



**Cobbles in the Castle Wall at Roundhay Park**

(Photo by Neville Hurworth)



**Cobble Hall**

(Photo by Joan Newiss and by kind permission of Mrs Gilpin)

# **Cobble-Stone Buildings in Roundhay Park**

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## **1. INTRODUCTION**

Cobbles are rounded or subrounded water-worn stones which are usually very hard and resistant to weathering. The three main sources of cobbles are from debris deposited by ice sheets, from river bottoms (in which case they are often reworked glacial deposits), and from beach material.

The two most familiar uses of cobbles are for paving where well-matched stones are used to form attractive and hard wearing surfaces; and in certain parts of the country where extensive glacial debris is present, they are used, often with great skill, as building stones. Where cobbles are used for building, the quoins (the outside corners), and the surrounds for doors and windows are usually made of dressed blocks of stone.

Much of the Roundhay area of north-east Leeds has no deposits of glacial debris, and dressed sandstone blocks are the characteristic building material. However, a large area of glacial deposits is present in the north-east part of Roundhay Park, to the east and south of Cobble Hall Farm, and thin glacial deposits are present in Castle Wood north of The Castle. Two buildings -The Castle and Cobble Hall, were constructed using cobbles from these deposits.

## **2. THE BUILDING STONES OF ROUNDHAY**

The building stones of Oakwood and Roundhay were discussed by Mitchell (2001) in Oak Leaves Part 2 and many of the long exploited stone quarries noted. There is a major east-west fault line (geological fracture) across Roundhay Park approximately crossing the head of Waterloo Lake. Fine-grained, buff-coloured sandstone (Elland Flags from the Coal Measures) occur south of this line, and coarse-grained, grey-coloured sandstone with small white quartz pebbles (Rough Rock from the Millstone Grit) occur to the north. Both these sandstones were quarried and worked into

squared blocks which were laid in regular layers or courses to form the walls of buildings throughout Roundhay.

The use of local stone gives a town its character and Roundhay with its extensive use of sandstone blocks is typical of Leeds which can be referred to as a 'sandstone city'. The stones used give an accurate indication of the underlying geology. With such good quality sandstone being available locally for building, it is surprising and most interesting to find two buildings in Roundhay Park successfully using glacial cobbles. Cobbles are rarely used for building when sandstones of proven quality are available locally as they are in Roundhay.

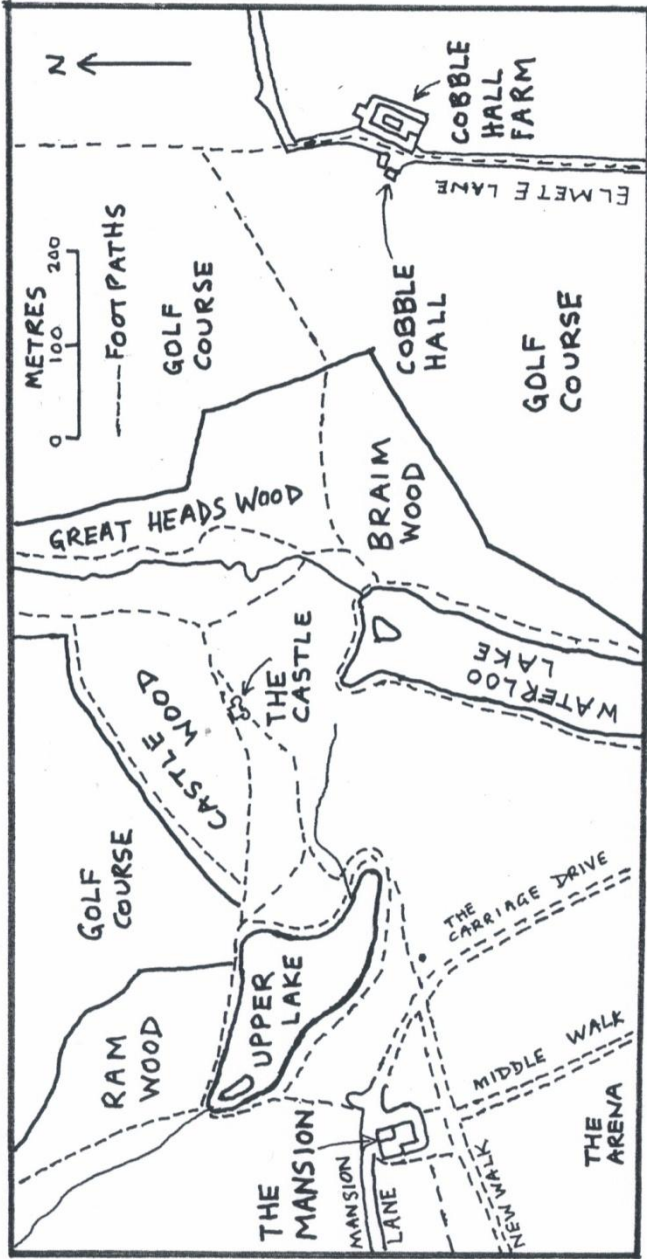
The characters of building stone and the costs of the various aspects of building with stone need to be considered (see Section 5). It is here suggested that the use of cobbles in Roundhay Park is a fine example of a local master mason and an architect having a detailed understanding about using a variety of stone for building.

### 3. BUILDINGS IN ROUNDHAY USING COBBLES (see Map)

The two buildings in Roundhay Park that were constructed with cobbles are the appropriately named Cobble Hall, attached to the old farm buildings on Elmete Lane, and The Castle which overlooks the head of Waterloo Lake.

Both buildings are thought to have been designed by the architect Thomas Taylor who had started work in Leeds by 1812, and were built by George Nettleton, a long standing local master builder. They are constructed in the Gothic revival style with the pointed-arch windows and doorways.

Cobble Hall was, and still is, a desirable residence. It was an entirely new building, attached to an existing farmhouse which then formed a service wing for the new house. Cobbles are used as the main walling material, but the quoins, door and window surrounds, as well as the castellation, an integral part of the building, are dressed blocks of coarse-grained sandstone probably from local Rough Rock quarries. The early history of Cobble Hall is uncertain, but it may have been built for Thomas Nicholson as temporary accommodation while The Mansion was being



MAP of Roundhay Park with the site of The Castle and Cobble Hall

constructed in 1815-1816. Thomas Nicholson moved into his fine new residence in 1816. Stephen Nicholson lived at Cobble Hall around 1825-1826 when he was waiting for North Hill House in North Lane to be finished.

The Castle was built as a folly, sometime before 1821 (it is marked on an 1821 plan of the estate), on the south side of what is now called Castle Wood, with a fine view over Waterloo Lake, and originally had a wooden roof. It was used for shooting party luncheons, and as a summer house where the daughters of William Nicholson Nicholson did their sewing and had tea served while admiring the view over the Lake (Burt 2000 p. 16). Cobbles would have been admirably suited for building the circular towers, but for the door and window surrounds, dressed blocks of coarse-grained sandstone were used, probably from the Rough Rock quarry (now filled in) immediately to the north in Castle Wood. Sometime after Roundhay Park was opened to the public, The Castle became a badly vandalised ruin, but was restored to its present state in the 1970s.

#### 4. GLACIAL HISTORY OF ROUNDHAY

There were many glacial phases during the Quaternary Ice-Age (2 million years ago to the present), but most of the evidence for glaciers and their deposits of debris are from the action of the final glaciation (Late Devensian, 26,000 to 10,000 years before present). The heavily glaciated Lake District, for example, has very little surviving evidence of the pre-Late Devensian glaciations. The Late Devensian glaciers simply removed almost all evidence of earlier glacial periods.

In the Leeds area, the Late Devensian glaciers were confined to the valleys of the rivers Aire and Wharfe and did not spread over the higher ground between. The deposits of glacial debris mapped to the east and south of Cobble Hall are recorded as an 'Older Drift', deposited by an earlier glaciation (? Anglian; about 400,000 years ago). They are described as 'dark grey clay with boulders and cobbles of sandstone' (Edwards and others 1950).

Deposits of the 'Older Drift' also occur north of The Castle and, although too thin (less than 1 metre in thickness) to be shown on the recent geological map of the area, they probably underlie much of Castle Wood. Cobble from these deposits were used for much of the stone wall between Roundhay Golf Club and Castle Wood. At the eastern end of this wall, a small quarry exposes glacial sand which contains cobbles of sandstone.

The coarse lithology of the Roundhay Park cobbles suggests that they probably came from the south side of the Wharfe valley between Otley and Addingham where similar coarse-grained sandstones of the Addingham Edge Grit form the crags.



**Surface cobble stones in Roundhay Park on the footpath south of the Golf Course/Castle Wood boundary wall**

(Photo by Neville Hurworth)

## 5. CHARACTERS OF BUILDING STONES

There are three essential factors to consider when assessing the suitability of any rock for use as a building stone. The rock must be workable, durable, and most importantly in early days, the source needed to be local - as near to the building site as possible. There needed to be a balance between these requirements, with more durable stone which would be more difficult and so more time consuming and expensive to work, being used only where essential for features such as lintels, sills and quoins. The bulk of walling material would be a compromise, but always there was the necessity for quarrying to be local. Up until the spread of railways provided cheap and easy transport for bulky materials, the carting of stone was very expensive. Surviving records and accounts for some early medieval monastic buildings show that the cost of transport in fact exceeded the combined costs of all the rest of quarrying, working and construction work (Knoop and Jones 1933).

## 6. ADVANTAGES OF USE OF COBBLES FOR BUILDING

The use of cobbles as building material is well known, but is usually restricted to areas of the country where thick deposits of glacial debris left by ice sheets completely blanket the solid rock outcrops so that there are no exposures of rocks that could be worked for building stone. This is not the case in Roundhay. Although glacial deposits are present, good quality sandstone has been quarried in Castle Wood only a few metres north of The Castle.

For the building of The Castle, cobbles would have been conveniently gathered from the ground surface of Castle Wood and carted the short distance to the building site. There would therefore have been no quarrying or stone dressing required and very small transport cost. The use of cobbles would have greatly reduced the time and expense of building, with construction work using lime-based mortar being the main cost.

In the case of Cobble Hall, the flat fields to the east and south of the farm buildings are underlain by thick deposits of glacial debris. The field boundaries are made of fences and hedges, a sure indication that there are no outcrops of rock to provide stone for walling. Over the years, cobbles from these deposits would work their way to the surface. To improve the ground for agriculture, the cobbles would be gathered from the fields - a process known as Field Clearance - and piled in out of the way corners. Convenient piles of gathered cobbles would probably therefore have been available close to the site of Cobble Hall.

With cobbles so readily available for both buildings, their use is a fine example of skill and resourcefulness in exploiting local materials to keep down building costs.

## 7. SUMMARY AND CONCLUSIONS

In an area that has such good workable and durable sandstones readily available for building, it is very unusual to find two buildings in Roundhay Park using cobbles from deposits of debris left by one of the glaciers of the recent Quaternary Ice Age (2 million years ago to the present).

From a geological point of view, it is of interest that the Roundhay Park cobbles, used to such good effect in The Castle and Cobble Hall, did not come from the debris deposited by the last glaciation (Late Devensian, 26,000 - 10,000 years before present). They came from glacial material known as 'Older Drift', an unusual and rare example of the debris left by a much older glacial period, perhaps more than 400,000 years old. 'Older Drift' deposits are usually removed by more recent glaciations. The Castle and Cobble Hall are fine monuments to the skills of the architect and the builder.

## ACKNOWLEDGED

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