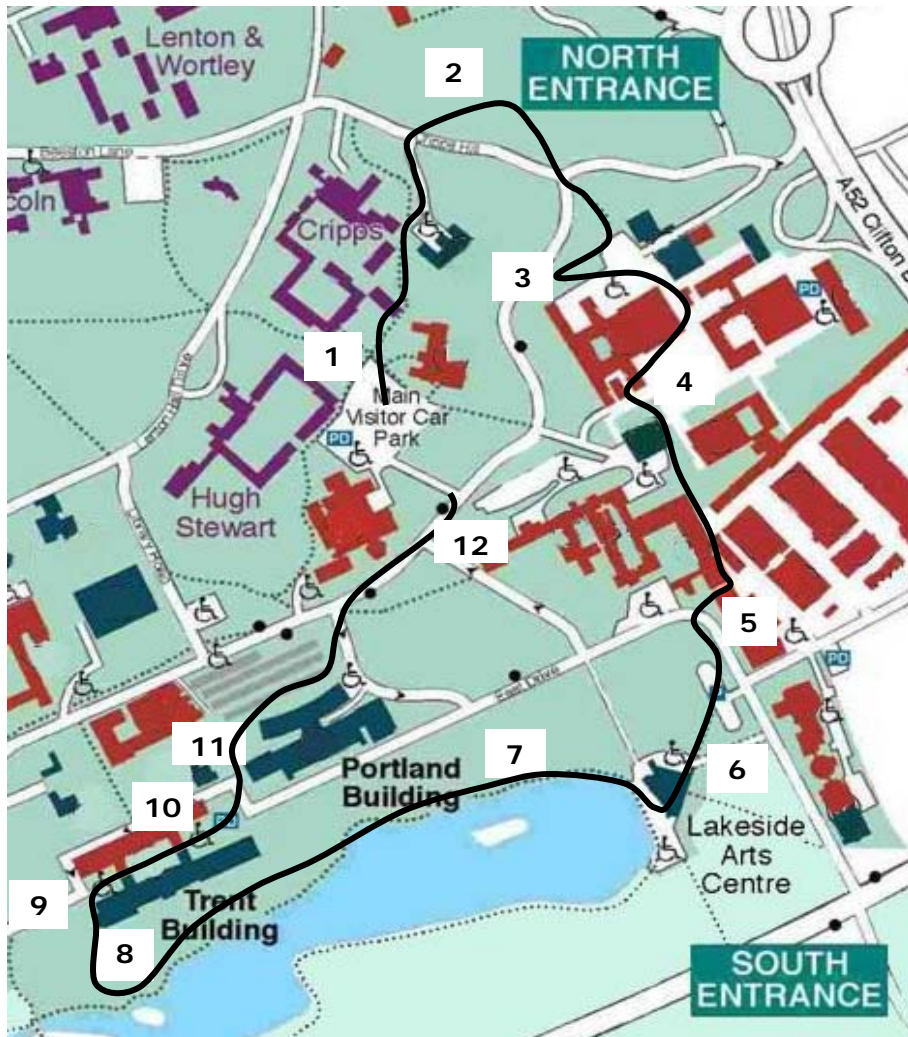
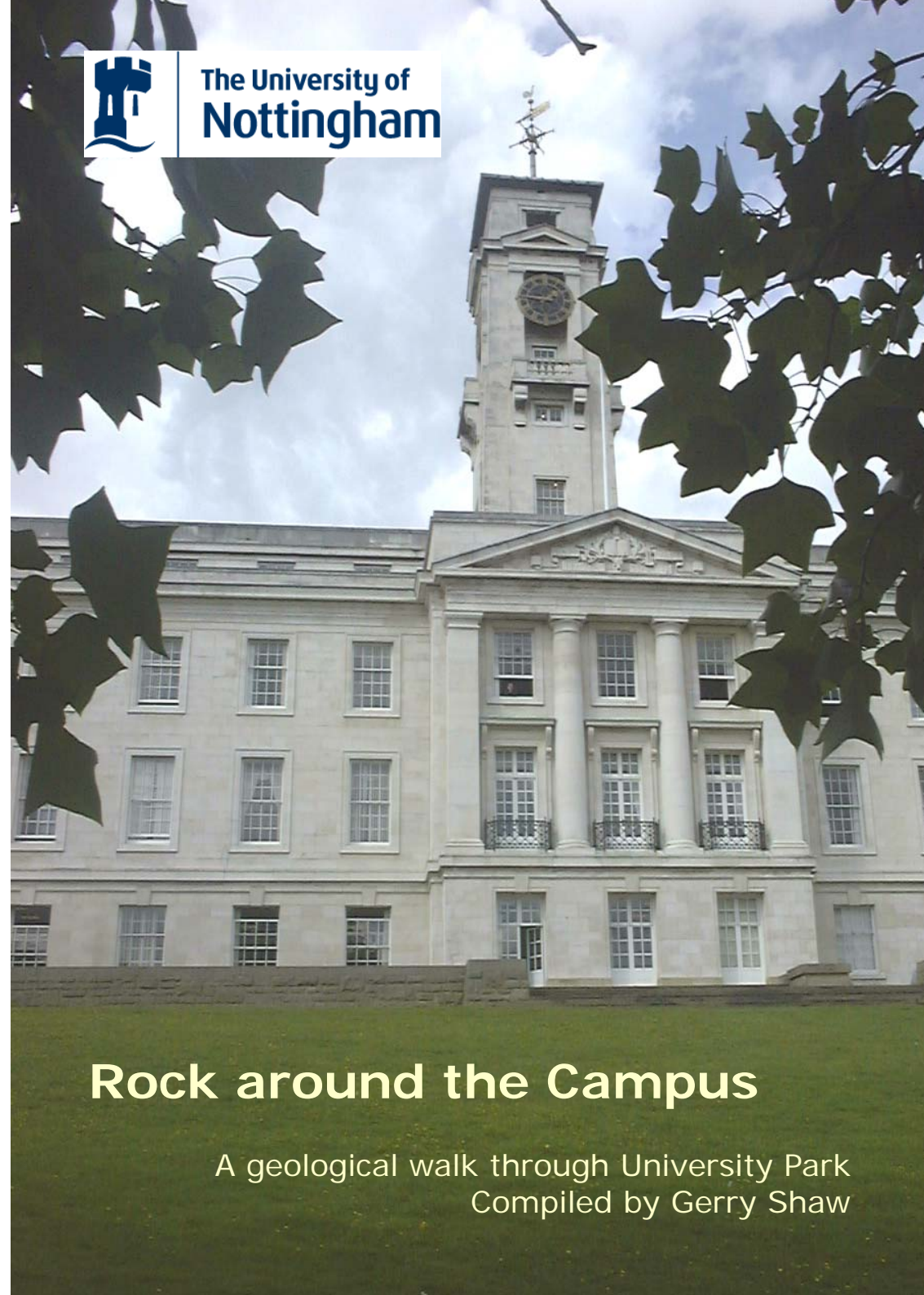


*This walk was compiled with the assistance of Albert Horton and Andy Howard of the British Geological Survey. More information can be found in 'the Geology of the East Midlands' Geologists Association guide No 63 and in articles by Frank Taylor in 'The Mercian, published by the East Midlands Geology Society.*



The University of  
**Nottingham**



## Rock around the Campus

A geological walk through University Park  
Compiled by Gerry Shaw

## *Setting the Scene*

*About 270 million years ago the forests and swamps which went to form our coal deposits were covered with newer red deposits with few records of life in the British Isles. Elsewhere the majority of life became extinct about 250 million years ago.*

*From 270-240 million years ago all the landmasses on Earth were joined in a supercontinent, known as Pangea. Here, in what was to form our homeland, conditions were seriously hot and dry. Rain in highlands to the north and south of the Midlands flooded across desert areas re-depositing sands, gravels and pebbles. Shallow lakes were formed and dried up leaving deposits of salt and gypsum. Exposures of some of the rocks formed during this period show that these form the foundations of this Campus.*

*The built environment also reflects the properties of natural and artificial construction materials.*

10. The Trent building is constructed of Portland stone. A lens reveals the tiny rounded grains called ooids, which formed this limestone. The paving slabs are Carboniferous limestone showing fossil corals and clay stylolites. The latter form jagged lines of weakness which have cracked some slabs. The foyer of the Trent building has huge black limestone columns.

11. As you approach the steps to the south west of the Portland Building, note the way the carboniferous sandstone has weathered at this location.

Passing behind the Portland building we come to a recently grassed area of Mercia Mudstone. A stroll through the Botanic garden gives a view of Nottingham Castle with the repaired corner which collapsed on Christmas day 1996.

12. The new exposure of Lenton sandstone adjacent to the Institute of Engineering, Surveying and Space Geodesy brings us back to the visitor car park.



The University of Nottingham welcomes members of the local community to enjoy University Park. For events and publications based on University Park, check out our website at

[www..nottingham.ac.uk/estate/friends](http://www.nottingham.ac.uk/estate/friends)





9. We now climb the steps which bring us to a small shrubbery by the Trent building where the 'Bassingfield stone' is located. This is an erratic consisting of hornblende schist brought into the district by glaciers from the south-west Highlands of Scotland. It was originally found in a gravel pit to the east of Nottingham. It attracted the attention of Bronze age man who adapted it for ceremonial religious rites.

## The Walk

1. The walk starts at the main visitor car park which is signposted from all the main entrances. (pay and display, but free at weekends). Leaving the car park by the footpath in the north eastern corner, passing the Cripps Medical Centre and crossing the road onto Cripps Hill brings us to the Lenton Firs rock garden.

2. The west-facing cliff is Nottingham Castle Sandstone. The lines indicate undulating erosion surfaces and inclined current bedding. The scattered pebbles indicate that this was formed from river deposits. Some mud flakes in the sandstone show that shallow lakes or even puddles collected fine sediment before being ripped up by floodwaters. The large blocks of rockery stone are Bulwell Stone. A close look with a lens reveals rhombs characteristic of this magnesian limestone.





3. Walking down Cripps Hill brings us to a footpath and steps to the car park at the rear of the Physics and Astronomy building. The north side has a fine exposure in an old quarry face of Lenton Sandstone. The sandstone is very fine grained, which together with a clay content made it useful as a moulding sand. The inclined bedding may be from a sand dune origin but the clay constituents indicate periodic flash floods. The yellow patches gave it its old name of Mottled Sandstone.

4. The entrance to the Physics and Astronomy building is clad with crinoidal limestone, possibly Hopton "Marble". Crinoids were animals, (misnamed sea lilies) which lived on tropical reefs.

5. Pass through or round the Physics and Astronomy building and go south to access the East Drive via the tunnel. The wall to your left is embedded with interesting concretions which are natural but not fossils.

6. D.H. Lawrence Pavilion (tea and toilets).

7. Taking the footpath along the lakeside brings us to Portland Copse. This is possibly the site of an old quarry used for brick and tile manufacture at the medieval village of Keighton formerly situated to the north of the East Drive. The rock here is within the Mercia Mudstone group, much of which may have been formed by wind blown dust deposited in a deepening basin. At the lakeside is a small exposure of Radcliffe Formation.

8. Farther along the path is a terrace buttressing the foundations of the Trent building, which is built on Mercia Mudstone. The Terrace is built from Carboniferous sandstone.

Passing some disused steps the Mercia Mudstone is seen to have been down-faulted against the Nottingham Castle Sandstone which forms an old river cliff on the northern side of the Trent floodplain. Two shallow caves have been excavated into the cliff.

