EPSOM U3A Inc.

epsom1u3a@gmail.com
Website https://u3aepsom.nz/.

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

NEWSLETTER
November 2025

Next meeting - AGM
10-12noon
Thursday 13 November 2025

President's Annual Report 2025

It has been a privilege to serve as your President for 2025 with a wonderful working committee that has been willing to serve and to do anything to make Epsom u3a the success that it is. All are hardworking, organised and very supportive in every way.

Special thanks need to go to the programme organisers for the local, weekly and monthly activities that are the heart of our u3a. Another I wish to personally thank is Kaye Buchanan for her support as Past-President throughout the year. Both Kaye and her husband Don have made a very significant contribution to u3a work.

This year our speakers have been of an excellent quality covering a wide range of topics. For me, the most interesting speaker which I had no prior interest in was the talk about the introduction of dung beetles into New Zealand agriculture. I hope you have been captivated by the speakers as well. This is what u3a is all about. That is learning, sharing, being and doing. This is what Epsom u3a does well. So thank you to all the members for participating and learning as you grow older.

Let's turn now to the world we live in. We seem to have a world-wide shortage of good leadership. For example why do we continue with war rather than peace options, poverty as an option instead of food for all, why are we not preparing for the future of human life on a healthy planet earth? We know we can feed and care for all life on this planet as we abuse it but somehow we don't get around to making things better. Going ahead please activate yourselves to take on new and new learning that might solve our future problems. It is true that we are the most privileged human beings and life that the Earth has ever seen. But with this comes the responsibility to care for ourselves, our human and living communities as well as all forms of life. So let us be more responsible in everything as we age and the world seems to change so fast.

So let us make 2026 a time where we offer hope and joy and through us to make our society a safe place and a world of creation that enables all life to exist.

As I stand down as your President it has been a privilege and it could not have happened without the support of my wife Julie and family and the great support that Epsom u3a has been and will continue to be.

Duncan
President

EPSOM U3A EXECUTIVE

President
Duncan MacDonald - 021-316 661
president.u3aepsom@gmail.com
Immediate Past President:
Kaye Buchanan- 620 7572
Secretary
Jenny Whatman - 027-353 2487
secretary.u3aepsom@gmail.com.
Minutes Secretary
Jessie Mraviciich – 022 019 0896
Membership Secretary
Thomas Tam - 520 1084
membership.u3aepsom@gmail.com
Treasurer & Technical Officer
Thomas Tam - 520 1084
treasurer.u3aepsom@gmail.com
Almoner
Charmaine Strang – 027-4177 556
Interest Group Co-ordinators
Joslyn Squire - 021-168 0680
Bill Hagan – – 021 611 247
Guest Speaker Organiser:
Ian Jost - 027-488 7037
Legal Advisor
Mike Matson - 022-630 7968
Newsletter
Jeanette Grant – 638 8566
Greeters:
Don Buchanan - 620 7572
Ngaire Mune – 624 0226

INTEREST GROUP CONVENERS

Applied Sciences
Peter Parsons - 021 521446
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.

OCTOBER SPEAKER REPORT

Although our arranged speaker was ill and had to cancel, we were more than rewarded with a very interesting talk by Dr David Addis, who spoke about his experiences after graduating in London in 1968 then working in a job in a busy London hospital which led him to seek an escape to a different, less stressful way of life. He applied and won a job working for The Britain Nepal Medical Trust where he was assigned to the village of Chainpur in the foothills of the Himalayas.

After flying to Kathmandu, he and a nurse spent three weeks in an intensive Nepali language school. They then flew further towards the hills on a DC3, next taking a bus two hours north, followed by three days trekking into the hills. This involved crossing dangerous rivers often without bridges and sleeping on bare earth with the porters and other travellers. It was a shock to arrive in Chainpur to discover that Dr David was the only doctor for 100,000 people and would have to be prepared to deal with emergencies and all sorts of medical issues that he had not been exposed to in the UK.

The village consisted of mud huts in the 1970s, with no electricity, running water, radios, sanitation, phones, and many of the nearby villagers would have to walk for hours if they needed medical treatment, and usually relied on the local medicine man, bells, prayers and incantations.

Dr David's first crisis came at 2am one morning, when a husband from a village two hours' walk away was desperate for help for his wife who had been in labour for three days. The baby was wrongly positioned and it was only sheer luck that Dr David had brought with him, a textbook on midwifery that he had found in a London bookshop, and he was able to read the instructions for how to save the mother and baby, the latter who screamed loudly on his arrival in the world. The grateful mother appeared with an entourage of villagers two days later to give the doctor a live chicken and yoghurt. This set the scene for the local people trusting the doctor who was then able to implement other much needed health programmes. The local people were generous, warm-hearted and the doctor and nurse felt totally safe walking the hills to visit the villages. Their home was a hut with a boulder encrusted with garnets for a front door step, though the floor was mud with a hardened crust of cow dung , which was replaced by their 17-year-old houseboy on a regular basis.

The BCG vaccine was administered by the nurse to prevent TB but when Dr David worked with the active cases, he found it difficult to achieve success due to the local people not taking pills correctly, taking them all at once or abandoning treatment if they started to feel better, even though the treatment had an 18-month course. Interestingly, the BCG vaccine also helps to control leprosy. Dr David became an expert at do-it-yourself surgery, dealing with abscesses, tracheotomies, hookworm and roundworm infestations which caused anaemia, toothache which necessitated extractions with pliers, and fractures without x-rays being available. He fortunately had morphine for pain relief and plaster of Paris for broken limbs, though without modern tools the casts were hard to remove. Many people had laceration injuries caused by Kukri, the sharp knives used in Nepal for cooking, cutting nails, chopping trees etc. Penicillin worked well to prevent infections as the people had no resistance to it, not having been exposed to the drug before. Other vaccines were gradually added over time and amazingly, Nepal now has a 100% vaccination rate according to the Global Alliance records.

This is largely due to their system of Female Health Volunteers who were set up in every village 30 years ago, to advise on Family Planning, Ante-Natal care, Vaccinations, Rehydration, Deworming and to encourage the use of long-drop sanitation instead of using the fields, the children acting as policemen in enforcing the expectation. This programme was funded by the EU and the Bill Gates Foundation. In 1971, 25% of children didn't reach the age of 5. Sadly, even now, 5.7% are undernourished due to climate change and the lack of water affecting agriculture and 24.8% of children under 5 have stunted growth, while 7% are wasted and 2.7% die before the age of 5.

Climate change has caused glaciers to melt and rivers to dry up, bringing hunger, as farmers cannot produce enough nutritious food. Earthquakes have a greater impact and kill more people now that roads have been built and houses have been constructed of concrete breeze blocks without reinforcing, and long-term corruption and political unrest have not created good governance to address the issues. Huge quantities of food have to be helicoptered in to the people, who are very reliant on international aid.

Dr David Addis's talk was very enlightening for many of us who probably had a romanticised view of village life in the Himalayas. The issues related to climate and cultural change affecting these people, are also experienced by many others in different countries, and the air pollution in photos of Kathmandu is sad to see.

We commend Dr David and his efforts to help such a vulnerable society, even though he says that when he finally left Nepal, he vowed never to work in such an unsupported situation again.

SUBSCRIPTIONS INFORMATION	The 2026 subscription fee will be ratified at the AGM which will be held on 13 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.
NOVEMBER SPEAKER **Jacqui Knight**	Jacqui is a spokesperson and the founding trustee of the Moths and Butterflies of NZ Trust, an organisation that engages with New Zealanders to ensure our biodiversity promotes thriving moth and butterfly populations. Her talk is entitled, *Saving the World, one Butterfly at a time.* This is an introduction to the moths and butterflies of New Zealand and what we can do to ensure we don't lose any species. Moth and butterfly numbers are declining globally – perhaps as much as 84% over the past century. Theories put forward as to reasons for this include habitat loss from urbanisation, agricultural intensification, climate change, pesticide use and the spread of invasive species like exotic wasps. Can this decline be halted or even reversed? Are we as individuals able to do anything about it? Does it actually matter? As a preview to Jacqui's talk, you can hear her being interviewed on Radio NZ last March on this web address: https://www.rnz.co.nz/tags/Jacqui%20Knight
INTEREST GROUPS	**[1] Applied Science interest group guest speaker October – Janet Stacey** Janet is a Lead Senior Scientist in Digital and Data for the Forensic R & D team. She has two Master of Science degrees, one in Forensic Science and another in Bioinformatics. Janet worked in the Forensic Biology case work laboratory for 11 years before transitioning to a Data Science role. Her presentation covered the changes in forensic science to evaluate evidence deposition and the framework used to evaluate this evidence. This evolution is reflected in the growing emphasis on *activity-level propositions,* that focus not just on the source of evidence, but on the mechanisms and timing of its deposition. She gave many examples of the robust framework using generative AI and statistical methods. Integrating experimental results and expert knowledge to support scenario-based reasoning is starting to be used in evaluating evidence, but there is still some reticence to their use for gathering evidence not just on the source of evidence, but also on the mechanisms and timing of the evidence. There was a lively discussion of her overview of this new approach at the end of her talk, and it continued over the tea break! Janet's parents, Don and Kaye Buchanan who are our Epsom U3A members, were also in attendance. *Peter Parsons* and *Bill Hagan* **[2] te reo Mäori group outing** On Monday 20 October, a beautiful spring morning, members of te reo Mäori Epsom U3A met at Ambury Park headquarters to walk to the manu (bird) hide on the Manukau Harbour. Stuart, who led our group brought along a powerful telescope. Many of us also had binoculars, two of which had belonged to our fathers during the Second World War. Three pēpē (baby) matuku moana (White-faced Herons) were being fed by their mother in a Pohutukawa tree near the headquarters. At full tide, there was a tinitini (veritable feast) of manu: noho (resting), kotū (wading), omaoma (scuttling), mate nui ki (mating) and rere (flying) in formation. Amongst these were arctic waders te kuaka (the Bar-tailed Godwit); the Lesser Knots; tōrea tai (Variable and Pied Oystercatchers); ngutu parore (Wrybills); kōtuku-ngutupapa (Royal Spoonbills); kāhawai and tara (Caspian and White Fronted Terns); kawau (Pied, Little, and Black Shags); kotare (Kingfishers); and matuku moana (White-faced Herons). We also learnt how the sewage system works inTamaki Makaurau. A highlight was seeing ngā manu take flight in great flocks, sweeping through te rangi (the sky) before coming back to land. Visit https://mhrs.org.nz/resources/birds-of-the-manukau-harbour/ for more information.
2025 MEETING DATES Thursdays, 10am	**13 November AGM** NB Always wear your name badge and be seated ready at 10am

JEANETTE'S JOTTINGS

CONCRETE CONTINUES…..

The Pantheon in Rome has stood for nearly 2,000 years, boasting the largest unreinforced concrete dome on Earth. Many other Roman structures, from aqueducts to seawalls, have endured wars, earthquakes, and time far better than modern buildings. The secret to their remarkable durability has long been credited to pozzolanic concrete, a mix of volcanic ash and lime.

But new research suggests we've been missing a key part of the story. A team of scientists led by the Massachusetts Institute of Technology (MIT) has discovered that Roman builders used a unique technique called hot mixing, which not only made their concrete stronger but also gave it self-healing properties.

However, when analyzing samples of 2,000-year-old Roman concrete from Privernum, Italy, researchers found something puzzling: tiny white chunks of lime embedded in the otherwise smooth mixture.

These fragments, known as lime clasts, had long been dismissed as evidence of poor mixing. But materials scientist Admir Masic of MIT wasn't convinced. "If the Romans put so much effort into making an outstanding construction material, why would they be careless about mixing it?" Masic wondered.

To solve the mystery, Masic and his team, led by MIT civil engineer Linda Seymour, conducted a series of advanced tests—including electron microscopy, X-ray spectroscopy, and confocal Raman imaging. What they found rewrote history.

Instead of using only slaked lime, the Romans appear to have added quicklime directly to the concrete mix, generating extreme heat—a process known as hot mixing. This method did two things:

- It created unique high-temperature compounds that made the concrete even stronger.
- It gave the material a remarkable self-healing ability.

This discovery explains why ancient seawalls and structures exposed to harsh conditions for centuries have remained intact while modern concrete crumbles within decades.

KEEP COUGHING???

When we get sick, viral infections provoke an inflammatory response in the body that can make the nerves in our airways hypersensitive. This heightened sensitivity can persist for weeks, causing coughing from even minor irritations, such as cold air or laughter.

A 2016 study found that even dead viruses—neutralized with UV light—could increase the number of TRPV1 receptors in lab-grown human cells. These receptors respond to irritants and can make something as simple as a deep breath trigger a cough. This suggests that it's not necessarily the active virus itself but rather the traces it leaves behind that can prolong the cough.

According to experts like Michael Shiloh from UT Southwestern Medical Center, a cough typically resolves within two to three weeks. However, in some cases, it can persist for up to eight weeks—or even longer. If a cough lasts this long or is accompanied by symptoms such as fever, bloody phlegm, weight loss, or shortness of breath, medical attention should be sought.

FIGHTING FATBERGS

Several feet below city streets around the world lurks a dangerous and unspeakably gross threat to our way of life: fatbergs. Fat, oil, and grease (collectively known as FOG) mix with sewer water and calcium released from concrete sewer pipes, and solidify over time. FOG in particular comes from domestic and commercial kitchen wastewater, and while plumbing devices called grease traps intercept a large amount of FOG before it enters sewer lines, some of its still gets through.

These giant concrete-like clusters of cooking oil, grease, nappies, wet wipes and such congeal into masses in our sewers, clogging networks. They're not only hard to break up, but can also grow to immense proportions. In 2017, London saw a monstrous fatberg grow to a length of 820 ft (250 m) and reach 130 tons (118 tonnes) – about the same as two Airbus A318 planes. Clearing these blockages before they cause sewage backups in our streets requires constant manpower and monitoring. In the US, it's estimated to cost the country as much as US$25 billion a year to break these up and fix the damage they cause.

A team of engineers at Australia's RMIT University are working on two ways to reduce these buildups – and they could save cities billions of dollars each year globally.

To further reduce FOG from entering sewer systems at the source, the RMIT team built a better grease trap that's more than twice as good at capturing fats than current systems. The researchers' design looks like a conventional grease trap on the outside, but actually features a a series of physical baffles which slow the flow of wastewater and separate larger fat particles. Next, alum – a water treatment chemical – is added to the contents to clump together smaller, suspended fats so they can be easily removed.

For the second part of their one-two punch, engineers from the same research centre developed a new coating for the interior walls of sewer pipes. The coating reduced the release of calcium by 80%, and that in turn reduced the build-up of FOG on concrete by 30%. It's also self-healing, which means that if it's scratched or dinged up by hard materials flowing through sewer lines, the coating can repair itself and extend its lifespan.

THINGS THE HISTORY TEACHERS IGNORE

Recently in reading '*Sarah Matthew. Explorer, Journalist and Auckland's First lady*' by Tessa Duder I came across this fascinating fact about Sir George Grey and his wife Eliza Lucy Spencer who married in 1839 - "he 27 and she 16. Like Sarah, she is childless, losing her only child, a son, when he was five months old. [In 1841]

It's a loveless marriage, although with Grey absent for long periods, she evidently enjoys her role as Auckland's 'first lady'. The marriage of 21 years ends abruptly. On a voyage in 1860 from England back to the Cape (South Africa) where Grey is now Governor, he accuses her of flirting with the ship's captain, Admiral Henry Keppel, and has her put ashore in Rio de Janeiro. They live apart for 36 years, only more or less reconciled a year before they both die in 1898."

Checking this out in Wikipedia, I found this additional scandalous detail …"Grey adopted Annie Maria Matthews (1852–1938) in 1861, following the death of her father, his half-brother, Sir Godfrey Thomas. She married Seymour Thorne George (1851-1922) on 3 December 1872 on Kawau Island."

LET LIGHT LINGER LONGER

Researchers at South China Agricultural University have discovered a way to make succulents shine about as bright as a typical night light, and they can recharge using sunlight during the day… Imagine glowing trees replacing streetlights… This is not the first time researchers have done something like this. In 2024, a biotechnology company known as Light Bio created a Firefly Petunia, but its glow was more muted, and only available in green. It was also expensive to make. In this study, the researchers could make the succulents glow without changing the plants' genes by using a compound called afterglow phosphor particles. Essentially, these absorb light and then release it slowly over time. The team needed to reduce the particles down to about 7 micrometres for it to move through the plants' leaf tissues. They then injected plants including the rose-shaped succulents in the genus Echeveria and non-succulents, such as golden pothos and bok choy, but only the succulents produced a strong glow. The plant's narrow and evenly distributed leaf veins helped disperse the particles effectively and after being exposed to sunlight or an indoor LED light, the modified succulents stayed illuminated for up to two hours…The team created plants that shine in greens, yellows, reds, and blues by using different types of phosphors…Each plant takes about 10 minutes to prepare and costs a little over 10 yuan (about $1.40), not including labour,' Dr Liu said. The team is still studying the long-term effect of the particles on the plants. However, they believe that this concept could offer a sustainable alternative for low-intensity outdoor lighting or indoor decor, and they are exploring how this method could light up plants other than succulents.

EARLIEST KNOWN EPIDEMIC

he Justinian Plague, which began in 541 CE, marks the world's first recorded pandemic. Sweeping across the eastern Mediterranean and the Byzantine Empire, some historians believe it was one of the deadliest pandemics in history, resulting in the deaths of an estimated 15 to 100 million people during two centuries of recurrence.

The mystery behind the plague has now been solved as researchers believe it was caused by Yersinia pestis, the same bacterium responsible for later outbreaks, including the infamous Black Death in 1346.

This zoonotic bacterium spreads primarily via fleas that infest rodents, particularly rats living in close contact with humans, and can also be transmitted directly between people in its pneumonic form.

Using advanced DNA techniques, a new study, led by an interdisciplinary team at the University of South Florida and Florida Atlantic University, examined eight human teeth recovered from burial chambers beneath Jerash's ancient Roman hippodrome. The DNA revealed that the victims shared almost identical strains of Y pestis, confirming the bacterium's presence in the empire between 550 and 660 AD. The findings suggest a swift, deadly outbreak, consistent with historical accounts of mass fatalities. *"Jerash was one of the key cities of the Eastern Roman Empire, a documented trade hub with magnificent structures. That a venue once built for entertainment and civic pride became a mass cemetery in a time of emergency shows how urban centres were very likely overwhelmed... Like COVID, it continues to evolve, and containment measures evidently can't get rid of it. We have to be careful, but the threat will never go away".*

HOW SOLAR PANELS ALTER DESERT CLIMATES

The mechanics of this change are surprisingly simple yet powerful. By blocking incoming sunlight during the day, the panels reduce ground temperatures and slow water loss from the soil. At night, the same structures trap some of the long-wave radiation, creating a warmer environment compared to the exposed sand. The effect is a reversed day-night cycle: cooler under panels in daylight, warmer after sunset.

This microclimatic buffering has been observed in multiple regions. A year-long campaign at a utility-scale solar farm in Gansu Province, published in Atmosphere, plus work in the Gobi Desert, detailed in Solar Energy, recorded systematic shifts in air temperature, relative humidity, soil temperature, and soil water content under and between rows of panels compared with control sites.