



WIRRAL U3A



ONE OF THE JUBILEE CAMPUS BUILDINGS AND INTERIOR OF ATRIUM DINING ROOM

U3A Science convention - Nottingham 2018

A straightforward 2½ hour journey from Lime St station but 2 hours to travel the 3 miles to the Jubilee campus! Bus stop problems so unfortunately I missed the first 2 lectures. Nottingham has plenty of buses but a rather wacky system of labelling bus stops.

The Jubilee campus I loved- modern buildings with a rill running the length of the site, absolutely packed with wild flowers. A good chance to try out the automatic wildflower id app I downloaded courtesy of the university wi-fi. The app got just 1 of 3 flowers correctly identified which I attributed to

being unable to take photos at close quarters due to a natural disinclination to end up in the rill.

More surprises when I entered the Atrium dining hall- full size trees growing indoors. Truly a spider's Paradise- not only trees but all the exposed building structures on which to hang webs well out of reach of the cleaning staff. A wonderfully light and airy space.

Outside the resident Canada geese lay in wait for anyone who ventured to sit at the picnic tables. Electric circuits embedded in the grass hadn't succeeded in

keeping them at bay judging by the droppings all around.

I wanted to try the flower app on plants growing on the banks of the lake but beat a hasty retreat when a goose headed purposely toward me.

It was intriguing to have hot water issuing from both taps. According to the maintenance man the cold water tank on the roof had warmed up during the heat-wave. Nottingham was experiencing temperatures in the eighties. Being on a water meter at home I winced as he opened all the taps in nearby rooms till the water ran cold.

Current groups

Contact groups organizer Christine Gibbons for further details

Group	Leader	Day
Astronomy	TBA	TBA
Buddies	Lynn Clough	varies
Creative Writing	Monica Price	4th Tues pm-Oxton vacancies
French	Janet Belton	Alt Fri am-Moreton
Local History	Betty Nesbitt	2nd Thurs pm-Oxton
Mahjong	Sally Ledger	Mon pm- Wallasey- vacancies
Maths for Fun	Derek Adams	3rd Thurs am-Upton
Music Appreciation	Janet Belton	1st Thurs am-Moreton vacancies
Philosophy	Brian Gill	1st Weds am-Oxton
Science	Mary Green	2nd Fri pm-Birkenhead
Scrabble	Beryl Keggan	3rd Mon pm-Newton
Strollers	Margaret Elston	4th Mon 11 am new members welcome
Sunday Lunch	June Kerr	varies
Topical Discussion	Shirley Taylor	2nd Weds am-West Kirby
Walking	Margaret Elston	2nd Mon 10am new members welcome
Wine Appreciation	Sue Shaw	3rd Mon pm-Newton vacancies
Bank Holidays and months with 5 Mondays affect Walking and Strollers meetings		

Northwest Region news

Liverpool Mathematical Society [LivMS]

aims to establish links with U3As on Merseyside. You can take out a 5 year membership. Popular lectures include Thurs 13th Dec 2-3pm Christmas Lecture.

Heswall Science Day

This took place on 4th October and as usual Heswall U3A paid for the hire of the hall. Below are my gleanings from the 3 lectures I attended. The 4th on sundials I assumed to be similar to the one given to our U3A as it was the same speaker.

With wildlife populations suffering a 58% loss in numbers 1970-2012 it becomes vital to collect as much information as possible to protect what is left. Daily 150-200 species join the extinct list. Drones play a part in this information gathering. Unlike satellites which can't see through clouds nor take high enough resolution pictures, drones can operate in forests where the use of single engine planes is too risky. A surprising number of scientists have died in air crashes in these light planes.

Automatic processes are being invented to monitor all the images and thermal fingerprints can pick out different tree types. So if local folk are felling inside game reserves and planting oil palms the drone can detect the trees. It was collaboration with an astro-physicist accustomed to designing algorithms for detecting stars and galaxies that led to this programme which is currently being tested out in Knowsley Safari park and Chester zoo.

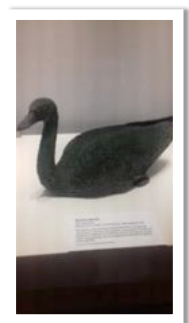
Smart parks are on the way with sensors that will detect logging vehicles.

Making folk aware of problems is but a stage in trying to foster behavioral changes so remaining wildlife is protected.

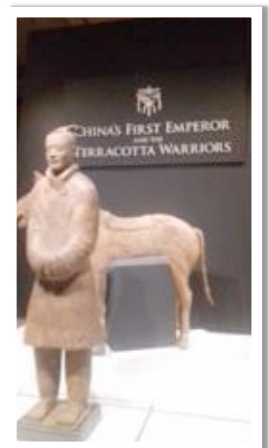
MONDAY LUNCH GROUP



Somehow the Monday lunch crowd had enough appetite left after tucking into cheesecake at the Williamson to dine out afterwards at the Shrewsbury Arms in Oxton!



No this wasn't on the menu. It was part of the display associated with the terra-cotta army which some of our members went to see.



North-West Region news continued

In the lecture on sleep we learned how studies of Dobermans has helped researchers. Not only does the breed have a limited gene pool but there is a high occurrence of narcolepsy-odd for a species bred as guard dogs. It makes gene mapping relatively easy. Did you know that migrating birds and whales sleep on their non-stop journeys but just half the brain at a time. More primitive life forms such as insects and worms share our need for sleep.

Sleep is affected by seasonal cycles and day and night. Our brain is fitted with a master clock that interacts with the eyes. The master-clock controls the activity of the pineal gland, working on a 24 hour cycle regardless of what you are doing like travelling through time zones.

In pre-industrial societies folk went to bed at sunset, woke in the middle of the night then went back to sleep at 2 am and slept till daybreak. Some tribes still follow this dual sleep pattern and you can induce it in anybody in just one week. Dual sleep disappeared when cheap artificial lighting became widespread. Co-incidentally insomnia became a problem.

Thomas Edison, inventor of the light bulb, considered sleep a waste of time and modern teenagers seem to be taking his words to heart. Staying up till the small hours to engage in social media they are sleep deprived. Sleep deprivation causes all sorts of problems because the immune system suffers. That master-clock in the brain is the switch for 5 genes concerned with appetite, metabolism and the production of cholesterol and orexin. The orexin system wakes up active neurons that make us feel hungry.

And it's not only teenagers that don't sleep. Patients in intensive care units have disturbed sleep. Turning off those beeping, flashing monitors and leaving patients in the dark to sleep may bring faster recovery.

The lecture on friendship was similar to one given by the same speaker some time ago. A newly discovered telephone line to the brain is used when primates groom each other. The traffic is one way. The inner ear is full of neurons linked to this which is why we rock babies to sleep-the rocking motion triggers this system. Rocking our heads when listening to music also stimulates this newly discovered nerve connection to the brain. Alcohol is the best trigger for endorphins which can become addictive in some individuals. The endorphins created by grooming are not the addictive type. These latter tune our immune system, make us resilient to infection and help us recover faster from illness or injury.

Group news

Astronomy - is looking for a new leader and a new venue.

French - thriving. Leader Janet Belton may need to move house to accommodate everyone

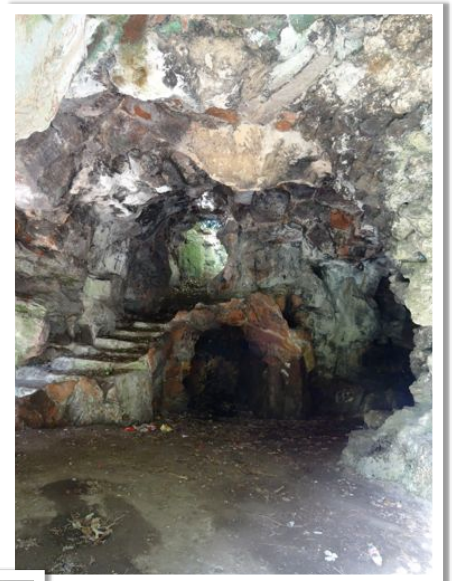
Music Appreciation

At the last session I attended we tackled composers or pieces beginning with K. You might think the choice was limited but try googling any index of composers and you'd be amazed at the length of listed names. It's fun to go on u tube and sample some of their music. And if you want to download music off the Internet then use a speaker to play it loud enough for the rest of the group to hear you can greatly extend what's available beyond members CD collections.

Strollers and Walkers kept going through the summer recess. Daphne took us on a circular from the Old Baths at Parkgate. I never realised the lane at Gayton was once a drove road and that coaches to Chester went along it. It was a gorgeous autumn day when we visited Sefton Park. Mary took us to view the grottoes. Unfortunately filming for the series Victoria was taking place inside the Palm House so we were denied access. On each occasion Mary has been to see this magnificent glasshouse she has been unable to go inside it. She did however provide me with photos.



Yet another of Janet's musical decorations.

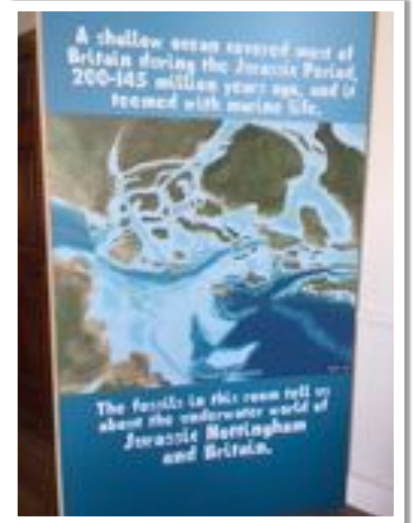


Science network convention at Nottingham

Day One-arrival day began with 3 afternoon lectures on photons, the adrenal gland and food science. The next day after a lecture on Earth's atmosphere visits were organised off site. I chose Wollaton Hall - a tad damp in Jurassic times



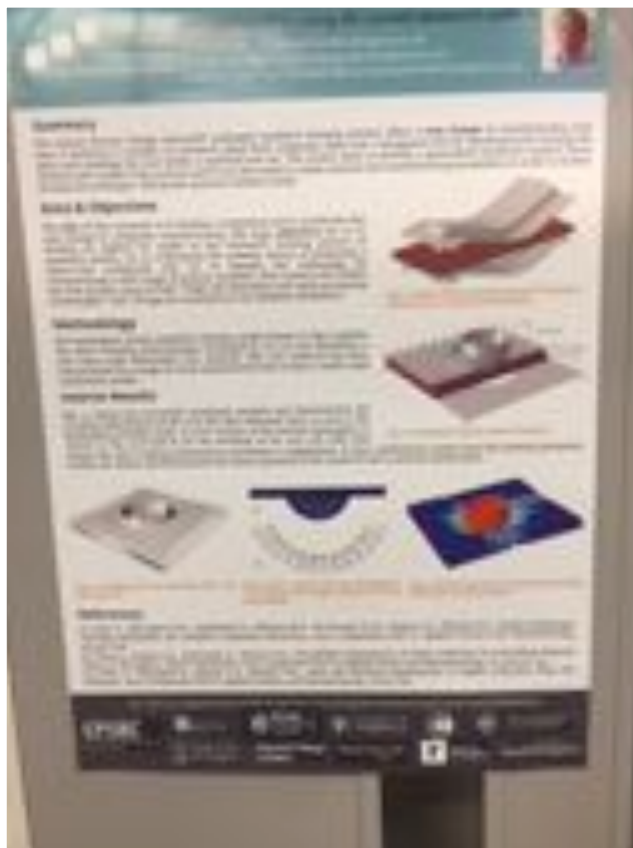
The best bit was after lunch when we were let loose in the museum. I was amazed to learn a gadget to knit stockings existed in Henry 8th's reign. I didn't know whether to laugh or cry when I saw this poster.



The same format ensued on Day 3, took place on site. Off we went to then toured the composites room. revolutionary breakthrough in



but this time the visits view a 3D printer at work The poster describes the manufacturing materials for industry. I snapped the



Rolls-Royce jet engine-subject of research into methods of repairing the engine in situ instead of undergoing costly and time consuming removal from the plane when repairs were needed.



The 3D printer frees design from the constraints of tools and the composite materials are heated at the same sort of temperatures you would use to bake bread.

“Don’t mention palm oil!”

Us humans seem to have lost the ability to manufacture Vitamin C about 30-40 mya [million years ago] then just a mere 15 mya we lost the ability to break down uric acid. The importance of this escapes me. Perhaps I just couldn’t write notes fast enough. Anyway I didn’t think as a species we were that ancient.

Intriguingly as sugar consumption decreases we get fatter. Yet we have been listening to the pundits and eating less fat. Except for the Inuit. They carried on eating a diet of 80% fat:20% protein. This gives them all the Vitamin C they need.

Beware fructose corn syrup and too much omega 6. The increase in obesity seems to correlate with the increased use of the former.

You might not have enjoyed being around during early days on Earth when air pressure was 100x present day pressure. Earth has been trying to cool down to an equilibrium with its surroundings. Once cooled down to 250°C water condensed thus managing to reduce the 95% carbon dioxide gas in the atmosphere by dissolving large quantities of it. This enabled further cooling of the planet and allowed anaerobic microbes to flourish. When photosynthesis produced large amounts of oxygen these poor life-forms were overwhelmed as oxygen was toxic to them. Quite a bit of the new oxygen got taken up by iron in the oceans.

As fast as microbes grew high UV levels wiped them out until the ozone layer developed. Did you know barbers keep their combs in drawers supplied with UV light to kill off the bacteria?

Did you know Venus is hotter than Mercury yet the latter is nearer to the sun? Why? because its rotation is practically non-existent, it doesn’t have a magnetic field so its atmosphere was whipped away by solar winds leaving a predominance of carbon dioxide which trapped the sun’s heat.

In the lecture on the human genome we were informed that the number of genes was originally over-estimated and that there are now thought to be 20,000.

On Chromosome 21 if thiamine in the code has been replaced by cystine then the Amyloid Precursor Protein mutation occurs whereby dementia ensues. Sadly the defective gene is dominant. Senile plaques develop and tangles of tau inside the neuron cells with dramatic brain shrinkage. The hippocampus shrinks to resemble the shape of a sea-horse. This part of the brain holds the autobiography of who you are.

Our mitochondrial DNA comes down through our mothers with any faults passed on 100% of the time. The good news is that within the next 20 years all inherited genetic disease might be treatable. In 2017 gene editing saved the life of a little girl who made too many white blood cells.

Here’s a website well worth checking out

Our world in data

PHOTOS FROM THIS YEAR



Following on the scientific theme of this edition

PHOTOS

1. STROLLERS IN SEFTON PARK
2. WALLASEY U3A GUITAR GROUP WHO ENTERTAINED US SO ABLY. IT WAS THEIR FIRST PUBLIC PERFORMANCE!
3. ARTEFACTS FROM OUR TIBETAN LECTURE
4. THANKS TO CONTRIBUTORS DIANE ADAMS, MARY FLOYD. APOLOGIES TO WHOEVER SENT PHOTO -CENTRE OF LOWER ROW

2 atoms were walking down the street when one remarked "I think I've lost an electron"

"Are you sure?" asked his friend

"Yes, I'm positive!"

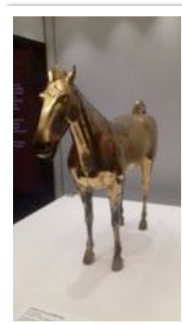
Question

Why shouldn't you believe what atoms say?

Answer

Because they make up everything!

Nottingham Jubilee campus prides itself on innovation.



They've certainly moved out of the horse-drawn age. I came across this in the Atrium dining room.

