



Poynton u3a News

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Poynton u3a Update

General Meetings

On Tuesday 18th November, we have *Janet Parish* telling us about *The Wellspring*, which supports people who are homeless or at risk of losing their home in Stockport.

Then, on Tuesday 16th December, we have the Christmas Meeting when the entertainment, as last year, will be provided by our Acoustic Band. Entry is by ticket only. If you are unable to attend the November General Meeting to obtain a ticket, you may be able to get a ticket if you contact the Speaker Secretary (speakers@poyntonu3a.org.uk) before 1st December.

The first meeting of 2026 is on Tuesday 20th January when *Karen Woodhead* will be talking to us about *Medical Detection Dogs*.

Members' Contributions

Walking Group

Our October walk, led by Ken, started from Worsley. It was an area unfamiliar to me and a few others but turned out to be a good mixture of urban and semi-rural walking with many points of interest associated with Salford's industrial past. From the car park on Dukes Drive we set off along the Bridgewater Canal towards Worsley Delph. This attractive area revealed a wealth of historical interest. The Delph began life as a quarry 300 years ago but later became the start of the first industrial canal in the country and the entrance to a labyrinth of underground coal mines. These coal mines belonged to the Duke of Bridgewater who realised that he could drain his mines by creating canals which could then be used to transport the coal to Manchester, a much cheaper, more efficient option than road transport. His first canal opened in 1761 and transformed what was a farming community into a huge coal mining industry centred on Worsley Delph. The site is now a local heritage attraction with several interpretive plaques, artifacts and a viewing platform.

Leaving The Delph behind we continued our walk which brought us very close to the busy, noisy M60 but soon turned away into part of the Worsley Woods Nature Reserve. Our route took us towards Roe Green where we joined the remains of an old railway track, now a walk/cycle way called the Roe Green Loop Track.

Once back at our cars we walked a short distance along the road to the Blue Bell pub where we enjoyed a tasty lunch. Thanks, Ken, for leading the walk.



A couple of pictures from along the route

Kate Marsham

Travels in Southern Ireland – Part 1

Powerscourt Estate

Powerscourt Estate is located in Enniskerry, County Wicklow, and is a large country estate. In 2011, *Lonely Planet* nominated Powerscourt in the "Top Ten Houses in the World", while in 2014, *National Geographic* listed Powerscourt as **No. 3 in the World's Top Ten Gardens**. (Versailles was No. 1, Kew was No. 2 and Butchart Gardens on Vancouver Island, British Columbia was No. 4.)

Set in the wild Wicklow countryside, Powerscourt Gardens stretch over 47 acres and offer magnificent views of the surrounding countryside. The estate receives over a million visitors a year and is one of Ireland's top ten tourist attractions.

The house was originally a 13th century castle built because its position was of strategic military importance controlling access to three nearby rivers. During the 16th century the house came into the ownership of the Powerscourt family. The family rose in wealth and prominence, and in the 18th century Richard Wingfield, 1st Viscount Powerscourt, commissioned the architect Richard Cassels to extensively alter and remodel the medieval castle to create a modern country house. Work started in 1731 and finished in 1741. Most noticeable is the structure's severe Palladian facade book-ended by two circular domed towers. In 1844, the 7th Viscount Powerscourt, inherited the estates. When he reached the age of 21, he embarked on an extensive renovation of the house and created the new gardens. This introduced many of the features present in the gardens today.

In 1961, the estate was sold by the 9th Viscount Powerscourt to the Slazenger family (Yes, that one), who still own it today. The house was destroyed by fire on 4th November 1974

and was subsequently renovated in 1996. The house now contains a small cinema, cafes and a shop but is mainly retail units



Left: As you emerge from the house into the gardens, you are greeted with series of Italianate terraces which fall away in front of you giving an expansive view of the surrounding countryside with Sugar Loaf mountain in the background. Pictured is the most ornate of the terraces

Right: Looking back from the same terrace to the Palladian façade of the house



Left: Looking across Triton Lake back up the terrace steps to the house. The fountain in the lake is based on the fountain in Piazza Barberini in Rome

Right: A pair of life-sized Winged Horses watch over the lake. They form part of the family crest and were made in Berlin in 1869



The walled garden viewed through the 240-year-old Bamberg Gate. The walled garden is one of the oldest parts of the gardens and featuring Ireland's longest herbaceous border. The gate came from the Cathedral at Bamberg in Germany.



For us, the jewel in the crown was the Japanese Garden with lots of colour from the acers and azaleas. The route through is not straightforward with many winding paths and changes of level. There is also an interesting grotto pictured below.



The Pepperpot Tower is an eccentric structure standing in a valley in the grounds. The tower was erected in 1911 using the stone from an earlier church after the 8th Lord Powerscourt set about building a new church in the nearby Enniskerry town. The tower is supposedly modelled on a favourite pepperpot from Lord Powerscourt's dining table.



And finally, something that we spotted which does not feature in the publicity material. This strange bush with a door in the middle has a small label which reads "This tree was planted by Mrs. John F. Kennedy 2nd July 1967".

Carol and Derek Gatenby

The Royal Institution - Part 4

Blue Sky Thinking

John Tyndall was an Irish physicist and engineer known for his work in atmospheric physics and the study of gases. He was Director of the Laboratory at the Royal Institution and made significant contributions to the understanding of the greenhouse effect.

John Tyndall was a keen mountaineer and spent quite a lot of time in the Alps, both climbing and investigating phenomena such as glaciers. This interest in nature can be seen in many of his other diverse discoveries, including his discovery in the 1860s of why the sky is blue in the day but red at sunset.

Tyndall began to experiment with light, shining beams through various gases and liquids and recording the results. He used a simple glass tube (pictured) to simulate the sky, with a white light at one end to represent the sun. He discovered that when he gradually filled the tube with smoke the beam of light appeared to be blue from the side but red from the far end.



Tyndall realised that the colour of the sky is a result of light from the sun scattering around particles in the upper atmosphere, in what is now known as the 'Tyndall effect'. He thought that the light scattered off particles of dust or water vapour in the atmosphere, like the smoke particles in the tube, but it is now known that the light scatters off the molecules of the air itself.

Tyndall knew that white light was made up of a whole rainbow of coloured light and thought that the blue light appeared because it was more likely to scatter off the particles. We now know that this is because it has a much shorter wavelength than red light and is much more easily scattered, so to our eyes the sky looks blue.

This experiment also explains why the sky often appears to be red in colour as the sun sets. As the sun gets lower in the sky the angle means that the light we see passes through more atmosphere. By the time it reaches us the blue light has already scattered off, leaving the longer wavelength red light to be seen.

In 1869, Tyndall demonstrated his experimental confirmation of the (greenhouse effect) concept; that solar heat crosses an atmosphere, but "when the heat is absorbed by the planet, it is so changed in quality that the rays emanating from the planet cannot get with the same freedom back into space. Thus the atmosphere admits the entrance of solar heat; but checks its exit, and the result is a tendency to accumulate heat at the surface of the planet."

The Braggs and X-ray Crystallography

The Braggs were father and son, William Henry Bragg and William Lawrence Bragg. They both made significant contributions to the field of X-ray crystallography at the Royal Institution.

William Henry Bragg was born near Wigton in Cumbria. He attended King William's College on the Isle of Man before studying mathematics at Trinity College, Cambridge. He was appointed Professor of Mathematics and Physics at the University of Adelaide in 1886. In the mid-1890s he made the first X-ray tube in Australia and started work on the theory and use of X-rays.

In 1909 he returned to England to become Professor of Physics at the University of Leeds. There, he and his son worked out how to determine the molecular structure of crystals using X-rays. In 1915 they jointly won the Nobel Prize for this work.

Also in 1915, Bragg was appointed Professor of Physics at University College London although he spent much of the Great War working for the Admiralty on the acoustic detection of submarines.

He joined the Royal Institution in 1923 occupying several senior posts. Here he revived its research creating one of the world's leading X-ray crystallography laboratories through which many of its major practitioners passed including J.D. Bernal, W.T. Astbury, Kathleen Lonsdale and Dorothy Hodgkin.



X-ray crystallography is the experimental science of determining the atomic and molecular structure of a crystal. The crystalline structure causes a beam of incident X-rays to diffract in specific directions. By measuring the angles and intensities of the X-ray diffraction, it is possible to produce a three-dimensional picture of the density of electrons within the crystal and the positions of the atoms.

William Lawrence Bragg was born in Adelaide where he attended St Peter's College. He later studied science at the University of Adelaide. When his family moved to England in 1909, he studied mathematics and physics at Trinity College, Cambridge.

After moving to Leeds, he and his father worked out how to determine the molecular structure of crystals using X-rays. With his Nobel Prize win at the age of twenty-five, he remains the youngest ever scientific Nobel Prize winner. (For many years he was the youngest in any category until Malala Yousafzai won the Nobel Prize for Peace in 2014 at the age of 17.)

In 1919 he succeeded Ernest Rutherford as Professor of Physics at the University of Manchester where he continued his work on crystallography. Between 1937 and 1938 he was briefly Director of the National Physical Laboratory before again succeeding Rutherford as Professor of Physics at the University of Cambridge and Director of the Cavendish Laboratory.

During the 1939-1945 war he served on a number of government scientific committees. At the Cavendish, he established the Unit for the Study of Molecular Structure of Biological Systems where Max Perutz, John Kendrew, Francis Crick and James Watson carried out much of their groundbreaking work on the structures of proteins and of DNA.

At the Royal Institution he founded the Schools Lectures which continue to this day. He continued the Royal Institution's research on X-ray crystallography bringing Perutz and Kendrew with him who held joint appointments between the Royal Institution and the Cavendish. Here they worked out the structures of myoglobin and haemoglobin. In the first half of the 1960s, using the first computer in the Royal Institution, his group determined the structure of an enzyme, lysozyme, for the first time.

We all produce an enzyme called lysozyme in our tears, saliva and snot. It is important for fighting bacteria and helping keep you healthy. Alexander Fleming discovered lysozyme in 1922. When mucus from his runny nose accidentally got into a culture of bacteria, it dissolved them. He realised that lysozyme was an antibiotic. However, there was no way to identify its molecular structure so no one knew how its antibiotic mechanism worked. Elucidating the structure of lysozyme paved the way for the creation of modern life-saving drugs through the manipulation of molecular structures.

Derek Gatenby

We Wore Pink

On 24th October Kate Clarkson hosted a fundraiser for breast cancer research. Some of her lovely friends from the u3a and from the Soroptimists came along to join her and, together with donations from friends who were unable to make it, they raised over £200 - over £250 if you include gift aid. A good time was had by all.



Every 10 minutes, someone in the UK hears the words “you have breast cancer”. It is the most common cancer for women in the UK. Today we did a little to help take care and treatment forward. Thank you everyone who helped Kate on 24th or by taking part in a “Wear it Pink” event somewhere else in October.

Things to Do

Sudoku No 64

		2						
				5	2	4	6	
3			6				5	
	6	7	5				2	
8	4			2				
				8	1			
	8			4		1	7	
						8	3	
5	3							

Fill the grid so that each row, column and 3x3 box contains the numbers 1-9

Below is the solution to No 63

8	4	6	1	5	9	2	3	7
5	3	1	2	8	7	9	4	6
9	2	7	6	4	3	1	5	8
2	5	3	8	1	6	4	7	9
6	1	4	9	7	5	3	8	2
7	9	8	4	3	2	5	6	1
1	8	5	7	9	4	6	2	3
3	6	9	5	2	8	7	1	4
4	7	2	3	6	1	8	9	5

Here is what will be a final set of quiz questions from Hooha.

1. How many squares are there on a scrabble board?
2. Who wrote the music for the song Rule Britannia?
3. What is Great Britain's smallest rodent?
4. Of which rock group was Ozzy Osbourne a member?
5. Where did most of the outdoor filming of the Sound of Music take place?

Now is the time to reveal that Hooha is in fact Helen Hill who some of our members will know. Over the past few years, Helen has provided over 300 questions for the newsletter. Sadly, over the last couple of months, Helen has suffered a couple of life-changing episodes and is no longer able to provide any more questions. Helen has supported Poynton u3a for many years not just as a question-setter.

Thank you, Helen, for finding all those questions and for being our friend!