Woodgate Valley Country Park

The area now contained within Woodgate Valley Country Park was once occupied by thriving farms, with the Bourn Brook providing a ready water supply. Buildings associated with Hole Farm to the west of the area still exist as a horse riding centre, with the Woodgate Valley Urban Farm occupying part of the former farm land bordering Clapgate Lane.

Industry began to make its mark in the late 18th century with the completion of Dudley No. 2 Canal, connecting Dudley with the Worcester and Birmingham Canal at Selly Oak via the Lapal tunnel, nearly 2 miles long. The once thriving brickworks at California benefited from this transport network, but the tunnel was prone to collapse and was closed in 1926. Remains of the canal tunnel lie under the southern edge of this park.

The 1960s saw dramatic acceleration of Birmingham's urban expansion, with the fringe areas of Quinton and Woodgate seriously affected by the opening of the M5 in 1965. Quinton was split by the motorway, and the new Quinton expressway leading to a motorway interchange brought further devastation to the former village. Through the 1970s the rural landscape and many historic buildings vanished under new housing development, and no doubt many glacial erratic boulders were lost during this time.

The Country Park was designated by Birmingham City Council in 1983 to prevent any further urban encroachment. It has since been actively managed by the Ranger Service to restore and improve natural resources and provide a green space for local communities. Inadvertently, the creation of the Park also saved numerous glacial erratic boulders. The ground under your feet has a sandstone bedrock overlain in most places by a deposit with boulders set in clay which was laid down by ice. This is the source of the boulders and our project aims to raise their profile, adding another dimension to the attractions which this Country Park has to offer.

The Bourn Brook

The Bourn Brook rises a little to the west of the M5 and runs through Quinton Meadows Local Nature Reserve. It is joined in WVCP by a small tributary just upstream from Locality 2 and meets the River Rea in Cannon Hill Park. Its name is enigmatic as both words mean 'stream', but bourn also means 'boundary' which is appropriate at least in the headwaters. There may also be confusion between 'Bourn Brook' and 'The Bourn'. The Bourn begins where Wood Brook and Griffin's Brook converge close to the Cadbury factory, and gives its name to the district of Bournville. It joins the River Rea 2km south of the Bourn Brook confluence. Bourn Brook gave its name to the district of Bournbrook near the University of Birmingham, and once supported 'Pebble Mill', the site of the BBC's former Pebble Mill studios.

From its source to its end, Bourn Brook has had much human interference, with diversions, culverts, weirs and dams along its course. In the Country Park, efforts are underway to restore the brook to a more natural state: the weirs have gone, and recently boulders brought in by contractors have been used to protect the banks from erosion. Evidence of this history is clearly visible on the river bed, where discarded bricks, broken concrete, and even boulders displaced from the bank stabilisation mingle with the natural deposits. But if you look carefully, the river holds treasures from the ice age waiting to be discovered as you follow the trail.

Visit our website: erraticsproject.org

Glacial Boulder Trail 4, March 2023

BOSF Birmingham Open Spaces Forum

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Birmingham's Erratic Boulders
Heritage of the Ice Age

Glacial Boulder Trail 4
The Urban Fringe
Woodgate Valley to Quinton

Take a trip back into deep time to discover relics from the Great Ice Age half a million years ago. Thread your way past glacial erratic boulders, mostly from the mountains of Wales and brought here by the power of ice. This trail links these little-known bastions of our prehistoric heritage.

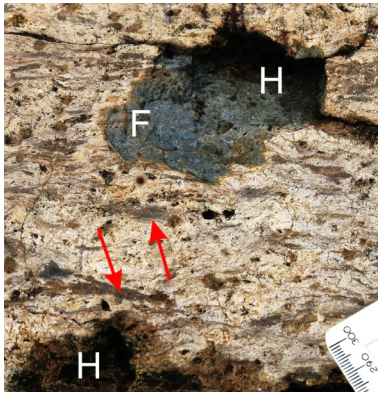

Arenig Fawr

What are glacial erratic boulders?

These are boulders moved by a glacier to a different place and left there when the ice melts. The boulders can often be matched with their source, allowing the flow of the glacier to be reconstructed. The photo shows the eroded east face of Arenig Fawr, the source of most local erratics.

What is distinctive about the Arenig rocks?

The volcanic rocks from Arenig in North Wales display features showing they formed as pyroclastic flows which are very hot, ground-hugging flows of rock debris and gas such as those which buried the Roman city of Pompeii. The photo (right) shows the cleaned surface of Boulder **1** on this trail. The weathered surface of the rock is cream-coloured, but where the surface has chipped away **(F)** the dark green colour of the fresh rock is seen. Larger rock fragments in the deposit often weather out as holes **(H)**. Elongated black fragments (indicated by the red arrows) were originally blocks of pumice (volcanic glass full of gas holes) which became flattened by the weight of overlying deposits whilst they were still hot. Geologists call this a welded tuff.



What is special about the Birmingham boulders?

The boulders on the trails originated not in the last ice age, but in a more severe, older one, probably 450,000 years ago. Most of these erratics are volcanic rocks from the Arenig area of North Wales - around 80 miles (130km) to the west of Birmingham, but a few are basalts and sandstones from the Midlands. The rocks are exceptionally tough, resulting in unusually large erratics up to three metres across. The photo (top right) shows one of the largest in the area, which is on private land.

What have these boulders meant to local people?

In ancient times the size of the boulders was an obstacle to movement, so many were used to mark district or property boundaries just where they were left by the ice, or moved short distances. But where had they come from? They were unlike the local sandstone, which was relatively easy to work for building stones. Theories abounded: were they brought with the Biblical Flood? by giants? or were they meteorites?

Through the 19th century scientists began to unravel the real story of their glacial origins. As more were unearthed during building works from the late 19th century, they became celebrated as curiosities to be preserved.

The photo below shows a large boulder in Cannon Hill Park at the turn of the 20th century, preserved with metal railings and later accompanied by an explanatory notice. The original notice and metal railings are gone, but the boulder is still there and is included in Glacial Boulder Trail 7, 'Boulders by Bike'. The smaller boulder in the photo is now missing.

Photo by W.J. Harrison. British Geological Survey, P236744

The walking and cycling trails in this series show some of the ways in which these boulders have captured the interest and imagination of scientists, historians and local people.

Trail 4 Route Details

This trail follows the same route there and back, with some flexibility. From the entrance to Woodgate Valley Country Park (WVCP), Clapgate Lane, B32 3DS, the trail heads north into the park following a paved path to a junction at the Bourn Brook. Here it turns right along the riverside path for about 1 mile. Retracing steps to the junction, the route crosses a metal bridge and proceeds to a mounted boulder in Quinton.


Boulder 5 and brick bridge 1

Trail length and alternatives: 3.2 miles (5 km). A rough track on the north bank from brick bridge 2 can be used as an alternative route back to the metal bridge. For an alternative route back to the start point from the metal bridge, a rough track on the north side of the brook or a paved path on the south side lead to Watery Lane, then Carters Lane, and left onto Clapgate Lane and back to the car park.

Accessibility: On the south side of the Bourn Brook the trail is on a paved walkway passing close to the main boulders (apart from 7 which is in the brook, some way from the path). Some features in the Bourn are best seen by walking close to the river bank. Over the metal bridge, rough ground at either end of the unsurfaced track to Quinton makes this stretch unsuitable for wheelchair users.

Facilities: At the time of writing the Woodgate Valley Visitor Centre remains closed. Nearest to the VC: The Old Crown Inn, Carter's Lane, B62 0EP (320m); Filling station with shop, Clapgate Lane, (300m); Store and chip shop, Woodgate Lane (400m).

Locality 9 - The Quinton Erratic

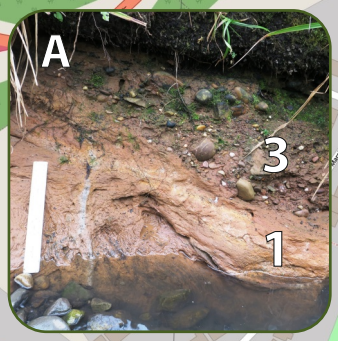
This boulder surely takes pride of place amongst all the magnificent Arenig erratics on these trails for the elegance of its display. Yet it is one of the most enigmatic. The housing estate dates from the 1970s, and the boulder's current location must date from this time. Here is a modern example of erratic boulder preservation in an urban area. But was it found during the building work? Is it the lone survivor of many erratic boulders found either in the 1970s, or from earlier times? Please get in touch with the project team if you know anything about this erratic boulder.

Retrace your steps to the Visitor Centre, reflecting as you go on the vast depth of ice which would have covered this area at the height of the ice age, and marvel that there is still evidence of this in the erratic boulders which remain.

Locality 8 - River Deposits

The stream bed provides evidence of local geological deposits. Here, and in photo **A** ***(below)***, two deposits can be seen: the bedrock of red sandstone **[1]** (around 300 million years old), overlain by sandy gravel with pebbles **[3]**. This was deposited on the bed of the Bourn Brook after the ice age. In photo **B** ***(right)*** the bottom layer **[2]** formed during the ice age. (This layer is absent from **A**.) It is a clay with pebbles and larger stones and is known as 'boulder clay'. This layer is where the glacial erratic boulders are found. Layer **[3]** in photo **B** is the same as in photo **A**. The upper layer **[4]** is made of fine silts which formed on the river floodplain, and these continue to be laid down whenever the stream overflows its banks today. After visiting Locality **9**, it is worth following the north bank upstream ***(see alternative routes in the Trail Details overleaf)*** to see if you can find any more of these deposits.

To continue the trail (not suitable for wheelchair users), head north for 200m to a steep-sided crossing place over a ditch. Over the ditch, take the left fork and head for a paved path. Bear left to a kissing gate out onto Barn Piece. Cross the road, go right and follow the pavement around to the left and uphill to an open area. Here an erratic boulder is mounted on a plinth.



Locality 1 - Between the Horse Fields

From the Woodgate Valley Visitor Centre, head past a children's playground on the left and into the park. Pause beyond the bushes to take in the view.

The path goes between two fields belonging to Hole Farm Riding Centre, where horses are often seen grazing. There are old hedgerows which hint at past farming activity, and ahead the land dips down to the Bourn Brook, then rises to the urban area of Quinton. This south-western fringe of Birmingham is a fertile hunting ground for erratic boulders. ***(For more on Woodgate Valley Country Park see overleaf.)***

Walk on heading slightly downhill until you reach a large boulder on the right.

This is a superb example of a glacial erratic boulder from the Arenig mountains in Wales, as described overleaf ***(see photos left, and front cover)***. The volcanic ash fell and built up in layers looking like pages of a

Barn Piece
Highfield Lane
Bourn Brook
Old to new boulder position
Old to new boulder position
Old to new boulder position
Woodgate Valley Country Park
Hole Farm
Carters Lane
Watery Lane
The Old Crown
Start here
Visitor Centre
Car Park
Clapgate Lane
Lye Close Lane
Woodgate Lane
0
100
200 m
© OpenStreetMap contributors

Locality 4 - Arenig Erratic moved from the Bourn Brook

This boulder was moved here in 2021. It was partly buried in the north bank of the brook ***(see map)***. Its size and obvious Arenig origins made it worthy of preserving, and this was confirmed when it was steam cleaned ***(see photo, left)***. It has the tell-tale texture of rocks made of volcanic ash from the Arenig mountains, and is peppered with cavities where fragments of rock caught in the ash deposits have eroded away. This boulder shows numerous holes, some of considerable size, indicating that it formed closer to the centre of the volcano than the ash boulders with fewer, smaller holes.

Walk on to a substantial bridge (brick bridge 1). For erratic 'rockhounds', an open section of the brook beyond the bridge may prove to be a good hunting ground. Just beyond, the next erratic lies close to the path.

Locality 5 - The Boulder by Brick Bridge 1

This is the last of the four Arenig erratic boulders which have been re-located beside the path. This one lay almost buried close to its new position, and turned out to be of considerable size. It has a smoother texture than boulder **4**, with smaller cavities. This indicates that the ash may have settled and turned to rock further away from the centre of the volcano.

Moving on, the area of meadow land to the right was once part of Moor Farm, and there are remnants of an earlier moat system which sometimes becomes evident during wet spells. When you reach another bridge (brick bridge 2), turn right and walk 35m on the paved path. A boulder lies nestling at the base of a tree behind a holly bush in the hedgerow at the edge of a wood.

Locality 6 - The Nonsuch Farm Boulder

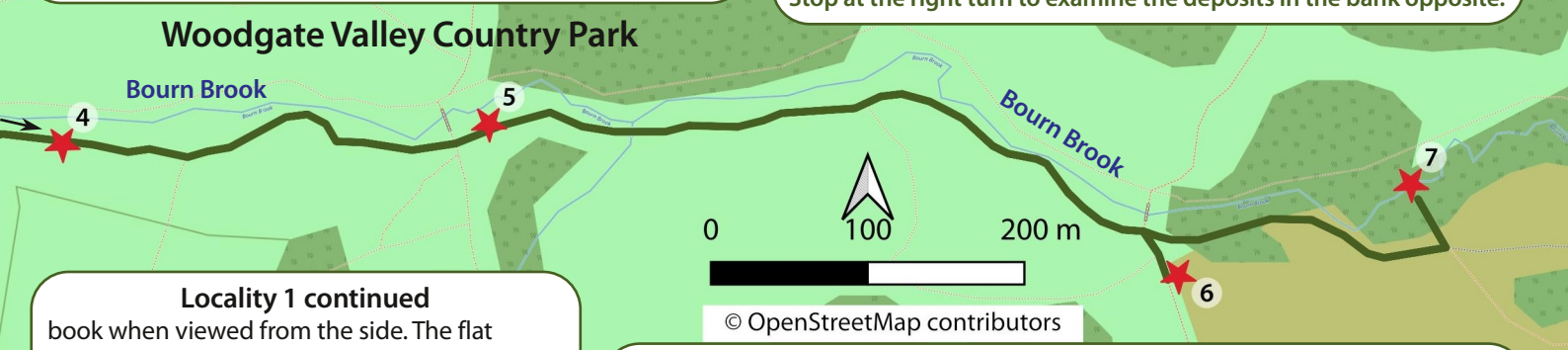
This boulder is usually just visible from the path but it can be accessed by the more adventurous with a short scramble through the hedge. The boulder is of medium size with the usual hallmarks of Arenig erratics but is of particular significance due to its location. This hedge and the boulder once marked the boundary between Nonsuch and Moor Farms, both demolished during development of the Woodgate Valley housing estate. Maybe there are (or were) similar boundary stones along the line of this hedge.

Return to the main path, turn right and walk 200m to a small clearing on the left with a bench. Locality 7 is in the stream bed and requires a rough walk to see it. Go to the left of the bench and scramble down the bank. To your right you will see a large flat boulder in the stream bed.

Locality 7 - A Sandstone Erratic

This boulder is made of sandstone, similar to the bedrock in the local area ***(see photo overleaf)***. This rock type has been used as a building stone down the ages, but this boulder shows no sign that it was cut as a building block. It is likely to have broken away from its parent rock and been delivered here by the ice or glacial meltwaters long ago. This sort of rock is soft and crumbly and could not have survived the long distance travelled by the Arenig boulders. The broken dam a few metres downstream is evidence that this part of the brook was formerly a small reservoir.

Retrace your steps to the metal bridge, or cross the stream at either brick bridge and return on the other side of the stream (a rough, muddy bridleway requiring strong footwear). From the main route cross over at the metal bridge and turn left (over rough ground). Stop at the right turn to examine the deposits in the bank opposite.



Locality 1 continued

book when viewed from the side. The flat surface shows some sizeable holes where rock fragments from the volcanic ash have eroded out. These holes lie roughly in lines, and you may also see some small black streaks similarly lined up. These streaks are the remains of molten pumice which was squashed as it fell to the ground and became buried under further deposits. Can you see these layers?

This boulder is one of four in the park which were moved in 2021 from nearby, to places where they can be seen and enjoyed as rare survivors from the ice age. In the late 19th and early 20th centuries, erratic boulder 'heroes' made sure that some of those found in the growing suburbs were preserved ***(see Glacial Boulder trails 1, 2 and 3)***. This project aims to do the same for some of the outlying boulders. Boulder **1** lay in the field to the east along the line of an old hedge ***(see map)***, most likely moved long ago out of the way of livestock or crops. We can safely assume that such a huge boulder was not moved far from its original resting place after the ice age.

Continue to a junction of paths at Bourn Brook, where there is a metal bridge over the stream. Here is boulder 2, also made of Arenig ash *(see photo overleaf)*.

Locality 2 - The Hole Farm Erratic

Until it was moved here in 2021, this boulder stood at the corner of Hole Farm by Watery Lane, where it was covered in paint and hidden from view ***(see map)***. Watery Lane dates back to the 13th century and was once part of a major route, now reduced to a track along the north bank of the brook. The brook provided a natural border, which once divided Shropshire from Worcestershire. The Hole Farm erratic lay on this boundary and is one of many such 'boundary stones'. Large glacial erratics were ideal for this purpose. They are made of hard rock and were too heavy to move far but could be put to good use to mark field, property or district boundaries. Boundary stones were known as 'hoar' stones, often corrupted to 'war' stones, giving clues to the possible location of erratics. There is 'Warstone Lane' in Hockley with 'The Warstone' preserved in a nearby churchyard, and closer to here there is 'Warston Avenue', and 'Warstone Farm' lies to the south of Illey Lane. Boulder **2** has been steam cleaned revealing a typical Arenig ash boulder.

Turn right and continue along the path beside the Bourn Brook for 120m to Locality 3. A small Arenig erratic lies in the brook where it comes close to the path *(see overleaf for more on the Bourn Brook)*.

Locality 3 - Small Arenig Erratic in the Bourn Brook.

From the path a small boulder (55cm long) is normally visible in the stream bed, showing small cavities characteristic of Arenig ash boulders ***(see photo overleaf)***. This boulder is smoothed by water action. Some exploration may reveal more erratics amongst the other stones and building materials. This is also a good place to examine the river deposits in the banks of the stream ***(see Locality 8 for details of the river deposits)***. Keep looking, where it is safe, as you walk along the brook.

Continue along the path for 320m until just before a bench on the right, and look out for a low-lying boulder on the right.