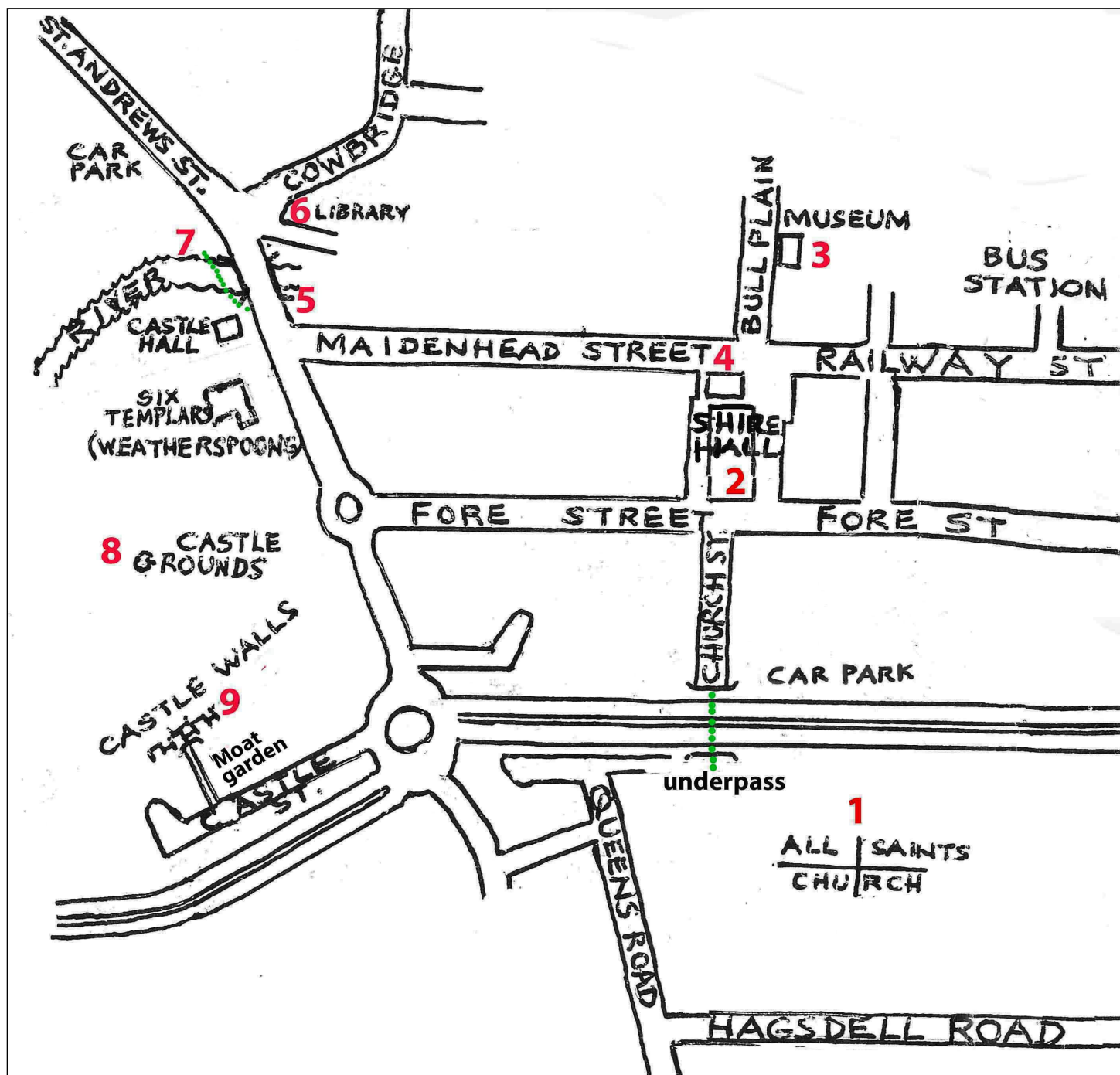


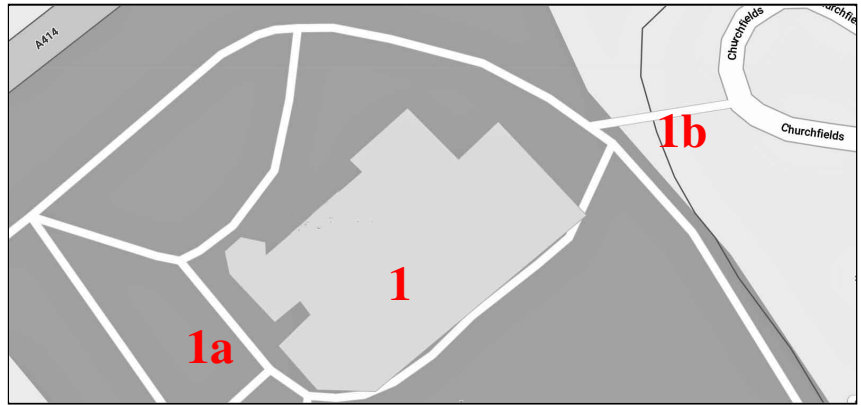
## A geological walk around Hertford

We are grateful to Dr. Steve Perkins who researched and led this walk when he taught geology at Ware College (subsequently Hertford Regional College) for over 40 years from 1965. He has more recently led the walk as our president, and has advised on the production of this document.

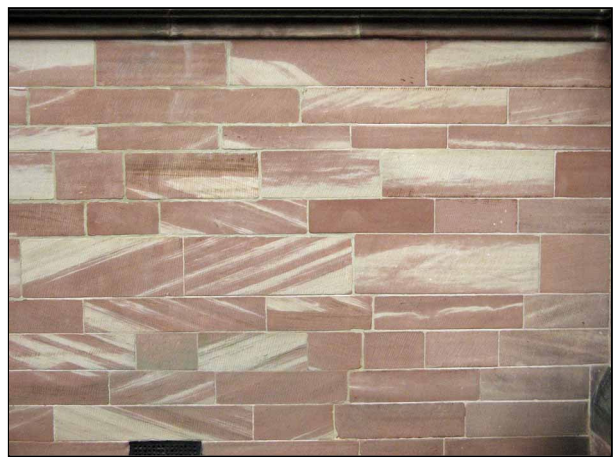
We hope you enjoy the walk, which includes the geological highlights, but look out for other points of interest, and if you find something you think we should include please let us know,



# 1. All Saints Church



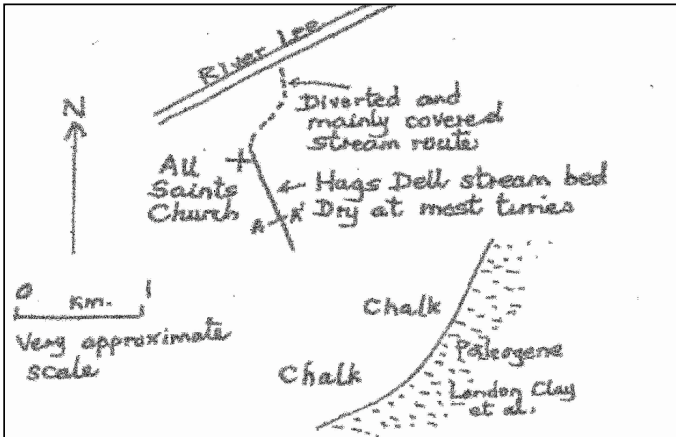
The church is built of Permo- Triassic red feldspathic sandstone with dune cross bedding. (In stone mason’s terms Runcorn Stone’).



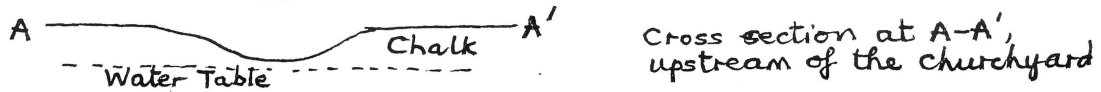
**1(a)** Millstones mark the graves of a miller and his wife. The stones are vesicular basalt of Pleistocene or Holocene age from the Eifel Mountains Germany. Its use as an alternative to Millstone Grit was common.



1(b) Travertine is being deposited in the Hags Dell. Sketches by Steve Perkins.



For most of the year the Hags Dell stream bed is dry, and the water table is evidently below it.

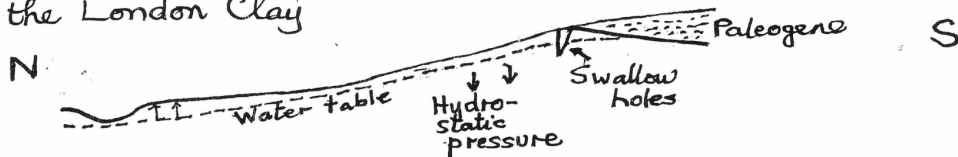


However, after prolonged wet weather a stream starts to flow in it, sometimes suddenly and rapidly, and evidently the water table has risen



The water deposits travertine, secondary calcium carbonate, so it must be saturated with calcium hydrogen carbonate,  $\text{Ca}(\text{HCO}_3)_2$ . Hence it is not new run-off water, and must have been in the Chalk first.

Probable reasons are that the Chalk south of this area is higher ground, and that the water that gets into it, in addition to local rainfall, includes water supplied via Swallow holes, e.g. Cuffley and Water End, coming from streams which have arisen on Paleogene rocks such as the London Clay



Hydrostatic pressure, as shown in the diagram above, would cause the water table to rise in areas such as Hertford that were lower down

2. Around Shire Hall Plenty here in kerbstones and road setts for igneous enthusiasts including:-

SW England granite with large phenocrysts



Flow banding



Tourmalinised healed joints



Mountsorrel Granite with red rimmed feldspar phenocrysts.



Jersey Diorite with magma mixing.



Markfieldite - epidotised green granite from Leicestershire. (The photo doesn't do justice to . . . the colour).

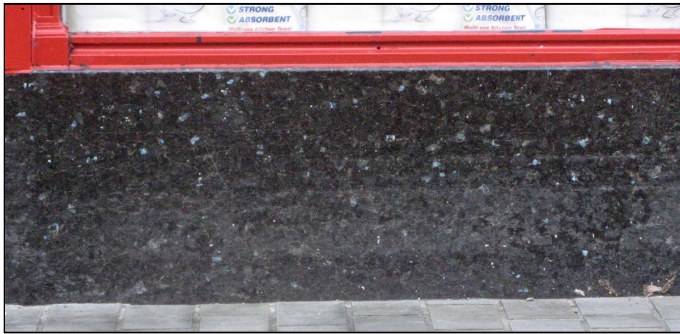
And for the sedimentologists, ripple marks in Upper Carboniferous sandstone paving stones



**3 Hertford Museum** have displays of local geology and history [hertford-museum/](http://hertford-museum/)

#### **4 Maidenhead Street**

Several examples of Larvikite (light and dark) in shop fronts.

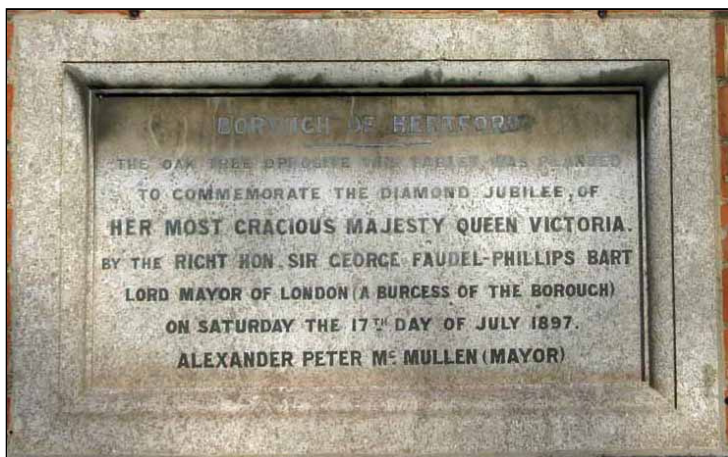


**5 Mill Bridge** The parapets of the bridge are Portland Stone, oolitic limestone.



#### **6 The Old Library**

Crinoid Limestone in the wall plaque.



## 7. St Andrews St car park

Cross the footbridge over the weir, puddingstones built into the wall by the footpath.



Continue into St Andrews St Car park, cross the footbridge into the Castle grounds

## 8. Hertford Castle (not all geological but interesting) For more history see [hertford-castle/](http://hertford-castle/)

Hertford was a fortified Saxon Town built by King Edward the Elder in 912 to resist the Danes. After the 1066 conquest the Normans built a castle which became a royal fortress and royal residence under a governor appointed by the King

The brick gatehouse was built for Edward IV, it is now used as Council offices.

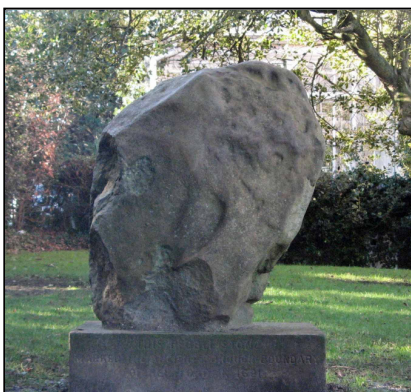
By 1608 the Palace buildings had been demolished and the gatehouse was a private mansion.

Puddingstone (in the garden opposite the gatehouse).

Until 2005 Hertford didn't have a puddingstone on display (other than small pieces built into walls). EHGC thought our county town should display our county rock. This handsome piece was kindly donated by a local farmer and we presented it, and the plaque to the Town Council who had it erected on its plinth



Granite boulders in front of the gatehouse provenance unknown, probably glacial erratics, their more recent histories are inscribed on the plinths.



*'This pebble stone marked the boundary of Hertford in 1621'*



*'Silver granite stone found in Ware about 1901 presented to the Hertford Corporation by Emily Skipp in 1923'*

## 9. Castle wall and Moat Gardens.

The ancient stone-built walls within the Moat Gardens are rare in Hertfordshire and are noted for their ecological as well as their historical interest. The walls provide an important habitat for lichens and mosses, as well as some flowering plants and for invertebrate animals. The section of wall behind the Moat Garden, seven feet thick in places, was built during the strengthening of the Castle by Henry II in 1170-1174. As well as flints the wall contains clunch (hard chalk used in building) and pieces of puddingstone. Later repairs to the wall can be seen by the presence of red bricks.



A mound with a small black door is an Ice House built during the 18<sup>th</sup> century when the gatehouse was a private mansion. Ice houses were early refrigerators which used ice cut from rivers to store food.



That concludes your walk, if you feel in need of a break Hertford Castle grounds has places to enjoy a picnic, or there are pubs and cafes in the town offering refreshments to suit all tastes.