ARCHAEOLOGICAL EVALUATION STRATEGY FOR SHEFFIELD CASTLE, SHEFFIELD, SOUTH YORKSHIRE

VOLUME 1: DATA GATHERING, SYNTHESIS AND ASSESSMENT OF POTENTIAL

VOLUME 1A: TEXT AND APPENDICES



Ed Dennison Archaeological Services Ltd 18 Springdale Way Beverley East Yorkshire HU17 8NU

ARCHAEOLOGICAL EVALUATION STRATEGY FOR SHEFFIELD CASTLE, SHEFFIELD, SOUTH YORKSHIRE

VOLUME 1: DATA GATHERING, SYNTHESIS AND ASSESSMENT OF POTENTIAL

VOLUME 1A: TEXT AND APPENDICES

Report no: 2013/460.R01

Version: Final Date: May 2014

Shaun Richardson & Ed Dennison Author:

Ed Dennison Archaeological Services Ltd 18 Springdale Way Beverley On behalf of East Yorkshire

HU17 8NU

Kier Asset Partnership Services Ltd on behalf of Sheffield City Council

Town Hall Pinstone Street Sheffield S1 2HH

ARCHAEOLOGICAL EVALUATION STRATEGY FOR SHEFFIELD CASTLE, SHEFFIELD, SOUTH YORKSHIRE

VOLUME 1A: DATA GATHERING, SYNTHESIS AND ASSESSMENT OF POTENTIAL

CONTENTS

EXECUTIVE SUMMARY

1	INTRODUCTION	1
2	HISTORICAL BACKGROUND TO 1600	6
3	HISTORICAL BACKGROUND FROM 1600 TO 1920	15
4	STRUCTURAL HISTORY OF THE CASTLE HILL MARKETS BUILDINGS	25
5	HISTORY OF ARCHAEOLOGICAL INVESTIGATIONS AT SHEFFIELD CASTLE	41
6	DISPOSITION AND SURVIVAL OF ARCHAEOLOGICAL DEPOSITS	70
7	OUTLINE EVALUATION STRATEGY	95
8	BIBLIOGRAPHY	104
9	ACKNOWLEDGEMENTS	113

Appendices

- EDAS Photographic Record
 Listed Building Descriptions
- 3 EDAS Project Methodology
- SYAS Project Brief

LIST OF FIGURES (VOLUME 1B)

- **General Location**
- 2 **Detailed Location**
- 3 Key Areas of Castle Markets
- 4 Known Castle Remains (2005)
- 5 2009 Reconstruction
- 6 Castle Area in c.1700
- 7 Castle Area in 1736
- 8 Castle Area in c.1760
- 9 Castle Area in 1771
- 10 Castle Area in c.1800
- Castle Area in c.1853 11
- 12 Castle Area in 1905
- 13 c.1927 Pre-Development Plan
- 14 Davies' 1928 Section
- 15 c.1915 Plan for Sheaf Culvert
- 16 Post 1915 Improvements
- 17A Co-Op Foundation Plan c.1927 (digitised)
- 17B Co-Op Foundation Plan c.1927
- Castle Hill Market Foundations (digitised) 18A
- 18B Castle Hill Market Foundation Plan c.1928
- Castle Area in 1930s 19
- 20 1958-61 Re-Development Scheme
- 21A 1958-61 Foundations (digitised)
- 1958-61 Foundation Plan 21B
- 22 Market Extension Plan
- 23 Market Extension Plan (Phase 5)
- 24A Services (digitised)
- c.1930s Sewer Plan 24B
- Armstrong's Published Plans 25A
- 25B Armstrong's Published Sections
- 26 Himsworth's 1930 Observations
- 27A Butcher's Plan of Moat 1
- 27B Butcher's Plan of Moat 1 28 **Butcher's Field Drawings**
- 29 **Butcher's Reconstructions** 30 **Butcher's North-South Sections**
- 31 Design for Gatehouse Chamber
- 1960s-1970s Photographs 32
- 33 Courtyard Buildings 1994
- 34 ARCUS 1999 Trench
- 35 ARCUS 2001 Trenches
- 36 Known Archaeology 1
- 37 Known Archaeology 2
- 38 Known Archaeology 3
- **Previous Developments** 39
- Sections through Site 40
- 41 Previous Castle Reconstructions
- 42 Interim Castle Reconstruction
- 43 Previous Assessments of Potential 44 Previous Developments and Known Archaeology
- 45 Archaeological Potential

LIST OF PLATES (VOLUME 1B)

- 1 Aerial photograph of Sheffield Markets, 1st January 2010 (Google Earth).
- 2 Lady's Bridge in 1802, Wicker Tilt on right (www.picturesheffield.com, s07499).
- Lady's Bridge and Wicker Tilt (Huntsman's Forge), No. 2, Wicker, before 1901 (www.picturesheffield.com, s07493).
- 4 Royal Hotel, Waingate (left) and corner of Exchange Street (right) (www.picturesheffield.com, y01611).
- 5 Retaining wall on west side of Castle Folds Lane, taken by J B Himsworth, September 1928 (www.picturesheffield.com, y00898).
- Brick wall on Chandlers Row, taken by J B Himsworth, October 1928 (www.picturesheffield.com, y00887).
- 7 Overlooking Chandler's Row, taken by J B Himsworth, October 1928 (www.picturesheffield.com, y00884 blurred).
- Shambles Lane, Wholesale Meat Market and Slaughter Houses, taken 1900 (www.picturesheffield.com, s01744).
- Demolition of Shambles Slaughter House, newly built sewer manhole (for a new road for the continuation of Bridge Street) right, Lady's Bridge Hotel and Exchange Brewery in background, taken by J B Himsworth, September 1929 (www.picturesheffield.com, y00890).
- 10 Remains of Shambles Slaughter House, showing ancient beams discovered in a horizontal position and newly built sewer manhole (for a new road for the continuation of Bridge Street) in background, taken by J B Himsworth, September 1929 (www.picturesheffield.com, y00892).
- 11 Shambles Lane approach, taken by J B Himsworth (*www.picturesheffield.com*, y00889).
- Rear view of Alexandra Theatre, showing stilts over the combined flow of the rivers Don and Sheaf, from Exchange Street Bridge, taken 1900-1919 (www.picturesheffield.com, s12223).
- 13 "East wall of passage connected with the Sheffield Castle", off Castle Folds Lane, taken June 1918 (MSA: Sheffield Castle Project File) (photo 3/872).
- "Part of Sheffield Castle wall, discovered while pulling down old house built in 1666 on the site of the Sheffield Castle moat", taken June 1918 (MSA Sheffield Castle Project File) (photo 3/881).
- 15 "West wall of passage, but East of Castle site", taken June 1918 (MSA: Sheffield Castle Project File) (photo 3/875).
- 16 Construction of Sheaf culvert, 1915-16 (photo IMG 6025 supplied by SCC).

- Waingate, junction with Exchange Street, Haymarket and Castle Street, 1925-1939, showing single storey Brightside and Carbrook Co-operative Society building (www.picturesheffield.com, s20303).
- Brightside and Carbrook Co-operative Society building, Exchange Street frontage, post 1936 as another three floors have been added (*www.picturesheffield.com*, s11206).
- Brightside and Carbrook Co-operative Society building, Exchange Street frontage, after air raid on 12th/13th December 1940 (www.picturesheffield.com, s01212 © Sheffield Newspapers).
- Interior of Castle Hill Market showing the square acre meat market (www.picturesheffield.com, w00572).
- Castle Hill Market, vehicle entrance from Waingate, taken 9th May 1930 (www.picturesheffield.com, y02887).
- 22 Scrivens Opticians, 36-40 Waingate, looking E (photo 4/382).
- Bull and Mouth Public House (now Tap and Barrel), 42 Waingate, taken 10th February 1982 (www.picturesheffield.com, s21924 © Sheffield Newspapers).
- Alexandra Hotel, at the junction of Castlegate and Exchange Street, taken 25th January 1979 (www.picturesheffield.com, s22233 © Sheffield Newspapers).
- 25 Former South Yorkshire Passenger Transport Office, Exchange Street (photo 4/367).
- 26 The Market Tavern and Mudfords Building, Exchange Street (photo 4/370).
- 27 Low Block, part of the 1958-61 redevelopment works (photo IMG 5532 supplied by SCC).
- 28 The 'High Block', part of the 1958-61 redevelopment works (*www.picturesheffield.com*, s02016).
- 29 East Loading Dock, looking NW (photo 4/348).
- Former Sheffield Transport canteen building, Castlegate frontage (photo IMG 5552 supplied by SCC).
- 31 Buildings forming Phase 5 Market extension, looking N (photo 4/380).
- 32 Spiral ramp at north end of East Loading Dock, looking S (photo IMG 5550 supplied by SCC).
- 33 1972 retaining wall on south side of Castlegate, with North Loading Dock above (photo 4/388).
- 34 Western bastion tower and gatehouse structure (MSA Box file Butcher 1976.1064 Sheffield Castle Notes/Photographs folder SC2/3)
- Detail of gatehouse structure (MSA Box file Butcher 1976.1064 Sheffield Castle Notes/Photographs folder SC2/3).

- Detail of western bastion tower (MSA Box file Butcher 1976.1064 Sheffield Castle Notes/Photographs folder SC2/3).
- 37 "H 2-4 from E. Drawbridge pier, ashlar face, E" (MSA Box file Butcher 1976.1064 Sheffield Castle Notes/Photographs folder SC2/3).
- 38 Oldest Furnace in Sheffield, on site of Sheffield Castle, October 1928 (www.picturesheffield.com, s10000).
- 39 Ex situ masonry recorded behind Chandlers Row retaining wall, photographed by J B Himsworth, October 1930 (www.picturesheffield.com, y00900).
- View taken after both Chandlers Row and Shambles Lane buildings had been demolished, leaving only the high south retaining wall to Chandlers Row still standing, looking W (photo 2/673).
- 41 Stepped bank on south side of Castlegate created by cutting back behind the former retaining wall to Chandlers Row (photo 2/683).
- 42 "Dry spars from moat A, 4 May 1958" (MSA 1995.88 Sheffield Castle 1958-63).
- The 'comparatively late rough wall' built across the moat between the gate and drawbridge structures (MSA: Butcher b/w prints).
- Subsidiary ditch or moat, revealed in section on north side of Exchange Street (MSA: Butcher b/w prints).
- One of Butcher's isometric drawings of the gate structures (MSA: 1995.88 Sheffield Castle 1958-63 colour slide).
- 46 Collapsing paving covering the steep north-facing slope to Castlegate, photographed by Pauline Beswick, May 1972 (MSA Box file Sheffield Castle Project File) (photo 3/884).
- 47 Revetment wall in steep north-facing slope to Castlegate, photographed by Pauline Beswick, May 1972 (MSA Box file Sheffield Castle Project File) (photo 3/888).
- 48 Remains of gate structures in underground chamber, November 2013 (photo 5/645).
- 49 Remains of courtyard buildings in underground chamber, August 1975 (www.picturesheffield.com, s29251 © Sheffield Newspapers).
- 50 Remains of courtyard buildings in underground chamber, October 2013 (photo 4/333).

EXECUTIVE SUMMARY

In June 2013, Ed Dennison Archaeological Services (EDAS) Ltd were commissioned by Kier Asset Partnership Services Ltd on behalf of Sheffield City Council (SCC) to develop an archaeological evaluation strategy for the Castle Markets site, in Sheffield city centre, South Yorkshire (NGR SK 3577 8768 centred). The Castle Markets were known to have been built over remains of the former Sheffield castle.

The main aim of the EDAS project was to provide Sheffield City Council with sufficient information about surviving archaeological deposits and areas of archaeological potential on and within the Castle Markets site, so that they might be able to secure an appropriate and cost-effective archaeological evaluation of the complex. Given the considerable public interest in Sheffield Castle, this evaluation would also need to allow for the wider community to play a role in rediscovering the castle's remains. The EDAS project and the subsequent evaluation would inform future development of the site, which is intended to include remains from the castle being included within a public open space. The study area only covered the inner court of Sheffield Castle, and a small area outside this; no consideration was required to be made of other features associated with the castle, such as the outer bailey, park, routeways and river crossings etc. It should be further noted that, as part of the development of the evaluation strategy, EDAS were not required to look at, or make an assessment of, the artefactual archive resulting from the previous archaeological investigations on the site.

The evaluation strategy was developed from several strands of evidence. A review was undertaken of the previous archaeological investigations and assessments of the castle site, including a detailed analysis of the documentary archaeological archives and other relevant material held by Museums Sheffield. In conjunction with this, a review of previous and existing development across the site was carried out, to gain an indication of the amount of foundation and other disturbance. A new, separately commissioned, topographical and building survey of the Markets complex was also utilised, and a number of site visits were undertaken to better understand and appreciate the relationship between the existing site structures and the potential for underlying archaeological remains.

The information gathered from this evidence has been presented and interpreted in the form of a clear narrative. While it was not the purpose of the project to provide a new interpretation of Sheffield Castle, some consideration was necessary to inform the subsequent archaeological evaluation strategy, and to highlight where the EDAS research might suggest a divergence from previous accounts. The collated information has been presented to show areas of expected archaeological survival and potential across the site in relation to the existing topography. An outline evaluation strategy for the site, to test the developed model of archaeological preservation, has also been produced.

Volume 1 of the EDAS report deals with the data gathering, synthesis and assessment of potential, while a detailed specification for archaeological evaluation is presented in volume 2.

1 INTRODUCTION

Circumstances of the Project

In June 2013, Ed Dennison Archaeological Services (EDAS) Ltd were commissioned by Kier Asset Partnership Services Ltd on behalf of Sheffield City Council (SCC) to develop an archaeological evaluation strategy for the Castle Markets site, in Sheffield city centre, South Yorkshire (NGR SK 3577 8768 centred), which were known to have been built over the remains of the former Sheffield Castle. The work was required in advance of the demolition of the Castle Markets complex, and will inform and guide a field evaluation of the site's belowground archaeological potential to be undertaken as part of the demolition process. The extent of the project was defined by a brief produced by the South Yorkshire Archaeology Service (see Appendix 4), and a detailed methods statement was subsequently produced by EDAS prior to appointment. The project was wholly funded by Sheffield City Council, through Kier Asset Partnership Services Ltd.

Background Information

Site Location and Description

- 1.2 The site of Sheffield Castle now lies beneath, but with some standing remains incorporated into, the city centre Castle Markets complex. This complex was built in several different phases between the late 1920s and the early 1960s, and covers an area measuring c.175m east-west by 110m north-south. It is bounded to the north by Castlegate, to the west by Waingate, and to the south and southeast by Exchange Street (see figures 1 and 2, and plate 1).
- 1.3 Three areas of surviving masonry, formerly part of the castle's structure, survive within the markets complex, and are Listed as Buildings of Special Architectural or Historic Interest (Grade II) (National Heritage List for England nos 1254808, 1254809 and 1254810; IOE nos 458126, 458127 and 458128) (see figure 3 and Appendix 2). Two of these are visible within basements of the current buildings but the third is currently inaccessible. None of the remains are designated as Scheduled Monuments, and the site lies outside the Sheffield City Centre Conservation Area.

Summary of Archaeological Interest

- 1.4 The established narrative for the site is that a castle was first constructed in the 12th century, possibly on the site of earlier occupation. The first castle is believed to have been an earth and timber construction, but it was damaged by fire in 1184-85 and again in 1266. Thomas de Furnival, who held the manor of Sheffield during the later 13th century, applied for permission to rebuild in stone, and this permission was granted in 1270. As might be expected, documentary evidence shows that the resulting stone castle was modified numerous times during its lifetime, with substantial changes continuing into the early 17th century. The documentary sources include references to a 'Great Hall', a 'Great Tower' and a 'Great Gate', as well as other structures including a chapel, a kitchen and a bakehouse. It is believed that the different elements of the stone castle were set out around a central courtyard.
- 1.5 After the Civil War, on the 30th April 1646, a Parliamentary order was made to render the castle 'untenable' (unusable). Demolition was gradual and when Henry Howard, Earl of Arundel and Surrey, bought back his father's sequestered estates

- in 1648, some structures at the castle were still habitable. However, demolition continued and by 1764 an article in the *Gentleman's Magazine* stated that no visible traces of the castle remained, apart from street names such as 'Castle Hill', 'Castle Folds', 'Castle Green' and 'Castle Lathes'.
- Subsequent to the castle's demolition, the site was developed with a mix of industrial, residential and commercial properties. By the time of the Ordnance Survey mapping of the town in 1853, much of the centre of the site was occupied by the Castle Hill Steel Works. A further major change to the site was the introduction of rows of slaughterhouses, built alongside the river Don on the north side of the castle site; this separation of the castle site from the river continued in the early 20th century with the construction of a new road (Castlegate) alongside the Don and the building of a substantial retaining wall along what had been known as 'the precipice' below the castle. Although no pictures, maps or plans of the castle as an extant structure are thought to survive, early mapping of the town centre provides some evidence as to how its former layout affected the post 17th century development of the town.
- 1.7 The castle site has also been the subject of numerous archaeological investigations from the early 20th century onwards. During the 20th century redevelopment of the site, two phases of archaeological observations and fieldwork took place. Firstly, in the late 1920s, the construction of the Brightside and Carbrook Co-operative Society building towards the south of the site and the first Castle Market building (the current meat and fish market) to the north was observed by A L Armstrong and J B Himsworth, for the Hunter Archaeological Society. Their work identified substantial remains of the stone-built castle and perhaps some evidence for its timber predecessor(s), as well as the moat surrounding the castle. Some of the identified remains were preserved and incorporated into basements under the buildings then being constructed; part of a bastion tower and gatehouse were preserved under the Co-operative Stores, and part of a courtyard building was preserved under the market building. Armstrong published the results of this phase of work in the Hunter Society's Transactions (Armstrong 1930). Himsworth's account of his observations on the site survives as an unpublished diary in Museum Sheffield's archives, and adds further information to Armstrong's account. Secondly, post-war reconstruction work on the site was observed by Leslie Butcher, who worked for the City's architects department. He never managed to publish his results but draft material for a publication is held by Museums Sheffield.
- 1.8 More recently, works to the retaining wall on the south side of Castlegate in the 1970s were observed by Pauline Beswick, from the City Museum, whose archive is again held by Museums Sheffield. In 1994, the South Yorkshire Archaeology Field and Research Unit surveyed the standing remains of the preserved courtyard buildings beneath the 1920s part of the market building, as part of planned reconsolidation works (Latham & Atkinson 1994). A desk-based assessment for the markets complex was also produced in 1998 (Belford 1998). In 1999, Archaeological Research and Consultancy at the University of Sheffield (ARCUS) excavated an evaluation trench to test for surviving remains in the East Loading Dock of the market (Davies 2000), and in 2001 they excavated two evaluation trenches in the North Loading Dock (Davies & Symonds 2002). The archives from this ARCUS fieldwork are currently held by the University of Sheffield but it is hoped that transfer to Museums Sheffield can be arranged in the near future. Some synthesis of previous research has also been undertaken by ARCUS (Davies & Willmott 2002; McCoy & Stenton 2009). Finally, a plan of the known location of archaeological remains from the castle was produced by ARCUS and

reproduced as 'known castle remains' in Appendix A of a document entitled *Castlegate: Policy and Development Framework*, produced for Sheffield City Council in October 2005 by EDAW (2005) (see figure 4).

Aims and Objectives of the Project

- 1.9 The main aim of the EDAS project was to provide Sheffield City Council with sufficient information about areas of archaeological potential on and within the Castle Markets site, so that they might be able to secure an appropriate and cost-effective archaeological evaluation of the complex. Given the potential for high public interest in Sheffield Castle, this evaluation would also need to allow for the wider community to play a role in rediscovering the castle's remains. This project and the subsequent evaluation would inform future development of the site, which may include some remains from the castle being included within a public open space, alongside small-scale development of any suitable plots on the markets site.
- 1.10 When considering the aims and objectives of the project, it should be noted that the EDAS study area only covers the inner court area of Sheffield Castle, and a small part of what lay outside of it such as the moat. No consideration has been made of other features associated with the castle, such as the outer bailey, park, routeways and river crossings etc. In addition, it should be further noted that EDAS were not required to look at, or make an assessment of, the artefacts recovered from the previous archaeological investigations carried out on the site as part of the commission to develop an evaluation strategy.
- 1.11 Specific project objectives included:
 - Reviewing the information on previous phases of archaeological recording and/or investigation at the site, to establish in as much detail as possible which areas of the site have been archaeologically observed and which have not, and what the results of those observations were;
 - Reviewing the information on the location and nature of existing and previous foundations and other groundworks (e.g. sewers and service runs) to establish, in as much detail as possible, which areas of the site have already been disturbed and are likely to have poor archaeological preservation, and which areas of the site have been left undisturbed and so are likely to have good archaeological preservation;
 - Developing an evaluation strategy for testing and confirming both the identified areas of archaeological interest and the areas of assumed/expected poor preservation; and
 - Designing an archaeological specification for implementing this evaluation strategy, including options for a high level of community engagement, which can be used by Sheffield City Council to secure the services of an appropriate archaeological contractor.

Project Methodologies

1.12 Full details of the project methodologies are contained in Appendix 3. In summary, the work was separated into three main elements, the data gathering (Phase 1), the synthesis and interpretation of that data (Phase 2), and the presentation of results (Phase 3); the results of these three phases of work are presented in this

volume of the EDAS report. A further phase (Phase 4) involved the preparation and submission of an archaeological evaluation specification (see volume 2).

Phase 1: Data Gathering

- 1.13 This phase of work involved a review of previous archaeological investigations and assessments of the castle site, a review of the archaeological archives (principally those originated by Armstrong, Himsworth, Butcher and Beswick) and other relevant material held by Museums Sheffield (MSA), a review of previous and existing development across the site to gain an indication of foundation and other disturbance, and an examination of a new separately commissioned topographical and building survey of the Markets complex. Other information published by Sheffield Libraries, for example a guide to available sources (Sheffield Libraries 2010) and the 'Pictures Sheffield' website (www.picturesheffield.co.uk) was also consulted. A number of site visits were also undertaken in order to gain a better understanding and appreciation of the relationship between the existing site structures and the potential for any underlying archaeological remains.
- 1.14 Photographs taken as part of the data gathering process and during the site visits are referenced in the following chapters using square brackets and italic type, the numbers before the stroke representing the film number and the number after indicating the frame, e.g. [2/1]. Appendix 1 provides a catalogue of all the photographs taken during this phase of the project, and a number have been used to illustrate the report text.

Phase 2: Synthesis and Interpretation of Data

1.15 A synthesis of the Phase 1 data was undertaken, to present and interpret the previous historical, archaeological and excavation records as a clear narrative. A detailed account was also collated, in relation to building and development works on the site, including depths of foundations. While it was not the purpose of the project to provide a wholly new interpretation of Sheffield Castle, some consideration was necessary to inform the subsequent archaeological evaluation strategy, and to highlight where the EDAS research might suggest a divergence from previous accounts.

Phase 3: Presentation of Data

- 1.16 Modern Ordnance Survey mapping and the new topographical and building survey data was used to present this information, both as 2D plans and sections as well as 3D images, to show areas of expected archaeological survival and potential across the site in relation to the existing topography. An outline evaluation strategy for the site, to test the developed model of archaeological preservation, was then produced for discussion with the client.
- 1.17 In addition to the this report, the initial results of the EDAS project were made available to a public meeting on 23rd November 2013, as part of a South Yorkshire Archaeology Day. Other presentation work included making the public lecture available to a wider audience via the SCC website.

Phase 4: Specification for Evaluation Strategy

1.18 Once the draft project report and its results had been reviewed, and the outline recommendations for an evaluation strategy agreed, a detailed archaeological specification for the implementation of that strategy was produced; this forms volume 2 of the EDAS report.

Other Details

Nomenclature

1.19 The names of some of the streets, and various elements of the market complex, have changed over time. For ease of description and consistency therefore, this report uses the name 'Castle Folds Lane' (previously known as Castlefolds Lane), as well as the 'North Loading Dock' (also known as the Upper Loading Dock or Bay) and 'East Loading Dock' (also known as the Lower Loading Bay).

Museum Sheffield Archives (MSA)

1.20 The various MSA reference and catalogue numbers used throughout this report were correct at the time of data collection and report production.

Sections through Castle Markets Site

1.21 Figure 40 of this report depicts two archaeological sections through the Castle Markets site, one aligned east-west (Section B) and one aligned north-south (Section 2). These identifiers reflect those created by the modern topographical survey, to allow for ease of comparison between the two data sets.

2 HISTORICAL BACKGROUND TO 1600

Introduction

2.1 As has already been noted above in Chapter 1, some previous assessment reports on the castle site already contain detailed and well-written accounts of the castle's known history, partly based on the same sources consulted for the EDAS project. Rather than repeating this research, EDAS have used the previous assessment reports as the basis for the historical and archaeological accounts, supplementing them as and where necessary. This chapter therefore draws heavily on the history of the castle given in the 'Archive Scoping Review' produced by ARCUS in 2009 (McCoy & Stenton 2009, 6-17).

Geology and Topography

- 2.2 The complex that was to become Sheffield Castle was constructed in an elevated position above a natural sandstone outcrop at the confluence of the rivers Don and Sheaf. Butcher (c.1972, 19) stated that this position was a part of the eastern end of the Hallam Ridge, with low 'cliffs' to the north and east overlooking the Don and Sheaf respectively. He also though it possible that two very shallow 'valleys' may have existed along the lines of Dixon Lane and Waingate, defining the other two sides of the selected area. The presence of these 'valleys' may also have created or suggested an east-west route across the Sheaf and a north-south route across the Don.
- 2.3 The underlying geology is that of the Lower Coal Measures (Upper Carboniferous or Silesian deposits), with the bulk of the site resting on an outcrop of the Silkstone Rock sandstone. The courses of the rivers Don and Sheaf have eroded through the Coal Measures sandstones and are filled with alluvium (Belford 1998). The upper surface of the harder sandstone lies at approximate river level adjacent to the Don but rises by c.4.90m as it passes beneath Exchange Street. Overlying the harder sandstone, a bed of mudstone rises in parallel (Butcher c.1972, 19).

Prehistoric and Roman Periods

- 2.4 As McCoy and Stenton (2009, 6) have noted, the elevated location and defensibility of the natural sandstone outcrop on which the castle stood makes it a potential focus for early occupation. However, partly due to the intensive and extensive development of the area in subsequent periods, evidence for prehistoric activity is very sparse (Belford 1998,6) and is limited to a small number of finds, all of which are presumed lost or destroyed.
- 2.5 Similarly, evidence for either Roman or Romano-British occupation on or near the site of the castle is also sparse, and is again limited to a small number of finds, many of which are again now apparently lost (Belford 1998; McCoy & Stenton 2009, 6). Nevertheless, the site of the castle lies between the suggested courses of Roman roads at Bridgehouses to the north-west and Cricket Inn Road to the north-east (Preston 1956-58). The latter road is likely to have crossed the River Sheaf just to the north of its confluence with the Don (McCoy & Stenton 2009, 6), although there is no evidence to support Winder's (1910, 55-56) suggestion that a temporary marching camp may have been established on the castle site. No evidence for immediate post-Roman (i.e. later 5th-6th centuries) occupation has, to date, been recovered from Sheffield city centre (Belford 1998, 7).

The Early Medieval Period

- 2.6 Anglo-Saxon or Anglian culture is suggested to have probably reached the Don valley by the mid 7th century. Anglian activity across the wider area is inferred from place-name evidence (for example Totley, Eckington and Whittington) and was probably partly represented by small, widely dispersed farms. Scandinavian incursions had probably reached the Sheffield area by the mid 9th century, with place-name evidence for settlement again present (for example Crookes, Upperthorpe, Whirlow and Netherthorpe) (Belford 1998, 7). By the 11th century, Sheffield appears to have formed part of the larger administrative unit that become known as Hallamshire, which may itself have pre-dated the Conquest by some time (Hey 1991, 4-7).
- 2.7 The Domesday Book records the following:

"Manor in Hallam, with 16 berewicks there are 29 carucates of land taxable. Earl Waltheof had an aula [hall] there. There can be 20 ploughs. Roger [de Busli] has this land of the Countess Judith ... [he] himself [has] there 2 ploughs and 33 villeins having 12 1/2 ploughs. 8 acrss of meadow there. Pasturable wood 4 leagues in length and 4 in breadth. The whole manor 10 leagues in length and 8 in breadth. In the time of King Edward it was worth 8 marks of silver. Now worth 40 shillings. 2 Manors in Ateclive [Attercliffe] and Escafeld [Sheffield] Suuen had 5 carucates of land taxable where 3 ploughs can be. This land is said to have been inland at Hallam." (reproduced in Belford 1998, 7).

Evidence for the status and use of the castle site during the early medieval period is problematic. Since the late 19th century at least, the castle site had been suggested as being the location of the *aula* or hall of the aforementioned Waltheof, earl of Northumbria, the structure recorded in Domesday Book (Addy 1893; Faull & Stinson 1986, 320a & c). Waltheof, or perhaps Sweyn, lord of Sheffield and Attercliffe in 1066 (Faull and Stinson 1986, 320a & c), would have possessed the status to command labour services and the economic power to hire the craftsmen necessary to construct a substantial timber-framed building forming part of a larger complex. However, there is no unambiguous evidence to associate the castle site with either Waltheof or Sweyn, and there is similar uncertainty surrounding the suggested archaeological evidence for Saxon activity that has been recovered from the castle (McCoy & Stenton 2009, 6-7) (see Chapter 5).

Medieval Period

The 11th and 12th Centuries

2.9 Based on archaeological evidence, Armstrong (1930) suggested that a substantial 'Saxon' building had been destroyed by the Normans following the northern support for the 1069 invasion of England by Svein Estrithson, King of Denmark. However, while Waltheof took part in the 1069 rebellion, he was not the earl of Northumbria at that date and, while William the Conqueror's route appears to have taken him along the Great North Road and thus through Tickhill, Bawtry and Doncaster, there is no evidence to indicate that he went to Sheffield. Waltheof became Earl of Northumbria following his submission in 1070 and subsequently married the king's niece, Countess Judith of Lens. In 1072, Waltheof constructed a castle at Durham on William's behalf (Dalton 1994), thus becoming the first English earl to be associated unambiguously with castle-building. However, it is likely that Waltheof merely 'oversaw', rather than directed or designed, the construction of Durham Castle by Norman ingeniotores. There is no evidence to indicate that the earl subsequently built castles in his own lands, and Waltheof is therefore unlikely to have constructed the first Sheffield castle. Waltheof was executed in 1076 for his part in a baronial rebellion (McCoy & Stenton 2009, 6-7).

- William de Lovetot assumed control of Sheffield during the early 12th century. The process by which this occurred is unclear, although de Lovetot appears to have held the manor as tenant-in-chief from Waltheof's daughter, Maud. The choice of William de Lovetot as Maud's tenant-in-chief could have been made by Henry I as, since she was a minor, Maud had been made a ward of the Crown. Evidence given to an inquest in 1332 stated that the ancestors of the then-lords of Sheffield had "held the said castle (of Sheffield) of the King of Scotland by homage and service of rendering two white greyhounds yearly" (quoted in Curtis 1914, 40). Maud's marriage to David of Scotland provides the context for this arrangement, and confirms William de Lovetot's status as Maud's tenant-in-chief (McCoy & Stenton 2009, 8).
- 2.11 De Lovetot is credited with having purposely developed Sheffield as the principal site within his Yorkshire estates (Hunter 1819, 26). However, there is no direct evidence to demonstrate that he constructed the first Sheffield castle, although it is plausible that the figure who built the town's parish church, the first Lady's Bridge over the River Don, and St Leonard's Hospital on Spital Hill, may also have established a castle in the principal seat of his lordship (Hunter 1819, 27). However, the witness list of the St Leonard's founding charter implies that the hospital may have been constructed during the reign of Henry II (1154-1189), which suggests that it was built by William's grandson, William de Lovetot II (Page 1974, 331).
- 2.12 Suggested dates for the construction of the first Sheffield castle are typically given as c.1100 or c.1150 (Davies & Constable 2004-05), although there is no direct evidence to support either. As there are no documented examples of mottes being constructed in England after the accession of Henry II in 1154 (Pounds 1990, 21), the presence or absence of a motte may help to determine if Sheffield Castle was constructed during the early 12th century by William de Lovetot or in the mid 12th century by his son, Richard or grandson, William de Lovetot II. However, to date, no archaeological evidence for a motte has been identified within the castle site (McCoy & Stenton 2009, 8-9).
- 2.13 There is little recorded evidence to demonstrate the nature and form of the first Sheffield castle. Developments in baronial castles throughout England during the 12th century suggest several features and aspects of design that may have been incorporated into the structure, although these remain speculative. The castle may have been a motte and bailey structure, featuring a timber stronghold or keep on top of an earthen mound, surrounded by a ditch. The area between the motte and the ditch may have included a number of ancillary buildings by the mid 12th century, while the defences may also have included a timber fence or palisade around the summit of the motte and also around the castle's outer perimeter. Alternatively, the first Sheffield castle may have been a ringwork fortification this form of castle featured a timber keep within a defensive embankment and associated ditch. Given the location of the site on top of a natural outcrop, either form is plausible (McCoy & Stenton 2009, 9).
- 2.14 William de Lovetot II died before 1181, leaving his seven-year-old daughter, Maud, as his heir. Maud was made a ward of Henry II and the manor of Sheffield appears to have been administered during this period by Ralf Murdac, the sheriff of Nottinghamshire and Derbyshire. Royal records preserved in the Exchequer demonstrate that a castle was extant at Sheffield in 1183-84, when Murdac was paid an allowance from the profits of the manor as recompense for works at castellum de Sedfeld. This is the earliest known explicit reference to Sheffield Castle, although it is almost certainly due to the incidence of survival of royal

records in comparison to that of baronial documentation (McCoy & Stenton 2009, 9).

- 2.15 From the late 11th to the mid 12th centuries, the focus of a castle's defences was the seignurial dwelling or keep. However, by the second half of the 12th century, stronger perimeter defences, such as a stone curtain wall that enclosed the site, became the primary focus of a castle's defence (Thompson 1991). In 1183-84, Ralf Murdac was recompensed by the Exchequer for the money he had expended in custamento claudendi castellum de Sedfeld (Henry II Pipe Roll 30, 100, quoted in McCoy & Stenton 2009, 9). Thomas Madox translated this as meaning 'moneys laid out in walling Sheffield Castle' (quoted in McCoy & Stenton 2009, 9). Developments in castle technology did indeed see the gradual replacement of earth and timber defences with stone features during this period, and it is possible that this process was reflected at Sheffield in the 1183-84 account. However, the nature of the 'walling' remains unclear, as claudendi derives from claudere, meaning 'to enclose or fortify', and can indicate a wall, a fence or even a ditch; it is not clear in which context the term was applied to Sheffield Castle. If the 1183-84 entry refers to the building of a stone wall, the process may have involved the construction of a perimeter wall or, as is rather more likely during this period (Pounds 1990, 20), a stone wall around the top of a motte, in order to strengthen the defences of the keep (McCoy & Stenton 2009, 9).
- 2.16 Early excavations on the site encountered various deposits, including burnt rubble and fragments of masonry displaying fire damage, that were interpreted as the remains of the 12th century castle, which was destroyed by fire (combustionem) in 1266 (Armstrong 1930; Hunter 1831, 186) (see Chapter 5 below). However, Sheffield Castle had been extensively damaged by fire (incendium) in 1184-85, with the £66 that was spent on its repair or restoration (reficiendo) indicating the scale of the destruction and consequent rebuilding (Henry II, Pipe Roll 31, 117, auoted in McCoy & Stenton 2009, 10). The Exchequer records do not specify the nature of the works on which this £66 was spent, and there is no evidence to indicate the extent to which damaged structures were repaired, rebuilt or even demolished. In 1187-88, Ralf Murdac was paid a further allowance for the sums expended on the custodia castelli de Saffeld de ipso honore vigilibus et portario et servienti (Henry II, Pipe Roll 34, 200, quoted in McCoy & Stenton 2009). Madox translated this as 'wages' paid to 'gendarmes' (quoted in McCoy & Stenton 2009, 11), which suggests that a professional garrison was present within the castle, rather than a series of tenants performing 'castle-guard' duties as part of their tenurial services. Any permanent garrison would have required quarters within the castle precinct, and these are likely to have been located within the bailey, along with other important ancillary structures such as a chapel and, given the manorial lord's role in the provision of justice, perhaps a prison or dungeon. The latter is likely to have been located within one of the castle's towers and the guarding of prisoners may have formed part of the garrison's duties.
- 2.17 However, it should be noted that the 1187-88 Pipe Rolls entry can be alternatively translated as money spent on the safekeeping (*custodia*) of Sheffield Castle through the provision of watchers or sentries (*vigilibus*) on gatehouse service (*portario*, *servienti*). In that case, this entry need not rule out the performance of 'castle-guard' as a tenurial service and Hunter argued that the manorial lord of Ecclesall did, in fact, owe 'castle-guard' to the lord of Sheffield during the medieval period (Hunter 1819, 35-36). It is not known when this tenurial service was superseded by a professional garrison at Sheffield. The term *portario* also indicates that a gatehouse was present at the main entrance to the first castle during the late 12th century. This feature is likely to have been located on or in

close proximity to the site of the Great Gate that subsequently stood at the southeast corner of the second castle (see below) (McCoy & Stenton 2009, 9-11).

The 13th and 14th Centuries

- 2.18 Control of Sheffield passed from the de Lovetot family and descended through the female line to Maud's husband, Gerard de Furnival. The latter paid King John £1000 to be allowed to inherit Sheffield at the expense of Maud's cousin, Nigel de Lovetot. Little is known of the castle during Gerard's tenure. His grandson, Thomas de Furnival, supported the royalist cause during the Second Barons' War and was ordered by Henry III to look to the defence of Yorkshire (Calendar of Patent Rolls1258-1266, quoted in McCoy & Stenton 2009, 11-12). John de Eyvill subsequently led rebel forces into South Yorkshire and attacked Sheffield Castle in April or May 1266 (Gatty 1873, 13). As a result, Thomas de Furnival petitioned Edward III for reparations, stating that de Eyvill had led the assault on Sheffield (cum equis et armis), had robbed and despoiled his property, and had burned (combustionem) the town and castle (quoted in Hunter 1828, 186).
- 2.19 It is often stated that the castle was 'burned to the ground' (Davies & Constable 2004-05, 205), but the extent of the damage incurred during the 1266 attack is unknown. Thomas de Furnival did not look to replace the castle until four years later, when he sought a royal licence to crenellate from Henry III. The text of the licence, which was granted at Westminster on 25th July 1270, is preserved in the Patent Rolls and reads: "Grant to Thomas de Furnival that at his manor (apud manerium suum) of Shefeld, co. York, he may build a stone castle (castrum lapideum) and fortify and crenellate it" (Calendar of Patent Rolls 1258-66, 447, quoted in McCoy & Stenton 2009, 12).
- Obtaining a royal 'licence to crenellate' during this period was merely a formality, yet one which 'dignified the recipient' (Coulson 1979, 86) and the request may have been intended to demonstrate that de Furnival remained loyal to, and retained the favour of, the King. The specific phrase 'stone castle' is likely to reflect the wording of Thomas de Furnival's individual petition. The intention to construct a stone castle may imply that the first Sheffield castle fell due to the firing of its timber structures, including defences and primary buildings. This, following the destruction caused at the site by fire in 1184-85, may have motivated its lord to prevent the recurrence of similar damage by rebuilding in stone. However, the symbolic aspects of castles became increasingly prominent during this period (Coulson 1979), and the emphasis on masonry may have included elements of display and defiance, indicating de Furnival's continuing prosperity and status following the destruction of his castle in 1266.
- 2.21 Some of the features that were present within the second castle are noted in the documentary evidence, and the archaeological evidence for these features is discussed in Chapter 5 below. Halls, rather than keeps, were the prevailing form of seigneurial residence within castles of this period, and there are numerous references to a 'Great Hall' within the second Sheffield castle. A chapel was also present, indicated by the five marks paid annually by Thomas de Furnival to Worksop Priory for two chaplains and a clerk to work at Sheffield Castle (Hunter 1819, 37); chapels were typically located either close to the upper end of the hall or between the hall and the gate (Thompson 1991). Thomas de Furnival died in 1291 and appears to have been buried in the castle chapel. During the 17th century, a large, flat stone was found in the chapel, on which was engraved: "I Lord Furnival I built this castle-hall and under this wall within this tomb was my burial" (quoted in Gatty 1873, 19). The stone coffin is said to have been used subsequently as a

water trough at Manor Lodge (McCoy & Stenton 2009, 12-13) but has since been lost.

- 2.22 McCoy and Stenton (2009, 13) propose that there is some evidence to suggest that elements of the first castle may have remained extant within de Furnival's castle. An 'old tower' that was recorded in 1442 may have dated from the first castle (Thomas 1920, 71), while a camera abstracta or 'withdrawing room of the earl' was also recorded in the castle during this period (Thomas 1920, 71). The nature and location of the latter feature remains unclear. Although it may have been part of the Great Hall, perhaps the earl's private dining room, it should be noted that, as castles developed during the 12th and 13th centuries, existing keeps are known to have been 'retained as a chamber-block for the lord' when halls were constructed (Thompson 1991, 94). The keep of the first Sheffield castle might thus have remained extant and been in use as the 'old tower' or the camera abstracta until at least the mid 15th century. However, it should be further noted that, while medieval and post-medieval documentary sources contain numerous references to a 'hall' and several to a 'mansion house' within the site, there are no known documentary references to a 'keep' within the castle (McCoy & Stenton 2009, 13).
- 2.23 Tower keeps became less frequent features of English castles during the 13th century and the presence of a seignurial hall within a baronial castle was the norm by the time that Thomas de Furnival constructed the second castle at Sheffield in 1270 (Thompson 1991). A 'Great Tower' was recorded at the site in 1442 (Thomas 1920, 71) and, while it is possible that this feature was a keep, it may have been merely the largest of the four mural towers which are postulated from archaeological evidence to have stood along the castle's north wall. Archaeological evidence has demonstrated that the principal entrance to the castle was located in the south-eastern part of the site and incorporated a gate, with large circular bastion towers set immediately east and west of the entrance (see Chapter 5 below). Round towers had become a feature of English castles soon after 1200 (Thompson 1991) and their design, which increased their ability to deflect projectiles, was well established by the time that Thomas de Furnival's castle was built in 1270. The principal entrance to Sheffield Castle thus reflected a typical design, with the entrance recessed between two towers, so that the garrison could outflank an attack on the gate (Thompson 1991). A drawbridge was positioned in front of the principal entrance, again located through archaeological evidence (see Chapter 5). A large curtain wall appears to have been constructed as part of Thomas de Furnival's castle, perhaps influenced by contemporary trends towards a predominantly square or quadrilateral design (Thompson 1991). A local tradition that the stone was derived from seigneurial quarries at Handsworth may be supported by the Patent Rolls which indicate that this area belonged to Thomas de Furnival during the period in which the second Sheffield castle was constructed (Edward I, Pipe Roll 4, guoted in McCoy & Stenton 2009, 13-14).
- 2.24 During this period the layout of English castles appears to have become somewhat standardised, with a similar sequence of ancillary buildings located around the inner curtain wall of the bailey being found at many sites (Thompson 1991). Evidence for some of these buildings at Sheffield has been recorded through archaeological investigation, and there was also evidence that modifications were made to the defences at the entrance during the 14th century, with a rectangular gatehouse being constructed to perhaps protect the drawbridge mechanism and to strengthen the immediate approach to the gate. The construction of this feature, which required entrance to the castle to be made through the ground floor of the gatehouse, was again in keeping with contemporary developments in English castle architecture (Thompson 1991). However, the gatehouse appears to have

been of an inferior construction in comparison to the bastion towers, and it is possible that this inferior structure at one of the main focal points of the site influenced a 1332 description of the castle as being "frail and ruinous" (quoted in Curtis 1914, 40). This statement, made just 62 years after the second castle's construction, remains problematic. The size and scale of the 14th century castle is suggested by a comment made by Sir George Sitwell who, when viewing a 14th century map on the wall of the Bodleian Library, remarked that "Sheffield is all castle" (quoted in Drury 1929, 188) - the whereabouts of the map are, unfortunately, currently unknown (McCoy & Stenton 2009, 14-15). In addition, archaeological evidence does not support the view of a 'frail and ruinous' castle during this period (see Chapter 5 below).

2.25 The 'frail and ruinous' description was recorded in an inquisition made on the death of Gerard de Furnival, and the additional comment that the castle was "worth naught yearly" (quoted in Curtis 1914, 40) may suggest that these assertions were intended to downplay the potential wealth of Gerard's heirs, who would have to pay a fine to the King for the right to inherit his estates. This may be supported by the repetition of the claim that the castle was 'worth nought yearly' in a 1383 inquest on the death of William de Furnival (quoted in Curtis 1914, 48). This 1332 inquest recorded that, amongst the lands owned by the lord of Sheffield, was "a close within the castle" itself (quoted in Curtis 1914, 34). A comment that 240 acres of demesne land within the castle 'lie fallow and untilled' was also made to the 1332 inquest (Curtis 1914). It has been suggested that Sheffield Castle encompassed an area of c.4 acres (c.1.6ha) (Belford 1998), and so the figure given to the inquest is likely to represent the total of the lord's lands within the manor of Sheffield, rather than the castle itself (McCoy & Stenton 2009, 15-16).

The 15th Century

- 2.26 Sheffield passed from the de Furnival family in 1383 and descended through the female line to Thomas Neville and subsequently to John Talbot, Earl of Shrewsbury. Talbot was a renowned figure and a hero of the final stages of the Hundred Years War (Gatty 1873, 19-20). Castles such as Sheffield were "occupied over long periods [and] were repeatedly refurbished and rebuilt" (Eales 1990, 58) and numerous works were carried out at the site during Talbot's tenure. It is not clear if Talbot, as one of the pre-eminent English aristocrats of this period, purposely aggrandised the castle to reflect his status (McCoy & Stenton 2009, 16).
- 2.27 Documentary evidence records several structures or features that were present within Sheffield Castle during the 1440s, along with indications of their interrelationships (see figure 5). These included the Great Hall, the Great Tower, the Great Gate, a bakehouse, a kitchen, a prison and a hospiteum, where itinerant workers and less salubrious guests were lodged (Thomas 1920, 71-72). The majority of these structures faced into the castle's inner courtyard, which suggests that they conformed to typical arrangements within English castles during this period, with the subsidiary buildings being arranged around the wall of the inner bailey. Documentary sources also indicate that a stone and cinder path ran from the hall to the gate during the 15th century (Thomas 1920, 71). A 'hedge' that was located 'below the castle wall', ran from the Great Tower to the bakehouse and was situated between the wall and a water source called 'the stream' (quoted in Thomas 1920, 70-72); it is possible that 'hedge' was a euphemism, as the Latin term hircheti was often applied to a timber palisade (Pounds 1990, 204). Thomas suggested that the stream was synonymous with the River Sheaf although. as the Great Tower is likely to have stood in the north-west corner of the site, overlooking the Don, the hedge's course may have run around the castle's west wall. The term

'great' in relation to the hall, tower and gate implies that these features were to be distinguished from smaller counterparts. This is borne out by work carried out in 1442, when John Plumber repaired the lead on both the Great Tower and a tower next to the bakehouse (Thomas 1920, 68). A further tower was recorded next to the chapel in 1445-46. This feature, described as 'the old tower', was demolished and replaced by a new tower constructed by two masons from Tickhill (Thomas 1920, 71) - its construction required the employment of 120 people to bring stone from Roche Abbey in 60 wagons. The sourcing of stone from the Roche Abbey quarries indicates that the new tower is likely to have been constructed from limestone; 60 oak trees were also felled in Sheffield Park to provide timber for the tower (Thomas 1920; McCoy & Stenton 2009, 16).

- 2.28 During the 1440s, work was also carried out on the gutters which discharged into the castle's inner courtyard, and in making a lead pipe for bringing water into the castle (Thomas 1920, quoted in McCoy & Stenton 1999, 16); the water source appears to have been a well that was located outside the castle. Several further structures were specifically described as being "outside the castle" (quoted in Thomas 1920, 72). These included the Exchequer Chamber, where dues and fines would have been paid in and wages and service payments were paid out, a stone and timber grange, and a cowhouse and stables (Thomas 1920, 68-72). There is also a 15th century reference to a tower near the stables (McCoy & Stenton 2009, 18-19). All these buildings are likely to have been situated within the outer bailey, which stood to the south of the castle's inner court. Sheffield Castle thus accords with the pattern at other English castles which, if occupied over considerable periods, were repeatedly refurbished and rebuilt (Eales 1990; McCoy & Stenton 2009, 16-17).
- 2.29 The town of Sheffield appears to have grown during the 15th century and to have become increasingly prosperous. The traditional route into the town from the north was improved in 1486 by the construction of a 'brygge of stone' across the Don, what is now known as Lady's Bridge. The agreement for building the bridge stated that:
 - ".... that the said William Hyll shall make a sufficient brigge over the watyr of Dune neghe the Castell of Sheffeld, wele and suffyciently after the sight of workmen of the same crafte and gode men of the parish. The whych shall be made V arches embowed [i.e. vaulted], IIII. Jowels [i.e. piers], and II. Heedys, with sure butments at eythtr ende ..." (quoted in Belford 1998. 9).
- 2.30 There was also a chapel associated with the bridge, the 'Chapel of our Blessed Lady on the Bridge', which was probably built at around the same time. It is unlikely to have actually stood on the bridge, as at Rotherham or Wakefield, and it might possibly have occupied a site between the south end of the bridge and the castle's ditch (Belford 1998, 10); a caption to an illustration of 1802 notes that the chapel stood at the west end of the bridge under the castle walls (www.picturesheffield.com, s07499; see plate 2).

Early Post-Medieval Period

2.31 During the first quarter of the 16th century, the Talbots had come to regard Sheffield Castle as 'cramped' and had developed Manor Lodge, a hunting lodge in Sheffield Park, as the principal seignurial residence. Several details relating to the castle during the early post-medieval period were revealed in an account of the funeral of Francis Talbot in 1560. Descriptions of the funeral ceremony revealed that "first the Porch, going into the Hall, and the Hall also, was hanged with black cloth ... then the way from the Hall to the Great Chamber was hanged in like manner" (Hunter 1819, 56), thus demonstrating the relationship between key

features of the seigneurial buildings. A description of the 'great dinner' that followed the funeral listed several of the officers of the earl's household who were employed at the castle, including a steward, a treasurer, a 'controuler' and several officers of arms (Hunter 1819, 57). A variety of administrative, residential and military buildings within the castle precincts are likely to have been associated with these roles. Similarly, quarters would have been required for the *castellanus*, the constable or castellan, who was recorded at the castle in 1571 (McCoy & Stenton 2009, 17).

- 2.32 In 1570, Elizabeth I committed Mary, Queen of Scots, to the custody of George Talbot, 6th Earl of Shrewsbury, and Mary was held prisoner in Sheffield Castle until 1584. Elizabeth's concerns that Mary might escape were addressed by the earl in a letter written in 1573, in which Talbot said that he had stationed guards permanently "under her windows and over her chamber" (Hunter 1819, 68). This suggests something of the layout of the building in which Mary was kept and indicates that she was held under 'house arrest' during her initial years at the castle. In 1571. Talbot stated that Mary was unable to exercise as he was "loathe to let her out of the gates" of the castle, but that "I do suffer her to walk upon the kads here in the open air in my large dining chamber and also in this courtyard" (quoted in Hunter 1819, 67). This describes Mary walking on the flat roof (the 'kads') of the earl's dining room, which is likely to have been part of the Great Hall. The Calendar of Patent Rolls also record that on 2nd January 1574, Elizabeth I granted a licence to George Talbot allowing him "to alienate the castle of Sheffield" (Calendar of Patent Rolls 1572-1575, 340, quoted in McCoy & Stenton 2009, 17). No plausible context or explanation is known for Talbot's desire to transfer the castle to another's control, and the Queen's permission to do so does not seem to have been acted upon (McCoy & Stenton 2009, 17).
- 2.33 In 1575, Talbot wrote to Lord Burghley, revealing that on 24th February Sheffield had been hit by an earthquake which shook the castle walls. In a letter to the Queen, the earl revealed that the shock 'so sunk chiefly her chamber', indicating that Mary's apartments had been the part of the castle most affected by the earthquake (quoted in Hunter 1819, 69). Following her removal to Tutbury (Staffordshire) in 1584, the castle resumed its medieval role as a manorial prison, when three deer-poachers caught at Kimberworth in 1586 were sent to the castle and held until the earl returned to the town (McCoy & Stenton 2009, 17).

3 HISTORICAL BACKGROUND FROM 1600 TO 1920

Introduction

3.1 As has already been noted above in Chapter 1, previous archaeological assessment reports on the castle site already contain detailed accounts of the castle's known history. This chapter therefore draws heavily on the history of the castle given in the 'Archive Scoping Review' produced by ARCUS in 2009 (McCoy & Stenton 2009, 6-17). Figure 5 also shows a reconstruction of the castle, as produced by McCoy & Stenton (2009, figure 1), which will allow some of the buildings and structures noted below to be approximately located.

The Early 17th Century

- 3.2 Gilbert Talbot, 7th Earl of Shrewsbury, died in 1616 and control of Sheffield passed through the female line to Thomas Howard, the Earl of Arundel and Surrey. He was an absentee landlord and is generally thought to have been little concerned with Sheffield. However, a series of substantial works were conducted throughout the castle between 1633 and 1637. Documentary evidence relating to these works reveals incidental details about the castle during this period, including a statement by surveyors that "the castle cometh to 1046ft" (Hunter 1819, 102). This suggests that the 1637 measurement may have indicated only the area encompassed by the inner bailey, thus demonstrating a division (admittedly by this date perhaps conceptual or legal rather than physical) between the castle and its outer courtyard persisted into the 17th century. The surveyors also recorded the measurement of "the new building", which "cometh to 669ft" (Hunter 1819, 102). The construction of such a substantial 'new building' (either singular or perhaps a range of new structures) possibly demonstrates the extent to which the castle continued to develop during the post-medieval period, despite the absence of the new manorial lords from the town. The nature and location of the new building, along with the earlier structures that may have been demolished to accommodate it, remains unclear. Conversely, work was also conducted in 1637 "about the decayed building" (Hunter 1819, 103). The nature and location of this feature, and its possible relationship to earlier phases of the castle, also remains unknown (McCoy & Stenton 2009, 18).
- In 1633, repairs were made to "some breaches of the walls upon the river of Dunne, by the Raven-poole" (Hunter 1819, 102). This referred to the castle's north wall, although the location of the 'Ravenpool' remains obscure it might possibly have been a pool of water in the former east ditch which had acquired this name. Glaziers were also hired to work at the castle in 1633, "repairing and making new glass" while, in the following year, bills were paid "for bringing of the water-works" to the castle and creating a "coachway between Hallam Head and the Gate house" (Hunter 1819, 102-103). The 'water-works' suggests that plumbing had replaced the medieval lead pipes that had brought water into the castle from a well in 1442. A 'Great Stable' that was listed during this period (Hunter 1819, 103) is likely to have been located within the outer bailey this structure may have been reserved for the seigneurial horses, with the designation 'great' perhaps implying the existence of a smaller stable that may have housed workhorses (McCoy & Stenton 2009, 18).
- 3.4 In 1637, Thomas Howard commissioned John Harrison to conduct "An Exact and Perfect Survey of the Manor of Sheffield...". Harrison's written description of Sheffield Castle (Ronksley 1908, 47) remains the only account of the site that was

made by an eyewitness and, because of its importance to this EDAS project, it is reproduced in full below (reproduced from Davies & Symonds 2002, 48-49):

"DESMESNES belonging to the Castle

The Right Honourable Thomas Earle of Arundell & Surrey &c. is Lord of this Mannor & hath at this present in his owne Hands ye Mannor or Castle with ye scite thereof & Soe much of ye Demesnes thereunto belonging as is here expressed.

PARTICULARS

- 1. *Imprimis.* ye scite of ye Mannor or Mansion house called Sheffeild Castle being fairely built with stone & very spacious containeth divers buildings & Lodgings about an Inward Court yard & all offices thereto belonging having a Great Ditch about ye same ye Great River of Doun lying on ye north parte thereof & ye Lesser River called ye Little Sheath on ye East parte thereof having on ye South an outward Court Yard or fould builded round with divers houses of office as an armory a Granary, Barnes, Stables & divers Lodgeings all containeing by measure acres roods perches 4 00 302/5
- 2. Three Orchards thereto adjoyneing ye first whereof is compassed about with a stone Wall & lyeth Betweene ye River called ye Little Sheath on ye West & ye little Parke on ye East & containeth acres roods perches 5 1 01/2
- 3. *Item* ye 2 d. Orchard called ye Nursery & Iyeth next ye aforesaid Orchard towards ye South & a parcell of Ground called ye Hopyard towards ye North & cont.: acres roods perches 1 1 257/10
- 4. *Item* ye Third Orchard Lyeth Betweene ye Little Parke towards ye East & ye Hopyard aforesaid on ye West & abutteth on ye Nursery towards ye South West & cont.: acres roods perches 6 00 242/5
- 5. *Item.* A peiceof Land called ye Hopyard lying betweene ye 2 Last Orchards towards ye East & ye River of Doun towards ye West & cont.: acres roods perches 1 00 269/10
- 6. *Item y*e Yard called ye Cockpitt Yard lying betweene ye Last piece in parte & yeNursery in parte towards ye East & ye River of Doun North & Cont.: acres roods perches 0 1 289/10

Sume Totall of ye Lands aforesaid which are in ye occupacon of ye Keeper of ye Castle is: 18 - 3 - 164/5".

- 3.5 Harrison states explicitly that identification numbers recorded with the plot descriptions matched those shown on an accompanying plan (quoted in Ronksley 1908, 47). The whereabouts of the 1637 map are currently unknown, but Scurfield (1986) has produced a series of reconstruction maps of the Manor of Sheffield, including the orchards around the castle, the Little Park to the east of the Sheaf, and the Great Park to the south-east, which included the Manor Lodge. Overall, the manor was large; over the course of a year, the income received into the castle from the Manors of Sheffield, Ecclesfield and Cowley was £3,778, derived almost entirely from rents, local taxes and fines (Scurfield 1986, 151 & 171).
- 3.6 Although the precise layout of the castle during this period remains uncertain, several aspects during the second quarter of the 17th century can be discerned from Harrison's survey. The principal structure within the site was described as 'the Mannor or Mansion house' (Ronksley 1908, 47). This indicates that, by the 17th century, the seigneurial building within the castle was indeed a hall rather than a former medieval keep. It is not known if the hall was constructed during the original phase of the 1270 castle, or the extent to which it may have been modified subsequently and, if so, in which period. Harrison also stated that the castle

contained "divers buildings and lodgings about an Inward Court yard and all offices thereto belonginge, havinge a Great Ditch about ye same" (Ronksley 1908, 47). This demonstrates that a variety of buildings, both official and residential, were located within the inner bailey, and that the latter was demarcated from the outer bailey by the south moat. Beyond the south moat, the castle had "an Outward Court Yard or fould builded round with diverse houses of office as an armory, a Granory, Barnes, Stables & diverse lodgings" (Ronksley 1908, 47). This indicates that the outer bailey contained a variety of utility and residential buildings that were arranged around its inner circuit. Harrison did not state that the outer bailey was enclosed within a perimeter wall, despite the presence of the armoury, which stored the castle's weaponry, in this area. It is not clear how the perimeter of the castle's outer courtyard was delineated, or indeed how access into and through this area was controlled. A 15th century reference to a tower near the stables may indicate that at least one fortified structure stood within the outer bailey (McCoy & Stenton 2009, 18-19).

The English Civil War and the Later 17th Century

- 3.7 During the English Civil War, Thomas Howard, the Earl of Arundel, supported the Royalist cause but was absent from Sheffield and the castle was taken by Parliamentary forces in 1642. The contents of the castle armoury, including four cannon, had been removed and were in use by the Royalist army elsewhere (Leeming 2005). Given the dearth of arms with which to defend the castle, the approach of a Royalist army in the following year led the Parliamentarians to retreat. Kellam Homer, the town armourer, then re-took the castle for the Crown. Eight cannon and two mortars were brought subsequently to the castle.
- 3.8 Following the Battle of Marston Moor in July 1644, a Parliamentarian army led by Major-General Crawford took Doncaster and Rotherham, before advancing on Sheffield in the first week of August. A description of the ensuing siege of Sheffield Castle, published anonymously as a pamphlet in 1644, reveals several interesting aspects of the site; Belford (1998, Appendix 2) provides a transcript. Colonel Bright is said not to have 'valued' the castle, suggesting that it did not possess a reputation for military or strategic significance. However, once Crawford viewed the castle he "found it to be of very considerable strength" in terms of its defensive position and its built defences (Anon 1644; McCoy & Stenton 2009, 19).
- In reconnoitring the castle on the 1st August 1644, Crawford found deep water present in the east and west ditches, which were described as being "slackered on all sides" (Anon 1644). This indicates that the flow of water in and out of the ditches was controlled by a system of sluice gates. The water level of both the Rivers Don and Sheaf was below the level of the castle ditches, demonstrating that water could only enter and be retained within them by artificial means. Crawford hoped to drain the ditches and on the 4th August he and his officers went to "view a sluice that was stopt to keep waer deep about the east side of the Castle", with the intention to "break up the sluice through the dame" (Anon 1644). However, the attempt to destroy the sluice and so "let the water out of that corner against the Orchard, on the east side of the Castle" failed. The orchard, one of three such features that had been recorded in Harrison's 1637 survey, was situated on the east bank of the River Sheaf, directly opposite the castle.
- 3.10 A "strong fort before the gate pallisado'd" appears to have been a Civil War defensive feature constructed on the south side of the ditch, protecting the approach to the castle's drawbridge. During this period, such forts were typically star-shaped constructions formed by earth banks topped with wooden palisades,

perhaps incorporating sharpened projecting stakes called 'storm poles' (Harrington 2003, 32). However, Leeming (2005, 29) has suggested that the Civil War fort at Sheffield was "a half-moon work ... with a D-shaped trench around it". This latter feature appears to be synonymous with the "Trench 12 foot deepe and 18 broad" that was present "about the Fort, and the other parts of the Castle", with an associated "breast-worke pallisado'd within the Trench, betwixt it and the Castle" (Anon 1644). The fort's earthen bank construction is suggested by Crawford raising a battery on the 3rd August to destroy "the mount before the Gate" (Anon 1644). The battery "flauncked the draw-bridge of the Castle, with intention to beat it downe ... whereby they might not have passage to relieve the fort from the Castle" (Anon 1644). There is, at present, no clear archaeological evidence to indicate the location of the 'fort', but Crawford's aim of destroying the drawbridge and thus preventing defenders from the castle reaching the fort indicates that it stood on the south side of the ditch (McCoy & Stenton 2009, 19-20).

- 3.11 Bombardment of the castle by cannon included a direct strike "through the Governor's chamber" on the 2nd August (Anon 1644). This is likely to have been the quarters occupied at that time by the castle's governor, Major Thomas Beaumont, or Lady Anne Saville, the heavily-pregnant widow of his predecessor. Its location within the layout of the castle is unknown. However, the cannons were situated "in the edge of the park" (Anon 1644) and so were on the east bank of the Sheaf, with the direction of fire likely to have been from the north-east.
- 3.12 Crawford's examination of the castle's defences included viewing "the little Towre by the River, that flancked two quarters of the Castle" on the 3rd August (Anon 1644). In order to flank two corners of the castle, the 'Little Tower' would have been a mural tower located at one of the corners of the castle's curtain wall. As the tower that stood at the north-west corner appears to have been the largest of those along the north wall, the Little Tower is thus more likely to have occupied the north-east corner. Crawford then "raised a new battery against the west side of the castle" on the 3rd August, creating a small breach in the curtain wall (Anon 1644). The presence of a tower on the west side of the castle is indicated by the statement that once the small breach had been created, "Sakars (sappers) then beat down the battlements and a part of the tower that flanked that part of the town" on 5th August (Anon 1644). Archaeological evidence of artillery damage seen at the castle gates (see Chapter 5 below) is therefore likely to have been sustained at this time. Crawford brought a culverin and an artillery piece called "the queen's pocket-pistoll" to Sheffield on 9th August, and the more powerful ordnance succeeded in clearing a breach within the castle walls on the 11th August. The garrison then surrendered as the Royalist army were preparing to storm the castle. Stone from the 'new breach' was sold off in 1648 (Hunter 1819, 114; McCoy & Stenton 2009, 20-21).
- 3.13 Royalist estates, among them those of the Earl of Arundel and Surrey, were subsequently sequestered by Parliament in 1644. Several resolutions were passed in the House of Commons in order to render Sheffield Castle indefensible, beginning with an order on 30th April 1646 to make the castle 'untenable' with no garrison kept or maintained in it (Journal of the House of Commons 1802a; Hunter 1816, 113). However, no work was undertaken in response to this decision, and on 13th July 1647 a resolution was passed ordering that "all the new works about Sheffield Castle be dismantled and sleighted and the castle disgarrisoned" (House of Commons Journal 1802b). A bill sent to Sheffield summarising these orders on 27th February 1648 indicated that the process was being carried out by "the country people in this devision" under the supervision of the "Lordes officers" (Hunter 1819, 113).

- 3.14 It is not clear at what date the demolition of the castle had commenced. However, an account of 23rd January 1648, of the "materials of the castyle that had been sold" (quoted in Hunter 1819, 114) indicated the extent of the demolition work that had taken place, while also revealing several aspects of the castle's fabric. The progress of the work suggests that much of the castle was actually dismantled, rather than being demolished, to allow various materials to be sold off. The sale of the "slate of the hall" adds further support to the seigneurial building being a hall, while indicating the type of roofing material of the castle's principal structure. Further details were revealed by the sale of the "roofe timber" and the "pavers and steps" of the hall, along with "the stone of a square room at the halle end" (Hunter 1819, 113-115). Named structures were also revealed due to the sale, including "the roofe over Middleton's chamber" and "two flores in Nic. Spedeman's chamb." (Hunter 1819, 113-115); the location of these chambers and their relationship to the named individuals is not known. The sale of "the slate of the ould backhouse" demonstrates further evidence for the roofing material, while also suggesting the existence of a 'new' bakehouse, while the sale of "all the materials of the ould kitchen, savinge lead" suggests that there was an older kitchen which had probably had a lead roof. The sale of "ye little kitchen" indicates both the presence of that feature and implies the presence of a 'great kitchen' (Hunter 1819, 113-115). A "round tower", a "square tower" and a "sentrie house" were also recorded (Hunter 1819, 113-115); it is possible that the latter was the 14th century gatehouse (McCoy & Stenton 2009, 21-22).
- 3.15 The course of the continued reduction of the castle can be traced through a document of 3rd February 1648 which listed payments "for demollishinge al the walle after the water side" (Hunter 1819, 114). It is not clear which of the castle walls was being referred to, but it is likely to have been the north wall, which faced the Don. By 3rd March 1648, payments had also been made for "dimollishinge the halle", a "walle at the ende of the halle", "round of either side ye gatehouse" and "a wall next the Dungan" (Hunter 1819, 114). It is possible that the latter term was the French donjon and is thus a reference to a keep, but the term is more likely to have been 'dungeon' and thus to have indicated the presence of a prison during this period. On 10th March 1648, payments were made to "several workmen for two weeks" due to "ye walles beinge let doune" (Hunter 1819, 114-115). This work does not appear to have been completed as "the crosse walles" were demolished on 10th May 1648 and the "timber from the walls of the castle" was cut down on 10th November that year (Hunter 1819, 114-115). The "ould pipes" were also removed on the latter date. These are unlikely to have been the 'water-workes' that were installed in the castle in 1633, but may have been the lead pipes that were recorded in 1442. Various items held at other locations are often claimed to have come from Sheffield Castle, including 'bords and plaster' taken to Bishop's House and an ornate wooden bed that was subsequently in the possession of the family of the engineer, James Watt (Drury 1929, 343-46). However, the authenticity of these claims is uncertain, although a door from the castle that was sold 'for the schoole' may be the door shown in a photograph taken by Thomas Winder in c.1900 (Bostwick 1985; McCoy & Stenton 2009, 22-23).
- 3.16 Work was continuing on the castle when Henry Howard, the new Earl of Arundel and Surrey, bought back his father's estates for £6,000 on 24th November 1648. This included Sheffield Castle and on 5th January 1649, the earl issued orders for the demolition of the castle to stop. Howard initially intended to rebuild the castle and issued instructions for the rooms that remained standing to be repaired and reglazed, "soe that the same be made a fitteing habitation", while the "foldsteades and yardes" were to be fenced and gated (Hunter 1819, 115). This belies the common perception that Sheffield Castle was demolished entirely in the aftermath

of the Civil War. In fact, the castle's surviving fabric was such that on 30th May 1649 Andrew Carter, possibly the mayor of York, reported that he had "viewed the remaining part of Sheffield Castle now standing" and, even at that date, it remained "in part tenable" (quoted in Hunter 1819, 113). Carter oversaw the destruction of a window at the castle, which indicates that the earl's order for the demolition to stop had not been acted on. Carter further reported that, in his judgement, additional works would still be needed in order to make the castle "unservicable for war" (quoted in Hunter 1819, 113). These works included the demolition of the 'new building' in the south-west part of the site, "nex towards the towne". It is possible that this was analogous with the 'new building' that was described by the surveyors in 1633.

- 3.17 In order to reduce the castle's ability to withstand a siege, Carter suggested that numerous windows should be inserted into the fabric of the remaining buildings. Four windows were to be made in "the buildings on the south part" of the castle, while one 8ft square window was to be inserted between each buttress, and three 6ft by 8ft windows were to be made in the second floor (Hunter 1819, 113-114). This reveals that the walls included several buttresses and that a building of at least two storeys stood at the south end of the castle. A reference to "the ould tower wher the stables ar" suggested that parts of the outer bailey were also fortified, as Harrison's 1637 survey stated that the stables were located in the outer ward (Hunter 1819, 114; Ronksley 1908, 47). Carter also suggested that a new window should be inserted between two 'port holes' that were present in the Old Tower. These features may have been arrow slits (or perhaps gun loops), suggesting that the Old Tower was a surviving medieval feature. Carter further recommended that the battlements "bee not above one foot and a halfe" (quoted in Hunter 1819, 114), thus implying that substantial sections of the castle wall not only remained standing to full height but also retained their crenellations in 1649 (McCoy & Stenton 2009, 23). Andrew Carter's report, which also considered the Earl of Arundel's desire to convert the castle into a hospital, was not acted upon despite the extent of the standing fabric, the castle was not rebuilt.
- 3.18 Further material was removed from the castle site during the third quarter of the 17th century. The Earls of Arundel retained ownership of the castle site, which was referred to as being "commonly called Sheffield Castle" in a mortgage of 1677 and "the site of Sheffield Castle" in a deed of 1706 (McCoy & Stenton 2009, 23). However, by the latter date, Sheffield had passed to the Duke of Norfolk, who had no plans for the site and began to sell off the land for redevelopment. Gatty (1873, 93) stated that the 'mansion house' within the castle remained in constant use by the lords' agents until 1706 when the Duke of Norfolk gave orders for it to be dismantled. Given the records of extensive dismantling and sale of features from the hall during the mid 17th century, the accuracy of this statement cannot be determined (McCoy & Stenton 2009, 23).

The 18th Century

3.19 Thomas Winder's reconstruction of the castle in c.1700 (Winder 1907) depicts several detached structures set around the former castle courtyard, which had been converted into a bowling green, while sections of curtain wall appeared to remain extant at the north-east corner (see figure 6). This map appears to be based on an amalgamation of smaller, later plans of various parts of Castle Hill, such as William Fairbanks' plans and fieldbook sketches. However, Winder was employed by the Norfolk Estates Office and may also have had access to private documents within the estate archive (McCoy & Stenton 2009, 25).

- Rubble from the demolition of the castle appears to have been dumped into the moats in order to level the ground prior to the onset of the extensive redevelopment that occurred throughout the site during this period. Several roads around the castle site, such as Castle Folds, Waingate and Exchange Street, appear to have developed along the courses of the former castle ditches. Castle Folds seems to have lain within the former outer bailey and may have developed along or immediately adjacent to the south ditch; it is possible that a berm (a path adjacent to a moat) had been present in this area during the medieval period. Waingate appears to follow the line of the castle's western defences properties along Waingate were described as being 'in the ditch' in early 19th century leases (Himsworth 1927-42, 15). A berm may also have been present along the edge of the west ditch prior to the mid 17th century, and this appears to have followed the present-day eastern frontage of Waingate (McCoy & Stenton 2009, 23-24).
- 3.21 Ralph Gosling's 1736 map of Sheffield is the earliest known surviving plan of the castle site (reproduced in Belford 1998, illustration 6) (see figure 7). This depicts general development to the west and south of the castle site, with a large house in the north-west corner (labelled as "15 - Alms House"). This general development lay to the west and north of a street or thoroughfare named 'Castle Hill', running between 'Castle fould' to the south and 'Bridge Street' (now Waingate) to the west. Castle Hill shows a number of sharp right-angled turns along its route, two of which took it along the south and west sides of a large square 'Bowing Green'. This green lay to the north of centre of the castle site, and there were a number of smaller, rectangular plots or enclosures to the north and east, running to the banks of the Don and Sheaf. A narrow strip of development was indicated on the east frontage of Castle Hill and Castle Fold, again with smaller empty rectangular plots to the rear running as far as the bank of the Sheaf; their depiction on the map, albeit schematic, is reminiscent of garden or yard enclosures to the rear of individual properties. Gosling's plan does not depict the outcrop or 'precipice' on the north edge of the castle site which appears on later maps (e.g. figures 8 and 9), nor did he indicate any surviving features associated with the castle. Archaeological evidence suggests that the bowling green may have been defined by a series of stone posts connected by iron railings, as a 3m long iron rail attached to a sandstone pillar was recovered from the site of the green in 1928 (Himsworth 1927-42, 11; McCoy & Stenton 2009, 24).
- 3.22 Several of the properties that were extant at the time of the Gosling map are likely to have been depicted on a variety of plans and fieldbook sketches that were subsequently produced by William Fairbank. By combining several of these, it is possible to reconstruct a relatively accurate plan of buildings and properties around the castle site in the period c.1760-90 (Belford 1998, 13) (see figure 8). In c.1760, the bowling green was substantially larger in proportion to its surroundings than suggested by Gosling in 1736, although this is almost certainly due to his schematic depiction rather than any real increase in size. Structures were attached to the north-west and south-east corners of the green, with a 'Precipice' to the north immediately above the Don. The composite map of c.1760 produced by Belford (1998, illustration 7; see figure 8) appears to show two distinct areas to the castle site. The inner area is formed by the bowling green and a narrow strip around the outside with a curvilinear boundary, containing properties, two of which at the south-west corner are joined by a strip named 'Castle Wall' on a map of 1782. The main access to the inner area was at the south-east corner, along the 'Castle Hill' marked in 1736. In c.1760 this was flanked by street frontage properties on either side, but it continued along the south and west sides of the bowling green as an unenclosed track. The outer area comprised a wide band between the inner area and Waingate to the west and Castle Folds to the south,

which contained a number of sub-divisions which appear to radiate outward from the edge of the inner area; the disposition of properties within the outer area might suggest that some sub-divisions were laid out in advance of actual development. The width of the outer area decreases markedly to the east of the 'Castle Hill' access, and its curve is delineated by a pair of parallel boundaries, apparently a narrow access leading to an enclosure at the confluence of the Don and Sheaf. The building within the outer area at the junction of Waingate and Castle Folds became the 'Reindeer Inn' in 1779, later changing its name to the 'Royal Exchange'. To the south, the area between Castle Folds and Dixon Lane was filled with tenements built during the third quarter of the 18th century (Belford 1998, 14).

- A 1768 Fairbank fieldbook sketch of Castle Hill marks a substantial wall along the 3.23 north-east boundary of the outcrop (MSA: FB 35, 51), although he did not mark this feature explicitly as being part of the castle's former curtain wall. However, its scale and location may suggest that a substantial section of the perimeter wall overlooking the river Sheaf remained extant in 1768. The course of the northern edge of the precipice, the bowling green, a causeway leading onto Castle Hill in the vicinity of the former castle gate, and the confluence of the Don and the Sheaf were also shown on the 1768 sketch. Archaeological evidence indicates that several metres of imported material had been brought to the site in order to raise the ground level above the remains of the castle (Belford 1998, 2), and in 1764 it was reported that no traces of the castle remained visible (Davies & Constable 2004-05, 214). However, a later 1771 Fairbank sketch of the south and west parts of the castle site depicted a section of wall marked "ruins of the castle" (MSA Archives FB 40, 47). If accurate, this indicates that elements of the castle's fabric remained above ground during the late 18th century. It is not clear which former feature was represented by the extant masonry depicted by Fairbank; features known to have stood in this part of the site include the 'new building' constructed in the early 17th century, and it is likely that a tower would have been situated at the castle's south-west corner (McCoy & Stenton 2009, 24).
- 3.24 The outcrop on which the castle had stood was typically referred to as a 'precipice' in this period, and it appears to have remained openly visible in the late 1770s. William Fairbank's 1771 map of Sheffield depicts the precipice, the contours of which bare a close resemblance to those shown on the measured sketch in Fairbank's 1768 fieldbook (see figure 9). The 1771 map is therefore likely to accurately depict the precipice prior to its northern face being cut back during the 19th century. Fairbank also labels the castle site as "Situation of the Castle demolished in the Civil War". His sketches also depict several individual structures around the south and west sides of the bowling green. Many of these were domestic houses that were leased from the Duke of Norfolk by John Waite, who had then sub-let them to various tenants; Waite himself occupied a large house at the south-east corner of the bowling green. The majority of the 18th century tenements appear to have been concentrated in the area around Castle Hill and between the Hill and the River Sheaf (Belford 1998, 14).
- 3.25 Industrial premises were also established within the former castle precincts. These included a variety of tool and cutlery workshops, a cementation steel furnace of Thomas Clegg (Belford 1998, 16), and a cupola furnace of R and J Smith Brothers. Numerous stones reflecting '15th century workmanship' were discovered during the demolition of the latter structure (Wigfull 1914, 239), while Himsworth observed the excavation of a further cupola furnace within the castle site in 1928 (Himsworth 1927-42) (McCoy & Stenton 2009, 24-25).

3.26 Following a 1784 Act of Parliament, calling for general improvements in market accommodation and capacity, much of the property on Castle Hill was demolished, and it is possible that Fairbanks' 1785 plan of Castle Hill (Belford 1998, 15; Davies & Constable 2004-05, 214) was produced in relation to this redevelopment. The effects of this demolition are clearly visible on a c.1800 composite map produced by Belford (1998, illustration 8) (see figure 10). The whole of the bowling green had disappeared (although John Waite's house remained at the south-east corner), and the 'precipice' to the north was now occupied by two parallel lines of slaughter houses. Most of the buildings formerly to the south of the bowling green had been demolished to create a new right-angled and wide access from Castle Folds, replacing the earlier access along 'Castle Hill' from the south-east although the name was retained for the new alignment. Parts of the original alignment survived, but again the number of buildings flanking it was very much reduced from c.1760. Only the western part of the outer area described above escaped major demolition, with some of the radiating sub-divisions surviving. The narrow curving track noted in c.1760 also partly survived as a boundary, although it had lost its function as a track. It has been suggested (McCoy & Stenton 2009, 24-25) that this track may have marked the course of the castle's eastern defences.

The 19th and Early 20th Centuries

- 3.27 Further redevelopment occurred throughout the castle site during the first half of the 19th century. The west bank of the river Sheaf was redeveloped, with many of the structures that had survived to c.1800 being demolished. Much of this redevelopment was associated with the Sheffield and Tinsley Navigation, which had reached Sheffield in 1819 - a canal basin was built to the east of the Sheaf. Nelson and Company also constructed a small steel and tool works within the castle site, which was taken over in the mid 1820s by Furniss, Cutler and Company. By the mid 19th century, John Youle's Phoenix Steel Works was also present on Castle Hill, manufacturing saws, files and other tools (www.picturesheffield.com, y03107). Cementation and crucible furnaces. warehouses, and tool and cutlery workshops were constructed subsequently around the works, on ground around the angled route of Castle Hill laid out in the late 18th century (Belford 1998, 14-15). To the east of Castle Hill, Shambles Lane was created to link the slaughter houses to Castle Folds; the very southern end of this followed the pre-late 18th century line of Castle Hill (Belford 1998, 15).
- 3.28 An old photographic display board left in the offices of the High Block of the Castle Market includes a reproduction of an anonymous painting made in c.1825, looking south along the Sheaf from close to its confluence with the Don (photo IMG_6027 supplied by SCC). At the right hand edge of the painting, on the west bank of the Sheaf close to the weir, the structures of the 18th century slaughterhouses are clearly recognisable from the late 18th and early 19th century maps. However, at their very north-east corner, the painting shows what appears to be a stone-built crenellated tower. This tower has two openings at a lower level discharging water or effluent, a line of four narrow vertical slits above, then a pair of quatrefoil openings and finally two cruciform arrow-slits.
- 3.29 A screen painted to resemble the castle is known to have been erected to hide the slaughterhouses during a royal visit in 1875. Both an 1802 sketch (www.picturesheffield.com, s07499; see plate 2) and a 19th century engraving (www.picturesheffield.com, s10485), and other photographs e.g. www.picturesheffield.com, s01744 & s07493; see plate 3) show crenellations extending along the whole of the Don frontage north of Shambles Lane, with a tower at the western end adjacent to Lady's Bridge, and it is also possible that

some of the crenellations were photographed by Himsworth in the early 20th century. The most likely explanations seem to be that the tower shown in the c.1825 painting was a sham, erected as part of a scheme to partly screen the slaughterhouses. However, in the early 20th century references were made to the possible remains of a tower in this approximate area (see Chapter 5), but if such a feature had survived, it would surely have come to the notice of authorities such as Hunter in the early 19th century.

- 3.30 The effects of these early 19th century changes are clearly visible on the Ordnance Survey 1853 60" town plan (sheet 20) (reproduced in Belford 1998, illustration 9) (see figure 11). "Sheffield Castle (Site of)" is marked, with the "Castle Hill Works (Steel)", the "Phoenix Works (Steel)" and "Castle Hill Steel Works" occupying much of the central area of the castle site. Former open areas shown in c.1800 flanking the south end of Castle Hill adjacent to Castle Folds have now been infilled, creating "Castle Folds' Court" to the east. Only the western edge of the castle site retained anything approaching its pre-late 18th century plan form, although part of the narrow lane shown in the later 18th century and suggested to mark the line of the castle's eastern defences was still visible, branching off Shambles Lane.
- 3.31 There were less numerous changes in the second half of the 19th century, but they were far greater in scope. The Norfolk Market Hall, whose construction was authorised by an Act of Parliament in 1847, was built to the south of Exchange Street. The hall opened on Christmas Eve 1851; a view of the interior of the hall is reproduced by Zasada as well as an exterior view of 1853, painted by Godfrey Sykes (Zasada 1996, 25-26). The latter shows the hall looking west, and it is interesting that in the background, the properties fronting onto Exchange Street can be seen, including the narrow gap forming the south end of Shambles Lane. Zasada (1996, 27) includes another interesting detail, that in August 1875, during a visit to Sheffield by the Prince and Princess of Wales, the shambles along the northern edge of the castle site were disguised by the erection of a 30 foot high wall of painted canvas representing an 'old baronial castle'; the castle essentially re-appeared, albeit only briefly.
- 3.32 In 1881, the Sheaf was culverted to the south of Exchange Street (MSA: Drawer 8), while Exchange Street itself was extended west along the southern edge of the castle site, joining the south end of Waingate. By the time that the Ordnance Survey 1890 6" map had been published (Belford 1998, illustration 11), Shambles Lane had been re-named "Castle Folds Lane" (also known as 'Castlefolds' Lane), although it still followed its mid 19th century alignment. The western edge of the former castle site, and the narrow lane to the east of Castle Folds Lane, remained largely unchanged in overall plan form. The site was similarly depicted by the Ordnance Survey in 1905 (Belford 1998, illustration 12) (see figure 12).

4 STRUCTURAL HISTORY OF THE CASTLE HILL MARKETS BUILDINGS

Transfer of Ownership

- 4.1 Initial approaches were made to the Duke of Norfolk by Sheffield Corporation during the 1870s, with a view to purchasing the markets on behalf of the citizens of Sheffield. The markets were felt to be inadequate for a town of Sheffield's size, but the initial approaches were unsuccessful. However, in the 1890s, the Corporation began to make more determined efforts, and in 1898 the Lord Mayor wrote to the duke requesting transfer of responsibility for the markets to the local authority. An agreement was finally reached in 1899, whereby the corporation paid the Duke £526,000 (Zasada 1996, 26-28). As Belford (1998, 18) has noted, this transfer of ownership was significant, as it meant that far more extensive redevelopment could now take place.
- 4.2 The different phases of market building are described below, including as many details as could be gathered from the historical sources regarding their form and construction, as well as any reduced levels of ground disturbance associated with their construction. Figure 3 shows the main sub-divisions of the Markets areas.

The Immediate Pre-Development Appearance of the Castle Hill Area

- 4.3 It is important to try to recreate, as far as is possible, the immediate predevelopment appearance and topography of the Castle Hill area in order to better understand the structures and archaeological deposits that were uncovered there. This was also appreciated by J B Himsworth in 1927-30, and especially by Leslie Butcher in the late 1950s through to the early 1970s. Both either took or sought out valuable early photographs of the area, and tried to marry them with mid to late 19th century maps. When combined with early 20th century maps, this information provides a valuable depiction of what Armstrong and Himsworth found in the late 1920s.
- 4.4 An undated detailed plan of the Castle Hill area, almost certainly drawn in the late 1920s (probably c.1927) to accompany redevelopment and derived from late 19th century Ordnance Survey material, gives a good idea of the layout of the castle area as it was in the early 20th century (MSA: Box file - Drawings Plans Maps) [1/576 to 1/580] (see figure 13). This was essentially little changed from the late 19th century, with the area to the immediate east of Waingate least changed since the late 18th century. From north to south, the Bull and Mouth Hotel, the Anvil Inn and the Rose and Crown Inn all fronted onto the east side of Waingate, with enclosed yards to the rear (for example, www.picturesheffield.com, u00914), still in part reflecting the 'radiating plan' seen on pre-1800 maps and surveys. The Royal Hotel stood at the junction of Waingate and Exchange Street (www.picturesheffield.com, s07100, s07109 & y01611; see plate 4), with the New Market Inn flanking the entrance to Castle Hill from Exchange Street and the Rotherham Inn flanking that to Castle Folds Lane (www.picturesheffield.com, v00266 & v00267). The layout of industrial premises around Castle Hill was also broadly similar to the late 19th century plan, with the narrow unnamed curving lane still visible to the east of Castle Folds Lane, running towards the Sheaf weir. The northern edge and north-east part of the area were still occupied by slaughterhouses.
- 4.5 In terms of ground levels, the same plan also gives useful information for the Waingate area (see figure 13). At the south end, at the junction with Exchange Street, the surface of the road was set at 187.9ft (57.27m AOD). Further to the

north, opposite the junction with Castle Hill, the surface was at 174.5ft (53.19m. AOD) while at the junction with Lady's Bridge, it was 164.7ft (50.20m AOD). A north-south aligned section across the study area drawn by the City Architect, W G Davies, and stamped 30th April 1928 (MSA: Box File - Drawings Plans Maps) [1/562 to 1/565] (see figure 14) indicates that, prior to the redevelopment, the majority of the central part of the Castle Hill area was probably formed by a relatively level plateau, set at c.180ft (54.86m AOD), although there was of course probably considerable local variation, for example within the rear yards. This plateau extended south and south-west towards Exchange Street and Waingate, but it had been radically altered by the construction of the 18th century slaughter houses adjacent to the Don. Davies' section also indicates that the buildings on the south side of Chandlers Row (the southern of the two parallel streets here) stood on top of a substantial retaining wall, so that they were a single storey high towards Castle Hill Market but two storeys high towards Chandlers Row. Mid to late 19th century maps suggest that this retaining wall returned to the south for a short distance along Castle Folds (then Shambles) Lane (see figure 11). The surface of Chandlers Row was set at c.166ft (50.60m AOD), and the buildings on the north side were of a single storey. However, they also were of two storeys towards Shambles Lane (the northern unnamed lane of the two parallel streets here), the surface of which was set below 160ft (48.77m AOD). The buildings on the north side of Shambles Lane were of a tall single storey, with single pitch roofs sloping down from north to south. They backed onto a tall wall which dropped vertically to 163ft (49.68m AOD) and was then slightly battered as is descended to the Don.

- 4.6 The southern return, at the east end of the Chandlers Row retaining wall along Castle Folds Lane referred to above, appears to have been recorded in two surviving photographs. An envelope containing loose photographs glued into Himsworth's site diary (Himsworth 1927-42) includes an undated print labelled "Wall of Sheffield Castle - J P Bradley". This appears to show the bottom of Castle Folds Lane, looking south-west [2/614]. The lane slopes up from north to south, and the lower part of the retaining wall along the west side is built of large and relatively well-coursed masonry, perhaps turning through a slight angle. Beyond the angle, there may be a blocked doorway or other opening (marked by lighter stone), which appears to interrupt a slightly projecting plinth or foundation course to the south. Himsworth's diary (1927-42, photograph 12) [2/644] has a similar photograph, again showing the retaining wall on the west side of Castle Folds Lane but slightly higher and further to the south (also www.picturesheffield.com, y00898; see plate 5). It was again built of large and relatively well-coursed masonry, and was slightly battered. There were also other areas where similar stone, said to be re-used from the castle, still existed - for example, in a Yorkshire Telegraph and Star newspaper article of 20th September 1927, it was stated that the paper "was told today by workman on the site that all the foundations of the property facing Exchange Street were built of that stone, which was tarred and mortared in place" (MSA: Box file - Newspaper clippings). Winder (1910, 58) stated of the castle that "Part of one of the angle-towers still remains by the White Cottage which can be seen from Castlefolds bridge situate where the moat left the river Sheaf". This suggests that it was somewhere near the north-east corner of the site, but no other reference has been found to this feature, unless it is that shown on the 1825 painting discussed above.
- 4.7 In addition to the above, Himsworth made a number of valuable observations about, and took a number of photographs of, Chandlers Row and Shambles Lane which he included in his site diary (Himsworth 1927-42). In September 1928, he observed that the new market building "would wipe out a lot of ruinous old brick

property including Chandlers Row and a line of filthy slaughter houses fronting the river Don (or should I say backing up to that river)" (Himsworth 1927-42, 5). In October 1928, Himsworth (1927-42, 9) both photographed and described parts of Chandlers Row as follows:

"Loughran suggested that I should go down with him into Chandlers Row to examine the wall backing up to a higher level. Most of it is brick resting on possibly an old stone foundation. The wall is about 30ft high from the ground up to the castle level above. This brick wall is largely a retaining wall and basements which probably back onto the original castle wall. There are some large dressed stones in the upper level built into the brickwork. In this brick frontage are several arches bricked up. One with a barred iron opening almost nine ft up the wall and a doorway securely boarded up excited an interest. Loughran sent for one of his men with a ladder. Looking through the barred opening we saw a bay or apse-like room of brick and at one end what appeared to me to be stone steps." (Himsworth 1927-42, 9).

- 4.8 The photograph (photo 13A) shows what Himsworth describes, a very tall roundheaded arch, flanked by projecting brick piers [2/634] (www.picturesheffieldcom, y00887; see plate 6). The retaining wall in which the arch was set appears to have been built almost entirely out of brick, with no indication of either in situ or re-used castle masonry. The arches on Chandlers Row are also just visible in another photograph taken during the construction of Castlegate (see below). Himsworth's other photographs of Chandlers Row (photo 13) show part of the retaining wall, looking east, demonstrating that the surface of the street dipped down quite junction towards the with Castle Folds Lane (www.picturesheffield.com, y00884; see plate 7). His photographs of Shambles Lane show that the buildings on both sides were roofed with slate, and those on the north side had doorways to the ground floor, with a continuous row of barred openings to the first floor (photo 14) [2/632, 2/633] (www.picturesheffield.com, v00886; see plate 8); interestingly, the tall wall fronting the Don acted as a screen wall for the slaughterhouses and, as previously noted, it appears to have been built with crenellations to the top [2/640, 2/641] (www.picturesheffield.com, y00893, y00895 & s01744; see plates 3 and 8). As already noted in Chapter 3 above, a 19th century engraving shows crenellations extending along the whole of the Don frontage of Shambles Lane, with a tower at the west end adjacent to Lady's Bridge (www.picturesheffield.com, s10485; see plate 2). A further series of chronologically consecutive views along Shambles Lane (photos 16 to 18) shows the buildings on either side of the lane in the process of demolition [2/635 to 2/639] (www.picturesheffield.com, y00890, y00891 & y00892; see plates 9 and 10). The raised beehive-like structures at either end appear puzzling in connection with the caption "Sewer Manholes for New Road", until Davies' 1929 section is consulted, which demonstrates that the ground surface here was raised to construct the road, not lowered, by about 6ft. An envelope containing loose photographs glued into Himsworth's site diary (Himsworth 1927-42) also includes a print labelled "Approach from East on Castle Site to slaughter houses 1927" - this shows Shambles Lane looking west, and provides a rarer view of the buildings on the south side [2/671, 2/672] (www.picturesheffield.com, y00889; see plate 11).
- 4.9 Butcher (c.1972, 10-11) suggested that the properties on the east side of Waingate reflected the line of the road (i.e. they were laid out fronting onto the road and then running back from it), which was itself influenced by the line of the western moat. In the central part of Castle Hill, the property boundaries reflected a 'tidy post Civil-War parcelling out'. He noted that the post mid 17th century regular pattern of boundaries stopped abruptly at Castle Folds (then Shambles) Lane, and identified what he thought was an "oasis of untouched irregular 'medieval' evolved features" between the lane and the Sheaf. These included the unnamed narrow curving passage referred to above and which is depicted on 18th and 19th century

maps leading north-east off Castle Folds Lane towards a yard with one building of irregular plan standing within it, close to the weir across the Sheaf (see figures 8 and 10). Butcher also made reference to a panoramic photograph of the Sheaf area taken in 1917, looking south-east from the slaughterhouses, but it has not been possible to trace this amongst his material preserved in Museum Sheffield Archives. This photograph apparently gave a good view of the building within the yard, showing it to be a brick house generally of 18th century appearance but incorporating the faint remains of a heavier, possibly stone, wall at the north-east corner. It may just be visible, painted white, on an early 20th century photograph of the Sheaf looking north (www.picturesheffield.com, s12223; see plate 12).

4.10 However, fortunately, three other photographs of this area taken in 1918 during demolition of the building referred to by Butcher do survive (MSA: Sheffield Castle Project File). All three are accompanied by typed notes on Mappin Art Gallery paper from 1904.

4.11 The notes accompanying the first photograph state:

"East wall of passage connected with the Sheffield Castle, composed of stone set with lime mortar, the wall is 43ft in length, 24ft high, 18 in. thick, runs in a series of angles between S.W and N.E having an aperture 20 in. square to serve as a window. The West wall of passage is shown in Photo No. 2 (having been used as a foundation for modern buildings,) the passage formed being 4ft wide.

The stone use is such as may be now found in the immediate neighbourhood, though fast decaying through weather.

Position; opposite weir of River Sheaf, back of Alexandra Theatre. Photo taken June 27th 1918". [3/867].

This photograph looks south-west, and does indeed show the east wall to be a tall, curving rubble structure, containing one feature that could be interpreted as a window. Although part is in shadow, it runs towards a return with quoins in the foreground. On the west side of the passage, the lowest part of the elevation is also of rubble and incorporates a doorway with quoined jambs and a massive, monolithic lintel. Above, the face of the elevation projects slightly and is of machine-made brick [3/872 to 3/873] (see plate 13).

4.12 The notes accompanying the second photograph state:

"West wall of passage, but East of Castle site, measures 7ft 6in high, by 16ft to angle and 30ft from angle to terminal, entire length, 46ft. The wall runs between S.W and N., composed of stone, part dressed and part rubble, set in lime mortar.

The stone used is such as may be now found in the immediate neighbourhood, and in fair state of preservation, having been used as a foundation for a building, now used as a slaughter house.

Position; - opposite weir of River Sheaf, back of Alexandra Theatre. Photo taken June 27th, 1918." [3/874].

This photograph looks west, and must have been taken some distance to the north of the first photograph, as the east wall of the passage is not visible. The layout of buildings (both standing and demolished) marries well with late 19th and early 20th century maps, the walls in the foreground representing the house at the south-west corner of the Sheaf weir described by Butcher. The wall described in the notes is visible at the base of the brick structures, and appears to be slightly battered or sloping, although this is not certain [3/875, 3/878] (see plate 15).

4.13 The notes accompanying the third photograph state:

"Part of Sheffield Castle wall, discovered while pulling down old house built in 1666 on the site of the Sheffield Castle moat. The wall shown faces E. and measures 3ft in length by 1ft 10in high (width could not be ascertained.) and is 10in below the ground level of cottage, which is indicated on right of photo by position of flagstone, composed of stone, part dressed and art rubble, set in a clay and grit mixture to act as cement.

The stone used is such as may be now found in the immediate neighbourhood, in a fair state of preservation.

Position; - opposite weir of River Sheaf, back of Alexandra Theatre.

The last person to hold the tenancy of the cottage was a man named Green, he used it for the purposes of dressing skins. Photo taken June 27th, 1918." [3/879].

This photograph is less easy to locate than the other two as it is a much more detailed view, with little to either side. However, it must have been taken in the same approximate area as the second photograph, and may show a continuation of the stone wall at the base of the brick structures [3/881] (see plate 14).

- 4.14 Using these three photographs, and the currently unlocated 1917 panoramic view, Butcher estimated that the level of the flattened area at the north-east end of the curving passage must have been close to 150ft (45.72m AOD), and that this reflected the natural level of the top of the river gravels close to the Sheaf-Don confluence. The buildings to the immediate north of the Sheaf weir had their floors at about the same level, and were also thought to have been built on a natural gravel terrace. Butcher thought that the presence of these gravel terraces explained why the east end of Chandlers Row dipped sharply (as shown on one of Himsworth's photographs described above), as this marked the point at which it left the solid geology of Castle Hill to slope down towards the river Sheaf (Butcher c.1972, 11-12).
- 4.15 The remainder of the open part of the Sheaf to the north of Exchange Street, as shown in 1905 (see figure 12), had also been culverted. This was done in 1915-16, and a surviving plan (MSA: Drawer 8 - S57) [3/798, 3/799] shows that the line of the river was diverted to the east before it was covered over (see figure 15). At that time, the water level of the open part of the Sheaf immediately to the north of Exchange Street lay at 149.89ft (45.69m AOD), and 142.59ft (43.46m AOD) where it neared the Don, after passing over the weir. Levels shown to the immediate west of the Sheaf indicate that the properties fronting the river here must have been set on a substantial retaining wall, the ground surface rising from 164.85ft (50.25m AOD) to 170.34ft (51.92m) from south to north; at this latter point, levels indicate that the retaining wall must have been c.6m high, although it does not appear quite this substantial on historic photographs of the Sheaf (e.g. www.picturesheffield.com, s12223; see plate 12). The c.1915 plan also marks three trial pits; pit no. 1 sunk on the west side of the Sheaf encountered "Hard Shale and Rock" at 143ft (43.59m AOD) whereas pit no. 2 had "Gravel & Refuse Deposits" in its upper part, but reached hard shale and rock at approximately the same level.
- 4.16 Proposed cross-sections of the Sheaf culvert indicate that there were two different design options, one using mass concrete for the side walls and the other reinforced concrete. However, in both cases, the overall dimensions of the culvert were similar. The total depth of the culvert's side walls beneath ground level was between c.14ft and 20ft (4.27m-6.10m); the side walls were c.3ft wide at the top but splayed out to c.7ft (2.13m) at the base. The total width of the culvert, including the side walls (at the base), was c.52ft (15.85m) (Sheffield City Council: Drawing no. 179 & 182). An old photographic display board left in the offices of the High Block of the Castle Market contains reproductions of a number of original photographs of this part of the Sheaf culvert under construction. The earliest, taken in 1913, shows the backstage of the Alexandra Theatre built out on stanchions over the Sheaf, with various multi-storey brick buildings on the east bank to the south (photo IMG 6026 supplied by SCC, same as www.picturesheffield.com, s12223 see plate 12; see also www.picturesheffield.com, v00925 & s12204. Photographs taken during construction show that the side walls of the culvert were of concrete and brickwork,

with timber formers used to construct the arch over (photos IMG_6024 & IMG_6025 supplied by SCC; see plate 16). Extensive demolition was undertaken of the buildings on either side of the Sheaf (and the Alexandra Theatre), and there was obviously disturbance caused by the construction of the side walls. One photograph looking north suggests a cut or disturbance up to 5ft (1.52m) wide on the west side, together with piles of soil/earth which may have been spread over the adjacent area. On the east side, there is an apparent gap between the side wall of the culvert and the brick walls behind.

The Late 1920s and Early 1930s Re-development Work

The 1927-1929 Co-operative Society Stores

- 4.17 In 1915, the Brightside and Carbrook Co-operative Society purchased a block of land on the corner of Exchange Street and Waingate. The area that was bought is shown on an undated (but post-1915) plan of the intended improvements to the Castle Hill area (MSA: Drawer 9) [3/816, 3/819] (see figure 16). On this plan, the area of the Co-operative Stores is delineated in red, demonstrating that both Exchange Street and Waingate were to be widened. The entrance to Castle Folds Lane off Exchange Street remained in approximately the same position, but was also moved further north; it was flanked to the east by the Rotherham House public house. A new street was also to be constructed between Castle Hill and the Don, linking Waingate and Blonk Street Bridge. The plan also shows the purchases of other blocks of land on the new street frontage.
- 4.18 Fortunately, several of the original construction plans for the Co-operative Stores have survived, although they are now scattered throughout Armstrong's and Butcher's material in Museum Sheffield's archives. There are also copies of parts of drawings from originals which are currently unlocated.
- Armstrong (1930, 9) noted that the plan of the building included a basement over 4.19 the whole area. An undated (but c.1927) foundation plan (assumed to be at basement level) (MSA: Box File - Drawings Plans Maps) [1/569 to 1/574] shows that foundation trenches were cut for all four walls, with an extension at the northwest corner that was presumably linked to either services or drains (see figure 15); Butcher (c.1972, 4-5) states that the north foundation trench was deeper to the rear of the Rotherham House public house where it encountered moat fills, but does not give an exact depth. The trench for the north wall was essentially a single east-west line, but the other three wall trenches were interrupted by wider pits for internal stanchions at regular centres. There were 40 stanchion pits in all, arranged in four east-west rows of ten; the southernmost row coincided with the south wall foundation trench. The pits in the northernmost and southernmost rows were generally either 6ft (1.83m) or 7ft (2.13m) square, whereas those forming the two central rows were generally 9ft square (2.74m). A second foundation drawing, dating to August 1927 and showing the foundation sections (MSA: Drawer 9) [3/820 to 3/824, 3/826, 3/827] indicates that the basement floor level was to be at 173.14ft (52.77m AOD), with the floor itself and footings being 1ft 9ins (0.53m) thick, giving a formation level of c.52.24m AOD, very close to the c.171ft (52.12m AOD) estimated by Butcher (c.1972, 4). On the August 1927 sections drawing, the majority of the internal stanchions were to have concrete bases which extended an average of 3ft 9 ins below the foundation level (so to c.51.10m AOD).
- 4.20 The 1927 foundation plan (see figure 17B) is particularly useful in that many of the stanchion pits have the depths to which they were excavated marked on in red by the contractor (or possibly the Clerk of Works), demonstrating that significantly deeper excavations were required than originally planned. In the top right hand

corner of the plan, there is also a small section in red which shows different levels. although no reduced heights are given. This section drawing has "Basement floor level" and "Contract level" labelled, with different pit levels adjacent, to a maximum depth of 20ft (6.10m). Assuming that the 'Contract level' equates to the formation level of c.52.24m AOD as indicated by the foundation sections drawing, approximate reduced depths for the shafts can be determined. The northernmost row of pits generally decreased in depth from west to east, from 7ft (50.23m AOD at the base) to 4ft (51.14m AOD at the base). In contrast, the north central row of shafts increased in depth from west to east, from 'Contract' (the level shown on the small section) to 13ft (48.40m AOD at the base). The south central row of shafts decrease in depth from west to east, from nearly 13ft (48.40m AOD at the base) to 6ft (50.53m AOD at the base), and the southernmost row of shafts increased from 3ft (51.45m AOD at the base) in the west to 4ft 3ins (51.06m AOD at the base). However, these values are contradicted on a plan dating from the 1958-61 works (SCC drawing 1047/11B), which also included some of the earlier foundations. where they were intercepted by those for the new buildings. One of the pits at the east end of the north row has a depth of 151.75ft (46.25m AOD), almost 5m deeper than indicated on the presumed 1927 foundation plan. A pit towards the east end of the north central row has a depth of 167.96ft (51.10m AOD), but that immediately to the west (within the moat) was at 151.50ft (46.17m AOD), again significantly deeper than the figure given on the earlier foundation plan. A pencil drawing made by Butcher (MSA: Drawer 6 - S24) entitled 'Stanchion fndns as built Carbrook Stores Scale 1/8" shows numbered rows of foundation pits all to a common 172 feet AOD datum, presumably depicting the depths of the Cooperative foundations as they were discovered to have been dug during the 1958-61 works.

- 4.21 There were apparently further foundations to the west and north-west, where the Co-operative Stores curved around onto Waingate, but these are less well documented. They were shown by Butcher on one of his field drawings (MSA: Drawer 6 S48) [3/756 to 3/762] but were marked as having "no records", although Butcher had written adjacent to them that "These bases stopped 6ft above moat bottom"; this would give them a maximum reduced depth of c.46m AOD. A plan dating from the 1958-61 works (SCC drawing 1047/11B) marks the south-eastern row of the same foundations with an average height of just over 150ft (45.72m AOD), close to Butcher's estimate, with the north-western row at a maximum of 159ft (48.46m AOD). Some of the earlier foundations were to be removed to make way for the foundations for the new structure.
- 4.22 Above the basement, the Co-operative Stores initially comprised only a single storey building above ground (www.picturesheffield.com, s20303; see plate 17) but was later (in 1936) raised to three storeys (e.g. www.picturesheffield.com, s11205 & s11206; see plate 18). There were two arcades, each 20ft wide, on the ground floor, giving access to the Castle Market to the rear. A letter from the City Architect W G Davies to Armstrong, dated 20th June 1930, states that the relative level of the Co-operative Store's ground floor was 183ft (55.78m) at the East Arcade and 187.5ft (57.15m AOD) at the West Arcade (MSA: Box file Written Text, Notes, Letters, Memos).
- 4.23 According to Butcher (1961), shortly before the war, a new rear access (so presumably from the north side) was made to the Co-operative Stores' basement, the yard of which was set at 169ft (51.51m AOD) so as to allow unloading from lorries into the slightly higher basement. In the war, the store received a direct hit from a bomb on the night of 12th/13th December 1940 and was largely destroyed (www.picturesheffield.com, s01212 & w01158; see plate 19); adjacent property on

Waingate to the south-west was also damaged (Butcher c.1972, 5). Bailey bridges had to be erected to allow the Castle Hill Market to continue trading, although the market itself largely escaped damage (Himsworth 1927-42, 20; Zasada 1996, 32). One unfortunate casualty of the bombing was a finds cabinet within the Cooperative Stores:

"As the whole of the Co-Op building has perished in the blitz the large flat showcase full of small objects retrieved from the Castle site by excavation had disappeared. These were some of the objects also originally placed in the Weston Park Museum." (Himsworth 1927-42, 21).

The Castle Hill Market 1928-1930

- 4.24 Construction of the Castle Hill Market by Sheffield Corporation commenced in 1928, and the market was opened on 25th April 1930, although the official opening did not take place until 9th May of the same year (Zasada 1996, 30-32). In the early 1930s, redevelopment of the Waingate frontage to the west of the market was undertaken, followed by the widening of the street by the corporation. The Bull and Mouth public house was re-built, and the firms of Stokes, Foster and Co., and Lenton and Risby all constructed premises along the new building line. In 1930, the Norfolk Market Hall (built in 1881 on the site of Castle Folds) was demolished, and in 1928 the late 18th century Shambles Lane and Chandlers Row along the northern edge of the castle site were also levelled to create Castlegate, linking Blonk Street and the Lady's Bridge (Belford 1998, 19).
- 4.25 A handbook produced for the official opening of the market on the 9th May 1930 provides much useful structural detail on the structure [1/533 to 1/537]:

"The site of the New Market presented many difficulties which had to be overcome before the new building could be erected. Old buildings had to be demolished and alternative access given to premises on Castlefolds Lane, and as the site was known to contain the foundations of the ancient Sheffield Castle, search had to be made to locate these relics and steps taken to preserve them.

Portions of timber beams have been found and also walling of the Castle and these relics have been excavated and enclosed in a basement under the Market Hall, with an access from the rear of the Market.

The levels of the site varied considerably, having a fall of 18ft to Castlefolds Lane, and this influenced the floor levels and layout of the new Market.

The total area of the site is slightly over one acre, of which three quarters is occupied by buildings.

The Market is laid out on symmetrical lines with the principal entrance from Castle Hill, the approach being through the two archways, for goods and pedestrians respectively. The latter will pass through an entrance hall into the main Market, which is approximately 209ft by 145ft. In addition to the Castle Hill entrance, two arcades 20ft wide are provided from Exchange Street.

..... Along one side of the Market is a loading platform 10ft wide, communicating with the Market Hall by three entrances. Convenient hoists and rubber tyred trucks are installed for dealing with goods such as meat and fish boxes. The platform is raised to tailboard height for convenience of unloading.

..... Lighting is restricted to the North to avoid direct rays of the mid-day sun.

.... The construction of the buildings is generally of a fire-proof character, the greater portion of the floor being reinforced concrete carried on concrete piles and foundations. Owing to the nature of the site these piers extend to a depth in some places of 25ft. The outer walls are built in brickwork and lined with plaster and terrazzo slabs. The roof of the Market is carried on cast-iron columns which support the steel roof trusses. The North side of the roof is comprised of patent glazing and the remainder slated. Flat roofs are positioned over the shops, each having an opening roof light.

.... The approximate cost of the building, including equipment, furnishing and roadmaking is £47,000". (City of Sheffield 1930).

- 4.26 The Castle Hill Market was designed by the City Architect, Mr W G Davies, and fortunately at least two of his drawings have survived to supplement the description given above (MSA: Box File Drawings Plans Maps). These both appear to have been posted to Armstrong by Davies on 20th June 1930, to judge by a surviving letter (MSA: Box file Written Text, Notes, Letters, Memos). A foundation plan has a City Architect's Department date stamp of 20th June 1930, presumably relating to when it was deposited, rather than first drawn, which is assumed to be c.1928 [1/538 to 1/551] (see figure 18B). There is also a dyeline ground plan (MSA: Box File Drawings Plans Maps) [1/581 to 1/584], although this contains less useful information than the foundation plan.
- 4.27 The c.1928 foundation plan shows that there were lines of steel stanchions with concrete bases measuring 3ft 6ins (1.06m) square around the outer edges of the interior, set just inside the external walls; Butcher (c.1972, 5) noted that the stanchions for the east wall were supported by foundations shafts sunk "from the level of Castlefolds Lane". The main foundations within the footprint of the building comprised a grid pattern of concrete piles (described as "ferro-concrete pillar foundations" by Himsworth (1927-42, 5-6)) supporting the cast-iron columns; the columns are just visible on a 1930 photograph of the arcade approach from Exchange Street [1/536, 1/537], as well as other internal photographs (e.g. www.picturesheffield.com, w00572; see plate 20). There were 28 columns in all, arranged in four east-west rows of seven, each concrete pile being 4ft (1.22m) square. Along the east external side of the market, there was also a row of reinforced concrete columns, again set on concrete piles 4ft (1.22m) square. Unfortunately, no reduced levels are shown on the c.1928 plan in relation to the concrete piles which would support the assertion made in the 1930 booklet that some of the piles or piers were 25ft (7.62m) deep. The plan gives the floor level of the market as being 183ft (55.78m AOD) and modern survey shows that the floor level of the market has changed little since originally built, the floor level now varying between 55.75m and 55.93m AOD. This figure, reported by Armstrong (1930, plate V), would place the bottom of the deepest piles at c.48.16m AOD. However, Butcher (c.1972, 4) gives the level of the unexcavated surface of Castle Hill as being c.180ft (54.86m), which would place the bottom of the deepest piles at c.47.24m AOD. It is not known to what depth the foundation trenches for the external walls of the market building were excavated.
- 4.28 The c.1928 foundation plan also includes other useful details (see figure 18B). For example, it shows the main approach from Castle Hill (off Waingate), with its twin vehicle and pedestrian entrances; the vehicle entrance had offices over, and a large plaque entitled "Castle Hill Market" (City of Sheffield 1930; www.picturesheffield.com, y02887; see plate 21). The Castle Hill entrance was flanked by a heating chamber and fuel store to the north, and apparently more plant rooms to the south, although no finished depths are given for these areas. The vehicle entrance snaked around the west and north sides of the market to the loading bay mentioned above; a manhole/inspection chamber just beyond the vehicle entrance is marked "Invert 168.50" (51.45m AOD). A similar feature in the centre of the roadway to the immediate north of the market is marked "174.75" (53.27m AOD). The modern survey indicates that the surface level of the area to the north of the Castle Hill Market is now on average 54.60m AOD, but rises slightly towards the northern edge. Finally, both of the main fragments of the castle uncovered between 1927 to 1929 are shown on the c.1928 plan in relation to the foundations, but this information is discussed more fully in Chapter 5 below. Butcher (1961) also makes reference to a 'tunnel' along the south wall of the market but it is not clear what this refers to (also see below).

- 4.29 As might be expected, the construction of Castlegate along the north side of the former castle site had a radical and significant effect on the local topography. A longitudinal section and plan of the proposed route were drawn by E Partington, Improvement Surveyor, in March 1929 (MSA: Drawer 8) [3/789 to 3/791], which indicates that demolition of both Chandlers Row and Shambles Lane would be required. A section across the study area, drawn by W G Davies and stamped 30th April 1928 (MSA: Box File - Drawings Plans Maps) shows that it was proposed to construct Castlegate to a width of 60ft (18.29m), with the surface of the road set at 163ft (49.68m AOD) [1/562 to 1/565] (see figure 14). Modern surveys show the level of the road surface is slightly higher, 49.80m AOD at the west end of the study area and 48.50m AOD at the east end. It was proposed to cut the ground level back southwards at the same level almost as far as the Castle Hill Market building, and support the resulting vertical section with a reinforced concrete wall with a garage or shops to the front; the access road to the north of the market would have run over these. However, this never took place, the ground instead being graded to a steep slope along the northern edge of the market access road. The March 1929 section also shows the foundation piles beneath the market extending to c.173ft (52.73m), somewhat less than the maximum depth suggested in the 1930 handbook (City of Sheffield 1930), and so perhaps these deeper foundations were located away from the northern side of the building.
- 4.30 The eastern return of the steep slope to Castlegate never appears to have been finished off properly. A 1930s aerial photograph (copy supplied by D Saich, SYAS) shows the area at the base to be roughly fenced off, with rubbish from the market tipped behind (see figure 19). As late as 1959, photographs show the eastern return to be brick and soil (MSA: Box file Butcher 1976.1064 folder SC2/3) [3/893, 3/894, 3/896, 3/897]; it may even have been a remnant of the north end of Castle Folds Lane. The soil can still be seen on a photograph taken in c.1961 looking west along Castlegate (copy supplied by D Saich, SYAS) (see figure 32).
- 4.31 The effects of the re-development undertaken during this period are clearly visible on the 1935 Ordnance Survey 6" map (reproduced in Belford 1998, illustration 13) and a 1930s aerial photograph (reproduced by Zasada 1996, 32; copy supplied by D Saich, SYAS) (see figure 19). The Castle Hill Market occupied the centre of the Castle Hill area and was located on a level plateau. The north loading dock area is clearly visible, set above a steep slope to Castlegate; the slope was already surfaced at this date. To the north-west, the ground level dropped off markedly to a number of properties on Waingate including the Bull and Mouth Inn. To the immediate east of the market building, the ground level also fell away significantly. The area nearest Castlegate had been levelled to form a car parking area, but to the south, there was a piece of rough ground which sloped up towards the truncated remnant of the alley between the Market Tavern and Mudfords Building. It is not certain if this rough ground was formed by ground untouched by the 1927-30 works, or if in fact it comprised spoil resulting from these works. Further east, a wide street marked the course of the culverted river Sheaf, and then there was a further small block of buildings at the Exchange Street/Castlegate junction.

Other Buildings 1920s-1930s

4.32 There were other buildings erected within the study area as part of the late 1920s and early 1930s re-development work, and several of these still survive. At the north end of Waingate, following the widening of the road, and to the immediate north of a modern building formerly a carpet and furniture warehouse (see below),

is a three storey brick building, currently occupied by Scrivens Opticians [4/382] (see plate 22). To the north of this, at the corner of Waingate and Castlegate stands the rebuilt Bull and Mouth public house, formerly also the 'Boulogne' and 'Tap and Spile' and originally opened in the 1790s (now the Tap and Barrel) (www.picturesheffield.com, s21924; see plate 23); again, this is a three-storey brick-built structure, and it is assumed to have cellars beneath [4/383]. There is a single brick structure resembling a stepped garage or store to the immediate west [4/384].

4.33 At the opposite end of the study area, a three-storey brick building with a curved frontage (the former Alexandra Hotel) occupies the east end of Castlegate [4/362, 4/363, 4/365] (www.picturesheffield.com, s22233; see plate 24). There is then a narrow gap, forming an alleyway [4/366]. Beyond this gap, a tall six-storey building (the former South Yorkshire Passenger Transport Office) faces onto the junction of Exchange Street and Castlegate (see plate 25); this building may have substantial foundations [4/367, 4/368]. Moving west along Exchange Street, there was formerly another building to the immediate south of the former South Yorkshire Passenger Transport Office, visible on the 1930s aerial photograph, but this has since been demolished. Shortly before the pedestrianised zone to the south of Castle Market is reached, stand the Mudfords Building (built 1915) and the former Castle Tavern [4/370 to 4/372] (see plate 26). Both these buildings have basements, but because the ground level of the car parking area to the east and north is set substantially lower than Exchange Street itself [4/351 to 4/353, 4/369], the basements are in effect above-ground. There was formerly a very substantial building to the immediate east of the Mudfords Building, shown on the 1930s aerial photograph, but this had been demolished and the site used for car parking by the time that a mid1960s Aerofilms aerial photograph was taken of Sheffield city centre (copy supplied by Dinah Saich, SYAS) (see figure 32).

The 1930s 'Tunnels'

- 4.34 There is a persistent local tradition of tunnels existing beneath, or forming part of the castle, leading to the Manor, the parish church and elsewhere. Although such stories are usually fanciful, there is some evidence to suggest that some 'tunnels' do exist, and so this discussion is included here because of the possible impact on archaeological deposits.
- 4.35 As will be described in more detail in Chapter 5 below, in the late 1860s a main sewer was driven through the northern part of Castle Hill, on a line from approximately just above the Sheaf weir towards Bridge Street (see figure 24). This sewer was apparently blasted through solid rock, and so avoided any archaeological deposits above, although two shafts were sunk to aid the work. The first shaft was located in Messrs. C Chambers & Co.'s yard, which must have been somewhere on the east side of Castle Folds (then Shambles) Lane, south of the slaughter houses. The shaft encountered what was described as a rock-cut passage, running in an approximate south-west direction, and at least 4ft in height; no approximate depth below the ground surface is given, nor was the passage explored (Leader 1872, 362-363).
- 4.36 This may or may not be part of the same tunnel referred to in 1946 in a short note in the Hunter Society *Transactions* (Northend 1946), which was discovered during the construction of an air-raid shelter for Sheffield Transport Department in 1939. The tunnel was found to be cut through solid sandstone, and to be about 4ft wide and just over 5ft high, with a general east-west alignment. It was followed as far as the western boundary of T B & W Cockayne's premises, and the author noted that

- in the past a similar tunnel had been interrupted in the basements of the *Sheffield Telegraph* and Burton's building in the Market Place. The function and age of the tunnel is unknown, although photographs accompanying the note show graffiti on the walls apparently dated to 1830 (*www.picturesheffield.com*, s09545 & s09546).
- 4.37 Tunnels are also referred to by Butcher but these appear to relate to the Cooperative Stores. Butcher (c.1972, 7) stated that many archaeological deposits along the line of the approximate north wall of the Co-operative Stores had been destroyed by the construction of a 'tunnel' here in the late 1930s, and that there was a similarly destructive 'tunnel' running north along the east side of the Castle Hill Market. The latter could be a continuation of the same feature described by Leader in the late 1860s, although this was supposed to be rock-cut and so should not have passed through archaeological deposits. On one of the sections that Butcher constructed through the castle site [2/732 to 2/739] (see figure 30 top), he marked a "Tunnel" in the position that he describes. Comparison between Butcher's section, survey plans of the market made by SCC and modern surveys by Met Geo Environmental suggest that this tunnel - whatever it was - lay close to the north side of the gatehouse fragment chamber, and that it was mostly destroyed by the 1958-61 works. The lower part of the tunnel may partly survive beneath this area of the market, but it will certainly have caused disturbance to the deposits underlying this area. It is also possible that either the Co-operative Stores or the Castle Hill Market could have been provided with a tunnel-type air-raid shelter for employees, and this would accord with the late 1930s date of construction given by Butcher, but there are no known records of such a feature being built.

The 1958-1961 Redevelopment Works

- 4.38 Following the destruction of the Co-operative Stores through enemy action in December 1940, and damage to adjacent properties to the south-west on Waingate, the war damaged area lay derelict until 1958, although some clearance was obviously undertaken; the single exception to this appears to have been the property formerly belonging to Foster's in Waingate, which was re-built before 1958. There was also some bomb damage to the Sheaf culvert, as Sheffield City Council retains a plan titled "Sheaf Culvert War Damage Repairs" dated 1951, which shows that a number of ribs had to be replaced and a new slab made over (Sheffield City Council D/424/10).
- 4.39 Sheffield Corporation took over the area, and in 1958 started the construction of Castle Market, which was eventually to incorporate the earlier Castle Hill Market (see figure 3). The primary reason for the expansion of the market was to rehouse traders from the 19th century Norfolk Market Hall to the south. Following this transfer, the latter was demolished, and private development took place. However, this was designed to be integrated with the new Castle Market, and the two were linked by a footbridge crossing Exchange Street (Butcher c.1972, 5; Zasada 1996, 32).
- 4.40 A large body of drawings relating to the 1958-61 re-development scheme survives, mostly produced by Ove Arup and Partners and the City Architect's Department, and held by Sheffield City Council; the re-development appears to have been known as 'Phase 2' on the drawings, 'Phase 1' presumably being the construction of the original Castle Hill Market between c.1928-30. As part of the works, the 1930s Castle Hill Market building was retained, and appears to have been largely unaltered, although comparison between aerial photographs taken in the 1930s and the 1960s (copies supplied by Dinah Saich, SYAS; see figures 19 and 32)

- suggests that the southernmost bay of the market (that originally next to the Cooperative Stores) was rebuilt across the entire east-west length of the market.
- 4.41 The original market building was dwarfed by the scale of the surrounding new structures (see figure 20) [4/373 to 4/377]. To the immediate south of the preexisting building, a two storey lower market and upper market (the New Market Block) was built; the floor level of the lower market was set at 170.57ft (c.51.99m AOD), some 0.78m lower than the basement of the Co-operative Stores. South of this, there was a five storey block (the Low Block) with basement and subbasement, facing onto Exchange Street, on the site of the former Co-operative Stores (see plate 27). The upper floors were occupied by offices, with an arcade and shops to the ground floor. The basement floor level was set at approximately the same level as that of the new building to the north (51.97m AOD), with the subbasement (a service duct) set at 165.40ft (50.41m AOD) (SCC drawing 5319/110D). To the west of the 1930 Castle Hill Market building, an eight storey block (the High Block) was built, with a concrete tower rising above the southern end [4/378] (www.picturesheffield.com, s02016; see plate 28). A duct area below the lowest floor of the High Block was set at 168ft (51.21m AOD) (SCC drawing 1047/11B).
- All parts of the re-development are assumed to have been based around 4.42 reinforced concrete frames, supported by piles or foundations. According to Butcher's 1961 lecture notes (Butcher 1961), the footprint of the former Cooperative Stores was still occupied by a mass of 'blitz debris', which was removed to the former basement level of the earlier building. Within the New Market Block and the Low Block, there were seven east-west lines of foundations, varying in size and depth according to the organisation of the upper floors above (SCC drawing 1047/1) (see figure 21); interestingly, the foundation plan also has the approximate line of the castle moat depicted on it, presumably from information supplied by Butcher. The largest foundations, along the south side of the building, measured 6ft 6ins by 9ft 6ins (1.98m by 2.89m), the pads being 2ft (0.62m) deep. Various levels are marked on the base pads of the foundations, the lowest being 162.2ft (49.44m AOD), although it is not clear if this represents the top or bottom of the pad. If these foundation plans were to be related to the sections of foundation shafts drawn by Butcher (for example, see MSA: Drawer 8 - S34), then actual finished depths could be calculated for some of them; given that Butcher was able to ascertain the form, depth and profile of the south moat in some detail, some of the foundations must have approached or passed through the base of the moat i.e. 47.85m AOD. Beneath the access passage or subway which runs along the south and west sides of the basement of the New Market Block and Low Block [4/324 to 4/326], there is a concrete ventilation/heating duct, with an offshoot running to plant positioned to the south of the subway. This duct takes the form of a concrete tunnel or passage, which is 1.57m deep and up to c.3m wide; the base of the duct is set at 50.41m AOD.
- 4.43 Within the High Block, there were two north-south aligned lines of foundations, each line being of six pads, and all broadly of the same dimensions (SCC drawing 1047/1) (see figure 21B). Each pad measured 8ft (2.44m square) and was 3ft (0.91m) deep; the lowest height given on a pad is 165.50ft (50.44m AOD) but again it is not clear of this represents the top or the bottom. Butcher (c.1972, 24) noted that along part of the redevelopment fronting Waingate (presumably within the High Block), column foundations located within the moat were piled and not excavated, and that the foundation for the ventilation tower of the High Block was excavated to a depth of 144ft (43.89m AOD) (Butcher 1961). Excavations were also made for supports for inserted beams under the south wall of the original

- Castle Hill Market and the adjacent 'Styring' property (as named by Butcher, precise location unknown), for sewers and ventilation ducts, and a large crane on a 'peninsula of unexcavated ground' (Butcher 1961).
- 4.44 The construction phasing drawing for the re-development (SCC drawing 5319/171) (see figure 20) suggests that, as part of the same works, the East Loading Dock was created to the immediate east of the original Castle Hill Market building [4/345, 4/348 (see plate 29). The accompanying notes on the drawing indicate that two new service roads were to be created to access the loading dock, one at the northwest corner and the other at the south-east. Also at the north end, the foundations for the supports of an elevated or spiral ramp were laid, although the ramp itself was not to be built until later (see below). Both the ramp, and the area of the loading dock to the south, were to have 'piled foundations' only, but their depths are unknown (SCC drawing 5319/129A) (see figure 22). The surface of the East Loading Dock was set at 167.95ft (51.19m AOD) on the east side but rose to 169.74ft (51.74m AOD) towards the north. The level of the yard where the spiral ramp was to be built was 159.25ft (48.54m AOD) (SCC drawing 5319/129A). Modern surveys give heights for the same area as being similar, but it is possible that they have been slightly altered locally due to either resurfacing or minor levelling activity; for example, beneath the loading ramp, modern surveys give the height of the ground surface as 49.00m AOD, just under half a metre higher than on the drawing described above. Photographs of this area taken in March 1959 show it to be covered in timber and occupied by construction works associated with the re-development (MSA: Box file - Butcher 1976.1064 folder SC2/3) [3/893, 3/894, 3/896, 3/897; the retaining wall for the upper part of the spiral ramp can also just be seen in the foreground of one of the photographs. It appears that the sloping area of rough ground occupying the south of this area on the 1930s aerial photograph had its northern and eastern edges cut back to form vertical sections (Butcher 1961).
- 4.45 To the immediate east of the spiral ramp, the former Sheffield Transport canteen building faces onto the east end of Castlegate (see figure 22). This canteen is a single storey flat-roofed brick building [4/356], essentially comprising two conjoined rectangles in plan (see plate 30). On the 1930s aerial photograph, the space occupied by the later canteen was a flat area of car parking set roughly level with Castlegate itself, and a road following the line of the Sheaf culvert (see figure 19). The structure forming the southern rectangle of the canteen is visible on the mid-1960s aerial photograph, and so it is assumed that the rest of the building was also there by that date. The ground floor level of the canteen building appears to have been set at the same level as Castlegate, but it is set below the level of the southern part of the area to the east of the East Loading Dock. To the south of the spiral ramp, there is an area of storage for the Sheffield Transport canteen, measuring c.12m square. The entrance to this storage area is from beneath the south side of the spiral ramp [4/355]. The base of the storage is set at approximately the same level as Castlegate, with the roof covered over by the area to the east of the East Loading Dock. Outdoor market stalls were located in this area during the 1990s (www.picturesheffield.com, t04031).
- 4.46 Finally, Butcher (c.1972, 5) noted that, as a last phase of this re-development, a turf accountant's premises was built adjacent to the Bull and Mouth public house at the west end of Castlegate. Several 35mm colour slides (MSA: 1995.88 Sheffield Castle 1958-63) dated January 1963 shows the commencement of these works [3/907]. The turf accountant's premises still survived at the time of the EDAS site visit, but were empty [4/386, 4/387].

Other 1960s Works

- 4.47 According to Zasada (1996, 32), an extension to the Castle Market was completed in 1964. This must have been built in the angle between High Block and the west end of the original Castle Hill Market [4/379, 4/380] (see plate 31). Surviving drawings for this scheme refer to it as 'Phase 5' (SCC drawings 5319/PH5/31 & 5319/PH5/235); if, as stated above, the 1958-61 re-development formed Phase 2, then it is not certain what comprised Phases 3 and 4.
- 4.48 The foundations for this new extension were formed into six east-west lines, grouped in three pairs across the north, central and south parts of the building (see figure 23). No reduced heights are given on the plans, but it was noted that a central north-south pipe duct below the lowest floor level of the building was set at 166ft (50.60m AOD); modern surveys place the lowest floor level of the building at c.51.60m AOD. A number of 35mm colour slides preserved in Museums Sheffield archive (MSA: 1995.88 Sheffield Castle 1958-63), dating to February and March 1963, show some of the excavations associated with this extension [3/906, 3/909].
- 4.49 It is assumed that the spiral loading ramp in the east loading dock area, east of the original Castle Hill Markets building, was constructed during the same period [4/344] (see plate 32). It does not appear on a photograph taken looking west down Castlegate in 1961, but is shown on a photograph with the same viewpoint in 1971 (copies supplied by D Saich, SYAS) (see figure 32).

The 1972 Castlegate Wall and Later Works

- 4.50 By 1972, the paving covering the steep north-facing slope to Castlegate was in a poor condition and it was actively collapsing towards the bus shelters located here. This paving appears to have dated from c.1930, and can be seen on a 1930s aerial photograph (reproduced by Zasada 1996, 32; copy supplied by D Saich, SYAS) (see figure 19). The slope was subsequently replaced by a vertical concrete retaining wall [4/354, 4/388] (see plate 33).
- 4.51 There have been several other changes to the study area in the period up to the present day, but these are not always well documented. To the immediate north of the Phase 5 extension to the Castle Market, there is another building, formerly a carpet and furniture warehouse (no. 30 Waingate), but empty at the time of the site visit [4/381]. The building is of 1970s rather than 1960s appearance, and is of a low two storeys in height, probably constructed largely in concrete. It is not known if it has a basement or what form its foundations take. A single storey brick toilet block [4/341] was also built at the north-west corner of the Castle Hill Market building during the 1980s. Piles were driven into the ground for an unknown depth for this development, and then capped to form a foundation for the horizontal concrete beams supporting the structure's walls (Stuart Powell, SCC, pers. comm). Finally, during the 1990s, a modern concrete floor in the Castle Hill Market building was taken up, revealing the original terrazzo beneath. In a few places, this terrazzo was taken up as well, to reveal intermittent voids up to c.1.50m deep beneath the floor (Stuart Powell, SCC, pers. comm).

Services

4.52 As has been noted above, there is documentary evidence for a sewer being driven through the Castle Hill area during the late 1860s, although this was apparently cut through solid rock, rather than excavated from above through archaeological deposits. A plan, apparently dating to c.1930 (but definitely after 1922) (MSA:

Drawer 9) [3/785 to 3/788] marks this early sewer crossing the northern part of the Castle Hill area on a north-west/south-east alignment (see figure 24B); it is described as a 3ft 6ins brick barrel. Another brick sewer is noted as running along the length of Castle Folds Lane, joining the east-west sewer laid as part of the construction of Castlegate, but this will have been destroyed by later redevelopment.

4.53 As part of the recent topographical survey of the site, Met Geo Environmental researched the known and existing services running through and around the EDAS survey area. This showed that the majority run along the west, south and east boundaries of the site, along Waingate and Exchange Street, although there are some running north towards and through the East Loading Dock. Where available, depths of these services were also collated. This information was then digitised as part of the EDAS project, and figure 24A is the result. The various services are also depicted on the archaeological plans and sections through the site (figures 39 and 40).

5 HISTORY OF ARCHAEOLOGICAL INVESTIGATIONS AT SHEFFIELD CASTLE

Investigations Prior to 1927

5.1 Although the first semi-systematic attempts to record the archaeology of Sheffield Castle began in 1927, there are scattered references to observations made at least 50 years earlier. For example, as part of a paper read before the Sheffield Architectural and Archaeological Society in 1872, J D Leader included the following information:

"About four years ago an opportunity offered itself for an investigation on the site of this Castle, which it cannot be too much regretted passed away without coming to the knowledge of this Society. In carrying out works connected with the main drainage of Sheffield, it was found necessary to drive a drift right through the Castle Hill. The tunnel was at considerable depth below the present level, being 18ft 6in below Waingate, and probably 40ft below Messrs. C. Chambers & Co.'s yard.

It passed under the river Sheaf a little above the Weir, at the back of the Alexandra Music Hall, and went obliquely across Castle Hill to the end of Bridge Street. Having tunnelled under the river, the workmen bored through a loose alluvial deposit, in which were found numbers of bones, the antlers of deers, and other remains. Arrived at the Castle Hill, they came upon the rock, a fine grained bluish stone very hard to work, and in appearance resembling the Handsworth stone. Through this the sewer was made by blasting, and to carry on the works two shafts were sunk, one in Messrs. Chambers' yard, and another one near to Waingate. In the first shaft a discovery was made which vindicates the authority of tradition against the incredulity of modern learning. Mr Hunter mentions, only to dismiss as a fable, the old story of a subterranean communication between the Castle and the Manor. The excavators, in sinking on Castle Hill, cut across a subterranean passage excavated out of the solid rock, and running in the direction of the Market Hall, but whether it went to the Manor we cannot tell. It was partially obstructed with debris, but was still some four ft in height, and perfect as to its roof. It was never explored. The workmen had no time to be curious, and though an exploration was often talked of, it was never made; and when the shaft was finally filled up, a rubble wall was built across the passage to prevent the loose rock falling into it, and it was once more left to damp and darkness.

In sinking the second shaft, at a depth of about 20ft a wall was encountered, and such portions of it as came in the line of operations were removed. Wrought stones were drawn up the shaft to the surface. A portion of one of them I now possess; our worthy president has another; our good friend, Mr Swift, owns a third; and others are in the Corn Exchange. Authorities differ on the subject of this wall. I am told by Mr Thompson, the contractor for the work, that only one wall was met with, while on the other hand I am assured by an intelligent person who watched the proceedings with much interest, that three walls were encountered. The first, he says, was 12ft in thickness and may be assumed to have been an outer one. The next was 4½ft, and the third 3ft thick. Judging from the plinth stones, the original level of the ground appears to have been about 20ft below the present surface, and the appearance of the place has been described to me as indicating a slope from the wall towards the river. My informant is of the opinion that the Castle building was of large rubble with dressed quoins. The rubble, he thought, had come from the Soaphouse quarry. The dressed stone differs from that of any quarry now worked, but bears the nearest resemblance to the stone got out during the building of Mr Reynolds' mortar mill in Trippet Lane. An old guarry existed under the clock end of the new Market Hall, close to the Castle; but never having seen the stone it yielded, I am unable to say whether that was the source whence the Castle derived its facings." (Leader 1872, 362-363).

5.2 The 'drift' Leader refers to must have been the c.1860s sewer (see figure 24), but his account is both fascinating and frustrating in equal measure. It indicates that the sewer was made by blasting through solid rock below ground, suggesting that disturbance to archaeological deposits above was limited. The passage encountered in the first shaft may well be associated with the tunnel revealed in the late 1930s and perhaps also as part of the 1958-61 works (see Chapter 4 above). It is unfortunate that no better description of the position of the second shaft is given, although the details included in the account suggests that it was somewhere

in the north-west part of the Castle Hill area, perhaps close to the Bull and Mouth public house. The suggested depth of the plinth (20ft - 6.10m) below ground level, assuming a general 180ft (54.86m) level for the main part of the Castle Hill area prior to 20th century redevelopment (Butcher c.1972, 11-12), would place it at c.48.76m AOD, significantly lower than the plinth of the courtyard buildings recorded by Armstrong in the late 1920s (see below), which was set at 53.69m AOD. However, if the plinth observed in the shaft belonged to an external face of the curtain wall, perhaps at a tower or other structure to judge by the wall width that was given, and was set above a slope towards the Don, then it could quite feasibly have been set at a lower level.

Three early photographs, dating to 1918 (MSA: Sheffield Castle Project File) [3/872, 3/873, 3/875, 3/878, 3/881], and purporting to show surviving elements of castle masonry in the area between Castle Folds Lane and the Sheaf, have already been discussed in some detail in Chapter 4 above (see plates 13 to 15). As noted, they show lengths of rubble and dressed stone walls up to 43ft long and 24ft high, although it is not certain what proportion, indeed if any, of material remained in situ and what had been re-used.

The Construction of the Co-operative Society Store and the Castle Hill Market 1927-1929

Albert Leslie Armstrong 1927-1929

- 5.4 When work started on the Co-operative Stores in 1927, and subsequently Castle Hill Market in 1928, Albert Leslie Armstrong (more commonly referred to as Leslie), Local Secretary of the Society of Antiquaries, was appointed by the Committee of the Hunter Archaeological Society to undertaken what would now be termed an archaeological watching brief, to record what remains were uncovered (Armstrong 1930, 9). However, it is important to note that his observations were occasional rather than continuous, and they concentrated on those areas to which access was possible. His site notebook (MSA: ALA Armstrong Papers Box File 4 (ALA4/8) contains c.14 pages of notes and sketches, recording visits on the 7th October, 11th October, 27th October, 18th November and 1st December 1927, and the 19th January 1928. Furthermore, Armstrong's wife was seriously ill almost from the time when site works commenced, which affected his ability to spend time on site. He subsequently left Sheffield for a new post in Manchester before the construction works were complete, the last entry in his site notebook being 19th January 1928, although of course he may have visited later and made no notes: although it is clear that he corresponded with his colleague J B Himsworth (see below) prior to the publication of his report on the works, he did not include Himsworth's information on the construction of Castlegate (Butcher c.1972, 1; Davies & Wilmott 2002, 5-6). Finally, when actually present on site, Armstrong was working under less than ideal conditions; when describing the excavation of the south ditch or moat for example, he was personally turning over the lower fill to look for finds, the workmen on site not particularly interested in looking themselves even with the stimulus of a bonus (Armstrong 1930, 15).
- A good starting point to understanding the work undertaken by Armstrong, and indeed J B Himsworth, is Armstrong's published account of the works, which appeared in 1930, soon after the works on the new market and stores had been completed (Armstrong 1930), and which drew heavily on the notes recorded on site in his site notebook. In order to make an easier comparison between Armstrong's work and the existing structures on the castle site, the depths indicated by Armstrong in imperial measure are also given below with their metric equivalent.

although it should be noted that it is not always entirely clear what Armstrong was using as a site datum. For the majority of his measurements, it was the level of the footpath on Exchange Street, although this changed slightly during the course of the redevelopment works. Similarly, there are also apparent discrepancies in the published 1930 account between heights given in the text and those shown on the illustrations for the same features. As a result, some of the heights AOD given below are likely to be approximate rather than accurate.

- 5.6 Butcher (c.1972, 24), writing much later, noted the existence of "records kept by the Clerk of Works during the original 1927 development of the southern part of the site, which Armstrong either never saw, or used very selectively". No copies of these records appear to exist amongst Butcher's material preserved in Sheffield Museums Archives, nor have they been discovered elsewhere during the course of the current EDAS project.
 - a) Excavations at the Co-operative Stores
- 5.7 Armstrong stated that, as the excavations for the store's basement proceeded, a substantial depth of "made-ground" was uncovered. The average depth of this material was 12ft (3.66m) below the then existing footpath level in Exchange Street (given as 182ft 9ins (55.70m AOD) on his plate V, some 3ins lower than the 183ft given on Section IV of plate VII), therefore placing the depth of the base of this 'made ground' at c.52.04m AOD (see figure 25B, plate V). However, along the line of the south ditch, the depth increased to as much as 33ft (10.06m) below Exchange Street, or 45.64m AOD at the base. Much of this 'made ground', indeed almost all within the ditch, comprised demolition material from the castle, but the major part was said to be of 18th and 19th century date. The surface of the demolition level was marked by a "brown humus" (Armstrong 1930, 14).
- No 'ancient walling' was discovered until September 1927, when at c.52.04m AOD, a short length of rough masonry was uncovered; its position is indicated generally on his Plan no. 1 ('A') close to the north wall of the Co-operative Stores (see figure 25A). No indication was given of its form, construction, length or depth, but due to its "construction, thickness and general character", Armstrong did not think that it formed part of the castle (Armstrong 1930, 14). A black and white photograph dated September 1927 (not taken by Armstrong) shows curving ashlar masonry with a rubble wall apparently built across the top of it (MSA: Armstrong archive 1995.85) [1/567]. The same photograph was used to illustrate an article in the *Yorkshire Telegraph and Star* on the 20th September 1927 (MSA: Box file Newspaper clippings); the masonry strongly resembles the curve of the plinth of the bastion tower (see below).
- However, according to Armstrong, despite close examination, nothing of importance was found until October 1927, when at a depth of 16ft (4.88m) (presumably below Exchange Street therefore at c.50.82m AOD), the top of a length of tooled ashlar walling was revealed close to the east end of the stores' north wall. Slightly later, at a depth of 18ft 6ins (5.64m or 50.06m AOD), the top of a "massive ashlar base course" appeared. Subsequently, this was revealed to form part of a very substantial entrance structure, comprising a western bastion tower and gatehouse (see figure 25A Plan no. 2; see plates 34 to 36). The bastion tower was judged by Armstrong to be a part of Thomas de Furnival's castle of 1270. The bastion tower had a radius of 20ft (6.10m), rising from a double-chamfered ashlar plinth, and was faced with tooled ashlar, a fine-grained slightly grey freestone believed to have come from the vicinity of Handsworth. The ashlar plinth was backed by flat-bedded rubble; this extended back at least 12ft (3.66m)

from the face of the plinth and to a height of 3ft (0.91m) above the base, leading Armstrong to suggest that it had been solid to at least this height i.e. this was the base of the bastion tower, with no further spaces enclosed within, below what was visible. The face of the plinth was damaged in several places by pitting from musket balls and also larger saucer-shaped depressions attributed to either ballista or cannon balls (Armstrong 1930, 13-16).

- 5.10 The original gateway was presumed by Armstrong to have been recessed from the bastion tower to the west, and presumably also from an example that had once existed to the east, as the gatehouse he observed was a later addition, its plinth butting that of the bastion tower. The space between the tower and the walls of the gatehouse had been filled with earth and clay, and on the Castle Hill Market site this infill was found to contain 14th century pottery, perhaps broadly indicating when it was erected. Like the bastion tower, the gatehouse also had a doublechamfered ashlar plinth, but the main body was described as being built of "roughly chiselled masonry". The gatehouse appeared to have been a rectangular structure, projecting 6ft (1.83m) from its junction with the tower and then returning at a right-angle to the north-east; according to Armstrong's Plan no. 2 (see figure 25A), this return was c.12ft long (3.66m) but it was not defined beyond the Cooperative Stores (see figure 25A), although this is contradicted elsewhere within his published text (Armstrong 1930, 16-17) (see plate 35). The foundation plan for the market hall (MSA: Armstrong archive 1995.85) marks the level of the top of the plinth at the gatehouse's north-west corner as being 168.85ft (51.46m AOD). Finally, Armstrong noted that when the south ditch (see below) had been fully excavated, the walls of the bastion tower and gatehouse "stood revealed to a height of 21ft" (6.40m). This would have placed the top parts at c.52.04m AOD, significantly higher than the height given in the text for when the upper portions of the bastion tower first became visible, although elsewhere Armstrong also notes that only the gatehouse walls were exposed to full height and so it may be their top that he is referring to (Armstrong 1930, 15 & 17). In December 1927, some 16ft (4.88m) to the south-east of the gatehouse wall, part of a drawbridge pier was exposed in one of the foundation shafts (Plan no. 2, see figure 25A; see plate 37). This pier was said to be as well built as the bastion tower, with the top set 7ft 6ins above the bottom of the ditch (therefore at c.47.92m AOD) (Armstrong 1930, 17). Several newspaper reports on the discovery of the gate structures were accompanied by sketched illustrations of what had been uncovered, and these form the earliest published illustrations of the castle's archaeology (MSA: Box file -Newspaper clippings).
- With regard to the moat ditches, the upper part of the south ditch was stated to be 5.11 filled with demolition material, but the lower 13ft (3.96m) was formed by a "black tenacious sludge, none too fragrant" which contained numerous finds of pottery, animal bones, metal objects, wood and leather, although many others were probably lost in the sludge which was removed and tipped on the site of the abattoirs in Cricket Inn Road. These deposits were shown on three published sections by Armstrong, two of which (IV and V on figure 25B) are located on his Plan No. 1, but one (VI) is not; it may represent a 'typical' section through the south ditch, rather than an actual one. Interestingly, section V, located towards the centre of the Co-operative Stores, shows the ditch to be narrower and with a different profile than that to the east, but this was not commented on by Armstrong in his text. On Section V, the level of Exchange Street is also shown as being 195ft (59.44m AOD), some 3.70m higher than opposite the eastern end of the Cooperative Stores. As has already been described, the upper fill was formed by demolition rubble, which had an abundance of straight brushwood beneath in the upper level of the black sludge which lay under it; this brushwood was suggested

to be the remains of 17th century fascines used to attempt to cross the ditch. The deposits of black sludge were separated in some areas by a brown peat deposit, which Armstrong took as evidence showing that the water level in the ditch had been raised during the 16th century. Few attempts had apparently been made to clean the ditch out or to re-cut it, and so pottery was said to be in a "fairly stratified order", with 12th and 13th century pottery and a few fragments of Saxon pottery "in the bottom". An abundance of deer bones was taken to suggest that the castle's kitchens might have been located somewhere adjacent to the south ditch, while to the west of the drawbridge pier, a foundation shaft ('C' on Plan no. 1) revealed three rows of sharpened oak spears set vertically into the base of the ditch (Armstrong 1930, 19).

- 5.12 The base of the south ditch was said to lie 14ft 6ins below the plinth course of the gatehouse or a total depth of 33ft (10.06m) below Exchange Street (c.45.64m AOD, but see above for the higher level of Exchange Street shown on section V) (Armstrong 1930, 15). A foundation shaft sunk at the north-east corner of the Cooperative Stores ('B' on Plan no. 1) revealed that the ditch had swung sharply around to the north-east at its east end and that the lowest 7ft had been cut through solid rock. The same foundation shaft also revealed a structure, surviving to 12ft (3.66m) in height that Armstrong interpreted as being a continuation of the drawbridge pier noted above. Armstrong further suggested that the ditch on the south side of the castle had always been considerably deeper than that to the east, and that it had permanently contained water (Armstrong 1930, 18).
- 5.13 Finally, Armstrong noted that two prehistoric flints, and a few abraded fragments of Roman pottery, were found during the works on the Co-operative Stores site (Armstrong 1930, 24).
 - b) Excavations at the Castle Hill Market
- 5.14 The principal remains reported by Armstrong between 1928 and 1929 on the Castle Hill Market site were located towards the north-east part of the market's ground plan, and were interpreted by him as being parts of buildings fronting onto the courtyard and forming part of an eastern range. The southern end of these buildings was marked by what appeared to be a passage running across the range, and they rose from a double-chamfered ashlar plinth on the west side, being built of hammer-dressed stone above this. The walls were 5ft 3ins (c.1.60m) thick, and the north part of the ruin appeared to comprise a barrel vaulted chamber or cellar, perhaps approached through a narrow passage at the south-west end. Masons' marks on the courtyard plinth were noted to be of the same form as those seen on the plinth of the bastion tower, and this, together with the general form of the masonry, lead Armstrong to conclude that these ruins also formed a part of Thomas de Furnival's castle of 1270 (Armstrong 1930, 20-21). Armstrong provided no heights in his text, but on plate V, the bottom of the base course of the structure was set at 174ft (53.04m AOD), with the associated courtyard level c.0.70m higher. The foundation plan for the market hall (MSA: Armstrong archive 1995.85) (see figure 18B) marks the level of the top of the plinth at a corner in the centre of the west side as being 176.125ft (53.69m AOD). Interestingly, the foundation plan shows the narrow passage at the south-west corner as being more complete than Armstrong did, and the whole structure extends slightly further to the east. No trace was uncovered of the east wall of the range associated with this structure, and Armstrong speculated that this was because it had been dismantled to build the buildings fronting onto Castle Folds Lane; large blocks of masonry in these buildings were apparently still visible into the 20th century, but it was "amply demonstrated" during their demolition that it was all re-used (Armstrong 1930, 21).

Some 64ft (19.50m) south-east of the structure described above, the single base of a stone pier or column was found, measuring 2ft 6ins (0.76m) in diameter (at 'D' on Plan no. 1). Armstrong suggested that it was probably of 13th century date or earlier and may have formed part of the chapel or great hall, but appears to have provided no information as to the relative height at which it was discovered (Armstrong 1930, 21).

- 5.15 Close to the main structural remains described above, and indeed quite widely across the market site as indicated on his Plan no. 1, Armstrong found evidence of what he interpreted as a layer of burning associated with the castle that was destroyed in 1266. This layer was up to 1ft (0.30m) deep, but was generally shallower with the surface set at c.174ft (53.04m AOD). At c.3ft below this (c.52.13m AOD), Armstrong discovered what he interpreted as the remains of a Saxon building. This was set parallel to the main structural remains here, but some 5ft (1.50m) to the west. According to his published account, "the stratigraphical evidence proves beyond all doubt that it considerably ante-dates the castles of the 12th and 13th centuries" but unfortunately this was not enlarged upon. The remains of the building that were exposed measured 23ft (7m) long (north-south) and comprised two complete bays and a third incomplete one (see figure 25A; Plan no. 3). These bays were defined by what Armstrong described as "crutches" or "crucks", large oak timbers set into the ground and resting on stone pads: the bases of these pads were set at 169ft (51.51m AOD). A horizontal beam ran between two of the crucks, and an internal floor was formed of wattle sandwiched between two layers of hard-packed clay. Some 50ft (15.24m) to the south of the building, further possible traces of a similar floor were observed, while between the two, "a thick bed of peaty material" was encountered, interpreted as a shallow pool (Armstrong 1930, 21-25).
- 5.16 Away from this area, another section of the gatehouse's plinth was apparently uncovered "on the market site" (Armstrong 1930, 17), although it does not appear on any of Armstrong's published illustrations. Part of this plinth was apparently cut out and "placed in the chamber beneath the Castle Hill Market, which encloses the ruins found there" (Armstrong 1930, 17). Although Armstrong's suggested course of the east ditch ran just beyond the east end of the new market building, it was the closest built element, and so his observations are included here. The east ditch was stated to be narrower and shallower than the south ditch, and normally dry. Its course was said to have been observed beneath the premises to the rear of the Rotherham House Hotel "where it's course was again defined by further excavations which gave definite proof that northwards Castle Folds Lane marked the centre of the old eastern ditch". These same excavations apparently also proved that it was dry, but their location is not indicated on Armstrong's Plan no. 1. Just beyond the Rotherham House premises, Castle Folds Lane apparently sloped steeply downwards; according to Armstrong this marked the position of a former steeper slope beyond the ditch (Armstrong 1930, 18-19).
- 5.17 Finally, at several points within the central area of the new market building, the foundation pits revealed the surface level of the main courtyard (see figure 25A, Plan no. 1).
 - c) Other areas
- 5.18 In addition to the observations described above, Armstrong also commented on other parts of the EDAS study area, away from the Co-operative Stores and the Castle Hill Market. In the north-west part of the study area, he noted that, although "extensive excavations were made for basements and foundations in the building

- of Messrs Foster's premises and other buildings fronting to Waingate, when the street was widened recently", no large-scale structural elements relating to the castle or the ditch were encountered in the parts that he had observed (Armstrong 1930, 12-13).
- 5.19 Again in the north-west part of the EDAS study area, Armstrong recalled that the old Lady's Bridge was once approached from the south by steps, that were said to be just under the castle wall (Armstrong 1930, 12); these must presumably have descended from south to north here. Furthermore, in the same area, he had been informed that during the erection of Messrs Stokes' new premises, between those of Foster's described above and the Bull and Mouth public house, a "considerable depth of black sludge-like material was encountered when excavating for the basement", which he interpreted as being a remnant of the western ditch or moat. The recent demolition of buildings immediately behind the Bull and Mouth had revealed the north-west corner of the castle's glacis (Armstrong 1930, 13).
- 5.20 Referring to a note in another volume of the *Transactions* of the Hunter Society (Anon 1916, 239), Armstrong noted that during the improvement of Waingate, excavations for a new building just below the site of the Royal Hotel disclosed fragments of a paved roadway but that no precise depth or position was recorded. Similar paving had apparently been found when the plot for the Bull and Mouth public house was excavated (Armstrong 1930, 13). Finally, excavations for a new building in Exchange Street had revealed the outline of a ditch that appeared to run parallel to the street; Armstrong suggested that this could not have been part of the main southern ditch, but that it must be an outwork or perhaps associated with the 17th century siege (Armstrong 1930, 13).
- 5.21 As well as his published paper in the Hunter Society *Transactions*, Armstrong gave a lecture at the Mappin Art Gallery on March 7th 1929 entitled "The Story of Sheffield Castle", and his handwritten notes for this survive in Museums Sheffield's archive (MSA: Box file Written Text, Notes, Letters, Memos). His opening address was not confident:
 - "I appear before you tonight as the creature of circumstances. Medieval history is not really my forte. It is not 'my period'. I am more at home delving into the pre-history of mankind & piecing together from scraps of bone & tools of flint something of man's early story."
- 5.22 Nevertheless, the lecture appears to have been well received. Armstrong clearly also had plans to write a book on the castle, in conjunction with a Mr Drury who was to provide the historical background. Handwritten drafts of some chapters (including Drury's) survive in Museum Sheffield's archive, and Armstrong went as far as to obtain estimates for the cost of printing from the printer J W Northend Ltd., but the book was never to appear (MSA: Box file Written Text, Notes, Letters, Memos).

Joseph Himsworth 1927-1942

5.23 Leslie Armstrong was aided in his works on the Co-operative Stores and Market sites by Joseph Himsworth, FRSA FSA (Scot). Himsworth kept a diary of his visits (Himsworth 1927-42), together with photographs and some important observations on the appearance of the Castle Hill area before redevelopment took place. He continued visiting after Armstrong had had to quit due to the illness and death of his wife, and he additionally made some observations in the early 1940s following the bombing of the Co-operative Stores. Himsworth also met with other interested parties on site, such as J Wigfall.

- 5.24 Like Armstrong, Himsworth was not working under ideal conditions; on one occasion, he remarked that Loughran, the site foreman, had cursed the delays caused by recording work in "strong 'builders' language" (Himsworth 1927-42, 12). In his published account of the recording, Armstrong (1930, 27) thanked Himsworth for his help in supervising the work and in the preparation of the report, but does not make reference to all of the information recorded by Himsworth in his diary. Therefore, rather than reproducing the whole diary (which is held as an unpublished typescript in MSA), the following text focuses on those areas where Himsworth either departed from Armstrong's views or where he provided additional information.
 - a) Excavations on the Co-operative Stores
- 5.25 On 13th October 1927, Himsworth noted of the excavations on the south ditch or moat:
 - "A. L. A was quite positive the water in the moat had been stagnant. I think it possible, however, the moat was fed by a stream of water still known to be running under property in High Street. There may have been several sections of ditch or moat with water in, as the same soft sludgly ditch was uncovered on the Waingate boundary, and that is a fairly steep slope" (Himsworth 1927-42, 1).
- 5.26 On 15th January 1928, Himsworth (1927-42, 3) estimated that opposite the drawbridge pier in the centre of the moat, the moat was estimated to be about 30ft (9.14m) wide and that the 'lowest sludge' was the same depth below Exchange Street; this is close to the total depth of 33ft below Exchange Street given by Armstrong (1930, 15). In October 1928, Himsworth noted that Armstrong had told a visitor on site that the drawbridge pier stood 12ft (3.6m) high, but thought it to have been much less, and in Armstrong's published account it was indeed only just over half this height (Armstrong 1930, 17).
- 5.27 The east end of the gatehouse plinth, originally recorded as part of the Cooperative Stores work, was uncovered during works associated with the new market on 7th December 1928 (Himsworth 1927-42, 11-12). On 18th December, Himsworth noted that the top of the plinth was 18' 6" below the Co-operative Stores' floor level, placing it at c.47.13m AOD (Himsworth 1927-42, 14).
 - b) Excavations on the Castle Hill Market
- 5.28 Himsworth first visited the market site after works had commenced on the 26th September 1928. He noted:
 - "Saw the Clerk of Works, Loughran, who showed me how difficult the ground was for foundations. Right in the centre of the site they reached undisturbed virgin yellow clay, within which were water worn boulders, averaging 12", at possibly ten ft below the level. This would be at a point opposite half way down Waingate. Foster's clothier buildings are on a line with it. A few ft away to the N.E. at the same depth was black sludgy clay." (Himsworth 1927-42, 6).
- 5.29 Himsworth's description places what he observed just to the north of the centre of the market building. His observation of natural clay at only 10ft (3.05m) below 'the level' is important, but it is uncertain what this 'level' was. If it was the floor level of the market buildings (183ft or 55.78m AOD), then the surface of the natural would be at c.52.73m AOD. Himsworth continued:

"Many pieces of ancient worked stone lying about but none being preserved. Took two photographs of stone steps at N.E of site leading down to some shallow vaulted brick basements, the floor of which rests upon some good stone walling in Castle Folds Lane below." (Himsworth 1927-29, 6).

- 5.30 Himsworth stated that the steps were shown clearly on the '41.66 Survey of 1889' but they were not visible on any of the maps consulted for this report [2/642, 2/643]. The steps apparently lay just over 20ft (6.10m) to the north of the courtyard buildings with the double-chamfered plinth reported by Armstrong; later in his diary, Himsworth gives the distance from the south corner of the steps to the most southerly return in the plinth as being 20ft 6ins, and also noted that the plinth must have been dug out at least once before because the base of an old telegraph pole was found about 9ins in front of it (Himsworth 1927-42, 7). On 31st October 1928, digging was undertaken to see if the wall continued to the south; the plinth soon gave out but "the foundations under the plinth came to light" (Himsworth 1927-42, 8). On 30th November 1928, to the east of the wall with the double-chamfered plinth, the remains of the stone-vaulted space were uncovered, the vaulting suggesting a "large span" (Himsworth 1927-42, 10).
- 5.31 The pillar base found to the south-east of the courtyard structures reported by Armstrong (1930, 21) was thought by Himsworth to be Norman, rather than 13th century in date. He also disagreed with Armstrong that it was *in situ*, as there was "no setting", and it was found in a "clay bed very near the surface". Furthermore, Himsworth noted that the base was chamfered, which Armstrong did not mention in his published account (Himsworth 1927-42, 11). An unpublished photograph of the pillar base, probably by A Senior, from the Improvement Surveyors Department, supports Himsworth's assertion that it had no setting (MSA: Butcher Box File 1976.1064 folder SC2/3) [3/890]. Also close to the courtyard structures, on 3rd December 1928, a large square stone pillar was uncovered. It was found to have a square iron rod embedded in one side, leading Himsworth to speculate that it was either "an old portion of the battlements or a bowling green railing" (Himsworth 1927-42, 11).
- 5.32 On 20th December 1928, Armstrong telephoned Himsworth to tell him that in one pillar/foundation excavation he had seen nine 'occupation levels' in 10ft from the level (Co-operative Store's floor). The lowest level would be the "stone castle period" (Himsworth 1927-42, 14). A few weeks later, on 1st January 1929, Himsworth made some intriguing observations on some masonry that had been uncovered:

"In removing a pile of debris in the level they uncovered about three courses of very fine masonry suggesting a large doorway and two smaller ones. A.L.A thinks this stone work although undoubtedly belong to the castle has been re-erected. The jointing was however too good I consider. Loughran agrees with A.L.A. Took photographs." (Himsworth 1927-42. 14).

Unfortunately, Himsworth gives no clear idea as to where these three doorways were, and his photographs do not appear to have survived.

- 5.33 Himsworth's account of Armstrong's discovery of the 'Saxon' building adds a little more information to what Armstrong himself published. Himsworth noted that one of the posts, when removed, was apparently "adze dressed at the bottom", while the spars of the floor were all in a "horizontal position between the two posts as though they might have been thrown down" (Himsworth 1927-42, 15). It is not quite certain what Himsworth meant by this latter comment, but it is quite feasible that the wattle 'floor' described by Armstrong was in fact the remains of a wall or partition running between the larger timbers which had fallen over.
- 5.34 Finally, on 31st October 1928, Himsworth made some curious observations regarding the standing structures that were being demolished as part of the market's construction:

"In between the south end of the newly-discovered wall and the Co-op but at a higher level (i.e. Exchange Street level) the men were digging out the remains of a furnace, said by one of them to be the oldest in Sheffield" (Himsworth 1927-42, 9).

5.35 Himsworth's photograph shows a substantial structure, built of coursed, squared stone. apparently standing several metres in height [2/651] (www.picturesheffield.com, s10000; see plate 38). There are what appear to battered, quoined projections at either end, possibly buttresses, with two openings to the front. That on the left has a tapering, almost shouldered, stone head but the one to the right has a semi-circular brickwork head. From Himsworth's description, the structure was located somewhere along the east side of the market site, above Castle Folds Lane. If it was indeed a furnace, then it may have been on the site of the Castle Hill Steel Works which are marked here on the mid 19th century maps (see figure 11). Himsworth does not appear to have considered the possibility that the structure might have incorporated either parts of standing castle masonry or to have been constructed from re-used castle stone. However, a note in the Transactions of the Hunter Archaeological Society, which may refer to the same structure. did:

"During the demolition of an old cupola furnace in the premises formerly occupied by Messrs. R & J Smith Bros, numerous stones of fifteenth century workmanship were discovered. Some of the stones had formed parts of simple traceried windows, in one a piece of old glass remained; others had been coping stones, or jamb stones of windows or doorways. One of these had an iron crook attached to it." (Anon 1916, 239).

c) Construction of Castlegate

- 5.36 One of Himsworth's most important contributions to the history of the castle site was to make observations during the construction of Castlegate, which were not included by Armstrong in his published account. There were apparently plans to drive a road right across the site of the castle but this was abandoned (Anon 1916, 239), presumably due to the construction of the Castle Hill Market. As has already been described in Chapter 4 above, Himsworth took a number of important photographs which give a good idea as to the appearance of Chandlers Row and Shambles Lane prior to demolition (see plates 7 to 11). When these buildings were being demolished, he noted that some of the internal beams were of oak, '12 to 16ft long x 15" x 9", and some severely burnt (e.g. www.picturesheffield.com, y00891 & 00892) (see plate 10). Himsworth thought that they may have been reused, as they were too large to have been purpose-cut for the slaughter houses (Himsworth 1927-42, 16).
- 5.37 Himsworth observed the construction works for Castlegate between the end of June and 18th November 1930. At the start of the works, the men were digging through the old slaughterhouse floors, which were placed 11ft 6ins (3.50m) above the water level of the Don. Near the junction of the Don and the Sheaf, the material at the bottom of these holes (close to water level) was a soft alluvium, but closer to Lady's Bridge a hard ganister-like rock was encountered, in a sloping bed dipping towards the river on a fall of c.1 in 10 (Himsworth 1927-42, 16). On 1st July 1930, Himsworth noted that:

"Underneath the outer wall, that I take to be 19th century work, were heavy worked stones that looked like much earlier work. Later a plan was furnished of these by the City Architect." (Himsworth 1927-42, 17).

5.38 Fortunately, this plan has survived (MSA: Box file - Written text, Notes, Letters & Memos) (see figure 26, top). Entitled "River Don Street – Details of Old Foundations", the plan indicates that the foundations were located on the line of Castlegate itself, almost 20ft (8.84m) east of the stone pier at the south-east corner

of Lady's Bridge and up to 4ft 6ins (1.37m) south of the Don's retaining wall. The exposed section of foundations was described as being built of 'stone blocks, roughly squared' and laid without clay, mortar or any other bonding agent. They were set on a very slight north-west/south-east alignment, c.8ft 6ins (2.59m) long and 2ft (0.61m) wide; the top of the foundations was set 12ft 6ins (3.81m) below the level of Castlegate (i.e. at 45.87m AOD), which Himsworth had noted on the drawing was the "Approximate normal water level of River Don". At the very west end, the foundations were seen to support a "rubble masonry wall jointed in mortar", which stood c.4ft (1.22m) high and extended west for an unknown distance.

5.39 On or about 19th August 1930, work was started on taking down the retaining wall left behind by the demolition of Chandlers Row; the ground behind was eventually graded to slope steeply down from south to north. As the work progressed, Himsworth recorded what he saw. Initially, the top 5 or 6ft (1.83m) of the brick wall revealed only 'recent infilling' behind. Subsequently, at about 3ft (0.91m) below the north-east corner, two horizontal beams appeared, but when half of the height of the north-east corner had been demolished, still only 'loose black soil' had been exposed (Himsworth 1927-42, 17). From 27th August onwards, he was able to add more detail:

"About 30ft back from N.E corner was probably the extreme edge of the castle site hereabouts, judging by the building line of brick ending, and stone beginning, in the east wall, (which runs S. & N.). This would also fall more into line with the sweep of the Don where it swings across from Lady's Bridge. This corner appears to have been pushed out farther by the use of brick retaining wall and beams laid horizontally at about three ft from the top level.

Judging by the yellow clay with boulder in it, the highest point on the N. side of the site has been for a considerable period at a position about 6ft E. and 8ft above the first doorway in the N. retaining wall going from Lady's Bridge. This high point of original ground has been cut through from E. to W. in erecting the brick wall. From this point proceeding S. the ground dropped abruptly towards the river Don. All evidence goes to show that the N.E. corner of the site has been pushed out extensively in comparatively recent times, i.e. 17th or 18th century. The N.W corner of the site has been extended a little but not nearly so much as the N.E. Taking the level of new road when finished as planned as 23ft above normal water level this original high point of undisturbed land would be about 40ft above the river" (Himsworth 1927-42, 18).

"About 50ft from the N.E. corner some squared rubble masonry appears; also at about 100ft along the Don front facing the river, like buttresses, both about four ft wide. These are approximately about five ft back from the old brick wall and about seven ft below the present market level [i.e. at c.53.65m AOD]. The new road is now filled up to its full level as planned. Very little rubbish has been carted on to the job, the debris from the slaughter houses and in pulling down the bank face has been sufficient." (Himsworth 1927-42, 18).

- 5.40 As the works progressed, several pieces of worked *ex situ* masonry were unearthed behind the retaining wall, including window tracery, chamfered plinth and a piece of Early English dog-tooth moulding, which Himsworth drew and photographed [2/670] (www.picturesheffield.com, y00900; see plate 39).
- 5.41 Himsworth continued to make site visits throughout October 1930:

"Called at 2-15 in time to stop the men pulling to pieces masonry almost six ft by four ft high overlooking the Don and parallel with it. It was about the same level as the 'dungeon' [i.e. at c.53m AOD] and about nine ft back from old brick wall. Some of the stones were 18" x 12" on face. Thickness varying from 12" to 9". Two pieces of stone measured on the face 36" x 9" and 32" x 5". This wall was probably an inner wall of a tower, for there was a return wall from it towards the Don. In the same bank side nearer Lady's Bridge end at a higher level than the above a corner of a square building was being pulled down. Some of the stones in the face were 12" x 9" and 10" x 6" and appeared to be put together with white

lime and very little sand for mortar. Top of this was about five ft below market site [i.e. at c.54.26m AOD]. The workmen had to leave some of this undisturbed otherwise it would have let down the market level to remove it. This wall was 13ft long and in line with the most westerly back door of the market." (Himsworth 1927-42, 18-19).

"He [Mr Davies, the City Architect] would also instruct City Engineers to record any walls found in the bank in cutting the new road. (This was not done)." (Himsworth 1927-42, 19).

"Along all the length of what was the base of the brick wall the men were working in thick original clay.

The masonry discovered on the N. (Don bank) settle the extent of the castle area to my mind.

There now appears four patches of rubble filling on edge, and lead me to suggest there were probably four towers with a sloping glacis in between, overlooking the Don, about 10 to 12ft wide. (Photos). Lost." (Himsworth 1927-42, 19).

"Finishing the new road this week. It was later called Castle Gate. The iron railings were then being fixed. They told me the corner stone pillar of Lady's Bridge had been dismantled, and in one of the stones some faded written papers were found. These with the pieces of tracery & c. they said had been put in market basement by the City Engineer's men from the Town Hall. The latter had also measured and 'plotted' the remaining wall in the bank.

Consider whether the peaty strip of soil at the N.W. corner is the line where the ditch emptied, and an old road laid in it later, rising along the back of the BULL and mouth Public house.

The long N. face of the bank under the market facing the Don having been washed by the recent rains shows the rubble fillings, behind what I assume were the four towers, to advantage. The largest tower was probably at the N.W. end - from the great width and heavy pieces used for filling. At the N.W. and at the S.W. would of necessity be the stoutest and most important defences that side of the castle. (w)." (Himsworth 1927-42, 20).

- 5.42 The 'plotting' of the 'remaining wall in the bank' by the City Engineer's Department noted by Himsworth has survived in the form of dimensioned sketches, dating to 1930 (MSA: Box file Written Text, Notes, Letters, Memos). They show that the base of the wall was set at 171ft 6ins (52.29m AOD) and that it was 2ft (0.61m) high. It was described as being of "faced stone", an average of six courses in height, with no stones traceable beneath. Himsworth used this information to mark the wall on a contemporary profile through the Castle Hill area (MSA: Armstrong archive 1995.85).
- 5.43 In addition to his notes in his diary. Himsworth also recorded what he observed along Castlegate in a section, which is supplemented by a number of photographs. This section apparently exists only as a photographic reproduction in Himsworth's site diary (Himsworth 1927-42) [2/666 to 2/669] (see figure 26, bottom). It is titled "Section of Bank Overlooking Castlegate Road and the Don. North Side of Market. October 31st 1930". The drawn section was 210ft (64m) long and 18ft (5.49m) high. The lowest level marked is "Ashes 1266", which presumably means the level thought to be associated with the destruction of the castle at that date. This was overlain by "clay and boulders", which underlay the "Surface of an Old Lane" and more confusingly the "Earliest Occupation Level". There was then a thick deposit of "Medium Yellow Clay", which included a "Filling of White Mortar and Stone". The uppermost major deposit was "Loose Black Earth and Rubble", with "Timber" at the very east end. Unfortunately, nothing is clearly marked on the section that allows it to be accurately located, nor are any reduced levels included. However, it must represent what was revealed behind the high retaining wall on the south side of Chandlers Row as it was demolished, and it can be related to some of the

entries given above from Himsworth's diary. For example, the 'Filling of White Mortar and Stone' is probably the corner of the square building nearer the Lady's Bridge (i.e. west) end put together with white lime', the top of which was set at c.54.26m AOD (Himsworth 1927-42, 18-19). The timbers at the north-east end were associated with a 17th or 18th century northward extension (Himsworth 1927-42, 18), while the 'Surface of an Old Lane' was that suggested to have been laid in the line of the west ditch (Himsworth 1927-42, 20).

- 5.44 The photographs of the Castlegate works, supplementing Himsworth's sketched section, are a rather varied collection, including some modern prints, some old prints and only some attributable to Himsworth himself. An envelope in Sheffield Museums Archive labelled "Negatives of Prints of Excavations at Sheffield Castle" contains mostly modern negatives of photographs of Himsworth's or Butcher's original prints. However, there are several modern prints of photographs which have not been found elsewhere. One, labelled (erroneously) "Castle Site: Before Market was Built and Castle Gate (Road) made. Overlooks River Don. Sheffield. JBH" gives the earliest, and by far the best, view taken after both Chandlers Row and Shambles Lane, and associated buildings, had been demolished, leaving only the high south retaining wall to Chandlers Row still standing [2/673, 2/674] (see plate 40); the new Castle Hill Market can be seen above the retaining wall in the background, as can some of the arches and doorways in the retaining wall itself. A second envelope, labelled "Sheffield Castle - Armstrong" again contains mostly modern reprints of either Himsworth or Armstrong's photographs, but again there are three which have not been noted elsewhere. These show the stepped bank on the south side of Castlegate created by cutting back behind the former retaining wall to Chandlers Row [2/683 to 2/686]. The photographs show railings at the top of the bank, and so must have been taken after 18th November 1930 when Himsworth noted that "the iron railings were then being fixed" (Himsworth 1927-42, 20). The first photograph depicts a low, fragmentary, roughly coursed and squared stone wall, positioned approximately half way up the stepped bank, probably about 4m long and 1m high (see plate 41). The second may show the 'Filling of White Mortar and Stone' from Himsworth's section. The third again shows the same, fragmentary low wall as the first, but looks east rather than west.
- There are three further similar photographs forming part of the Armstrong Archive (MSA: Armstrong Archive 1995.85 box file). However, in contrast to the above, these are original, much smaller, sepia examples, and one wonders if they might be the photographs referred to by Himsworth as having been 'lost', or perhaps from the material compiled by the Clerk of Works which Butcher makes reference to. The first photograph looks west, and shows the stepped bank but no castle remains [3/855]. The second shows several examples of medieval architectural fragments recovered during the works, including that with the dog-tooth moulding drawn by Himsworth in his site diary [3/859] (www.picturesheffield.com, y00900; see plate 39). The third shows a length of coursed and squared stone within the stepped bank [3/860].
- 5.46 Finally, in Himsworth's diary, there is an envelope glued into the front containing 14 loose photographs. The majority of these are prints, presumably taken from Himsworth's negatives, which occur elsewhere in his diary, but there are a small number that do not. It is not known if these were actually taken by Himsworth; they may form part of a series of photographs taken during the works by C H Lea. There are 13 such photographs on the Picture Sheffield website, all titled "Remnants of Sheffield Castle" (www.picturesheffield.com, s29253 to s29265). Some appear to show in situ masonry or surfaces, but other show pieces of ex situ masonry balanced one on the other; a few are broadly locatable within the site, but

many are not. One of the photographs in the diary envelope titled "Sheffield Castle date 1927. Overlooking and facing the Don: later destroyed" [2/613] (www.picturesheffield.com, y00922), shows an upstanding section of wall made of large, well-squared and coursed masonry, with construction hoardings in the background. Given that construction works on Castlegate did not start until 1930, the masonry must either have been exposed in connection with the construction of the Co-operative Stores (although these were set back from the Don) or the date is wrong; the wall appears to be like that referred to on pages 18-19 of his site diary quoted above in an entry from 1930.

d) Other areas

5.47 Away from the three main areas noted above, Himsworth also made observations that concern other parts of the EDAS study area. On 16th December 1927, he noted:

"On the ground at the rear of the Rotherham Hotel, fronting Exchange Street, in a line with, and abutting on the Co-operative Store site I photographed foundation of an ancient wall uncovered by excavations. This wall is not as good work or stone as any of the others. A. L. A. says 17th. or 18th. century work." (Himsworth 1927-42, 2).

This wall was not referred to by Armstrong, who did however note the discovery of the east ditch to the rear of the Rotherham House Hotel (Armstrong 1930, 18-19), nor does Himsworth's photograph appear to have survived.

5.48 Himsworth also made observations relevant to the east ditch on 19th January 1928:

"What has been the lane known as Castle Folds running down the side of the Rotherham Hotel is still being excavated and carted away. The black sludge showing a 'section' of the moat is very clearly defined against the yellow clay forming the foundation or subsoil of the old lane." (Himsworth 1927-42, 3).

5.49 Further observations in Castle Folds Lane were made on the 31st October 1928, and again on 26th November of the same year:

"Went to see the sinking of holes in Castle Folds Lane for the pillars. I am told the level of the land is to be kept. Saw the excavation for the foundations of the second pillar from the boundary wall of the Rotherham Hotel. At a depth of 10 to 12ft a modern earthenware sewer pipe was reached. It had a fall of 1 in 12" (Himsworth 1927-42, 8).

"Men were digging away some of the bank (west) of Castle Folds Lane and breaking down the brick basements. The debris in the bank side was largely composed of old mortar (lime and mortar), such as was seen in one or two places near the south moat." (Himsworth 1927-42, 10).

5.50 Work continued on Castle Folds Lane in December 1928:

"I had expected to see more of the castle revealed where they were digging the high side of Castle Folds Lane, but none is coming to light, not even a few worked stones. The debris is mostly composed of comparatively modern brickwork, with here and there, when nearing the lane level of big pockets of old lime and sand mortar. The latter evidently castle debris. At some spots on the lane level virgin clay is reached at less than two ft. In at least one spot underneath the old loose mortar, upon digging down about four ft, large blocks of rubble, apparently for rough foundation work, was found. Blocks about $13" \times 9"$, but no dressing on them and perfectly clean with no sign of discoloration from exposure at any time. They might possibly have been laid down with clay mortaring about one inch thick in between." (Himsworth 1927-42, 13-14).

5.51 Regarding the west ditch, Himsworth wrote on the 18th October 1928:

"Today I heard that deep black ditch sludge had been come across on R J Stokes new shop site in Waingate and some coins found." (Himsworth 1927-42, 8).

5.52 The destruction of the Co-operative Stores by German bombing in the Second World War allowed the expansion of Castle Hill Market to the south, and this took place from 1958. The construction works were observed by Leslie Butcher, a local amateur archaeologist who worked for the City Architects Department (Davies & Wilmott 2002, 6). When design work started on Castle Hill Market, Butcher was appointed by the City Architect, John Lewis Womersley, to:

"assist in defining the shape and extent of the moat for design and contract purposes, and (upon commencement of construction) to record the structures of archaeological interest." (Butcher c.1972, 5).

- 5.53 Butcher was assisted in his work by J Bartlett, at that time Deputy Director of the City Museum, who was responsible for the collection and conservation of portable finds (Butcher c.1972, 5-6). The finds were recorded according to pile hole and depth below the surface, but not by context (Davies & Wilmot 2002, 6). Although the only publication deriving from this work was a summary note in *Medieval Archaeology* (Hurst 1959, 308), an unpublished typescript report survives (Butcher c.1972) as well as notes for a lecture given on 10th January 1961 (MSA: Box file-Written text, Notes, Letters, Memos), together with a large number of interpretative plans, stonework elevations, sections of pile/foundation holes, black and white photographs and colour slides. The plans include a number of important survivals from the earlier period of construction on the site, including original drawings relating to the Co-operative Stores' foundations, the construction of Castlegate, and the construction of the Sheaf culvert. It is assumed that this material was collected by Butcher during the course of his 1958-61 works.
 - a) Excavations on the Site of the Co-operative Stores (the Low and High Blocks)
- The area formerly occupied by the Co-operative Stores was where the Low and High Blocks of the 1958-61 re-development were constructed. The alignment of the south moat suggested by Armstrong was confirmed as far as he had illustrated it in his published report. However, the standard cross-section and depth suggested by Armstrong were found to be incorrect, and the profile exhibited some variety. A simple 'Y' profile or section to the moat appears to have been the intention, with vertical walls or faces rising from the moat floor and then breaking back to a slope at ground level. Butcher thought that this profile was the result of local solid geology, the lower near-vertical faces of the moat being cut through hard sandstone or compacted sandy mudstones. At the point where the stone changed to a more friable shaley upper layer, the sides of the moat were cut back to a slope. This change occurred from a height of just below 168ft (51.21m AOD) close to the gate structure to just above 168ft at the south-western corner of the moat.
- 5.55 Weathering had caused this upper layer to adopt an increasingly irregular edge, leading to contrasts between Armstrong and Butcher as to where it was thought to lay (Butcher c.1972, 15-16). On one of Butcher's c.1961 plans of the moat (for example, see 2/712 to 2/717) (see figure 27A), two lines are indicated; a continuous outer dashed line and a discontinuous hachured inner line (MSA: Drawer 6 S35). A surviving key sheet to drawing annotations (MSA: Box File -Butcher Box File 1976.1064) [3/803], assumed to be by Butcher, suggests that the outer line represents the 'outer limit of the slope at reconstructed ground level'; the inner line must therefore represents what Butcher observed. It can be seen from figure 27A that there is a considerable difference between the two; for example, to the centre of the south moat, the distance between the outer lines is 15m while that between the inner lines is only 9m. For much of its length west of the gatehouse.

the outer face of the south moat either had a single slope or (closer to the gate structure) it descended to a shelf of rock and then to the moat floor; the average floor level of the moat was 157ft (47.85m AOD). To the immediate west of the gate structure, the lower part of the inner face of the moat was faced with masonry, ending abruptly at a rock shelf stepping up behind the foundation courses of the towers or bastions flanking the gate. Opposite here, the outer face of the moat may also have incorporated at least one step or shelf to act as seating for the drawbridge pier or projection. At this point, the floor of the moat was set at 152ft (46.33m AOD).

- 5.56 Within the moat, Butcher was of the opinion that some 15ft of deposits had been removed by development, so that the uppermost levels represented the lower limit of the 1649 demolition material, large rubble containing much tooled ashlar, moulded and chamfered stone, and including a complete section of wall facing which had fallen into the moat. The demolition deposits overlay accumulations of blue-black organic mud, which contained many plant remains, including reeds from the moat and an immense amount of small twigs and branches. The date of some of these accumulations were said to be immediately pre-Civil War, some "vaguely Tudor", some "much earlier". There was a great deal of variation in lateral persistence and thickness in these layers, and also much interleaving due to material being tipped from many directions. Butcher speculated that the depth of the moat may have been partly dictated by the quantity of hard rock required to act as rubble backing for the ashlar-facing, all the rubble backing observed definitely having been obtained on site. Some of the 'defensive stakes' recorded by Armstrong were seen to have twigs and branches set between them and the inner face of the moat, and were interpreted as apparent revetting, rather than having any defensive purpose; the apparent spike or taper of one larger stake had been created by the rotting of the wood, rather than deliberate shaping. Some stakes were re-used, as they contained mortices, and in at least one location they were supplemented by oak boards, also apparently functioning as revetting (Butcher 1961) (see plate 42).
- 5.57 At its west end, the south moat made a slow quarter turn to become the west moat; Butcher noted that "a stepped transition from western to southern reach floor levels" at this point was recorded in some detail (Butcher c.1972, 13). The west moat then continued north, nearly parallel to Waingate, to the southern boundary of Foster's premises, where less than half of its width lay under the then street. Butcher was also able to correct some of the previous statements made by Armstrong regarding the cross-sectional shape, filling and depth of the moat (Butcher c.1972, 7). As with the south moat, a simple 'Y' profile or section to the moat appears to have been the intention, with vertical walls or faces rising from the moat floor and then breaking back to a slope at ground level; again, as with the south moat, there is some variation shown by Butcher as to the possible total width. The base of the moat was set at c.144ft (43.89m AOD), the same level as the Don.
- 5.58 The continuation of the western moat beyond Foster's premises was less certain, and it was not definitely observed by either Armstrong or Butcher, although it may have been by Himsworth. Butcher thought that the western moat may have a junction with the Don immediately to the east of Lady's Bridge, and that masonry associated with this junction might have been encountered in a pit at river level in 1930, although his source of information for this is not made clear, unless it is the same feature noted in this area by Himsworth. Where the moat had been recorded to the south of Foster's premises, the base lay "virtually at river level, a level which is sustained southwards past the Waingate-Exchange Street corner".

This would have required a dam some 20ft (6.10m) high at the junction with the Don in order to maintain a single and effective depth of water throughout the moat (Butcher c.1972, 8-9 & 13).

- 5.59 A number of drawings survive from Butcher's work in this area, and these, together with a sheet of annotations noted above (MSA: Box File - Butcher Box File 1976.1064), are very important, as they allow the various elements of his fieldwork to be brought together. The various foundation shafts recorded by Butcher were identified using an intersecting grid system, with letters on the east side of Castle Market and numbers to the south. This grid system is laid out on two copies of a 1958 plan (MSA: Drawer 6) [2/724 to 2/731], with the foundation shafts outlined in red, one plan also with pencilled notes by Butcher. A third copy (labelled "Rough Plan") of a similar plan lacks the grid system, but is also heavily annotated (MSA: Drawer 6 - S48) [3/756 to 3/762]. It is immediately noticeable that Butcher generally only outlined in red and numbered the foundation shafts which lay within the course of the south, east or west moats. He did not number the shafts to the north and south, although there are some other records, such as general site photographs, which relate to these areas. It is therefore not clear if Butcher numbered the shafts within the moat only because these were the ones that he drew or which produced finds, or indeed if he did not observe the excavation of the shafts which he did not number. Butcher also identified some excavations using manhole numbers (e.g. MH1, MH2 etc - these appear to have been located mostly in the area to the west or south of the former Transport Canteen), with single-face excavations identified using letters shown upright from the stance of the observer (i.e. one looking at the section).
- 5.60 Where possible or deemed necessary, Butcher drew multiple sections of a shaft, foundation or manhole. There are three A1 sheets of ink-on-film section drawings in MSA: Drawer 9 - S41 and dyeline copies of the same in MSA: Drawer 8 - S34 [3/803 to 3/815] (see figure 28), identified using Butcher's grid system. The foundation shafts are E15, E17, E19, E22, F9, F21, F23, G5, G5. East, G5.W, G7, G9, G22, G23, G-H24, H5 (chamber) East, H5.W, H2-4 (original), H2-4 (north), H23, H24, J23, J24A, manhole 3 in Transport Canteen Yard, and two composite sections, one along the east side of the original Castle Hill Market Building and one of the retaining wall to Waingate (comprising G24, G/H24 and J24); there is also one unidentified manhole. Some of these sections bear a strong resemblance to some of Butcher's black and white card-mounted photographs (Box File - Butcher 1976.1064 Sheffield Castle Notes/Photographs - orange folder labelled 'SC2/3' (Cupboard Q2)), and it may be that for reasons of access or time he drew them up off site from the photographs. The A1 section sheets are accompanied by a separate written list which appears to give a summary of the information recorded from each pit, foundation or manhole, including in some cases "Nil". In addition, in MSA: Drawer 6 - S11, there are similar inked sections and paper copies for foundation shafts E13, F11, F13, F20and F22. It is therefore apparent that Butcher produced sections for the most, but not all, of his numbered foundation shafts. Although Butcher did not use context numbers to record different layers, the sections are often heavily annotated, with information not only regarding the nature of the deposits but also what finds were recovered from them.
- 5.61 Butcher used a selection of these sections to begin to construct more detailed profiles of deposits within the moat. A black and white profile through a number of foundation excavations shows a composite section, which first runs north-south across the west end of the south moat, then east-west through the moat deposits, and then north-south again towards the gate structures at the south-east corner (MSA: Drawer 7 S55) [3/772 to 3/775] (see figure 28). This information was then

used to provide an interpretative drawing of the same profile across the same area (MSA: Drawer 8 - S35) [3/776 to 3/778] (see figure 28), and the annotated pencil draft for this also survives, which provides more detailed information on the deposits (MSA: Drawer 8 - S35) [3/780 to 3/784]. The sheet of annotations described above also gives information as to the conventions used to denote the moat bottom on Butcher's draft drawings - namely observed, probable and conjectural.

- As well as the field drawings, there are also numerous black and white photographs mounted on card (MSA: Box file Butcher 1976.1064 folder SC2/3) [3/891, 3/892]; these are generally well-located and annotated by Butcher, sometimes with interpretative information, and it is relatively straightforward to relate them to the section drawings. Finally, a large number of excellent 35mm colour slides also survive (MSA: 1995.88 Sheffield Castle 1958-63). One of the drawings described above showing the grid system (MSA: Drawer 6) [2/724 to 2/728] is also annotated with the photographic locations for both the colour slides and black and white photographs. The numbering system used for the slides on the drawing relates to large numbers (between 1 and approximately 70) marked on the colour slides. However, the slides are no longer ordered according to this numbering system, and have been divided into different films, although it still possible to relate them to the earlier system.
- 5.63 All of the drawn, written and photographic records are discussed in more detail in Appendix 3.
 - b) Excavations on Castle Hill Market
- 5.64 Butcher (c.1972, 6 & 17) stated that under the south-east corner of Castle Hill Market, the remains of an eastern tower were discovered which matched that recorded to the west by Armstrong in the late 1930s (although part of the plinth of the east tower was in fact just visible in some of Armstrong's published photographs). The ashlar and chamfered plinths of this tower had been robbed out, but enough of the rubble backing (set with clay) survived to suggest the former curve of the structure (Butcher 1961). The east corner of the gate structure was also recorded, and the drawbridge 'pier' was revealed to be a solid structure as wide as the gate structure, which projected from the south side of the moat. A 'comparatively late rough wall' had also been built across the moat here, between the gate and drawbridge structures, laid on the 'black organic mud of the moat' and constructed from stone robbed out from the drawbridge structure (see plate 43). It also overlay one of the stakes found within the moat (Butcher 1961; Butcher c.1972, 18). The re-excavated gate structures are shown on six square black and white photographs mounted on card, some labelled "Sheffield Castle 1958", and kept in an envelope labelled "Negatives of Prints of Excavations at Sheffield Castle by A L A (?) & Butcher" (Sheffield Museum Archive) [2/676 to 2/682].
- A fragment of 'rubble backing', similar to that which had been observed by Armstrong behind the ashlar of the western gate tower or bastion was also recorded beneath the south-west corner of Castle Hill Market. At a glance, it appears to be aligned east-west, but dashed lines appear to indicate that it was in fact aligned shallowly north-west/south-east. Butcher suggested that its alignment might intersect with Armstrong's pit 'A' on his published Plan no. 1, where he had observed masonry at a level of c.171ft (52.12m AOD), close to where Butcher thought solid rock should occur. Armstrong had suggested that the masonry was not medieval, but Butcher considered that it might be the last surviving remnant of the south curtain wall, as the rest was likely to have been destroyed by a 'tunnel'

driven along the 'entire length' (of the Co-operative Stores) in the late 1930s. There was also said to be a similar tunnel running north on the east side of the market, which was thought to have destroyed archaeological deposits here (Butcher c.1972, 7). A possible junction of a fragment of the south curtain wall was observed with the western gate tower, set at a right angle to the tower footings but bonded to them. However, it must have stepped up substantially, as it was not even observed in an adjacent 3ft deep trench (Butcher 1961); this suggests that any remains may have lain at such a level as to already have been completely removed.

- 5.66 For some distance south of the chamber preserving the remains of the courtyard buildings, Butcher reported that the medieval courtyard levels postulated by Armstrong were exposed, as well as the "early occupation level on the original natural surface". The medieval courtyard levels again became visible in the service area to the west of the market. Furthermore, traces of Armstrong's 'Saxon' level were intersected between the north-east corner of Castle Hill Market and Castlegate, including a shallow pit containing 'wattle-work' similar to that recorded by Armstrong. Limited temporary excavations close to the Bull and Mouth public house recorded a similar pit, whilst a narrow curving ditch was encountered in the same horizon in the service yard to the west of the market. Finally, two further ditches intersected near the junction of Waingate and Exchange Street might have represented much deeper ditches of the same occupation period (Butcher c.1972, 7-8).
- 5.67 Regarding the eastern moat, excavations to the east of Castle Hill Market and evidence of the exposure of an ancient fill just underneath the east wall of the building suggested that the centre of the moat lay to the east (Butcher c.1972, 6), although its exact route remained uncertain. The one point where the floor of the eastern moat was 'proved' (presumably that point shown on Butcher's draft publication plans (for example, see [2/712 to 2/719]) approximately in line with a point half way up the east side of the Castle Hill Market), its level was found to be 144ft (43.89m AOD). This was the same as the western moat, and Butcher speculated that there must have been a stepped transition between the south and east moat as had been present between the south and west moat (Butcher c.1972, 13). There must also have been a dam where the east moat met the Sheaf or the Don, in order to retain water within it (assuming that it was retained), and Butcher further speculated that both the dams to the east and west moats might have formed causeways (Butcher 1961).

c) Other areas

To the south-east of the Low Block, the excavations revealed the bottom and lower filling of a subsidiary ditch or moat, crossing Exchange Street south-east from the Co-operative Stores to a point near the north-east corner of Norfolk Market (see figures 27A-B and plate 44). The 'bottom few ft' only were said to survive, it having been truncated by the excavation of cellars. There, it either had a branch running to the north-east along Exchange Street or alternatively turned sharply on itself to run on that alignment, perhaps representing the ditch reported by Armstrong in this general area. The orientation of the two lines of the ditch appeared to relate to that of the gatehouse and associated structures, and Butcher was of the opinion that the organic and other accumulations within the ditch showed it to be a long-term 'outwork', rather than a temporary one associated with the Civil War siege. However, he did consider the alternative possibility that the south-east line might have been a feeder for the moat, coming from 'The Ponds' area of the river Sheaf (Butcher 1961; Butcher c.1972, 9).

- There appears to have also been some observations made during construction of the East Loading Dock to the east of the original Castle Hill Market. There was some cutting back, which exposed the concrete chamber in which part of the courtyard structures were preserved in the sub-basement beneath the Market. In making a new rear approach to the Market, the east end of a car park (sloping at the commencement of works in 1958) was cut back to a vertical face. This exposed natural clay with a pit cut into it; the pit contained much timber, including what was possibly the remains of hurdle work, interpreted as being of 'early' but unknown date (Butcher 1961).
- 5.70 Finally, some of Butcher's sections across the Castle Hill area (see below) include information taken from observations of boreholes in the area between the North Loading Dock and Castlegate.
 - d) Interpretative Material
- 5.71 As well as the works noted in the introduction to this section, Butcher produced a number of other items either as part of private research or for public display. Regarding the latter, the displays at Sheffield City Museum were under reorganisation at the time of the 1958-61 re-development, and room was made for a new display detailing the discoveries on the castle site. Butcher produced a beautiful isometric drawing of the gate structures, which formed part of the new display and which was also illustrated in the Museum's annual report (Sheffield City Museum 1960, 9 & 12) [1/529, 1/531] (see figure 29). The original display drawing, although somewhat water-damaged during a flood, has survived (MSA: Drawer 1) [2/704, 2/705, 2/707, 2/708, 2/710, 2/711]. There are also several other coloured draft drawings which may have been intended for display, including two isometric reconstructions of part of the moat (MSA: Drawer 6 - S10 & S25) [3/763] to 3/765 and isometric coloured drawings of three foundations cut through the moat fills (MSA: Drawer 7 - S55) [3/770, 3/771] (see figure 29); the latter appear to have been used to illustrate a lecture Butcher gave in 1961 (Butcher 1961). Some of the 35mm slides relating to Butcher's work between 1958-61 also contain images of reconstruction drawings for which there appear to be no surviving paper equivalents (see plate 45).
- 5.72 However, of greater importance to this EDAS report are the large body of drawings which Butcher prepared in private, some complete, some unfinished, but all executed to a high publication standard. He drew together all of the information from the works affecting the castle site between 1927 and 1961, and appears to have been working towards a publication which unfortunately never appeared. Not all of these drawings have been listed here, but the most significant are discussed below; unless specifically dated, all are assumed to date to c.1961 or after.
- 5.73 Two different versions of a plan of the moat and gate structures (MSA: Drawer 6-S35) shows the course and extent of the south, east and west parts of the moat, and those foundations of the Low and High Blocks which were excavated within it, together with the subsidiary ditch crossing Exchange Street [2/712, 2/714 to 2/717; 3/748 to 3/751] (see figures 27A-B). There is a stone-by-stone drawing of the gate structures, showing profiles across them with the adjacent part of the moat (MSA: Drawer 6 S38) [3/741, 3/742], and a beautiful cross-section of the moat and gatehouse (MSA: Drawer 6 S38) [3/743 to 3/747]. A further plan shows the location of the courtyard structures excavated by Armstrong and the fragment of masonry protruding from the paved slope on the south side of Castlegate (MSA: Drawer 6 S35) [3/752 to 3/756]. Butcher also produced four different inked

isometric drawings of the Castle Hill area showing outline architectural detail in relation to the excavated remains of the gate structures (MSA: Drawer 10) [3/833 to 3/836]; again, these were definitely used to illustrate a lecture given by him in January 1961 (Butcher 1961) and some of the 35mm slides also survive (MSA: 1995.88 Sheffield Castle 1958-63).

5.74 From an archaeological view, the most useful of all of these plans and illustrations are a number of sections drawn across the Castle Hill area, where Butcher attempted to reconstruct both the archaeological and natural deposits based on his own and earlier observations. There are six sections in total. The first runs northsouth across the east part of Castle Hill, and includes the profile of both Castle Folds Lane and Castle Gate (MSA: Drawer 6) [2/732 to 2/739] (see figure 30). The second is titled "Section along E side of Castle Hill" and includes the remains of the courtyard structures preserved in the chamber beneath the original Castle Hill Market (MSA: Drawer 8 - S56) [3/792 to 3/794]. The third again runs north-south, but through the central part of Castle Hill (MSA: Drawer 10) [3/837 to 3/840] (see figure 30). The fourth follows a similar path, through Castle Hill Market and again looks west (MSA: Drawer 10) [3/841 to 3/844]. The fifth and sixth were attempts by Butcher to try to reconstruct the sketch section facing Castlegate made by Himsworth to scale, and to include information visible on the photographs of the Castlegate works (MSA: Drawer 10) [3/845 to 3/851].

Mid to Later 1960s Works

5.75 In a Sheffield City Council Department of Planning and Architecture internal memorandum dated 3rd April 1970 (copy in SYSMR - file PI 242; also MSA: Drawer 6 - S8), Leslie Butcher noted of the north loading dock and access road to the immediate north of the original Castle Hill Market building:

"Commercial excavation at the E end (spiral ramp) and the W end (betting shop) revealed a ditch (or units in a series of conical hollows) containing bone, tree branches and twigs of heavy scantling. No dateable objects were found, but the general crudity of the deposit & the simplicity of the ditch or hollow shape suggests an early or pre-medieval origin.

These remains were proved to extend upwards from approximately the level of Castlegate (-) some (-); the upper limit was not proved. They are known to be overlain by later deposits including a certain amount of filling placed in 1929 to form the car park at the rear of the meat & fish market."

5.76 The conical hollow or circular ditch at the west end of this area appears on at least one of Butcher's unpublished drawings (MSA: Drawer 6 - S35), while the pit or hollow at the east end appears to be that described above as part of the 1958-61 works. A number of 35mm colour slides also exist of works that took place in 1963 in this area (MSA: 1995.88 Sheffield Castle 1958-63).

The 1972 Castlegate Works

5.77 In a Sheffield City Council Department of Planning and Architecture internal memorandum dated 3rd April 1970, Leslie Butcher noted that a short length of rubble masonry protruded from the paved slope on the south side of Castlegate which appeared to continue for some distance under the car park at the rear of the market. It was said to have been preserved during the original construction of Castlegate in c.1929-30 (copy in SYSMR - file PI 242), and indeed it can just be seen on a 1930s aerial photograph (reproduced by Zasada 1996, 32; copy supplied by D Saich, SYAS) (see figure 19). The only accurate location provided for this fragment appears to be a plan produced by Leslie Butcher also showing the courtyard structures excavated by Armstrong in relation to the then existing

structures (MSA: Drawer 6 - S35) [3/752 to 3/755]. This plan shows the fragment to be on the same shallow north-east/south-west alignment as the courtyard structures, and apparently to have returned to the north at its west end; it may well have been seen by Himsworth, as it is very similar to one of the walls he described during the Castlegate works.

5.78 By 1972, the paving covering the steep north-facing slope to Castlegate was in a poor condition and was actively collapsing towards the bus shelters, as shown on contemporary photographs [3/883, 3/884, 3/886] (see plate 46). The projecting rubble masonry was also in a poor condition, and appeared to have been heavily repointed and probably partly rebuilt at least once. The slope was therefore replaced by a vertical concrete retaining wall, and in May 1972, during the works, a dimensioned sketch section was made of the exposed features by Pauline Beswick [3/882]. The exposed features included a section of wall 22ft (6.7m) long, truncated at either end, with no evidence for proper ends; it appears to have been on a slightly different alignment (roughly parallel to Castlegate) than the other walls exposed in this area, and so may not necessarily have formed part of the castle's structure. Contemporary photographs show it to have been built of relatively well coursed and squared masonry, and to have stood to at least five courses in height [3/888] (see plate 47). However, this was not the same wall which formerly projected from the slope (MSA: Box file - Sheffield Castle Project File), which is believed to have collapsed during the works associated with the erection of the concrete retaining wall (Davies & Symonds 2002, 4); a contemporary newspaper photograph shows the site of this wall after collapse (www.picturesheffield.com. s29250). A small number of 35mm colour slides were made during these 1972 works (MSA: 1995.88 Sheffield Castle 1958-63).

The 1990 Repairs

5.79 In August 1990, repairs to a drainage pipe necessitated making a hole in the west wall of the chamber beneath Castle Market where part of the gate structures were preserved. This work was observed, again by Pauline Beswick, and comprised only a small aperture, through which recent make-up layers were visible behind the wall. Some 35mm colour slides were taken of the works (MSA: Box file - Written text, Notes, Letters & Memos).

The 1994 Investigation of the Preserved Castle Structures

5.80 Before these works are outlined, it is useful to give a summarised account of the process by which the excavated parts of the castle were preserved from the late 1920s up until the mid 1990s.

The Preservation of the Castle Remains

- a) The Remains of the Gate Structures
- 5.81 The discovery of the remains of the gate structures received a great deal of coverage in local newspapers, and work to try to secure the castle remains started almost as soon as they had been exposed. On 13th October 1927, the Sheffield Mail reported that that there was a grave danger that the fragment might disappear beneath the new building altogether. Armstrong was quoted as saying that between £50 and £100 would be needed to secure the remains, and that they would be an asset to the store as people would need to pass through the shopping areas to see them; the Society might even install a café nearby (MSA: Box file Newspaper clippings). According to several newspapers, the possibility of

removing the remains stone-by-stone and re-erecting them in a public park was also considered (MSA: Box file - Newspaper clippings).

5.82 On 15th October 1927, the Committee of the Hunter Archaeological Society wrote a letter to the Mayor of Sheffield, the Co-operative Society and others, informing them of the following resolution:

"This committee is strongly of the opinion that the remains of Sheffield Castle discovered upon the site of the Societies' new premises in Exchange Street, should be preserved in situ, and desires to submit a plan showing a definite proposal for carrying out such a scheme without detriment to your building. The Hunter Archaeological Society will guarantee the cost up to sum of £100." (MSA: Box file - Written Text, Notes, Letters, Memos).

5.83 The public and private pressure eventually paid off, and a note in the *Transactions* of the Hunter Archaeological Society stated:

"The discovery of these authentic remains of the Castle of the Furnivals aroused considerable interest in the city. The ex-Lord Mayor, Alderman J G Graves, made a strong appeal to the Co-operative Society to preserve these remains of the Castle; in this he was supported by the Town Clerk and other leading citizens together with the Committee of this Society. It is very satisfactory indeed to record that the Co-operative Society, with great public spirit, has approved a scheme prepared by its architect, Mr H H Johnson, by which the most interesting portions of the walls will be preserved and has further decided to defray all costs attendant upon this course." (Anon 1929, 255).

- 5.84 Armstrong (1930, 16) stated that "the whole of the upper part of the gatehouse [was] exposed and part of the tower has been preserved in a sub-basement beneath the Co-operative Stores, where they can be seen by those who are interested. Of the remainder, only such portions were pulled down as actually interfered with the plan of the stores"; Armstrong showed the part of the gatehouse and tower which was to be preserved on his Plan no. 2 (see figure 25A). Of the adjacent drawbridge pier, no portion had been destroyed but it was surrounded by concrete and incorporated into the foundation of a steel column (Armstrong 1930, 17). The concreting-in of the pier was noted by Himsworth on the 20th January 1928 (Himsworth 1927-42, 3). He had previously stated (1927-42, 2) that the plinth of the bastion tower and several courses of masonry above had been buried in concrete, and parts also destroyed (1927-42, 3), causing him to write rather despairingly that "Up to the present there has been more destroyed or covered up with concrete than will ever be seen by the public on the site of the new building" (Himsworth 1927-42, 4). Nevertheless, a chamber was created.
- 5.85 It appears at first that there may have been plans to display the structures in a open area of the basement, overlooked from a circulation area leading to the ladies lavatory (MSA: Box file Written text, Notes, Letters & Memos), as this is shown on a photocopy of part of plan dating to this period. However, this was not undertaken; a letter dated 10th December 1927 from the Architect's Department of the Co-operative Society to Armstrong stated that it would not be possible, but that the remains would be preserved in a chamber and "their exact position indicated by means of lines on the floor" (MSA: Box file Written text, Notes, Letters & Memos).
- 5.86 When Himsworth visited the site on 13th and 18th February 1942 to view the chamber after the debris resulting from the wartime bombing had been partly cleared, he found everything in good order with no damage whatever; the chamber was at that time accessed by a flight of steps and an iron ladder (Himsworth 1927-42, 20-21). The chamber surrounding the gate structures was rebuilt during the 1958-61 re-development works when, according to Butcher (MSA: Drawer 6 S8), it was diminished in size; the 1958 design drawing for the chamber still survives

(Sheffield City Council: drawing 1047/69A) (see figure 31). Black and white photographs taken by Butcher (MSA: Box file - Butcher 1976.1064 folder SC2/3) [3/891, 3/892] indicate the extent to which the castle remains were 'diminished'. On the first photograph, the full extent of the gate-structure and the flanking towers are visible, but in the second, a cut has been made right through the western tower to allow the concrete chamber wall to be built. Another near contemporary drawing (Sheffield City Council: drawing 1047/1) has notes stating that the general level of the castle wall was 170ft (51.82m) but that it should be "cut down generally to 169ft (51.51m AOD) or lower locally as required" (see figure 21A).

5.87 As part of the works undertaken for this EDAS report, a visit was made to the chamber housing the remains on the 7th November 2013. Access to the chamber is through an access hatch on the north side of the lowest level of the New Market Hall/Low Block, currently located within the entrance to the disabled toilets [4/327]. When the cover is raised, a metal ladder leads down onto a small raised platform at the south-west corner of the chamber [5/658]. At the time of the visit, the chamber was unlit, with c.0.05m of water standing in the base, although this was not affecting the castle remains. The chamber measures a maximum of 3.57m east-west by 3.84m north-south, and is c.2.65m high. The walls and ceiling [5/654] are of concrete, and a large diameter pipe runs east-west across the south side [5/644, 5/646, 5/651]; the north wall appears to take the form of a concrete beam, built over the castle remains here. The castle remains themselves comprise the gate-structure and part of the plinth of the western tower [5/642, 5/643, 5/645, 5/647, 5/648, 5/650, 5/652, 5/653, 5/655, 5/657] (see plate 48); both have been heavily re-pointed in the past. At either end, there is cement infill at the junction of the castle remains with the east and west walls of the chamber. That at the west end [5/649] clearly relates to the cut through the structure shown on Butcher's photographs, and the presence of cement at the eastern end suggests that a similar process also took place here.

b) The Remains of the Courtyard Buildings

- 5.88 Of the courtyard buildings, Armstrong (1930, 20) wrote "The whole have been preserved intact and enclosed within a chamber constructed beneath the market hall, to which access can be obtained at the rear". Within this chamber, observation holes were constructed in the walls permanently exposing the layers that Armstrong interpreted as being Saxon and associated with the burning of the castle in 1266 (Armstrong 1930, 21); one of the 'crucks' was left in position, and another preserved *ex situ*, although unfortunately much of the associated wattle was removed by souvenir hunters (Armstrong 1930, 22). Himsworth (1927-42, 15) had been shown the preserved parts by the site foreman Loughran on 12th August 1929. When Himsworth visited the site again on 13th and 18th February 1942 to view the chamber, he was very pleased to "find this larger underground chamber or dungeon, with a few more worked pieces of stone than I anticipated, carefully preserved" (Himsworth 1927-42, 20-21).
- 5.89 During the 1958-61 works, the outer face of the brickwork chamber built around the remains of the courtyard buildings was revealed and "from it protruded short extensions of the two walls preserved inside" (Butcher c.1972, 7). Two photographs taken in August 1975 (www.picturesheffield.com, s29251 & s29252; see plate 49) appear to show maintenance work underway; it is noticeable that the collection of ex situ architectural fragments in the foreground of one of the photographs is arranged differently to the current layout. Additionally, it is not certain that all of the fragments shown in 1975 are still present; a collection of small objects placed on top of one of chamfered plinth stones has since been

removed. The SYSMR also holds eight black and white photographs taken of the remains in 1976 (SYSMR - file PI 242); the stone plinth clearly rests on modern brickwork by this date.

- 5.90 In 1994, recording work was undertaken on what remained of the courtyard buildings located in the chamber beneath the north-east part of the original Castle Hill Market building (Latham & Atkinson 1994). The work was commissioned because of their poor condition, principally as a result of damp, neglect and flooding, and in advance of intended renovation. The soil sections referred to by Armstrong and Himsworth were still visible through four inspection alcoves to the west of the west wall, two arched examples at the base of the wall, and two much smaller openings directly above these. At the base of the wall, the section visible within the north viewing alcove consisted of modern building rubble. Within the south viewing alcove, asbestos sheeting had to be removed to reveal what lay behind, and seven separate deposits were recorded, mostly clay but with increasing silt content towards the base. A line of decaying wood fragments were also recorded, as well as a deposit of sandstone rubble. At the bottom right of the section, a wooden beam in an advanced state of decay was presumably the 'cruck' which Armstrong stated had been left in position. The upper north viewing opening contained four clay deposits, one with a significant amount of sandstone rubble and charcoal, equating to Armstrong's late 13th century layer of burning (Latham & Atkinson 1994).
- 5.91 As regards the structural remains, it was noted that the west external elevation was underlain by a modern brick retaining wall, and that much of the north end had been rebuilt in a rather haphazard manner; the same was true of the internal face (see figure 33). The external face of the south wall (interpreted by Armstrong as facing into a passage) survived in the least altered condition of any of the remains, but the internal face was somewhat truncated. Part of the barrel-vault to the northeast of these two walls still survived, and had had a flight of concrete steps constructed into its base. A number of *ex situ* ashlar plinth pieces and a column base were also kept within the chamber, almost certainly those referred to by Himsworth in 1942.
- 5.92 EDAS made a visit to the chamber housing the remains on the 24th October 2013. Access to the chamber is through a locked door at the east end of the North Loading Dock [4/340], and down a flight of steps. At the time of the visit, the chamber was both electrically lit and dry. The chamber has an irregular ground plan, measuring a maximum of c.8.50m east-west by a maximum of c.6.50m north-west/south-east [4/339]. The walls and ceiling are plastered and painted white; the north wall bulges outwards by up to 0.30m in width at the base. The aforementioned photographs taken in 1975 clearly show the north wall of the chamber to be of brick, and to contain at least two blocked arched openings, perhaps with projecting stones beneath. This suggests that the north wall of the chamber is a remnant of an earlier building, presumably one of those shown here on late 19th century maps and pre-dating the construction of the Castle Hill Market building. On the 1975 photograph, the west wall of the chamber is of more regular brickwork and contained several arched openings, used for viewing the soil sections recorded in 1994. These had all been blocked at the time of the October 2013 site visit. The castle remains are much as described in 1994 [4/331 to 4/333] (see plate 50), with little apparent deterioration, although as already noted, the ex situ architectural fragments are much less tidily arranged than they were in 1975 [4/334 to 4/336]. The wooden post beneath the south-west corner of the chamber's concrete floor is assumed to remain in situ, although the viewing glass was too dirty and scratched at the time of the site visit to see it clearly [4/329].

Work by ARCUS 1998-2009

5.93 Between 1998 and 2009, ARCUS (Archaeological Research and Consultancy at the University of Sheffield) undertook a substantial body of valuable work on the site of the castle, prior to then proposed redevelopment. A desk-top assessment undertaken in 1998 (Belford 1998) included an assessment of the archaeological potential of the Castle Market area (see Chapter 6 below). Two phases of evaluation work followed the desk-top assessment.

Trenching on the East Loading Dock: October-November 1999

- 5.94 One piece of evaluation work was undertaken on the market's East Loading Dock (Davies 2000), comprising the excavation of a single east-west aligned trench, measuring 9.0m long by 4.0m wide. This trench was placed to the south of the spiral ramp, and to the immediate east of the original Castle Hill Market building; the position of the trench is indicated on figure 4. Seven phases of activity were identified, of which five were associated with the east ditch or moat of the castle, which was located towards the east end of the trench.
- 5.95 Phase 1 related to the cut of the medieval moat (0053, see figure 34). The line of the east moat as identified in the trench lay further to the east of the line marked on Armstrong's plan, the western edge being set c.5.5m east of the east wall of the original Castle Hill Market building. The east edge of the moat was not located, as this lay outside the limit of the trench, and so it is uncertain how wide the moat is; the maximum width exposed in the excavation was c.3m, and total width at the top was estimated as probably being between 5.5m-7.5m. The upper edge of the moat was set c.2m below the existing ground level (at 48.56m AOD on Davies 2000, illustration 4) and at its deepest extent was excavated to a depth of c.3m below the upper edge (i.e. to 45.56m AOD) (see figure 34). This was not the base of the moat, but coring suggested that this was about a metre lower (i.e. 44.56m AOD). The west side of the moat sloped steeply but unevenly downwards, but it was not possible to establish if the moat had a flat or V-shaped bottom. An interesting aspect of the moat's location was that, although the evaluation trench exposed an area extending back 5m from the moat's western edge, no trace of the castle's curtain wall or other associated structures was located. Although these might have been removed by later development, it is equally possible that there was in fact a gap or berm between this side of the castle and the east moat.
- Phases 2 and 3 comprised the medieval and post-medieval moat fills. The moat 5.96 produced material ranging in date from between the 11th to 13th centuries at the base of the excavation, to the 17th and 18th centuries at the top. Only small amounts of medieval pottery were present, and this was suggested to result from the fact that the moat had been kept largely clear of refuse and debris during this period. All but the lowest deposits investigated were thought to be no earlier than the 17th century, and therefore to post-date the demolition of the castle, but no deposits were uncovered which could be definitely attributed to the demolition of the castle, i.e. containing large quantities of rubble and worked stone. Nevertheless, the fact that it was not possible to identify hiatuses in the depositional sequence in the medieval and post-medieval fills was suggested as possibly resulting from the rapid filling of the moat as part of the demolition of the castle and levelling across the area. Significantly, the moat fills were all dry, with no evidence of waterlogging. The potential for the preservation of environmental remains was assessed by floating three samples from Phase 2 and 3 deposits. These proved to contain very little material and suggested that preservation of environmental remains in the east moat was poor, although it was stressed that

- excavation stopped short of the base of the moat, where preservation may have been better.
- 5.97 Phase 4 was formed by two east-west aligned sections of wall (006 and 0010, perhaps part of the same structure) and a cobbled floor surface (002) (see figure 34). The exact stratigraphic relationship of the wall sections to the uppermost deposits of Phase 3 was unclear, but they were thought most likely to date from the 17th or 18th centuries, with the surfaces possibly associated with some kind of small-scale, rudimentary industrial activity. There was a marked (indeed total) absence of 19th century remains, and it was suggested that these had been removed by extensive 20th century ground levelling associated with the construction of the existing market buildings. Phase 5 represented modern drains and the modern loading bay surfaces.
- 5.98 The results of this evaluation were also summarised in a later ARCUS publication (Davies & Symonds 2002, 2-3).
 - Trenching on the North Loading Dock: November-December 2001
- 5.99 A further piece of work comprised the excavation of two trenches, both in the north loading dock area to the north of the original Castle Hill Market building (Davies & Symonds 2002); see figure 4 for location of trenches.
- 5.100 The first trench (Trench 1) was aligned east-west and located at the east end of the loading dock. It measured 9.20m by 3.30m and was located here to establish whether the courtyard structures recorded by Armstrong in 1927-29, and preserved in the chamber beneath the market, extended into the North Loading Dock area. The east end of the trench contained modern backfill, relating to the construction of the spiral access ramp. However, the west end uncovered substantial remains associated with the castle. The earliest phase (Phase 2.1) formed part of the de Furnival's work (therefore c.1270) and comprised a substantial stone wall (1012) containing a doorway and the remains of steps leading to a cellar (1035), perhaps with a fragmentary associated courtyard surface (see figure 35); this clearly formed part of the same structure as recorded by Armstrong; its base was set at c.52.48m AOD. At a slightly later date, perhaps in the late 13th or early 14th century (Phase 2.2), an external buttress was added to one side of the doorway and it appeared that a new courtyard surface had been laid at the same date. In the 15th or 16th centuries (Phase 2.3), another new courtyard surface was laid. There was then evidence for extensive demolition deposits, some over 1.60m deep, containing occasional fragments of medieval and early post-medieval pottery, ceramic floor tiles, animal bones, window glass and window leads (Phase 3.1). These were post-dated by an early post-demolition structure, probably dating to the late 17th century (Phase 3.2), and then by various surfaces associated with the construction of the loading dock, probably from the late 1920s through to the 1960s (Phase 4).
- 5.101 The second trench (Trench 2) was also aligned east-west, measuring 9.00m by 4.00m, and was located towards the north-west corner of the loading bay in order to examine deposits associated with what may have been the northern extent of the castle, including those reported by Himsworth in 1930 (see figure 35). The earliest layer uncovered was probably undisturbed natural clay, with the earliest archaeological activity represented by two pits (2015 and 2022) at the west end of the trench, probably associated with the construction of the de Lovetot castle in the 12th or early 13th century (Phase 1). The northern pit (2022) was truncated on the north side by the 'precipice', the line marking the former edge of the slope leading down towards Castlegate/the Don. The deposits to the north of this line were

entirely modern, associated with the construction of the concrete retaining wall in 1972. The pit was not the only feature to be truncated, indicating that the plateau area on which the castle was built had once extended further north than the 'precipice'.

5.102 To the west of the pits, the remains of two stone structures were uncovered. The first probably dated to the construction of the de Furnival castle (c.1270) (Phase 2.1) and was interpreted as being part of a small lean-to structure built up against the interior of the castle's north wall (2007); however, because the 'precipice' had been cut back, possibly removing the north wall, it was not possible to confirm this. The top of the first structure was set at an average height of 52.50m AOD, and the base at c.52m AOD. To the west of the first structure, what appeared to be the foundations for a large stone building were uncovered (2017, 2026 and 2003), which had suffered significant disturbance in the past; it may have had a raised internal stone-flagged floor. The top of the foundations were again set at an average height of 52.50m AOD and the base at c.51.50m AOD. The absence of demolition deposits over the castle remains, but the presence of modern deposits directly above them, suggested that the medieval structures had been exposed during 20th century works on the site but had not been recorded. The second, larger, area of foundations aligns almost exactly with the section of wall formerly projecting from the paved slope facing Castlegate (as located by Butcher), although this was set at a slightly lower level, and it is possible that they formed part of the same structure.

Assessment and Project Design: 2002

5.103 Also in 2002, an assessment of the previous excavation and research undertaken at Sheffield Castle between 1927 and 1960 was carried out by ARCUS, in an attempt to secure funding to publish these excavations in full, based on the existing documentary and finds resource (Davies & Wilmott 2002). This assessment gave a summarised account of the previous archaeological works between 1927 and 1960, a summarised account of the documentary resource existing in Sheffield Museum Archives, and a more detailed account of the existing finds, together with a detailed costed project design for undertaking the recommended post-excavation work.

Archive Scoping Review: 2009

5.104 In 2009, an 'Archive Scoping Review' was produced, which included a detailed account of the historical development of the castle (McCoy & Stenton 2009). This document also included the most detailed attempt (to date) to reconstruct the layout of the castle based on the documentary and archaeological evidence. As previously noted, this report was used to summarise the historical background to the site in Chapters 2 and 3 above.

Ground Radar Survey 2013

5.105 In July 2013, as part of the new topographical survey work of the Castle Market commissioned by Sheffield City Council, a geophysical survey was carried out on the North Loading Dock along the north side of the original Castle Hill Market building, and a short section along the west side (Met Geo Environmental 2013). The survey was done using ground penetrating radar, and the two evaluation trenches from the 2002 ARCUS works were clearly identified (see above). In line with Trench 2, along the northern edge of the loading bay, the survey identified an anomaly possibly representing a distinct change in ground composition, while in

6 DISPOSITION AND SURVIVAL OF ARCHAEOLOGICAL DEPOSITS

Introduction

- 6.1 In order to design an evaluation strategy for Sheffield Castle, it is necessary to understand what once existed within the study area, what is known to have survived of that which once existed, and how these surviving parts might have been affected by what has happened to the study area since the castle ceased to be a fully functioning residence and administrative centre.
- 6.2 When considering the castle complex, it should be noted that this EDAS report is defined by a study area which roughly corresponds to the area of the castle's former inner court. It is acknowledged that a proper appreciation, and understanding, of the whole castle also needs to consider its outer bailey, the medieval development of Sheffield, the associated park, and its role as an administrative centre of the various de Lovetot or Furnival estates, tasks which are outside this present project.
- In addition, when considering any assessment of the archaeological potential of the castle site, an important decision has to be made as to at what point archaeological deposits stopped being created and began to be removed, as any deposits laid down before the present day could be considered to be part of the development of the study area. Therefore, for the purposes of this report, the year 1927 has been chosen, which is when the modern construction works about which there is detailed information commenced. After this date, any development works are considered to have removed archaeological deposits, rather then having created them. Finally, whereas heights AOD have already been given in both imperial and metric units in the preceding chapters, they are only given in metric below.

Summary of the Distribution, Date and Form of Archaeological Deposits and Structures within the Study Area observed between c.1868 and 2013

For ease of description, the following discussion has been grouped by area, rather than chronologically, and commences at the south-east corner, with the gate-structure and bastion towers, and then progresses around the main castle structure in a clockwise direction. Figure 36 provides a drawing showing the observed archaeology within the EDAS study area, with appropriate identifiers, while figures 37 and 38 provide the same in relation to the modern and historic (pre-development) mapping.

The South-East Corner

6.5 The principal entrance to the castle (at least in its later phases) appears to have been located at the south-east corner, and took the form of a pair of semi-circular bastion towers flanking a gatehouse. According to Armstrong, the western bastion tower had a radius of 6.10m, rose from a from a double-chamfered ashlar plinth, and was faced with tooled ashlar (see figure 25). The ashlar plinth was backed by solid flat-bedded rubble, extending back at least 3.66m from the face of the plinth, suggesting that it was the base of the tower which had been exposed. The bastion towers have been interpreted as being part of the 1270 castle of Thomas de Furnival. The gatehouse or gateway between the bastion towers had once been recessed, but had subsequently been brought forward (perhaps during the 14th century) so that it projected slightly beyond the towers. The gatehouse also had a double-chamfered ashlar plinth, but the main body was described as being built of

- 'roughly chiselled masonry'; the top of the plinth at the north-west corner was set at 51.46m AOD, and the uppermost surviving parts may have risen to 52.04m AOD. The gatehouse was approached by a drawbridge, and the drawbridge pier stood 4.88m to the south-east; the surviving top of the pier was set at 47.92m AOD.
- A chamber was created around part of the gate-structures in the late 1920s, and it survived the Second World War bombing intact. The chamber was rebuilt during the 1958-61 re-development works (see figure 31), and made smaller; those parts of the gate-structures lying outside the chamber appear to have been reduced to 51.51m AOD in height. The remains of the eastern bastion tower were recognised by Butcher during the 1958-61 works, and the drawbridge 'pier' was re-interpreted as being a solid structure as wide as the gatehouse, projecting from the south side of the moat (see figure 27A). A later wall had been built across the moat between the gate and drawbridge structures, which overlay one of the stakes found within the moat (see below).
- 6.7 To the south of the gate structures, in Exchange Street, the outline of a subsidiary ditch was observed by Armstrong, who interpreted it either as an outwork or perhaps associated with the castle's mid 17th century siege. Butcher was later able to define the line of the subsidiary ditch more completely (see figures 27A-B), noting that it was truncated to less than a metre in depth and suggested that it was more likely to be an earlier, long-lived, feature rather than a Civil War one. An alternative possibility was that it may have been a feeder from the river Sheaf for the moat.

The East Moat

- The east moat was initially thought to be shallower and narrower than the south moat (see below), with the northward route of Castle Folds Lane marking the centre of the ditch's former alignment. The line of the ditch was observed by both Armstrong and Himsworth to the rear of the Rotherham House Hotel, at the south end of Castle Folds Lane, but when the west side of the lane was dug out, very little in the way of structural remains associated with the castle was observed. Butcher's observations suggested that the centre of the east moat lay to the east of Castle Hill Market (i.e. further to the east than Castle Folds Lane) and where the base was 'proved', it was found to be set at 43.89m AOD.
- 6.9 Butcher speculated firstly that there must have been a stepped transition between the south and east moat, and secondly that there must have been a dam where the east moat met the river Don (or possibly the Sheaf) in order to retain water within it (assuming that it was retained). Excavation by ARCUS in 1999 to the east of Castle Hill Market identified the western edge of the moat cut, some 5.50m to the east of the market building. This was slightly further east again than the general line proposed by Armstrong, but this difference may be attributable to weathering, as Butcher had suggested for the south moat (see below).
- 6.10 The maximum width of moat exposed in the ARCUS excavation was c.3m, and total width at the top was estimated as being between 5.5m-7.5m. The upper edge of the moat was set at 48.56m and at its deepest extent was excavated to a depth of c.45.56m AOD; although coring suggested that the base might lie at 44.56m AOD. The fills of the moat produced 11th to the 13th century material in the base, with 17th and 18th century material in the upper parts; the small amount of medieval pottery was suggested to result from the moat having been kept largely clear of refuse and debris during this period. No deposits which could definitely be attributed to the demolition of the castle were identified, although the lack of hiatus

in the depositional sequence in the medieval and post-medieval fills was suggested as possibly resulting from the rapid filling of the moat as part of the demolition of the castle and subsequent levelling across the area. No traces of the castle's curtain wall or other associated structures were located and, although these might have been removed by later development, it is possible that there was a berm between the castle's east side and the east moat. However, some structures relating to possible 17th or 18th century small-scale industrial activity were recovered. Nineteenth century material was completely absent, perhaps suggesting they were removed during ground levelling associated with the construction of the Castle Hill Market building.

The East Castle Range

- Moving to the north-east, between 1928-29 Armstrong recorded what he 6.11 interpreted as being part of the castle's eastern range, comprising buildings fronting onto the courtyard (see figure 25A). The south end of these buildings was marked by what appeared to be a passage running across the range; the remains rose from a double-chamfered ashlar plinth on the west side, being built of hammer-dressed stone above. The walls were 1.60m thick, and the north part appeared to comprise a barrel vaulted chamber or cellar, perhaps approached through a narrow passage at the south-west end. Masons' marks on the courtyard plinth were noted to be of the same form as those seen on the plinth of the bastion tower, and this, together with the general form of the masonry, led Armstrong to conclude that these ruins also formed a part of Thomas de Furnival's 1270 castle. The bottom of the base course of the structure was set at 53.04m AOD, the top of the plinth on the western side at 53.69m AOD, and an apparently associated courtyard level almost at the same height as the top of the plinth. Some 19.50m to the south-east, the single base of a stone pier or column was also found. suggested by Armstrong to be of 13th century date or earlier, perhaps forming part of the chapel or great hall, although no information was given as to the relative height at which it was discovered. Himsworth thought that the base was ex situ, and contemporary photographs support this.
- 6.12 Close to the west side of the main structural remains described above, Armstrong associated a layer of burning set at 53.04m AOD, and up to 0.30m thick, with the castle that was destroyed in 1266. Below this layer, at 52.13m AOD and 1.50m west of the stone remains, Armstrong discovered what he interpreted as the remains of a Saxon building, measuring at least 7m long (north-west/south-east), with large oak timbers resting on stone pads once having defined bays and an internal floor of wattle sandwiched between clay. The base of the stone pads was set at 51.51m AOD. It is noticeable that this building was set parallel to the larger stone structure to the east. Some 15.24m to the south of the timber building, possible further traces of a similar floor were observed, with a possible shallow pool between the two; no heights were given for these. The main stone structures were preserved in a chamber beneath the new Castle Hill Market building.
- 6.13 In 2001, ARCUS excavated a trench to the north of the east end of the Castle Hill Market building. Substantial stone structures were uncovered in the west end of the trench. The earliest phase formed part of the 1270 castle, and comprised a substantial stone wall containing a doorway, forming part of the same structure described above and recorded by Armstrong, and now preserved in a chamber. The base of the wall was set at 52.48m AOD, some 0.50m lower than the structure recorded by Armstrong. New courtyard surfaces were laid down at least twice before the 16th century, and the whole was overlain by up to 1.60m depth of demolition deposits, containing occasional fragments of medieval and early post-

medieval pottery, ceramic floor tiles, animal bones, window glass and window leads. These were post-dated by an early post-demolition structure, probably dating to the late 17th century.

The North Castle Range

- 6.14 Various observations were made by Himsworth along the north side of the castle, mainly during the construction of Castlegate. On the line of Castlegate itself, a line of worked stone foundations were discovered 8.84m east of the south-east corner of Lady's Bridge (see figure 26); the top of the foundations were set at 45.87m AOD, and they supported a rubble masonry wall at the west end, which extended west for an unknown distance. Himsworth estimated that at the north-east corner, the 'extreme edge' of the castle had been set about 10m back from the east end of the brick retaining wall formerly marking the south side of Chandlers Row. The corner of the level area had been pushed out perhaps as late as the 17th or 18th century by dumping (up to 1.80m deep) reinforced by timber beams laid horizontally.
- 6.15 Himsworth recorded several different sections of stonework which were exposed in the north-facing slope created along the south side of Castlegate (see figure 26); there are also unattributed photographs of the same, but it is difficult to link the two. Measuring from the east end of the brick retaining wall formerly marking the south side of Chandlers Row, set 15.20m and 30.50m to the west, two buttress-like sections of stonework were exposed, each c.1.10m wide, 1.50m south of the retaining wall and set at 53.65m AOD. At another time, he saw masonry parallel to the river Don, set 2.75m back from the brick retaining wall, and set at c.53m AOD. This was interpreted as being the inner wall of a tower, as at one end there was a return towards the Don. To the west, in line with the western back door of the Castle Hill Market, a second masonry wall, 3.95m long, was thought to be the corner of a square building; the top was set at 54.26m AOD.
- 6.16 Himsworth interpreted what he saw along the north-facing slope as being the remnants of four towers overlooking the Don, with the largest at the north-west corner. One of the walls was located on a profile of the north-facing slope, and had a base set at 52.29m AOD. Himsworth also produced a section of the north-facing slope, but unfortunately there are no reduced levels on this, making interpretation difficult. For example, the section was 5.49m high and he placed 'Ashes 1266 at the base', which presumably means the level thought to be associated with the destruction of the castle at that date. If the top of the section was taken to be the general ground level to the north of the Castle Hill Market building (around 54.86m), then this would place the 'Ashes 1266' level at 49.36m AOD, some 3.64m lower than the layer to the south associated by Armstrong with the same event.
- 6.17 In 1972, a single piece of masonry remained projecting from the paved slope on the south side of Castlegate. A location plan made by Butcher showed the masonry to have the same shallow north-east/south-west alignment as the east range structures, and apparently to have returned to the north at its west end; it was almost certainly one of those seen previously by Himsworth. When the paving was removed from the slope, a second alignment of wall, about 6.70m long, was recorded by Pauline Beswick. This wall was apparently located between 13.11m and 20.72m to the west of the north-west corner of a new concrete retaining wall, and its upper limit was set at about 52.42m. Beneath the wall, there was a 0.50m deep layer of black soil, charcoal and wood, which overlay a clay subsoil. Above the wall, only modern debris was observed. The masonry which formerly projected

from the paved slope is believed to have collapsed during the construction of the concrete retaining wall which replaced the slope.

6.18 In 2001, ARCUS excavated a trench close to the 1972 concrete retaining wall to the north of the Castle Hill Market building. The lowest deposit was probably undisturbed natural clay (at 51.97m AOD), with the earliest archaeological activity represented by two pits at the west end of the trench, probably associated with the construction of the de Lovetot castle in the 12th or early 13th century. One of the pits was truncated on the north side by the line marking the former edge of the slope leading down towards Castlegate; the deposits to the north of this line were entirely modern. To the west of the pits, the remains of two stone structures were uncovered. The first probably dated to the construction of the de Furnival castle (c.1270) and was interpreted as being part of a small lean-to structure built up against the interior of the castle's north wall; the base was set at c.52m AOD. To the west of the first structure were the possible foundations of a large stone building; these lay very close to, and were possibly once part of the same structure as the wall formerly projecting from the paved slope. The base of the foundations was set at 51.50m AOD. The absence of demolition deposits over these remains, but the presence of modern deposits directly above them, suggested that they had been exposed at least once before during the 20th century but had not been recorded; this suggestion is almost certainly supported by the observations that Himsworth made of several walls in this general area.

The West Castle Range

6.19 In the north-west corner of the site, a shaft sunk in 1868, probably close to the Bull and Mouth public house, encountered three walls, one 3.66m wide and suggested to be an outer wall; the plinth level of these walls was placed at c.48.76m AOD. This is significantly lower than the chamfered plinths recorded elsewhere on the excavated castle structures, but if the observed structure was set on a slope above the Don, then a plinth could have been placed at a lower level. The substantial width of the widest wall suggests that it belonged to a tower, rather than a section of curtain wall, perhaps supporting Himsworth's observation that the largest tower on the north side of the castle had been placed at the north-west corner. Furthermore, Himsworth judged, by the exposure of yellow boulder clay, that for some considerable period of time the highest point on the north side of the castle site had been about 2m east of the west end of the brick retaining wall formerly marking the south side of Chandlers Row, and that this corner had only been pushed out a little to the north by later dumping. The high ground had been cut through by the retaining wall, but Himsworth estimated that it was set at 54.86m AOD. According to Armstrong, the north-west corner of the castle's 'glacis' had been revealed behind the Bull and Mouth public house.

The West Moat

Along the west side of the site, Armstrong noted that few traces of the castle structure or west ditch were revealed prior to 1930 when Waingate was widened, although during the construction of cellars for the buildings fronting the widened street, a 'considerable depth of black sludge' was observed in places. This was also stated by Himsworth. Butcher recorded that there was a stepped transition between the south end of the west moat and the south moat proper (see figure 27A). The moat then continued north, nearly parallel to Waingate as far as the southern boundary of Foster's premises, where less than half its width lay under the then street. The west moat had a simple 'Y' profile or section, with vertical walls or faces rising from the moat floor and then breaking back to a slope at

ground level. The base of the moat was set at 43.89m AOD, the same level as the river Don. The onward course of the west moat beyond Foster's premises was less certain, but it may have had a junction with the Don to the east of Lady's Bridge. A dam some 6.10m high would have been required at the junction with the Don in order to maintain a single and effective depth of water throughout the moat.

The South Castle Range

6.21 There are few traces of the castle's south range. A possible junction of a fragment of the south curtain wall was observed by Butcher with the western gate tower, set at a right angle to the tower footings but bonded to them (see figure 27A). Beneath the south-west corner of the Castle Hill market building, a fragment of rubble backing seen by Armstrong at about 52.12m AOD was also suggested by Butcher as being a possible surviving remnant of the south curtain wall. However, the location was well to the north of the south moat's northern edge, perhaps indicating that either it was actually an internal part of the south range or that there was a wide gap here between the castle and the moat, as was perhaps also the case with the east moat.

The South Moat

- 6.22 The south moat is arguably the best investigated part of the castle complex, but even here many questions remain regarding chronology and stratigraphy. According to Armstrong, the base of the moat was set at about 45.64m AOD close to the gate structures, with the lowest 2.13m cut through solid rock. The lower 3.96m of the fill was formed by a black sludge containing pottery, animal bones, wood and leather. There was an abundance of brushwood in the upper part of the black sludge, and the sludge itself was separated in some areas by a brown peat deposit, which Armstrong took as evidence showing that the water level in the ditch had been raised during the 16th century. The lower fill was overlain by demolition rubble. There was apparently little evidence that the moat ditch had ever been recut or cleaned out.
- During the 1958-61 redevelopment, the alignment of the south moat as indicated 6.23 by Armstrong was broadly confirmed by Butcher, although weathering had caused the upper parts to adopt an increasingly irregular edge, leading to differences between Armstrong and Butcher as to precisely where it lay. However, Armstrong's standard cross-section and depth were found to be incorrect, with the profile exhibiting some variety. A simple 'Y' profile or section to the moat appeared to have been the original intention, with vertical walls or faces rising from the moat floor and then breaking back to a slope at ground level; this may have been the result of local solid geology, the lower near vertical faces being cut through hard sandstone or compacted mudstones, with a slope adopted where the change to a more friable shale occurred. This change occurred at a height of 51.21m AOD close to the gate structure, but was slightly higher at the south-west corner. On average, the base of the moat was set at 47.85m AOD, but adjacent to the drawbridge structure it fell to 46.33m AOD. The original width of the moat estimated by Butcher varied quite markedly depending from where he observed the outer edges, the difference between the two edges being caused by truncation resulting from later activity. Although it was stated by Armstrong that the south moat was 'deeper' than the east or west moats, this is a confusing statement; it appears to have had a greater total depth, but its base was actually set substantially higher than that of the east or west moats (see below).

Regarding the fills, Butcher was of the opinion that some 4.50m of evidence had been removed by development, so that the surviving uppermost fills represented the lower limit of the demolition material; this included much tooled ashlar, moulded and chamfered stone, and a complete section of wall facing. The demolition deposits overlay accumulations of blue-black organic mud (Armstrong's 'black sludge'), containing many plant remains; there was a great deal of variation in lateral persistence and thickness in these layers, and also much interleaving due to tipping from many directions. Some of Armstrong's 'stakes' were re-interpreted as revetting, the apparent spike or taper of one larger stake being created by the rotting of the wood, rather than deliberate shaping. Some stakes were re-used, as they contained mortices, and in at least one location they were supplemented by oak boards, also seemingly functioning as revetting.

The Central Area and post-Castle occupation

- 6.25 It is striking that the majority of archaeological information recovered about the castle deals with what must have been the outer areas of the complex and the moat. This is principally because the central area, located beneath the Castle Hill Market building, was not closely observed during the initial construction period, and it has never been rebuilt on since. Consequently, little can be stated about this area with any confidence. The same is true for the archaeology of the post-mid 17th century occupation of the castle area, for which there is also limited information.
- 6.26 In 1928, Armstrong informed Himsworth that in one (unidentified) pile excavation he had seen nine 'occupation levels' in a c.3m depth beneath the floor of the Cooperative Stores, the lowest level being associated with the 1270 castle. If the floor referred to was the basement (set at 52.77m AOD) then the 'occupation levels' would have stretched down to 49.77m AOD, whereas the courtyard level, which Armstrong associated with the suggested 1270 castle fragment in the east range, lay at 53.69m AOD, significantly different. Armstrong further noted that across the Co-operative Stores site, the average depth of 'made ground', including demolition rubble but mostly 18th and 19th century material, extended to 52m, and he indicated on his published Plan no. 1 that layers associated with the courtyard of the castle had been encountered across the Castle Hill Market site (see figure 25A). Himsworth reported that undisturbed virgin yellow boulder clay was encountered at a depth of around 52.73m AOD right in the centre of the Castle Hill Market building site. He also apparently noted the remains of three doorways, one larger and two smaller ones, somewhere within the Castle Hill Market building site. but it is not clear where. The medieval courtyard levels referred to by Armstrong in relation to the suggested 1270 castle fragment were exposed for some distance to the south, according to Butcher, as well in the service area to the west of the Castle Hill Market building.
- 6.27 Butcher additionally made reference to the 'early occupation level on the original natural surface', although his statements are sometimes contradictory. Traces of what Armstrong had interpreted as being the 'Saxon' level were intersected between the north-east corner of Castle Hill Market and Castlegate during the excavation of the spiral ramp, including a shallow pit containing 'wattle-work' or 'hurdle work' cut into natural clay. Limited temporary excavations close to the Bull and Mouth public house in the north-west corner of the site recorded a similar pit. Both of these pits were proved to extend upwards from the approximate level of Castlegate (49.68m AOD) but their upper limit (i.e. from where they were cut) was not seen. According to Butcher, a narrow curving ditch was encountered in the 'same horizon' in the service yard to the west of the market, although this 'horizon'

must have been significantly higher in this location. Finally, two further ditches intersected near the junction of Waingate and Exchange Street might have represented much deeper ditches of the same occupation period.

Summary of Interventions Likely to Have Damaged Archaeological Deposits

6.28 The various foundation plans, historic maps and archive material have been examined and collated to produce a composite drawing showing the areas of previous developments which are likely to have damaged underlying archaeological deposits; this information is presented as figure 39. From these, and the various levels obtained or extrapolated from these sources combined with the modern topographical surveys, two sections can be drawn across the site, one aligned east-west (Section B) and one aligned north-south (Section 2) (see figure 40); as noted in Chapter 1, these identifiers have been retained from the modern topographical survey data to allow for ease of comparison.

Pre-20th Century Development

- 6.29 Although, as stated in the introduction to this chapter, a cut-off date of 1927 has been assumed for when archaeological deposits ceased to be laid down, and when they began to be removed, activity on and around the castle site would clearly have influenced the survival of archaeological deposits for hundreds of years before this.
- 6.30 The earliest deposits on the castle site, be they pre-medieval, early medieval or associated with the 12th century castle (including its destruction), would clearly have been affected by the works associated with the construction of the de Furnival castle after 1270. These works would have taken two main forms the levelling of the earlier remains and the possible raising of the ground surface to provide a base for the new structures, and the cutting into earlier deposits to provide either footings or basements for the new structures. A third possibility is that parts of the earlier castle were incorporated into the newer complex, whilst the overall form of the earlier castle is highly likely to have influenced how the complex developed over time.
- 6.31 From August 1644, the standing structures of the castle and associated earthworks such as the moat began to degrade. This was firstly due to direct military action and the need for defence against it; principally the damage caused by artillery bombardment, and an earthen and timber fort being raised, probably to the immediate south of the gatehouse. Secondly, apparently from early 1648 onwards, the castle began to be dismantled under the terms of orders passed in April 1646 and July 1647. The dismantled structures included the hall and parts of the curtain wall. Archaeological evidence (see Chapter 5 above) indicates that substantial quantities of material were simply pushed into the moat, which may have been largely backfilled during the same period. The dismantling work continued until November 1648, when the castle was bought back by Henry Howard, Earl of Arundel and Surrey, and there were clearly still substantial parts still standing at this time. Further works were recommended in May 1649, although these were more in the nature of modifications to the standing parts rather than further dismantling, and they do not seem to have been acted upon. Further material appears to have been removed from the castle site in the later 17th century, and in 1706 the Duke of Norfolk gave orders for the 'mansion house' within the castle site to be demolished, with the land being sold off for redevelopment. It is likely that much stone from the castle found its way into buildings erected from the early 18th century onwards, and there are several

recorded instances, both documentary and photographic, of probable re-used castle stone still being visible into the early 20th century.

6.32 It is possible that further levelling took place as part of re-development from the early 18th century onwards, both reducing and increasing heights locally in order to create the landform required. For example, the large bowling green shown occupying the central area of the castle site on mid to later 18th century maps (see figures 6 and 7) would presumably have required some landscaping works to create the necessary flat playing surface. It is also highly likely that many of the new buildings, particularly those fronting Waingate and Castle Folds (see figure 8), would have contained cellars, although the detailed distribution of these is presently uncertain. The construction of the slaughterhouses along the north and north-east sides of the site in the late 18th century radically altered the topography here (see figure 11), and it also appears that at least the northern half of Castle Folds Lane (as it developed after c.1800) was cut through existing topography. rather than respecting it. The construction and operation of the Castle Hill Steel Works and the Phoenix Works from the early 19th century (see also figure 11) is also likely to have had a significant impact on earlier archaeological deposits, and again it appears that at least one of the furnaces incorporated re-used castle stone. By overlying historic map coverage with the known archaeological remains of the castle, it has been possible to begin to understand the impact of 19th century development. For example, on the late 19th and early 20th century map coverage, one of the yards in the north-east part of the castle site contains a large circular feature (see figure 38). When this feature is overlain on the surviving parts of the castle, it can be seen to be placed almost exactly between the different parts of the same structure separately recorded by Armstrong and ARCUS, suggesting that it has at least partly destroyed what used to run between them.

20th Century Development: pre 1950s

6.33 Prior to the start of construction of the Co-operative Stores in 1927, the topography of the study area can be summarised as follows (see figure 13). The central area (around Castle Hill) was formed by a relatively level plateau, set at 54.86m AOD. although there was probably considerable local variation within rear yards, for example. This plateau extended south and south-west towards Exchange Street and Waingate. At the south end of Waingate, at the junction with Exchange Street, the road surface was set at 57.27m AOD, falling to 53.19m AOD at the junction with Castle Hill and 50.20m AOD where it neared the Don. The 18th century slaughterhouses along the north side of the study area, were grouped around two parallel lanes, Shambles Lane (also called The Shambles) and Chandlers Row. The surface of Chandlers Row was set at 50.60m AOD, and the surface of Shambles Lane to the north was set at 48.77m AOD: the east end of Chandlers Row dipped quite steeply towards its junction with Castle Folds Lane. Castle Folds Lane ran broadly north-south through the study area to the east of centre, and sloped down from south to north. An unnamed narrow curving alley left the east side of Castle Folds Lane, and ran north-east towards a flattened area adjacent to what had been the west side of the river Sheaf. The level of this flattened area is estimated by Butcher to have been set at c.45.72m AOD, although plans made in association with the construction of the Sheaf culvert to the north of Exchange Street would place the ground surface immediately to the west of the Sheaf at between 50.25m-51.92m AOD. Prior to being culverted, the water level of the Sheaf immediately to the north of Exchange Street was at 45.69m AOD, falling to 43.46m AOD where it neared the Don after passing over the weir. The culverting of the Sheaf to the north of Exchange Street took place between 1915-16. As part of the culverting operation, the existing line of the river was diverted to the east; at the south end, the diversion was minimal, but to the north the culverted river was positioned some 16.75m east of its original line. It is assumed that the gap between the open and culverted courses of the river was infilled with rubble, soil and other fill material. The total width of the culvert (including the side walls at the base) was 15.85m, and there may have been a cut of at least 1.50m wide to either side in order to accommodate the construction.

- 6.34 The first work to take place as part of the redevelopment of the study area after 1927 was the building of the Co-operative Stores, towards the south side of the study area. The stores were located on the new Exchange Street frontage which, like that of Waingate, was moved back (north) from its pre-1927 position. The Stores had a broadly rectangular plan, and initially comprised only a single storey building above ground but it was later (in 1936) raised to three storeys. Foundation trenches were excavated for all four walls, with an extension at the north-west corner that presumably linked to either services or drains (see figure 17); the trench for the north wall is believed to have been cut deeper to the rear of the Rotherham House public house, but exact depths are uncertain. The foundation trench for the north wall was essentially a single east-west line, but the other three wall trenches were interrupted by at regular centres by pits for internal stanchions. The surface of the store's basement floor was set at 52.77m AOD, with the formation level (i.e. the level from which the foundation pits were cut) being c.52.20m AOD. There were 40 pits in all, arranged in four east-west rows of ten; the southernmost row coincided with the south wall foundation trench. The pits in the northernmost and southernmost rows were generally either 1.83m or 2.13m square, whereas those forming the two central rows were generally 2.74m square. In terms of the final excavated depths given on a presumed 1927 plan (see figure 17A), the northernmost row of pits generally decreased in depth from west to east, from 50.23m AOD to 51.14m AOD. In contrast, the north central row of shafts increased in depth from west to east, from 52.20m AOD to 48.40m AOD. The south central row of shafts decreased in depth from west to east, from almost 48.40m AOD to 50.53m AOD, while the southernmost row of shafts increased only slightly from 51.45m AOD in the west to 51.06m in the east. However, these values are contradicted on a plan dating from the 1958-61 works, which also included some of the earlier foundations, which gives the maximum depth of some of the pits within the south moat line as being 46.25m AOD (see figure 21A). There were apparently further foundations to the west and north-west, where the Co-operative Stores curved around onto Waingate, with a maximum reduced depth of between c.46m.00 AOD and 48.46m AOD.
- According to one source, shortly before 1939, a new rear access was created to the north side of the Co-operative Stores' basement, with a yard set at 51.51m AOD. The store then received a direct hit from a German bomb on 12th/13th December 1940 and was largely destroyed; adjacent property on Waingate to the south-west was also damaged, but is not known to what extent (or indeed if) any of the bomb explosions cratered the ground surface.
- 6.36 Construction of the Castle Hill Market by Sheffield Corporation started in 1928, and the market was opened on 25th April 1930. The construction of the Market was accompanied by redevelopment along the widened Waingate frontage, including the rebuilding of the Bull and Mouth public house. Existing old buildings on the site were demolished, and it was reported that the level of the site varied considerably, with a fall of 5.49m to Castle Folds Lane. The market building itself was subrectangular in plan, measuring 63.70m east-west by 44.20m north-south (see figure 18). It is not known to what depth the foundation trenches for the external walls were excavated. The main foundations within the building's footprint formed

a grid pattern of concrete piles supporting the cast-iron columns. There were 28 columns in all, arranged in four east-west rows of seven, each concrete pile being 1.22m square. Along the east external side of the market, there was a row of reinforced concrete columns, again set on concrete piles 1.22m square. The finished depth of the piles is again not known, but some were described as being as much as 7.62m deep. The floor level of the market was placed at 55.78m AOD, but the formation level may have been lower, at 54.86m AOD. These levels would therefore give a maximum excavated depth for the piles as either 48.16m AOD or 47.24m AOD, although it is possible that the deeper piles were actually at the very eastern edge of the site and laid out over the former Castle Folds Lane. However, another source shows some of the piles to be much shallower, reaching only 52.73m AOD. The twin vehicle and pedestrian entrances from Waingate were flanked by a heating chamber and fuel store to the north, and apparently more plant rooms to the south, although no finished depths are given for these areas.

- 6.37 Reference is sometimes made to a 'tunnel' running along the south wall of the market, or the north wall of the Co-operative Stores, but it is not clear what this refers too. In some cases, it is said to have been constructed during the 1930s, which might suggest either a heating duct or even an air-raid shelter, if it dated from the late 1930s. Alternatively, there are also references from the 1860s onwards to a much deeper rock-cut tunnel encountered in various locations beneath the study area, perhaps relating to former mine workings.
- 6.38 The construction of Castlegate along the north side of the study area had a radical effect on the local topography, involving the demolition of buildings along both Shambles Lane and Chandlers Row, and the cutting back of the ground surface to their south. Castlegate was constructed to a width of 18.29m, with the surface of the road set at 49.68m AOD, although modern surveys show that it now falls from 49.80m AOD to 48.50m AOD from west to east. A new retaining wall was built to the Don along the north side of Castlegate. Aerial photographic and map evidence indicates that after the redevelopment, to the north-west of the market, the ground level dropped off markedly to a number of properties on Waingate including the Bull and Mouth public house. To the immediate east of the market building, the ground level also fell away significantly. The area nearest Castlegate had been levelled to form a car park, but to the south, there was a piece of rough ground which sloped upwards towards the truncated remnant of the alley between the Market Tavern and Mudfords Building. It is not certain if this rough ground was formed by ground untouched by the 1927-30 works, or if in fact it comprised spoil resulting from these works that was heaped up here. Further east, a wide street marked the course of the culverted river Sheaf, and then there was a further small block of buildings at the Exchange Street/Castlegate junction. A number of other surviving buildings within the study area (including the former Bull and Mouth public house, the former Alexandra Hotel, the former South Yorkshire Passenger Transport Office, Mudfords Building and the former Castle Tavern) date to the late 1920s and early 1930s development works, but information about their structural form and the depth of any footings is limited.

20th Century Development: post 1950s

6.39 Following the destruction of the Co-operative Stores through enemy action in December 1940, and damage to adjacent properties to the south-west on Waingate, the area lay derelict until 1958, although some clearance was obviously undertaken; the single exception to this appears to have been the property formerly belonging to Messrs Foster's in Waingate, which was re-built before 1958. There was also some bomb damage to the Sheaf culvert, with a number of ribs having to

be replaced and a new slab made over. In 1958, the footprint of the former Cooperative Stores was still occupied by a mass of 'blitz debris', which was removed to the former basement level of the earlier building (52.77m AOD), as a preliminary to the reconstruction of the area to form the new Castle Markets (see figure 20). As part of this new scheme, the 1930 Castle Hill Market building was retained. The former site of the Co-operative Stores was occupied by a new multi-storey block (the New Market Block); the floor level of the lower market was set at 51.99m AOD, some 0.78m lower than the basement of the Co-operative Stores. Beyond this, there was a five storey block (the Low Block) with basement and sub-basement, facing Exchange Street; this basement floor level was set at approximately the same level as that of the new building to the north, with a sub-basement (a service duct) set at 50.42m AOD. To the west of the 1930 Castle Hill Market building, an eight storey block (the High Block) was built, with a concrete tower rising above the southern end; a duct area below the lowest floor of the High Block was set at 51.21m AOD.

- 6.40 All parts of the 1958-61 development are assumed to have been based around reinforced concrete frames, supported by piles or foundations. Within the New Market Hall and Low Block, there were seven east-west lines of foundations, varying in size and depth according to the organisation of the upper floors above (see figure 21A). The largest, along the south side of the building, measured 1.98m by 2.89m, the pads being 0.62m deep. Various levels are marked on the drawing, the lowest being 49.44m AOD, although it is not clear if this represents the top or bottom of the pad. Beneath the access passage or subway which runs along the south and west sides of the basement of the New Market Hall and Low Block, there is a concrete ventilation/heating duct, with an offshoot running to plant positioned to the south of the subway. This duct takes the form of a concrete tunnel or passage, 1.57m deep and up to c.3m wide, with its base set at 50.41m AOD. Within the High Block, there were two north-south aligned lines of foundations, each line being of six pads, and all broadly of the same dimensions (see figure 21A). Each pad measured 2.44m square and was 0.91m deep; the lowest level given on a pad is 50.44m AOD, but again it is not clear of this represents the top or the bottom of the pad. Along part of the redevelopment fronting Waingate (presumably within the High Block), column foundations located within the moat were piled and not excavated, while the foundation for the ventilation tower of the High Block was excavated to a depth of 43.89m AOD. Excavations were also made for supports for inserted beams under the south walls of the original Castle Hill Market and the adjacent 'Styring' property, for sewers and ventilation ducts, and a large crane on a 'peninsula of unexcavated ground'. The Castle Hill Market building was retained, and appears to have been largely unaltered, although comparison between aerial photographs taken in the 1930s and the 1960s suggests that the southernmost bay of the market (that originally next to the Co-operative Stores) was rebuilt across the entire east-west length of the market.
- As part of the same scheme of works, the East Loading Dock was created to the immediate east of the original Castle Hill Market building (see figure 22). Two new service roads were constructed to access the loading dock, one at the north-west corner and the other at the south-east corner. Also at the north end, the foundations for the supports of an elevated or spiral ramp were laid, although the ramp itself was not to be built until later. Both the ramp, and the area of the loading dock to the south, were to have 'piled foundations' only but their depths are unknown. The surface of the loading dock was set at 51.19m AOD on the east side but this rose to 51.74m AOD towards the north. The level of the yard where the spiral ramp was to be built was 48.54m AOD. Modern surveys give heights for

the same area as being similar, but it is possible that they have been slightly altered locally due to either resurfacing or minor levelling activity. It also appears that the sloping area of rough ground occupying the south of this area on the 1930s aerial photograph had its northern and eastern edges cut back to form vertical sections.

- 6.42 An extension to the new Castle Market was completed in 1964, in the angle between High Block and the west end of the original Castle Hill Market (see figure 23). The foundations for this extension were formed by six east-west lines, grouped in three pairs across the north, central and south areas of the building. No reduced heights are given on the surviving plans, but a central north-south pipe duct below the lowest floor level of the building was set at 50.60m AOD.
- 6.43 The spiral loading ramp noted above was built at some point between 1961 and 1971. To the immediate east of this ramp, the former Sheffield Transport canteen building was erected during the same period. The ground floor level of the canteen building appears to have been set at the same level as Castlegate, but it is set below the level of the southern part of the area to the east of the East Loading Dock. To the south of the spiral ramp, is the Sheffield Transport canteen storage area. The entrance to this is from beneath the south side of the spiral ramp, and its base is again set at approximately the same level as Castlegate.
- By 1972, the paving covering the steep north-facing slope to Castlegate was in poor condition and actively collapsing towards the bus shelters located here. The slope was subsequently replaced by a vertical concrete retaining wall, set forwards (north) from the top of the paved slope, the top of which had been set approximately on the same line as the former rear of the properties on Chandlers Row.
- There have been several other changes to the study area in the period up to the present day, but these are not always well documented. To the immediate north of the Phase 5 extension to the Castle Market, there is another building, formerly a carpet and furniture warehouse, of 1970s rather than 1960s appearance; it is not known if it has a basement or what form its foundations take. A single storey brick toilet block was built at the north-west corner of the Castle Hill Market building during the 1980s. Piles were driven into the ground for an unknown depth and then capped to form a foundation for the horizontal concrete beams supporting the structure's walls. During the 1990s, a modern concrete floor in the Castle Hill Market building was taken up, revealing the original terrazzo beneath. In a few places, the terrazzo was taken up as well, and this revealed intermittent voids up to c.1.50m in depth beneath.
- 6.46 It should also be remembered that, although records are made, the act of archaeological excavation also removes archaeological deposits. Photographs taken during the late 1920s and the 1958-61 works show that large quantities of material were removed around the gate-structure and bastion towers at the southwest corner of the castle. The same removal of deposits will also apply to more recent archaeological excavations, although these were obviously conducted to a shallower depth.

The Form, Layout and Development of Sheffield Castle

6.47 Given the aims and objectives of the EDAS project (see Chapter 1 above), specifically the development of an evaluation strategy for testing and confirming both the identified areas of archaeological interest and the areas of

assumed/expected poor preservation, it is obviously important to give consideration to what the castle looked like and how it was laid out.

Previous Attempts at Reconstruction

- There have been several attempts to reconstruct the appearance of the castle, in the form of paintings and drawings. For example, a colour reconstruction of the castle in its landscape setting was made by Kenneth Steel in 1950 [2/687, 2/690, 2/691], and, in January of the same year, a black and white reconstruction drawing by Martin Davenport appeared in the Sheffield Telegraph (MSA: Box file Newspaper clippings) (see figure 41). Other examples are illustrated on the website of The Friends of Sheffield Castle, while there is also an undated and unattributed model of the castle held in Museums Sheffield Archive [2/696 to 2/698]. Whilst these paintings and drawings form an important part of the cultural history of the castle during the 20th century, the following section of text concentrates on those reconstructions which have developed from archaeological excavations, as these are more relevant to any evaluation strategy.
- 6.49 The earliest attempt at a reconstruction of the castle layout including the information uncovered by Armstrong, as well as that from documentary evidence, was made in November 1930 by F E Pearce-Edward (see figure 41). This reconstruction had a pentagonal plan, with the principal entrance at the south-east corner, comprising a gatehouse flanked by circular towers, approached by a drawbridge from the 'New Bridge' on the opposite side of the moat. Once through the gatehouse, there was a separate Lower Ward, with stables to the east side (accommodated in an undercroft in the position where Armstrong though the chapel may have been) and a sentry house on the south side. Passing through the Lower Ward, the Inner Courtyard was entered. This had the 'Square Tower' on the east side, represented by the courtyard structures uncovered by Armstrong, with the principal apartments, including the hall and chapel, along the north side; the walls here were suggested to have risen directly from the river Don, the apartments having views of the countryside beyond. The kitchens and other offices were along the south side, with the 'Round Tower' at the south-west corner. The west side projected outwards towards the centre to form a shallow V-shape in plan, and the southern half formed the 'New Buildings on the S. W. Part'. The south side of the castle did not run parallel to the south moat but diverged from it towards the west. The east moat ran immediately below the castle's east side, and was shown as narrower than the west moat, which ran beneath, and curved slightly to the west of, Waingate (MSA: Box file - Written Text, Notes, Letters, Memos).
- 6.50 Himsworth wrote to Armstrong in November 1930 to comment on Pearce-Edward's reconstruction. He noted that it was incorrect in that it showed the principal apartments on the north side running parallel to the existing Castlegate retaining wall, whereas during the construction works Himsworth had observed that all structures uncovered here were parallel with the general alignment of the gate and courtyard structures. He was also sure that the ditch along the west side of the castle, to the east of Waingate, had bounded the castle here and that it must have been dry, but that the south moat could have been wet and supplied by a stream running under the north side of High Street (MSA: Box File A L Armstrong Archive 1995.85).
- 6.51 Typescript notes by J Edward Vickers dating to 1972 (copy in SYSMR file PI 242) include a sketch reconstruction of the castle plan, very similar to Davenport's earlier drawing. In this, the castle has an irregular quadrangular plan, with the main gate, flanked by round towers, at the south-east corner. There is a round

tower also at the south-west corner, a keep at the north-west corner, and further buildings along the inner north side and north-east angle. The yard is shown divided into an inner court and outer courtyard. Copies of undated and unattributed handwritten notes held by the SYSMR (file PI 242) suggest that the site generally attributed to the castle cannot be correct as it is too small to represent the entire structure as indicated by documentary sources. A reconstruction drawing accompanying these notes shows some sort of subtriangular bastion or enclosure on the market site, with the main (and much larger) castle to the west, extending almost as far as the parish church. This appears to be the only instance of such an arrangement being suggested.

6.52 The most recent attempt to reconstruct the layout of the castle based on documentary and archaeological evidence was produced as part of an Archive Scoping Review in 2009 (McCoy & Stenton 2009, figures 1 to 3) (see figure 5). The castle stood on a plateau, the area contained by the outer walls being c.75m. square. There was a steep slope known as the 'precipice' to the north, sloping down towards the Don, with less steep slopes to the east, west and south down towards the moat. The moat had a broadly U-shaped plan, the west moat meeting the Don and the east moat meeting the confluence of the Don and Sheaf; both moats had dams or other structures where they met the rivers in order to control the water level within them. The castle's outer bailey stretched away for some distance to the south, possibly defined on the east side by a steep slope down to the Sheaf. A Civil War fort was positioned immediately outside the principal entrance at the castle's south-east corner, surrounded by a palisaded ditch. perhaps only on the west side. The principal entrance to the caste was at the south-east corner, accessed over a drawbridge. The castle itself had a broadly quadrangular layout around a cobbled courtyard. The 'limestone tower' stood at the south-west corner, with the 'great tower' at the north-west corner and the 'old tower' at the north-east corner, possibly the former keep. Ranges ran between the corner towers.

The Form, Layout and Development of the Castle

The Pre-Conquest Landscape

- 6.53 Although the presence of the castle dominated the study area for almost 500 years, it needs to be appreciated that the study area forms only a small part of the wider landscape of Sheffield, and that the earliest castle is unlikely to have been set down upon an undeveloped landscape. As McCoy and Stenton (2009, 6) have noted, the elevated location and defensibilty of the natural sandstone outcrop on which the castle stood, together with the confluence of the two rivers, makes it a potential focus for early occupation. Unfortunately, at present, there is little evidence for the appearance and use of this landscape within the study area, at least partly because of the area's extensive 20th century development. The prehistoric and Roman finds recovered from the castle excavations by Armstrong are now lost, almost certainly destroyed when the Co-operative Stores were bombed in 1940.
- 6.54 Evidence for pre-Conquest settlement is at present also elusive. McCoy and Stenton (2009, 6-7) have summarised the problems with associating the Domesday 'aula' of Earl Waltheof with the site of Sheffield Castle, stating that although Waltheof would have possessed the status and economic power to carry out such an undertaking, there is no unambiguous evidence to link him with the site. It appears quite probable that what Armstrong interpreted as 'Saxon' pottery could actually have been late 11th or 12th century in date, whilst his identification

of a 'Saxon' timber building within the castle area has also been challenged. Armstrong described the large oak timbers of the building as 'crutches' or 'crucks', set into the ground and resting on stone pads (Armstrong 1930, 21-25). The use of the term 'cruck' implies a specific form of construction, using paired timbers which are usually (but not always) curved and which often continue down to ground level (Grenville 1997, 57). Assuming that Armstrong meant the term in this way, then as McCoy and Stenton (2009, 6-7) point out, this would be a very early date for such a structure, the earliest dendrochronologically-dated examples belonging to the mid 13th century (Nevell 2010, 9). There is little in the surviving photographs and drawings to suggest that the timbers were curved, nor were any of them proved to exist in pairs. Furthermore, Armstrong noted that a horizontal beam ran between two of the 'crucks'; this might be interpreted as an interrupted sill between two posts, although evidence for a wall beneath was lacking. Finally, it must surely be significant that the timber structure ran parallel to, and only c.1.50m to the west of, the possible late 13th century stone structure (see figure 25). Does it therefore represent an element of the earlier castle complex, the existing layout of which partly influenced the orientation of later structures? Alternatively, and notwithstanding the evidence for burning and differences at depth, might the timber structure actually take its orientation from the stone structure, and be much later than has previously been suggested - for example, the remnant of a pentice-like structure built up against a stone wall?

6.55 Armstrong's 'Saxon' structure is not the only feature which has been discovered that has been suggested to have an 'early' date, although again, firm dating for these other features is lacking. Butcher recorded four curving or sub-circular pits and ditches which contained 'wattle-work' or brushwood, cut into what he interpreted as the original surface of the natural, and interpreted them as representing an early occupation. These pits or ditches were fairly evenly distributed around the study area, and also in relation to what is known of the later plan of the castle. In the north-east part, one was recorded in a vertical section south of the spiral loading ramp; this would have placed it close to the probable northward continuation of the east moat to the Don. To the north-west, there were apparently two, one close to the east of the former Bull and Mouth public house, and another slightly further south west of the Castle Hill Market building; these both lay well within the probable northward continuation of the western moat. To the south-west, the final example was located close to the junction of Exchange Street and Waingate, beyond the area enclosed by the south moat. If these features were indeed the remains of early occupation, then the fact that they continue beyond the moat may indicate that the area of early occupation was larger than that later occupied by the castle's inner court. It is also possible that they may be related to the 'thick bed of peaty material' that Armstrong observed within the south-east part of the area enclosed by the moat.

Post-Conquest to 1270

6.56 McCoy and Stenton (2009, 6-7 & 8-9) argue that, as with the immediate pre-Conquest period, there is little unambiguous evidence to suggest that Earl Waltheof built a castle on his own lands at Sheffield, as the majority of the land that he and his wife Judith held lay outside South Yorkshire. The first known explicit reference to a castle at Sheffield dates to 1183-84, although this may well reflect the more complete survival of royal as opposed to baronial documentation. The castle is most likely to have been built by either William de Lovetot, his son Richard, or his grandson William de Lovetot, at some point between the early to the later 12th century.

- 6.57 The form of the earliest castle remains obscure with, for example, no direct evidence for either a motte and bailey or ringwork layout (McCoy & Stenton 2009, 8-9). In its earliest phase, the castle is likely to have been wholly of earth and timber construction, also making use of the defensive possibilities afforded by the natural outcrop above the confluence of the Don and the Sheaf. Had a motte been present, then it might arguably have been situated at the north-west corner of the complex, where Himsworth estimated (based on the exposure of natural deposits) that the highest point on the north side of the castle had been. It is assumed that the moat is contemporary with the earliest phase of the castle, and would therefore have played a pivotal part in defining the boundaries which shaped the complex's later development; the position of the moat is discussed more fully in detail below.
- 6.58 The castle complex may well have been provided with an outer bailey, and one might also speculate to what extent any associated settlement was laid out at the same time. The 1183-84 reference noted above may indicate that monies were being spent on walling, although it could also indicate enclosure by a fence or ditch, or perhaps even a stone wall around the top of a motte. There is no archaeological evidence that can currently be definitely attributed to the earliest phase of the castle. As has already been noted, both Butcher and Armstrong recorded features that could be 'early' and which might have formed part of a 12th century complex, but this is not certain. In 2001, ARCUS recorded two pits at the west end of a trench located close to the Castlegate retaining wall that were suggested to be associated with the construction of the earliest castle.
- Sheffield Castle was damaged extensively by fire in 1184-85, and McCoy and Stenton (2009, 9-10) suggest that the material which Armstrong interpreted as being the remains of a pre-Conquest centre that was burnt down in the 11th century could actually have resulted from levelling activity following the late 12th century fire. This layer of burning/destruction was not only found by Armstrong, and one might argue that the lower level of charcoal and wood observed by Beswick along Castlegate in 1972 had a similar origin. The extent to which the castle had to be rebuilt following the fire is uncertain, but the sum of money spent (£66) was substantial.
- 6.60 McCoy and Stenton (2009, 13) also speculated as to whether the early castle had been provided with a stone keep, possibly located on an earlier motte, but noted that there were no known documentary references to such, although the 'Great Tower' recorded in 1442 could perhaps have been a keep re-used within the later complex. As has already been described above, the motte may have been located at either the north-east or north-west corner of the complex. In this respect, it is interesting to note that in 1868, several walls, including one of very substantial width, were encountered to the east of the Bull and Mouth public house in the north-west part of the site, and that Himsworth observed that the largest tower on the north side of the castle had been placed at the north-west corner. Following the examples of other castles built at Tickhill in 1178-9 or Conisborough between c.1180-90, both in South Yorkshire (Ryder 1982, 90-93), and indeed elsewhere in England (Hulme 2007-08, 209-229), could this have been the remains of a later 12th century keep? McCoy and Stenton (2009, 11) further suggest that a late 12th century Pipe Roll entry indicates that a gatehouse was also present by this period, which was probably located close to the later gatehouse at the south-east corner recorded by Armstrong and Butcher.

- As an aid to understanding this period of the castle's history, a new, tentative and schematic interpretation of the inner court has been produced (see figure 42).
- 6.62 By the early 13th century, control of Sheffield had passed from the de Lovetot family and descended through the female line to the de Furnival family. Thomas de Furnival supported the royalist cause during the Second Barons' War and as a consequence the town and castle were burned in 1266. The extent of the damage to the castle is unknown, and it is unclear where the seignurial family were living in the immediate aftermath. Thomas de Furnival did not seek to replace the castle until four years later, when he sought a royal licence to crenellate from Henry III. The text of the licence, granted on 25th July 1270, contains the phrase that 'he may build a stone castle (castrum lapideum) and fortify and crenellate it' (McCoy & Stenton 2009, 11-12). It has been suggested (Belford 1998) that the new works were not solely confined to the castle, and that much of the associated settlement was also rebuilt.
- 6.63 As has already been outlined above, it is highly unlikely that the castle would have remained an entirely earth and timber structure from the mid to late 12th century until 1270, and therefore existing stone structures may well have been incorporated into the re-modelled complex. Both of the large stone fragments that were recorded by Armstrong in the 1920s have generally been assumed to belong to the late 13th century remodelling or later, and this seems reasonable. The original form of the gate structures at the south-east corner, namely a recessed gate set between a pair of semi-circular flanking towers, is of a form commonly seen from the late 13th century onwards, although there are earlier, mid 13th century examples, as at Rockingham in Northamptonshire (Allen Brown 1954, 68-73). The flanking towers would most likely be flat-faced to the rear, with the drawbridge and portcullis mechanisms housed within, and perhaps also residential apartments to the upper floors. The fact that the gate structures, the drawbridge pier to the south-east and the other large castle fragment at the north-east part of the complex all have the same masons' marks suggests that they are contemporary, and form part of the same scheme of works (McCoy & Stenton 2009, 14).
- 6.64 It is immediately noticeable that all of these structures share a common shallow north-east/south-west or north-west/south-east alignment (see figure 36). This same alignment is also evident within the smaller fragments of stone structures along the northern edge of the castle site; this was commented on by Himsworth, who pointed out the error in the alignment of the northern range on Pearce-Edward's reconstruction. The fact that the two largest structures forming part of this general alignment are probably later 13th century in date could indicate a more general remodelling of the castle's layout at this time, although it is not possible to say if this was partly influenced by an earlier layout.
- A previous reconstruction (McCoy & Stenton 2009; see figure 5) showed the north range to form a shallow outward angle to the centre, based on the plan form of a wall depicted here on later 18th century mapping (Belford 1998), but the surviving structures, and Himsworth's comments, may in fact suggest that the orientation of the whole north range was actually north-east/south-west. If this was the case, then it would have implications for the survival of the north-eastern part of the castle complex, as it may have been significantly truncated first by the construction of Chandlers Row/Shambles Lane and then by Castlegate. The same may also be true of the castle's east range. Again, if it continued the general alignment of the

known fragments, then it may have been truncated by Castle Folds Lane, McCov and Stenton's reconstruction depicts the central part of the east range to run approximately north-south. Later 18th century maps (Belford 1998) show a thick, north-south aligned wall to the south-east of the bowling green (see figures 7 and 8), and it seems quite likely that this did represent a remnant of the castle's east range. It is difficult to relate this wall to the later route of Castle Folds Lane, but it may have lain just above the lane's west side; if it did, then the survival of so much stone in the lane's west side (see above) may be significant. The former position of the castle's south and west ranges are more difficult to assess, as there is so little evidence for them, although they must have lain within the line of the moat. The fragment of masonry recorded by Butcher (but no longer visible) appears to have had a shallow north-west/south-east alignment, and was also set back some distance from the moat edge (although still roughly parallel to it), suggesting that it may have been the internal wall of the range facing into the courtyard. Pearce-Edward showed the south end of the west range to have a similar alignment on his reconstruction (see figure 41), and thought that it comprised the 'new buildings on the S.W. part' described in 1633 (see below). On later 18th century maps (Belford 1998) a very short section of 'Castle Wall' was again marked in the same area, a short distance to the east.

- 6.66 If all of the above is taken together, and it is of course not certain that the orientations suggested for the castle's different ranges are all contemporary, then one might suggest (at least by the later medieval period) a broadly quadrangular layout, with total external dimensions of c.70m in both directions (see figure 42). The area enclosed by the moat (see below) was somewhat larger, c.75m northeast/south-west and as much as c.85m in the opposite direction, giving a total area of c.0.64 hectares or approximately just over 1½ acres. This is slightly smaller than the inner court/bailey areas of both Conisborough and Tickhill, and perhaps slightly closer to that seen at Bolsover (Constable, in Davies & Symonds 2002, 16-17), although the assumed dimensions of the castle's broadly quadrangular layout compare well with the inner courts of later 14th century Yorkshire castles such as Bolton, Sheriff Hutton and Wressle.
- 6.67 The 1½ acres enclosed by the moat is somewhat less than the four acres given by Harrison in 1637, and this is explained by his survey including both the 'Inward Court' and the 'outward Court Yard or fould'. The latter must therefore have been somewhat larger than the inner court in area, and quite clearly contained numerous buildings, from Harrison's information. He gives no indication that it was defined either by a wall or a ditch, although it is tempting to interpret the 'hedge' mentioned in the 1440s as located below the castle wall, possibly on the western side (Thomas 1920, 70-72; McCoy & Stenton 2009, 16), as some form of boundary relating to the outer bailey. Looking at 18th century maps of Sheffield, particularly Gosling's 1736 map (see figure 7 and McCoy & Stenton 2009, figure 2), it is equally tempting to place the 'outward Court Yard' as the area defined by Shude Hill to the east and the Beast Market to the west, with a curved southern end, and then to go on to equate this to a much earlier outer bailey, with its own attendant gatehouse/gatehouses. While a consideration of the presence and form of an outer bailey lies beyond the scope of this EDAS report, it is directly relevant to the south-east part of the study area. The subsidiary ditch in Exchange Street observed by Armstrong and Butcher (see figures 27A-B) would have projected onto the outer bailey. If Armstrong was correct, and it related to the Civil War siege, then it could indicate that the outer bailey was effectively abandoned and additional defences created directly outside the castle itself. If Butcher was correct, and it was an earlier feature, then it could indicate medieval sub-division

- within the outer bailey. The presence of an outer bailey may also have influenced whether the south moat was wet or dry (see below).
- 6.68 The disposition of the various structures mentioned in late medieval and postmedieval documentary evidence around the ranges of the inner court has already been attempted (McCoy & Stenton 2009) (see figure 5). In the absence of known locations, it is often difficult to place the structures with any accuracy, and therefore only a summary is given below; furthermore, it is unlikely that the structures mentioned in documentary sources all existed contemporaneously, even in the latter stages of the castle's life. As has already been described above, the principal entrance to the inner court lay at the south-east corner, and was equipped with a drawbridge; it is most probably this entrance that was referred to as the 'Great Gate' in the 1440s (McCoy & Stenton 2009, 16). Archaeological evidence suggests that the central part of the gate structure was brought forward during the 14th century, most probably to protect the drawbridge mechanism. In 1633, a coachway was created to the gate house (McCoy & Stenton 2009, 18) and this may have partly survived into the later 18th century as the lane at the south-east corner of Castle Hill shown on maps of this date (Belford 1998) (see figure 8).
- McCoy and Stenton (2009, 13-14) suggest that the castle's hall may have been located towards the northern end of the east range, and to be partly represented by the substantial structure partially excavated here by Armstrong and later by ARCUS. However, in his reconstruction, Pearce-Edward placed the hall in the north range (MSA: Box file Written Text, Notes, Letters, Memos) (see figure 41), and this is an equally likely, or even more probable, location. A 'porch going into the hall' is described in 1560, and one wonders if this was in fact a protruding structure housing a staircase used to reach a hall located on the first floor; the porch itself might have been reached by the stone and cinder path running from the gate to the hall during the 15th century (Thomas 1920, 71; McCoy & Stenton 2009, 16-17). The castle chapel would be expected to stand in reasonable proximity to the hall, and Pearce-Edward also marked this in the north range. It is thought unlikely that the large circular column recorded by Armstrong at the south end of the east range was an *in situ* structural remnant of the chapel.
- Continuing with the north range, it seems possible that the 'Great Tower', recorded 6.70 in 1442, was placed at the range's west end, and this might even have incorporated the remains of a late 12th century tower keep. According to Himsworth, there may have been as many as three other, smaller, towers to the north range. If the hall and chapel were located in the north range, as Pearce-Edward suggested, then one might have expected the camera abstracta or 'withdrawing room of the earl' recorded during the 1440s (Thomas 1920, 71; McCoy & Stenton 2009, 13) to have been there also. A chapel in the north range would additionally allow the 'old tower', recorded next to the chapel in 1445-46 (McCoy & Stenton 2009, 16), to be located here; could this be one of the other three towers referred to by Himsworth? A bakehouse may have stood to the south of the Great Tower (Thomas 1920, 70-72; McCoy & Stenton 2009, 16), and therefore perhaps have been located in the west range. This could indicate that the kitchens were located here also, rather than in the south range as suggested by Armstrong and Pearce-Edward. The south range may instead have been partly given over to the apartment of the castellan, recorded at the castle in 1571; it also appears to have been buttressed (McCoy & Stenton 2009, 17, 22-23). Little is known about the east range, although McCoy and Stenton (2009, 20-21), based on 17th century evidence, suggest that there was a tower placed towards the centre. A round tower is noted in January 1648 in documentation relating to dismantling, but it is not known where this was located (McCoy & Stenton 2009, 21-22). Other

- parts of the castle were substantially modified during the early 17th century, including the provision of a 'new building' that appears to have been located in the south-west part of the inner court (McCoy & Stenton 2009, 18).
- 6.71 As has already been noted, it is assumed that the castle was encircled by a moat from its earliest phases and, given that little evidence has been uncovered to date to indicate re-cutting, that the known route of the moat broadly reflects this earliest layout. The course of the southern moat is well-defined but the western and eastern moats are less so, although their alignments can be approximately suggested. The unnamed curving lane or passage shown on later 18th century to c.1900 maps appears to follow or at least relate to the line of the outer edge of the eastern moat (see figure 38). If the line of this lane is projected to the north, the moat would then curve around quite markedly to the north-west, running towards a junction with the Don rather than the Sheaf. The Civil War siege description makes it clear that there was a dam with a sluice to the moat on the east side of the castle, but not exactly where this was in relation to the Sheaf or the Don. It may be that the east moat did curve steeply around to the north-west, to meet the steep slope (the 'precipice' of later 18th century maps) but that this was essentially a blind or dead end, with a junction with the Sheaf set more towards the centre; if the west bank of the Sheaf had once been set further to the west, then this would have been easier to achieve. The western ditch or moat almost certainly did have a junction with the Don at its north end, again with a dam and sluice present, the remains of which were possibly discovered during the construction of Castlegate (see figure 26).
- 6.72 It is not certain to what extent the moats were wet or dry during the life of the castle. Excavation has demonstrated that the upper edge of the east moat was set at 48.56m AOD, and the base at about 44.56m AOD, giving a total depth of around 4m. The total width at the top has been estimated as up to 7.50m. However, Butcher located the east side of the moat base in this same area in 1958-61 and, taken together with the ARCUS information, it seems that a width of c.10m was more likely. The base of the west moat was set at almost the same level as the east moat; the upper edge has not been proved, nor the width, but both might be assumed to be similar to the east moat. The base of the south moat was set on average at 47.85m AOD, nearly 3m higher than those of the east or west moats. It had vertical sides which rose nearly 3.40m from the base (to 51.21m AOD), and then splayed outwards. The original upper limit of the south moat, and therefore its upper width, has not been proved, but Butcher estimated that it could have been between 9m and 15m in its central part.
- 6.73 A number of issues are raised by the differences seen in the depth of the moat and in the height of their bases. Firstly, Armstrong's statement that the south moat was 'deeper' than the other two is confusing. It is quite likely to have had a greater total depth, and to have been a more substantial feature, but its base was set much higher. The courtyard level of the inner court in the later medieval period appears to have been set broadly at 53m AOD, and the upper edge of the south moat could easily have been similar. By contrast, the upper edges of the east and west moats may have been set almost 4.50m lower than the courtyard. This implies that either there was a downward slope from the east and west sides of the castle complex towards the inner edges of the east and west moats, or perhaps the bases of the external walls of these ranges were battered to meet the moat. The difference in height between the bases of the east/west and the south moats presumably led Butcher to suggest that dams c.6m in height would be needed at the point where the east and west moats met the Don/Sheaf in order to maintain a depth of water throughout the moat. However, if the south moat was dry (and in 1644 only the

east and west moats are described as containing deep water) then the dams would not need to be anywhere near as high. The difference in the relative heights of the east/west and the south moats (and whether they were wet or dry) may well be explained by their positioning. The east and west moats formed external barriers between the castle and the outside world, whereas the south moat separated the inner court or bailey from the outer court or bailey; it was therefore an internal barrier performing a different function. As such, perhaps there was perceived to be no need for it to be flooded and/or so deep.

1600 to 1700

6.74 Contemporary documentary evidence suggests that a strong earth and timber fort was positioned before the drawbridge at the south-east corner of the castle complex, outside the moat, during the 1644 Civil War siege. The castle structure was damaged by cannon fire, particularly along the east side and in the vicinity of the gate structures at the south-east corner (McCoy & Stenton 2009, 20-21). Dismantling to make the castle untenable commenced probably late on in 1647 and was underway by January 1648; the removed material included roofing slates, flagstones and timber. The curtain wall facing the Don was probably demolished in February 1648, the hall in March of the same year, and the walls adjacent to the gate structures at the same time. However, the demolition works were far from complete even in January 1649, and further recommendations for demolition at this date were not acted upon. The final phase of dismantling may not have commenced until after 1706 (McCoy & Stenton 2009, 22-23).

Previous Attempts to Quantify Survival of Archaeological Deposits

Butcher 1970

- 6.75 The earliest attempt to quantify where, and to what extent, archaeological deposits may have survived across the Castle Hill area appears to have been made by Leslie Butcher in 1970, and is set out in a Department of Planning and Architecture internal memorandum dated 3rd April of that year (copy in SYSMR file PI 242); also MSA: Drawer 6 S8). Butcher divided the Castle Hill area into a number of different areas, either by letter or number prefixes (see figure 43).
- 6.76 Area 'A', which included the original Co-operative Stores and the High and Low Blocks of 1958-61, was said to have been "closely observed & recorded 1958 onwards". Area 'B' comprised 'The Gallery', the area of private development on the south side of Exchange Street, where observation and recording had noted that "almost all below-ground evidence destroyed C19 during construction of Norfolk Market Hall basement". Area '1' represented the North Loading Dock area and access road to the immediate north of the original Castle Hill Market building, which was thought to be of greater archaeological importance than Area '2' (see below) due to the possible early or pre-medieval ditch/circular hollows discovered at the east and west ends of the area; in this same area, it was thought desirable that the authenticity of the stub of supposed castle wall projecting from the sloping paving on the south side of Castlegate was established. Area '2' comprised the original Castle Hill Market building where it was noted that "The stanchion bases sunk in 1929 were not fully recorded by the excavator & it is not known with certainty whether any intercepted masonry other than at 'X""; Butcher felt it not unreasonable to expect further surviving masonry in the south-east part of Area '2'. Area '3' represented that part of Exchange Street immediately to the south of the Low Block, together with a short return at the east end encompassing the Rotherham House public house; it was thought that a tower referred to in late

medieval/early post-medieval documentation might lie in the area of the public house, and that beneath Exchange Street there may be non-masonry elements such as earthworks and a palisade. Area '4' comprised the north-west part of Castle Hill, including the Bull and Mouth public house; Butcher suggested that there might be the remains of the Chapel of Our Lady of the Bridge here, and that observations might also resolve the relationship between the western moat and the river Sheaf. The plan accompanying the memorandum also marks Areas '5' to '7' but no reference is made to these in the descriptive text.

Belford 1998

- 6.77 As part of his 1998 desk-based assessment, Belford considered the archaeological potential of the Castle Hill area (Belford 1998, 22-26). A total of four areas of varying potential were identified (see figure 43), the EDAS study area being split roughly equally between Area 1 (Castle Market) and Area 2 (Exchange Street and 'The Setts Market').
- 6.78 The potential of the western area (Area 1) was defined as follows:

"The potential over this area is predominantly low, with areas of extremely high potential where deposits have remained unchanged by previous ground disturbance during the construction of the market and other buildings. Where foundation walls or piles are not present, the archaeology will be in an excellent state of preservation. The upper 2.0m or so will comprise walls and demolition rubble from post-medieval phases. This will overly up to 1.50m of demolition rubble from the Castle, which in turn will rest on top of the remains of the stone Castle itself. These will comprise stone walls and other features, possibly upstanding to a height in excess of 2.0m. Armstrong noted a burnt horizon which he interpreted as the remains of the first Norman castle, below this were the remains of wooden structures of the eleventh century. Further archaeological remains may be present below these levels. Timber is likely to be well-preserved both within and outside the Castle ditch, thus providing an extremely rare opportunity for the collection of dendrochronological data sets from the twelfth century onwards. Leather and other organics will also be in a good state of preservation; furthermore environmental evidence (pollen, insects and other microflora and fauna) could be retrieved from the Castle ditch beneath Waingate and the River Don beneath Castlegate. This area includes the location of the earliest settlement at the confluence of the rivers, and is therefore of considerable importance." (Belford 1998, 32-33).

6.79 The potential of the eastern area (Area 2) was defined as follows:

"This area offers relatively high potential for the recovery of archaeological remains. The very western edge of this area incorporates the eastern defences of the Castle, including the 'dry' ditch noted by Armstrong. Although truncated by the addition of buildings to the Castle Market in the mid-twentieth century, considerable deposits are likely to survive, particularly those at a lower level. Of significance here is the determination of the relationship between the Castle Hill, the Castle defences, the River Sheaf and any earlier settlement. This area includes the confluence of the Rivers Don and Sheaf, together with a sizeable length of the former River. Post-medieval development on the eastern side of the Sheaf will also fall within this area, and the potential for recovery of stratified archaeological deposits is excellent from below the modern surface of Exchange Street and Castlegate, and the modern 'Setts' market. The 'Canal Bridge' probably survives intact beneath Exchange Street, and the potential is good for the investigation of this feature." (Belford 1998, 33).

Davies and Symonds 2002

6.80 Following the second of two ARCUS evaluations, a more detailed assessment of the archaeological potential of the castle area was made (Davies & Symonds 2002, 19-22), as follows:

"Lower loading bay [East Loading Dock]

The trial trench excavated in this area in 1999 (Davies 2000) identified the presence of the moat on the east side of the castle. The moat survived to a depth of at least 4m. A detailed assessment of this area was provided in an earlier report (Davies and Symonds 2000). The main points of this report can be summarised as follows:

- the moat is likely to contain well preserved and undisturbed deposits;
- east of the moat between the moat and the river no known archaeological remains are known, but the best potential lies south of the South Yorkshire Passenger Transport Authority Building;
- along the line of the River Sheaf potential is low as this area was disturbed by the construction of the river culvert;
- the area to the east of the River Sheaf is considered to have low potential as this was outside the medieval town;
- although no structural remains were found to the west of the moat, within the castle this area could contain significant archaeological remains;
- in the area of the Mudford building and Market Tavern potential is variable, the rear half of the Market Tavern is not cellared and has the potential to contain deposits or structures relating to any activity immediately outside the main castle gateway.

Upper loading bay [North Loading Dock]

Prior to the current evaluation this was the least well-known part of the site archaeologically. Neither Armstrong (1930) or Butcher (unpublished) did much work in this area. Himsworth (unpublished) records seeing some features in this area, but did not describe them in detail. Himsworth and Butcher noted the presence of a section of stonework located on the 'precipice' towards the western end of the upper loading bay. The evaluation has added immensely to our knowledge of this area. The two trial trenches have enabled substantial stone structural remains to be identified. The following points can be made regarding the archaeological potential for this area:

- substantial and well-preserved structural remains of the castle survive;
- in situ medieval deposits have been identified containing artefacts from the castle;
- the construction of the spiral ramp disturbed the archaeological remains at the east end of the upper loading bay resulting in a low archaeological potential in this area;
- cellars for shops at the western end of the upper loading bay will have badly damaged or destroyed the archaeological potential of this area;
- some of the archaeological remains are only 1m below the current ground surface.
 These can extend down to up to 4m below the current ground surface.

1930s Market Hall

The area covered by the original 1930s Market building lies at the heart of the castle site. Remains of the castle have been identified in three corners of this area. Part of the castle gateway lies in the south east corner of the Castle Market. The second surviving exposed section of castle stonework lies in the north east corner of the Castle Market. A third piece of stonework was identified by Butcher in the south west corner of the market, but this is now covered over. The following points can be made regarding the archaeological potential for this area:

- structural stone remains are known to survive beneath the market building;
- Armstrong (1930) identified courtyard levels in pile pits during the markets hall construction;
- the present market building was constructed at a higher level than the castle possibly by up to 2m in some areas;
- the current market building is not likely to have extensive foundations being a single story building;
- although this area has not been archaeologically investigated since the 1930s the archaeological potential would appear to be good for the survival of structural and depositional remains of the castle.

Castle Market 1950s building

This area lies to the south of the 1930s market hall and has been subject to the most extensive and detailed archaeological work over the years. This extension to the market has a basement at a lower level than the 1930s market hall. Within this area lie remains of

the castle gateway and a small section of this is visible in a small cellar below the floor. The remains of a stone drawbridge pier lie south east of the castle gateway. Most of the 1950s market building lies over the moat of the castle. The following points can be made regarding the archaeological potential for this area:

- substantial stonework from the castle gateway survives in the north east corner of this area:
- Armstrong's and Butcher's work has shown that the moat contained well preserved waterlogged deposits, however it is not known if the deposits are still waterlogged;
- over the years the construction of the Co-op and the 1950s Market Hall has resulted in numerous pile holes being cut through the moat and its fills. This will have resulted in the disturbance and removal of much of the fills;
- moat deposits will survive, but it is unclear how extensive these are:
- in general the potential for this area is mixed, there will be areas with high potential, but it is uncertain how extensive these are and whether they are isolated or not.

Additions along Waingate

During the 1960s/1970s additions were made to the markets complex along Waingate. These additions extended down to the same depth as the 1950s building, being lower in depth than the 1930s Market Hall. No archaeological record was made of this area when construction work took place. The main conclusions regarding the archaeological potential of this area are:

- the extensions along Waingate overlie the moat;
- the degree of damage done to the deposits within the moat is not known, but was probably extensive;
- the foundations for the buildings along Waingate are likely to have truncated the archaeology and resulted in numerous pile holes being dug through the archaeology;
- the archaeological potential of this area is probably mixed, much of it will be poor, but some patches of well preserved archaeology could survive as isolated blocks."

Other

6.81 A study, titled 'Prospectus for Excavating and Presenting Sheffield's Lost Castle' (Waddington 2009) was undertaken in 2009, but dealt largely with how the remains of the castle might be displayed, rather than the archaeological potential of the site.

7 OUTLINE EVALUATION STRATEGY

Introduction

- 7.1 Guided by the earlier assessments of archaeological potential (see above), and informed by the detailed collation of existing records, historic maps, modern surveys and archive material, a new assessment of archaeological potential can be made for the Sheffield Castle site, in order to assist with the preparation of an archaeological evaluation strategy. For this purpose, the areas of previous developments and disturbance can be combined with the known and recorded archaeology to produce a composite plan to indicate where archaeological deposits are likely to survive within the EDAS study area (see figure 44). This information can then be used to divide the EDAS study area into a number of different zones, within which the degree of archaeological potential can be estimated, in terms of high, medium and low potential (see figure 45). In order to inform and direct the subsequent archaeological evaluation strategy, a number of specific questions have also been raised for each zone.
- 7.2 As noted at the start of Chapter 6 above, the date of 1927 has been chosen as the date at which archaeological deposits stopped being created and began to be removed, i.e. when the modern construction works across the site commenced. After this date, development works are considered to have removed archaeological deposits, rather then having created them.
- 7.3 When considering any evaluation strategy, it also needs to be remembered that a wide range of archaeological periods and activities are likely to survive on the site, not only those in situ at depth deposits associated with the medieval castle itself. For example, it is known that there was significant steel-making activity on the site, with the Castle Hill Works and the Phoenix Works lying within the core of the former castle complex (see figure 11 and plate 38). The recording of deposits associated with the dismantling of the castle in 1648/49 will also be important recent detailed work by Rakoczy (2007; 2008) has demonstrated that the reasons and methods behind the dismantling or 'slighting' of castles in the period following the English Civil War are both complex and poorly understood, and detailed recording of demolition deposits at Sheffield could contribute to a better understanding. For example, it may be possible to correlate the distribution of excavated demolition deposits with the documentary evidence of 1648/49. These deposits may also give an indication into how the dismantling took place, in the form of evidence for damage caused by tools, and what was kept and what was reused; people tend to take what is deemed useful, fashionable or valuable. In addition, the demolition deposits may provide a greater context and understanding of ex situ items which are thought to have come from the castle. Finally, many castles underwent substantial changes and remodelling during the 15th and 16th centuries, but these changes may have occurred two or three storeys above ground level; in the absence of detailed documentary information, one of the few opportunities to understand what once existed on the upper floors is through what was left behind when it was pulled down.
- 7.4 The 'post-medieval/demolition deposits' identified across the site (see figure 40) will therefore also be significant, and need to be considered in any evaluation strategy. The process of evaluation should not simply be to strip off these deposits with a view to reaching medieval 'castle stratigraphy' below these later deposits will also need adequate recording and assessment for the reasons given above.

Area 1: The North Loading Dock

Assessment of Potential

- 7.5 The North Loading Dock was largely created during the construction works associated with the original Castle Hill Market building in the late 1920s, and has been little modified since. However, any underlying deposits along the north edge of this area will have been destroyed either by the construction of Chandlers Row in the late 18th century or the sloping revetment wall associated with Castlegate in the early 20th century (are of disturbance indicated on figures 39 and 44). Towards the west end of the area, some deposits might also have been truncated by works associated with the demolition of early 20th century structures associated with Castle Hill Market. At the east end, in the area beneath the spiral loading ramp, the ground surface does not appear to have been reduced (from 48.54m AOD) by the construction, although the depths of the foundations are unknown.
- 7.6 The North Loading Dock area is considered to have a *high archaeological potential*. Even at the east end, where the spiral loading ramp has been built, significant deposits could survive between its foundations. The north end of the east moat may have curved through this area, towards a junction with the Don, although alternatively it may have stopped short of this area, and had a junction with the Sheaf. The 1999 ARCUS trench has demonstrated that, further to the south, the upper edge of the east moat was set at 48.56m AOD, while the base is at c.44.56m AOD. There is, therefore, the potential for almost the entire depth of the east moat to be preserved here. The east moat was known to retain water in 1644 and so there is also the potential for the preservation of waterlogged deposits.
- 7.7 Along the main body of the North Loading Dock, the 2001 ARCUS trenches have demonstrated the potential for the survival of substantial and well-preserved structural remains associated with the castle's north range. It has been possible to relate some of the structures excavated by ARCUS to structures recorded by earlier fieldworkers, but now presumed destroyed. The remains of the north range uncovered by ARCUS included evidence for several different phases of activity, thus demonstrating that wider excavation in this area is not only likely to provide information on the layout of the north range itself but also how it was modified over time; it might then be possible to relate some of these modifications to the 15th, 16th and 17th century documentary evidence. However, the ARCUS excavations recovered no 17th century demolition deposits overlying the medieval structures. only modern deposits, suggesting that they have probably been exposed once before during the 20th century. If the 1972 retaining wall was taken down, and the deposits behind revealed, they would likely to include some of the structures previously recorded.
- 7.8 It is likely that there will be substantial demolition deposits across the area, as the external wall of the north range appears to have been dismantled during the 1648-49 works. The sections constructed through the site by Butcher indicate that there may be up to 1.60m depth of occupation material relating to the castle and later activity in this area (see figure 30), although the surface of these deposits may lie over 2m below ground level at the east end of the loading dock. The ARCUS excavations demonstrated that at the west end of the loading dock, the medieval structures were located closer to the ground surface.
- 7.9 The west end of the North Loading Dock returns to the south for a short distance, forming an area of level ground bordered by the 1980s toilet block to the east and

the early 1960s Phase 5 Castle Market building to the south. Within the south part of this area, Butcher recorded one of his 'early' semi-circular features during the 1958-61 works, as well as a floor surface to the north. The west side of this area was disturbed by boiler houses and other structures associated with the Castle Hill Market building. However, the central part appears to have been relatively undisturbed, apart from one possible area of basements or cellarage, and therefore has a high archaeological potential.

Specific Questions to be Addressed

- 1) North end of the East Moat
- 7.10 Did the east moat curve through the spiral loading ramp area to have a junction with the river Don, or did it stop before the Don was reached? What form did this junction take? Are the remains of a sluice and dam present?
 - 2) The North Range
- 7.11 Was the north-east/south-west orientation of the known fragments of the north range continued throughout the entire range? If so, a large proportion could underlie the North Loading Dock. Complete or fuller excavation of the range would allow those parts excavated by ARCUS at either end to be linked, and would also give a much better idea of layout orientation and make up of range for example, is there any indication that the hall and chapel were located here?

Area 2A and 2B: The East Loading Dock

Assessment of Potential

- 7.12 The East Loading Dock area lies to the south of the spiral ramp, and includes both the former Sheffield Transport canteen building and its associated stores associated, where the form and depth of foundations are unknown (shown as yellow on figures 39 and 44). However, south of here is a relatively level area with a surface set at an average height of 51m AOD where there appears to have been little disturbance by modern services. Previous 1999 ARCUS excavations here demonstrated that at least the west side of the east moat is well preserved. Further excavation here might result in a complete section through the east moat, and it is possible that important waterlogged deposits will also be present, as the moat was described as being flooded in 1644. Assuming that the upper edge of the moat is set at around 48.50m as recorded by ARCUS, there may be up to 2.50m of post-medieval archaeological deposits overlying the moat in this area. This area (Area 2A) is therefore considered to be of *high archaeological potential*, particularly in relation to the east moat.
- 7.13 There is an area of car parking to the south-east of the East Loading Dock. The eastern half of this area is occupied by the Sheaf culvert, and therefore any archaeological deposits here will have been destroyed during the construction/repair of the culvert (see below). However, the area to the west and east of the Mudfords Building was once much higher and appears to have been relatively unaffected by services, although there will be significant service disturbance to the south and the extent of any cellarage to the Market Tavern and the Mudfords Building is currently unknown (shown as yellow on figures 39 and 44). The surface of the car park is set at an average of 50.60m AOD. There is little known information as to the depth or nature of archaeological deposits within this area, although it was built over in the 18th and 19th centuries, and so some

disturbance to earlier deposits may have occurred through cellarage etc. Nevertheless, it is possible that structures associated with the castle's outer bailey and/or associated extra-mural settlement or activity between the east moat and the Sheaf may survive in the south part of this area (Area 2B), and so the archaeological potential here is considered to be *moderate*.

Specific Questions to be Addressed

- 1) the East Moat
- 7.14 A complete depositional sequence through the east moat would be extremely important for understanding the functioning and development of the castle between the 11th and the 17th centuries, for a number of reasons. Was the moat kept clean, with little silting or debris allowed to accumulate? Was it ever re-cut? What was disposed of into the moat? Is there evidence for different periods of the moat being wet or dry? Does the date of deposits within the moat provide any evidence to support the suggestion that the moat is contemporary with the earliest phases of the castle?
 - 2) the Outer Bailey
- 7.15 What evidence survives for any structures associated with the castle's outer bailey and/or other features/deposits between the east moat and the outer bailey? If any such structures do survive, what is the relationship between them and the castle's defences, the river Sheaf and/or any earlier settlement?
 - 3) Civil War Fort
- 7.16 Is there anything left of what appears to be a Civil War earth and timber fort positioned in front (south-east) of the drawbridge pier? If there is, it might well lie beneath the Market Tavern public house and the south-east corner of the Castle Market complex. If so, it will may well have been heavily truncated, although it will depend on how deep any cellars beneath the public house might be.

Area 3: East of the Former Sheaf and Culvert

Very little information has been collated by the EDAS project on this area. It is 7.17 assumed that the construction of the Sheaf culvert in 1915-16 will have resulted in the destruction of any features/deposits in this area, and the zone of disturbance may actually be wider than that shown on figures 39 and 44. The area on the east bank of the river and culvert was developed in the 18th and 19th centuries but before this, in the 1637 Harrison survey, it formed part of several orchards, which were themselves might have been in the park (or Little Park?) (Ronksley 1908). It is also recorded that Parliamentarian cannons were set up on the east bank of the Sheaf in the Civil War, to enable firing across at the east side of the castle, but it is assumed that any remains associated with this activity will have been destroyed by post-medieval development. However, almost all of this area within the EDAS study area may well have been significantly disturbed by cellarage associated with the Alexandra Hotel and the former Sheffield Transport Office (shown as yellow on figures 39 and 44). This area is therefore considered to have a low archaeological potential.

Area 4: Exchange Street

Assessment of Potential

7.18 Modern service plans show Exchange Street to have been heavily disturbed by services, with most lying between 3m-4m below ground level (i.e. at c.53.00m-51.50m AOD) (see figure 24B). Before the development of the 1920s, the frontage of Exchange Street was also set further to the south (see figures 13, 39 and 44). and it is therefore likely that the former cellarage of street frontage buildings has also truncated archaeological deposits here; the depths of cellars are not known. The subsidiary ditch recorded by Armstrong and Butcher as running across the street was described as being heavily truncated by Butcher. There is an apparent narrow strip of relatively undisturbed ground c.4m wide between the frontage of Castle Market and the services/possible cellars beneath Exchange Street, but this is where the ditch was recorded by Butcher, so it may already have been excavated. However, there is potential for other features to survive either side of the ditch within this narrow strip, in what would have been part of the castle's outer bailey, although it is considered that, overall, this area has a low archaeological potential.

Specific Questions to be Addressed

- 1) Subsidiary Ditch and Outer Bailey
- 7.19 What date is the subsidiary ditch? Was it a Civil War feature or was it earlier? It is possible that features associated with the castle's outer bailey might also be positioned to either side of it, within the apparent narrow strip of undisturbed ground.

Area 5: Castle Market - the New Market Hall, Low Block and High Block

Assessment of Potential

- 7.20 This area is the most heavily disturbed of all the EDAS survey area, having been subject to two different sets of foundations, one for the Co-operative Stores (c.1927) and the other for the Castle Market redevelopment (1958-61). As can be seen from figure 39, these foundations were extensive, relatively closely spaced and deep, with even some overlapping of foundations between the two schemes (see figure 27). Conversely, this is where the bulk of the previous archaeological recording has been carried out. The foundations occupy virtually the whole of the line of the south moat, and also cover the drawbridge and part of the gate structures at the south-east corner of the castle's inner court. Beneath the Cooperative Stores, within the line of the south moat, some of the foundations extended as deep as 46.25m AOD, effectively to within half a metre of the bottom of the moat itself (the average depth given by Butcher was 45.64m AOD). The lowest floor level within the Low Block was set at 51.99m AOD, with a subbasement service duct set at 50.42m AOD; the foundation extended to 50.44m AOD or below. Within the High Block, the foundations extended to 50.44m or below, but there was much deeper excavation associated with its construction; for example, the foundation for the ventilation tower of the High Block was excavated to a depth of 43.89m AOD.
- 7.21 It is therefore likely that, in terms of the moat, this area has alternating subdivisions of low and high potential; within the high potential sub-divisions, there may be waterlogged deposits. The combination of the footings from the two

schemes suggests that there may be some areas where it might be possible to place north-south aligned evaluation trenches across the south moat alignment in order to investigate all or some of its width and depth, although it may be difficult to find enough space to be able to safely excavate at depth. However, this does depend on the original foundation plans being an accurate representation of what was actually built. An attractive looking gap at the east end of the New Market Hall corresponds with the area recorded by Butcher in the 1950s and, looking at his photographs, a large proportion of ground must have already been disturbed and removed here. Similarly, the areas between the slightly wider spaced piles of the High Block may hold some potentially undisturbed ground associated with the west moat, but it is likely that there was some unrecorded disturbance here, especially given that some foundation works were very deep in this area. Taking everything into account, it is therefore considered that this area has a *low archaeological potential*.

7.22 As a separate operation to any archaeological evaluation, the masonry fragments in the gate structure underground chamber should be recorded in detail, in the same manner as was done in 1994 for those fragments in the courtyard buildings chamber (Latham & Atkinson 1994). It would then be possible to relate what is left more closely to the drawings made by Armstrong and Butcher (see figure 25A).

Specific Questions to be Addressed

- 1) the South and West Moats
- 7.23 A complete (or even partial) depositional sequence through the south and west moats would be extremely important for understanding the functioning and development of the castle between the 11th and the 17th centuries, for a number of reasons. Was the moat kept clean, with little silting or debris allowed to accumulate? Was it ever re-cut? What was disposed of into the moat? Is there evidence for different periods of the moat being wet or dry? Does the date of deposits within the moat provide any evidence to support the suggestion that the moat is contemporary with the earliest phases of the castle? It would also be possible to relate such a sequence to the sections through the south moat made by Butcher, leading to a greater understanding of his works. Furthermore, finds recovered from secure contexts by modern excavation would surely also allow a greater understanding of the significance of those finds currently housed within the Museums Sheffield Archives.
- 7.24 Although the upper part of the moat may well have been truncated by later development, it would be useful to try to define the alignments of the outer edges more closely, to see if the estimated edge at original ground level marked by Butcher is likely to be correct.
 - 2) Gatehouse Structures
- 7.25 There is good photographic and written evidence to show that the remains of the gate structures as first exposed in the 1920s were substantially truncated during the 1958-61 works. The extent and survival of these structures beyond the underground chamber currently housing the preserved fragment should be established.

Area 6: The Castle Hill Market Building

Assessment of Potential

- 7.26 The Castle Hill Market building (1928) occupies a large part of the castle's inner court, including the central courtyard. Previous archaeological recording and the estimate of the disposition of buildings in the inner court suggests that much of the east range is likely to run beneath the east side of the market building, on a north-west/south-east alignment (see figure 42). It is also possible that elements of the south range survive beneath the south side of the market building, particularly towards the south-west corner, although these may be less extensive due to dismantling in 1648/49 and subsequent 20th century development. The west range probably lies beyond the west side of the market building (see Area 7 below).
- 7.27 Previous archaeological recording suggests that deposits associated with the central courtyard may survive extensively below the market building, and that they may cover the earliest phases of the castle until at least the late 13th century. Butcher's outline sections constructed across the site (see figure 30) suggest that on the south side of the market building, the surface of the medieval deposits may be placed 1.40m below the existing floor level and may be up to 1m deep before the original surface of the natural is reached (see figure 40, Section 2). On the north side of the market building, the medieval deposits may be nearer 2m below the existing floor level, and extend up to 1.80m in depth. It is more difficult to estimate the depth of the deposits in an east-west direction given the lack of excavated information, although what information that does exist suggests that they are relatively level (see figure 40, Section B). However, the depth and extent of the overlying post-medieval/demolition deposits is uncertain, particularly given the observation that there may be voids of up to 1.50m deep beneath the existing floor of the market building (Stuart Powell, SCC, pers. comm.). It should also be noted that the overlying post-medieval/demolition material may also contain significant archaeological features and deposits, ranging from un-demolished remains of medieval castle structures/fabric up to remains associated with the various 19th century steel works which occupied this area.
- 7.28 The presence of the courtyard beneath the Castle Market building is also important in terms of the potential survival of evidence for earlier activity. Beneath the large structures making up the medieval ranges of the castle, such evidence is more likely to have been disturbed by the cutting of foundations. However, beneath the courtyard, the laying down of new surfaces or the levelling up of an existing surface for a new one is less likely to have caused major disturbance. It is therefore possible that not only activity associated with the 12th century castle may be encountered in this area, but also pre-castle (and therefore likely to be pre-Conquest) activity may be present.
- 7.29 The area occupied by the Castle Hill Market building has only been subject to one major phase of development during the 20th century. It is a single storey building and, away from the external walls, the foundations are widely spaced (east-west rows at c.6m centres and north-south rows at c.9m centres). Although the exact depth of the internal foundations are not known, it is suspected that the maximum depths given on the contemporary plans may relate to those parts of the building along the east side which overlapped the former Castle Folds Lane, and which therefore needed deeper support. The more probable shallower foundation depth may not even have wholly truncated the medieval deposits within individual foundations. For these reasons, and the evidence given above, it is considered

that the whole of the Castle Hill Market building area has a *high archaeological* potential.

Specific Questions to be Addressed

- 1) East Range
- 7.30 Was the north-west/south-east orientation of the known fragments of the east range continued throughout the entire range, and are the previously excavated remains representative of the rest of the range? Complete or fuller excavation of the range would allow those parts excavated by ARCUS and Armstrong to be linked, and would also give a much better idea of layout orientation and make up of range for example, is there any indication that the hall and chapel were located here?
 - 2) Castle Courtyard
- 7.31 To what extent do any deposits/structures associated with the castle courtyard survive, and how can any discoveries be linked to those previously made by Butcher and Armstrong?
- 7.32 It is important to try to locate and sample the layers of burning referred to by previous investigators, to see if they can be placed more firmly within the existing chronology, i.e. do they relate to the 1184-85 fire, the 1266 fire, or are they earlier?

Area 7: Castle Hill Market (Phase 5)

Assessment of Potential

- 7.33 Previous archaeological recording and the estimate of the disposition of buildings in the inner court suggests that a proportion of the west range is likely to run through the area of the Phase 5 extension (1960s), on a north-west/south-east alignment (see figure 42). The known foundations are grouped in east-west lines, apparently with quite wide spacing between them (see figure 23). However, modern surveys place the lowest floor level of the building at c.51.60m AOD, with pipe ducts a metre below this. Comparison of these levels to an east-west section through the survey area (see figure 40, Section B) suggests that occupation deposits associated with the castle will either have been destroyed or severely truncated by these works. However, it is possible that earlier features, cut into the original surface may survive, albeit also truncated.
- 7.34 The south-west corner of this area also would seem to coincide with part of the west moat. The widely spaced foundations might provide an opportunity to investigate the east edge of the moat, which may give an indication of alignment, width and depth, although it may be difficult to find enough space to be able to safely excavate at depth.
- 7.35 Overall, it is considered that this area has a moderate archaeological potential.

Specific Questions to be Addressed

- 1) West Range
- 7.36 Is the presumed north-west/south-east orientation of the west range correct? Even sample excavation of the range (if present) would allow comparison with parts of

other ranges excavated by ARCUS and Armstrong, and would also give a much better idea of layout orientation and make up of castle as a whole.

- 2) West Moat
- 7.37 See Area 5 above.

Area 8: Tap and Barrel

7.38 The 'Great Tower' was possibly located just beyond the very west end of the North Loading Dock (see figure 42), in the north-west corner of the EDAS survey area. However, any archaeological deposits will have been heavily truncated, firstly by the construction of properties along Waingate and then by the reconstruction of these properties (including the Bull and Mouth public house, now Tap and Barrel) after the late 1920s. There was further disturbance in this area during the 1960s, when a betting shop was built to the east of the public house, and structures relating to the Castle Hill Market were grubbed out. Although the observations made in this area relating to the 1868 sewer construction are not detailed, they suggest that a 4m wide wall with a plinth was found at c.48.76m AOD. Given that the existing level of Castlegate here is 49.84m AOD, the plinth must have represented almost the base of the wall here, and although disturbance has been extensive during the 20th century, it is possible that further remains could be preserved at a low level. Any survival will also depend on the extent and depth of any cellarage associated with these former buildings, which is currently unknown. Given the current state of knowledge, it is considered that this area has a low archaeological potential.

Specific Questions to be Addressed

- 1) Great Tower
- 7.39 The identification of any remains associated with the Great Tower would be very important, firstly because they could represent the remains of a late 12th century keep and so would form an important and influential part of the castle's structural form, and secondly because any such keep may have been located on or close to a motte; at present, there is no clear idea if the earliest phases of the castle ever possessed a motte or if so, where it may have been located.

8 BIBLIOGRAPHY

Primary Sources

MSA = Museum Sheffield Archives

- (Anonymous pamphlet) A True and Exact Relation of the Several Passages of the Party of the Right Honourable the Earl of Manchester's Army, Sent from Doncaster to reduce the Castle of Sheffield... (copy held by SYSMR file PI 242, and transcription provided in Belford 1998, Appendix 2)
- A Plan of Sheffield from an actual survey by R Gosling 1736 (available from http://www.picturesheffield.com/maps.php?file=008)
- 1768 Fairbank fieldbook (MSA: FB 35,51)
- A Correct Plan of the Town of Sheffield in the County of York drawn by Wm. Fairbank 1771 (available at http://www.picturesheffield.com/maps.php?file=010)
- Ordnance Survey 1:1056 (5ft : 1 mile) scale, sheet 20, surveyed 1851
- Post-1881 City of Sheffield Highways and Sewers Department: Plan Shewing Approximate Position of River Sheaf Under Castlefolds Market, 1:500 scale (MSA: Drawer 8)
- 1905 Ordnance Survey 1:2500 25" map, surveyed 1889-91, revised 1903, sheet 294/8
- c.1915 City of Sheffield: Plan and Section of Covering of River Sheaf adjoining Site of Alexandra Hotel, Drawing no. 182, scale 8 feet to 1 inch (Sheffield City Council)
- c.1915 City of Sheffield: Covering of River Sheaf General Plan and Section (Drawing no 173), scale 20 feet to inch, Chas. Wike, Engineer, Shef. (annotated D/424/20) (MSA: Drawer 8 S57)
- c.1915 City of Sheffield: Covering of River Sheaf in Reinforced Concrete (on the Paragon & Clinton System), Drawing no 179, scale 4 feet to inch, Chas. Wike, Engineer, Shef. (Sheffield City Council)
- Post-1915 Plan of Improvements to Castle Hill Area and Land Ownership (drawing no 4927) (MSA: Drawer 9)
- Brown envelope labelled 'Sheffield Castle 1918' containing three sepia photographs and accompanying notes (MSA: Sheffield Castle Project File)
- c.1927 Undated plan of Castle Hill area (MSA: Box file Drawings Plans Maps)
- c.1927 Brightside & Carbrook Co-operative Society Ltd , New Central Premises: Foundation Plan, Scale 8 feet to an Inch (MSA: Box file Drawings Plans Maps)

1927 Brightside & Carbrook Co-operative Society Ltd. New Central Premises: Foundation Sections. W A Johnson Architect, Co-operative Wholesale Society (MSA: Drawer 9) Unreferenced copy of part of plan showing plan to display castle remains in c.1927 basement area adjacent to ladies lavatory (Sheffield Museum Archives: Box file - Written text, Notes, Letters & Memos) 1927 Black & white photograph, 'Photograph of Part of Sheffield Castle Wall, unearthed September 1927' (MSA: Box file- Drawings Plans Maps) 1927 Several letters dated 15th October 1927 from the Hunter Archaeological Society to the Mayor of Sheffield, the Co-operative Society etc (MSA: Box file - Written Text, Notes, Letters, Memos) 1927 Letter from Co-operative Society Architect's Department to Armstrong, dated 10th December 1927 (MSA: Box file - Written text, Notes, Letters & Memos) 1927-28 A L Armstrong's site notebook (MSA: ALA Armstrong Papers Box File 4 (ALA4/8)) 1927-29 Black & white photograph mounted on card of pillar base, probably taken by Senior (MSA: Butcher Box File 1976.1064 folder SC2/3) c.1928 City of Sheffield: New Retail Market, Castle Hill. Markets Committee (Drawing no. 7268 G), foundation plan by W G Davies, City Architect (MSA: Box file - Drawings Plans Maps) 1928 City of Sheffield Markets Committee: Proposed New Retail Market, Castle Hill: 1/8 scale detail continuation of Section C-C Drwg no. 7269 (Drawing no. 7525), by W G Davies, City Architect (MSA: Box file - Drawings Plans Maps) c.1929 City of Sheffield: New Retail Market, Castle Hill. Markets Committee (Drawing no. 7269 G), ground plan by W G Davies, City Architect (MSA: Box file - Drawings Plans Maps) c.1929 City of Sheffield: New Street Waingate to Blonk Street Wall Details, various scales (MSA: Drawer 10) City of Sheffield: River Don Street Retaining Wall (MSA: Drawer 10). c.1929 1928 City of Sheffield Markets Committee: Proposed New Retail Market, Castle Hill: 1/8 scale detail continuation of Section C-C Drwg no. 7269 (Drawing no. 7525), by W G Davies, City Architect (MSA: Box file - Drawings Plans Maps) 1929 Proposed Street from Waingate to Blonk Street to Front the River Don (Drawing no. D/6720), plan and longitudinal section by E Partington, Improvement Surveyor (MSA: Drawer 8) c.1930 Draft chapters by Armstrong & Drury on a planned book on Sheffield Castle (MSA: Box file - Written Text, Notes, Letters, Memos) c.1930 Plan made after 1922 showing main sewerage existing across the Castle Hill area (MSA: Drawer 9)

1930	River Don Street - Details of Old Foundations: Scale 1 inch to 2 feet (MSA: Box file - Written Text, Notes, Letters, Memos)
1930	Letter from W G Davies, City Architect, to Armstrong, dated 20th June 1930 (MSA: Box file - Written Text, Notes, Letters, Memos)
1930	Letter from J W Northend Ltd, printers, to Armstrong, dated 22nd November (MSA: Box file - Written Text, Notes, Letters, Memos)
1930	Three sepia photographs, perhaps taken by Himsworth, of works on Castlegate (MSA: Box file - Armstrong Archive 1995.85)
1930	Dimensioned sketches of old wall in slope to south side of Castle Gate by the City Engineer's Department, supplied to J Himsworth, stamped 15th November 1930 (City Architects Department) (MSA: Box file - Written Text, Notes, Letters, Memos)
1930	Letter from F E Pearce-Edward to Armstrong, November 15th 1930, with a suggested reconstruction of the castle (MSA: Box file - Written Text, Notes, Letters, Memos; original in MSA Box file - Armstrong Archive 1995.85)
1930	Letter from J Himsworth to Armstrong, November 16th 1930, concerning a suggested reconstruction of the castle (MSA: Box file - Armstrong Archive 1995.85; original in MSA Box file - Armstrong Archive 1995.85)
1951	Sheaf Culvert War Damage Repairs, J M Collie, City Engineer & Surveyor (Sheffield City Council D/424/10)
1957	Markets Committee: Castle Hill Retail Markets Extensions: Cross Sections looking West, drawing 5319/110D by J Womersley, City Architect (Sheffield City Council)
1957	Castle Hill Market – Sheffield: General Arrangement Phase 2, drawing 1047/11B by Ove Arup & Partners (Sheffield City Council)
1957	Castle Hill Market – Sheffield: Foundation Plan High and Low Blocks, drawing 1047/1 by Ove Arup & Partners (Sheffield City Council)
1957	Markets Committee: Castle Hill Retail Markets Extensions: Construction Phasing, drawing 5319/171 by J Womersley, City Architect (Sheffield City Council)
1957	Markets Committee: Castle Hill Retail Markets Extensions: Loading Area Levels & Drainage, drawing 5319/129A by J Womersley, City Architect (Sheffield City Council)
1958	Castle Hill Market - LGF - Details of Castle Inspection Chamber, drawing 1047/69A by Ove Arup & Partners (Sheffield City Council)
1958	Sheffield Castle 1958: Key to Photographic Record, field drawing by L Butcher (MSA: Drawer 6)
1958	L H BUTCHER CITY ARCHITECTS DEPT, field drawing by L Butcher (MSA: Drawer 6)

1958-61	Black & white photographs of excavations and general works during the redevelopment of Castle Hill Market (MSA: Box file - Butcher 1976.1064 folder SC2/3)
1958-61	Finds index cards, 1958-61 (MSA: Box File - Finds Related Material)
1958-63	35mm colour slides of excavations and general works during the redevelopment of Castle Hill Market (MSA: 1995.88 Sheffield Castle 1958-63)
1959	Two black & white photographs of area to east of Castle Hill Market during re-development (MSA: Box file - Butcher 1976.1064 folder SC2/3)
c.1960	Sheffield Castle: Diagrammatic Sketch showing discoveries made in excavation 1927 & 1958 by Leslie Butcher, formerly on display in Sheffield City Museum (MSA: Drawer 1)
c.1961	Plan of Moat and Barbican/Gatehouse by Leslie Butcher (MSA: Drawer 6 S35)
c.1961	Reconstructed north-south section through Castle Hill area by Leslie Butcher (MSA: Drawer 6)
c.1961	Stanchions fndns as built Carbrook Stores scale 1/8" by Leslie Butcher (MSA: Drawer 6 - S24)
c.1961	'Sheffield Castle: Details of West Tower, Gate-House, Drawbridge-Pier and Rock-Cut Moat' by Leslie Butcher (MSA: Drawer 6 - S38)
c.1961	'Sheffield Castle: 1927-29, 1958-61': Final Cross Section Moat and Gatehouse by Leslie Butcher (MSA: Drawer 6 - S38)
c.1961	Plan showing location of courtyard structures excavated by Armstrong and the fragment of masonry protruding from the paved slope on the south side of Castlegate by Leslie Butcher (MSA: Drawer 6 - S35)
c.1961	'Rough Plan' by Leslie Butcher (MSA: Drawer 6 - S48)
c.1961	Two isometric reconstructions of part of the moat, including one in colour, by Leslie Butcher (MSA: Drawer 6 - S10 & S25)
c.1961	Isometric coloured drawings of three foundations cut through the moat fills by Leslie Butcher (MSA: Drawer 7 - S55)
c.1961	Black and white section through foundation excavations appearing to show a profile of deposits within the moat, by Leslie Butcher (MSA: Drawer 7 - S55)
c.1961	Interpretative drawing of moat deposits (based on MSA: Drawer 7 - S55) (pencil draft and inked version) by Leslie Butcher (MSA: Drawer 8 - S35)
c.1961	'Section along E side of Castle Hill' by Leslie Butcher (MSA: Drawer 8 - S56)
c.1961	Three A1 sheets showing all four sections of various foundation and manhole excavations, together with an A4 written key, by Leslie Butcher (MSA: Drawer 8 - S34)

Four isometric reconstructions showing outline architectural details of Castle c.1961 Hill area in relation to castle gate structures, by Leslie Butcher (MSA: Drawer 10) c.1961 Section through central part of Castle Hill, looking west, by Leslie Butcher (MSA: Drawer 10) c.1961 Section through central part of Castle Hill including Castle Hill Market. looking west, by Leslie Butcher (MSA: Drawer 10) c.1961 Reconstruction of Himsworth's section along Castlegate, looking south, by Leslie Butcher (MSA: Drawer 10) c.1961 'Himsworth Castlegate Profile', by Leslie Butcher (MSA: Drawer 10) c.1961 Set of notes explaining annotations to field drawings, assumed to be by Leslie Butcher (MSA: Box File - Butcher Box File 1976.1064) 1961 Black and white photograph looking west down Castlegate (copy supplied by D Saich, SYAS) 1962 Markets Committee: Castle Market Extns Phase 5 Foundation and Drainage Plan, drawing 5319/Ph.5/235 by J Womersley, City Architect (Sheffield City Council) 1962 Markets Committee: Castle Market Extns Phase 5 West & South Elevations. drawing 5319/Ph.5/31 by J Womersley, City Architect (Sheffield City Council) 1960s Aerofilms A228876-010572 black & white aerial photograph of Sheffield city centre (copy supplied by Dinah Saich, SYAS) 1970 Internal memorandum, Department of Planning & Architecture, L Butcher to J Dean, 3rd April 1970 (copy held by SYSMR file PI 242; see also MSA: Drawer 6 - S8) 1971 Black and white photograph looking west down Castlegate (copy supplied by D Saich, SYAS) 1972 Sheffield Castle, typescript notes by J Edward Vickers (copy in SYSMR file PI 242) 1972 Brown envelope containing photographs and other material relating to the 1972 works to the retaining wall to the south side of Castlegate (MSA: Box file - Sheffield Castle Project File)

c.1970s? Undated typescript list of 47 boxes of finds categorises the contents according to a letter code, assumed to be by Leslie Butcher (MSA: Box file - Written text, Notes, Letters, Memos)

c.1970s? Envelope labelled 'Sheffield Castle – Armstrong', mostly containing modern reprints of Himsworth and Armstrong's photographs (MSA)

c.1970s? Envelope labelled 'Negatives of Prints of Excavations at Sheffield Castle by

Himsworth & Butcher's original photographs (MSA)

A L A (?) & Butcher', mostly containing modern negatives of photographs of

c:edas/sheffcastle.460/vol1a

1976	Eight black & white photographs of preserved castle remains, taken 18th November 1976 (SYSMR file PI 242)
1987	Finds index cards (MSA: Box File - Finds related material)
1990	Note by Pauline Beswick regarding works to chamber below Castle Hill Market building (MSA: Box file - Written text, Notes, Letters & Memos)
1999	Personal communication, C Cumberpatch to J McNeil, SYAS (copy held by SYSMR file PI 242)
2005	South Yorkshire and north Derbyshire medieval pottery reference collection: Sheffield Castle Museum accession number 1995.90.2, brief catalogue by Chris Cumberpatch (copy in SYSMR File PI 242)

Undated *Notes on Medieval Sheffield*, unattributed handwritten notes held by the SYSMR (copy in SYSMR File PI 242)

Secondary Sources

Addy, S O 1893 The Hall of Waltheof

Allen Brown, R 1954 English Medieval Castles

Anon 1916 'Notes and Queries'. *Transactions of the Hunter Archaeological Society* vol 1, 237-239

Anon 1929 'Notes and Queries'. *Transactions of the Hunter Archaeological Society* vol 3, 253-260

Armstrong, A L 1930 'Sheffield Castle'. *Transactions of the Hunter Archaeological Society* vol 4, 7-27

Belford, P 1998 An Archaeological Desk-Based Assessment of the Sheffield Markets Site, Sheffield, South Yorkshire (unpublished ARCUS report 413 for Sheffield City Council)

Beswick, P 1981 'Sheffield Manor'. The Archaeological Journal vol 137, 468-469

Bostwick, D 1985 Sheffield in Tudor and Stuart Times

Butcher, L 1961 Notes for a lecture given 10th January 1961 (unpublished notes, MSA Box File - Written text, Notes, Letters & Memos)

Butcher, L c.1972 Sheffield Castle: A Report on the Discoveries made during various Excavations on the site between 1927 and 1972 (unpublished typescript held in MSA: Butcher 1976 1064)

City of Sheffield 1930 Castle Hill Market: Official Opening by the Minister of Health (The Right Hon Arthur Greenwood M.P): Souvenir Copy Friday 9th May 1930

Coulson, C 1979 'Structural Symbolism in Medieval Castle Architecture.' *Journal of the British Archaeological Association* vol 88, 73-90

Curtis, E 1914 'Sheffield in the 14th Century – Two Furnival Inquisitions'. *Transactions of the Hunter Archaeological Society* vol 1, 31-53

Dalton, P 1994 Conquest, Anarchy, Lordship: Yorkshire 1066-1154

Davies, G 2000 An Archaeological Evaluation Sheffield Markets: Phase 1B Trial Trenching of Sheffield Castle, Castlegate (unpublished ARCUS report 413c for Carillion Project Management)

Davies, G & Constable, C 2004-05 'England's Lost Castles: Sheffield'. *Castle Studies Group Bulletin* vol 18, 202-221

Davies, G & Symonds, J 2002 Archaeological Evaluation of the Upper Loading Bay, Castle Market, Sheffield (unpublished ARCUS report 413h.1 for Sheffield City Council)

Davies, G & Willmott, H 2002 Excavation and Research at Sheffield Castle 1927-1960: An Assessment and Project Design (unpublished ARCUS report)

Drury, C 1929 A Sheaf of Essays

Eales, R 1990 'Royal Power and Castles in Norman England'. In C. Harper-Bill and R.

EDAW 2005 Castlegate: Policy and Development Framework

Faull, M L & Stinson, M (eds) 1986 Domesday Book - 30: Yorkshire, Part 1

Gatty, A 1873 Sheffield Past and Present

Grenville, J 1997 Medieval Housing

Harrington, P 2003 English Civil War Fortifications 1642-51

Hey, D 1991 The Fiery Blades of Hallamshire: Sheffield and its Neighbourhood 1660-1740

Himsworth, J 1927-42 Record by an Eyewitness of the Uncovering of Sheffield Castle (unpublished typescript held in MSA)

Hulme, R 2007-08 'Twelfth Century Great Towers - The Case for the Defence'. *The Castle Studies Group Journal* vol 21, 209-229

Hunter, J 1819 Hallamshire: the History and Topography of the Parish of Sheffield in the County of York

Hunter, J 1828 South Yorkshire: the History and Topography of the Deanery of Doncaster

Hunter, J 1831 South Yorkshire (1974 edition)

Hurst, J 1959 Note on Sheffield Castle, in 'Medieval Britain in 1958: Post-conquest.' *Medieval Archaeology* vol 3, 308.

Journal of the House of Commons 1802a, vol 4 (1644-1646), 528 (available at http://www.british-history.ac.uk/report.aspx?compid=23681, accessed 19th December 2013)

Journal of the House of Commons Journal 1802b, vol 5 (1646-1648), 243 (available at http://www.british-history.ac.uk/report.aspx?compid=25131, accessed 19th December 2013)

Latham, I D & Atkinson, S 1994 Report on an Archaeological Investigation of some Structural Remains of Sheffield Castle, Castle Market, Sheffield (unpublished SYAS report)

Leader, J. D 1872 'Sheffield Castle and Manor Lodge in 1582: A Paper read before the Sheffield Architectural and Archaeological Society'. *Yorkshire Archaeological Society Papers 1850-1901*, part 2 (MSA: Sheffield Castle boxfiles: Articles)

Leader, J D 1897 The Records of the Burgery of Sheffield

Leeming, D 2005 'Sheffield Castle and the Civil War'. *Journal of the Pike and Shot Society* vol 23:3, 26-33

McCoy, M & Stenton, M 2009 Sheffield Castle, Sheffield: Archive Scoping Review (unpublished ARCUS report 669b(1) for Sheffield City Council)

Met Geo Environmental 2013 Castle Market Sheffield: Archaeological Ground Penetrating Radar Survey 11912/173-2 (unpublished report for Sheffield City Council)

Nevell, M 2010 Newton Hall and the Cruck Buildings of North-West England

Northend, W 1946 'The Hartshead Tunnel'. *Transactions of the Hunter Archaeology Society* vol 6(3), 79-80

Page, W 1974 Victoria County History: A History of the County of York: Volume 3

Pounds, N 1990 The Medieval Castle in England and Wales

Preston, F 1956-58 'The Roman East-West Road Through Sheffield.' *Yorkshire Archaeological Journal* vol 39, 329-333

Rakoczy, L 2008 'Out of the Ashes: Destruction, Reuse, and Profiteering in the English Civil War'. In Rakoczy, L (ed) *The Archaeology of Destruction*, 261-286

Rakoczy, L 2007 Archaeology of Destruction: A Reinterpretation of Castle Slightings in the English Civil War (DPhil Thesis, Department of Archaeology, University of York)

Ronksley, J G 1908 (ed) transcription of Harrison, J *An Exact and Perfect Survey and View of the Manor of Sheffield*, 1637 (available in Sheffield LSL)

Ryder, P 1982 Medieval Buildings of Yorkshire

Scurfield, G 1986 'Seventeenth-Century Sheffield and Its Environs'. *Yorkshire Archaeological Journal* vol 58, 147-171

Sheffield City Museum 1960 *City of Sheffield: The City Museum Annual Reports 1958-60* (Sheffield City Museum)

Sheffield Galleries and Museums Trust 2001 *Sheffield Castle Assessment Report* (unpublished draft report, copy held in SYSMR file PI 242)

Sheffield Libraries Archives and Information 2010 Sources for the Study of Sheffield Castle

Thomas, A 1920 'Some Hallamshire Rolls of the 15th Century'. *Transactions of the Hunter Archaeological Society* vol 2(1), 65-79

Thompson, M W 1991 The Rise of the Castle

Vickers, J 1992 A Popular History of Sheffield

Waddington, C 2009 Discovering Sheffield Castle: A Prospectus for Excavating and Presenting Sheffield's Lost Castle (unpublished Archaeological Research Services Ltd report 2009/1)

Wigfull, J 1914 'Lady's Bridge, Sheffield'. *Transactions of the Hunter Archaeological Society* vol 1(1), 57-65

Winder, T 1907 T'heft an' Blades O'Shevvield

Winder, T 1910 'Sheffield Castle and the Manor Lodge'. *British Association Handbook Sheffield*, (ed) W Porter, 55-61

Zasada, K 1996 A History of Sheffield Castle and Markets (Sheffield City Council)

Electronic Sources

http://friendsofsheffieldcastle.org.uk/ - Friends of Sheffield Castle (accessed February-March 2014)

http://www.picturesheffield.com/index.php - Images of Sheffield from Sheffield City Council's Local Studies Library (accessed February-March 2014)

9 ACKNOWLEDGEMENTS

- 9.1 The archaeological evaluation strategy for the site of Castle Markets was commissioned by Kier Asset Partnership Services Ltd on behalf of Sheffield City Council (SCC), who also funded the project. EDAS would like to thank Gary Wright and Peter Slater (Kier), Simon Ogden, Miles Seaton and Stuart Powell (SCC), and Neil Harvey (Met Geo Environmental) for project management and liaison, for facilitating access to the Castle Markets complex and for providing survey and other data. Photographs from the Pictures Sheffield website were supplied by Peter Evans at Sheffield Archives, and other photographs from Sheffield Newspapers are reproduced with permission. Especial thanks are also due to Dinah Saich (South Yorkshire Archaeology Service), and Helen Harman and Lucy Creighton (Museums Sheffield), for their considerable assistance throughout the project.
- 9.2 The research and fieldwork for the project was undertaken by Shaun Richardson, with other additional research by Ed Dennison. AutoCad and graphic assistance was provided by Mike Frankland of Humber Archaeology Partnership. Comments on a draft report were provided by Dinah Saich (SYAS), Simon Ogden (SCC) and Andy Hammond (English Heritage). The final report was produced by Ed Dennison, with whom the responsibility for any errors or inconsistencies remains.

APPENDIX 1
EDAS PHOTOGRAPHIC RECORD
(see also DVD at end of report)

SHEFFIELD CASTLE PHOTOGRAPHIC CATALOGUE

Films 1 to 3: Colour digital films taken at Museums Sheffield Archive Film 4: Colour digital film taken 24th October 2013

Film 5: Colour digital film taken 7th November 2013

Film	Frame	Subject
1	529	Recon drawing by Butcher, taken from Sheffield City Museum 1960 City of Sheffield: The City Museum Annual Reports 1958-60.
1	531	Recon drawing by Butcher, taken from Sheffield City Museum 1960 City of Sheffield: The City Museum Annual Reports 1958-60
1	533 to 537	Taken from City of Sheffield 1930 Castle Hill Market: Official Opening by the Minister of Health (The Right Hon Arthur Greenwood M.P): Souvenir Copy Friday 9th May 1930
1	538 to 551	City of Sheffield: New Retail Market, Castle Hill. Markets Committee (Drawing no. 7268 G), foundation plan by W G Davies, City Architect (MSA: Box File - Drawings Plans Maps)
1	562 to 565	City of Sheffield Markets Committee: Proposed New Retail Market, Castle Hill: 1/8 scale detail continuation of Section C-C Drwg no. 7269 (Drawing no. 7525), by W G Davies, City Architect (MSA: Box File - Drawings Plans Maps)
1	567	Black and white photograph dated September 1927, not taken by Armstrong, shows curving ashlar masonry with a rubble wall apparently built across the top of it (MSA: A L Armstrong archive 1995.85)
1	569 to 574	Brightside & Carbrook Co-operative Society Ltd , New Central Premises: Foundation Plan, Scale 8 feet to an Inch (MSA: Box File - Drawings Plans Maps)
1	576 to 580	Undated plan of Castle Hill area (MSA: Box File - Drawings Plans Maps)
1	581 to 584	City of Sheffield: New Retail Market, Castle Hill. Markets Committee (Drawing no. 7269 G), ground plan by W G Davies, City Architect (MSA: Box File - Drawings Plans Maps)
2	613	Photograph, in envelope in front of Himsworth's site diary (MSA)
2	614	Photograph, in envelope in front of Himsworth's site diary (MSA)
2	615-617,	Various photographs from Himsworth's site diary (MSA)
2	619-621, 623-669	various priotographs from minisworth's site diary (MSA)
2	670	Photograph, in envelope in front of Himsworth's site diary (MSA)
2	671-672	Photograph, in envelope in front of Himsworth's site diary (MSA)
2	673-675	Photographs from envelope labelled 'Negatives of Prints of Excavations at Sheffield Castle' (MSA)
2	676-682	1958 photographs of gate structures from envelope labelled 'Negatives of Prints of Excavations at Sheffield Castle by A L A (?) & Butcher' (MSA)
2	683-686	Photographs in envelope labelled 'Sheffield Castle - Armstrong' (MSA)
2	687, 690- 691	1950 reconstruction of castle by Kenneth Steel (MSA)
2	692-695	Photographs in envelope labelled 'Sheffield Castle - Armstrong' (MSA)
2	696-698	Model of castle (MSA)
2	700-703	Photographs in envelope labelled 'Sheffield Castle - Armstrong' (MSA)
2	704-705, 707-708, 710-711	Original display drawing by Butcher, (MSA: Drawer 1)
2	712, 714- 717	Butcher drawing (MSA: Drawer 6 - S35)
2	718-723	Butcher notes (MSA: Drawer 6 - S8)
2	724-731	Butcher drawing (MSA: Drawer 6)
2	732-739	Butcher draft section (MSA: Drawer 6)
3	741-742	Butcher drawing (MSA: Drawer 6 - S38)
3	741-742	Butcher drawing (MSA: Drawer 6 - S38)
3	748-751	Butcher drawing (MSA: Drawer 6 - S35)
3	752-755	Butcher drawing (MSA: Drawer 6 - S35)
3	756-762	Butcher drawing (MSA: Drawer 6 - S48)
3	763	Butcher drawing (MSA: Drawer 6 - S10 & S25)
	, , , , ,	
		Butcher drawing isometric
3	764-765 770-771	Butcher drawing isometric Butcher drawing (MSA: Drawer 7 - S55)

c:edas/sheffcastle.460/appendix1

3	776-778	Butcher drawing (MSA: Drawer 8 - S35)
3	780-784	Butcher drawing (MSA: Drawer 8 - S35)
3	785-788	c. 1930 sewer plan (MSA: Drawer 9)
3	789-791	Proposed Street from Waingate to Blonk Street to Front the River Don (Drawing no. D/6720), plan and longitudinal section by E Partington, Improvement Surveyor (MSA: Drawer 8)
3	792-794	Butcher draft section (MSA: Drawer 8 - S56)
3	796	City of Sheffield Highways and Sewers Department: Plan Shewing Approximate Position of River Sheaf Under Castlefolds Market, 1:500 scale (MSA: Drawer 8)
3	797	Sheaf culvert section (MSA: Drawer 8)
3	798-799	City of Sheffield: Covering of River Sheaf – General Plan and Section (Drawing no 173), scale 20 feet to inch, Chas. Wike, Engineer, Shef. (MSA: Drawer 8 S57)
3	800-802	Butcher drawing (MSA: Drawer 8)
3	803	Butcher key / list (MSA: Drawer 8 - S34)
3	804-815	Butcher drawings (MSA: Drawer 8 - S34)
3	816-819	Plan of Improvements to Castle Hill Area and Land Ownership (drawing no 4927) (MSA: Drawer 9)
3	820-824, 826-827	Brightside & Carbrook Co-operative Society Ltd, New Central Premises: Foundation Sections, W A Johnson Architect, Co-operative Wholesale Society (MSA: Drawer 9)
3	830-831	City of Sheffield: New Street Waingate to Blonk Street Wall Details, various scales (MSA: Drawer 10)
3	832	City of Sheffield: River Don Street Retaining Wall (MSA: Drawer 10)
3	833-836	Butcher drawings (MSA: Drawer 10)
3	837-840	Butcher draft section (MSA: Drawer 10)
3	841-844	Butcher draft section (MSA: Drawer 10)
3	845-851	Butcher draft sections (MSA: Drawer 10)
3	855, 859- 860	Photographs (MSA: A L Armstrong Archive 1995.85 box file)
3	861-862	Himsworth letter to Armstrong (MSA: A L Armstrong Archive 1995.85 box file)
3	866	Himsworth letter to Armstrong (MSA: A L Armstrong Archive 1995.85 box file)
3	867, 872- 875, 878- 879, 881	Brown envelope labelled 'Sheffield Castle 1918' containing three sepia photographs and accompanying notes (MSA: Sheffield Castle Project File)
3	882	May 1972 Beswick notes (MSA: Box file - Sheffield Castle Project File)
3	883-884, 886, 888	May 1972 Beswick photographs (MSA: Box file - Sheffield Castle Project File)
3	890	Black & white photograph mounted on card of pillar base, probably taken by Senior (MSA: Butcher Box File 1976.1064 folder SC2/3)
3	891-892	Black and white photographs taken by Butcher (MSA: Box file - Butcher 1976.1064 folder SC2/3)
3	893-894, 896-897	1959 photographs (MSA: Box file - Butcher 1976.1064 folder SC2/3)
3	899, 901, 906, 907, 909, 911, 913	Various 35mm colour slides
4	324	Low Block, basement passage along S side, looking E
4	325	Low Block, basement passage along S side, looking E Low Block, basement passage along S side, looking W
4	326	Low Block, basement passage along W side, looking N
4	326	New Market Hall, basement, entrance to gate structure chamber, looking N
4	327	Courtyard buildings chamber, former viewing port to wooden timber, looking W
4	329	Courtyard buildings chamber, former viewing port to wooden timber, looking w
4	332	Courtyard buildings chamber, W side, looking S
4	333	Courtyard buildings chamber, W side, looking SW
4	334	Court and buildings chamber, ex situ fragments
4	335	Courtyard buildings chamber, ex situ fragment
4	336	Courtyard buildings chamber, ex situ fragments
4	339	Courtyard buildings chamber, W side, looking SW
4	340	North loading dock, looking W
4	341	1980s toilet block at NW corner of Castle Hill Market, looking S
4	342	S return of North Loading Dock at W end, looking S
4	343	Area at base of spiral ramp, looking E
4	344	Spiral ramp, looking W
4	345	East loading dock, looking S

4	346	South Yorkshire Passenger Transport canteen, looking SE from spiral ramp
4	348	East Loading Dock, looking NW
4	349	Temp bridge over culverted Sheaf, looking E
4	350	Fenced off area of car parking over culverted Sheaf, looking E
4	351	E elevation of Mumfords Building from car park, looking W
4	352	E elevation of Mumfords Building from car park, looking W
4	353	S wall of car park E of Mumfords Building, looking S
4	354	Entry to spiral ramp off Castlegate, looking W
4	355	Base of spiral ramp, looking SE
4	356	Castlegate looking W, SY Passenger Transport canteen in foreground
4	357	Castlegate, looking W
4	358	Don, looking W
4	362	Alexandra Hotel, Castlegate, looking S
4	363	Alexandra Hotel, Castlegate, looking W
4	365	Alexandra Hotel, Castlegate, looking SW
4	366	Alley between Alexandra Hotel and South Yorkshire Passenger Transport Office, looking
•	000	W
4	367	South Yorkshire Passenger Transport Office, looking W
4	368	South Yorkshire Passenger Transport Office, looking N
4	369	Exchange Street, looking W
4	370	Market Tavern and Mumfords Buildings, Exchange Street, looking N
4		
	371	Market Tavern, Exchange Street, looking N
4	372	Mumfords Buildings, Exchange Street, looking N
4	373	Castle Market, Exchange Street, looking W
4	374	Castle Market, Exchange Street, looking W
4	375	Former refreshment kiosk, Exchange Street, looking W
4	376	Waingate, looking N, High Block to right foreground
4	377	Exchange Street, looking E
4	378	Castle Market, High Block, looking E
4	379	Castle Market, Phase 5, looking N
4	380	Castle Market, Phase 5, looking N
4	381	1970s building, Waingate, N of Phase 5, looking SE
4	382	Building S of former Bull & Mouth public house, Waingate, looking E
4	383	Former Bull & Mouth public house, Castlegate, looking S
4	384	Former betting shop, Castlegate, looking S
4	386	Former betting shop, Castlegate, looking S
4	387	Former betting shop, Castlegate, looking S
4	388	1972 retaining wall to Castlegate, looking E
5	639	New Market Hall, basement, looking W
5	640	Stall, New Market Hall, basement, looking S
5	641	Stall, New Market Hall, basement, looking S
5	642	Gate structure chamber, looking NE
5	643	Gate structure chamber, looking NE
5	644	Gate structure chamber, looking E
5	645	Gate structure chamber, looking NE
5	646	Gate structure chamber, looking E
5	647	Gate structure chamber, looking L
5	648	Gate structure chamber, looking NE
5	649	Gate structure chamber, looking E Gate structure chamber, looking N, showing pointing where gate tower cut through in
၁	049	Gate structure chamber, looking in, snowing pointing where gate tower cut through in 1958-61
5	650	
		Gate structure chamber, looking NE
5	651	Gate structure chamber, looking E
5	652	Gate structure chamber, looking NE
5	653	Gate structure chamber, looking NE, plinth detail
5	654	Gate structure chamber, ceiling, looking NE
5	655	Gate structure chamber, looking NE
5	657	Gate structure chamber, looking NE
5	658	Ladder down into gate structure chamber

c:edas/sheffcastle.460/appendix1









1-533.JPG













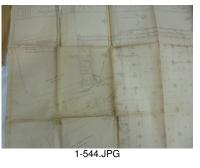




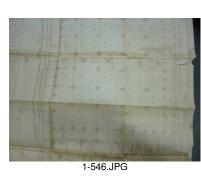




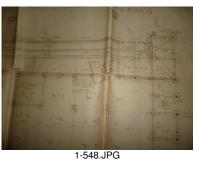
1-539.JPG







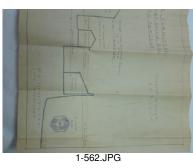




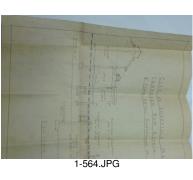




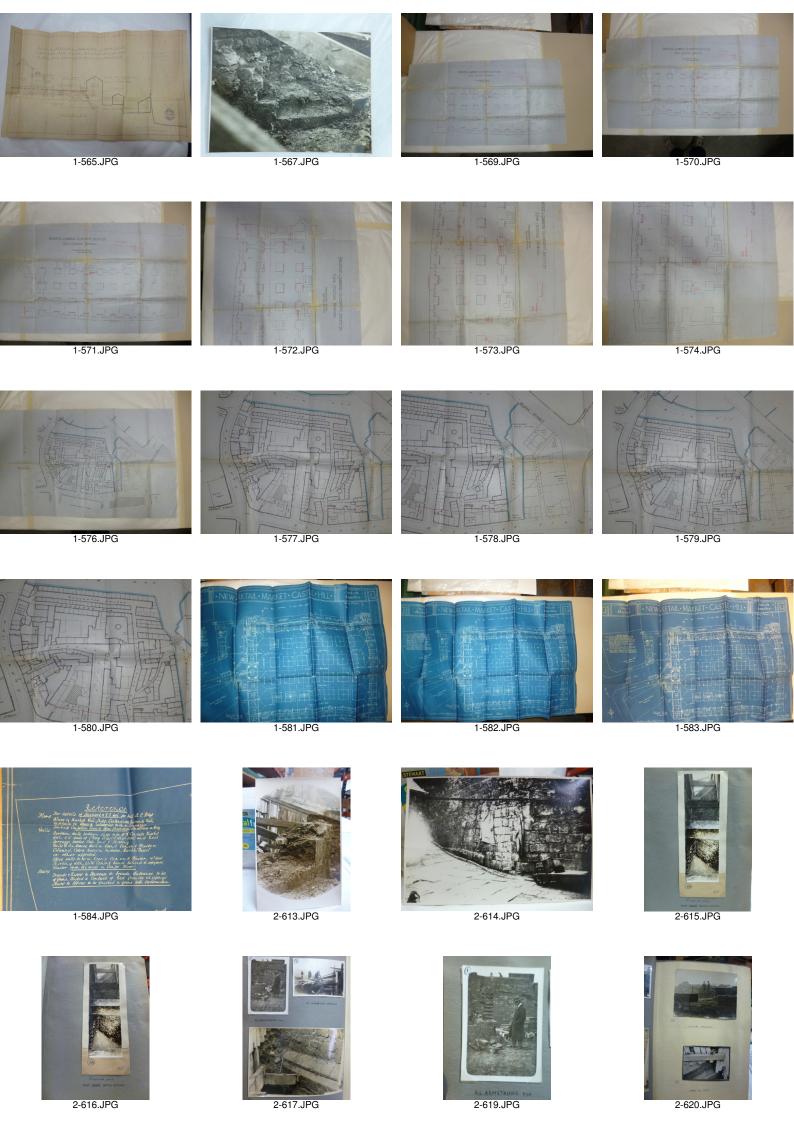








1-551.JPG













2-627.JPG





2-629.JPG





2-631.JPG





2-633.JPG



2-634.JPG



2-635.JPG







2-638.JPG



2-639.JPG



2-640.JPG



2-641.JPG

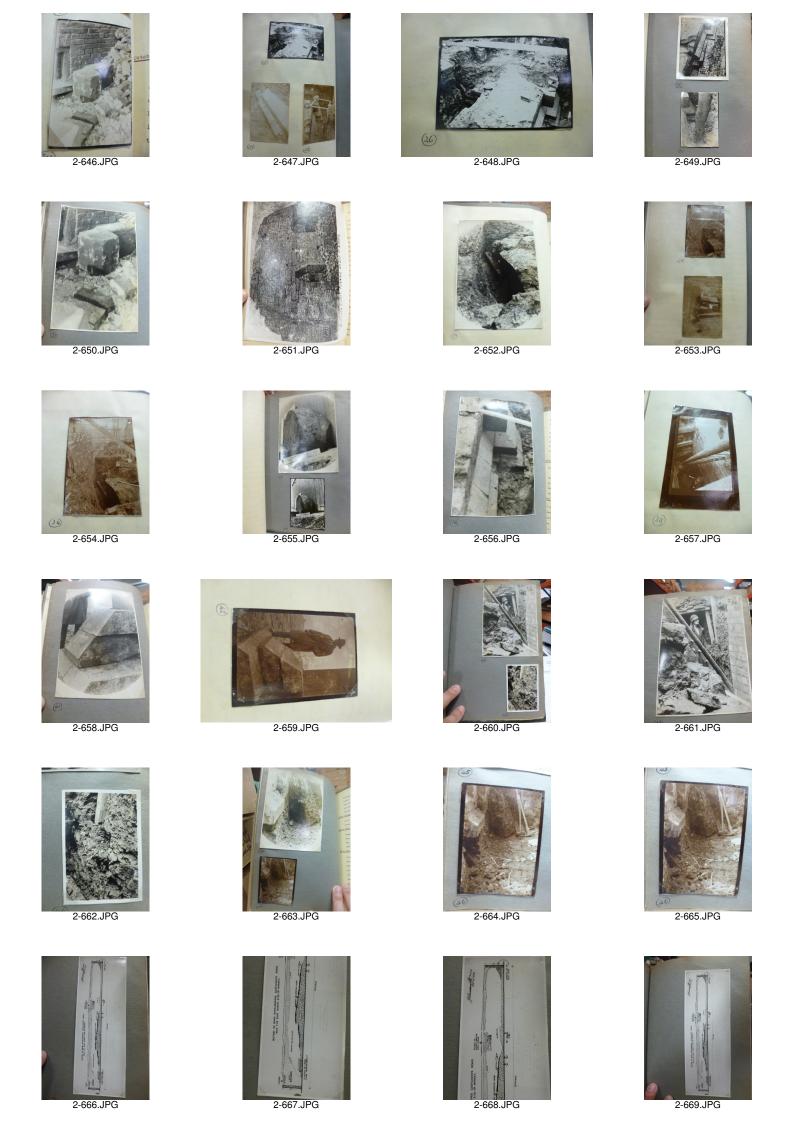


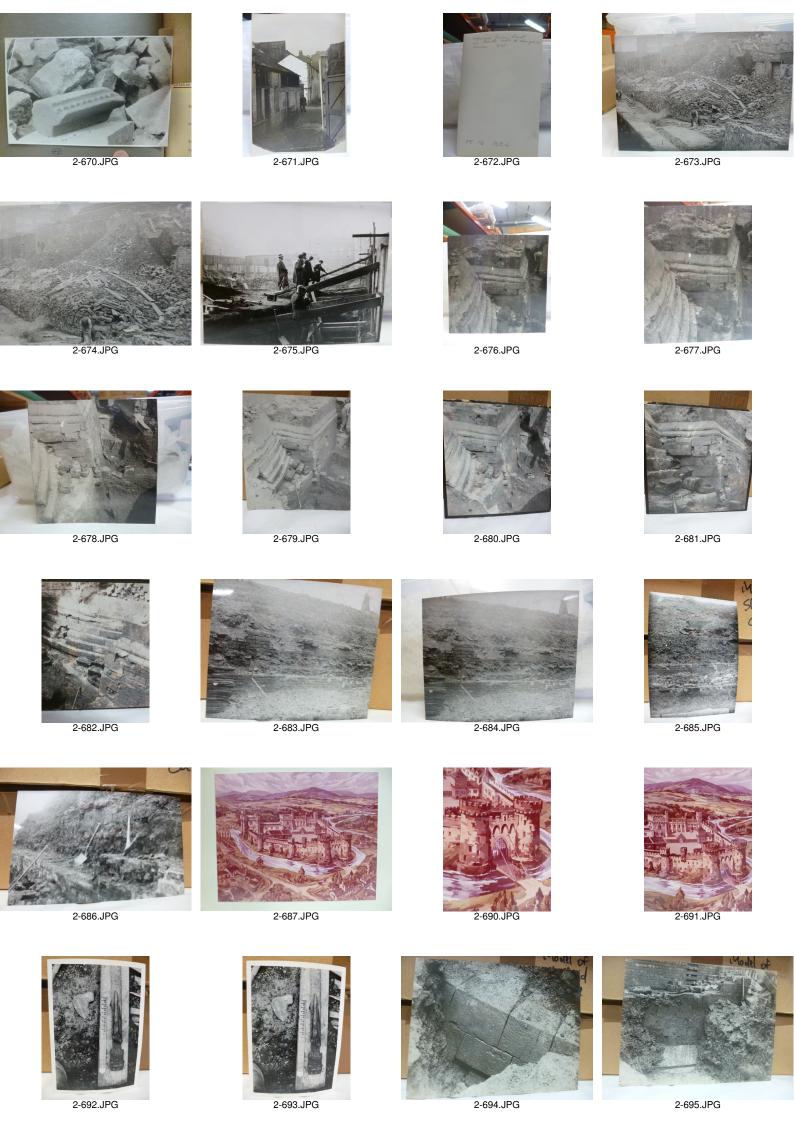
2-642.JPG

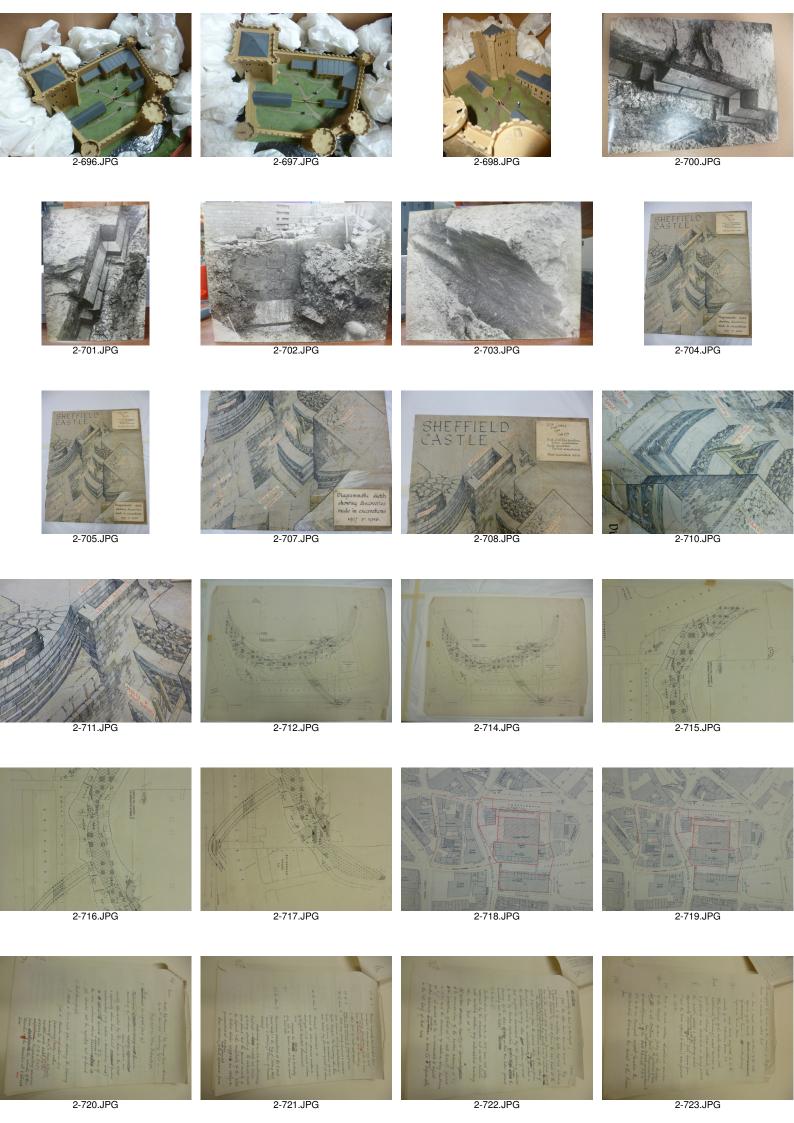


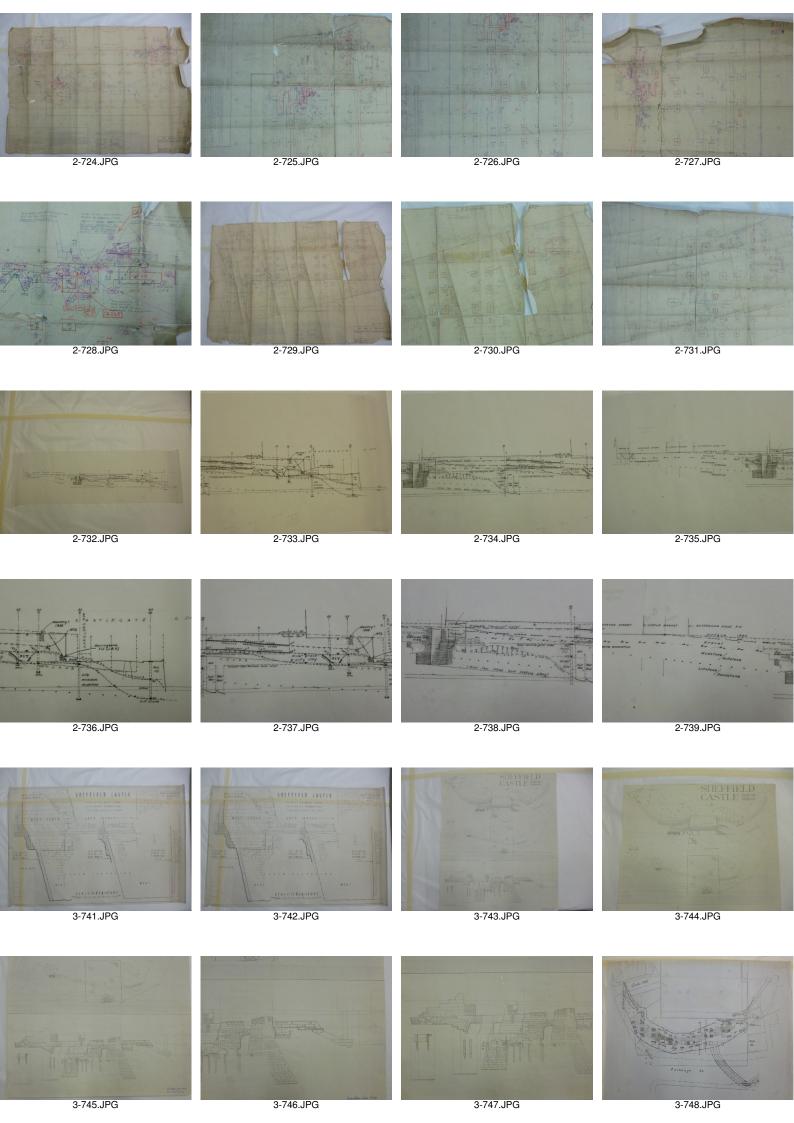


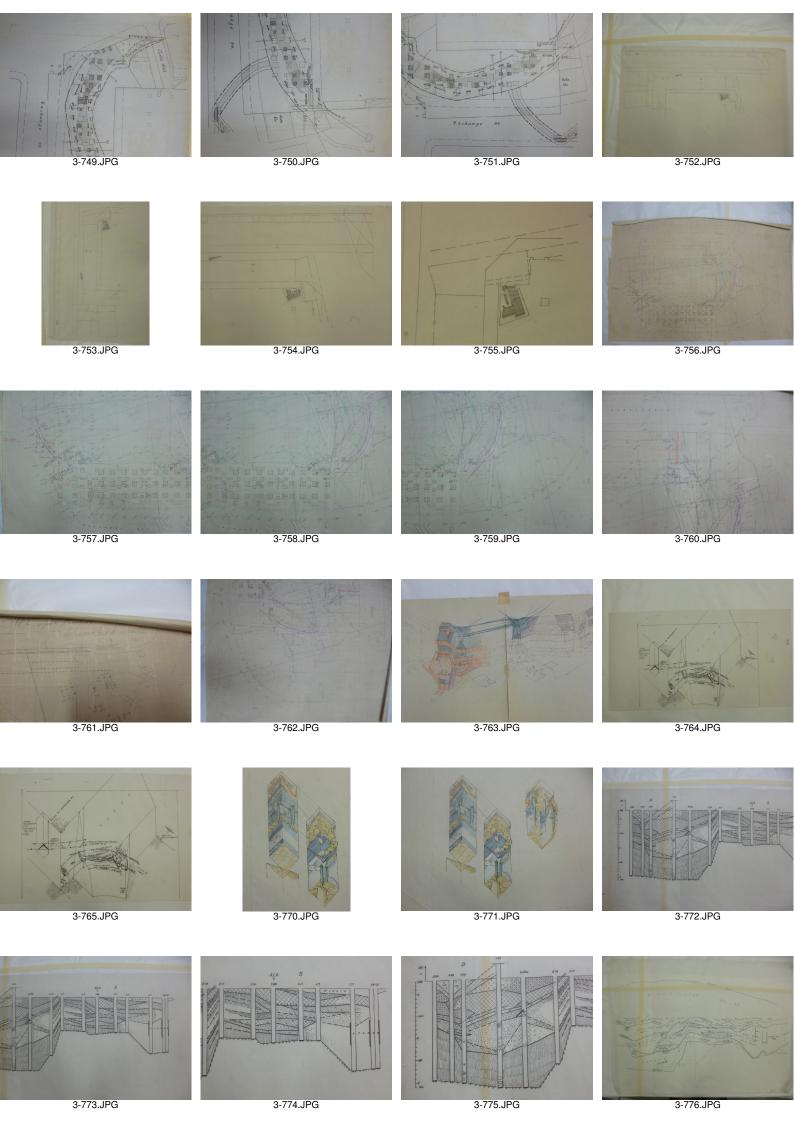




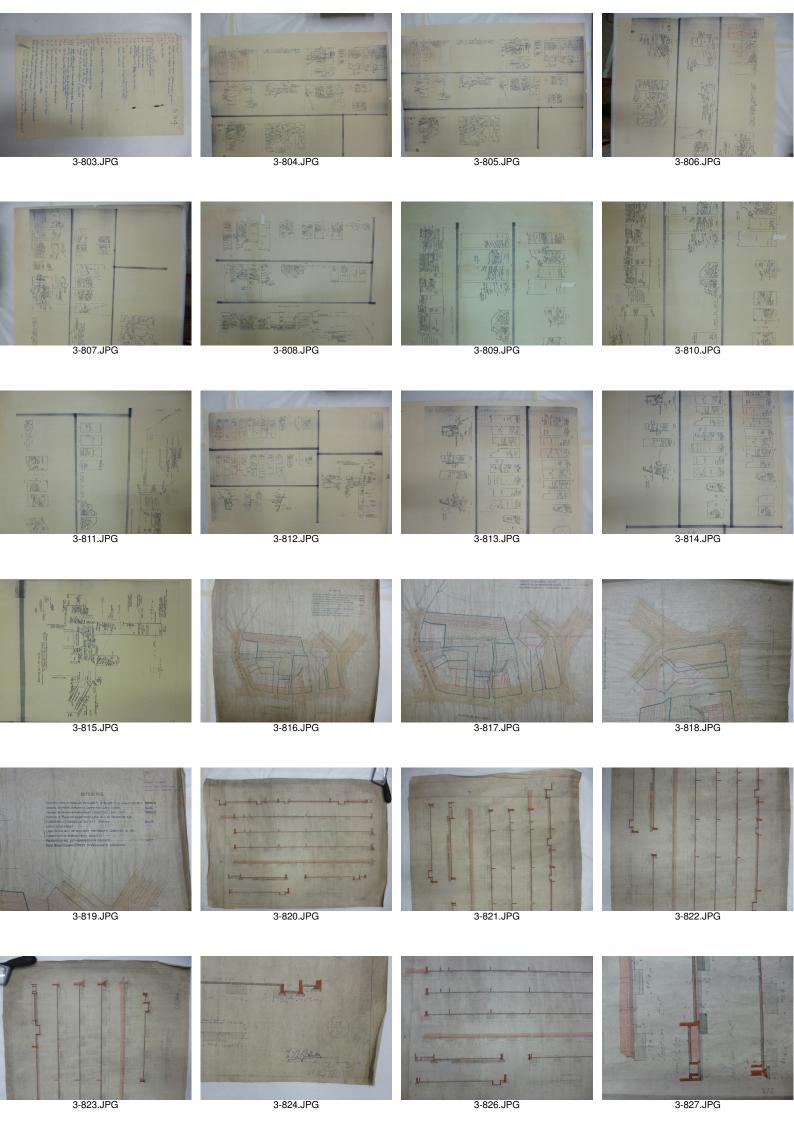


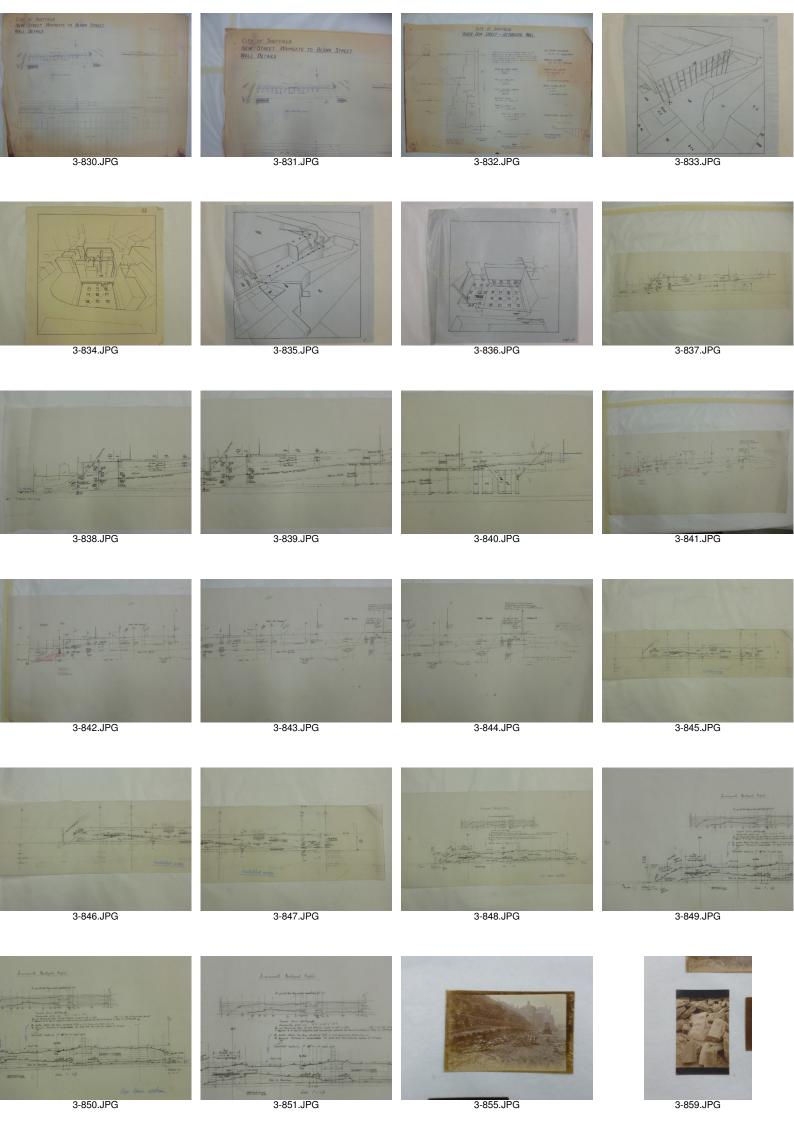


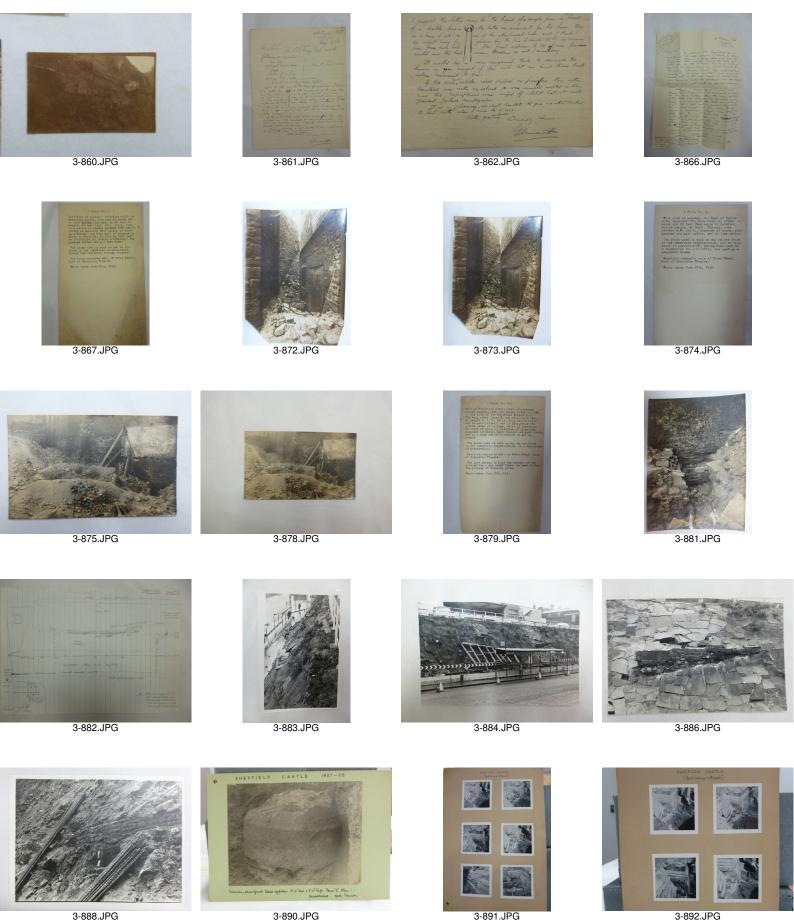




























3-907.JPG



3-911.JPG



3-913.JPG



4-324.JPG



4-325.JPG



4-326.JPG





4-329.JPG



4-331.JPG





4-333.JPG



4-334.JPG



4-335.JPG







4-340.JPG



4-341.JPG











4-346.JPG





4-348.JPG



4-350.JPG







































4-370.JPG 4-371.











4-378.JPG











































5-650.JPG



5-651.JPG



5-652.JPG











5-658.JPG

APPENDIX 2 LISTED BUILDING DESCRIPTIONS

LISTED BUILDING DESCRIPTIONS



IoE Number: 458126

Location: REMAINS OF SHEFFIELD CASTLE BENEATH CASTLE MARKET (1), EXCHANGE

STREET, SHEFFIELD, SHEFFIELD, SOUTH YORKSHIRE

Photographer: Mrs Barbara A West LRPS Date Photographed: 13 February 2003 Date listed: 28 June 1973

Date of last amendment: 28 June 1973

Grade II

Remains of castle. C13 and C14. Excavated 1927 and 1958-60. Lower part of ashlar faced gateway with bastion towers, drawbridge pit and pier. Not accessible at time of survey due to flooding. (The

Buildings of England: Pevsner N: Yorkshire: The West Riding: London: 1967: 454).

IoE Number: 458127

Location: REMAINS OF SHEFFIELD CASTLE BENEATH CASTLE MARKET (2), EXCHANGE

STREET, SHEFFIELD, SHEFFIELD, SOUTH YORKSHIRE

Photographer: N/A Date Photographed: N/A Date listed: 28 June 1973

Date of last amendment: 28 June 1973

Grade II

Remains of castle. Late C13. Excavated 1927-29. Rubble and ashlar masonry. Probably remains of a courtyard building. Not accessible at time of survey due to flooding. (The Buildings of England:

Pevsner N: Yorkshire; The West Riding: London: 1967-: 454).

IoE Number: 458128

Location: REMAINS OF SHEFFIELD CASTLE BENEATH CASTLE MARKET (3), EXCHANGE

STREET, SHEFFIELD, SHEFFIELD, SOUTH YORKSHIRE

Photographer: N/A Date Photographed: N/A Date listed: 28 June 1973

Date of last amendment: 28 June 1973

Grade II

Remains of castle. C13. Rubble. Not accessible at time of survey due to flooding. (The Buildings of

England: Pevsner N: Yorkshire: The West Riding: London: 1967: 454).

APPENDIX 3 EDAS PROJECT METHODOLOGY

EDAS PROJECT METHODOLOGY

Introduction

The scope of the works required for the project was broadly divided into two major elements, data gathering (Phase 1) and the synthesis, interpretation and presentation of that data (Phases 2 and 3); the results of these three phases of work are presented in volume 1 of the EDAS report. A further subsequent phase (Phase 4) was the preparation and submission of an archaeological evaluation specification. In many cases, there are cross references and links between the various project elements, with some activities informing and determining the scope and scale of subsequent elements.

Phase 1: Data Gathering

Review of Previous Works

Before any archive work was undertaken (see below), a review of information held by the South Yorkshire Sites and Monuments Record (SYSMR), including reports detailing previous assessment work on the castle site, was carried out. It was important that this review formed the initial stage of data gathering, as it allowed a detailed familiarisation with the overall layout and history of the site to be obtained before the more specific archaeological archival research. It also prevented the unnecessary repetition or duplication of both research and data gathering, as some previous assessments already contained detailed accounts of the castle's history partly based on the same sources consulted for the EDAS project.

Review of Archaeological Archives

The review of the archaeological archives, principally those originated by Armstrong, Himsworth, Butcher and Beswick, formed the major part of the Phase 1 data gathering. These archives form part of Museums Sheffield (MSA) archaeological collections and are held at their Acres Hill Store. The paper or documentary elements of these archives are substantial, and includes a small number of field drawings (generally annotated architects and engineer's plans), a large body of inked or pencilled (but unpublished) drawings, notebooks, letters and photographs (both black and white prints and 35mm colour slides).

Notes attached to the archives indicate that they were checked and photocopied in December 2001. As a result of this process, the photocopied material was ordered into six box files, and several archive boxes/envelopes. The ordering was done by category (for example, newspaper clippings, secondary articles, notes etc), rather than chronologically or by originator/investigator, and so there is some mixing between originator and different periods of archaeological investigation. Furthermore, the material also comprises original documentation as well as photocopies of the same original documentation, and photocopies of original documentation without the original being present. There is also a great deal of repetition within the documentation.

The six box files (housed in cupboard Q3) are:

- Box File Printed Articles Copies (sometimes referred to as "7. Clive Hart's Box File");
- Box File Armstrong archive (ex. University of Sheffield Library) (1995.85);
- Box File Newspaper Cuttings;
- Box File Written Text, Notes, Letters, Memos;
- Box File Photographs:
- Box File Finds Related Material.

Grouped with these box files are three other items:

- Archive box containing J B Himsworth's original site diary;
- Brown envelope labelled "Negatives of Prints of Excavations at Sheffield Castle by A L A (?) & Butcher"; and
- Brown envelope labelled "Sheffield Castle, Armstrong".

In addition to the six box files listed above, there are three further box files, held separately in cupboard Q2. These contain much of the original documentation which was photocopied and placed in the 2001 box files, but crucially also material which was not copied in 2001, including loose photographs. These three box files are:

- Box File Armstrong archive 1995.85 (this also holds material from other of Armstrong's sites);
- Box File Sheffield Castle Project File; and
- Box File Butcher Box File 1976.1064.

In the text of this EDAS report, archive material is referenced according to the box file in which it is currently housed.

In addition to the above, the Museums Sheffield archive also hold a large body of drawings. all kept together in a single large plan chest. All of these drawings relate to Butcher's investigations, although as part of his work he gathered up earlier material that was still extant in the 1960s and 1970s, for example the architect's original plans for the 1927-30 developments. The drawings relating to the castle site are housed in Drawers 1, and Drawers 6 to 10. They are kept in large archive folders. A part typed, part hand-written list of the drawings, together with other paper records, was made previously, and is kept in Box File - Written Text, Notes, Letters, Memo (Cupboard Q3). Within Drawers 6 to 10, the drawings are grouped in large paper folders, although there does not often seem to be any order to the grouping. Within each folder, some of the drawings have numbers with an 'S' prefix written on them. There is a hand-written 'Master List' of these 'S' numbers kept in Box File - Sheffield Castle Project (in the yellow folder marked 'Sheffield Castle Project') (Cupboard Q2). This list makes it clear that the 'S' numbers related to other of Butcher's work as well as that carried out at the castle, therefore there will not be a continuous or complete sequence of numbers in the castle folders. Most of the existing 'S' number allocations appear to match those given on the 'Master List' but others do not, and it is probable that someone has added what they thought might be the correct 'S' number at a later date, not necessarily correctly. Many folders also contain large quantities of unnumbered drawings. Some of the drawings are now in poor condition. Several folded paper drawings are now in several parts, and some of the film drawings are curled, brittle and torn.

Finally, there are the photographic sources for both Armstong and Butcher's works. Armstong (and Himsworth's) photographs are scattered throughout a number of different locations within the archives. The main photographic sources for Butcher's work are 35mm slides and black and white photographic prints, which were scanned by EDAS as part of a separate, non-funded, exercise.

There are two boxes of photographic slides. The first box, labelled "1995.90.1 Sheffield Castle L H Butcher", contains a number of glass slides; its contents were moved to a temporary housing in a plastic tub during the course of writing the report. The majority of these are copies of either Armstrong's or Himsworth's photographs, Armstrong's published drawings and/or Butcher's unpublished drawings. The second box is labelled "1995.88 Sheffield Castle 1958-63 (& 27-29)" and this contains a large number of excellent 35mm

slides relating to Butcher's works, and also some relating to Beswick's later works. Some of the card mounts are in a poor condition. The slides have been re-ordered in various ways over the years. Some of the slides have another numbering system written on them, in addition to that currently used to catalogue them, recorded in the 'Other Number' column of the EDAS catalogue. This 'Other Number' system relates to the photograph points/locations marked in purple on one of Butcher's field drawings (MSA: Drawer 6). A previous attempt to relate the two in 2001 survives as a hand-written list kept within the yellow folder in Box File: Sheffield Castle Project File (Cupboard Q2). Unfortunately, many of the slides have been re-boxed or re-ordered in teh recent past, which demonstrates that the 'Other Number' system is not a continuous run of numbers. However, it should be noted that not all of this 'Other Number' sequence relates to field activity. For example, one of the slides in Film 7 (7/70) has the 'Other Number' 70 written on it, and this is shown on Butcher's field drawing MSA: Drawer 6 pointing to foundation shaft E19. The slide depicts an isometric drawing of the deposits within the shaft, and appears to be copied from an original drawing surviving amongst Butcher's drawn material in MSA: Drawer 10 - S5 / S18?

The main body of black and white photographs are mounted on 36 cards housed in BOX FILE - BUTCHER 1976.1064 Sheffield Castle Notes/Photographs (Cupboard Q2), in an orange folder labelled ORANGE FOLDER - 'SC2/3'. Occasionally a photograph is missing because it has been cut out and not replaced.

Previous work (Davies & Willmott 2002) has suggested that the surviving archives could be used to construct profiles across, and the archaeological depositional sequence within, the moat on the south side of the castle and the structures of the castle entrance at the southeast corner. This is almost certainly the case, but such work lies outside of the scope of the works required for the EDAS project.

Review of Artefactual Archives

The SYAS brief noted that it was not intended that the EDAS project would include a review of the artefactual archives from the earlier investigations, but a contingency was to be allowed for the limited appraisal of finds by appropriate specialists, if it became clear that this was key to successful delivery of the project's aims and objectives. In the event, this was not the case, and so no review or examination of the artefactual archive was undertaken.

Review of the Nature of Existing and Previous Foundation Designs

As has already been noted above, some of the architects' drawings and plans relating to the 1920s to 1950s phases of the development of the market complex form part of the archaeological archives held by Museums Sheffield. Others are held by Sheffield City Council, including material relating to the covering over of the river Sheaf in 1915-16 - these drawings were scanned by Sheffield City Council and made available to EDAS. All this data was examined in detail and appropriate information was gathered to establish the extent of previous ground disturbance across the site. Details of existing and previous services crossing the site, as well as existing foundations and basements, were collated and surveyed as part of a separate 2D and 3D topographical survey of the site by Met Geo-Environmental (see below). Other data on existing services was provided by Sheffield City Council.

Review of the Detailed Topographic Survey

Sheffield City Council commissioned a detailed topographical survey of the markets site, as well as a detailed 2D and 3D measured building survey, from Met Geo-Environmental as part of the markets decommissioning programme. This data was also made available to

EDAS, at two stages in the project (July 2013 and January 2014). As part of the review of these detailed topographical surveys, several site visits were undertaken in order to gain a better understanding and appreciation of the relationship between the existing structures on site and underlying archaeological remains. Those surviving parts of the castle stonework which are accessible in basements were also inspected on 24th October and 7th November 2013 to assess their condition.

Phase 2: Synthesis and Interpretation of Data

A detailed review of the information obtained from all the Phase 1 data-gathering was undertaken, to present and interpret the previous historical, archaeological and excavation records as a clear narrative. A detailed account was also given of known information relating to building and development works on the site, including depths of foundations, and of previous attempts to assess the archaeological potential of the site. It was not the purpose of the project to provide a wholly new interpretation of Sheffield Castle, although in order to produce an archaeological evaluation strategy for the site, it was necessary to briefly consider previous interpretations and to highlight where the EDAS research might suggest a divergence from previous accounts.

As part of Phase 2 work, plans and sections of the previous archaeological interventions on the site, to show the known archaeological structures and remains in relation to the existing site topography, were produced. Modern Ordnance Survey mapping and the newly commissioned topographical and building survey data was used to present this information - data was captured using AutoCAD software and presented as a series of colour-coded drawings with appropriate explanatory labels and narrative text, all aligned to the Ordnance Survey national grid. Plans and sections of known non-archaeological interventions (e.g. services and foundations) were also produced, to show areas of expected good to poor archaeological survival and potential across the site in relation to the existing site topography.

The above data was then used to create a deposit model (in both 2D and 3D formats) of the location and nature of the known or suspected archaeological remains across the site (subject to the vagaries of the original data), in relation to existing site topography. Finally, outline recommendations for an evaluation strategy for the markets site, with reference to appropriate national and regional research agendas, to test the developed model of archaeological preservation, were made.

Phase 3: Presentation of Data

The SYAS project brief made it clear that a number of separate products were required to present the data.

Project Report

The Phase 1, 2 and 3 elements of the project are presented as volume 1 of a stand-alone EDAS archive report. This report includes an historical background to the site (to 1920), a structural history of the Castle Hill market buildings, a history of archaeological investigations on the site, an account of the disposition and survival of archaeological deposits across the site, and an initial outline evaluation strategy. The report also includes an extensive bibliography, and relevant appendices, plates and figures.

Public Presentation

It is known that there is considerable public interest in the potential uncovering and excavation of the remains of the castle complex, following the demolition of the Castle Markets (for example, see *www.friendsofsheffieldcastle.org.uk*). The initial results of the EDAS project were made available to a public meeting on 23rd November 2013, as part of a South Yorkshire Archaeology Day, and other presentation work included making the public lecture available to a wider audience via the SCC website.

Phase 4: Specification for Evaluation Strategy

Once the draft project report and its results had been reviewed, and the outline recommendations for an evaluation strategy agreed, a detailed archaeological specification for the implementation of that strategy was produced. This included options for significant community engagement, and will be used by Sheffield City Council to secure an appropriate archaeological contractor to carry out the work. This specification was produced as a standalone standard A4 typed and bound document (volume 2 of this report). At this time, there was no requirement for EDAS to prepare tender documents, select appropriate organisations, run the tender process and produce a tender report, and monitor/supervise the evaluation work.

APPENDIX 4 SYAS PROJECT BRIEF

SHEFFIELD CASTLE: BRIEF FOR DEVELOPMENT OF AN ARCHAEOLOGICAL EVALUATION STRATEGY

Summary

Sheffield City Council is decommissioning the Castle Markets building (centred at NGR SK 3577 8768) and is preparing to let a demolition contract, starting with asbestos testing, from November 2013; the visible demolition itself is expected to continue from June 2014 until May 2015. Subject to agreeing and implementing a suitable methodology, it is intended that the demolition contract will allow for the lifting of at least some of the building's ground/basement slabs, with a view to allowing, at the earliest opportunity, an evaluation of the site's below-ground archaeological potential.

This evaluation is required because the markets were built in the 20th century on the site of Sheffield Castle (demolished c.1648); two sections of stonework revealed during those building works are preserved in chambers under the present building. Both these sections of stonework are listed Grade II, as is a third section of stonework that is currently inaccessible. Following on from the evaluation, the City Council will prepare a methodology for further more detailed excavation, interpretation and presentation of the remains. This may include remains from the castle being included within a public open space alongside development of any suitable plots on the markets site.

Kier Asset Partnership Services, who are managing the decommissioning project for the City Council, now require an experienced archaeologist to work with the South Yorkshire Archaeology Services to help prepare a strategy for the initial evaluation.

Given the sensitivity of the project and the need for Kier and the City Council to be assured of impartial advice, the archaeological organisation appointed to complete this project will be excluded from the tendering process for subsequent fieldwork on this site.

1 Historical and Archaeological Background

A castle was first constructed on the site now occupied by Castle Markets in the 12th century, possibly on the site of an earlier Saxon hall. This first castle was an earth and timber construction but it was damaged by fire in 1184-5 and again in 1266. Thomas de Furnival, who held the manor of Sheffield at that time, applied for permission to rebuild in stone and this was granted in 1270.

The stone castle that was then built survived until the Civil War but didn't remain unchanged. Documentary records indicate numerous episodes of building, including

the construction of a 'new building' as late as c.1633¹. No pictures, maps or plans showing the castle are known, so its precise form and layout is not certain but documentary references give hints as to its layout. There are references to a Great Hall, a Great Tower and a Great Gate – as well as to a chapel, a kitchen and a bakehouse. These features are known to have been constructed around a central courtyard.

After the Civil War, on the 30th April 1646, a Parliamentary order was made to render the castle 'untenable'. Demolition was gradual and when Henry Howard, the Earl of Arundel and Surrey, bought back his father's estates in 1648, some structures at the castle were still habitable. Demolition continued, however, and by 1764 an article in the "Gentleman's Magazine" stated that no visible traces of the castle existed, apart from street names such as Castle Hill, Castle Folds, Castle Green and Castle Lathes.

Subsequent to the castle's demolition, the site developed with a mix of industrial, residential and commercial properties. By the time of the Ordnance Survey mapping of the town in 1853, much of the centre of the site was occupied by the Castle Hill Steel Works. A further major change to the site was the introduction of rows of slaughterhouses, built alongside the river Don on the north side of the castle site; this separation of the castle site from the river continued in the 20th century with the construction of a new road 'Castlegate' alongside the Don and the construction of a retaining wall along what had been known as 'the precipice' below the castle.

During the 20th century redevelopment of the site, two phases of archaeological observations and fieldwork took place. In the 1920s, the construction of the Brightside & Carbrook Co-operative Society building and of the first Castle Market building (the current meat & fish market) was observed by AL Armstrong and JB Himsworth, for the Hunter Archaeological Society. Their work identified substantial remains of the stone-built castle and some evidence for its timber predecessor(s), as well the moat surrounding the castle. Some of the identified remains were incorporated within basements under the buildings being constructed: part of a bastion tower and gatehouse were preserved under the Co-operative store, and part of a courtyard building was preserved under the market building. Armstrong published the results of this phase of work in the Hunter Society's *Transactions*²; Himsworth's account of observations on the site survives in unpublished diary form³ and adds further information to Armstrong's account. For example, he records workers demolishing the remains of a furnace, presumably from the Castle Hill Steel Works, said to be the oldest in Sheffield. The archive from this phase of work is held by Museums Sheffield, but some of the finds reported on are missing and are assumed to have been destroyed when a display case at the Co-op was destroyed, along with the building, in the Second World War.

Post-war reconstruction work on the site was observed by Leslie Butcher, a local amateur archaeologist who worked for the city architects department. Butcher recorded numerous features revealed during rebuilding. He never managed to

¹ Hunter, J (1819) *Hallamshire: the history & topography of the parish of Sheffield in the county of York* (second edition) ed. A Gatty 1869

² Armstrong, A L (1930) Sheffield Castle. *Transactions of the Hunter Archaeological Society* **4**, 7-27

³ Himsworth J B (undated) Record of an eyewitness of the uncovering of Sheffield Castle, unpublished

publish his results but draft material for a publication⁴ is contained within the archive for this phase of work, which is held by Museums Sheffield. One section of walling he identified, near the southwest corner of the original market building, is thought to have been preserved on the site; it was listed Grade II in 1973 - along with the structures in the two chambers detailed above.

A 4th section of stonework used to be visible in the retaining wall to the south of Castlegate. This fragment disappeared during works to the retaining wall in the 1970s, which work was observed by Pauline Beswick, then working at Sheffield Museum; the archive from this phase of work is held by the museum. Butcher's later notes suggest that earlier evidence may survive to the rear of the new retaining wall.

In 1994, the South Yorkshire Archaeology Field & Research Unit surveyed the standing remains of the preserved courtyard building, beneath the 1920s market building, as part of planned re-consolidation works; their work concluded that - although there had been some modern alterations to the surviving structure - what was original was in good condition⁵.

In 1999, ARCUS were commissioned by the City Council to test for surviving remains under the lower loading bay of the markets. Their trial trench identified part of the moat and a series of deposits within it, dating from the medieval to the post-medieval period⁶.

In 2001, ARCUS were commissioned by the City Council to excavate two evaluation trenches on the upper loading bay of the markets. Both trenches revealed well-preserved castle remains, including part of a courtyard building and fragments of other buildings. Evidence for one of the earliest phases of the castle was also found a pit containing pottery that could be as early as the late 12th century⁷.

The archives from both phases of ARCUS fieldwork are currently held by the University of Sheffield but it is hoped that transfer to Museums Sheffield can be arranged in the near future.

A plan of the known location of archaeological remains from the castle was produced by ARCUS and reproduced as 'known castle remains' in the 'Castlegate: policy & development framework' document, produced for Sheffield City Council in October 2005 by EDAW (see Figure 1 below).

⁴ Butcher, L (undated) A report on the discoveries made during various excavations on the site between 1927 and 1972, unpublished

⁵ Latham, I D & Atkinson, S (1994) Report on an archaeological investigation of some structural remains of Sheffield Castle, Castle Market, Sheffield, unpublished project report

⁶ Davies, G (2000) An Archaeological Evaluation Sheffield Markets: Phase 1B Trial trenching of Sheffield Castle, Castlegate, Sheffield *Project report 413c*

⁷ Davies G & Symonds J (2002) Archaeological evaluation of the Upper Loading Bay, Castle Market, Sheffield *Project Report 413h.1*

CASTLEGATE Trench 2 2001 t 8 50m Yor Pas: Trench 1/ 1999 Castle Market The Galler Castle Market PH Known castle remains 32 XCHANGE STREET 17/1/0 FB 413h

Figure 1: Plan of known castle remains

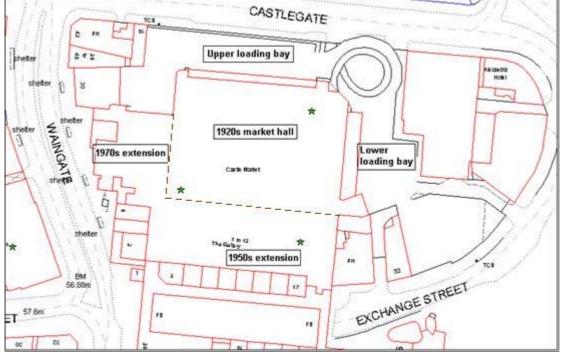
2 Archaeological Potential of the Castle Markets site

As a result of these phases of investigation, broad areas of archaeological potential can already be defined (see Figure 2 below, for areas described):

- 1920s Market Hall The present market hall was constructed at a higher level than the stonework remains previously identified and is thought unlikely to have extensive foundations, being single storey; remains of the central courtyard and adjoining buildings (relating to two of the preserved and listed stonework fragment) can, therefore, be expected to survive well under the present building.
- Upper loading bay Remains of stone buildings, a courtyard surface and earlier pits have been identified here. Similar remains are likely to survive well across the area, except where localised damage has occurred, e.g. from the spiral ramp to the east, the retaining wall(s) adjoining Castlegate and shop cellars to the west.
- Lower loading bay The moat has been identified here; further well preserved remains of the moat and deposits within it, which may be waterlogged, can be expected; evidence for activity inside and outside the moat may survive where there has been little 20th century disturbance.

- 1950s market extension Remains of the castle gateway, drawbridge and of
 the moat have been identified in this area. As this area has a basement at a
 lower level than the market hall, the survival of features originally at courtyard
 level will have been affected. However, remains of the gatehouse and
 associated towers (relating to the third preserved and listed stonework
 fragment) and of the moat are expected to survive.
- 1970s extension on Waingate Little or no archaeological work appears to have taken place here. The building has a basement at a lower level than the market hall and so the survival of features originally at courtyard level will have been affected. Structural remains may survive as isolated pockets and remains of the moat can be expected, given the original depth of this feature.

Figure 2: Plan of different areas of the Castle Markets (Green stars show the location of listed remains)



3 Project Aims and Objectives

The main aims of this project are to provide Sheffield City Council with sufficient information about areas of archaeological potential on the Castle Markets site that they will be able to secure appropriate evaluation of the site. Given the potential for high public interest in Sheffield Castle, the subsequent evaluation needs to allow for the wider community to play a role in rediscovering the castle's remains. This project and subsequent evaluation will inform future development of the site, which may include remains from the castle being included within a public open space — alongside small-scale development of any suitable plots on the markets site.

Specific objectives include:

- Reviewing information on previous phases of archaeological recording at the site, to establish, in as much detail as possible, which areas of the site have been archaeologically observed and which haven't - and what the results of those observations were.
- Reviewing information on the location and nature of existing and previous foundations and other groundworks, e.g. sewers and service runs, to establish, in as much detail as possible, which areas of the site have been disturbed and are likely to have poor archaeological preservation and which areas of the site have been left undisturbed and are likely to have good archaeological preservation.
- Developing an evaluation strategy for testing both the identified areas of archaeological interest and the areas of expected poor preservation.
- Designing a specification for implementing this evaluation strategy, including options for a high level of community engagement, that can be used by the City Council to secure the services of an appropriate archaeological contractor.

4 Scope and Methodology

The project will involve the following areas of work:

- Close liaison with the South Yorkshire Archaeology Service to ensure the project meets the aims as set out above, including an initial project meeting and at least two in-project review meetings.
- Review of information held in the South Yorkshire Sites & Monuments Record, including previous assessment reports on the castle site produced by ARCUS⁸.
- Review of the surviving paper archive and publications from work carried out by Armstrong, Himsworth, Butcher and Beswick⁹ to produce a plan(s) of the areas of the site covered by early phases of investigative work.
- Review of the surviving paper archive and publications from work carried out by Armstrong, Himsworth, Butcher and Beswick – to interpret the excavation records and produce a basic (provisional) stratigraphy for the remains recorded by them.

⁸ Belford, P (1998) An archaeological desk-based assessment of the Sheffield markets site *Project report 413*; Davies G & Willmott H (2002) 'Excavation & research at Sheffield Castle 1927-1960 – an assessment and project design'; McCoy M (2009) 'Sheffield Castle, Sheffield – Archive Scoping Review' *Project report 669b(1)*

⁹ Extracts from the 2002 project design produced by ARCUS (for EH), relating to the paper archive held by the museum, are attached as an appendix to this brief.

- It is not intended that this project will include a review of the finds archives from earlier investigations, but a contingency should be allowed for limited appraisal of finds – if it becomes clear that this is key to successful delivery of the project's aims & objectives.
- Review of these early phases of investigation on the site and those more recently carried out by ARCUS – to produce an integrated deposit model of the location and nature of archaeological remains across the site.
- Review of the detailed topographic survey of the markets site that is to be commissioned separately as part of the decommissioning programme – to establish the relationship between known and expected remains and present floor slabs, etc.
- Review of surviving information/plans for the construction of the present market buildings and the now demolished Co-operative store¹⁰ – to establish the extent of previous ground disturbance across the site.

5 Outputs

Alternative approaches/innovation in delivering the project outcomes is welcome, but outputs from the project are expected to include:

- Production of a series of sections across the markets site, showing known archaeological structures and features in relation to the existing site topography.
- Interpretation of the sections produced via a clear narrative.
- A costed option should be included for a computer generated 3D model of remains across the site, to aid interpretation as well as engagement by nonspecialists.
- Production of plan(s) showing areas of expected good and poor archaeological potential across the site.
- Interpretation of the plans produced via a clear narrative.
- Recommendation for an evaluation strategy for the markets site, with reference to appropriate research agendas, to test the developed model of archaeological preservation.
- Production of a specification for the agreed evaluation strategy, including options for significant community engagement, which will be used by the City Council to secure an appropriate archaeological contractor to carry out the work.
- Submission of all plans, sections and narrative reports in both paper and digital format to the client and the South Yorkshire Archaeology Service and – if commissioned – submission of the 3D model in an agreed format.
- Preparation and deposition of archive copies of all project outputs with the Archaeology Data Service, to aid wider dissemination of the result.

¹⁰ Plans of the 1950s/70s market buildings are held by the City Council – see Appendix 2. Archives will need to be consulted for any plans of the earlier phases of the market buildings and former Cooperative store, e.g. some are mentioned in the list of plans held by Museums Sheffield in Appendix 2.

6 Timetable

This project needs to be completed by Friday 6th September 2013, to allow the results to be considered and incorporated into the demolition contract that will be prepared in November 2013 and to be considered in a Stage 1 bid to the Heritage Lottery Fund that will be submitted in November 2013.

Museums Sheffield has confirmed that access to the site archives can be arranged in the following weeks:

NB Block bookings will need to be arranged with Helen Harman, Archaeology Curator, at the earliest opportunity – telephone: 0114 278 2615 or email: helen.harman@museums-sheffield.org.uk.

To allow appropriate access to be arranged to the archives, a daily charge rate of £130 will be made by Museums Sheffield. This must be allowed for in the submitted tender.

A Gantt chart showing the timetable for project tasks, leading to completion by the end date of 6th September, will need to be produced and submitted as part of the tender process.

7 Monitoring

Project work will be monitored by the South Yorkshire Archaeology Service (SYAS). Any alterations to the stated project aims and objectives will need to be discussed and agreed with SYAS in advance of implementation.

Staged payments will be made, according to a schedule submitted with the tender documents, if project progress is satisfactory.

8 Publicity

There is considerable local interest in the potential uncovering of the remains of Sheffield Castle, following the demolition of the Castle Markets. As a result, allowance will need to be made for presentation of the results (or interim results) at a public meeting to be organised by the City Council in the run up to the HLF bid (date to be confirmed); preparation for this should include the design of 2 x A0 posters illustrating key findings relating to the location and extent of surviving remains. In addition, allowance will need to be made for delivery of a public lecture at the South Yorkshire Archaeology Day, held on November 23rd 2013.

9 Ownership

Copyright in project outputs will be transferred to Sheffield City Council, or the copyright holder will licence them to be used in perpetuity by the City Council, to allow the City Council to use and reproduce material, with the originator suitably acknowledged.

Appendix 1:

Extracts from ARCUS' 2002 Project Design for completion of post-excavation work for fieldwork carried out at Sheffield Castle, 1927 - 60

2 SITE RECORDS

2.1 Quantity

The records of Armstrong's and Butcher's work are held in a number of plan chests, box files and slide boxes in Sheffield City Museum. This material has become jumbled since their original deposition, although recent work by volunteers from the Hunter Archaeological Society has resulted in much of it being re-sorted into separate Armstrong and Butcher archives.

2.1.1 Plans and sections

The majority of the surviving plans are from Butcher's fieldwork. None of the plans of Butcher's work are original field drawings, but consist of inked-up versions of archaeological and architect plans. The only plans from Armstrong's work are the final illustrations prepared for his publication. The plans and sections in the collection include:

- architects drawings of 1920s market construction and 1950s redevelopment,
- plans of pile locations.
- plans of the archaeology,
- · sections of piles,
- plans of stonework,
- sections/elevations of stonework.
- isometric reconstructions of the moat and entrance stonework.

There are a total of ninety-one sheets of drawings. These include thirty-nine plans, thirty-one sheets of sections/elevations and twenty-one isometrics (a full list is in **Appendix 1**). Of the fifty pile holes, excavated in the 1950s in and around the moat on the southern side of the castle, sections survive for twenty-nine. Often all four sides of the pile holes have been drawn. Although soil descriptions are not always present for each context in the pile holes, there are keys to the sections which provide a basic description of all the stratigraphy.

There are also several small interpretive sketch plans of parts of the castle, mainly of the moat on the southern side or of the entrance area.

2.1.2 Note books and correspondence

There are extensive records of correspondence relating to Armstrong's work on the castle, but only a few field notes survive. One small notebook of Armstrong's remains, and this contains some measurements taken during a period of a few weeks in 1920. This is of limited values as no plans relating to the measurements survive. There are no field descriptions of the site from Armstrong's work. However, Himsworth's diary does describe much of what he saw on the site, particularly the stonework. This diary has been typed up and illustrated with photographs taken by Himsworth. Dozens of letters survive to and from Armstrong, many of which include discussions of the archaeology and thoughts on some of the finds, including those which have been subsequently lost. There are also the notes for a number of lectures given by Armstrong and Himsworth on the archaeology and history of the castle. There is also an unfinished draft of a paper on the history of Sheffield Castle by Drury (a local amateur historian). On Drury's death Armstrong agreed in correspondence with his wife to finish the work. However, it is appears that he never did this.

No field notes survive for Butcher's work. However, there are several letters to and from Butcher relating to the excavations and a series of lecture notes. There are also

extensive notes relating to aspects of the archaeology and history of Sheffield Castle. These appear to be notes for the preparation of a publication on the castle but these are very incomplete and make no reference to the finds.

There are a number of newspaper cuttings on the castle that from date from the 1920s to 1960s. These are of limited value, but some of them do include descriptions of finds from Armstrong's work that have since been lost. There are also odd notes in the files on other work, notably by Beswick, particularly on what she saw when the concrete retaining wall was constructed along the precipice.

2.1.3 Photographic archive

The museum archives contain numerous photographs of the site. The earliest of these are three prints dating from 1914. The prints show fragments of stone walls incorporated into buildings stood on the site, but it is unclear if these are *in situ* remains of the castle or later reused stonework.

There are hundreds of black and white prints. However, these are mixed-up and include photographs by Armstrong, Himsworth and Butcher. Some of the photographs are marked with dates and descriptions, but not all. Some of the prints show artefacts recovered by Armstrong and possibly by Butcher. Careful analysis may be able to untangle and utilize these pictures. Some negatives survive for the prints.

The best images of the site are provided by a number of slides. There are eight large glass slides taken by Himsworth showing Armstrong's work, but no slides by Armstrong himself. The majority of the slides are of Butcher's work. There are 124 35mm slides of these in all and they come from a total of eleven different films. There are also seven large glass slides of drawings made by Butcher. There are ten later slides by Beswick of work on the precipice and a further eight glass slides that cannot yet be credited to anyone, but were probably taken by Himsworth.

2.2 Work to date

The assessment of the documentary archive has identified the presence of substantial numbers of plans, photos and other documents relating to archaeological work on the castle since the 1920s.

A catalogue has been produced of all the plans and section from Armstrong's and Butcher's work held by Sheffield City Museum (**Appendix 1**). All other documents relating to work on the castle have been catalogued. The types of documents involved and their numbers are summarised in **Appendix 2**.

The photographic archive of Armstrong's and Butcher's work has been examined. This identified that the two archives have been collated over the years. All the slides have been separated out and resorted into their original films. This has identified that the majority of pictures relate to Butcher's work and that these are a valuable additional to the drawn record, particularly with respect to the castle stonework.

2.3 Potential

The extensive drawn records and photographs, particularly of Butcher's work, can be used to construct profiles across, and the depositional sequence within, the moat on the south side of the castle.

The stonework, particularly the gatehouse and bastions, have been well-recorded over the years and the drawn and photographic record can be used to understand this element of the castle.

From the records available of Butcher's and Armstrong's work, allied with the analysis of the finds, it is possible to reconstruct and date the depositional sequence in the moat on the southern side of the castle and the structure of the castle entrance.

Some of the records show features that may relate to the defence of Sheffield Castle during the Civil War. Continued examination and analysis of these may reveal further post-medieval activity.

2.4 Work to do

Study of the documentary archive will produce detailed information for the interpretation of the site and analysis of the finds (a methods statement is outlined in **Section 18.1**). The tasks fall into several areas;

- producing a plan of the whole site, showing all known and recorded archaeological features,
- examination of all notes, diaries, letters and lecture notes for information on any otherwise unrecorded archaeological features,
- using Butcher's sections key to identify the character of the moat deposits,
- reconstructing the stratigraphic sequence/phasing in the moat,
- extracting all records or information of lost artefacts,
- relating the photographs to specific archaeological features.
- identifying phasing/alterations within any recorded stonework.
- identify those features which may relate to the siege of Sheffield Castle in the Civil War.

Appendix 1 Catalogue of plans and sections by Armstrong and Butcher

7

3

*

Type	Showing
drawing	pots
elevation	through tower, original inked
isometric	construction of moat (x3)
isometric	construction, around the market
isometric	construction, gateway
isometric	construction, gateway
isometric	construction, gateway (x4)
isometric	construction, moat
isometric	construction, unknown
isometric	construction, unknown
isometric	gateway
isometric	internal ditch
isometric	moat
1	
isometric	moat
isometric	moat and gate
isometric	moat from s/w corner to gatehouse and outer defences
isometric	pile holes H23 J24a J23 J24 H24 G24
isometric	pile holes s/w corner of moat (only H23 marked)
isometric	pile sections, F21 G21 F20 Ea 19a
isometric	piles containing stakes and horizontal boards
isometric	rough-out
isometric	rough-out, unknown
isometric	rough-outs for gate construction
plan	4" boreholes plus random profiles
plan	Armstrong original photos of plans 1 & 3
plan	Castle Hill Castlefolds (x2)
plan	Castle hill contours (construction)
plan	castle markets and notes on urban archaeology conference
plan	construction, gatehouse
plan	construction, pile layout and moat
plan	contour survey of castle hill
plan	contour survey of moat
	council plan, line of Sheaf
	council plan, sheaf culvert
	east side of Co-op, markets and sections through pile lines
plan	Exchange Street (x3)
	gate
	gatehouse
	gatehouse, moat, Butcher & Armstrong piles
· · · · · · · · · · · · · · · · · · ·	hypothetical contour, unknown
	inked showing moat, piles and grid
	location of ALA
	location of section AA & BB
	lower loading bay
	moat and extrapolation of moat and outer defences
	moat and piles, no grid
	moat showing line of section five
	moat, piles and grid
	original Ave Orup plans of piles and grid (x3)
	pile holes with Butcher notes on line of moat
	nila lagation
	pile location
plan	piles in moat
plan plan	

plan	rough-out of gateway area
plan	Shambles & proposed new road elevation
plan	sheaf market
plan	upper loading bay and Castlegate stonework
plan	upper loading bay, carport and slope
plan &	gatehouse, moat and piles
section	
plan &	inked, section through moat
section	
plan &	stone foundation on Castlegate
section	
section	across Castlegate retaining river wall
section	across moat F23-H22
section	along moat
section	Beswick section of stone on Castlegate
section	boreholes 67 68 70 71 72
section	construction drawing, E facing section
section	construction moat depths from boreholes
section	construction of mega section through J23-H24
section	construction, Castlegate profile from lost Himsworth photographs
section	construction, moat (x2)
section	construction, section across castle (x2)
section	construction, through moat
section	Co-op pile construction
section	E section, unknown
section	E side of castle hill
section	E17 E22 F23 H5, along 1929 building, wall in s/w corner, original market building
section	extrapolated section between pile holes G5-J23
section	F22 F20 F11 E13 F13
section	hypothetical schematic section based on pile data and possible finds
section	J23 H2-4 H 24 G7 J24 H23 G23 G5 Manhole 3 G-H24 G22 G9 E19 E15 F21 F9
section	mega section through J23-H24 (x2)
section	pile pit 55 (big size)
section	schematic section across castle from Castlegate to Exchange Street
section	section on gridlines 2-9 across moat
section	stonework and gatehouse
section	through gate
section	unknown

I

I

I

J

Appendix 2 Documents in Sheffield Museum relating to Sheffield Castle

4

D

	Armstrong	Himsworth	Butcher	Beswick/Hart
Field notes				1
Diary		1		
Notes	10	5	7	2
Letters/memos	38	4	5	4
Lecture notes	2	3	1	
Interpretive notes/drafts	5	1	10	2
News paper cuttings	13		4	1
Sketch plans/drawings	10	2	9	1

There are numerous other pieces of paper with odd notes on them relating to different aspects of the castle and the work undertaken on it over the years.

Appendix 3 Finds from Sheffield Castle by Excavator

	Armstrong	Butcher	ARCUS 2000	ARCUS 2002
Pottery	222	1567	45	72
Tile	4	5 bags	26	36
Glass	6	25	2	10
Metalwork	14	0	22	7
Clay pipes	12	16	13	4
Stone	8	9	1	7
Animal bones	0	21 bags	74	283
Wood	5	11	0	0
Leather	0	56 bags	0	0

The figures are for material recovered from castle deposits or castle destruction deposits.

Appendix 2:

Castle Hill Market: Schedule of scanned drawings

CASTLE HILL MARKET SCHEDULE OF SCANNED DRAWINGS

1 Fou	undation plans, high and low blocks
2 High	h block - UGFM beam
7F Ger	neral arrangement phase 2 offices, first floor
8E Ger	neral reinforcement - ph 2. Roof
10A Sec	ctions C & D
11B Ger	neral arrangement phase 2 section E, F & G
12B Ger	neral arrangement phase 2, section H & J
14E Ger	neral arrangement phase 2, offices second floor
17 (services) Mar	rket block pile layout, upper ground floor - sheet 1
18A(services) Mar	rket block pile layout, upper ground floor - sheet 2
19A UGF	F mezzanine low block
20D Low	v block, gallery floor, layout and ribs
33E Sou	uth-west lift shaft and duct layout - sheet 1
35 Sou	uth-west lift shaft and duct layout - sheet 2
36A Low	v block, 1st office floor, hollow pot and ribbed floor layout
42A Deta	ail of exit from from loading bay
45 Exit	t road over Sheaf culvert. Detail of pre-stressed beams - sheet 1
57 Colu	umn bases and foundations - sheet 5. SW lift and ventilation shaft. Fnds 162
58B SW	lift and vent shaft. LGF - gallery
69A LGF	F details of Castle Inspection Chamber

Phase 1 & 2 – 5319 Extensions c.1957/9

119F	Main stairs and lift section
120F	Main stairlift & tower plans and sections
122B	Lift motor room and fresh air inlet, east end of low block
123J	East elevation
123	East elevation
124	North elevation and section
128A	Plans and sections of exit road from loading bays to Exchange Street
130A	Detail of ramp and canteen yard
171	Construction phasing
189	Exit road from loading bay in vicinity of Sheaf Culvert

190C	Plan and section of lower ground floors to Exchange Street
191C	Sections through lower ground floors to Exchange Street
251A	Refuse structure - elevation

Phase 5 – 5319	
Extensions	
c. 1957 -62	
23J	Foundation and drainage plan
24L	Lower ground floorplan
29E	North-south sections
30	Castle Market extensions - Ph 5 East-west sections
31F	West and south elevations
60A	Vehicle access to loading dock
65A	Setting out of grid at Exchange St & Waingate Corner
66	Alteration to 39 Exchange Street
101	Lower ground floor - 170.50
102	Lower ground floor mezzanine
103	Upper ground floor
104Y	Upper ground floor mezzanine
105R	Gallery
107K	Office floors, high block
108M	Main office floors
109	Roof plan
110D	Cross-sections looking west
116C	Waingate elevation
124	North elevation and sections
130A	
129A	
201C	Lower ground floor
202C	Lower ground floor mezzanine
203C	Upper ground floor
206	Upper ground floor mezzanine 196.75 - Market Hall
235	Handrails and balustrades
245	Lower ground floor plan

South Yorkshire Archaeology Service Sites and Monuments Record

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office.

© Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. 100018816. 2007

14 May 2013 Scale 1:2000 at A4

For reference purposes only. No further copies may be made



