principal strategy must be to enhance the relationship between the monuments and their setting in the picturesque landscape and to exploit the panoramic views across Edinburgh. This strategy should be implemented by the development of sympathetic maintenance regimes and planting policies which encourage judicious and creative change for the better.*

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Access & Circulation

Entrances to Calton Hill are all badly signposted and generally uninviting; none of the entrances to the park have any explanation of its glories. Pedestrian paths through the park terminate abruptly at its perimeter walls and there are few linkages between the park and other tourist destinations in the Old and New Towns. The vehicular access road and car / coach park at the top of the hill are hugely detrimental to the appearance of the hill.

There is no easy access to the hill for people with disabilities. Even the speed bumps on the vehicular road cause obstructions.

Recommendations

- *Consider prohibiting all vehicular access to the hilltop except for servicing, which should be at restricted times, and disabled access. The need for vehicular access to the observatory at night should also be considered. Consider reducing extent of access road and carpark.*
- *Strengthen pedestrian linkages with adjacent areas of the city, particularly the Old Town.*
- *Form additional pedestrian routes on to the hill from Greenside Place, Regent Terrace and possibly through the Burial Grounds.*
- *Consider alternative means of access to the hilltop which will enhance access for those with disabilities.*

Lighting, Signage, & Seats

There is no control over the design and installation of site furniture such as seats, lighting and signage which are generally of low quality and detrimental to the setting of the hill. Explanatory signage is virtually non-existent.

Recommendations

- *Develop an integrated design approach to the design and installation of site furniture.*
- *Use materials that match the quality of their setting and that are, where appropriate, of local origin.*

Visitor and Interpretative Facilities

Calton Hill is a very special place to visit, however, there is almost nothing to inform visitors about the history of the hill, the significance of its built structures or its relationship to the Enlightenment. Neither are there any facilities for the provision of shelter, comfort or sustenance; the existing public toilets are only open when the observatory is open and are inaccessible to people with physical disabilities. This lack of visitor and interpretative facilities detracts substantially from what should be a meaningful and enjoyable experience.

Recommendations

- *Develop appropriate visitor and interpretative facilities: the use of existing buildings to house these facilities should be reviewed prior to any proposal*

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for new development being considered. Existing buildings which might accommodate such facilities include Old Observatory House, the City Dome, the minor observatory domes, and the former Royal High School and its ancillary buildings.

- *Develop off-site interpretation strategies to raise public awareness about the hill including lectures and the publication of pamphlets and books.*

Surrounding Development

The setting of the hill is affected by surrounding developments. The St James Centre and its bridge is detrimental to the setting of the hill but other developments such as that proposed for Greenside Place, designed by Alan Murray Architects, respond well to their site and have the potential to enhance the setting of the hill. Other possible developments, however, particularly those to the south of the hill which might obstruct the views of the hill across the valley from the Old Town, are of particular concern.

Recommendations

- *Ensure that the key views of the hill, and from the hill, are carefully considered in the design of all future proposed developments surrounding the hill.*
- *Consider the removal or replacement of the bridge link from St James Centre to Calton Hill.*