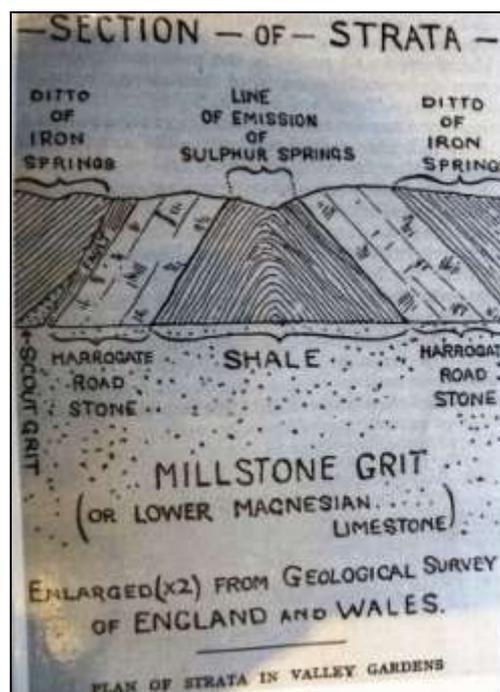
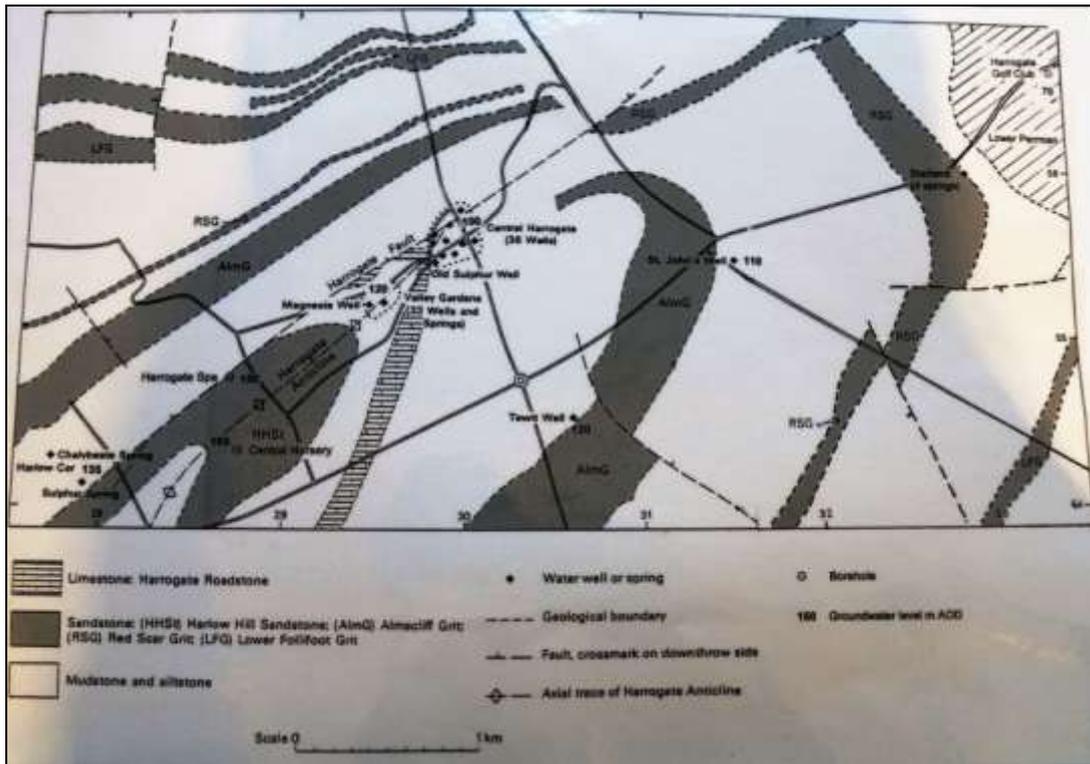


OCTOBER 25th 2017 Wednesday 10.30 – The Stones and Springs of Harrogate with Anne Hopkins and Jeremy Freeman

October brought our winter “town trails” into the programme with Jeremy and Anne showing 20 of us the delights of Harrogate.

We started with a view of Victorian Harrogate with brief visits to the Winter Gardens (Fig. 1) (now Wetherspoons), Royal Baths (Fig. 2) (now Chinese restaurant and champagne bar) and the Royal Hall Theatre (Fig. 3). The Pump Room (Fig. 4) highlighted the history of the springs with 2 adjacent springs within 2 metres, one being high in sulphur and the other high in iron with no sulphur at all. After lunch we walked through the Valley Gardens with its 36 springs (It was called Bog Field!) to a fascinating talk at the Harrogate Spa Water plant. We ended with a visit to the Magnesian Well (Fig. 8) again with different adjacent water sources.



Behold Bogs Field, a wonder of the natural world where a greater number of unique mineral springs come to the surface than at any other known place on Earth! 36 of Harrogate's 88 mineral wells are found here, of which no two are alike. The waters are Magmatic or Plutonic in origin, having never existed as rain, and have flowed deep beneath the earth for 20,000 years before surfacing through vertical shafts in the strata. Known in C15 as Sauerkeld or Sour Springs, Bogs Field was investigated and developed by the Victorians who piped the mineral waters to the Royal Bath Hospital and to the Pump Rooms and Baths of Low Harrogate. The wells, whose location is shown on the plan opposite, are:



Alexandra Chalybeate	45	Sulphur	21-24
Aium Well	49		26-29
Chalybeate	44-47		31-33
Hospital Chalybeate	25		35
Hospital Mild Sulphur	34		37-43
Hospital Strong Sulphur	30	Magnesia Well	54
Pure Chalybeate	53	Victoria Well	56

The chemical composition of four of the principal wells is shown on the other side of this plaque.

Plaque endowed in memory of Sir Montague and Lady Burton
1991

IN THIS PART OF THE VALLEY GARDENS
ARE FOUND MANY OF THE SULPHUR AND IRON WATERS
USED IN THE SPA TREATMENT AT THE ROYAL BATHS
THIRTY SIX SPRINGS ARISE WITHIN AN ACRE
NO TWO ARE EXACTLY ALIKE IN CHEMICAL COMPOSITION
SO FAR AS IS KNOWN IN NO SIMILAR AREA IN THE WORLD
CAN SUCH A DIVERSITY OF SPRINGS BE FOUND
THESE FACTS MAKE THE VALLEY GARDENS UNIQUE
PRESENTED BY WORLD FRIENDS HARROGATE
COUNCIL FOR INTERNATIONAL CONTACT

The Mineral Springs and History of Harrogate as a spa town.

“Arx Celebris Fontibus” - A citadel famous for its springs.

We shall view a limited range of ornamental stone in The Royal Hall and concentrate on the importance and unique range of mineral springs in and around Harrogate; a spa town which reached its peak of fame in Georgian and Victorian times.

In 1571 William Slingsby discovered the first well and recognised the medicinal powers of the waters. So, gradually fame and popularity spread and the spa town developed into a very fashionable place to come and to “be seen”. Hospitals and treatments were widespread and covered a range of ailments from skin complaints to digestive and rheumatic problems.

Harrogate lies in the Millstone Grit series to the north of Leeds and lies on the axis of an anticline the core of which brings to the surface the uppermost beds of the Carboniferous Limestone series. The anticline is cut by a fault and forms a broad ridge and has an unusual concentration of mineral springs at its axis which issue from near vertical strata. The water from each spring has a different mineral content from its neighbouring spring. In all there are said to be 94 mineral springs within a 3km. Radius of Harrogate and 35 of these are within 1 acre in the Valley Gardens. The springs fall into 2 main groups: iron (chalybeate) and sulphur.

After walking through the town we visited the Pump Room Museum (Fig. 4) where after a short talk we were taken down to where 2 of the original wells can be seen at what was then street level. The water in the sulphur well has a very distinctive smell! We then visited the Royal Hall (Fig. 3 - Kurshaal) where some ornamental stones (mainly marbles) were viewed in the recently restored building.

After lunch we visited Harrogate Spring Water bottling plant, a recent and very successful business venture where water of an entirely different character is bottled and is drawn from 3 adjacent wells to the north of the Harrogate Fault.

Finally we retraced our steps back to the Valley Gardens where we were taken into the Magnesia Well (Fig.8) which was used to dispense chalybeate (iron) spring water.

Ironically, it is not now recommended to drink water from these springs for health and safety reasons !!





1 The WINTER GARDENS



2 The ROYAL BATHS

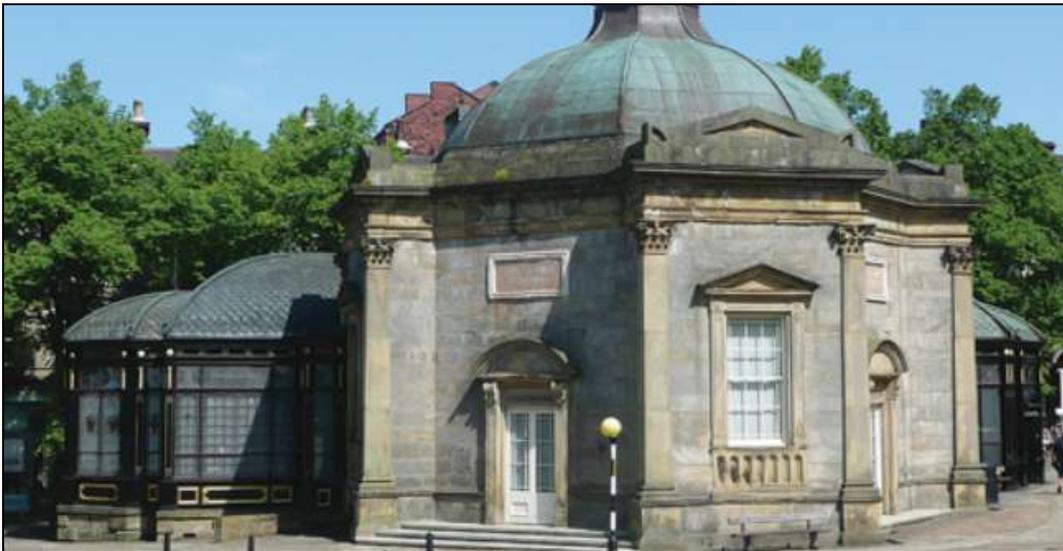


3 The ROYAL HALL



The ROYAL HALL marble interiors





4 The Harrogate PUMP-ROOM Museum



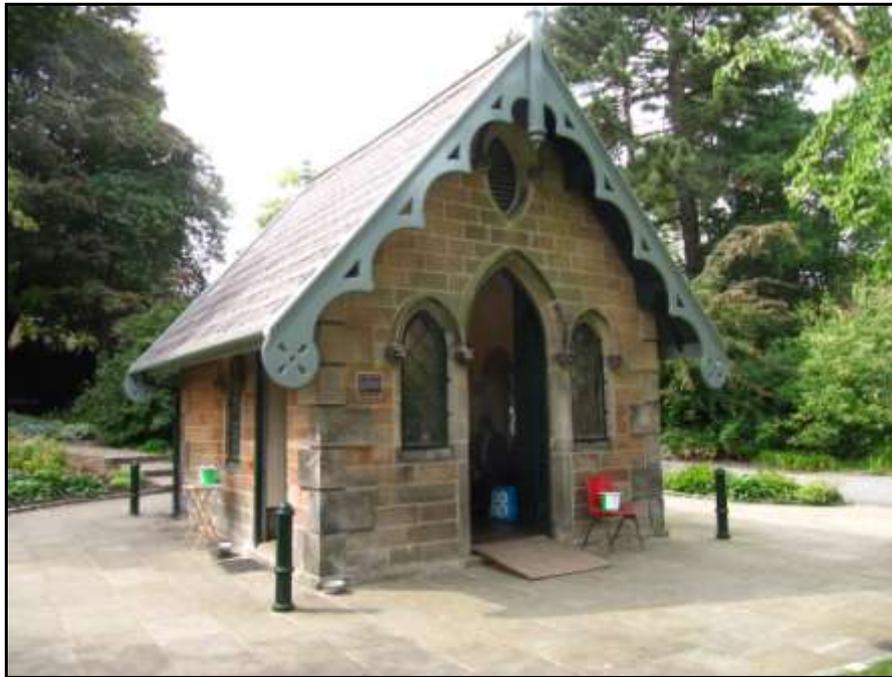
5 The WELL



6 The "PONG" (ie the chalybeate waters)



7 The Chemistry Lab Technician



8 Old Magnesia Well Pump Room



For more information on the **Old Magnesia Well Pump Room** Ctrl+click here

<http://www.friendsofvalleygardens.co.uk/page25/page11/page11.html>

For more information on the **Harrogate Pump-room Museum** Ctrl+click here

https://www.harrogate.gov.uk/info/20151/royal_pump_room_museum

For more information on the **Harrogate Spa Water plant** Ctrl+click here

<https://www.harrogatespring.com/>