EPSOM U3A Inc.

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Website https://u3aepsom.nz/.

MEETING PLACE

Royal Oak Bowls, 146 Selwyn St, Onehunga

10am on the 2ND Thursday of most months

NEWSLETTER

May 2025

Next meeting
10-12noon
Thursday, 8 May 2025

Greetings everyone

I hope that those of you who have grandchildren, particularly in the younger stages of education, have enjoyed/survived the recent school holidays with its "helpful" positioning around Easter and Anzac Day.

It was interesting to listen to various younger members of our wider family talk about what "desirable holiday activities they wanted to do….and what the cost would be to their parents" and compare it with what my generation would have seen as a " the treat!! i.e on a chosen day, my brother and I would board the bus at Royal Oak with Mum, travel into Queen St, see a movie, then it was up to Farmers by the free bus to have lunch on the top floor and a small time in the playground where we might be brave enough to get close to "Hector the Parrot!".

(Apologies to those of you who didn't live in Auckland but I'm sure you have your own stories to tell about the school holidays)

As we move further into the year our Interest groups are proving as popular as ever and I hope that those who have joined U3A this year are feeling welcomed. Some larger groups find that encouraging existing members to remember to wear their name badges for the first few meetings helps everyone to get to know others who share the particular interest.

The new Applied Science group will be starting in August and details of times and venues will be made available to those who signed up.

Our speaker for the Main Meeting on May 8th will be the journalist and podcaster, Duncan Garner.

Please join me at Royal Oak Bowls on that date to hear his presentation.

Regards
Kaye Buchanan
Past President (on behalf of President, Duncan Macdonald)

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INTEREST GROUP CONVENERS

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
Christine Keller-Smith – 021 140 9021
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
Gary Preston – 021 297 3087
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.
Wellbeing for Seniors
Duncan MacDonald – 021 316 661

SPEAKER REPORT	**Our Speaker for April was Rob Davison - an astronomer, media spokesperson and Visitor Experience Manager from Stardome Observatory in Cornwall Park.** Rob studied physics and astronomy in the UK before moving to New Zealand to work in the Lake Tekapo district, famed for its beautiful dark night skies. His topic was "Mars: the Red Planet" in which he explored humanity's relationship with our neighbouring planet, and the past, present and possible future of our relationship with Mars. He discussed how our knowledge has changed and grown over time, and how it has impacted us culturally. People have been fascinated by the stars, planets and constellations since ancient times and myths and legends from many cultures reflect this.(eg Norse, German, Sanskrit, Egyptian, Chinese, Japanese, Te Reo, Babylonian.) Aristotle and the Babylonians made scientific calculations about the size, distance and rotation times of celestial bodies, which were then refined by Kepler, Copernicus, and Galileo. People's belief that the Earth was the centre of the universe was shaken by new findings that the Earth and planets move in elliptical orbits around the sun, and the invention of telescopes renewed interest in Mars when ice caps were found, though early Italian mapping described canals, which we have now proven are non-existent, as are the fantasy alien civilizations which some people believed must exist on Mars! HG Wells book, War of the Worlds caused panic in 1938 when it was broadcast and many people believed it was real. Even as late as the 1950s our knowledge was not very advanced and it was not until the era of space exploration that our knowledge grew. Getting to Mars is not easy, as there is only an optimal window for exploration every 26 months and the journey takes 6 months. The USA and Russia flew past Mars in 1965 and the first images were taken in 1969, revealing hills, volcanoes, canyons and deep valleys, but no canals. In the 1970s, attempts were made to land on Mars, though the risk of burn-up in the thin Martian atmosphere was real. Several failed attempts were made and only rocks and dust were found in the 1990s, when finally, a rover was landed on the surface. The solar powered Sojourner, using parachutes and airbags to land in 1997, drove around Mars on wheels, and from 2004-2010 sent back images, while Opportunity, 2004-2018 is still operational. Searches for evidence of past water have revealed the mineral haematite, which indicates the past presence of water in craters. Recently, water with a neutral PH was found when rovers had to drive backwards after getting stuck in sand and dust inside craters. Silica has also been found. Global dust storms on Mars and the resultant darkness, caused the solar powered rover to go into hibernation, and it took 8 months for it to wake up as the air cleared and more light was available. The 2012 Curiosity Rover is still working on Mars and has discovered organic carbon molecules. In 2021 Perseverance landed without bouncing and carried a smaller drone called Ingenuity, which has done 70 flights so far, sending back excellent images. The next stage is to bring samples of dust, sand and rock back to Earth. The Martian water probably disappeared into space or is frozen deep underground, due to the magnetic field changing and the lack of strong gravity. Human beings are not likely to ever be able to live on Mars due to the toxic soil, harmful radiation, lack of water and unbreathable air, and even if they managed to land after a six month journey, they would have to live underground and the cost, complex engineering and planning would probably be insurmountable over a long period of time, for little gain to human life.
SUBSCRIPTIONS INFORMATION	The 2025 Epsom U3A subscription is $50 per person This should be paid into our ASB bank account – Payee: U3A EPSOM INCORPORATED Account Number: 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.

MAY SPEAKER Duncan Garner – podcaster and former journalist	. **How did we lose paradise and is it possible to ever get back there?** We were once the envy of the world, now we languish in some of the worst stats for health and education and one in four of our young people aged 15-19 are unemployed, on the dole and sitting at home doom-scrolling. Industries have collapsed, hundreds of people compete for just one job and we are having to define what a man and woman actually are. I am part of one of those industries that has gone belly up. What's it been like and why has the media suddenly become less trusted than politicians and used car salesmen and is it entirely fair? Bio: Duncan Garner has been in the NZ media for 30 years and has won numerous broadcasting and print national awards. He spent 17 years at Parliament, starting in 1995 before MMP and was a political journalist for TVNZ, and was the Political Editor at TV3 during the Helen Clark and John Key years. He hosted TV3's The AM Show, and hosted Radio Live's Drive Show, and Today FM morning talk before Mediaworks pulled it from air. He currently writes for the NZ Listener and Herald, broadcasts his own daily podcast Duncan Garner, Editor in Chief and can also be heard hosting shows on The Platform.
INTEREST GROUPS	There is a new **Applied Science Interest group** starting in August, and Peter Parsons is the Convenor. He has a background working in the pharmaceutical and textile industry and we are fortunate to get a booking at the Deaf Centre (16 Hillsborough Rd) for August through to November on Wednesdays in Week 1 in the morning (10-12pm) starting on the 6th August. There are up to 20 people who have shown interest so far in joining the group. Please either sign in at the Interest group desk at the May main meeting if you are interested, or else email Bill about joining. Some of the topics/subjects that can be presented or discussed are: food technology, textile and colour technology, chemical engineering and electro chemistry, health/medical applications, coatings and solar technology, as well as Audio and TV developments and GPS technology. Wine technology and history may also be an interest for us! Also, just a reminder for those of us attending interest groups to please email or text your Convenor if you're unable to attend the regular (usually monthly) meeting. Thank you - Bill Hagan **Re Group Policy**. All group participants ought to respond to all meeting reminders as a courtesy to enable the Convenor to properly manage numbers, facilitate catering, make bookings etc. It has been recommended that a cut-off point should be established and that only members who respond first and up to that point would be included on outings.
2025 MEETING DATES Thursdays, 10am	8 May 12 June 10 July 14 August 11 September 9 October 13 November AGM **NB Always wear your name badge** and be seated ready at 10am

MASSIVE UNDERWATER DISCOVERY

In a remarkable discovery off the coast of Queensland, Australia, scientists have unveiled a massive underwater reef that rises 500 meters (about 1,600 feet) from the ocean floor. This towering structure surpasses some of the world's most iconic buildings, including the Empire State Building in New York and even the Petronas Twin Towers in Malaysia. Found near the Great Barrier Reef, the reef is a monumental discovery that highlights the hidden geological and ecological wonders lurking beneath the surface of the ocean.

Researchers aboard the Falkor, a research vessel operated by the Schmidt Ocean Institute, stumbled upon the reef while conducting a detailed mapping survey of the northern Great Barrier Reef. This structure, the first of its kind to be discovered in over a century, represents a significant leap in our understanding of the region's geology and ecosystems. At a towering 500 meters, the reef dwarfs some of the tallest human-made structures, including the Empire State Building, which rises just 381 meters to its highest occupied floor.

The reef, which has a blade-like base that stretches 1.5 kilometers (almost 1 mile) wide, rises steeply and reaches its shallowest point just 40 meters below the ocean's surface. This newly discovered reef is part of the northern Great Barrier Reef, which is already known for its ecological richness and diversity. However, this reef stands out not only for its size but also for its unique topography and the unexpected nature of its discovery. The structure's scale and location make it a fascinating subject for future research, offering an unprecedented glimpse into the underwater world.

Source - Lydia Amazouz in the Daily Galaxy

COOKING

National Lamb Day celebrates the famous 1882 voyage of the Dunedin between Aotearoa and the United Kingdom with a frozen shipment of mutton, lamb, poultry and dairy. Earlier preservation techniques for long distance shipping included canning, chemical preservation and the use of ice. However, canned and chemically preserved meat was often described as "tasteless".

In the 19th century, British and American-designed cast iron ranges tended to smoke and drop soot because of New Zealand's sub-bituminous and lignite coal. A solution was finally found in 1873 with the introduction of Henry Shacklock's Orion range, which had a wider, shallower firebox to draw in the additional air needed for lignite coal. These were advertised with the slogan "You can save coal and have your food properly cooked."

In 1959, only 54% of New Zealand households had access to a refrigerator. Food safes were common, and people often relied on regular trips to their local butcher for fresh meat (the first supermarket wouldn't open until 1958).

According to the New Zealand Meat Workers and Related Trades Union, a single solo slaughterman once butchered 238 sheep in one day—starting at 7am and working until midnight. Slaughtermen would be the first group of meat workers to unionise, in 1901.

SUBTERRANEAN OCEAN

In a remarkable scientific breakthrough, researchers have discovered an astonishing underground water reservoir located deep beneath Earth's surface, potentially containing three times more water than all the oceans combined. This monumental discovery, found approximately 400 miles beneath the Earth's crust, reshapes our understanding of the planet's water cycle and presents exciting new insights into the geology of Earth's mantle.

For years, scientists have known that water exists deep within Earth's mantle, but it was always unclear how much water could be stored at these extreme depths. The answer lies in a mineral called ringwoodite, a high-pressure form of the mineral olivine. This mineral has a unique crystal structure that acts like a sponge, trapping water molecules within it, which could be crucial in explaining how water cycles through the Earth's interior.

The discovery was made possible through a combination of advanced seismic data and studies of the Earth's deep geological layers, which have revealed the unexpected volume of water contained in this submerged reservoir. Researchers are now considering the implications of this vast underground water store for both Earth's internal processes and the surface water systems we rely on.

MAGNETIC FIELD REVERSED

A perfectly preserved ancient NZ tree fossil offered scientists an unprecedented view into a moment 42,000 years ago when the Earth's magnetic field went haywire - temporary environmental chaos, potentially influencing everything from an increase in cave paintings to the extinction of the Neanderthals.

Without the Earth's magnetic field we'd have a pretty hard time living on the planet. Beyond helping us simply navigate around the world with a compass, the Earth's magnetic field is fundamental to the existence of life. It helps deflect harmful solar winds and keeps our protective atmosphere in place. But our planet's magnetic field is far from static. In fact, it is profoundly dynamic, consistently shifting and fluctuating over time. Every few hundred thousand years it completely flips, with magnetic north switching places with magnetic south.

The last major geomagnetic reversal occurred 780,000 years ago, and plenty of scientists suggest we are well overdue for a similar event. In between these full geomagnetic reversals, which can last up to 10,000 years, we find shorter disruptions to the Earth's magnetic field. These events - known as geomagnetic excursions - are short-lived, and involve temporary changes to the Earth's magnetic field lasting anywhere from a few hundred to a few thousand years. The most recent recorded geomagnetic excursion is known as the Laschamps excursion and it took place around 42,000 years ago.

"*The Laschamps Excursion was the last time the magnetic poles flipped,"* explained Chris Turney*, co-lead author on a 2021 study investigating this transformative event. "They swapped places for about 800 years before changing their minds and swapping back again."*

Scientists have known about these dramatic magnetic pole events for a long time but it's never been clearly understood what kind of impact they have on life or the environment. That is until a few years ago, when an ancient fossilized tree was discovered in New Zealand. Workers preparing a site for a new power-plant unearthed the massive kauri tree trunk, perfectly preserved for 42,000 years, with its rings offering up an incredible 1,700-year record of the Earth's environmental conditions exactly spanning the period of the Laschamps Excursion.

"For the first time ever, we have been able to precisely date the timing and environmental impacts of the last magnetic pole switch," said Turney*. "Using the ancient trees we could measure, and date, the spike in atmospheric radiocarbon levels caused by the collapse of Earth's magnetic field."*

Published in the journal Science, the research team described using detailed radiocarbon data from the ancient tree to create a novel timeline of the Earth's atmosphere across the period spanning the Laschamps Excursion. The team then ran a global climate model, incorporating previously gathered data from all over the world, to explore what acute effects this type of magnetic field disruption had on the environment.

The results revealed an incredibly dramatic period of environmental change, particularly in the stretch of time leading up to the few hundred years the Earth's magnetic field was reversed. The study calculated a depleted ozone layer, higher levels of ultraviolet radiation and increased atmospheric ionization all coalesced about 42,000 years ago.

FIRST HEXAGONAL PYRAMID DISCOVERED

A remarkable 3,800-year-old hexagonal pyramid has been uncovered in eastern Kazakhstan, shedding light on a little-explored chapter of Bronze Age civilization. Located at the Kyrykungir site near Toktamys village, this six-sided structure stands approximately 10 feet (3 meters) tall and spans 13 meters (43 feet) per side, making it an unprecedented architectural discovery in the region. Archaeologists believe the site may have served as a royal tomb or a significant ceremonial monument, reflecting the power and influence of the individual or group it was built to honour.

The discovery, led by researchers from the L. N. Gumilyov Eurasian National University, has sparked international interest due to its unique hexagonal design—a geometric shape not previously documented in this region's archaeological record. Excavations at the site revealed a carefully constructed labyrinth of stones, which seemed to guide visitors toward a central burial chamber, further suggesting its spiritual and ritual significance. The site's layout, construction precision, and associated artifacts indicate that it belonged to a highly organized and symbolically rich society, one that placed great importance on geometry, astronomy, and burial customs.

SEWER SAFETY

The sewer systems of Florida are teeming with an "abundance" of alligators, racoons, and a dozen other animals using the drain pipes to traverse the city, scientists reveal in a new study. Wildlife across the world are forced to navigate human-altered environments as rapid urbanisation continues. This study published in the journal Urban Naturalist, examined how wild animals use Florida's well-connected subterranean stormwater sewer systems (SSS).

Researchers used camera traps to find how wildlife exploited this pathway, particularly in the state's Alachua County. Overall, scientists found a total of 35 species of vertebrates using the sewer system to navigate, including amphibians, reptiles, and birds. Some reptiles, including the turtle species Yellow-bellied Slider, appeared to be using the pipes as corridors between ponds to avoid crossing busy roads. A few other animals, especially smaller ones, appear to be swept into sewers after storms carry large amounts of water into the system…