EPSOM U3A Inc.

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MEETING PLACE
Royal Oak Bowls, 146 Selwyn St, Onehunga
10am on the 2ND Thursday of most months

NEWSLETTER

September 2025

Next meeting
10-12 noon
Thursday 11th September 2025

PRESIDENT'S REPORT

One of the things that comes up is how we use our time and what differences we can make. I was thinking this out further and realised just how important our contribution to our society can be. There is the opportunity to gain more knowledge and pass it on. There is the opportunity to participate through activity and volunteering to help the individual and society to have a better quality of life. There is the opportunity to act and not react by taking a positive stance on issues and concerns, injustice and bad practice. So a new question for each of us is simply this: Are you committed to making changes in health and in outlook. So what are your priorities? It would seem to be that in this marvellous world of knowledge and people I want to participate as much as I can. From learning and making something new, from helping family and friends to offer positive views wherever we can.

Let us celebrate more. Yes I may be distracted by health, energy, tiredness and inertia. But I have learned that life is about learning, being and doing and taking the initiative. We can have a sense of commitment, hope and purpose if we want to. So as we approach and see the beauty of earth and people around the world, let's be encouraged to do more learning and activities. Perhaps we could claim a new lease of life for a new spring.

Could I suggest that you take on something new eg reaching out to family, friends and others.

So the challenge is this: Going ahead, what are you going to do with your time and energy? Do you want to be involved in sharing your knowledge, experience and life? The choice is ours.

Think of this. The word wonder means being addressed by a sight and experience that enriches new beginnings beyond description.

All of us are capable of wonder but it needs to be childlike not childish trust.

It is often eroded by self centredness and cynicism unless we are careful. So be careful with your time and what you do and celebrate your life daily.

Duncan

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Jeanette Grant – 638 8566
Greeters:
Don Buchanan - 620 7572
Ngaire Mune – 624 0226

INTEREST GROUP CONVENERS

Applied Science
Peter Parsons – 021 521 446
Appreciating Performing Arts
Shirin Caldwell – 630 1662
Architecture
Brian Murray – 021 026 68396
Art Appreciation
Kaye Buchanan – 620 7572
Art History
Emily Flynn – 021 0902 5094
Big History
Emily Flynn – 021 0902 5094
Book Chat
Helen Holdem - 021 260 3510
Comparative Religions
Duncan MacDonald - 021-316 661
John Locke- 021-187 8061
Current Affairs
Shirley McConville – 622 3542
Fabric & Fibre Crafts
Charmaine Strang – 027-4177 556
Famous & Infamous Group
Shirley McConville – 622 3542
Foodies
Graham Gunn – 027 445 0929.
Garden Appreciation
Betty Townley - 626 6673
Introduction to Family History
Bryn Smith – 027 280 5235
Latin
Phylllis Downes – 630 5867
Lunch Club
Shirley McConville – 622 3542.
Music Appreciation
Carleen Edwards – 624 6298
19th & 20th Century History
Helen Holdem – 021 260 3510
NZ History
Kaye Buchanan - 620 7572
Philosophy
Jocelyn Hewin - 634-1552
Recreational Drawing
Grant Coupland – 638 7496
Scrabble
Joslyn Squire – 021 168 0680
Te Reo Maori
Jenny Whatman – 027 353 2487
Travel
Diana Hart- 021 284 4402
Walkers & Talkers Group
Don Buchanan ph:620 7572.

AUGUST SPEAKER REPORT

By Joslyn Squire

Dr Julian Paton, professor of transitional physiology at Auckland University, Director of NZ's foremost medical research centre, presented a very entertaining and informative talk, as he shared his two passions in life: his love of Land Rovers and his cutting-edge heart research work, as director of a multidisciplinary team at Manaaki Manawa, the Centre for Heart Research.

The team is exploring novel clinical therapeutic approaches, including repurposing existing drugs, and devices for cardiovascular and respiratory diseases, and developing new processes and devices to tackle NZ's shocking statistics for rheumatic fever-caused heart damage in children; a situation which is largely preventable and which mainly affects children living in overcrowded or poor conditions, in inadequately dry and warm housing. Our NZ statistics are a national embarrassment and are the worst in the developed world.

Dr Paton emphasised how important it is for parents to recognise the serious outcomes of untreated streptococcal throat infections and that repeated infections damage the heart valves. Penicillin is needed and works well in children who have not had time to build resistance to the drug.

Affected children have a 40% mortality rate by age 20 and 8% die in surgery after heart valve replacement. Metal valves don't grow with the child and pig's valves only last 6-10 years, so there is a need for repeated surgeries. Rejection and leaky valves are a problem.

To tackle these issues, Dr Paton and his team are experimenting with taking the patient's skin cells and turning these into stem cells. Using MRI, and an exact 3-D printed copy of the patient's heart valve, created as a scaffold can be created for the stem cells which are supplied with nutrients. These are living tissues, so grow with the patient. They are currently trialling these with lambs and will later move on to humans once the process is proven.

To pay for this research, $300,000 is needed to employ a research leader for the Drive4Hearts campaign. To raise money for this important programme, Dr Paton was keen to use his passion for Land Rovers to drive from Dunedin to Auckland, raising funds along the way, by tapping into the pockets and curiosity of other enthusiasts.

So far they have raised $132,138. Donations can be made to the

University of Auckland Medical and health Science Foundation
https://www.justgiving.com/drive4hearts

or by direct bank transfer to 02-0159-0414088-00, using your name as a reference and Drive4Hearts

Dr Paton said he was a changed man after his Drive4hearts journey due to the kindness and wonderful humanity shown by New Zealanders along the way. His fascination with Land Rovers (70% of all those ever made are still going!) began as a boy, when his father gave him a 1953 model wreck to restore. The 20th Land Rover ever made landed in Dunedin and was used to demonstrate to farmers, the military, hunters etc. then sat in a garage on a Hawkes bay sheep farm for 30 years, until restoration in 2014, and it is now his prized possession.

Dr Paton began his journey on 31/1/2025 accompanied by support vehicles, taking old gold mine trails, off-road routes across farms and sheep stations, and crossing rivers and passes, with maintenance being done every evening. He even re-enacted the driving of a Land Rover up Parliament's steps, but was only permitted to park in front. Numerous Land Rover enthusiasts joined him in convoy as he made his way north through NZ, while generous people donated food, petrol, accommodation and other support.

Dr Paton is currently testing a new cardiac pacemaker which he invented, has trained 28 PhD students and has published 460 scientific papers. He was made a fellow of the Royal Society of NZ in 2022 and received the Sir Peter Gluckman research excellence award in 2024.

We are truly fortunate to have such a wonderful contributor to medical research living in NZ.

SUBSCRIPTIONS INFORMATION	The 2026 subscription fee will be ratified at the AGM which will be held in November. Current paid-up members should wait until the completion of the AGM before paying the 2026 subs into our ASB bank account – Payee: U3A EPSOM INCORPORATED 12 – 3067 – 0204618 – 00 Please enter subs in the "code" section and your name in the "reference" section in order for us to have a record of your payment. We currently have 198 members.
MAIN SPEAKER	Our September speaker will be one of our own members – Ian Jost "I've thought for some time that we have an immense pool of talent among our own members. Many of the U3A people I've met over the past year and a half have more than enough experience, ability and talent to speak at one of our monthly meetings. I've said that to a goodly number of you and so now, I'm going to practice what I preach and be September's speaker. My topic will be *The Battle of Agincourt in context.* Agincourt was a medieval battle between England and France in 1415, during the Hundred Years' War. It's an unusual historical event – a pitched battle which has been mythologised into something far more significant than it actually was. To be sure, it was an overwhelming victory for one side and its outcome seriously influenced military tactics, European politics and even religious thought of the day, but the other side ultimately prevailed in the wider war. The legacy of what Agincourt symbolises and contributes to English history is wide: a heightened awareness of nationhood, a sense of English exceptionalism, an on-going condescension towards the French and the conviction that God really is an Englishman! My talk will concentrate on the battle itself – what it was, why it happened, how it happened, and what the immediate outcomes were. I'll contextualise what's necessary for that and, if time allows, explore the wider ramifications within that whole historical period. I'll also briefly outline why I'm interested in this particular subject and what my qualifications are for speaking on it."
INTEREST GROUPS **1] Fabric & Fibre Craft Sale**	Fabric and Fibre Craft Sale 11th September…Monthly Meeting Adult and Children's wonderful craft for sale! 9.20 start till 10.00 and then through morning tea. NO EFTPOS so notes and gold coins only thanks! All proceeds to Women's Refuge. Donations welcome as well! QR code available for our tech savvy members!
2] WELL-BEING FOR SENIORS SPEAKER REPORT	The guest speaker for the Well-being for Seniors final interest group session for the year was Professor Ngaire Kerse from the Centre for Co-Created Ageing research at the University of Auckland. She discussed some of the unexpected lessons of aging well from her earlier LiLACs longitudinal study of 80+ year olds and her current collaborative research on dementia, especially the role neuroplasticity plays in living well. Co-Create Age has been set up to improve health, well-being and human flourishing of the older population in Aotearoa New Zealand. "We co-create with older people and our research is based on the needs and wants they identify in their daily lives and communities". A highlight was our group's participation in the Ronnie Gardiner Method (RGM Aotearoa) that involves using music in an innovative, multi-sensory exercise method for the brain in which rhythm, music, verbalisation and movement are used to stimulate both cognitive and motor skills. Open classes/courses are currently available in Auckland and many places in New Zealand. The link for further information through the U of Auckland is: https://rgm-nz.auckland.ac.nz/find-a-practitioner/

HELPFUL HINT *From Kaye Buchanan*	**Gold AT HOP cards that don't "ping" when you log on**. Recently when I went to use my gold AT HOP card, on a bus into the CBD at 9.45am, the usual tag on signal was not a "ping" but more of a "grunt", accompanied by an "insufficient funds" message on the screen. I was puzzled by this but the driver waved me on board saying something like "this machine is having trouble this morning" but the same thing happened when I logged off. Later that morning someone in the group I was with mentioned that the card might have an expiry date but I thought that this did not apply if the card had been used, even on an irregular basis. But….. since I was near the Britomart Station I thought it would be useful to investigate. The (very pleasant) Customer Services person explained that, when AT's system notices that a card hasn't been used for a long period or that it is accruing charges for trips outside the free travel concession hours but these were not being topped up, I would be notified by an email enquiry to alert me to the situation. (She did add "hopefully" to the notion of being notified!) Neither of the critieria applied in my case and the card was reset and returned to its credit balance with no further trouble tagging on for the homeward journeys, or since. But I wondered if this could happen again and what would happen if I did not strike an amenable driver who would let me complete my ride, so I phoned AT and here are the options. 1. Check your My AT online account for any extra charges that have been debited, rightly or wrongly. Either return the account to credit if you have used your card outside of the free travel concession hours ….or use Option 2 or 3 2. Visit a Customer Service Centre in person (eg Britomart, Newmarket or New Lynn Stations or a Bus Interchange)…or 3. Phone 09 366 4467 or visit at.govt.nz/athop for more advice if you are not able to access the first two options NB Don't forget to have your gold AT Hop card with you for ID. Finally, it is my understanding that retailers who provide "top up" services for the cards are not able to access AT customers' records to fix the problem I encountered because it would breach AT's Customer Privacy policy . *Kaye Buchanan*
2025 MEETING DATES Thursdays, 10am	11 September 9 October 13 November AGM **NB Always wear your name badge** and be seated ready at 10am

JEANETTE'S JOTTINGS

THE HIDDEN RIVER THAT BUILT THE PYRAMIDS

The mystery of the Pyramids, or – more specifically – how exactly the Egyptians moved the massive stone blocks to build them, might finally have been solved. In May 2024, scientists revealed they'd discovered a long-buried branch of the Nile and, in doing so, potentially unearthed a truth about the construction of these world-famous landmarks.

The 40-mile-long (64km) branch, buried beneath the sand for millennia, was discovered using radar satellite imagery. Its discovery may explain why 31 pyramids were built in a chain along a now-inhospitable strip of desert roughly 4,000 years ago.

UNUSUAL SIGNS

- In a laundromat – AUTOMATIC WASHING MACHINES PLEASE REMOVE ALL YOUR CLOTHES WHEN THE LIGHT GOES OUT.
- In a department store – BARGAIN BASEMENT UPSTAIRS.
- In an office lunchroom – AFTER TEA BREAK STAFF SHOULD EMPTY THE TEAPOT AND STAND UPSIDE DOWN ON THE DRAINING BOARD.
- Outside a second-hand store – WE EXCHANGE ANYTHING – BICYCLES, WASHING MACHINES ETC. WHY NOT BRING YOUR WIFE ALONG AND GET A WONDERFUL BARGAIN.
- Notice in a health-food shop window – CLOSED DUE TO ILLNESS.
- Spotted in a safari park – ELEPHANTS PLEASE STAY IN YOUR CAR.
- Notice in a field – THE FARMER ALLOWS WALKERS TO CROSS THE FIELD FOR FREE, BUT THE BULL CHARGES.
- Message on a leaflet – IF YOU CANNOT READ THIS LEAFLET WILL TELL YOU HOW TO GET LESSONS.

A TSUNAMI LIKE NO OTHER

In September 2023, a massive event in Greenland's Dickson Fjord stirred the planet in ways no one could have expected. A tsunami originating from a landslide set off seismic waves that were detected across the world. The phenomenon, which lasted for days, wasn't just an isolated incident—it sent ripples that traveled from Alaska to Australia, a span of thousands of miles. Scientists had to scramble to make sense of the seismic pulses, which seemed almost too slow and too persistent to be linked to typical earthquakes.

On September 16, 25 million cubic yards of rock and ice broke free from the cliffs of Dickson Fjord, creating a towering mega-tsunami that reached heights of 650 feet (0.2 km). The sheer force of the impact sent a shockwave that reverberated throughout the fjord and beyond. As the wave hurtled toward the fjord's headland, it bounced back, setting off a seiche, a strange, oscillating motion that forced the water to slosh back and forth, triggering deeper seismic activity.

The tsunami's effects were felt immediately. The wave washed over a research station on Ella Island, damaging equipment worth $200,000. However, this was only the beginning. The water didn't calm after its first pass. Instead, it began rocking the fjord back and forth, a motion that lasted for days. The lingering energy produced a slow seismic signature, an anomaly in the usual pattern of earthquake readings.

What was even more baffling to researchers was the seismic signal that this mega-tsunami left behind. Typically, seismic stations record frantic scribbles when an earthquake occurs, but this was different. The seismic waves exhibited smooth, rhythmic peaks spaced 92 seconds apart, and they lasted for nine days—far longer than anything typical. In total, the pattern was so unusual that no one could initially pinpoint its cause…One of the breakthroughs in this investigation came through satellite technology. The Surface Water and Ocean Topography (SWOT) satellite, launched in December 2022, provided high-resolution images of the fjord in the aftermath of the tsunami. Unlike traditional radar, which only captures narrow slices of data, SWOT can map a 30-mile-wide swath of ocean with an 8-foot resolution, offering a comprehensive view of the surface and helping scientists track how the tsunami's waves interacted with the fjord's topography…

The tsunami's origin in Greenland, a region known for its icy and remote landscapes, raises serious concerns about the changing Arctic environment. As global temperatures rise, glaciers and ice sheets are melting at unprecedented rates, destabilizing cliffs and slopes. Researchers believe this could be just the beginning of an alarming trend.

THE CRAPPER

Thomas Crapper is often—mistakenly—celebrated as the inventor of the flush toilet, likely because of his memorable name and success as a plumber in Victorian England. However, the first flush toilet was invented by Sir John Harington in the late 16th century for Queen Elizabeth I.

Alexander Cumming later improved the design in the 18th century by adding the S-bend, which prevented sewer gases from entering buildings. Crapper did popularize modern plumbing fixtures and made important improvements, but he didn't invent the toilet itself.

KEEP COOL WITH PAINT

A new kind of paint might be the key to cooling homes in humid climes like Singapore. Researchers based in the island country found their custom white paint, specially developed to 'sweat,' significantly reduced the need for air conditioning, while also maintaining its appearance for years.

The major challenge with cooling in humid areas is that water vapour in the air holds on to heat. That means air conditioning systems inside buildings are up against both the region's sensible heat (temperature) and the latent heat (moisture) from the air.

Naturally, buildings need all the help they can get to cool down. That is where paint comes in. We already have commercial paints with radiative cooling properties that remove heat from surfaces, and solar reflective paint that reflects sunlight to cool buildings to a certain extent. The researchers' cement-based paint, combines radiative cooling, solar reflection, and evaporative cooling to achieve significantly better cooling.

This paint has been developed to have a porous structure, so that it can hold water and slowly release it, similar to how our bodies sweat when we get hot. The researchers observed that their paint helped reduce the electricity consumed by the home's air conditioning systems by 30-40%. That Is because of the evaporative cooling effect, as well as the strong reflective cooling: it reflected 88%-92% of sunlight.

Source: Science via ScienceNews

UNDERGROUND SALT CAVES COULD BECOME MASSIVE BATTERIES

We're currently a lot better at producing clean energy than storing it to use later. That poses a challenge in regions that have long stretches with low wind and sunlight, stressing power grids fed by renewable sources. Augwind Energy believes it might have a found a solution thousands of feet below the ground.

The company has developed a long-duration energy storage (LDES) system called AirBattery that relies on compressed air held in underground salt caverns – hundreds of which are found in South Germany. AirBattery is said to reliably store energy for weeks while requiring a lot less land, water, and capital than more common pumped hydro storage systems.

Here's how it works: A pump cycles water through an underground liquid piston chamber. As the water rises, it compresses air in an adjoining chamber where the low temperature remains steady, by virtue of it being underground. The compressed air is then piped down to enormous sealed salt caverns thousands of feet below the Earth's surface for long-term storage.

To discharge energy, bubbles of compressed air are released towards a chamber filled with water. As the air expands, it pushes that water through a turbine, which turns to generate electricity. AugWind says its demonstration facility manages a round-trip efficiency of 47%; its commercial setup should see an efficiency of more than 60%. The AirBattery system is said to be able to operate for decades with no degradation and minimal running costs.

The company plans to build its first commercial AirBattery facility in Germany, with a view to have it up and running by 2028. Augwind estimates there are more than 400 suitable salt caverns in Germany alone, each with the capacity to store compressed air that can generate between 3-8 GWh of electricity. All those caverns together could store the equivalent of 65% of Germany's annual electricity consumption….

It's also worth noting that China has been exploring compressed air energy storage using salt caverns recently as well, and that the country has some 2,000 such caverns. However it shakes out, I can't help but marvel at the idea of using giant underground caverns as batteries.

LAKE TAUPO -DID YOU KNOW?

Lake Taupō sits atop one of the world's most dangerous supervolcanoes, a geological time bomb that has been quietly building pressure for millennia. This isn't just any ordinary volcano – it's a massive caldera system that spans roughly 35 kilometers across, making it larger than many entire cities.

The lake itself formed from previous explosive eruptions that created a collapsed crater, which then filled with water over thousands of years. What tourists see today as a pristine recreational destination is actually the flooded remnants of catastrophic volcanic destruction. The peaceful surface masks a churning magma chamber below that continues to pulse with geological activity.

Scientists have identified this system as a "supervolcano" because of its potential to produce eruptions measuring 8 on the Volcanic Explosivity Index – the maximum rating that can literally alter global climate patterns. The Taupō system has earned this terrifying designation through its proven track record of world-changing eruptions. Lake Taupō appears peaceful today, but nearly 2,000 years ago, this very spot unleashed an explosion so massive it literally changed the world's climate and plunged entire civilizations into darkness.

The eruption of 180 CE, known as the Hatepe eruption, began with what scientists call a "phreatoplinian" phase – a terrifying combination of explosive volcanism and steam generation as magma met the lake's waters. The initial explosion sent a column of ash and debris over 50 kilometers into the atmosphere, higher than commercial jets fly today. Eyewitness accounts from distant civilizations describe the sky turning blood red and the sun dimming to a pale shadow. The eruption continued for several days, with each phase becoming more destructive than the last. The sound of the explosion was reportedly heard thousands of kilometers away, traveling across the Pacific Ocean.