

# Caves of Nottingham Regeneration Project

## Introduction to the Archive

### The project

The Caves of Nottingham Regeneration Project (Historic England Project 5866) ran from 2010 to 2020 and aimed to advance understanding of the caves through investigation and laser-based recording of selected cave systems and wider analysis of the whole dataset, provide a publicly-accessible archive to assist with their management in the planning process and in other ways, and promote them to the public through visualisation.

The key project products comprise:

- a Laser Survey Report containing:
  - a desk-based assessment of recorded caves in Nottingham;
  - descriptions and illustrations of ten of the systems with laser surveys;
- an Archive Report containing descriptions and illustrations of the fifty-six surveyed systems not included in the Laser Survey Report;
- a website hosted by York Archaeological Trust incorporating online visualisations of the surveyed cave systems; and
- a document forming the foundation of a Supplementary Planning Document (SPD) guiding the treatment of caves in the planning process (Nottingham City Council 2019 *Management of the Caves of Nottingham*).

The Laser Survey Report can be accessed from this website, while the Supplementary Planning Document can be downloaded from the Nottingham City Council website<sup>1</sup>. The locations of all components of the archive are listed in Table A1 below.

The project was funded by English Heritage (now Historic England), Nottingham City Council, Nottingham Civic Society, the University of Nottingham and the now disbanded East Midlands Development Agency and the Greater Nottingham Partnership. It was conducted by Trent & Peak Archaeology, and since 2017 in association with SLR Consulting Limited.

### The caves of Nottingham

The caves of Nottingham lie chiefly in the centre of the City, including parts of New Lenton, Radford, St Ann's and Sneinton (National Grid references 455250E–458600E and 339000N–341500N). There are small numbers of isolated outlying caves beyond this area. They 'constitute a feature of the City that is nationally unique' (Nottingham City Council 2019, 7).

Many cave systems are now destroyed or inaccessible and the available records, often compiled for engineering purposes, fall well short of providing even just a factual record of location and form. The

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<sup>1</sup> <https://www.nottinghamcity.gov.uk/information-for-business/planning-and-building-control/planning-policy/the-local-plan-and-planning-policy/adopted-supplementary-planning-documents-and-guidance/>

most comprehensive catalogue and documentary archive of the caves is the Nottingham City Historic Environment Record.

## **Laser surveys**

Surveys of sixty-six cave systems were completed for the project, focused on the footprint of the historic urban centre but with outliers.

The cave systems were scanned using a tripod-mounted laser scanner, with a camera to capture colours. The results were processed to form point clouds (a very large collection of coordinates defining surfaces with attached colour information). These permitted interactive analysis and public presentation as video 'fly-throughs'. A selection of ten caves with description and analysis illustrating key themes and types is presented in Section 3.4 of the Laser Survey Report.

There are abundant opportunities for further productive research into the caves of Nottingham.

## **Project conclusions**

Some caves have been in continuous use since their formation but many have been rediscovered and recorded during development, chiefly since the Victorian period, but often not for archaeological purposes.

Cave systems are entered either down a passage from the surface or a basement or a cellar, or on the level through a vertical or steeply-sloping cliff-face or terrace-edge. The simplest cave systems are those comprising only passages, or a single access passage leading to one chamber. Clustered systems are the most common type but occasionally, where there is only one route through the system, they may consist of a string of caves.

Multiple levels occur in systems containing both clustered and string forms. The presence of multiple levels may indicate a sequence of development, with the oldest caves lying at the top where they were easiest to dig and use.

The spatial distribution of cave systems was compared with identified stages of Nottingham's spatial urban development, termed Built Development Zones (BDZs), in order to assess chronological developments and significant forms in relation to the overlying built environment.

An isolated documentary reference suggests that there were cave-dwellings at Nottingham prior to the Norman Conquest, but physical remains of these have not been certainly identified. There is frequent documentation and some archaeological evidence of caves in the medieval period. Cave-maltings and tanneries have been identified which were used from the medieval period through to the mid-17th century. Distributions compared with the BDZs suggest that other small, rounded and often clustered caves are also likely to be of medieval or early post-medieval date. Early documentary evidence suggests that uses included access passages, storage, dwellings, mines, maltings and tanneries, churches, and prisons.

Post-medieval cave systems are considered under the following topics:

- mines;
- beer cellars;
- industrial;
- residential; and
- purpose built air-raid shelters.

## Archive location and contents

The archive is entirely digital. Components are held by the British Geological Survey (BGS), Nottingham City Historic Environment Record (NCHER) and Archaeology Data Service (ADS) as follows:

**Table A1**  
**Archive component locations**

Component	BGS	NCHER	ADS
<b>Introduction to the archive (this document)</b>	x	x	x
<b>Laser Survey Report:</b> <i>The Caves of Nottingham. Desk-Based Assessment and Laser Surveys</i>	x	x	x
<b>Project GIS</b>	x	x	
<b>Laser Survey Archive</b>			
Archive Report: <i>Descriptions of 56 Cave Systems Subjected to Laser Survey</i>	x	x	
Point clouds ( <i>65 files covering 66 cave systems</i> )	x	x	
Selected reduced-size point clouds	x	x	
Video fly-throughs	x	x	
<b>Documentary Archive</b>	x	x	

Reduced-size versions of the largest point clouds are provided to ensure that the whole archive is suitable for download and use with standard computer equipment.

The documentary archive was largely prepared by Scott Lomax working for TPA, with subsequent adjustment of file names to match the NCHER numbering system by Gavin Kinsley (omitting the MNU prefix for brevity). Scott provided a summary of each system which is stored as a Word document named primarily after the abbreviated NCHER number, but with the superseded BGS reference appended.

### Folder structure of the BGS and NCHER Archives

#### 1\_Introduction\_to archive+report

Introduction\_to\_archive

Laser survey report

#### 2\_Project\_GIS

#### 3\_Surveys

1\_Archive cave descriptions

2\_Edited\_point\_clouds

3\_Edited\_reduced\_point\_clouds

4\_Fly-throughs

#### 4\_Documentary