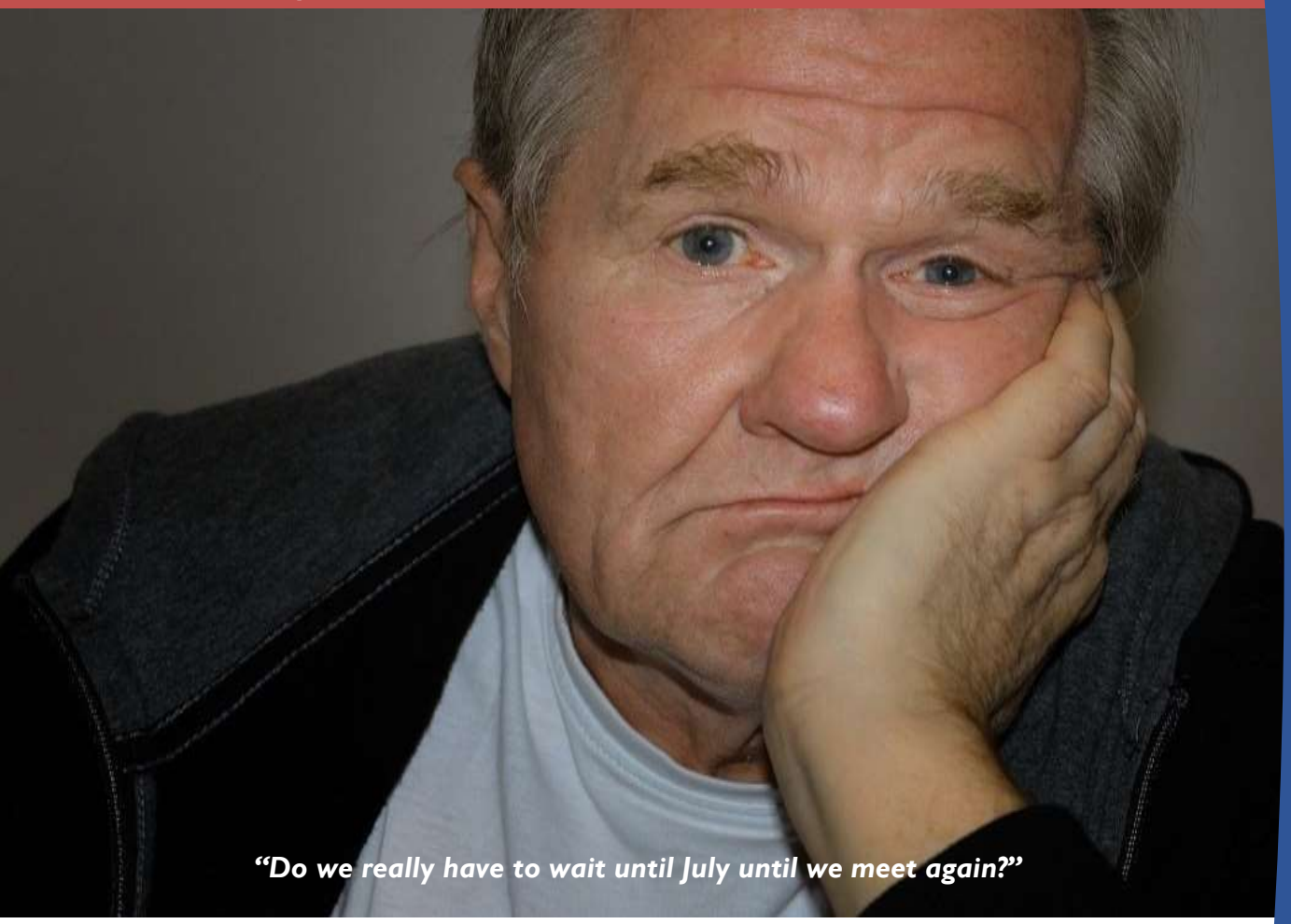
Nil *Desperandum*

Published for Haywards Heath & District Probus Club

ISSUE 14 May 2021

Isolated but not alone



"Do we really have to wait until July until we meet again?"

Index:

Continued:

Nil *Desperandum*

ISSUE 14 *May 2021* *Isolated but not alone*

'Space at the Speed of Light'

Extracted from a book of that title written by Dr. Rebecca Smethurst, Copyright 2019, published by Ten Speed Press, 2019.

Potential travel to Jupiter, Saturn, Neptune, and Alpha Centauri:

"Future destinations in our solar system neighbourhood include potential probe missions to a few moons of Jupiter, Saturn, and Neptune – mainly by virtue of them being possible candidates for life, with their large oceans buried beneath icy crusts, plus intense volcanic activity. But getting humans to explore these possibly habitable worlds is a big issue in space travel.

"The record for the fastest-ever human spaceflight was set by the Apollo 10 crew as they gravitationally slingshotted around the Moon on their way back to Earth in May 1969. They hit a top speed of 39,897 kilometres per hour (24,791 miles per hour); at that speed you could make it from New York to Sydney and back in under one hour. Although that sounds fast, we've since recorded un-crewed space probes reaching much higher speeds, with the crown currently held by NASA's Juno probe, which, when it entered orbit around Jupiter, was traveling at 266,000 kilometres per hour (165,000 miles per hour). To put this into perspective, it took the Apollo-10 mission four days to reach the Moon; Opportunity took eight months to get to Mars; and Juno took five years to reach Jupiter. The distances in our solar system with our current spaceflight technology make planning for long-term crewed exploration missions extremely difficult.

"So, will we ever explore beyond the edge of the solar system itself? The NASA Voyager 1 and 2 spacecraft were launched back in 1977 with extended flyby missions to the outer gas giant planets of Jupiter and Saturn. Voyager 2 even had flyby encounters with Uranus and Neptune – it's the only probe ever to have visited these two planets.

"The detailed images you see of Uranus and Neptune were all taken by Voyager 2. Its final flyby of Neptune was in October 1989, and since then, it has been travelling ever farther from the Sun, to the far reaches of the solar system, communicating the properties of the space around it with Earth the entire time. In February 2019, Voyager 2 reported a massive drop off in the number of solar wind particles it was detecting and a huge jump in cosmic ray particles from outer space. At that point, it had finally left the solar system, forty-one years and five months after being launched from Earth.

"Voyager 1 was the first craft to leave the solar system in August 2012, and it is now the most distant synthetic object from Earth at roughly 21.5 billion kilometres (13.5 billion miles) away. Voyager 2 is ever so slightly closer to us at 18 billion kilometres (11 billion miles) away. Although we may ultimately lose contact with the Voyager probes, they will continue to move ever farther away from the Sun with nothing to slow them down or impede them. For this reason, both Voyager crafts carry a recording of sounds from Earth, including greetings in fifty-five different languages, music styles from around the world, and sounds from nature - just in case intelligent life forms happen upon the probes in the far distant future when the future of humanity is unknown.

Alpha Centauri A and Alpha Centauri B

"The next nearest star to the Sun is Alpha Centauri at an epic 39,923,400,000,000 kilometres (that's almost 25 trillion miles) away. It takes light a little over four years to travel that distance at 299,792 kilometres per second (186,282 miles per second). At the more realistic speed of Voyager 1, it would take the probe around seventy-four thousand years to reach Alpha Centauri, except that it's not heading anywhere near there. Instead, it's heading in the direction of the constellation of Ophiuchus, so that in around forty thousand years, Voyager 1 will come within 16 billion kilometres (10 billion miles) of a star in the constellation of Ursa Minor, and its closest star will no longer be the Sun, which gave life to all the recordings it carries.

"Unless we manage to come up with another, more efficient, and faster way of powering spacecraft, it's not going to be an easy task to get a human being to abandon their friends and family by signing up for a one-way trip to the far reaches of the solar system and beyond. If we ever do want to explore beyond the safety of our Sun's gravitational sway with interstellar travel, we're going to need better technology and some extremely intrepid explorers. I wonder, reader, if you were given the chance to go today, would you?"

Comment from Martin Pollins

Delanceyplace is a FREE brief daily email with an excerpt or quote they view as interesting or noteworthy, offered with commentary to provide context. There is no theme, except that most excerpts will come from a non-fiction work, mainly works of history, and they hope will have a more universal relevance than simply the subject of the book from which they came. And there is not necessarily an endorsement, and in some cases an excerpt may be particularly controversial, and Delanceyplace may disagree with some or all of it, but nevertheless deem it worth noting.

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Come on, be honest, what sort of golfer are you?

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Published for Haywards Heath & District Probus Club. Editorial contributions please to mpollins@onesmartplace.com

The Passion Play in Oberammergau

By Tony Ashby, Past President of Haywards Heath & District Probus Club (2017/18)

Picture Credit: "Passion Play.jpg" by Traveloscopy is licensed under CC BY-ND 2.0

The Passion Play in Oberammergau is world-famous, as is the legend that the play is performed every ten years to thank God for the deliverance of the village from the bubonic plague in 1633. The play was first performed in 1634 and, since 1680, has been performed in years ending with the digit 0.

Originally the play was performed in the village church but as audiences increased in number it was moved to the churchyard. As audiences increased further it was moved to a nearby field where a stage was erected each year. 1815 saw the erection of a permanent stage built on the current site, but all was still in the open air. This meant that when it rained, audiences got wet or put up umbrellas which obstructed the view of those behind.

In 1890, a new purpose-built theatre was erected which provided cover for the audience. This was enlarged and enhanced in 1930 and 1934 and finally in 1990 the new theatre was built with improved facilities and modern stage mechanisms in place. Today this theatre can seat an audience of 4,700.

The play has evolved over the years and the modern version is performed over 16 acts, each act covering a scene from the bible, starting with Palm Sunday and ending with the Resurrection. The running time varies due to many revisions that have, and still do, take place. In 2010, the running time was 5 hours, beginning at 2.30pm and ending at 10.00pm with an interval for a meal break.

In 2010, the play was staged for a total of 102 days and ran from May 15th until October 3rd. Audiences come from all over the world. Admission charges were first introduced in 1790.

Since 1930, the number of visitors has ranged from 420,000 to 530,000 per season. The play involves all the residents in some form or another. There are about 2,000 people directly involved as cast, musicians, costume and make-up staff, technical crew, front of house etc.

Other locals are involved in catering for the huge numbers of visitors who flock to the village to see the play. Whilst the play is running visitors can only stay in Oberammergau for a maximum of three nights to ensure that as many people as possible can be accommodated.

My wife Marian and I went to the final performance of the play in October 2000. As it was the last day, all the barbers shops in the village remain open late so that the men in the cast can have their hair cut and beards shaved immediately after the performance, and then the villagers can relax into normality for another decade.

The play itself is a wonderfully uplifting experience and being the final performance of that year, gave it a special relevance. There was also a buzz about the village as the men folk flocked to the barber's shops whilst the audience strolled back to their hotels.

Visitors can hire blankets to keep themselves warm throughout the performance as the theatre, whilst quite modern, is in the open air. There is a roof to provide some protection from rain although the stage is completely open to the elements.

The 2020 performance of the Oberammergau passion play has been deferred until 2022 because of Covid 19. There have been other years in which the play was either deferred or cancelled due to unforeseen circumstances. For example it was cancelled in 1940 because of the Second World War, and delayed from 1920 to 1922 following the First World War.

More on the Play and the Place

Picture Credit: "Oberammergau" by sergei.gussev is licensed under CC BY 2.0

Oberammergau is a town in the Bavarian Alps, Germany. It is known for its once-a-decade performance of the *Passion Play* in the Passion Play Theatre. The play has been performed every 10 years (with some exceptions) since 1634 by the inhabitants of the village of Oberammergau, Bavaria. The exceptions include: 1870, when it was interrupted by the Franco-Prussian War, 1934 and 1984 when additional performances were staged to mark the 300th and 350th anniversaries respectively. The irony of the 2020 cancellation due to Covid-19 is that the play was originally conceived as an act of gratitude for the town's protection from contagion (the Bubonic Plague).

The play was written by Othmar Weis, J A Daisenberger, Otto Huber, Christian Stuckl, Rochus Dedler, Eugen Papst, Marcus Zwink, Ingrid H Shafer, and the inhabitants of Oberammergau, with music by Dedler. The text of the play is a composite of four distinct manuscripts dating from the 15th and 16th centuries. The Context originated from two other plays, a *Passion Play* from the second half of the 15th century and a *Christian Reformation Tragedy* by the Master Singer Sebastian Wild of Augsburg. In the 5th year, in 1674, the context was upgraded with the use of scenes of the Passion Play of Weilheim and in the 6th year, in 1680, the community decided that , after that Staging of the Play, the performances should take place every ten years.

The play is a staging of Jesus' passion, covering the short final period of his life from his visit to Jerusalem and leading to his execution by crucifixion. The production involves over 2,000 performers, musicians and stage technicians, all residents of the village. The play comprises spoken dramatic text, musical and choral accompaniment and tableaux vivants, which are scenes from the Old Testament depicted for the audience by motionless actors accompanied by verbal description. These scenes are the basis for the typology, the interrelationship between the Old and New Testaments, of the play. The play concludes with Act 16 *Resurrection and Apotheosis.* For the first time, action precedes a tableau. Roman guards see a light at the tomb. Mary Magdalene and the other women encounter an angel and recite the same lines as Quem Quaeritis. The final tableau shows Jesus resplendent in white with his apostles, angels, the Virgin Mary, and Moses. The Passion ends with a proclamation by the chorus.

The 42nd Oberammergau Passion Play will now take place from 14th May to 2nd October 2022.

Sources: • https://www.passionsspiele-oberammergau.de/en/home
• https://en.wikipedia.org/wiki/Oberammergau_Passion_Play

Abandoned Technology

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Tidal mills were first used during the 7th century CE. They were first pioneered in England. The mills were used to make grain grinding in mills easier. Tidal mills were modelled after watermills, powered by the rise and fall of tidal water. Possibly the earliest tide mill in Britain was located in London on the River Fleet, dating back to Roman times. The earliest recorded tide mills in England are listed in the Domesday Book (1086). Eight mills are recorded on the River Lea (the site at Three Mills remains, with Grade I listed buildings and a small museum), as well as a mill in Dover harbour. By the 18th century, there were about 76 tide mills in London, including two on London Bridge. Woodbridge Tide Mill, in Suffolk, survives today – it dates from 1170 (reconstructed in 1792), has been preserved and is open to the public. The first tide mill to be restored to working order is the Eling Tide Mill in Hampshire. A 1938, investigation found that of the 23 extant tidal mills in England, only 10 were still working by their own motive power (see here).

"Tide Mills", Sussex: from 1761 to 1939/40

Where the River Ouse changed course long ago - so that its outflow was in Newhaven instead of Seaford - it left a long tidal lagoon along its former course. In the 18th century the tidal power was harnessed to power a mill, and a small village, appropriately named *Tide Mills,* was established.

Thomas Pelham, the politician and prime minister who also held the title of *Duke of Newcastle*, owned land at Bishopstone, and obtained an Act of Parliament allowing him to use the foreshore of this land for the site of a tide mill. Pelham granted permission for three West Sussex corn merchants to build a dam and tidal mill where the former course of the river Ouse met the sea.

As the business grew, a village mushroomed around it. The village had a large tide mill and numerous workers' cottages, housing about 100 workers. Construction of the tide mill at Bishopstone was started by Pelham in 1761 but not finished until 1788. In 1791, it was advertised for sale in the *Sussex Weekly Advertiser,* and at the time contained five pairs of mill stones, which could produce 130 quarters (1.65 tonnes) of wheat each week. The mill was later (around 1808) owned and operated by William Catt and his family. Catt built a school to educate the children, and although the conditions were rather rudimentary, a thriving community of sorts developed. The workers enjoyed the facilities provided for their families, at a time when such provision was not common. After the railway line from Newhaven to Seaford was opened in 1864, a siding was built, which ran between the cottages, enabling large quantities of flour to be transported to Newhaven.

According to the census data from 1851*, there were 60 men working at the time at the mill, and most of them lived in cottages which Catt had built around the site.

* A later census in 1911, showed that 15 households were recorded at Tide Mills, with a total population of 75.

In 1879, the mill was sold to the *Newhaven Harbour Company*, who carried out major development of the harbour at Newhaven. The outcome was that although water still flowed into the channel west of the mill, ships were no longer able to enter it. When the mill closed in 1883 it was used as bonded warehouses until it was pulled down in 1901. A wireless relay station was established on the beach closer to the harbour and a Great War seaplane base was established in 1917 to combat the threat of German submarines during the Great War.

On 2nd January 1937, the Daily Mail published a story with the headline *'The Hamlet of Horror'*. It described the squalor in which residents lived without any running water, sewage facilities or electricity. It is no surprise therefore that the village had been condemned as unfit for human habitation in 1936: the last residents were forcibly removed in 1939 so that the area could be used for miliary training (the area housed vast numbers of Canadian troops during World War II).

Once all the the villagers were evacuated in 1940/41, Tide Mills had defences put up to repel any German invasion force. At the end of World War II, the remnants of the former settlement were finally removed.

The *Chailey Heritage Marine Hospital*

The 'complex' included the *Chailey Heritage Marine Hospital* which stood to the seaward side of Tide Mills, east of Newhaven. The hospital, which was built to provide aftercare and recovery for disabled boys who had undergone surgery, opened in 1924. It formed part of the Chailey Heritage School founded by *Dame Grace Kimmins* to provide education for disabled boys.

The War Office regarded the area as a potential invasion site and considered that the hospital buildings might provide cover for invading German forces – as a consequence, the hospital was demolished in 1940 during the early stages of World War II.

"Tide Mills", Sussex: Today

Today, only a few ruins remain, and the lagoons contain what is known as brackish water**.

** Brackish water (also sometimes called brack water) is water occurring in a natural environment having more salinity than freshwater, but less than seawater. It may result from mixing seawater (salt water) with fresh water together (as in estuaries) or may occur in brackish fossil aquifers (underground reserves of water that were established under past climatic and geological conditions).

The *TideMills* website (here) is worth visiting. It provides a great deal of information including an explanation of what a Tide Mill is and how it works.

"A tidemill operates by water from the rising tide turning water wheels and filling the pond behind, as the tide later drops the water in the pond flows out and turns the wheels the other way. In this way around 20 hours of operation out of 24 hours were obtained. At its peak and when run by William Catt from 1801 onwards it had 16 pairs of stones grinding and was thought to be the largest in the world."

The *Sussex Archaeology Society* have been 'digging' away since 2006 into the stories of the abandoned community at Tide Mills and a series of interpretation panels on the site (recently updated thanks to funding from East Sussex County Council, the South Downs National Park Authority and Newhaven Port and Properties (the site owners)) explain some of its history . You can read about the *Bishopstone Tidemills Project* here. Because of its location by the sea and next to the Ouse Estuary Nature Reserve, Tide Mills has become a popular place for birdwatching and walking.

You can view a gallery of photographs of the Tide Mills site taken on 21st April 2021, here.

The Greatest Showman and the Greatest Queen of the 19th Century

Sources: • https://www.thehistorypress.co.uk/articles/buffalo-bill-s-british-wild-west/
• https://liverpoolhiddenhistory.co.uk/when-buffalo-bill-came-to-newsham-park/
• https://www.sheffield.ac.uk/nfca/researchandarticles/buffalobill
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In the early part of 1887, Britain was full of expectation. Her Majesty Victoria, Queen of Great Britain and Ireland and Empress of India had been on the throne for 50 years – most of that time spent out of the public spotlight in mourning for her husband and consort, Prince Albert who died of typhoid in 1861, aged 42. The Queen was inconsolable with grief at the loss of her beloved Albert and she wore mourning for the rest of her life. Victoria withdrew from public life after Albert's death, but kept up with her correspondence and continued to give audiences to ministers and official visitors.

Eventually, the 68-year-old monarch was persuaded to take a more public role again and what better time to do so than the occasion of her Golden Jubilee in 1887. Plans were made for the whole of 1887 to acknowledge and celebrate one of the greatest reigns in history.

Victoria's Jubilee was intended to be a very British affair, celebrating everything British: industrial power, artistic achievements, military victories and Imperial domination. The Jubilee celebrations focussed on the Queen but also affirmed Britain's place as a global power. Soldiers from the British Empire marched in processions through London. Victoria would host a feast, attended by 50 foreign kings and princes, along with the governing heads of Britain's overseas colonies and dominions.

But the USA had other plans. Britain's 'American cousins' planned to celebrate the Jubilee in a unique way, giving tens of thousands of Britons flocking to London for the event a special transatlantic treat – the showcasing of America's own achievements, inventions and resources.

What the Americans planned for London was a unique 'American Exhibition' right in the heart of Britain's capital, showing off everything that they claimed to lead the world with at the time. It was set to rival Prince Albert's own Great Exhibition of 1851, held in Hyde Park. London was told to prepare itself for *'a six-months long celebration of America and its achievements, transplanted three thousand miles from the New World into the heart of an old one.'*

Advance information published in British newspapers also revealed that the Jubilee event would include something called: *"Buffalo Bill's Wild West Exhibition".*

William Frederick Cody had earned the title *Buffalo Bill* by killing 4,000 buffalo in eighteen months whilst hired to provide meat for workers building the Kansas railway. He then took his show on the road, touring America and Europe with shows which had a Wild West theme with one-hundred-a-side battles taking place between Cowboys and Indians when space allowed.

In the spring of 1887, Buffalo Bill Cody boarded the "State of Nebraska," a massive steamship, along with some 200 performers – cowboys, sharpshooters (including Annie Oakley – see below), musicians, American Indians – as well as 180 horses, 18 bison, 10 elk, 10 mules, five steers and a variety of items for set construction including the old Deadwood stagecoach and materials to build temporary tepees and log cabins. Buffalo Bill's Wild West Show was performed in London in front of a crowd of some 28,000, to celebrate Queen Victoria's Golden Jubilee, but on the opening night, the Queen was not there. Impressed by what she learned about the show and after she read glowing reviews, Queen

Victoria asked Buffalo Bill Cody for a special performance to be given. Buffalo Bill and his cast of 200 duly complied and gave a 90-minute performance for the Queen and her 25-member entourage – in an arena that could seat up to 40,000 people.

Next to P.T. Barnum (the founder of the Barnum & Bailey Circus), *Buffalo Bill* was the greatest showman of the 19th century. He pioneered the Wild West Show as a form of popular entertainment on an international scale, laid the foundations for the birth of rodeo, and successfully marketed the myth of the American frontier.

Queen Victoria restored the reputation of a monarchy tarnished by the extravagance of her royal uncles. She also shaped a new role for the Royal Family, reconnecting it with the public through civic duties. She was only 4ft 11in tall, but Victoria was a towering presence as a symbol of the British Empire.* She was the Queen of the greatest empire on earth.

* Source: https://www.bbc.co.uk/teach/ks3-gcse-history-queen-victoria-monarchy/z73rnrd

The 'Crime of the Century'

From Wikipedia, the free encyclopedia at
https://en.wikipedia.org/wiki/Leopold_and_Loeb

Not too many people in Britain have heard of Nathan Freudenthal Leopold Jr. and Richard Albert Loeb, usually referred to collectively as Leopold and Loeb but known as "Babe" and "Dickie" to their friends. Leopold and his lover Loeb carried out what they thought was the perfect crime and later confessed that they had kidnapped and murdered Bobby Franks solely for the thrill and sport of the experience…

Leopold and Loeb were wealthy students at the University of Chicago. In May 1924, they kidnapped and murdered 14-year-old Bobby Franks in Chicago, Illinois, United States. They committed the murder – characterised at the time as *'the crime of the century'* – as a demonstration of their self-perceived intellectual superiority, which, they thought, enabled them to carry out a "perfect crime" and absolve them of responsibility for their actions.

Though Leopold and Loeb knew each other casually while growing up, they began to see more of each other in mid-1920s and their relationship flourished at the University of Chicago, particularly after they discovered a mutual interest in crime. Leopold was particularly fascinated by philosopher Friedrich Nietzsche's concept of supermen (Übermenschen), interpreting them as transcendent individuals, possessing extraordinary and unusual capabilities, whose superior intellects allowed them to rise above the laws and rules that bound the unimportant, average population.

The pair began asserting their perceived immunity from normal restrictions with acts of petty theft and vandalism. Breaking into a fraternity house at the university, they stole penknives, a camera, and a typewriter that they later used to type their ransom note. Emboldened, they progressed to a series of more serious crimes, including arson, but no one seemed to notice. Disappointed with the absence of media coverage of their crimes, they decided to plan and execute a sensational "perfect crime" that would garner public attention and confirm their self-perceived status as "supermen".

Planning the murder

The perpetrators settled on the kidnapping and murder of an adolescent male as their perfect crime, committed without emotion or detection. They spent seven months planning everything from the method of abduction to disposal of the body. To hide the precise nature of their crime and their motive, they decided to make a ransom demand, and devised an intricate plan for collecting it, involving a long series of complex delivery instructions to be communicated, one set at a time, by phone. They typed the final set of instructions involving the actual money drop in the form of a ransom note, using the typewriter stolen from the fraternity house.

A chisel was purchased and selected as the murder weapon.

Choosing the victim

After a lengthy search for a suitable victim, the killers chose Robert "Bobby" Franks, the 14-year-old son of wealthy Chicago watch manufacturer. Loeb knew Bobby Franks well; he was his second cousin, an across-the-street neighbour, and had played tennis at the Loeb residence several times.

The murder

The pair put their carefully crafted plan in motion on the afternoon of 21st May 1924. Using a car that Leopold had rented under the name "Morton D. Ballard", they offered Bobby Franks a ride as he walked home from school. The boy refused initially, since his destination was less than two blocks away, but Loeb persuaded him to enter the car to discuss a tennis racket that he had been using. The precise sequence of the events that followed remains in dispute, but most people believe Leopold was driving the car, while Loeb sat in the back seat with the chisel. Loeb struck Franks, sitting in front of him in the passenger seat, several times in the head with the chisel, then dragged him into the back seat, where he was gagged and soon died.

The first mistake

As Leopold and Loeb disposed of the body - in a culvert at a remote spot several miles south of Chicago - a pair of spectacles fell from Leopold's jacket onto the muddy ground. Though common in prescription and frame, they were equipped with an unusual hinge mechanism purchased by only three customers in Chicago - one of whom was Nathan Leopold.

The sentence

There were allegations the two killers were homosexuals with many people believing the victim had been sexually assaulted before and perhaps even after he was murdered. Acid had been used on the victim's body to hide the fact he had been circumcised. Anti-Semitism was in evidence because both defendants and the victim were Jewish. After the two men were arrested, Loeb's family retained Clarence Darrow as lead counsel for their defence. Darrow's 12-hour summation at their sentencing hearing is noted for its influential criticism of capital punishment as retributive rather than transformative justice. Leopold and Loeb were sentenced to life imprisonment but avoided the death penalty. Loeb was killed by a fellow prisoner in 1936, apparently for making sexual advances. Leopold was released on parole in 1958 and died from a diabetes-induced heart attack in 1971.

Inspiration for dramatic works

The Franks murder has been the inspiration for several dramatic works, including Patrick Hamilton's 1929 play *Rope* and Alfred Hitchcock's 1948 film with the same name. Later works, such as *Compulsion* (1959), adapted from Meyer Levin's 1957 novel; *Swoon* (1992); and *Murder by Numbers* (2002) were also based on the crime.

READ MORE:

- https://www.smithsonianmag.com/history/leopold-and-loebs-criminal-minds-996498/
- https://www.biography.com/crime-figure/richard-loeb
- http://www.paperlessarchives.com/leopold-and-loeb-trial.html
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- SUBCONSCIOUS INFLUENCES: The Leopold-Loeb Case and the Development of an American Criminal Archetype: https://scholarworks.wm.edu/etd/1539626492/
- http://moses.law.umn.edu/darrow/trialpdfs/LEOPOLD_LOEB.pdf

Epiphany at the traffic lights

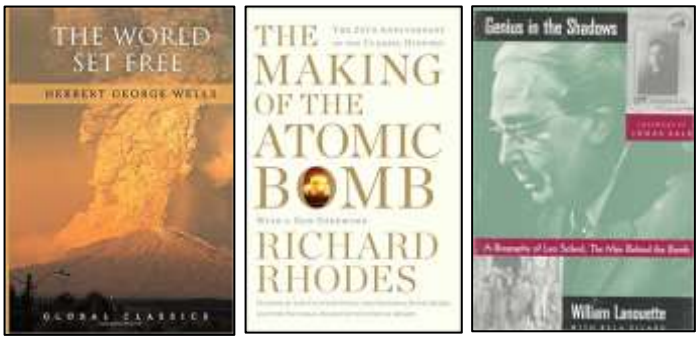
Leó Szilárd (born Leó Spitz) was a Hungarian-American physicist and inventor. He conceived the nuclear chain reaction in 1933, patented the idea of a nuclear fission reactor in 1934, and in late 1939 wrote the letter for Albert Einstein's signature that resulted in the Manhattan Project that built the atomic bomb that ended World War II.

The first paragraph of author Richard Rhodes's masterful book, *The Making of the Atomic Bomb* reads:
"In London, where Southampton Row passes Russell Square, across from the British Museum in Bloomsbury, Leó Szilárd waited irritably one grey depressing morning for the stoplight to change. A trace of rain had fallen during the night; Tuesday, September 12, 1933, dawned cool, humid and dull. Drizzling rain would begin again in early afternoon. When Szilard told the story later, he never mentioned his destination that morning. He may have had none; he often walked to think. In any case another destination intervened. The stoplight changed to green. Szilard stepped off the curb. As he crossed the street time cracked open before him and he saw a way to the future, death into the world and all our woes, the shape of things to come"...

The inspiration for Leó Szilárd interest in nuclear fission came from a book by H.G. Wells: *The World Set Free*, written in 1913. It features an explosive device based on radioactive materials, small enough to be dropped from an aircraft, but capable of destroying an entire city - called the atomic bomb.

What Leó Szilárd realised as he stepped off that curb in Bloomsbury was that if an element could be found which, when bombarded by one neutron would release two neutrons, it could lead to a chain reaction that could possibly release vast amounts of energy. Szilárd had discovered the nuclear chain reaction long before anyone else, six years before the discovery of nuclear fission and any inkling that anyone could have had about the release of atomic energy.

Reference Books:



These books are all available at Amazon.co.uk.

1. *The World Set Free, by H G Wells,* originally published in 1913
2. *The Making of the Atomic Bomb,* by Richard Rhodes, published by Simon and Schuster (1986) *
3. *Genius in the Shadows: A Biography of Leó Szilárd, the Man Behind the Bomb*, by William Lanoette, published by University of Chicago Press (1994).

* Richard Rhodes' book won the Pulitzer Prize for General Non-Fiction, the National Book Award for Nonfiction, and a National Book Critics Circle Award.

Humour contributed by Peter Nilsson

Feeling depressed, restless, anxious?

If you've been feeling depressed, restless, anxious, and in need of recuperation and repair, the problem may be a lack of activity, rather than too much of it.

As Winston Churchill, a vigorous hobbyist, put it:
"It is no use saying to the tired 'mental muscles'… 'I will give you a good rest,' 'I will go for a long walk,' or 'I will lie down and think of nothing.' The mind keeps busy just the same. If it has been weighing and measuring, it goes on weighing and measuring. If it has been worrying, it goes on worrying…It is useless to argue with the mind in this condition…A gifted American psychologist has said, 'worry is a spasm of the emotion; the mind catches hold to something and will not let it go.' One can only gently insinuate something else into its convulsive grasp. And if this something else is rightly chosen, if it is really attended by the illumination of another field of interest, gradually, and often quite swiftly, the old undue grip relaxes, and the process of recuperation and repair begins."

For those of you who want to have an engaging hobby, but aren't sure what pastime to pursue, I've found just the website for you. They provide what they call 'the ultimate list of hobbies for men.' It's not an exhaustive list, but there is surely something that will catch your eye - or will spur you to think of something worthwhile to do.

Here's the link to *The Ultimate List of Hobbies for Men: 75+ Ideas For Your Free Time:*
https://www.artofmanliness.com/articles/hobbies-for-men/

Why is Neptune blue?

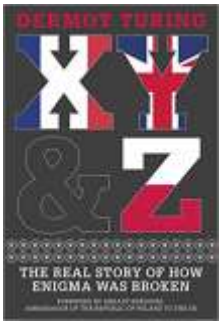
Source: ZME Science: https://www.zmescience.com/science/news-science/why-is-neptune-blue-00432/

Out of all the planets in the solar system, Neptune is the one that looks most peaceful. When seen through a telescope, the eighth and most distant planet from the sun appears sky-blue or as a uniform, peaceful ocean world that would have made the Roman god of the sea proud.

But the reality is that Neptune is anything but peaceful with its atmosphere actually mainly made of three gases: hydrogen (80%), helium (19%), and methane (1%). It is the clouds of methane gas that are responsible for the distant planet's blue marble appearance. Despite the fact it makes up a relatively tiny proportion of Neptune's atmosphere, methane absorbs red wavelengths of light and reflects blue light outward.

As a matter of interest, Neptune was first observed on 23rd September 1846 by astronomer Johann Gottfried Galle. Its existence had been mathematically predicted by Urbain-Jean-Joseph Le Verrier and John Couch Adams.

Poland and the Enigma code



A book by the nephew of Alan Turing, the man credited with cracking Nazi Germany's Enigma code, reveals the essential role of Polish cryptographers. The Polish mathematicians were the first to decipher German military communications before World War II and their work formed the foundation for later code-breaking at Bletchley Park, the famous British cryptology centre, during WWII.

Amazon describes the story as:

"In the bathroom of a Belgian hotel, a French spymaster photographs top-secret documents the operating instructions of the cipher machine, Enigma. A few weeks later a mathematician in Warsaw begins to decipher the coded communications of the Third Reich and lays the foundations for the code-breaking operation at Bletchley Park. The co-operation between France, Britain and Poland is given the cover-name 'X, Y & Z'.

"December 1942: It is the middle of World War II. The Polish code-breakers have risked their lives to continue their work inside Vichy France, even as an uncertain future faces their homeland. Now they are on the run from the Gestapo. People who know the Enigma secret are not supposed to be in the combat zone, so MI6 devises a plan to exfiltrate them. If it goes wrong, if they are caught, the consequences could be catastrophic for the Allies.

"Based on original research and newly released documents, X, Y & Z is the exhilarating story of those who risked their lives to protect the greatest secret of World War Two."

The book, released in September 2018, *is X, Y & Z: The Real Story of How Enigma Was Broken* written by Dermot Turing, is available on Amazon at: https://www.amazon.co.uk/Real-Story-How-Enigma-Broken/dp/0750987820/

Mr Bevin said…

From page 8 of The Mid Sussex Times, Wednesday 19th August 1942
(Via subscription to British Newspaper Archive)

Few people realise how this country has been mobilised. Mr. Ernest Bevin, who should know, says: *"No country in the history of the world has mobilized its manpower to such a high point as we have done during this war."*

Dispositions of manpower and womanpower are State secrets, but, with such figures as I can use without giving information to the enemy, I will give a picture of Britain's growing strength. The task was summed up by Mr. Bevin in the days when we stood alone: *"I began with 19,500,000 people to fill the whole arena against 80,000,000 of our enemies."* The Ministry of Labour has registered 23,500,000 men, women, boys and girls. Of these 7,190,000 have been men for the armed forces, 1,470,000 men for employment and 8,000,000 women for the Forces and employment. In addition, there have been registrations of juveniles, firewatchers, and specialist, like miners, shipyard workers and engineers. Of a total population of 33,000,000 between the ages of 14 and 64 more than 22,000,000 are in the Forces, Civil Defence, or industry. This is an amazing figure when it is remembered that the remaining 11,000,000 are mothers with young children, the sick and infant, schoolboys and girls, students and the hundreds of thousands doing voluntary work, and minding children of war workers, or evacuees or billetees.

The Ministry of Labour is interviewing more than 50,000 women a week for employment and placing some 22,000 a week in the Forces or industry. There are 1,750,000 more women in essential industries than there were before the war. Men over 41 are being interviewed at the rate of 2,500 a week, a slower yield because many of them are already in responsible and necessary jobs. When the full story of our mobilization can be told, it will be seen as one of the greatest achievements in our history.

Gene-edited wheat could reduce 'cancer-risk' in well-done toast

Sources: https://www.telegraph.co.uk/news/2021/03/01/gene-edited-wheat-could-reduce-cancer-risk-well-done-toast-study/
• https://www.foodmanufacture.co.uk/Article/2021/03/02/Gene-edited-wheat-could-reduce-acrylamide-cancer-risk

At the beginning of March 2021, the *Telegraph* reported good news for those of us who like our toast well-done: scientists say gene-editing of wheat could reduce the presence of a cancer-causing chemical called *Acrylamide*. It's a chemical substance that forms when starchy foods (like bread) are cooked/toasted at high temperatures.

Previous research found exposure to the compound in rodents increases the risk of several types of cancer. Clever people from Rothamsted Research, an agricultural research institution, together with experts from the University of Bristol have found a new technique of genome editing to develop a type of wheat that is less likely to produce *Acrylamide* when baked, toasted or subjected to high-temperature processing. According to their study, published in *Plant Biotechnology Journal,* the scientists reduced the amount of the amino acid, asparagine, in the grain.

What things are considered right by people but are scientifically wrong?

Based on an article by Sienna Adea on Quora.com

The following facts may sound incorrect and leave you scratching your head, but they are backed by solid scientific evidence.

1. Having a small coin drop on your head from the Empire State Building isn't fatal. It has a terminal velocity of 50 mph, which can't crack a human skull. The fact that it is small and weighs little helps too.
2. We don't just use 10% of our brains. Research shows that we use almost all of it every day.
3. Bulls don't get mad upon seeing the colour red. Bulls are actually colour blind. It is the movement that irritates them.
4. We didn't evolve from apes. We just share a common ancestor which split into humans and apes. However, this concept is not entirely clear - scientists still debate it a lot.
5. Men don't think about sex every 7 seconds. The closest statistic is that they think about it at least once a day.
6. The Great Wall of China is not visible from space. After clearing 180 miles of atmosphere, it is not visible. This myth probably originated from a hyperbole.
7. You can't only taste certain things with certain parts of your tongue. Taste receptors are actually all over your tongue and can taste anything.
8. Bats are not blind. The phrase "blind as a bat" is common, but they can actually see three times better than we can.
9. Raindrops are not tear shaped. They are actually burger shaped.
10. Swallowed gum does not stay in your body for seven years. It can't be broken down, but it actually pops in then… pops out.

Progress: From fax to email

Based on an article at Dictionary.com

Picture Credit: "Setting up new fax machine" by Elliott Plack is licensed under CC BY-SA 2.0

Long before we were able to add an attachment to an email or transfer images from our phones to the office group chat, we had to *fax* everything that needed sharing. The verb ***fax*** (it was also used as a noun) is derived from the word *facsimile,* which means "an exact copy." Fax machines were highly popular in the 1980s and 1990s, and were used to transmit (copies of documents, drawings, and other correspondence) between offices.

The first fax machine was invented by Scottish inventor Alexander Bain in 1843. It was then that he created and patented a device that simulated a two-dimensional image, making significant improvements on the telegraph. While the date may surprise you, what might surprise you even more is that the etymological roots date back even further. The 17th-century word derives from the Latin phrase *facsimile*, meaning "make something like it."

At Encyclopedia.com you'll discover that although Alexander Bain's creation was never officially tested, an English physicist Frederick Blakewell (in 1841) first demonstrated the use of another type of facsimile that differed from Bain's invention in its method of transmission. In the late 1860s, Italian abbot Giovanni Caselli created the first commercial facsimile system, first used in France between the cities of Paris and Lyon. It was called a *pantelegraph* and was the forerunner of the modern fax machine. Later, in 1902, German inventor Arthur Korn proved the ability to transmit photographs through optical scanning, and in 1906 people were using his particular machines regularly in the newspaper industry.
Source: https://www.encyclopedia.com/science/encyclopedias-almanacs-transcripts-and-maps/invention-fax-machine

Fast Forward

Fast forward to around 1973 when standards for encoding email messages were first published. An email message sent in the early 1970s looked very similar to a basic email sent today.

Where do we go from here? Is there anything left to be invented?

The Federal Reserve Bank

Started by the Panic of 1907 [1]

In 1907 there was a serious financial crisis in the U.S. - the *Panic of 1907* or *1907 Bankers' Panic* or *Knickerbocker Crisis* occurred over a three-week period starting in mid-October 1907, when the New York Stock Exchange fell almost 50% from its peak the previous year. Panic occurred (it was a time of economic recession), and there were numerous runs on banks and trust companies. The panic eventually spread throughout the nation when many state and local banks and businesses entered bankruptcy. Primary causes of the run included a retraction of market liquidity by a number of New York City banks and a loss of confidence among depositors, exacerbated by unregulated side bets at bucket shops.

The Secret Meeting on Jekyll Island [2]

In November 1910, six men – Nelson Aldrich, A. Piatt Andrew, Henry Davison, Arthur Shelton, Frank Vanderlip and Paul Warburg – met at the Jekyll Island Club, off the coast of Georgia, to write a plan to reform the banking system in the US. The group referred to themselves as the *"First Name Club*".

The meeting and its purpose were closely guarded secrets, and participants did not admit that the meeting occurred until the 1930s. But the plan written on Jekyll Island laid a foundation for what would eventually be the Federal Reserve System.

The Approval

Despite the warnings (see below), on 23rd December 1913 the Federal Reserve Act, was signed into law by President Woodrow Wilson. It gave the 12 Federal Reserve banks the ability to print money to ensure economic stability. It created the dual mandate to maximize employment and keep inflation low and was created by Congress to provide the nation with a safer, more flexible, and more stable monetary and financial system. The panic of 1907, and at the urging of J.P. Morgan and other prominent financiers, Congress eventually established the *'Fed'* as America's central bank - just two days before Christmas, between the hours of 1:30 A.M. and 4:30 A.M., when much of Congress was either sleeping or at home with their families before the 1913 Christmas holidays, ***The Federal Reserve Act of 1913*** was voted on and passed through the Senate.

The Warnings

"If the American people ever allow private banks to control the issue of their currency, first by inflation, then by deflation, the banks and corporations that will grow up around them will deprive the people of all property until their children wake up homeless on the continent their Fathers conquered.... I believe that banking institutions are more dangerous to our liberties than standing armies... The issuing power should be taken from the banks and restored to the people, to whom it properly belongs." Thomas Jefferson

"History records that the money changers have used every form of abuse, intrigue, deceit, and violent means possible to maintain their control over governments by controlling money and its issuance." James Madison

"If Congress has the right under the constitution to issue paper money, it was given them to be used by themselves, not to be delegated to individuals or corporations." Andrew Jackson

"The government should create, issue, and circulate all the currency and credit needed to satisfy the spending power of the government and the buying power of consumers. Money will cease to be master and will then become servant of humanity." Abraham Lincoln

Composed by

Martin Pollins

The Regrets

A few years after he signed the Federal Reserve Act into law, Woodrow Wilson reflected:

"I am a most unhappy man. I have unwittingly ruined my country. A great industrial nation is controlled by its system of credit. Our system of credit is concentrated. The growth of the nation, therefore, and all our activities are in the hands of a few men. We have come to be one of the worst ruled, one of the most completely controlled and dominated Governments in the civilized world no longer a Government by free opinion, no longer a Government by conviction and the vote of the majority, but a Government by the opinion and duress of a small group of dominant men."

The Book to read: *The Creature from Jekyll Island* [3]

In this book. we get a close look at their mirrors and smoke machines, their pulleys, cogs, and wheels that create the grand illusion called money. A dry and boring subject? Just wait! You'll be hooked in five minutes. Reads like a detective story - which it really is. But it's all true. This book is about the most blatant scam of all history. It's all here: the cause of wars, boom-bust cycles, inflation, depression, prosperity. The *Creature from Jekyll Island* is a "must read." Your world view will definitely change. You may never trust a politician again - or a banker.

The Federal Reserve Act

The Federal Reserve Act was passed by the 63rd United States Congress and signed into law by President Woodrow Wilson on 23rd December 1913. The law created the Federal Reserve System, the central banking system of the United States. The Panic of 1907 had convinced many Americans of the need to establish a central banking system, which the country had lacked since the Bank War of the 1830s [4]. After Democrats won unified control of Congress and the presidency in the 1912 elections, President Wilson, Congressman Carter Glass, and Senator Robert Latham Owen crafted a central banking bill that occupied a middle ground between the Aldrich Plan, which called for private control of the central banking system, and progressives like William Jennings Bryan, who favoured government control over the central banking system. Wilson made the bill one of top priorities of his New Freedom domestic agenda, and he helped ensure that it passed both houses of Congress without major amendments.

The Federal Reserve Act created the Federal Reserve System, consisting of twelve regional Federal Reserve Banks jointly responsible for managing the country's money supply, making loans and providing oversight to banks, and serving as a lender of last resort.

Startling fact [5]

Take a look at this YouTube video (here) and you'll learn that the Fed isn't Federal, it has no reserves and it's not even a Bank. The Fed is privately-owned by a secret group of international bankers.

My Blog

I posted a blog on this subject in 2014. You can read it at: https://onesmartplace.com/banks-nab-400b-in-usts-for-window-dressing/

References

[1] https://en.wikipedia.org/wiki/Panic_of_1907
[2] https://www.federalreservehistory.org/essays/jekyll_island_conference and https://www.amazon.com/Creature-Jekyll-Island-Federal-Reserve/dp/091298645X
[3] Source: Amazon describing the book: *A Second Look at the Federal Reserve*
[4] *The Bank War* was the name given to the campaign begun by President Andrew Jackson in 1833 to destroy the Second Bank of the United States, after his re-election convinced him that his opposition to the bank had won national support.
[5] https://youtu.be/lu_VqX6J93k

Limericks

A *limerick* is a form of verse, usually humorous and often rude, in a five-line, predominantly anapestic meter with a strict rhyme scheme of AABBA, in which the first, second and fifth line rhyme, while the third and fourth lines are shorter and share a different rhyme.

The history of limericks is debatable and uncertain. It is known, however, that limericks started out in England. As short, rhyming poems, they were often used and repeated by the working class and drunkards. The popular line of a song, often sung by the same class, *'Won't you come up to Limerick?'* - soon transitioned these little poems into limericks with this reference to the County or City of Limerick in Ireland. The following examples are limericks of unknown origin:

The limerick packs laughs anatomical
Into space that is quite economical.
But the good ones I've seen
So seldom are clean
And the clean ones so seldom are comical.

We 'gators catch prey every time
and not just in mud and in slime.
Thanks to Darwin's advances
we hide up in branches
We 'gators have learned how to climb.

Limerick Timeline

Michael Ray Burch, an American poet from Nashville, Tennessee, has provided a brief history of the limerick in the form of a timeline. He says that some of the dates are approximations or 'educated guesses':

561—The name "Limerick" dates back to at least 561 AD, but it is not clear when the Irish city and county became associated with the verse form.
977—The last Norse (Viking) king of Limerick, known as Ivar of Limerick, dies.
1197—King Richard I of England, better known as 'Richard the Lionheart,' grants the city of Limerick its first charter.
1225—Saint Thomas Aquinas may have written the first limerick: a prayer in Latin!
1300—The ancient Anglo-Saxon (Old English) poem *'Sumer is i-comen in,'* also known as the *'Cuckoo Song,'* is limerick-like.
1322—A limerick-like poem *'The lion is wondirliche strong'* is one of the oldest such poems extant today.
1533—Queen Elizabeth I has been credited with writing a limerick about a 'daughter of debate.'
1560—Shakespeare includes limericks and/or employs limerick meter in Othello, King Lear, The Tempest, Anthony and Cleopatra and Henry IV, Part II.
1590—Edmund Spenser publishes *'Mother Hubbard's Tale,'* a precursor to *'Mother Goose'* poems and stories to come.
1591—Robert Herrick writes a lovely limerick about a glow-worm.
1615—The great anonymous poem about madness, *'Tom O'Bedlam's Song,'* is written in limerick meter.
1626—The first texts containing the French terms mere l'oye or mere oye (Mother Goose).
1697—Charles Perrault publishes the first Mother Goose collection of rhymes and folk tales in France, essentially creating the fairy tale genre of literature.
1700—By the early 18th century, drinking songs and Gaelic minstrels insulting each other in verse have laid the foundation for the limerick form we know and love.
1706—The Maigue poets are the first Limerick-based poets known to have written limericks, led by Sean O' Tuama (1706-1775) and Andrias MacCriath (1710-1793).
1729—Robert Samber translates Perrault's fairy tales into English.
1760—Limericks are published in Boston in the book Mother Goose's Melody, which includes *'Jack and Jill,' 'Seesaw Margery Daw'* and *'Hey Diddle Diddle.'*
1821—John Marshall publishes the first English books with limericks: *The History of Sixteen Wonderful Old Women* and *Anecdotes and Adventures of Fifteen Gentlemen.*
1830—Edward Lear, an artist and illustrator by trade, discovers and reads Marshall's books.
1846—Edward Lear publishes *A Book of Nonsense*. He also gives drawing lessons to Queen Victoria.
1863—Lear's book sells well and a third edition is published. Soon notable poets like Algernon Charles Swinburne and Dante Gabriel Rossetti are employing the limerick form, often in "naughty" ways. Around this time Punch publishes limericks until they become too bawdy and sacrilegious for polite English society!
1865—*Inklings for Thinklings* is published during the American Civil War. It contains 35 limericks with illustrations.
1896—The first known use of the term 'limerick' for the already-popular poetic form appears in a letter by artist Aubrey Beardsley to Leonard Smithers.
1902—The first 'Nantucket' limerick is published in the Princeton Tiger: The poem inspires a number of witty responses. And in an interesting synchronicity, Ogden Nash is born just in time for the limerick boom.
1907—*The London Opinion* sparks a 'limerick craze' in England, which is suddenly even more jolly. *The New York Times* reports that *'Great Britain is Limerick-Crazy'* with *'Millions Competing for Prizes Offered by Almost Every Popular Paper in England!'* The British post office struggles to keep up with all the submissions.

Limericks catch on

In his time. William Shakespeare wrote a few limericks. So did Edward Lear (see below) – over 200 of them. Alfred Lord Tennyson, Rudyard Kipling, Robert Louis Stevenson and Mark Twain all experimented with the limerick. And, of course, countless verses have been composed by amateur poets, drinking buddies and competition hopefuls. Shakespeare used the limerick in four plays dating from the late 1590s and early 1600s. *Othello* and *The Tempest* both include limericks in the form of drinking songs, while *Hamlet* and *King Lear* include limericks used by mentally disturbed characters. In *King Lear* the character in question is actually disguised as a madman called Tom O'Bedlam.

Limericks had a bad name

The limerick was often accused of being dirty or bawdy. In truth, many limericks innocently began as children's nursery rhymes. Once they were adopted by those under the influence of alcohol, so changed the connotation of the limerick forever. On the other hand, it makes sense that the five-line rhymes would be easily and quickly remembered by a population of uneducated workers who couldn't read, doesn't it? Even more so, bawdy, colourful limericks would make you laugh after a long day.

The invention of limericks is attributed to poet Edward Lear in 1846. In 1845, he published a book called 'The Book of Nonsense' in which he featured 72 limericks. This is the first history of limericks, which includes a published work. In his book, you would note each limerick is often accompanied by a mischievous photo. The photo was expected to match the topic of the limerick. A later version, in 1872, updated the earlier work. In total, Lear wrote 212 limericks, mostly nonsense.

Lewis Carroll, author of *Alice's Adventures in Wonderland*, is one of the more famous lyric poets. He, too, wrote his share of limericks. Here are a couple he wrote:

There was once a young man of Oporta,
Who daily got shorter and shorter,
The reason he said
Was the hod on his head,
Which was filled with the heaviest mortar.

His sister named Lucy O'Finner,
Grew constantly thinner and thinner;
The reason was plain,
She slept in the rain,
And was never allowed any dinner.

Earliest Use

Despite its long popularity, the limerick didn't get that name until the end of the nineteenth century. In fact, for much of its history, it hasn't quite been the poem we know and love today. Nevertheless, for centuries before the modern limerick evolved, the form was lending itself to prayer, literature, storytelling, nursery rhymes and nonsense verse.

Acknowledgement and Credit

The following sources have been excerpted/used in the text above:
https://oldmooresalmanac.com/a-history-of-everyones-favourite-poem-the-limerick/

- *The Curious Story of the Limerick*, book by Matthew Potter
- *The Penguin dictionary of literary terms and literary theory* (4. ed.), by J.A. Cuddon, published by Penguin Books: https://www.amazon.co.uk/Penguin-Dictionary-Literary-Published-Paperback/dp/B006QNISGI/
- Video on limericks at: https://www.bbc.co.uk/bitesize/topics/z4mmn39/articles/zw3yw6f
- Michael R. Burch website: http://www.thehypertexts.com/The%20Best%20Limericks%20of%20All%20Time.htm

Why have wars been fought?

What is war?

Dictionary.com defines 'War' (the noun) as:

"a conflict carried on by force of arms as between nations or between parties within a nation; a state or period of armed hostility or active military operations; a contest carried on by force of arms, as in a series of battles or campaigns."

Extracted from an article by Jonathan Strickland at https://science.howstuffworks.com/invent-war.htm

Human history is filled with conflict. Some of that conflict takes place on a small level involving only a few people - sometimes the battle takes place within a single person's mind. But other conflicts span regions and can stretch on for decades. Over the centuries, humans have described war as everything from a glorious struggle to a pointless, violent, and inhuman activity.

Have we always made war upon one another? Before civilization, all humans were tribal and at least somewhat nomadic. It was only after we developed agriculture and settled down that we could build the resources needed for war. That's not to suggest there were no conflicts among humans before civilization. It's likely that tribes fought one another or that internal struggles within a tribe ended with a physical confrontation. But while those struggles may have been violent in nature, they don't meet the definition of war as we know it.

Once we developed agriculture, humans were able to form larger communities. We were no longer restricted to living as small, mobile tribes. But building a community carried with it some dangers. It meant that people were producing resources, and through desire, greed or jealousy, other people might want or need those resources. Early civilizations had to fight off bands of raiders to protect their land. As these communities became better at repelling raiders, they began to develop the tools and techniques that would later serve the basis for, and provide confidence to engage in, warfare.

But at the start of civilisation, not everything was terribly civilized. In the land of Sumer*, there were several city-states each of which was independent of the others, though throughout history they would occasionally create a united front against a common enemy. War was common in ancient Sumer and the city-states were prone to fighting each other. Techniques humans had learned to make tools were used to build weapons. Inventions like the wheel became important for designing vehicles of war such as chariots. The earliest records of war date around 2700 BC. The ancient Sumerians carved battle records onto stone tablets [source: The Origins of War].

The conflict was between the Sumerians and the neighbouring Elamites, who lived in what is now Iran. We can't say that the battles between the two nations were part of the first war ever fought -- the earliest conflicts likely began 10,000 years ago in the late Palaeolithic or early Neolithic periods, but there are no records from that time [source: Cioffi-Revilla].

Around 2700 B.C., the Sumerian king Enmebaragesi led soldiers against the Elamites and won, looting the nation in the process. It looks like the reason for the earliest war was that the Elamites were a potential threat to the Sumerians and they had resources the Sumerians wanted [source: HistoryNet].

* Sumer, site of the earliest known civilisation, located in the southernmost part of Mesopotamia, between the Tigris and Euphrates rivers, in the area that later became Babylonia and is now southern Iraq, from around Baghdad to the Persian Gulf.

Is the UK a 'warring nation'?

Source: https://en.wikipedia.org/wiki/List_of_wars_involving_the_United_Kingdom

This may surprise many people… During its history, the United Kingdom's forces (or forces with a British mandate) have invaded, had some control over or fought conflicts in 171 of the world's 193 countries that are currently UN member states, or nine out of ten of all countries – see *Laycock, S. (2012). All the Countries We've Ever Invaded – And the Few We Never Got Round To. The History Press.*

There's a list of wars and humanitarian conflicts (and there are lots of them) involving the United Kingdom of Great Britain and Northern Ireland and its predecessor states (the Kingdom of Great Britain, Kingdom of England, Kingdom of Scotland and generally the British Isles). Notable militarised interstate disputes are included. Historically, the United Kingdom relied most heavily on the Royal Navy and maintained relatively small land forces. Most of the episodes listed at the reference source deal with insurgencies and revolts in the various colonies of the British Empire.

Original article by Pamela Hyatt:
http://www.tradeready.ca/2016/global_trade_tales/3-biggest-historical-wars-fought-over-trade/

Three of the biggest historical wars fought were fought over trade:
1. ***The two Opium Wars:*** these were fought between the British Empire and China in the mid-1800s. Often the first trade-incited wars that come to mind for many, the Opium Wars were all about Britain's access to trade with China, and China's conflicting desire to remain isolated and independent from the rest of the world.

2. ***First Anglo-Dutch War:*** In the first half of the seventeenth century, the Dutch overtook Portugal as the main European traders in Asia, and thus the incredibly profitable trade in spices. They soon had the largest mercantile fleet in Europe, surpassing in size all other European fleets combined. By the 1650s, Oliver Cromwell, the leader of Britain, had shored up a powerful navy and as tensions built between the two competitive naval powers, the British Commonwealth declared war on the Dutch on 10th July 1652 resulting in the first of four Anglo-Dutch Wars.

3. ***American Revolutionary War:*** The American Revolutionary War, also known as the American War of Independence, fought from 1775-1783, was about a lot of things to its varying participants. To those living in America, it was about freedom from British taxes and full independence from Great Britain. The Europeans saw the conflict differently, as primarily a battle over the control of lucrative trade routes and commodities. The French offered their naval support to the American colonists and joined the battle in 1778. The involvement of the French military added to the European view that the war was simply a new arena in which to fight an existing conflict between France and Britain over control of the resource-rich East and West Indies trade routes. In fact, many in Britain argued for the abandonment of the fight in the American colonies, to be able to focus fully on their true enemy, the French. France and Britain would meet again only a few years later during the Napoleonic Wars.

Hobbies in Ancient Rome

One of the romans biggest hobbies were going to the coliseum to watch the fights between Gladiators, slaves, and animals. It was a way to keep the peoples mind of off things. The coliseum could hold up to 50,000 people. They would even have fights with boats when the coliseum flooded.

Hunting was also a pastime as it is today. Romans also liked to hunt for fun and for food. Another thing they liked doing in the coliseum was Chariot racing. The wealthy often had dinner parties, which sometimes included music, dancing, and poetry readings.

Boys passed time by playing war games, wooden sword fights, wrestling, and tag. The girls liked playing with rag dolls, wax dolls, and board games. If they had pets they would play with them as well.

MORE INFORMATION:
Video: https://youtu.be/3kHeupLG09A
Website:
https://www.historyonthenet.com/romans/entertainment_in_rome.htm

Films about the Battle of Britain

Excerpted from https://www.surreylife.co.uk/people/top-films-about-the-battle-of-britain-1940-1-6838538
Picture Credit: Screen print from promotional trailer at https://youtu.be/VmMqZdO4ugw

September 2020 marked the Battle of Britain's 80th anniversary. *Surrey Life* asked the film experts from MetFilm School (based at the world-famous Ealing Studios), which top Battle of Britain films they would recommend to entertain and enlighten us. Here's what the film experts said (click on the red hyperlinks below to view promotional trailers):

- **Battle of Britain (1969)** https://youtu.be/dqqZ99u4xGk Probably the most famous one with a barrel load of famous names including Sir Laurence Olivier, Michael Caine, Christopher Plummer and a young Ian McShane.
- **Dark Blue World (2001)** https://youtu.be/AJTz9VozSYI Told from the perspective of Czech pilots who fought for the RAF during the war. Foreign language film starring Tara Fitzgerald and Charles Dance.
- **The First of the Few (Spitfire) (1942)** https://youtu.be/i8JwvJG1MM0 Stars David Niven and Leslie Howard who plays the inventor of the Spitfire. In 1943, just two days before the US release of the film Howard died when his civilian aircraft was shot down by the Luftwaffe.
- **Hope and Glory (1987)** https://youtu.be/32wyLEBf60c Directed by John Boorman and based on his own experiences of growing up in the Blitz. It's the story of Bill, a young boy living in London as he experiences the exhilaration of World War II. During this time Bill learns about sex, death, love, hypocrisy, and the faults of adults as he prowls the ruins of bombed houses.
- **Bedknobs and Broomsticks (1971)** https://youtu.be/8xHM7TNxg3s One for the whole family and not really about the Battle of Britain but rather what happens to some evacuees when they leave London due to the Blitz. Stars Angela Lansbury, David Tomlinson and Roddy McDowell.
- **Mrs Miniver (1942)** https://youtu.be/QXXHxxSZZ8A Made in 1942 and won 6 Oscars including Best Picture, it tells the story of a family through the early part of the war.
- **The One That Got Away (1957)** https://youtu.be/LVxc8cStNxo True story about a German pilot shot down in 1940 who became the only Axis POW to escape during the war.
- **Reach for the Sky (1956)** https://youtu.be/bzWUt2xrFBo Classic British war film about Douglas Bader who lost both his legs in a flying accident but went on to be a pilot in the Battle of Britain, got shot down in 1941 and then escaped from a POW camp before finally ending up in Colditz.
- **Tonight & Every Night (1945)** https://youtu.be/T8uuTHRd-qk 1945 musical film starring Rita Hayworth set during the Battle of Britain and the Blitz about a theatre that refuses to miss a single performance.
- **Lancaster Skies (2019)** https://youtu.be/VmMqZdO4ugw This feature film was made by MetFilm School graduate, Liam Burn. It tells the story of Douglas, a broken Spitfire Ace who must overcome his past to lead a Lancaster bomber crew in the pivotal aerial war over Berlin, in 1944.

SIGSALY and wireless phones

Picture Credit: "Sigsaly Speech Encipherment System" by Ryan Somma is licensed under CC BY 2.0

During World War II, a British-American team that included Claude Shannon and Alan Turing created the first digitally scrambled, wireless phone known as SIGSALY. William Poundstone wrote about it in his book *Fortune's Formula*, published in 2005 by Hill and Wang, a division of Farrar, Straus and Giroux. SIGSALY was not an acronym, but a random string of letters to confuse the Germans, should they have learned of it. It was the first digitally scrambled, wireless phone – the initiative was a joint effort of the US Bell Labs and the British Government Code and Cipher School at Bletchley Park.

Poundstone explained that each SIGSALY terminal:
"… was a room-sized, 55-ton computer with an isolation booth for the user and an air-conditioning system to prevent its banks of vacuum tubes from melting down. It was a way for Allied leaders to talk openly, confident that the enemy could not eavesdrop. The Allies built one SIGSALY at the Pentagon for Roosevelt and another in the basement of Selfridges department store for Churchill. Others were established for Field Marshal Montgomery in North Africa and General MacArthur in Guam. SIGSALY used the only cryptographic system that is known to be uncrackable, the 'onetime pad.' In a onetime pad, the 'key' used for scrambling and decoding a message is random. Traditionally, this key consisted of a block of random letters or numbers on a pad of paper. The encoded message therefore was random and contained none of the tell-tale patterns by which cryptograms can be deciphered. The problem with the onetime pad was that the key had to be delivered by courier to everyone using the system, a challenge in wartime.

"SIGSALY encoded voice rather than a written message. Its key was a vinyl LP record of random 'white noise.' 'Adding' this noise to Roosevelt's voice produced an indecipherable hiss. The only way to recover Roosevelt's words was to 'subtract' the same key noise from an identical vinyl record. After pressing the exact number of key records needed, the master was destroyed and the LPs distributed by trusted couriers to the SIGSALY terminals. It was vitally important that the SIGSALY phonographs play at precisely the same speed and in sync. If one phonograph were slightly off, the output was abruptly replaced by noise."

From then to now
The first handheld cellular mobile phone came from Motorola in 1973, using a handset weighing 2 kilograms (4.4 lb). The first commercial automated cellular network (1G) analogue was launched in Japan by Nippon Telegraph and Telephone in 1979.

Picture Credit: By Redrum0486 - http://en.wikipedia.org/wiki/File:DynaTAC8000X.jpg, CC BY-SA 3.0

But a handheld mobile radio telephone service was envisioned six decades earlier in the early stages of radio engineering. In 1917, Finnish inventor Eric Tigerstedt filed a patent for a "*pocket-size folding telephone with a very thin carbon microphone*". Early predecessors of cellular phones included analogue radio communications from ships and trains.

The race to create truly portable telephone devices hastened after World War II, with developments taking place in many countries, albeit not cellular, and were very expensive. This was followed in 1981 by the simultaneous launch of the Nordic Mobile Telephone (NMT) system in Denmark, Finland, Norway, and Sweden with several other countries following in the early to mid-1980s. In 1983, Motorola's Dyna TAC 8000x became the first commercially available handheld mobile phone. Compared to the smartphones of today, the Motorola was massive and very heavy – hence its nickname of 'the Brick'.

Pacific Ocean sighted by Balboa

Towards the end of the fifteenth century, thousands of daring adventurers crossed the ocean to conquer within a few centuries what had taken the Indians thousands to years to inhabit. The era was fostered by technological advancements in maritime practices, the belief in an economic philosophy called mercantilism, and an interest in converting the religious beliefs of native populations.

Mercantilism was the belief that if a nation were not self-sufficient in its own affairs, then its neighbours would dominate it. Two such areas that seemed ripe for establishing this ideal were the Middle East and the Americas. The New World attracted the Spanish conquistadors seeking wealth and adventure. One such man was Vasco Núñez de Balboa (1475-1519).

In September 1513, de Balboa, standing on the Isthmus of Panama, became the first European to set sight on the Pacific Ocean. He established the first stable settlement on the South American continent at Darién, on the coast of the Isthmus of Panama. He claimed the ocean and all of its shores for Spain, opening the way for later Spanish exploration and conquest along the western coast of South America.

A sticky ending
Sadly, for de Balboa, his achievements and ambition posed a threat to Pedro Arias Dávila, the Spanish governor of Darién, who falsely accused him of treason and had him executed in early 1519.

READ MORE:

- https://www.encyclopedia.com/science/encyclopedias-almanacs-transcripts-and-maps/vasco-nunez-de-balboa-reaches-pacific-ocean
- https://www.history.com/topics/exploration/vasco-nunez-de-balboa
- https://www.britannica.com/biography/Vasco-Nunez-de-Balboa

'Man is a wolf to his fellow man'

Wolf Hall is a British television serial first broadcast on BBC Two in January 2015. The six-part series is an adaptation of two of Hilary Mantel's novels, *Wolf Hall* and *Bring Up the Bodies*, a fictionalised biography documenting the rapid rise to power of Thomas Cromwell in the court of Henry VIII through to the death of Sir Thomas More, followed by Cromwell's success in freeing the king of his marriage to Anne Boleyn. *Wolf Hall* details the rise of Thomas Cromwell's from blacksmith's son to right-hand man of Henry VIII.

The residence made famous by Hilary Mantel exists today, but not in its medieval form. Wolf Hall Manor (also known as Wulfhall) in Wiltshire probably started off as a timber-framed, double courtyard house with a tower, which housed the Seymour family until the 1570s. King Henry VIII visits only at the very end of the novel—yet Mantel thought it was an appropriate name for Henry's court. In a story steeped in treachery, the title also alludes to the Latin saying *"homo homini lupus"*: Man is a wolf to his fellow man.

Wolf Hall was first broadcast in April 2015 in the USA on PBS and in Australia on BBC First. It had a stellar cast which included Mark Rylance (Thomas Cromwell), Damian Lewis (Henry VIII), Claire Foy (Anne Boleyn), Thomas Brodie-Sangster (Rafe Sadler), Joss Porter (Richard Cromwell), Bernard Hill (Duke of Norfolk), Hannah Steele (Mary Shelton) and Jessica Raine (Jane Rochford). The series was a critical success and received eight nominations at the 67th Primetime Emmy Awards and three nominations at the 73rd Golden Globe Awards, winning for *Best Miniseries or Television Film*.

The Meuse-Argonne Offensive

The Meuse-Argonne Offensive (also known as the *Meuse River–Argonne Forest offensive*, the *Battles of the Meuse–Argonne*, and the *Meuse–Argonne campaign*) was a part of the final Allied offensive of WWI. It was one of a series of Allied attacks known as the *Hundred Days Offensive*, which brought the war to an end and was fought from 26th September to 11th November 1918, when the Armistice was signed. The largest operations of the American Expeditionary Forces (AEF) in World War I, with over a million American soldiers taking part, it was also the deadliest campaign in American history, resulting in over 26,000 soldiers being killed in action and more than 120,000 total casualties. Indeed, the number of graves in the American military cemetery at Romagne is far larger than those in the more commonly known WWII site at Omaha Beach in Normandy.

READ MORE:

- https://www.archives.gov/research/military/ww1/meuse-argonne
- https://www.britannica.com/event/battles-of-the-Meuse-Argonne

WATCH:

YouTube Video - Battlefield Experience: The Meuse-Argonne Offensive
at: https://youtu.be/s2J3eOdo2i0 (The screenshot below is from that film)

Bird brains are near humanlike

Source: article by Bret Stetka at: https://www.scientificamerican.com/article/bird-brains-are-far-more-humanlike-than-once-thought/

With enough training, pigeons can distinguish between the work of Picasso and Monet. Ravens can identify themselves in a mirror. And on a university campus in Japan, crows leave walnuts on a road crossing and let passing traffic crack nuts for their lunch.

Many bird species are incredibly smart. Yet among intelligent animals, the "bird brain" often doesn't get much respect. Two papers recently published find that birds actually have a brain that is much more similar to our complex primate organ than previously thought.

For years it was assumed that the avian brain was limited in function because it lacked a neocortex. In mammals, the neocortex is the hulking, evolutionarily modern outer layer of the brain that allows for complex cognition and creativity and that makes up most of what, in vertebrates as a whole, is called the pallium. The new findings show that birds' do, in fact, have a brain structure that is comparable to the neocortex despite taking a different shape. It turns out that at a cellular level, the brain region is laid out much like the mammal cortex, explaining why many birds exhibit advanced behaviours and abilities that have long befuddled scientists. The new work even suggests that certain birds demonstrate some degree of consciousness.

In a Scientific American article, Onur Güntürkün from Ruhr University in Germany, describes how the avian brain demonstrates surprising cognitive abilities.

The other new paper, by a group at the University of Tübingen in Germany, lends still more insight into the avian brain, suggesting that birds have some ability for sensory consciousness—subjective experiences in which they recall sensory experiences. Consciousness has long been thought to be localised in the cerebral cortex of smart primates – such as chimpanzees, bonobos (pygmy chimpanzee) and humans. Yet crows appear to have at least a rudimentary form of sensory consciousness.

During the pandemic, birds (at least those in locked-down San Francsisco) started singing new songs. As the noise from humans quietened down, the white-crowned sparrow, a bird that lives in both urban and rural areas, responded to the sudden peace and quiet by learning a new song: see Wired report, here, *"Now that it doesn't have to scream over the noises of the city, it can focus on the complexity of its call — a fascinating illustration of how our pandemic response has changed the world around us."*

READ MORE ABOUT BIRD INTELLIGENCE:

- Pigeons' discrimination of paintings by Monet and Picasso: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1334394/
- Ravens can identify themselves in a mirror: https://corvidresearch.blog/2017/11/12/mirror-mirror-on-the-wall/
- Cracking walnuts: https://www.pbs.org/lifeofbirds/brain/
- Avian brain demonstrates surprising cognitive abilities: https://www.scientificamerican.com/article/birdbrain-turns-from-insult-to-praise/
- Tübingen researchers show conscious processes in birds' brains for first time: https://www.miragenews.com/tubingen-researchers-show-conscious-processes-in-birds-brains-for-first-time/
- Brainiacs, not birdbrains: https://www.statnews.com/2020/09/24/crows-possess-higher-intelligence-long-thought-primarily-human/
- Science Magazine: https://science.sciencemag.org/content/early/2020/09/23/science.abd5777

The Great Viking Siege of Paris

Excerpted from story on Warfare History Network

In the year 885, a mighty Viking fleet sailed up the Seine River and laid siege to Paris. The Franks desperately needed good leadership, and two heroic men filled the void. This is what happened:

"Well before the great Viking siege of Paris, more than 300 islands dotted the length of the Seine River, reduced over the centuries by human impact and natural changes to slightly more than 100. During the Iron Age, the Celtic tribe of the Parisii made their home around a cluster of islands at the spot four miles downstream from where the Marne River joins the Seine. After conquering Gaul, the Romans built the city of Lutetia atop the ruins of the old Parisii settlement. Due to its location at an important road nexus, Lutetia grew in importance, becoming the capital of the Roman Western Gaul province by the end of the 4th century. For protection from barbarians migrating into Gaul, the Celts living along the banks of the Seine at Lutetia relocated to the two largest islands in the river, named the Ile de la Cité and the Ile de St-Louis. Using stones recovered from damaged buildings, the Romans built defensive walls on the 56-acre Ile de la Cité. The Ile de St-Louis, which was roughly half the size of the neighbouring island, was used mainly as pastureland and left undefended.

"After the collapse of the Western Roman Empire, the name of the town reverted to Civitas de Parisiis and was eventually shortened to Paris. During Charlemagne's reign, Paris became one of the most important cities of the Frankish Empire. Charlemagne's conquest of Saxony in the late 8th century brought the borders of his empire into direct contact with Danish kingdoms. The collapse of centralized Danish monarchy around the beginning of the 9th century coincided with the explosion of Scandinavian expansion, which was spurred by the innovations in Scandinavian shipbuilding…

"Raids by Scandinavian pirates against Western Europe began in the late 8th century, with the attack on the Holy Island of Lindisfarne off the north western coast of England in 793 ushering in the Viking Age. The term "Vikings" as we know it appears to have originated [much later] in the 18th century. Their Western contemporaries typically referred to Scandinavian pirates and raiders as the Norse or the Danes. In Eastern Europe, the Vikings were typically called the Rus in reflection of their Swedish origin. Lasting until the end of the 11th century, Viking raids took place over a vast territory from the Western European seaboard to the Black and Caspian Seas in the East and the Mediterranean Sea in the South. Sailing the inshore waters of the North and Celtic Seas and the English Channel, the Vikings were within easy striking distance of rich targets in the British Isles and Western Europe.

"The Vikings built shallow-draft vessels known as long ships. They used their long ships not only at sea, but also to penetrate large land masses by rowing them upriver. The long ships, which could pass through water just a few feet deep, were light enough to be portaged short distances when necessary. The symmetrical design of the Viking boats allowed them to reverse course without turning, a feature especially useful within the relatively narrow confines of a river. With emphasis on speed and manoeuvrability, the main source of propulsion was by oar, but a square sail was added when traveling on the open sea.

"The Vikings initially raided in one to three ships; however, as they grew in power and their raids became more ambitious, their fleets grew to as many as 200 long ships. But these great fleets were the exception rather than the rule. Due to the shallow hull construction of their ships, the Vikings could land directly on the beaches or riverbanks. This allowed rapid egress and prepared the Norsemen to strike where they were least expected. After initially raiding coastal areas, the Vikings began penetrating deeper inland using rivers as highways…"

You can read the whole story by Victor Kamenir at:
https://warfarehistorynetwork.com/2020/09/15/the-great-viking-siege-of-paris/

Stonehenge

Picture Credit: "Stonehenge" by yvestown is licensed under CC BY-NC-ND 2.0

Justin Parkinson wrote an article for BBC News Magazine on 21st September 2015:

The reason Stonehenge and a 30-acre triangle of adjoining land came on to the market in 1915 was the death of Sir Edmund Antrobus, the only male heir of the family who had owned it since the 1820s.

The man who bought Stonehenge - and then gave it away

"Today Stonehenge is England's most important monument, but 100 years ago it was up for sale. The man who bought it helped seal its fate.

Standing on Salisbury Plain, its stones visible from afar, Stonehenge has been a Unesco World Heritage Site since 1986 and attracts a million visitors a year. So, it's strange to think that England's most significant monument was once bought by a barrister as a present to his wife. Or so one theory goes. Another is that he feared a rich American might take it.

Whatever his motivation, 100 years ago, on 21 September 1915, Cecil Chubb paid £6,600 for the monument at an auction in Salisbury, Wiltshire. It happened, he said, "on a whim".

Chubb's wife Mary was reportedly less than grateful for the romantic gesture, possibly because the price equated to as much as £680,000 in today's money. "It's said that Mary wanted Cecil to buy a set of curtains at the auction," says Stonehenge's curator, Heather Sebire. "And he came back with something rather different."

You read the full story online at:
https://www.bbc.co.uk/news/magazine-34282849

Unusual word: quondam

Source: Dictionary.com

Quondam is an adjective meaning *former; onetime*

Origin

The Latin adverb quondam, *formerly, anciently, once (upon a time)*, has been used in English as a noun, *the former holder of an office*, and currently as an adjective as shown above. All three usages in English occur close together in the first half of the 16th century. Quondam breaks down to the adverbial conjunction cum or quom: *at the time that, when.* The particle –dam, however, is of uncertain origin.

The Mayflower

Picture Credit: "The Mayflower, 1620, Plymouth, Mass." by Boston Public Library is licensed under CC BY 2.0

On 16th September 1620, a merchant ship, the Mayflower, sailed from England and made its way to the New World. On board were 102 men, women and children, half of whom (the 'Saints' or 'Pilgrims' as they are known today) were escaping religious persecution, while the other half (the 'Strangers') were seeking adventure and a new life across the Atlantic.

The Puritans believed that the Church of England was beyond redemption due to its Roman Catholic past, which forced them to pray in private. In 1608, they left England for Holland, where they could worship freely. After remaining there until 1620, a number of the Puritans purchased boats to cross the Atlantic for America, which they considered a "new Promised Land," and where they established Plymouth Colony. The mission to create a settlement in the Virginia territory was almost a disaster. Terrible storms and high waves made the crossing miserable before the *Mayflower* finally limped to its journey's end after 66 days. The Pilgrims had made it, but – as they quickly found out – their troubles were only beginning as they faced a brutal winter.

Here are five facts from *BBC History Revealed* about the historic ship that carried the Pilgrims to the New World…

1. The *Mayflower* had design flaws: The design of the *Mayflower*, with high, wall-like sides, made it difficult to sail in the strong winds of the Atlantic. The crossing, therefore, took two months, but it could be done in half the time.
2. The conditions on board were extremely cramped: The voyage was supposed to be done by two ships. The second ship, the *Speedwell,* was deemed to be unseaworthy, so the passengers were crammed onto the *Mayflower*. As well as the passengers, there were about 30 crew members – they squeezed on board, where there were food stores, tools, weapons (including cannon) and live animals, such as sheep, goats, chickens, and dogs.
3. There were births and deaths on the *Mayflower*: During the crossing, one passenger died and one woman, Elizabeth Hopkins, gave birth to a child. The boy was aptly named *Oceanus*.
4. The *Mayflower* arrived at the beginning of a harsh winter: The Mayflower arrived at Cape Cod (in modern-day Massachusetts) on 9 November 1620 and if the voyage had been bad, that was nothing compared to the first winter that followed. Due to food shortages and outbreaks of disease, only half that had made the journey survived to see spring and the creation of their New World settlement, Plymouth.
5. The *'Mayflower Compact'*: While anchored at Cape Cod, 41 Pilgrims – worried that law and order would break down once ashore – signed an agreement on 11th November 1620. The *'Mayflower Compact'* created a "civil body politic" and was the United States' first governing document.

Acknowledgement: *This articleappeared in the December 2015 issue of BBC History Revealed* magazine. https://www.historyextra.com/period/stuart/facts-mayflower-ship-pilgrims-when-departed-arrived-america/

Cloud Vs Ocean Data Centres

The Economist reported on 19th September 2020 about the Microsoft testing of a data centre on the ocean floor in the seas off the Orkney islands (Orkney was chosen because it is a major centre for renewable energy research). For some unknown reason, the project was dubbed Project Natick. The first experimental underwater data centre, sunk for five months in 2015, was dubbed Leona Philpot after a character in an XBox game.

The aquatic data centre suffered equipment failure at only one-eighth the rate of those built on land. As no humans entered the centre, no bumping or movement took place the presence of which can cause faults on land-built centres. Another benefit was that the centre could be filled with nitrogen instead of air, thereby cutting down on corrosion. Sunk in seawater helped with cooling too, saving on costs compared to when a data centre is built on land. Finally, with a need to have data centres placed close to customers and with the spiralling cost of land, the fact that an ocean-based centre could be built for pennies on the sea floor, was compelling. As the article concluded: *'water and electronics, it seems, do sometimes mix.'* The only problem seems to be that if the equipment needs to be repaired, it can't, as it can't be accessed.

READ MORE:

- Better down where it's wetter: https://www.economist.com/science-and-technology/2020/09/19/davy-joness-data-centre
- Microsoft sinks data centre off Orkney: https://www.bbc.co.uk/news/technology-44368813
- Microsoft: https://news.microsoft.com/features/under-the-sea-microsoft-tests-a-datacenter-thats-quick-to-deploy-could-provide-internet-connectivity-for-years/

Top 10 Heads That Rolled During the Reign of Henry VIII

Source: Julia Layton at: https://history.howstuffworks.com/historical-figures/10-henry-viii-executions.htm

During the reign of Henry VIII, between 1509 and 1547, an estimated 57,000 [source: The Tudors] and 72,000 [source: Historic Royal Palaces] English subjects lost their heads. Although it was a violent time in history, King Henry VIII may have been particularly bloodthirsty, ordering the execution of tens of thousands during his 36-year reign. By comparison, the daughter who eventually succeeded him on the throne, and who came to be called "Bloody Mary," killed fewer than 300 people during her six years as queen.

Henry VIII ordered the beheadings of some of the top political minds of the day, a few cardinals of the Church, at least one nun, a couple of his six wives, and countless members of the royal court who questioned the purity of his motives. Julia Layton's article notes that, as one of his first acts as king, Henry VIII ordered the executions of two of his father's top advisors, the notorious Dudley and Empson.

Top 10 beheadings under Henry VIII:

1. Edmund Dudley and Richard Empson
2. Edmund de la Pole
3. Edward Stafford
4. Elizabeth Barton
5. John Fisher
6. Catherine Howard
7. Henry Howard
8. Thomas Cromwell
9. Sir Thomas More
10. Anne Boleyn

How many Marx for these?

1. Did you hear about the circus fire? It was in tents.
2. Can February March? No, but April May!
3. It's inappropriate to make a 'dad joke' if you're not a dad. It's a faux pa.
4. Wanna hear a joke about paper? Never mind—it's tearable.
5. Don't trust atoms. They make up everything!
6. I wouldn't buy anything with Velcro. It's a total rip-off.
7. What's an astronaut's favourite computer bit? The space bar.
8. I don't play football because I enjoy the sport. I'm just doing it for kicks!
9. Why are lift jokes so classic and good? They work on many levels.
10. Why do bees have sticky hair? Because they use a honeycomb.
11. What do you call a fake noodle? An impasta.
12. What did the coffee report to the police? A mugging.
13. Why did the scarecrow win an award? Because he was outstanding in his field.
14. I made a pencil with two erasers. It was pointless.
15. I'm reading a book about anti-gravity. It's impossible to put down!
16. Did you hear about the guy who invented the knock-knock joke? He won the 'no-bell' prize.
17. I used to hate facial hair…but then it grew on me.
18. I had a neck brace fitted years ago and I've never looked back since.
19. What's brown and sticky? A stick.
20. What do you call an elephant that doesn't matter? Irrelephant.
21. What do you get from a pampered cow? Spoiled milk.
22. Did I tell you the time I fell in love during a backflip? I was heels over head!
23. If a child refuses to sleep during nap time, are they guilty of resisting a rest?
24. It takes guts to be an organ donor.
25. If you see a crime at an Apple Store, does that make you an iWitness?
26. I'm so good at sleeping, I can do it with my eyes closed.
27. How do you get a squirrel to like you? Act like a nut.
28. I don't trust stairs. They're always up to something.
29. What do you call someone with no body and no nose? Nobody knows.
30. Did you hear the rumour about butter? Well, I'm not going to spread it!
31. Why couldn't the bicycle stand up by itself? It was two tired.
32. Why can't a nose be 12 inches long? Because then it would be a foot.
33. This cemetery looks overcrowded. People must be dying to get in.
34. Q: "Can you put the cat out?" A: "I didn't know it was on fire."
35. How many tickles does it take to make an octopus laugh? Ten tickles.
36. Why did the math book look so sad? Because of its many problems!
37. How does a penguin build its house? Igloos it together.
38. How did Darth Vader know what Luke got him for Christmas? He felt his presents!
39. I wanted to go on a diet, but I feel like I have way too much on my plate right now.
40. What sound does a witches' car make? Broom Broom ...
41. To whoever stole my copy of Microsoft Office, I will find you. You have my Word!
42. What does a zombie vegetarian eat? "GRRRAAAIINS!!!
43. Atheism is a non-prophet organization.
44. The spade was a ground-breaking invention.
45. Does anyone need an ark? I Noah guy!
46. How do you make holy water? You boil the hell out of it.
47. 5/4 of people admit that they're bad with fractions.
48. What do you call a man with a rubber toe? Roberto.
49. I would avoid the sushi if I were you. It's a little fishy.
50. To the man in the wheelchair that stole my camouflage jacket… You can hide but you can't run.
51. I bought some shoes from a drug dealer. I don't know what he laced them with, but I was tripping all day!
52. I thought about going on an all-almond diet. But that's just nuts.
53. What's black and white and goes around and around? A penguin in a revolving door.
54. Why do you never see elephants hiding in trees? Because they're so good at it.
55. Did you hear about the kidnapping at school? It's fine, he woke up.
56. What did the caretaker say when they jumped out of the store cupboard? "Supplies!"
57. I used to work in a shoe recycling shop. It was sole destroying.
58. Did you hear about the restaurant on the moon? Great food, no atmosphere.
59. When does a joke become a dad joke? When it becomes apparent!
60. What time did the man go to the dentist? Tooth hurt-y!
61. I just watched a program about beavers. It was the best dam program I've ever seen.
62. Why did the coffee file a police report? It got mugged.
63. What did the fried rice say to the shrimp? Don't wok away from me.
64. Two cannibals are eating a clown. One asks the other: "Does this taste funny to you?
65. What do you call a baby monkey? A chimp off the old block.
66. Do you think glass coffins will be a success? Remains to be seen.
67. What lies at the bottom of the ocean and twitches? A nervous wreck.
68. Did you hear about the scientist who was lab partners with a pot of boiling water? He had a very esteemed colleague.

The Life of Brian

Here is just one of many brilliant scenes from the epic comedy "Life of Brian" by Monty Python. You can watch the video on YouTube at: https://youtu.be/kx_G2a2hL6U The picture above is a screen-print from the movie clip.

If you are a Monty Python aficionado, you can subscribe to the Official Monty Python Channel at: http://smarturl.it/SubscribeToPython

How fish and chips became our national dish: yummy!

Picture Credit: "Fish'n'chips" by adactio is licensed under CC BY 2.0

Excerpt: The irresistible combination of a thick chunk of battered cod sitting atop a mound of lovely hot chips is the quintessential British comfort food. Whether eaten on a plastic lap tray in front of the "telly," or gobbled down from a makeshift paper cone on the way home from the pub, or even from yesterday's *Daily Telegraph*, a meal of fish and chips with mushy peas if you're lucky, is like a serving of deep-fried nostalgia with a sprinkling of salt and vinegar.

At its peak popularity nearly 100 years ago, there were 35,000 fish and chip shops in the United Kingdom. Today, there are still 10,500 "chippies" in the U.K. serving 360 million meals of fish and chips every year, the equivalent of six servings of fish and chips for every British man, woman and child. But if you travel back a mere 200 years and you'd be hard-pressed to find fish and chips available anywhere in the British Isles.

Read the whole story at: https://people.howstuffworks.com/culture-traditions/cultural-traditions/fish-and-chips.htm

Now that's cool

Fish and chip shops are famously punny.

Examples? ***The Codfather***. **New Cod on the Block**. **For Your Fries Only**.

And the clear winner... **Frying Nemo**.

Is this chap a member?

This poor chap was captured on CCTV. If you recognise him, let the Secretary or President (or the Police) know immediately please. His gait or his light fingers may give the game away.

Click on this link to see if you can help: http://onesmartplace.com/wp-content/uploads/2020/09/VIDEO-2020-09-18-18-45-54.mp4

Are you familiar with Mr Quevedo?

Sources: Wikipedia and http://cyberneticzoo.com/early-robot-enabling-technologies/1902-telekine-telekino-leonardo-torres-quevedo-spanish/ and https://www.wired.com/2011/11/1107wireless-remote-control/

Picture Credit: "File:Leonardo Torres Quevedo (MUNCYT, Eulogia Merle).jpg" by Eulogia Merle is licensed under CC BY-SA 4.0

Leonardo Torres y Quevedo (28th December 1852 – 18th December 1936) was a Spanish civil engineer and mathematician of the 19th and early 20th centuries. With his *Telekine*, and as a pioneer in the field of remote control, he created a wireless operation method. But you might well ask: *What's a Telekine?*

Quevedo started to develop the idea of a remote control around 1901/1902, as a way of testing his airships without risking human lives. He was the first person (or at least, the first person to do it this way) to lay down the modern remote-control operation principles and patented it 1903 (in France, Spain, Great Britain, and the United States) under the name *Telekine* (*Telekino* in Spanish) *.

The *Telekine* consisted of a robot that executed commands transmitted by electromagnetic waves. It constituted the world's second publicly demonstrated apparatus for radio control (after Nikola Tesla's Patented "*Teleautomaton*"), but unlike Tesla's "on/off" mechanisms, it executed an action, depending on whether a signal is received or not, Torres defined a method for controlling any mechanical or electrical device with different states of operation. In 1906, in the presence of the king and before a great crowd, Torres successfully demonstrated his invention in the port of Bilbao, guiding a boat more than a mile away. But, arguably, he was not the first to demonstrate wireless control:

- Guglielmo Marconi's wireless demonstration at London's Toynbee Hall in 1896 used a fixed telegraph-key transmitter to ring a bell attached to a receiver that a colleague carried around the room.
- Nikola Tesla patented a wireless device for "controlling mechanism of moving vessels or vehicles" in 1898 and demonstrated a radio-controlled boat at New York's Madison Square Garden the same year.

* **NOTE:** This term *Telekine* came from two Greek words: tele (far away, in the distance) and kine (force, movement), resulting together in "movement at a distance," which is what the inventor was trying to achieve with a wireless remote control operation.

A short History of Alcohol

Excerpted from:

- *Alcohol: a Short History* at: https://www.drugfreeworld.org/drugfacts/alcohol/a-short-history.html
- *Our 9,000-Year Love Affair with Booze* at: https://www.nationalgeographic.com/magazine/2017/02/alcohol-discovery-addiction-booze-human-culture/
- *History of Alcohol: A Timeline at:* https://www.thoughtco.com/history-of-alcohol-a-timeline-170889

Fermented grain, fruit juice and honey have been used to make alcohol (ethyl alcohol or ethanol) for thousands of years. Fermented beverages existed in early Egyptian civilization, and there is evidence of an early alcoholic drink in China around 7000 B.C. In India, an alcoholic beverage called sura, distilled from rice, was in use between 3000 and 2000 B.C.

[Note: Wikipedia says that the discovery of late Stone Age jugs suggest that intentionally fermented beverages existed long before that - at least as early as the Neolithic period (around 10,000 BC). The ability to metabolise alcohol likely predates humanity with primates eating fermenting fruit. The oldest verifiable brewery has been found in a prehistoric burial site in a cave near Haifa in modern-day Israel. Researchers have found residue of 13,000-year-old beer that they think might have been used for ritual feasts to honour the dead. The traces of a wheat-and-barley-based alcohol were found in stone mortars carved into the cave floor.]

The Babylonians worshipped a wine goddess as early as 2700 B.C. In Greece, one of the first alcoholic beverages to gain popularity was mead, a fermented drink made from honey and water [you can still buy mead in Devon and Cornwall - some monasteries have kept up the traditions of mead-making as a by-product of beekeeping]. Greek literature is full of warnings against excessive drinking.

Several Native American civilizations developed alcoholic beverages in pre-Columbian times (before the arrival in America of Christopher Columbus in 1492). A variety of fermented beverages from the Andes region of South America were created from corn, grapes or apples, called "chicha."

In the sixteenth century, alcohol (called "spirits") was used largely for medicinal purposes. At the beginning of the eighteenth century, the British parliament passed a law encouraging the use of grain for distilling spirits. Cheap spirits flooded the market and reached a peak in the mid-eighteenth century. In Britain, gin consumption reached 18 million gallons and alcoholism became widespread.

The 19th century brought a change in attitudes and the temperance movement began promoting the moderate use of alcohol—which ultimately became a push for total prohibition. In 1920, the US passed a law prohibiting the manufacture, sale, import and export of intoxicating liquors. The illegal alcohol trade boomed and, by 1933, the prohibition of alcohol was cancelled.

Rice wine has been drunk in China for at least 9,000 years; a chemical residue found in a jar of that age is the oldest proof of a deliberately fermented beverage. But the influence of alcohol probably extends even deeper into prehistory. As Andrew Curry writes in an article (*Our 9,000-Year Love Affair with Booze*) *"Alcohol isn't just a mind-altering drink: It has been a prime mover of human culture from the beginning, fuelling the development of arts, language, and religion."*

Curry mentions beer. You don't have to be a regular at an Oktoberfest to know that Germany has a long history with beer. But Germany also has a long history with sausages. France started making wine in earnest only after it was conquered by the Romans (as did most of Europe) and has never looked back—but the French are also famously fond of cheese.

For a long time, that's about how most historians and archaeologists have regarded beer and wine: as mere consumables, significant ones to be sure, but not too different from sausages or cheese, except that the over-consumption of alcohol is a far more destructive vice.

Alcoholic beverages were a by-product of civilization, not central to it. Even the website of the German Brewers' Federation takes the line that beer was likely an offshoot of breadmaking by the first farmers. Only when the craft blossomed at medieval abbeys like Weihenstephan did it become worth talking about.

Two key dates in the *History of Alcohol Timeline* to note are:

- 100,000 years ago (theoretically): At some point, Paleolithic humans or their ancestors found that leaving fruit in the bottom of a container for a period of time led naturally to alcohol-infused juices.
- 1st–2nd centuries BCE: The Mediterranean wine trade exploded, bolstered by the Roman empire.

The Execution of Mary Queen of Scots

Excerpted from: https://www.onthisday.com/photos/mary-queen-of-scots-executed

In 1542, while just six days old, Mary ascended to the Scottish throne upon the death of her father, King James V. In 1558 she married the French dauphin, who became King Francis II of France in 1559 but died the following year.

Picture Credit: "The execution of Mary, Queen of Scots" by lisby1 is marked with CC PDM 1.0

After Francis' death, Mary returned to Scotland to assume her designated role as the country's monarch. Mary Stuart was Queen of Scots from 1547 until she was deposed in 1567. She spent the next twenty years of her life in exile or imprisoned. After she was deposed, she sought the assistance of her first cousin, Elizabeth I, who reigned over England. This complicated matters however as Elizabeth perceived Mary as a threat and had her imprisoned while a commission of inquiry investigated whether she was responsible for the death of her first husband.

Mary spent eighteen and a half years imprisoned in England, and several plots to replace Elizabeth with Mary or have her marry other European royalty came to nothing. On 11th August 1586, Mary was arrested after being implicated in the Babington Plot - another scheme to overthrow the protestant Elizabeth and replace her with the catholic Mary.

Mary was found guilty on 25th October 1586 and sentenced to death. Elizabeth hesitated to sign the death warrant, fearing the precedent it set, and asked her custodian to find a way to "shorten the life" of Mary, but he refused. Elizabeth eventually signed the warrant. On 8th February 1587, Mary Stuart, Queen of Scots (aged 44) was beheaded at Fotheringhay Castle for treason. Her son, King James VI of Scotland, calmly accepted his mother's execution, and upon Queen Elizabeth's death in 1603 he became king of England, Scotland and Ireland.

The execution did not go well and was a clumsy affair – it took several attempts to sever the head - and even when the deed was one, the head fell out of the executioner's hands.

New Corona virus words

This excerpt is based on an article at Dictionary.com: With any new global event, new words tend to pop up, for better or worse, and the COVID-19 pandemic is no exception. Here is a selection of some new words you may have noticed.

Plandemic: Twitter user *@Lemonhausen* offered *plandemic* as his "worst coinage" of 2020. The word *pandemic* is not a new word (it is first recorded in the late 1660s) but is has now spread to our everyday vocabularies like never before. The coinage *plandemic*, a blend of *plan* and *pandemic,* took off with the emergence of a conspiracy theory video that claimed COVID-19 is a planned and pre-arranged pandemic (hence *plandemic*) for pharmaceutical companies to make money. According to a *New York Times* *article*, the video has since been debunked and cited for spreading false information, but the term *plandemic* has stuck around.

Rona: *Rona* is short for *coronavirus.* Shortening the word *coronavirus* to *corona* and then *rona* made it easier to say. For example, "Phil's got the *rona*, and now he has to quarantine for 14 days."

Covidiot: From what Dictionary.com heard from users, if a person is an *idiot* about various aspects of *COVID–19*, they are, a *covidiot.* This blend has been used by some people to slam people who are not washing their hands, are standing too close together in public, or are wearing their mask on their chin.

Anti-ma: *Anti-ma* is variously short for "anti-mask," "anti-masking," or "anti-masker," and refers to those who refuse to wear a mask during the COVID-19 pandemic.

Quarantini: When restaurants and bars closed in the pandemic, folks got creative and became their own mixologists. Shaken, stirred, or just straight up, *quarantini* is a blend of *quarantine* and *martini*, served up for those shelter-in-place cocktail parties.

Quaranteam: No, it's not another branch of the A-Team: it's another bit of *quarantine* wordplay. A combination of *quarantine* and *team, quaranteam* is a word people are using for the "pod" or "bubble" they've formed with friends or family under while hunkering down.

Maskne: Many of us have been wearing masks to help stop the spread of COVID-19, and all that mask-wearing has led to some new challenges—and words. Slang experts at Dictionary.com say that "*maskne*" is acne or other skin irritation that results from wearing a mask, especially a medical, or cloth face mask. The condition mostly affects frontline workers who have to wear face-coverings for extended periods

Twindemic: This refers to the dual threat of a severe influenza outbreak on top of the COVID-19 pandemic. as popularized by an August 2020 article by Jan Hoffman in the *New York Times*. Her article discussed the health and medical community's concerns that people will not get flu shots due to various fears that getting those shots will make them more vulnerable to COVID-19. Hoffman credited Dr. L.J. Tan of the Immunisation Action Coalition as an "early promoter" of the term *twindemic.*

'Everything that wasn't invented by God is invented by an engineer…'

Sources: • https://www.telegraph.co.uk/royal-family/2021/04/09/prince-philip-credited-helping-save-british-engineering-nation/ • https://www.raeng.org.uk/about-us/who-we-are • https://www.bbc.co.uk/news/business-35201197 • https://www.engineersaustralia.org.au/News/everything-not-invented-god-invented-engineers-claims-prince-philip

The Duke of Edinburgh is credited with "helping to save" British engineering after realising Britain was "skint" in the aftermath of the Second World War. Prince Philip, who passed away aged 99 on 9th April 2021, used his "soft power" to establish the *Royal Academy of Engineering* in the 1970s after realising it was key to Britain's economic recovery. His efforts led Lord Browne, the former chief executive of BP and the Academy's ex-chairman, to credit him with rejuvenating the profession in the UK. In an interview with the BBC's Today programme in 2016, which Lord Browne guest-edited, the Duke revealed his passion for engineering first blossomed during his training as a naval cadet during the war. He said: "*You had to live with the machinery, not only to propel the ship but to fire the guns and send messages, so you were surrounded by engineering.*" According to Prince Philip, it would be hard to imagine a life without the contribution of engineers, who were responsible for "*the whole of our infrastructure, from sewers to overhead cables, power supplies and communication.*" He added: *"Everything that wasn't invented by God is invented by an engineer."*

As Britain needed to be lifted from poverty and recover from the devastation the war had wrought on its economy, the Duke realised the central role that engineering needed to play in society, not least of all as a catalyst for manufacturing. "*The thing that really needed encouragement was manufacturing, which was always dependent on engineering, to try and recover from the war,*" Prince Philip said. "*It seemed to me the only way we were going to recover a sort of viability was through engineering.* "

The Duke's efforts culminated in 1976 when the *Royal Academy of Engineering* was founded. He was instrumental in its creation as he used his quiet diplomatic skills at a number of Buckingham Palace dinners to quell fears that the new institution would clash with the Royal Society, Britain's main academy for sciences.

The Royal Academy of Engineering book

Dr Peter Collins, Emeritus Director of the Royal Society, has researched and written a book about the prehistory of the Academy. In *Origins of the Royal Academy of Engineering,* Collins uses a wide range of archival material to analyse the problems that the creation of the Academy was intended to solve. He describes how a national academy for engineering was, eventually, accepted as the way forward before being launched as The Fellowship of Engineering in 1976. The book tells the story behind a fascinating episode of institutional history and human behaviour. It is available for £30 at www.academybooks.uk.

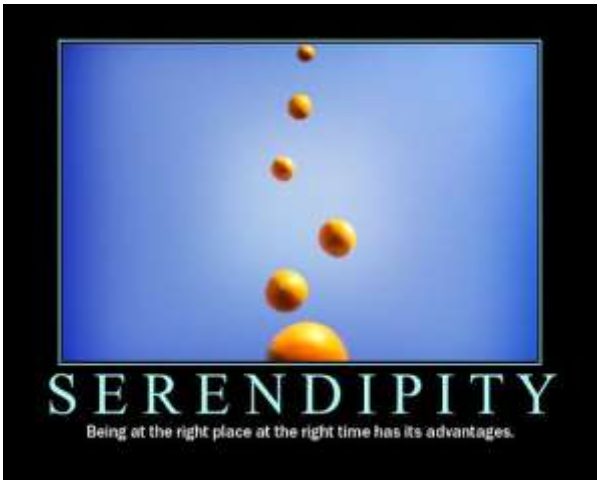
The Duke of Edinburgh's Award

Although founding the *Royal Academy of Engineering* was important, it is perhaps the impact the *Duke of Edinburgh's Award* has had on thousands of people that will be his everlasting legacy. The youth achievement award was established by Prince Philip in 1956 and its programme aims to inspire and transform the lives of young people aged 14 to 24 through volunteering, physical activities and expeditions and operates in more than 140 countries.

Wit, Wisdom and Humour

In the 74 years since marrying the Queen, the Duke's wit (and the occasional 'gaffe') endeared him to the nation, as he travelled the world taking his unique and charmingly British sense of humour to its far-flung corners. Hailed as a god by a tribe in Vanuatu, the Prince had his fair share of brickbats from the media nearer home, but his outspokenness never failed to raise laughs – and eyebrows. The *Spectator* (here) pulled together the Duke of Edinburgh's best quotes as he stood for 74 years by the Queen's side. The *Telegraph* celebrated the Duke of Edinburgh's best jokes, and greatest gaffes, in a video (here) and you can view the his life in pictures (here).

The Rocket and other discoveries by Serendipity



Excerpted from article by Caroline Burns, in The Guardian on 4th May 2012: https://www.theguardian.com/science/blog/2012/may/04/oops-invented-rocket-happy-accidents

As probably every scientist would say, it's the eureka moments that make science so worthwhile. The Dutch call it *geluk bij een ongeluk* ("happiness by accident"). English speakers call it *serendipity* (discovering something good by accident). The best-known example of this is Alexander Fleming when working at St Mary's Hospital in 1928, noticed that a culture of *Staphylococcus Aureus* had become contaminated with mould – and the mould was destroying the bacteria. This chance observation led, ultimately, to the development of penicillin and other antibiotics.

As Caroline Burns says:
"Similarly, x-rays, radiation and pulsars – and in a less exotic vein, Velcro, Vaseline and Teflon – all owe their discovery or existence to serendipity. Now it seems we should consider adding another item to that illustrious list: the rocket. Long held as an exemplar of Chinese technological inventiveness, the rocket – dating from the Sung Dynasty of AD 960-1279 – has changed the face of civilisation. But Frank Winter, working with colleagues from the Smithsonian Institution and Sydney's Powerhouse Museum, claims that the rocket was almost certainly an accidental invention."

Burns goes on:
"For one, Winter and colleagues argue, the Tao alchemists of the Sung period understood combustion in philosophical rather than scientific terms. They had observed, while attempting to synthesise an elixir of eternal life, that some chemical mixtures were explosive. But they interpreted that explosiveness as an interaction between the yin and yang of the elixir's ingredients. So, it's unlikely that the three vital components of the first rocket fuel – saltpeter, sulfur and charcoal – would have been deliberately selected and tested for their explosive potential. That just didn't fit with Tao philosophy. In fact, no one, either in China or the West, ever applied science to early rocket development."*

* In the UK, (1) saltpeter is called potassium nitrate and (2) sulfur is called sulphur. Potassium nitrate is used as an ingredient for curing meats and to give the characteristic pink colour to bacon and hams and an ingredient in toothpaste for sensitive teeth. Many decades ago, doctors prescribed potassium nitrate for asthma and arthritis. Sulphur is used in the vulcanisation of black rubber, as a fungicide and in black gunpowder. Most sulphur is, however, used in the production of sulphuric acid, which is perhaps the most important chemical manufactured by western civilisations.

Even Isaac Newton, with his *Third Law of Motion* (now recognised as a description of rocket propulsion), didn't make the connection between his law and the Chinese "meteor". It wasn't until the late 19th century, and Konstantin Tsiolkovsky, that the dots were joined, paving the way for modern rocket science. But even if it were an accidental discovery, the rocket is part of a fine, ongoing tradition of discovering something good by accident.

The elements of curiosity, inquisitiveness, doggedness can make all the difference in the world to scientific serendipity as the example of what happened to Dr Birgit Draeger, a German phytochemist (plant chemist), shows quite clearly. Read what Burns says:
"In the mid-1990s, Dr Draeger was researching betulinic acid: a medicinal chemical from birch tree bark. At the time, to obtain betulinic acid you had to strip the bark away from the birch – and the tree didn't like such treatment at all. But Dr Draeger had a dream one night suggesting that, rather than stripping the bark from the birch, she should look at the bark of the plane tree, where she would find an alternative source of the same chemical. The clever thing about plane trees is that, unlike birch, they shed their bark naturally. Upon investigation, Dr Draeger found that plane tree bark did indeed contain betulinic acid – 10 times more than in birch bark, in fact. But there's a rational explanation for this apparently mystical insight. Years before her dream, Dr Draeger had encountered the chemical structure of platantic acid, which is found in plane trees and shares several chemical features with betulinic acid. The two compounds are almost chemical cousins. Her brain had dug out this obscure memory and run with it while she slept."

Dr Draeger's experience illustrates that many such happy "accidents" aren't really accidental at all: rather, they represent an unexpected fruition of underlying thought processes.

Where did the word 'Serendipity' come from?
Source: https://www.merriam-webster.com/words-at-play/happy-birthday-serendipity

The word's 'inventor' was inspired by a fairy tale: Horace Walpole was inspired by a fairy tale called *The Three Princes of Serendip*, an adaptation of the Persian poem *Hasht-Bihisht*. '*Serendip*' was an archaic name for Sri Lanka.

The people at Merriam-Webster say they are pretty sure it was Horace Walpole coined the word *serendipity*, as he explained his creation of this word in a letter written on 28th January 1754:
"This discovery, indeed, is almost of that kind which I call Serendipity, a very expressive word, which, as I have nothing better to tell you, I shall endeavour to explain to you…I once read a silly fairy tale, called "The Three Princes of Serendip": as their Highnesses travelled, they were always making discoveries, by accidents and sagacity, of things which they were not in quest of…now do you understand Serendipity?"

Ancient Egypt explained

Excerpted from: HISTORY Extra - The official website for BBC History Magazine
https://www.historyextra.com/period/ancient-egypt/facts-ancient-egypt-mummification-cleopatra-pharaohs-tutankhamun-life-death/

Picture Credit: "Building the Pyramids" by Just Us 3 is licensed under CC BY-NC 2.0

The land of the pharaohs is famous for its huge pyramids, its bandaged mummies, and its golden treasures. But how much do you really know about ancient Egypt? Was the Great Pyramid built by slaves? How did mummification work? In the article, an excerpt of which follows below, Egyptologist Joyce Tyldesley shares 10 lesser-known facts. Joyce, senior lecturer in Egyptology at the University of Manchester, is the author of *Myths and Legends of Ancient Egypt* (Allen Lane 2010) and *Tutankhamen's Curse: the developing history of an Egyptian king* (Profile 2012). You can follow Joyce on Twitter @JoyceTyldesley

1. They did not ride camels: until the very end of the dynastic age, the Egyptians used donkeys as beasts of burden, and boats as a highly convenient means of transport.
2. Not everyone was mummified: mummification was an expensive and time-consuming process, reserved only for the wealthiest members of society.
3. The living shared food with the dead: within the tomb-chapel, food and drink were offered on a regular basis.
4. Egyptian women had equal rights with men: In Egypt, men and women of equivalent social status were treated as equals in the eyes of the law. Everyone in ancient Egypt was expected to marry, with husbands and wives being allocated complementary but opposite roles within the marriage.
5. Scribes rarely wrote in hieroglyphs: Hieroglyphic writing was reserved for the most important texts; the writings decorating tomb and temple walls, and texts recording royal achievements. No more than 10 per cent (and perhaps considerably less) of the population was literate.
6. The king of Egypt could be a woman: Ideally the king of Egypt would be the son of the previous king. But this was not always possible, and the coronation ceremony had the power to convert the most unlikely candidate into an unassailable king.
7. Few Egyptian men married their sisters: incestuous marriages were not common outside the royal family until the very end of the dynastic age.
8. Not all pharaohs built pyramids: Almost all the pharaohs of the Old Kingdom (c2686–2125 BC) and Middle Kingdom (c2055–1650 BC) built pyramid-tombs in Egypt's northern deserts. But by the start of the New Kingdom (c1550 BC) pyramid building was out of fashion.
9. The Great Pyramid was not built by slaves: the classical historian Herodotus wrongly believed that the Great Pyramid had been built by 100,000 slaves. Archaeological evidence indicates that the Great Pyramid was in fact built by a workforce of 5,000 permanent, salaried employees and up to 20,000 temporary workers. These workers were free men, summoned under the corvée system of national service to put in a three- or four-month shift on the building site before returning home.
10. Cleopatra VII, last queen of ancient Egypt, may not have been beautiful: *[Note: she was of Macedonian descent and had little, if any, Egyptian blood]* there is no eyewitness description of the queen. However, the classical historian Plutarch – who never actually met Cleopatra – tells us from what he wrote that her charm lay in her demeanour, and in her beautiful voice.

Fake News: False Flags

Further reading:
https://en.wikipedia.org/wiki/Mukden_Incident#Invasion_of_Manchuria

Picture Credit: "File:九一八事変殘历碑 Mukden Incident - panoramio.jpg" by ruiraykwok is licensed under CC BY-SA 3.0

Japanese economic presence and political interest in Manchuria had been growing ever since the end of the Russo-Japanese War (1904–1905). In what became known as *The Mukden Incident* or *The Manchurian Incident*), on 18th September 1931 Japanese soldiers staged an explosion along a railway line owned by Japan's South Manchuria Railway and cast the blame on Chinese dissidents. The Japanese army used this event as an excuse to invade China hereby increasing their regional dominance and influence with the world.

The League of Nations responded to Japan's invasion of Manchuria by setting up the Lytton Commission to investigate the Japanese invasion of Manchuria. Its report assigned blame both to Chinese nationalism and to Japanese aggression.

It seems that Adolf Hitler had some admiration for Japan's false flag operation as he employed similar tactics in 1939. *The Gleiwitz Incident* was a false flag attack on the German radio station *Sender Gleiwitz* located in Upper Silesia (today Gliwice, Poland), staged by Nazi Germany on the night of 31st August 1939. Along with some two dozen similar incidents, the attack was manufactured by Germany as a *casus belli* to justify their invasion of Poland, which began the next morning. The 'attackers' posed as Polish nationals. The operation was intended to create the appearance of Polish aggression against Germany to justify the Nazi invasion of Poland.

Earthquakes and ocean warming

A new way of measuring the temperature of the seas could fill in gaps left by limited direct monitoring

Excerpted from an article by Stephanie Pappas at: https://www.scientificamerican.com/article/earthquake-sounds-could-reveal-how-quickly-the-ocean-is-warming/

There may be a new way to take the oceans' temperature: using sound. Like the atmosphere, they are warming because of climate change, and they have absorbed about 90 percent of the excess heat trapped by greenhouse gases. This alteration contributes to sea-level rise, imperils marine species and influences weather patterns.

But tracking the warming is tricky. Ship-based observations capture only snapshots in time over a minuscule portion of the seas. Satellite observations cannot penetrate very deep below the surface. The most detailed picture of ocean heat comes from Argo, a flotilla of autonomous floats that have peppered the seas since the early 2000s. These devices bob down to depths as low as 2,000 meters every 10 days, measuring temperature and other parameters. But there are only about 4,000 floats, and they cannot sample deeper parts of the oceans.

Now, scientists at the California Institute of Technology and the Chinese Academy of Sciences think they have a more widespread way to detect ocean warming. In a paper published in *Science,* the researchers compare the speeds of sounds produced by undersea earthquakes. Because sound travels faster in water when it is warmer, differences in speed can reveal changing temperatures. *"I am very impressed with the methods [the study's authors are] using and the fact that they could pull this all off,"* says Frederik Simons, a Princeton University geophysicist, who was not involved in the research. "They're opening up a whole new area of study."

Whigs and Tories laid bare

Whigs and Tories, were members of two opposing political parties or factions in England, particularly during the 18th century. Originally, "Whig" and "Tory" were terms of abuse introduced in 1679 during the heated struggle over the bill to exclude James, Duke of York (afterwards James II), from succession to the British crown.

Whig—whatever its origin in Scottish Gaelic—was a term applied to horse thieves and, later, to Scottish Presbyterians; it connoted nonconformity and rebellion and was applied to those who claimed the power of excluding the heir from the throne. Tory was an Irish term suggesting a papist outlaw and was applied to those who supported the hereditary right of James to wra the crown - despite his Roman Catholic faith.

Source: https://www.britannica.com/topic/Whig-Party-England

Music to Enjoy

"William Tell" (**contributed by Peter Nilsson**): Click here to listen to it.

Latin in small chunks: 'Nimium'

What does it mean?
Excessively, too much

Other meanings:
Too (adverb)
Excess (noun)
Superabundance (noun)
Not particularly (adverb)
Excessive (adjective)

Etymology:
Adverbial accusative of nimius (*"too great/much, excessive"*).

Eating Carrots

A Yorkshire lad had a great racing whippet - it made him a very rich man. However, as things go, the poor dog eventually died.

The heartbroken owner wanted a nice memorial for the dog and went to a jeweller and asked if he could create a model of the dog in gold.

The jeweller asked: *"do you want it 18 carat?"*
The owner replied: *"nay, lad - chewing a bone is good enough"*

(Usually, this story only works well with a Yorkshire dialect.)

Never too late - Elderly high-achievers

Excerpted from: https://www.theguardian.com/science/2021/feb/21/its-never-too-late-elderly-high-achievers Article: *It's never too late – Elderly high-achievers*. We acknowledge the Open Licence terms at: http://syndication.theguardian.com/open-licence-terms/ and the text below is Courtesy of Guardian News & Media Ltd.

You may remember **Ann Chance OBE** delivering an interesting and amusing talk at the Ladies Invitation Lunch in October 2019. When she spoke about learning to fly at age 56, the Members and the Ladies were enthralled. She finished with these words of encouragement for everyone present: *'No matter what age you are, there is always something out there you can do.'*

Joe Biden may have become US president at 78, but imagine becoming a comedian at 89 or writing your first book at 93. Or learning to fly at age 56. The Guardian (UK) talked to six senior high-flyers…

Margaret Ford, 94, author

"It's fair to say I didn't expect, aged 93, to become Britain's oldest debut author. My story is just my life, really. It never crossed my mind that anyone else might care to know more. I'd been married to my husband, Jim, for 67 years when he did the dirty and died on me seven years ago. One day not soon after I started to look through this trunk full of 630 letters we'd sent to each othe. At points during his army postings around the world he was sending me up to three a day.

It dawned on me that people these days have no idea, or don't remember, what it was like before communication became so easy… My intention was always to write about the life Jim and I had together, but everyone involved seemed more interested in my story, what I'd been through…In the end I agreed to write about everything up until our 1946 wedding. The rest, I suppose, will have to be in book number two… Frankly there was quite a lot of fuss when I finished **A Daughter's Choice**. *Lots of people wanted interviews, which was very strange. Jim wouldn't have done this… He should have written the books, so I'm doing it for him. Now I can get on with the next one, if anyone wants it. I'll be 95 in May, I'd better hurry up."*

Giuseppe Paternò, 97, graduate

"People have often asked me what advice I might have to offer. I always say the same: however old you are, don't give up on your dreams, overcoming obstacles takes hard work. But to people my own age I say this specifically: don't waste the rest of your life staring at the television screen…

"Dad declared my education over when I was 14: it was time for me to start earning. Before I knew it, my adult life had begun. By 28 I was married with children, training as a surveyor on the Italian railways. I stayed there for 42 years. My passion for learning never faltered... By the 1980s I'd retired and life had slowed down again. With more time, I started immersing myself in the culture of philosophy once more. I wrote a book, which was received positively.

"When I discussed the prospect of enrolling on a course with a professor I met by chance, he did all he could to encourage me to go. That's when I picked up the phone and called the University of Palermo. Aged 93, I enrolled on my undergraduate degree in history and philosophy. A month in, I contacted the head of the faculty. I was having doubts: everyone else on the course was so much younger than I was; there was so much technology involved I didn't understand. He told me that I must continue… Soon I didn't feel any different to the other students: I'd read and study just like them. Unlike the others, I used a typewriter to write my thesis rather than a computer. But that didn't matter, the result was the same. Three years later, six weeks before my 97th birthday, I graduated top of my class…"

Sister Madonna Buder, 90, triathlete

"Running was never something I'd considered doing. As a child in St Louis, Missouri, it wasn't an activity considered to be "for girls'. But sitting around a table at a Christian conference on the Oregon coast in the late 1970s, a visiting priest was extolling the virtues of [getting high] hot-footing around… I asked him: shouldn't our highs come from prayer? I am a nun, after all. Running, he told me, works for the mind, body and soul; that spoke to me.

"That night I slipped out of the hotel side door down to the beach in a pair of hand-me-down thin-soled tennis shoes. I set off. I covered half a mile in five minutes, without taking a stop. I ran my first marathon in the early 1980 – there were no other women in my age group to join me when I went up to receive my award. Hopefully, I said, one day there'll be a few more of us. Slowly but surely, they appeared. One of my new friends suggested I compete in an Ironman: a 2.4-mile swim followed by a 112-mile cycle, with a full-length marathon after. The more I rejected it, the more it teased me into trying. I competed in my first aged 55. To this day I've run 400 triathlons, 45 of them Ironman distance. I've become something of a celebrity in our world. It's strange, it wasn't just sports which I lacked in my life for many years, but also self-confidence…"

Lisel Heise, 101, politician

"I've been a teacher my whole working life. That was how I've expressed my politics – and engaged in my civil duty – for a very long time. It was with me from birth: my earliest memories are of my father being held as a political prisoner for standing up against the French occupation. He went on to be a city councillor in the 1930s, arrested and jailed protesting against the burning of the synagogue in town… I was elected to the council here in my small German town of Kirchheimbolanden (Kibo for short) in May 2019; I'd turned 100 two months earlier. It all just sort of happened. Teaching at several schools in the area over so many years, it's safe to say I know almost everyone…

"And the love I have for my community runs deep. The fact much of the electorate was taught by me, I'm certain helped, too… I don't know if it's because of my age, but people respected me when I spoke at meetings; discussions I led were respectful and impassioned. With decades of experience in the classroom, I'd learned to keep calm and in control. After turning 100, I feel I've done my stint – it's someone else's turn now…"

Emmanuel Gasa, 76, lawyer

"I'd already done quite a few different jobs when I set out on my new path to become an attorney at the age of 60. I'd worked as a hospital clerk, for our medical council, and – after the end of Apartheid – supporting communities within the South African National Civic Organisation (SANCO). All that time I was studying, too: a BA, a BCom followed by a higher certificate in education. I took a job in adult education in Atteridgeville, Pretoria, where I live. I'd been expecting to teach commerce and business – subjects I knew – but the man who hired me had other ideas, and wanted me to be a law tutor. I explained I'd not studied these subjects. I'd never considered becoming an attorney; I knew little about the legal world. I was told the job was mine, and that didn't matter.

"So I accepted, learning as I went. Suddenly, this new door in front of me was wide open. Becoming an attorney made so much sense. I enrolled in my law studies… It took some time for me to complete all the qualifications and training, 11 years in fact. I have six kids, and 15 grandchildren; it was sometimes hard to find the time for my books while also keeping afloat. In 2015, aged 71, I graduated alongside one of my granddaughters, which was special…

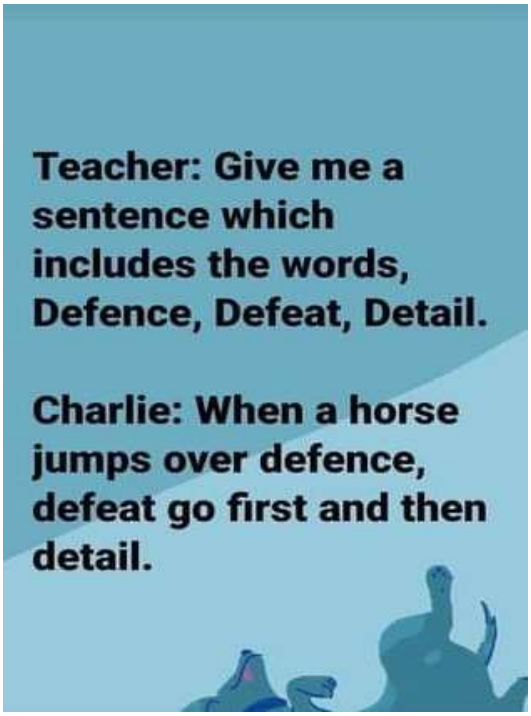
"Finding a job at my age hasn't been easy, but just as I refused to let being older get in the way of my studies, I know I'll be the same with finding future work. If nobody will hire me, that won't stop me. I'm hoping to open my own practice and that way no one can tell me no."

Natalie Levant, 89, comedian

"I was married to my husband for 55 years, although it didn't feel it. He was one of the world's good guys: an attorney with the soul of a sweet country doctor; a kind, bright uncomplicated man. And then one day in 2009, on his way to a hearing, he had a heart attack and died. I've had better days, let's just say that. I tried acting how a 77-year-old widow is supposed to. Knitting wasn't doing it for me, and I hated going to the nail salon. The prospect of cruises left me queasy. And then one day in 2012, I ended up volunteering at Siloam, a resource for people living with HIV and Aids here in Philadelphia. I was stuffing envelopes with a guy and he asked if I'd ever considered doing standup. He passed me his friend's card, who was organising an arts festival at a gay bar across town. I turned up, without a clue of what to say. Why did I go? The question is, why not?

"To this moment I can still feel the warmth that crowd gave me when I stood up in front of them, petrified. I'd prepared some material, but was not confident. I opened my mouth and it just came flowing out. I can't remember any of what I said, though. I am 89… It's an advantage, being my age… Early on, I wondered if I should perform exclusively to older folks. But it turns out while some of them get me, most don't. They don't like that I swim against the flow. There's a role you're expected to play as you get older. When you refuse to, most people my own age get uncomfortable fast. While I was worried that young people wouldn't be interested, I've found the opposite.."

Finish with a smile



A man is walking through town and spots a pub. There are signs everywhere that say *"Free beer for life!"*
He walks in and asks the barman what he has to do in order to receive free beer for life.
The barman says *"you must drink this entire gallon of Tequila, pull the tooth from an alligator out back who has a toothache, then you must go upstairs and have amourous relations with the ugliest woman to ever have lived."*

The man says *"Right, sounds easy. Hand me the Tequila."*
The man drinks the entire gallon of Tequila as quickly as he can.
When finished, he stumbles out back to the alligator.
The inside of the pub hears a ton of wild racket coming from out back.
A few minutes of this and then there's silence. The man comes stumbling back into the bar, his clothes torn up and he has quite a few cuts and bruises.

He yells out: *"Alright, now where's that lady with a toothache?!"*

Nota Bene for Musicians

p — piano, soft — the neighbours have complained.
f — forte, loud — the neighbours are out.
crescendo — getting louder — testing the neighbour's tolerance level.
ff— fortissimo —very loud, to hell with the neighbours.
pp — pianissimo, very soft— the neighbours are at the door.
Dim — thick.
Obbligato — being forced to practise.
Rit (and/or) Rall (Ritardando and Rallentando) — coming up to the bit you haven't practised.
Quaver — the feeling before a lesson when you haven't practised.
Con moto — I have a car.
Allegro —a little motor car.
Maestro — a bigger motor car.
Metronome — a person small enough to fit comfortably into a Mini.
Lento — the days leading up to Easter.
Largo — brewed in Germany, i.e. Handel's Largo.
Piu Animato — clean out the rabbit hutch.
Interval — time to meet players in the bar.
Perfect interval — when drinks are on the house.
Cantabile — singing when drunk.
Con spirito — drunk again.
Cantata — a fizzy drink.
Tutti — ice cream.
Coda — served with chipsa.
Codetta — a child's portion.
Chords — things that organists play with one finger.
Dischords — things that organists play with two fingers.
Suspended chord — for lynching the soloist.
Rubato — ointment for the musician's back.
Subdominant — I can't play until I've asked permission.
Tonic — pick-me-up.
Syncopation — a bowel condition brought on by an overdose of jazz.
Crotchet — knitting.
Key signatures — silly things put there to frighten you.
Time signatures — things for drummers to ignore.
Colla voce — this shirt is too tight.
Professional — anyone who can't hold down a steady job.
Flats — English apartments.
A tempo — in time.
A tempo de cafe — Ah, coffee time.
Improvisation — what you do when the music falls down.
Fugue — clever stuff.
Prelude — a warm up session before the clever stuff.
Acciaccatura/appoggiatura — insects.
Opus — exclamation made when Moggy has done a whoopsie on the carpet.
Scales — fishy things.
Trill — bird food.
Virtuoso — someone who can work wonders with easy-play music.
Antiphonal — crossed lines.
Melody — an ancient and extinct art in song writing.
Music — happiness.

Contributed by John Jennings