Watery Sauces Oldies and Boldies

Newsletter No 91 **March 2020**

Newsletter of the Water Resources Retirees Association

The 36th AGM is Upon Us

Once again, we will meet on 23 April to conduct the Annual General Meeting of the Association. As can be seen in the accompanying notice, the meeting will be conducted in the Sailor Jerry Room at the *Victory* hotel in Edward Street.

Members and partners are invited to attend. They will hear a report on the numerous activities of the Association over the previous year and the state of the finances. As has been our custom over many years, our patrons, the CEOs of SunWater and the Department of Natural Resources, Mines and Energy, have been invited to attend the meeting, or send a representative, to report to attendees on activities within their portfolios. These are always of considerable interest.

It is likely that by the time of our AGM, SunWater will have appointed a new CEO to replace Nicole Hollows.

The meeting will also elect the office bearers who will manage the Association for the next twelve months.

As is customary, the meeting will be followed by a convivial lunch at the expense of the Association – in the congenial atmosphere of the Victory Beer Garden. Members could therefore view the occasion as another opportunity to get together, with the entertainment of the AGM a bonus.

It would be really nice to have some less familiar faces in attendance as well as the regulars.

See you there.

Visit to Port of Brisbane

Also included with this Newsletter is notice of a tour of the Port of Brisbane and Fort Lytton.

The Association organised a similar tour in February 2004 which was enjoyed by the 26 members who attended. There have probably been significant changes since then so a revisit could be as interesting as a first time one. The tour is limited to 25 because of bus capacity.

Fort Lytton is, of course, an historic place and so its story will remain the same (although as we are all retirees we will probably have forgotten the details). The fort and the adjacent Bulwer Island were named for Baron Edward Bulwer Lytton, British Colonial Secretary in 1858 and 1859, and best known for his book *The Last Days of Pompeii.* The fort was the main defence of Queensland during the colonial days, protecting us from a possible Russian invasion.

But that historical snippet is just intended to whet your appetite. Do come along, learn more and socialise with fellow retirees.

The Association is always happy to welcome new members. We extend such a welcome to new member Richard Steindl.
Other recruits would be equally welcome.

From the Editor's Chair

This Newsletter marks a significant personal milestone for me as it is the 50th Newsletter I have edited.

Nearly 17 years ago, Bernie Credlin rang me and asked if I would take on the task as he would no longer be able to continue. As I wrote in my first editorial "I am happy to do this though I would obviously have preferred different circumstances for the change."

I have enjoyed the task enormously and am grateful for the licence to produce idiosyncratic tomes regularly. And obviously I am extremely grateful to the many contributers. I can only hope that there will be many more of those in the future. As Bernie's final words in his Newsletter stated, "If these items dry up the publication will probably cease and that will be a tragedy for the Association."

Until next time, au reservoir.

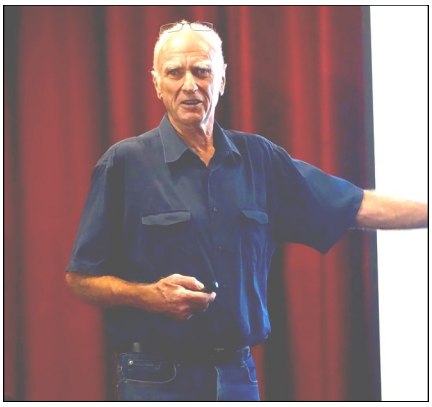
Ian Pullar, Editor

P.S. Special thanks to my daughter Jean Yates who proof-read all 50 editions.

February Social

For quite a few years now, members have gathered in February to chew over lunch and old times. In more recent years we have also been entertained by a guest speaker. Those of us who attended the meeting in the Victory Hotel *on 20 February certainly enjoyed the presentation, as captured by President Pete.* - **Ed.**

This year's presentation was provided by John Potts who retired from the Queensland Public Service in 1998 but has continued working mainly in overseas countries on a series of major dams in the far and middle east.



John's enthusiasm for his work has enabled him to keep fit and retain the sharp intellect which took him to the top of his field while working with the Queensland Government.

The focus of his presentation was the building of mega dams and he was able to give us a number of insights into the successful completion of the projects often in less than conducive conditions.

The common thread apart from the sheer size of the dams under construction – particularly in Laos – where the dams are used to generate hydro electricity for export to adjoining countries was the use of RCC which he told us really stands for Really Cheap Concrete.

He explained how these mega dams, some well over 100 metres high, could be built without the unsatisfactory performance of some of our own dams despite the logistical nightmare of placing many million cubic metres of concrete on a more or less continuous basis – while also having to meet tight construction deadlines due to the demands of private investors whose main motivation was to create wealth from the sale of electricity as soon as possible.

He told of the challenges faced in building in very hot environments and related this to the development of our own Burdekin Falls Dam which had similar issues and whose processes were in part a predecessor to the RCC process with the placement of concrete by large trucks and though the lifts were consolidated by immersion vibrators the construction technique not dissimilar to placing the RCC with a high utilisation of earthmoving equipment.

He also spoke of the importance of using high cement mixes to help overcome problems in joining successive layers and the advantages of utilising the slope layering technique to place the concrete to minimise the area of joint exposed before the next layer is placed.

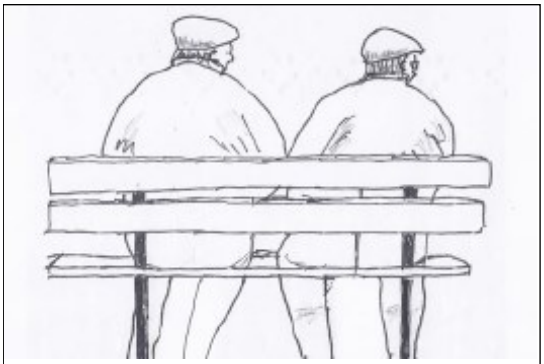
John stressed the importance of recognising that the RCC Dam was able to be zoned such that the outer layers had greater compressive and tensile strength than the central part which he nicknamed the "beer can" zone. He said it was vital that wherever possible the succeeding layers were placed while the preceding layer was still fresh or as he termed it "hot" to get near seamless construction.

He also pointed out that the success of the dam relied on ensuring the integrity of the waterstops particularly for these very high dams.

A more detailed write up of this important presentation will be included in the next edition of the newsletter and/or on our website.

Ready for the talk are Kev Devlin, Francoise van der Heide, Hein van der Heide and Ian Ferrier.

Once again, the score of attendees repaired to the beer garden to enjoy lunch and each other's company (despite the extreme heat and humidity!) - **Ed.**



"They told us about the importance of eating fruit, so I've brought an apple for lunch."
"I've brought an orange."
"Well there's no point in comparing them."

Vale John William Kennedy

John Kennedy died in Bundaberg on 23 February at the age of 82.

John was the fourth child and first son of Peter Kennedy and Florence McBride. Finishing primary school in Morven, John went to board at the Downlands Sacred Heart College in Toowoomba. He played for the First Fifteen Rugby team while still in Grade 10. This love of football never left him and he played A-Grade for Charleville All Whites and for South West Queensland. He generously gave back to the sport. Saturdays had him refereeing schoolboy football, and on Sundays he was back on the field with the men's teams. At 38 when his legs could no longer keep up with the youngsters he turned to golf, and again found a sport he truly enjoyed, eventually becoming B-Grade Champion.

On leaving school, John went droving where he learnt many useful life-skills including self-sufficiency, camp cooking, team work, and organising supplies. He then spent a few months with the Civil Aviation Department before moving to the Irrigation and Water Supply Commission where he worked with Underground Water from 1955 to 1991, rising to the level of Boring Supervisor in Charleville and Bundaberg before opening his own business which he ran efficiently and profitably until he was 81. As The Windmill Man he became a legend in his lifetime and the Australian Taxation Office loved him!

He and Germaine married in Charleville after a three-year courtship, the union producing two sons, Peter and Craig. The family moved from Charleville to Bundaberg in 1977 and once the boys had moved on to follow their own careers, John and Germaine began to travel as time permitted. They visited 99 different overseas countries and criss-crossed Australia towing their Kimberley Kamper on any unsealed road John could find, some with exotic names such as Butcher's Road or Skull Springs Road, and they camped in strange places called Murdering Creek, Chinaman's Gully and Dead Horse Springs.

2019 was not a good year. John was diagnosed with squamous skin cancer that matastisised to his lungs, and Germaine with acute myeloid leukaemia. Their ashes will be mingled with the red earth in Charleville, where their parents and family members are buried.

Known for his honesty and integrity, John leaves a legacy in the thousands of windmills scattered throughout Queensland, a legacy that will endure for generations to come. When you hear the wind, whether it be a gentle breeze teasing the leaves through the trees, or the angry roaring of a gale, if you see a windmill on a farm or field, remember The Windmill Man. You will never see his like again.

Notes provided by John's widow, Germaine.

Vale Gordon Frederick Wilson 17.09.1936 to 17.02.2020

Gordon Wilson passed away in Brisbane on 17 February at the age of 83. His funeral was held at the Mt Thompson crematorium on 26 February.

Gordon started work in the metal trades industry, working for Evans Deakin but then saw the light and obtained a position with the Justice Department. Following this, he obtained a position with the Department of Local Government and in the mid '70s he provided administrative assistance to the Administrator of Torres Shire Council, Ken Brown, who was also the Chief Construction Engineer in the Department. With the reorganisation of the Department, Gordon was in-charge of Administration in the Engineering and Technical Services Division.

With the amalgamation of the technical stream of the Department with the Queensland Water Resources Commission in 1987, Gordon was in charge of the administration in the Local Government Division. In the early 1990s Gordon retired and built his house in Camp Hill.

Outside of work Gordon was president of the British Commonwealth Society for a number of years, a member of Tattersals Club, played the stock market and managed a number of properties he owned. He enjoyed fine food and wine and went sailing along the Queensland coast with his friends. In the last ten years he purchased a 50 foot motor launch and was a member of a yacht club at Manly. Gordon did not marry.

His involvement with WRRA was significant. He joined the Executive in 1997, became Vice President in 2000, served as President from April 2001 to April 2003, succeeding Barrie Fawcett, and then as Past President to Jim Uhlmann until April 2005.

Notes prepared by Rolf Rose who attended Gordon's funeral along with a number of other retirees.

I was browsing through Bernie Credlin's Newsletters to find when Gordon Wilson served as President when I came across this article in Newsletter No 40 of March 2003. Since then we have experienced both the Millennium Drought and the current one (which may or not be coming to an end) and is blamed in the popular press as the result of Climate Change.- **Ed.**

DROUGHTS….ARE THEY GETTING WORSE?

After the recent disastrous drought, described as the worst ever, there are loud cries blaming ourselves for causing it. It is appropriate to quote from an article on droughts by David Wilmott in the July 1994 edition of our Newsletter.

"Blame for this worsening (of droughts) has been many faceted, but has generally been laid to the door of man's failure to control the out-pourings of modern day air pollutants. So, it was interesting to look back on past droughts and read the comments."

"1850…A severe drought ravaged New South Wales. Landholders in the Bogan, Castlereagh, Lachlan and Macquarie Rivers areas experienced heavy stock losses. It was a wet year on the coast."

"1865…Queensland has experienced one of its most severe droughts."

"1877…The entire colony suffered terrible drought conditions, with 'disastrous' stock losses."

"1888…This has been a severe drought year for Queensland…..In the Maranoa native scrub died and great numbers of native animals perished."

"1902…This has been the climax of eight poor years, with less than ten inches of rain over the greater part of the south-west of the State."

"1915…One of Queensland's worst droughts."

"1919…Sees the continuation of the 1918 drought, wet season and winter rains failed in the south…… Disastrous for primary industries."

"1926-27, 1940. 1944, 1951-52, were all severe drought years, with 1944 being the third successive year of drought."

Drought and Flooding Rains

Dorothea McKellar certainly got it right. With large parts of Australia drought declared, hopes for rain were high, verging on the desperate. Then it rained; perhaps not enough for a declaration of drought-breaking, but certainly significant in many areas.

On 5 February, Beardmore Dam was 6% full. On 24 February, only 19 days later, the spillway was overtopped and on 27 February the Balonne River peaked at 12.5 metres – not as high as other floods but sufficient to cause the evacuation of some residents in low-lying areas (although only their yards and back stairs were expected to be affected).

Further west (and in many other places) farmers are rejoicing with the best rainfalls in years, that are filling dams and turning dry creek beds into "raging torrents". Fortunately a near tragedy was averted in Charleville: the town's barrista was cut off from her place of employment and locals were becoming desperate for their caffeine fix. But the owner of Charlotte's Nest café rose to the occasion, chartered a helicopter for around $200 and got her in, much to the relief of the locals.

Answers to Terry's Trivia on page 11
1. (iii) kissing. 2. (iv) Broken Hill. 3. (iv) Twelfth Night. 4. (ii) an Indonesian orchestra. 5. (iv) Alexander Downer. 6. (iii) Tasmania. 7. (i) 1948. 8. (i) Cootamundra. 9. (iii) 20. 10. (iv) Guinevere. 11. (i) Matchboxes. 12. (iii) Chancellor of ANU.

A River with a City Problem

This book, written by Dr Margaret Cook (my daughter), is selling quite well and is certainly helping to promote awareness. Not that it has stopped some real estate agents continuing to claim that Wivenhoe Dam has "flood-proofed" areas.

A couple of reviews may interest readers.

"This is a well-written and engaging book that investigates how huge parts of Brisbane, one of Australia's biggest cities, were built on land that was known to be dangerously flooded. It covers the engineering attempts to reduce flooding and the failure of successive state and local governments to enact effective planning laws. It also touches on the failure of the media and public figures, in both 1893 to 2011, to accurately describe how and why flooding occurs, with each flood being accompanied by various mistruths and scapegoats.

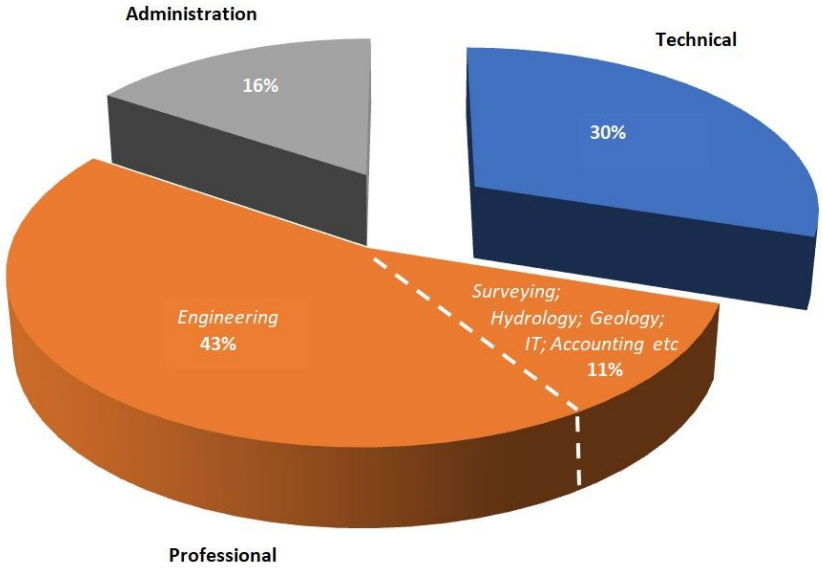
"I think the greatest value of this book is in drawing together over 150 years of history and critically analysing what happened. Very few engineering assessments, or planning schemes, or newspaper articles will ever cover a fraction of the full history, and so they risk re-committing the mistakes of the past."

"It is unbelievable to think that the good people of Brisbane and their elected Council think that they can tame Nature. Dr Cook makes a 'dry' subject like flooding, interesting and intriguing. Everyone on Brisbane City Council should have this book as mandatory reading."

Profile of WRRA Membership

In March 2019, Newsletter No 88 included statistics on the membership of WRRA covering the age profile and city/country proportions of membership. Since then, Treasurer Gary Corbett has carried out further analysis into the distribution of backgrounds. A number of former Water Resources employees have declined to join WRRA on the grounds that "that's an organisation for engineers". These statistics demonstrate clearly that this is a misconception. Without having actual figures available to us, the members of the current committee believe that the proportions of current membership reflect the proportions in the work force of the old Water Resources Commission. It is also interesting to point out that of the past 11 Presidents, only four (Dave Morwood, Jim Uhlmann, Lee Rogers and Peter Gilbey were engineers; the other seven (Norm White, Barrie Fawcett, Gordon Wilson, Eric Davis, Heine van der Heide, Geoff Eades and Mike Merrin) were not. - **Ed.**

The figures are not perfect because a number of members moved from one area to another by gaining additional qualifications. The statistics are based on a concept of "main area of service".
For the purposes of classification, "professional" covers employees with a tertiary degree, "technical" officers hold a diploma or similar qualification and "administration" covers what we once called "clerical" and the like.



Out and About

This is the column I always hope to include to cover the activities of members. As it is entirely dependent on contributions from members, it is once again conspicuously empty.

I do know that many members have been travelling – for example Geoff and Helen Eades went to WA (including Wittenoom Gorge) and Rolf and Maria Rose have been to Europe to visit their daughter in Germany and other places of interest, including a trip on the Hurtigruten to Kirkenes.
Helen and I intend to travel to Scotland, England and the Balkans in August/September, so I have decided to include some of the many Travellers' Tales I have collected over the years. - **Ed**.

A Matter of Scale

In Australia, a hundred years is a long time. In Britain, a hundred miles is a long way.

White Nights of Lapland

In Rovaniemi (on the Arctic Circle), in 2013 the sun rose on 6 June for the last time and did not set again until 7 July. The sun reached its zenith at the Summer solstice on 21 June.

Midsummer Night is associated with magic. Young women dream of their future husband as they place nine different flowers under their pillow. Midsummer has traditionally been the celebration of fertility and it has long been a popular date for weddings. Night reclaims its victory at the Autumnal equinox on 23 September.

Some years ago, a television team interviewed a group of Laplanders about their customs and their recreational activities. "In the Summertime we go fishing and make love." "And in the Wintertime?" "Not much fishing!"

Balance Sheet

According to Orson Welles, "In Italy, for thirty years under the Borgias, they had terror, murder and bloodshed but they produced Michelangelo, Leonardo da Vinci and the Renaissance. In Switzerland, they had brotherly love, they had 500 years of democracy and peace – and what did they produce? The cuckoo clock."

Around the World in 104 Days

Part 10

Bruce Pearce

Day 92 – 3 October 2009. Langkawi, Malaysia.

Langkawi is located at the most northerly point of Malaysia, on the peninsula's west coast, very close to the Thai border. Langkawi is not just one island; it's more than 100, most of them just tiny specks laid out across the sea like pearls, while a few are larger and inhabited, abounding in flora and fauna of all kinds, waterfalls, small lakes and tranquillity.

Malaysia's best known holiday destination, Langkawi is one of those places whose name alone summons up images of tropical romance and carefree days under swaying coconut palms. Only the main island, Palau Langkawi has any real settlement. Fringed with long sandy beaches and with an interior of jungle-clad hills and picturesque paddy-fields, it's easy to see why this is Malaysia's most heavily promoted tourist hotspot. Shopping complexes dominate the main town, Kuah, while luxury resorts occupy isolated bays.

Port Kelang is the jumping off point for Kuala Lumpur which is located some 30 miles from the port. From a lawless huddle of Kampongs in the trackless jungle, Kuala Lumpur has grown into a fascinating metropolis. Steel and glass towers stand side by side with graceful stone colonial buildings and mosques adorned with slender minarets. Modern sky scrapers, colourful sikhs' turbans mingling with black Muslim veils, tranquil English cricket pitches bordering labyrinthine shopping alleys, all combine to make Southeast Asia's most beautiful and fascinating city.

Unlike cities that developed without thought for the future, Kuala Lumpur was planned from the start. Building and carving a new city out of the Malay jungle over a hundred years ago was a monumental achievement. Architects, designers, stone masons, sculptors and craftsmen had to be imported from abroad, at a time when travel was much slower and arduous. The construction of Kuala Lumpur was unprecedented and the city of today rivals any city throughout Southeast Asia in beauty and forethought.

Our tour for the day consisted of travel from Port Kelang to Kuala Lumpur. In the city we visited the National Museum built in the style of a Minangkabau palace. The recently refurbished museum's galleries included the Pre-History Era & Proto History, the Malacca Sultanate, the Colonial Era and Malaysia Today after 50 years of independence. We also visited the Kuala Lumpur Tower. This is the fourth-tallest telecommunications tower in the world offering spectacular views of Kuala Lumpur and the twin Petronas Towers from the observation deck. Other photo stops on the tour included the Royal Selangor Club with its Tudor façade, the Blue Mosque which is the largest mosque in Southeast Asia boasting the tallest minarets in the world and a capacity of up to 16,000 worshippers.

The Blue Mosque in Kuala Lumpur

The National Monument is a bronze sculpture commemorating Malaysia's heroes of World War II and the Communist insurgency in Merdeka Square where Malaysian independence was celebrated in 1957.

The National Monument

From Port Kelang the *Dawn Princess* transited the Malacca Straits and into Cruise Bay in Singapore,. Singapore, the commercial centre of Southeast Asia. This island-city-state of four million people is a metropolis of modern high-rise buildings, Chinese shop-houses with red tiled roofs, sturdy Victorian buildings, Buddhist temples and Arab bazaars. Founded in 1819 by Sir Stamford Raffles of the fabled East India Company, the city is a melting pot of people and cultures. Malay, Chinese, English and Tamil are official languages. Buddhism, Taoism, Islam, Hinduism and Christianity are the major faiths. Singapore is an ever-fascinating island boasting colourful traditions, luxurious hotels and some of the finest duty-free shopping in the world. Today, junks and sampans have largely given away to supertankers, freighters and passenger liners. However, weekend cricket matches and the venerable Raffles hotel keep the ambience of the colonial era alive.

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Around the World in 104 Days *continued*

Our tour of the day featured Orchard Road, a symbol of the city's economic stature and power which boasts world-class shopping against a backdrop of stunning modern architecture, the National Orchid Garden boasting over 12,000 orchids including Singapore native orchard, "Vanda Miss Joaqium", Chinatown where modern high rises tower over old streets and alleys containing awning draped shops and market stalls, the Sri Mariamman Temple built in 1827 by early settlers from India and the city's oldest shrine and the Jurong Bird Park set in 50 acres of landscaped grounds and boasting over 5,000 birds of 450 different species, a nocturnal birdhouse, a walk-through open air aviary and a penguin exhibit.

Singapore orchids

That evening *Dawn Princess,* after clearing Cruise Bay, entered the Singapore Strait and set various easterly courses towards Australia and our next port of call Darwin, transiting Selat Lombock between the islands of Bali and Lombok and entering the Indian Ocean.

On day 99, we reached Darwin, Australia. Closer to Indonesia than to any other Australian city, Darwin is the capital of the "Top End"– the remote vast Northern Territory. Home to more than half of the territory's population, the city reflects the rugged endurance and individualism required to survive the Outback. Darwin also boasts a colourful history to add to that heritage. During World War II the Japanese bombed the city and threatened invasion. In 1974 Cyclone Tracy cut a destructive swath through the region. In addition, man eating crocodiles, tropical monsoons, searing heat and bush fires that burn for weeks are all part of everyday life.

For our tour we travelled to the Adelaide River for a scenic cruise in search of the famed jumping crocs which shoot out of the water in pursuit of their prey right beside the cruise boat. The cruise also enabled us to see magpie geese, kites, corellas wild pigs and buffalo. It was exciting to once again set foot on Australian soil after being overseas for three and a half months.

With passengers back on board, *Dawn Princess* followed her easterly course across the Arafura Sea and the Gulf of Carpentaria, past Booby Island and around Cape York. We went well north of Thursday Island but could clearly see it and recognised several features such as Somerset Station near the tip and Chilli Beach on the east coast that we had visited previously on a land trip to Cape York. In the Torres Strait the sea was very shallow with the ship visibly stirring mud up from the bottom at certain places.

The trip continued past the Great Barrier Reef down the east coast of Queensland. The scenery down the coast from Port Douglas to Townsville was quite pretty as we passed numerous small islands. A highlight was passing through the Whitsunday Islands region, a collection of continental islands of various sizes off the coast of Queensland between Townsville and Mackay.

On day 105 (16 October 2009). we were up before dawn for our sailing into Sydney Harbour and the grand finale to our fabulous adventure. Our ship's choir were assembled on deck to lead the ship's company in the singing of "I Still Call Australia Home" and "Waltzing Matilda" as we passed through the Heads and proceeded up the harbour passing under the Harbour Bridge to our berth in Darling Harbour to complete our momentous voyage around the world. It was a great feeling to be back home in the greatest country in the world!

Thank you Bruce for this thorough account of what was obviously an amazing journey. I hope all you readers enjoyed it as much as I did – though obviously not as much as Bruce and Jennifer did. I will quite miss receiving Bruce's regular instalments. - **Ed**

Sandro Botticelli 1444?-1510

The Birth of Venus

"If I'd been born on land, I would at least have had a fig leaf to protect my modesty instead of this scratchy sponge!"

My Life of Hydrography
Part 2
Ray Alford

My first impression of "Rocklea" was that it resembled an army camp. This was probably close to the mark as it was setup after World War II and many of the employees were likely to be ex-veterans. The site covered several acres with most of the buildings situated along the north and east boundaries near Ipswich road and surrounding the Rocklea hotel. The complex was ringed by a barbed wire topped wire fence. Entry was via Ipswich Road. Because of the construction of an overpass, it was necessary to perform a rather hazardous U-turn before entering through the front gate. A long driveway took you to the entry point of the complex, blocked by manned gate house and boom. On either side of the gate house were flag poles adorned with the Queensland and Australian flags. A parking area which could have doubled for a parade ground lay beyond. The only thing missing to complete the military camp look would have been painted rocks along the driveway.

The most prominent building within the compound was the large engineering shed where steelwork for the dams and irrigation projects was fabricated. Nearly as large, and parallel to it, was the stores building. An entry road through the store and workshop alleviated the need for large trucks to attempt the front entry U turn. Flanking these two large buildings were an assortment of smaller sheds which housed ancillary activities. There was a carpentry shop, soil testing laboratory, vehicle maintenance facility, administration building, storage sheds and instrument shop. Keith led our small group into the instrument shop where several water monitoring instruments had been set up on one of the benches.

The most prominent instrument was the Leopold and Stevens strip chart recorder. Keith explained its function in some detail. The workings of the recorder were attached inside a cast aluminium rectangular box. A hinged lid with a small glass window opened to reveal a cylinder of chart, crisscrossed by feint blue line, stretched across two brass rollers. A pen, attached to a light chain rested on the chart and was driven across the paper by a wheel on the front of the box. When the wheel turned clockwise, the pen moved to the right until it reached the extremity of the chart at which time it smoothly reversed the direction of travel. When the reversal happened, another smaller pen would jolt, marking the margin of the chart. Keith explained that each traverse of the pen across the chart was equal to ten feet of river rise. The chart moved forward at a slow rate, powered by a strong spring, reduced in speed by a multitude of gears and controlled in speed by a Chelsea clock affixed to the mechanism. As the chart advanced at the defined rate of 1/10 inch per hour, the rise and fall of the river would be sketched on the paper as an undulating black line called a hydrograph. The instrument looked truly complicated but we all would come to know it well over the coming decades. Little did I know at the time the part that I would play in making this instrument obsolete.

There were two other types of instruments that we were shown. The first was a punched tape recorder. Instead of a hydrograph drawn on a chart, this instrument punched holes in a roll of paper at timed intervals. The number and position of the holes corresponded to a water level. I was told that the vibration of the punching mechanism would eventually shake loose parts in the instrument which would jam the recorder. This type of recorder had been relegated to monitoring ground water, as only occasional heights were required due to the slow changing water levels. This would become a recurring theme in my career whereby instruments and equipment not quite good enough for surface water would see out their days doing groundwater duty.

The third instrument the group was shown was an Ott recorder. This was a large instrument which recorded water level on both a strip chart and a paper tape. We were informed that the instrument was very reliable and that it was the way of the future. I'm not sure what happened to the Ott instrument, but I never saw one installed in the field during the rest of my career.

An interesting thing at Rocklea that Keith Smyth showed us was the rating flume. This consisted of a long concrete channel filled with water with a small shed at one end. There was a single railway track that straddled the channel. Keith explained that a trolley was pulled along the flume at controlled speeds with a current meter suspended in the water. Operators on the trolley would time the propeller revolutions at different speeds. This was the method used to calibrate the water velocity meters. I never had a chance to ride the trolley but this facility would later play a pivotal part in my career.

My first field trip was much anticipated. I was given an advance against the travelling allowance needed to pay for accommodation. I think that TA was around $13 a night, a small fortune to me at the time. As the party leader and cadet shared rooms, it was possible to save some money and make a small profit from the trip. In reality, staying at hotels had its own temptations, so little was left after a few beers at night.

Continued next page ...

St Barnabas Bulletin Board

Service at 10 am. All welcome. This church accepts all denominations – fivers, tenners, twenties and fifties.

My Life of Hydrography *continued*

My intention was to use the spare time at nights to complete units for the hydrographic course, an intention that proved impracticable.

A typical day on a field trip consisted of a visit to three or four gauging stations. Because the sites in the upper Condamine were fairly closely spaced, it was possible to visit all the stations assigned to the party leader in one week. At each station, the flow in the river was measured and the instrument serviced. It was the cadet's job to be in the water with the meter while the party leader wrote the results on the gauging sheet.

Geoff nearly always did this while sitting on a small battered cardboard suitcase. The accuracy of the measurement depended on the skill of the person in the water. The cadet was the least skilled but was given this task because (a) the water was cold and (b) there were often leaches in the water. Additionally, the party leader had to do all the measurement when he was a cadet, so now it was his time to be comfortable and dry. It never worried me to be in the water, but I quickly learned to use waders to fend off both cold and leeches. Conversely, servicing the instrument was the job of the party leader. Nearly all of our sites were float well installations consisting of vertical concrete pipes, stacked and buried adjacent to the steam. Metal pipes allowed water to flow into the well from the stream ensuring that the water level in the well was the same as the stream. The chart recorder was located in a small shelter at the top of the well, above the maximum height that the stream would reach. A stainless wire with a float at one end and a counterweight at the other was draped over the input wheel of the Stevens recorder. As the water level in the well rose and fell, the wheel would turn and move the pen across the chart.

Servicing the instrument involved removing the previous portion of chart, winding up the clock, oiling the bearings and filling the pen with ink. The cadet was usually given the task of clearing vegetation around the site while the party leader did the service. To ensure that no items were left undone, a checklist was completed which asked questions such as "Did you wind the clock?" Two ominous questions queried whether the pen had been left in the upright position and whether the clock had been reengaged after winding. If the party leader left the site and failed to do even one of these things, the instrument wouldn't work and future records would be lost.

Besides the routine flow measurement and instrument service, other maintenance activities were conducted. Gauge boards were installed at the stations in order to obtain a water level. These were surveyed each year to ensure that they were at the correct level. Any that were damaged or out of level were repaired. The gauge boards were bolted to metal angle iron sections called standards that were driven into the river bank using a sledge hammer. To protect the top of the standard from damage by the hammer, a heavy metal piece called a dolly was placed on top of the standard and this was struck with the hammer. Sometimes the dolly would fly off and roll down the bank before landing somewhere in the river. It was always the cadet's job to find the dolly and, usually, to swing the hammer.

A dreaded maintenance task was to clean out the mud from the bottom of the float well. This task again fell to the cadet who was warned gleefully by the party leader about the large snakes that often took up residence in the wells. The cadet would descend down a ladder inside the well until he reached the bottom. He would then be standing in chest deep water, up to his knees in mud, waiting for eyes to adjust to the gloom. A bucket on a rope would then descend from above, landing with a splash beside and waiting to be filled with mud. The party leader would haul up the bucket, empty it, and then return it for the next load. Occasionally the bucket would come crashing down requiring some quick movement to avoid being hit. The work was cold and dangerous and was eventually banned, but at the time was a routine task for the cadet.

Apart from floatwells, the other type of gauging station was called a GE, short for gas-electric recorder. There were only a couple of gauging stations with this type of instrument in the upper Condamine area. The Stevens chart recorder was driven by an electric motor instead of the float and pulley system in the floatwell. One of the servicing tasks for this instrument was to check the battery voltage with a meter where the scale was marked as good, bad or questionable. There were four large blue and red 6 volt batteries (1462 series) each with the leaping Eveready cat depicted on the label. If the battery reading for any of the batteries fell into the questionable range, it was the call of the party leader whether to replace the set or not. Most often, new batteries were installed, but if it was late in the day, or if the truck was parked some distance from the station, the batteries were deemed good enough to last until the next visit and the cats would be required to give up the last of their lives.

To be continued ...

"Why don't we go to Burma before it's spoilt by people like us?"

HEALTH *and beauty*

Meating the Facts

The following article was published in The Courier Mail *on Monday 17 February.*

Vegans quitting meat believing they're saving the planet could be causing more harm than good, says a leading obesity researcher.

Sydney University expert, Dr Nick Fuller says while beef has been blamed as a key climate-change culprit, the carbon footprint created by methane from cows is minimal compared to other farming practices.

And highly processed fake meat concoctions are less healthy and produce more emissions as a result of intensive cropping practices, as well as transport emissions as a result of being flown in from the US, compared with traditionally raised grass-fed Australian beef.

Other researchers in the field also say promising new research on dietary supplements for cattle such as sea-weed and legumes could halve the methane they release.

"The cow itself also produces minimal methane – less than 10 per cent of the food product's overall footprint, with transport and processing adding up to a whopping 90 per cent," Dr Fuller said.

"Much of the bad rap for meat is based on the greenhouse gas argument. Rather than confining livestock to a feedlot, regenerative holistic farming requires the rotation of livestock among paddocks allowing them to feed freely on foods we cannot eat.

"This results in less water for production – 3 per cent versus 6 per cent irrigation for pasture versus grain-fed – and less greenhouse gas production.

"When pasture-fed cattle release methane, the carbon dioxide is captured by plants which convert it into food.

"The solution is therefore not to avoid meat, but to eat Aussie beef."

Melbourne University's Primary Industries Climate Challenges Centre director, Professor Richard Eckard said some "creative" accounting has been used to blame meat for higher greenhouse gas emissions.

"There are things being researched right now, such as dietary supplements that we can feed all cattle and sheep that reduce methane, like legumes that that have compounds in them that reduce methane," he said.

A Sad Day

Englishman John Richards has dedicated his life to stamping out the misuse of apostrophes.

But at the age of 96 he's calling it a day, admitting it's all become a bit too much.

Mr Richards is closing down the Apostrophe Protection Society, which he founded in 2001 when he retired from a decades-long career as a newspaper reporter and subeditor.

"With regret, I have to announce that, after some 18 years, I have decided to close the Apostrophe Protection Society," he said on his website.

"There are two reasons for this.

"One is that at 96 I am cutting back on my commitments and the second is that fewer organisations and individuals are now caring about the correct use of the apostrophe in the English language.

"We, and our many supporters worldwide, have done our best but the ignorance and laziness present in modern times have won!"

"If you give a man a fish, it will feed him for a day. If you teach a man to fish, you might get rid of him for the whole weekend."

Exercise those Brain Cells

The son of Pharaoh's daughter is the daughter of Pharaoh's son.

Q. Can this be true?

Answer to last Issue's Teaser

Q. Of six consecutive even numbers, the highest is divided by two and four is added. If this result is two more than the average of the six numbers, what is the lowest of the consecutive numbers?

A. 4. (If x is the smallest number, then the average is x + 5. The largest number is x + 10. Halve it and add 2 gives x/2 + 7 == x + 5. Therefore x = 4.)

Weather or Not

"It never rains, my lawn is dead."
A month ago, that's what I said.
But now it's rained, the grass has grown
And twice a week it should be mown.
It's stinking hot, I'm bathed in sweat,
But June will bring a chill, I bet.
With heat or cold or drought or rain
There's always reason to complain.

Keeping off the Grass

The word *grass* appears in numerous English phrases, one of which uses the noun *grass* as an informant and the verb to inform. So I am going to be a grass and remind you of some of the phrases noted in *Brewer's Dictionary of Phrase and Fable.*

Grass as an informant is apparently derived from cockney rhyming slang *grasshopper* for *copper.*

Grass is an old name for Spring when the grass begins to grow e.g. "she is five years old this grass".

Grass is a name sometimes given to the dried leaves or flowers of the cannabis plant or hemp.

Grass roots are fundamentals that we, and particularly the common people, can get down to.

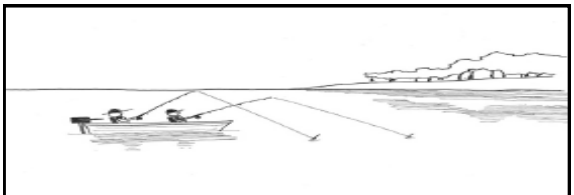
Being *put out to grass* is clearly derived from the treatment of old horses which is far preferable to the knackers' yard (which is now being frowned upon by governments). For us, it may be about retirement!

Don't let the grass grow under your feet is an exhortation to get on with the job without wasting time. At the current rate of grass growing in the hot, humid weather, we certainly need to look lively.

A *grass widow* is a woman whose husband is temporarily absent. I'm sure it could have been applied often to the spouses of many of our colleagues. There is some uncertainty about the origin of the term. Dr Samuel Johnson (of dictionary fame) claimed that it was a corruption of grace widow, but this has generally been discredited. The most likely origin is from the days of the British Raj in India. When the summers became unbearably hot, the wives of the soldiers and officials stationed on the coastal plains were sent to the hills where the cool breezes blew and the green grass grew. The men jokingly began to explain that their wives had been "sent to the grass".

An alternative, but less kind, explanation is that many men caught up in the Californian gold rushes spared their wives the hardships of the diggings (and spared themselves from the encumbrance) they put them *out to grass* by boarding them out. Although the men kept all their takings, they gave the world a free gift of a phrase.

Unfortunately, a *grass widow* does not, even in this age of gender equality, take over the domestic mowing!



" The grass is always greener on your side of the fence."
"But you don't have to mow yours as often."

Terry's Trivia - *from the 2019 Christmas lunch*
Answers on page 4.

1. Philomaphobia is a fear of: (i) neighbours; (ii) files; (iii) kissing; (iv) Philadelphians; (v) shopping centres.
2. The Broken Heel Festival is held annually in: (i) Wagga Wagga; (ii) Dubbo; (iii) Tamworth; (iv) Broken Hill; (v) Bourke.
3. Which Shakespeare play begins with, "If music be the food of love, play on": (i) Hamlet; (ii) King Lear; (iii) Romeo & Juliet; (iv) Twelfth Night; (v) Macbeth.
4. A Gamelan is: (i) a lizard; (ii) an Indonesian orchestra; (iii a Tuk Tuk; (iv) a bird; (v) a snake (vi) a move in chess.
5. Australia's longest serving Foreign Minister has been: (i) Gareth Evans; (ii) Bob Carr; (iii) Julie Bishop; (iv) Alexander Downer; (v) Andrew Peacock.
6. Leatherwood trees are native to: (i) NSW; (ii) WA; (iii) Tas; (iv) SA; (v) NZ.
7. The first Holden was produced in: (i) 1948; (ii) 1950; (iii)1952; (iv)1946; (v) 1954.
8. Don Bradman was born on 27 August 1908 in?: (i) Cootamundra; (ii) Wagga Wagga; (iii) Junee; (iv) Bowral; (v) Tocumwal.
9. A Standard dart board has how many numbered segments?: (i) 10; (ii) 15; (iii) 20; (iv) 25; (v) 30.
10. King Arthur's wife was (i) Cassandra; (ii) Artemis; (iii) Lady Godiva; (iv) Guinevere; (v) Rhiannon.
11. A Philluminest collects: (i) Matchboxes; (ii) Toy Soldiers; (iii) Marbles; (iv) Stamps; (v) Chocolate wrappers.
12. In 2020 Julie Bishop will replace Gareth Evans as?: (i) A Justice of the High Court; (ii) Governor of WA; (iii) Chancellor of ANU; (iv) Chair of Australia's National Cricket Selectors; (v) Chair of the Australia Council.

A Sign of the Times

At a country butcher shop:
All meat in this window is from local farmers killed on the premises.

Book Club

Where the Crawdads Sing is the first novel by Delia Owens, although she has written many books in her normal life as a wild life scientist.

At my last count, the book, first published in 2018, had sold more than 5 million copies. I'm not surprised as it is simply excellent.

The main storyline spans 1952 to 1970, following Kya Clark between the ages of six and 25 as she grows up alone in a shack in the swamplands of North Carolina after being abandoned by her family. She learns from the wildlife around her, gaining tricks of camouflage to evade truant officers and acquiring hunting skills to feed herself and catch mussels and fish to sell to shopkeepers in the town beyond the creek.

As a human who knows only nature, all Kya's reference points come from her surroundings – and her creator's day job. Her observation that mother animals and birds always return to their young leads her poignantly to believe that her childhood solitude will be temporary. As a teenager, she starts to attract attention from two townie boys, kind working-class Tate and arrogant posh boy Chase.

The novel begins with a prologue set in 1969 in which a young man has died suspiciously in the swamp. The rest of the book cuts between the investigation, in which bigoted witnesses incriminate the "swamp girl", and flashbacks to Kya's youth and young adulthood, as local suspicion grows that makes the white people dislike her almost as much as they do the residents of the area known, in the prejudiced term of the time, as Colored Town.

.Ian Pullar

100,000 years ago, at least six human species existed on earth. Now there is just one – *homo sapiens.*

Yuval Noah Harari has written a quite remarkable book, *Sapiens: A Brief History of Humankind* that traces the development of this species which became utterly dominant on the planet. The author who holds a PhD from Oxford, lectures at the Hebrew University of Jerusalem.

The book is divided into four sections. Part 1 deals with what he describes as The Cognitive Revolution in which Homo Sapiens, largely through the development of language, was able to supplant all the other hominids.

Part 2 is concerned with the Agricultural Revolution which allowed man to develop from a nomadic population to one which could develop cities, monuments, social systems and war.

Part 3, The Unification of Humankind, deals with the development of an economic system based on the concept of money, the precursor of our capitalist/consumer society and the laws of religion.

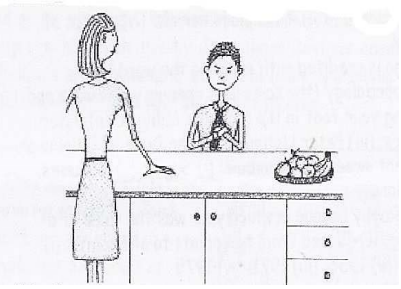
Part 4 is The Scientific Revolution and the impact on the world as a whole with Sapiens becoming completely dominant to the detriment of all other species. There is an inevitability about the development which must be maintained or everything will collapse.

Finally, he touches on forecasts of the future, though this is covered in great detail in his sequel, *Homo Deus.*

I found the book enthralling, though it has come in for criticism.

Ian Pullar

In 2019 I read 45 books (and started two others which I abandoned early). One of those I finished – and wished I hadn't – only because it was by a prize-winning author.
Surely there are other readers who would like to share their pleasures - **Ed.**



"Mum, what are tourists?"
"People who travel miles from home and have their photograph taken in front of their car."

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."Before they perfected the drawing board, what did people go back to?"