FASCINATING FACTS

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THE LADY WHO SAVED THE SPITFIRE

Fascinating Facts is a free subscription monthly private circulion e– magazine of personal , historic and military interest.
To obtain your free copy please email ray@scarletman.co.uk

Welcome to this issue of Fascinating Facts. Now retired, with a background of journalism, literature production, international pubic relations, and ex editor of a leading industry publications, I now have the time to combine my abilities and share my interests in historic facts, especially in connection with military matters. While I have written most of the articles in the Scarletman I am happy to accept ideas and contributions from readers; giving them credit for their work. The Scarletman is free issue e-magazine therefore if you would like to circulate copies further then I am happy for you to create a wider readership of those with a similar interest to mine.

In this issue In this issue In this issue

IN SUPPORT OF UKRAINE

High Flight

by John Gillespie Magee

Oh! I have slipped the surly bonds of Earth

And danced the skies on laughter-silvered wings;

Sunward I've climbed, and joined the tumbling mirth

Of sun-split clouds, – and done a hundred things

You have not dreamed of – wheeled and soared and swung

Hgh in the sunlit silence. Hov'ring there,

I've chased the shouting wind along, and flung

My eager craft through footless halls of air...

Up, up the long, delirious burning blue

I've topped the wind-swept heights with easy grace

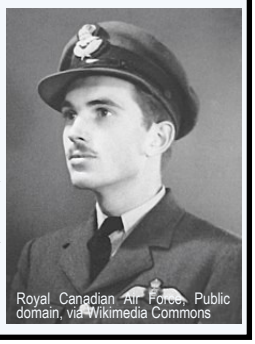
Where never lark, or ever eagle flew –

And, while with silent, lifting mind I've trod

The high untrespassed sanctity of space,

Put out my hand, and touched the face of God

John Gillespie Magee Jr., eldest of four brothers, was a World War II Anglo-American Royal Canadian Air Force fighter pilot and war poet, who wrote the sonnet "High Flight". Aged 19 he was killed in an accidental mid-air collision over England in 1941. Born in Shanghai, to an American father and a British mother he moved back to the UK with his mother and attended Rugby School, where he developed the ambition to become a poet, and won its Poetry Prize in 1938. Impressed by the school's Roll of Honour of pupils who had fallen in the First World War, which included the Edwardian poet Rupert Brooke whose writing style Magee emulated. Brooke had won the school's Poetry Prize 34 years prior.



Royal Canadian Air Force, Public domain, via Wikimedia Commons

I have always abhorred waste. If an item broke I would take it to pieces and keep all the useable bits. I had a unit of 40 small drawers which my son Nigel now has. As well as adding to it he often dips into it to find bits saying "thank you Dad" People said I was a hoarder of rubbish but as my wife Iris said "If its broke give it to Ray and no doubt he will find a way of repairing it!" So I have always felt that one of the biggest wastes was socks. This did not happen in my childhood days as holes in sock, usually all the same colour, were restitched, utilising a wooden mushroom, by darning.

DARNING-A LOST SKILL?

This skill which has all but been lost! But now a hole in one and the good one is also disposed of. Increasing the waste sock textile mountain by 50 per cent! So I decided to do some research into odd socks.

The odd sock problem is not as small a problem when one digs not the figures. A staggering 11.3 million tons of socks (compared with just 1.7 million tons in 1960) end up in landfills yearly! Making it one of the most wasteful and unnecessary item disposed of.

So what do I do? First I wear socks larger than the size I need as it is usually the big toe nail which wears the hole in the end. Fewer socks wear out on the heel. Also, as part of our uniform is black socks means that I can introduce the survivor to another survivor and create a pair as they are ambidextrous.

MULTI BILLION MARKET

But when it comes to civilian or patterned sock then I make a fashion statement of wearing 'odd socks' . Its great as I can mix any of my socks to make a mismatched pair.

According to Grand View Research, the global socks market was valued at £34 billion in 2018. The casual products segment accounted for 54.3 per cent market share, while the formal and athletics segment holds the rest. From 2019 to 2025, the athletic product is projected to expand at a compound annual growth rate of 6.7%. driven by the launch of new products from Adidas and Nike.

Based on gender, men accounted for 63.2 per cent. Part of which is attributable to a growing preference for patchy and studded products, which are now gaining acceptance in the men's segment.

A report by Global Edge noted that a total of 21,239.000 pairs of socks were made and sold in 2019, with China and the U.S. being the top revenue generator markets.

The report also stated that the average price per pair of socks would be about £1.53 but did not state whether that was wholesale or retail!

SOME 'SOCK IT TO ME ' ODD SOCK THOUGHTS

~Be the person with the fun socks
~Cute & colourful feet wrapping.
~Make your feet talked about
~Make every step more colourful
~Big feet look good in odd socks.
~Feet surprise by design change
~Wear a rainbow on your feet
~Help your feet go funky
~They're pretty feet clothes
~Add colour to your sock stock
~Embrace your quirky-sock-look
~Show love for your feet.
~Cool socks draw attention.
~Put your feet in something better
~Fun people wear fun socks
~Make your feet awesome
~Be cool if people see your socks
~Take bold steps in odd socks
~Put a little art on your feet
~Bring out your artistic foot side
~Put your feet in something new
~Odd socks say "I'm awesome"
~Your feet deserve new clothes
~Like funny T-shirts, for your feet
~Odd socks Your feet will love you
~Cool socks make YOU cool
~Where ugly toes find sweaters
~It's how confident people dress
~A warm, fuzzy feet feeling.
~For cool people with fun feet
~Caressing feet, 5 toes at a time
~How to be funky, from leg to toe
~Odd socks indicate a fun person
~Plan your outfit from bottom up
~ In odd socks your toes are not wiggling; just jumping for joy.
~Your feet work hard. They deserve to be noticed.
~Helping funky people add to their funky looks
~Like ugly sweaters, but for your feet (which are beautiful)
~Think your feet can handle this much awesome?
~Life is pretty good when you cover your feet in fun
~ Most important—reduce waste and save the planet

ODD SOCKS DAY

Few realise that Odd Socks Day marks the start of International Anti-Bullying Week in November and was supported by cBeebies, ABA patron, Andy Day and his band 'Andy and the Odd Socks'

Designed to be fun Odd Socks Day focusses on encouraging people to express themselves and celebrate their individuality and what makes us all unique! Just like odd socks! To take part no great financial outlay just wear odd socks to your school, at work of at home, it could not be simpler! In 2021 over 5 million children, 1,000's of parents, 100's of workplaces and many celebrities and influencers got involved. Ant and Dec, Emma Willis, Brian May, Craig David, Sir Mo Farah and Annamarie donned their odd socks! .

LOST SOCK MEMORIAL DAY

Closely linked to Odd Sock Day is its counter point of National Lost Sock Memorial Day in memory of lost and homeless socks.

Prehistoric socks may have been made from animal skins. The first discovered socks from woven wool, were the Danes, as based on knitted socks discovered in Jutland and dated 1,500 BC. Also stockings were found in Egyptian graves in Antinoe, dating from 500 AD. They were woven from red wool and had split toes and are on display at the Victoria and Albert Museum. Not only were socks a status symbol but the manufacturing method was a

FINGERPRINTS

Wherever a person steps, touches, or leaves, will serve as silent permanent factual evidence. It cannot be wrong or perjure itself. Only human failure to find it, study, and understand it can diminish its value.

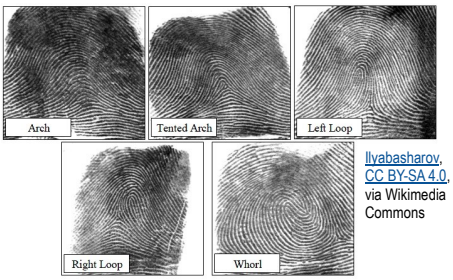
Identification by fingerprint is not new! They were used on clay tablets, seals, walls of Egyptian tombs and on Minoan, Greek, and Chinese pottery. In ancient China government documents were authenticated by fingerprints. In 200 BC fingerprints were used to sign Babylon contracts. In 650 the Chinese historian Kia Kung-Yen remarked that fingerprints could be used as a means of authentication.

HISTORIC USE

Fingerprints from 3D-scans of cuneiform tablets have been extracted. With the advent of silk and paper in China, handprints were impressed on documents. Prior to 851 BCE, Abu Zayd Hasan, witnessed Chinese merchants using fingerprints to authenticate loans.
In 1792 Babylonian king Hammurabi stated that criminals fingerprints should be recorded. Also during China's Qin Dynasty, finger, hand and foot prints were taken as evidence from a crime scene. In 1247 the Iranian physician Rashid-al-Din Hamadani stated "Experience shows that no two individuals have fingers exactly alike."

RIDGES IDENTIFIED

From the late 16th century European academics attempted to include fingerprints in scientific studies. But it was not until 1686 a professor of anatomy at the University of Bologna Marcello Malpighi identified ridges, spirals and loops in fingerprints left on surfaces. Then in 1788 a German anatomist Johann Christoph Andreas Mayer concluded that fingerprints were unique to each individual.
In 1823 Jan Evangelista Purkyne identified nine basic fingerprint patterns, as below, which modern-day forensics refer to as ridge details. In 1853 the German anatomist Georg von Meissner studied friction ridges, and in 1858 Sir William James Herschel initiated fingerprinting in India. and he registered government pensioners' fingerprints to prevent the collection of money by relatives after a pensioner's death.
In 1880 Henry Faulds, published a paper on the usefulness of fingerprints for identification and proposed recording them with printing ink. In 1886, he offered the concept to the Metropolitan Police but it was dismissed.



STATISTICAL ANALYSIS

In 1892 Francis Galton published a statistical model of fingerprint analysis and identification in his book Finger Prints. He calculated that the chance of two different individuals having the same fingerprints was about 1 in 64 billion. In the same year Argentine chief police officer, Juan Vucetich, created the first method of recording the fingerprints of individuals on file.
Possibly the first crime solved by finger prints was in that same year when Francisca Rojas was found in a house with neck injuries. Also her two sons were found with their throats cut. Rojas accused a neighbour, but despite interrogation, this neighbour would not confess to the crimes. Inspector Álvarez, a colleague of Vucetich, found a bloody mark on a door which matched Rojas right thumb print. She confessed to the murder of her sons.

CLASSIFICATION SYSTEM

In Kolkata a fingerprint Bureau was established in 1897, after the Council of the Governor General approved a committee report that fingerprints should be used for the classification of criminal records. The bureau employees Azizul Haque and Hem Chandra Bose who have been credited with the primary development of a fingerprint classification system eventually named after their supervisor, Sir Edward Richard Henry. The first person convicted on fingerprint evidence was Harry Jackson when on 27 June 1902 he stole some billiard balls from a house in Denmark Hill, London.

OTHER HUMAN IDENTIFICATION FEATURES

HAND PRINTS

For many years, the criminal justice community has relied on fingerprints to identify crime perpetrators. Advances in technology have allowed palm prints and back of the hand for identification purposes. It is estimated that 30 percent of latent prints found at crime scenes come from palms. A fingerprint can have 150 characteristics versus about 1,500 on a palm print. In a 2017 cold case review a criminal was arrested for a murder committed 5 years earlier and pleaded guilty based on palm print evidence.

EAR PRINTS

The EU Forensic Ear Identification programme which is currently working on software to statistically establish the likelihood that a particular ear print comes from a particular suspect. While never 100 per cent an ear that has a lot of individual characteristics making it very useful as evidence.

FEET PRINTS

The unique set of ridges make feet prints, as reliable as fingerprints The human footprint is a natural consequence of bipedal ambulation and stance. The foot, walking or standing, contacts the surface and creates a dynamic feet print. In the USA investigators found bloody sock-clad footprints in a motel room where Robert Kasun was murdered. They were compared to enhanced footprints created by the suspect, Travis Petersen who the jury convicted and sentenced to life without parole.

GAIT

Surveillance cameras can record the gait of the thief and by comparing that with the perpetrator's gait a forensic podiatrist is able to establish if that and the gait of the suspect is the same. As a result, the suspect can be convicted and sentenced to prison. It is claimed a 94% accuracy rate in matching a person to their stride.

HACKNEY CARRIAGES

When most people think about England, images like the Big Ben, red phone booths, double-decker buses, and black cabs spring to mind. The black taxi is a British icon as afternoon tea or Sunday roast. Of various designs over the years they have been a form of conveyance since 17th century.

While there are taxis in most towns the London back taxis are of a recognised design which millions rely on taxis to get around.

Having this photo in the family archive I naturally tracked my relationship to each uncle and aunt.

I still remember my Nan telling me that great grandad, who was a cabbie, often came home slightly the worse for alcohol on winter evenings. Not that he had been to the pub but his fare had often said "you must be cold sitting there, have a snifter from my flask"

My great grand father, with my great grandmother on his Hackney Cab. In front of the horse and cab are their four children with the one in the light dress my grandmother Laura Augusta. But no one knows who the other children are.

DRUNK IN CHARGE

While being drunk in charge of a horse was an offence no one seemed to notice he was a bit the worse for drink as the horse always brought him home! So I decided to research the Hackney Carriage which is appears was the first form of horse drawn vehicle offering taxi service based on the concept which began in the reign of Queen Elizabeth I, when wealthy Londoners struggled to keep up with the maintenance costs of horses, coaches, and drivers. To offset those costs they made their coaches available for hire by lesser members of the gentry.

THE FIRST TAXI RANK

In 1625, there were around 20 Hackney Coaches for hire, operating largely out of inns and hotels. But in 1634, a wealthy Londoner, Captain John Bailey introduced what is now regarded as the taxi rank. He owned four Hackney carriages, and charged set tariffs for travel to different areas of London. He began a system for his cabs, making drivers follow certain rules and regulations, and decorated the carriages in eye-catching designs as recognition for customers. This is arguably when they changed from a local phenomenon to a commercially minded business. Hackney carriages remained basically identical over the years until 1823 when a new, faster two wheeled carriage arrived from France. called a Cabriolet which Londoners quickly rechristened a 'cab' and 'cabbie' for the driver.

The French model was adopted in England, most prominently influencing Joseph Aloysius Hansom of York to design and patent the two-wheeled Hansom Cab.

TAXIMETERS INTRODUCED

The Hansom Cab rapidly gained popularity and began to replace the Hackney Carriage, by being more stable and speeder than its predecessor. They could be drawn by one horse improving cost-effectiveness. Another major innovation in the taxi business around this time was the introduction of taximeters, which used mechanical clockwork to measure fares based on distance.

In 1865 The Knowledge was introduced for taxi drivers to take a test which typically takes three to four years to qualify.

A MORE CONVENIENT CAB

For the passenger the Hansom cab was more convenient as it had a protective cab, folding doors to protect passengers from the elements, a roof hatch for communicating with, and paying, the driver. Also the cab driver had a lever which allowed him to open the doors for passengers. Hansom Cabs became very successful and operated in London and other cities until the introduction of motor vehicles in the early 1900s. The Bersey, named after Walter C Bersey, built in 1897 by the London Electrical Cab Company it was the first commercialisation of electric taxis in the UK. They used traction batteries suspended from springs under the vehicle. Travelling up to 12 mph and weighing 2 tonnes it could cover about 30 miles on a single full charge. Unfortunately, the cabs were expensive, heavy, and unreliable. Christened the 'Hummingbird' the vehicle quickly fell out of favour and was abandoned by 1900. Now, 123 years later we are back to electric cabs! The full circle why has it taken so long!

MANY VARIATIONS

The first examples of engine-powered cabs in London included the French Prunel, as well as British models called the Rational, Simplex, and Herald. There have been many variations and innovations of the London taxi, but the 1948 Austin FX3 is considered to have inspired the distinct style of current cabs.

Although it had many rivals, it dominated the streets of London, and so did its new and improved 1958 successor, the FX4. By 1997, London Taxis International developed the TX1 model, followed by the TX2 in 2002. These saw significantly improved interiors, allowing more passenger comfort as well as additions like digital screens. The latest variant, the TX4, will be the last of engine-powered London cabs.

THE LADY WHO SAVED THE SPITFIRE

The development of the Spitfire can be traced back to 1931, and the Schneider Trophy and, if it had not been for Lady Houston, may never have been developed. Due to the depression at that time the future of British sea planes competing in the Schneider Trophy races was in jeopardy. Therefore the British government did not see aviation competitions as financial priorities and cut off funding. Lady Houston, however, believed in the seaplane's potential after seeing models perform well in the years before. She gave over £100,000 (£5,188,925 in 2022) to ensure that her country could still participate. Engineer R. J. Mitchell, was lead designer. He used the funds wisely resulting in the S.6B model winning the 1931 Schneider Cup.

SPITFIRE DEVELOPMENT

This win led to the development of the Supermarine Spitfire single-seat fighter aircraft used by the RAF and Allied countries before, during, and after World War II. Many variants of the Spitfire were built, from the Mk 1 to the Rolls-Royce Griffon -engine Mk 24 using several wing configurations and gun configurations. It was the only British fighter produced continuously throughout the war.

Designed as a short-range, high-performance interceptor aircraft by R. J. Mitchell, chief designer at Supermarine Aviation Works. He developed the Spitfire's distinctive elliptical wing with innovative sunken rivets which had the thinnest possible cross-section, to enable it to achieve a potential top speed greater than that of several contemporary fighter aircraft, such as the Hawker Hurricane.

MAIN RAF FIGHTER

Mitchell continued to refine the design until his death in 1937, when Joseph Smith took over as chief designer, overseeing the Spitfire's many variant development. During the Battle of Britain (July–October 1940), the public perceived the Spitfire to be the main RAF fighter. In fact, the more numerous Hurricane shouldered more of the burden of resisting the Luftwaffe. Nevertheless the Spitfire was a better fighter aircraft than the Hurricane. They also had a lower attrition rate and a higher victory-to-loss ratio, probably because of the Spitfire's higher performance.

PRINCIPLE RAF FIGHTER

The Spitfire Mk. IX was the second most numerous of all variants with 5,665 units produced. It continued the trend of structural strengthening to accommodate ever higher-powered versions of the Merlin engine, as well as added fuel capacity and many detailed improvements.

After the Battle of Britain, the Spitfire superseded the Hurricane as the principal aircraft of RAF Fighter Command, and was used in the European, Mediterranean, Pacific, and Southeast Asian theatres. Much loved by its pilots, the Spitfire operated in many roles, including photo-reconnaissance, interceptor, fighter-bomber, and trainer, and it continued to do so until the 1950s. The Seafire was an aircraft carrier-based adaptation of the Spitfire, used in the Fleet Air Arm from 1942 until the mid-1950s.

STRONG AIRFRAME

The original airframe was designed to be powered by a Rolls-Royce Merlin engine producing, 1,029 hp. It was strong enough and adaptable enough to use increasingly powerful Merlins, and in later marks, Rolls-Royce Griffon engines producing up to 2,340 hp. The Spitfire's performance and capabilities improved over the course of its service life.

The Spitfire's first appearance was at RAF Hendon air display on Saturday 27 June 1936. Full-scale production was delayed due to production problems. The first production Spitfire, K9787, did not roll off the assembly line until mid-1938.

On 3 June 1936, the Air Ministry placed an order for 310 aircraft, at a cost of £1,395,000. (£78,181,724 in 2023) Full-scale production of the Spitfire began at Supermarine's facility in Woolston, but the order

Lady Houston CBE

clearly could not be completed in the 15 months promised. Supermarine was a small company, already busy building other aircraft.

WORK SUBCONTRACTED

The initial solution was to subcontract the work to outside contractors As a result of the delays in getting the Spitfire into full production, the Air Ministry put forward a plan that its production be stopped after the initial order for 310. Nevertheless the managements of Supermarine and Vickers were able to convince the Air Ministry that production problems could be overcome, and a further order was placed for 200 Spitfires on 24 March 1938.

Eventually the first production Spitfire came off the assembly line in mid-1938 and was flown by Jeffrey Quill on 15 May 1938, almost 24 months after the initial order. The final cost of the first 310 aircraft, after delays and increased #costs, came to £1,870,242 (£104,816,304 in 2023) or £1,533 (£859,326 in 2023) more per aircraft than estimated.

20,351 SPITFIRES BUILT

The oldest surviving Spitfire is a Mark 1, serial number K9942; it is preserved at the Royal Air Force Museum Cosford in Shropshire. This aircraft was the 155th built and first flew in April 1939.

Of the 20,351 Spitfires built between 1938 and 1948 there are around 240 known to exist of which around 60 are airworthy.

Spitfires are recorded as shooting down 5,988 enemy aircraft just ahead of the Mustang on 5,599

The inspiration for this article came out of personal experience. For the past six years I have had stomach problems like burping, stomach discomfort, constipation, not enjoying my meals and feeling like food pushing up. To be fair I have had every test the doctor could think of but there had never any long term let up. This never ending discomfort was mentally debilitating.

POSING THE QUESTION??

One evening I was mulling over the situation and asked myself the question—"what have I been putting into my stomach over the past six years that I did not earlier". I had tried not eating certain foods but no change. Then the thought—water! I had been drinking water from Thames Water company; when I had no problems, but when I lived in Cheltenham, it was from the Severn Trent water company.—So what was the difference in the water from the two companies?

So my first research was, from where do the two companies source their water? Over eighty per cent of the Thames Water supply to London is from two rivers, The Thames and the Lee while the remainder comes from aquifers.

Compare this with Severn Trent the vast majority of which is supplied from Wales, boreholes, sandstone and limestone aquifers and a minimal amount from rivers.

DRUG POLLUTION

So what does that mean? Further research rang the alarm bells especially the claim that 40 percent of worlds rivers could contain harmful drugs! The medicines that we are prescribed to make us well are having untold impacts on us and on nature. The chemicals which make up washing up liquid and every medication we take and everything that goes into the sewage system is present in some minor quantity in the water we consume. Added to that are other illegal drugs like cocaine! It is referred to as drug pollution, also known as pharmaceutical pollution. Our bodies only metabolise a fraction of the drugs we take. While some of the remainder is sweated out the majority is excreted through urine or faecal matter. Creams, lotions ointments and other unabsorbed medication is washed off the body and will also become part of the waste water system eventually discharged into rivers. For instance, one man's use of testosterone cream can result in enough of the hormone finishing up in the water as the natural excretions from 300 men. All this waste water in the rivers goes to the treatment works. The big problem is there is no process there which can eliminate these chemicals and drugs! So they go back into the water supply and over the years the quantity of these unwanted drugs slowly increases. Gradually poisoning those who consume the tap water!!

A SIMPLE EXAMPLE

A simple example of how human activity can pollute a river. In 2021 a study found that cocaine being excreted in the urine of Glastonbury festival goers was reaching levels known to have an impact on the health of European eels in the nearby Whitelake River.

Improper disposal of drugs, such as throwing them into landfill sites or flushing them away, allows the biologically active substances they contain to leach into the environment especially the rivers and water supply. The manufacturing process of drugs also involves significant amounts of bioactive substances released as pollution. Problem is the wastewater treatment facilities are not designed to filter out these chemicals. Therefore, pharmaceutical pollution poses a global threat to environmental and human health, as well as not meeting United Nations Sustainable Development Goals

EXCEEDING SAFE LIMITS

After entering the water through sewage systems, rainwater runoff and factory discharges, compounds including antidepressants, pain killers and antibiotics have been found to be exceeding safe limits in bodies of water around the world.

At these levels, the pharmaceuticals can have a significant impact on the health of organisms and ecosystems, causing behavioural change, hormone disruption and toxicity.

The first global assessment found 61 compounds, known as active pharmaceutical ingredients (APIs), but there are more than 1,900 which are used in human and veterinary medicine.

CAUSE OF DISEASES?

The study concluded that more research is needed to truly understand the effect these compounds are having on the health of our ecosystems, and more particularly our own health. Could they be the cause of diseases like Alzheimer's. Antibiotics leaching into the environment can also contribute to antibiotic resistance.

The most frequently detected APIs are carbamazepine, metformin, and caffeine which were detected at over half of the sites monitored. Concentrations of at least one API at 25.7% of the sampling sites were greater than concentrations considered safe for aquatic organisms, or which are of concern in terms of selection for antimicrobial resistance.

NO DRUG TESTING

The World Health Organisation (WHO) found that no water company tests for cocaine, presence of medicines, chemicals which make up washing up liquid and the 1,900 API's. No water company can filter them out of the water as the cost of such equipment is prohibitive. No home filter system will remove the API's Two such methods, reverse osmosis, and nanofiltration, have been proven to rid up to 99.99 percent of pharmaceuticals in drinking water. That's good news worth cheering for.

MOST HEAVILY FINED

In conclusion in the period 2005–13 Thames Water was the most heavily fined water company in the UK for pollution incidents, paying £842,500 for 87 events. For me since using bottled water I have not had any further stomach problems!

HOW THE HUMBLE CORNISH PASTY BECAME A WORLD WIDE PHENOMENON

Like many things the full truth of the pasty is lost in the mists of time. In Cornwall it is a virtual national institution. Nevertheless I will try to untangle some of the myths and facts. But then I leave it to you to decide.

There has always been a debate about the Cornish Pasty. A simple meal made by taking a circle of pastry, filling half with meat and vegetable, folding over, and baking. A Cornish pasty is crimped, either right handed or left handed, along the edge and the Devon pasty along the top. Both with a clump of pastry at each end.

ARSENIC POISONING

This was important as miners hands were often covered in arsenic from the mine material. The discarded crust handles were never wasted as miners believed that ghosts, or 'knockers', inhabited the mines, and the leftover crusts would be left to content the ghosts.

Some claim that the Cornish Pasty can be traced back to the 1200's. They provided the miners, fishermen and farm labourers with a simple, easily carried, nutritious and easily eaten meal. To make them individual housewives often made one for each member of the family marking their initials on the pastry clump at the end of the pasty. This clump also enabled the men to hold the pasty with dirty hands. The miners often heated their pasty in a tin bucket, or on a shovel, over a candle.

DOUBLE ENDED PASTY

Often pasties were made with different fillings at each end. One end containing meat and vegetables, and the other with a sweet filling. The sweet end being marked so the miners knew what part to eat first. .

The traditional Cornish pasty, which, since 2011, has had Protected Geographical Indication (PGI) status in Europe, is filled with beef, sliced or diced potato, swede (also known as yellow turnip or rutabaga – referred to in Cornwall and other parts of the West Country as turnip) and onion, seasoned with salt and pepper, and baked. A pasty was known as a "tiddy oggy" when steak was replaced with an extra potato, "tiddy" meaning potato and "oggy" meaning pasty for when times were hard and expensive meat could not be afforded.

Stained Glass window at Truro Cathedral, c.1907, Public domain, via Wikimedia Commons

Saint Piran or Pyran who died c. 480 was a 5th century Cornish abbot and saint. Regarded as the patron saint of tin-miners, he is also generally regarded as the patron saint of Cornwall, along with Saint Michael and Saint Petroc. His flag is a white cross on a black background, traditionally the emblem of the Cornish tin miners and the Cornish national flag. His Saint day is the 5th March.

NATIONAL PASTIES

Pasties resemble turnovers from many other cuisines and cultures

Bridie – Scottish equivalent
Calzone -Italian folded pizza
Panzerotti – smaller than a calzone
Cholera Swiss savoury cheese pasty
Chiburekki – National Crimean dish popular with the Tartars in the Balkans, Caucasus, and Central Asia
Coventry Godcakes – originated in the city of Coventry, England
Empanada – Spanish equivalent
Fleischkuekle – German-Russian meat pie
Hot Pockets – well-known American microwavable convenience brand
Kibinai - similar pasties (though smaller) in Lithuania
Knish – an Eastern European and Ashkenazi Jewish pastry
Meat pie Australia and New Zealand
Natchitoches - Louisiana meat pie
Pirozhki – Russian equivalent
Samsa - Central Asian equivalent
Samosa – similar South Asia dish
Shaobing in China

WORLD PASTY COMPETITIONS

World Pasty Championships – annually at Eden Project Cornwall
International Pasty Festival – annually in Real del Monte, Hidalgo Mexico
Australia - Cornish Kernewek Lowender festival.

CORNWALL PASTY FACTS

⇒ Approx 120 million pasties made annually in Cornwall
⇒ Pasties generate £300 million of trade for Cornwall
⇒ 2000 people employed making pasties in Cornwall
⇒ £15 million paid to Cornish farmers for ingredients
⇒ A skilled crimper will crimp 4 pasties per minute
⇒ Chilled or frozen exported worldwide from Cornwall
⇒ Should contain 12.5% beef and 25% vegetables
⇒ Cornish Pasties can be either right or left hand crimped

OGGY OGGY OGGY OI OI OI

The word "oggy" in the popular chant "Oggy Oggy Oggy, Oi Oi Oi" is thought to stem from Cornish dialect "hoggan", deriving from "hogen" the Cornish word for pasty. When the pasties were ready for eating, the women would supposedly shout down the shaft "Oggy Oggy Oggy" and the miners would reply "Oi Oi Oi".

The English word "pasty" is said to derive from Medieval French 'pâté avec de la viande et des legumes' for a venison filled pie.

It is thought that between 1815 and 1920 around 250,000 people left Cornwall to work in mines abroad as well as mines in the northeast of England, north Wales, Scotland and Ireland.

A DECLINING INDUSTRY

At one time Cornwall had nearly 2,000 flourishing tin mines, but by the 1880's tin mining had become a rapidly declining industry. At this time, Cornish miners emigrated to other parts of the world such as Michigan's Upper Peninsular, Pachuca, located less than two hours' drive from Mexico City, and Australia to mine copper and they took the eating of pasties with them.

Warrens Bakery, with 40 branches is the worlds oldest pasty maker founded 160 years ago.

THE MYSTERY OF THE ROMAN DODECAHEDRON

There are many secrets from ancient civilisations which are a total mystery to us in our highly technical world. From the way the ancient Egyptians built the pyramids where a stone blocked had to be placed in position every 5 minutes! How they carved such beautiful objects in granite without metal tools and we would have difficulty of doing so with all our modern equipment. One of the particular mysteries relates to the ancient Roman civilisation that even over 300 years no one has been able to fathom. All the scrutiny by many learned people and no one has been able to state the use of the Roman dodecahedron. Historians and archaeologists continue their pursuit, to discover the use of an artifact that is both perplexing and revealing.

Gallo-Roman Museum, CC0, via Wikimedia Commons

MYSTERIOUS OBJECT

One such mysterious object is the Roman dodecahedron. A hollow bronze decahedral shape object with twelve flat pentagonal faces, each with a varying sized hole in each face While no one can work out its use there are a few hypotheses since its first discovery more than 300 years ago.

The first dodecahedron was discovered in 1739 by a local historian in Aston, Hertfordshire and in his report to the Society of Antiquaries, he described the object as "a piece of mixed metal, or ancient brass, consisting of 12 equal sides." The strange discovery had all antiquarians in a fix, but there was yet more coming their way. Each subsequently discovered dodecahedron was different both in size and the material from which it was made. Most dodecahedron's vary between four and 11 centimeters in size and 35 and 580 grams in weight. Each of the pentagonal surfaces contain a hole, but the sizes of these holes almost always vary—within a each dodecahedron as well as among various ones. They rarely show signs of wear, and do not have any inscribed numbers or letters. Each of the five vertices has a globular knob, which makes it seem more like an interesting dice.

MANY EXCAVATED

By 2016, dodecahedra have been excavated in Netherlands Belgium, Croatia, France, Germany, Great-Britain, Hungary, Luxemburg, and Switzerland, with the northernmost discovery was made at Hadrian's Wall. The southernmost was at Arles in France. A single sample made of a silver was found in Geneva. While no dodecahedron has been found in the eastern Roman empire, those found in the western region date back to the second, third and fourth century AD. The randomness of their locations as well as the lack of written context has perplexed historians further. In 1987 Brian Campbell found a dodecahedron in his garden. Others have been dug up in sites which were Roman military camps, temples and public baths. Some have been found in theatres and tombs, even among heaps of discarded coins. Many have been found in antique stores which makes it difficult to trace their origin. Some were adorned with designs but never letters or numbers that could provide a clue to their use. Only two dodecahedra have been found in controlled scientific excavations. One of these sites was possibly a shop that sold precious metal wares, confirming the probability that the strange object was a precious one.

MEASURING DEVICE

Over 200 historians have proposed more than 50 possible uses of the Roman dodecahedron. A dated assumption is that the object was a weapon akin to a mace. More recently, historians are calling it a measuring device. The dodecahedra are mostly found in the ancient Gallo-Roman lands where the Roman civilisation overlaid the Celtic civilisation. In that context, the 12 pentagonal sides could have a cosmic relevance. Soothsaying and astrology would have been nearly impossible with the device though, as the knobs would make it impossible to roll them over and the walls bear no inscriptions to decipher as such. It is possible that they were used for astronomical calculations with the sun shining through the holes at various times of the day. Dutch researcher Sjra Wagemans compared it to the icosahedron—a 20-faced convex polyhedron—which served a similar purpose. Wagemans has proven through various estimates that some dodecahedra could be used to determine the best time to plant winter grain in northern Europe.

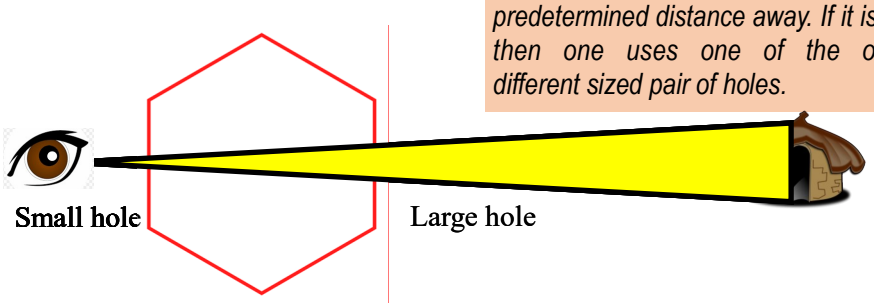
Remnants of wax has been found stuck to various dodecahedra. Could this allude to their use as candlestick holders? Probably not, because the remnants could be the remains of their maker moulds. Moreover, a common object such as a candlestick holder ought to be discovered in more numbers and more common regions such as Italy. But the known use of the dodecahedra has remained elusive in most regions of the ancient empire.

MANY ASSUMPTIONS

Other esoteric groups and lobbyists have suggested creative uses for the object from crocheting to decoration. But none of these hold much fortitude in their arguments. Could it be a toy. A final assumption remains that the object was sacred and important to religious practice. The one found in the Idaean Cave (Crete) was made of rock crystal, and on its twelve faces Greek characters have been found instead of holes. Despite the treasure of modern knowledge we have found it difficult to ascertain the use of this 2,000-year-old artifact. Maybe, at some point, a deeper scrutiny and free-reigning imagination will reveal the secrets of this little device that has become one of the greatest mysteries of archaeology.

AS A MEASURING DEVICE

The hole one looks through on one side is smaller than that of the one on the opposite side. Therefore if one looks through the small hole and lines it up with the larger hole and the item being checked visually fills that hole one can deduce that distance is the same as the predetermined distance away. If it is not then one uses one of the other different sized pair of holes.



HOBART'S FUNNIES

AVRE (Assault Vehicle Royal Engineers): was a Churchill tank adapted to attack German defensive fortifications. The majority of the designs were modified forms of the Churchill or the Sherman tank as both were available in large numbers. While the Churchill had good (though slow) cross-country performance, heavy armour, and a roomy interior, the Sherman was mechanicaly reliable. They were highly valued and produced in many variations.

Hobart's Funnies was the nickname given to a number of specialist armoured fighting vehicles derived from tanks operated during the Second World War by units of the 79th Armoured Division of the British Army, or by specialists from the Royal Engineers. Designed to overcome some of the problems standard tanks experienced during the amphibious Dieppe Raid and the planned invasion of Normandy. Forerunners of the modern combat engineering vehicle they took their nickname from the 79th Division's commander, Major General Percy Hobart. Born in Naini Tal, British India, he graduated from the Royal Military Academy, Woolwich in 1904 and was commissioned into the Royal Engineers. At Staff College in 1920, he foresaw the predominance of tank warfare and transferred to the Royal Tank Corps. In 1934, he became brigadier of the first permanent armoured brigade in Britain and Inspector, Royal Tank Corps. He was later made Director of Military Training.

War Office official photographerPost-Work: User:W.wolny, Public domain, via Wikimedia Commons

CHURCHILL CROCODILE

A Churchill tank modified with a flame-thrower in place of the hull machine gun. An armoured trailer, held 400 gallons of fuel. With a range of over 120 yards regarded more as a psychological weapon.

USArmy, Public domain, via Wikimedia Commons

CHURCHILL DOUBLE ONION

This tank enabled two large demolition charges on a metal frame to be placed against a surface and detonated from a safe distance. The tank could place demolition charges at heights up to 12 feet. Driven against a wall, the framework was lowered into the ground against the object. The tank then reversed 100 feet paying out an electric detonating cable. The explosives were then detonated by the tank driver. It was the successor to the single-charge device Carrot Tank. Other names were Jones Onion Tank while a large one was called the Goat Tank.

CHURCHILL AVRE FASCINE

A bundle of wooden poles or rough brushwood lashed together with wires carried in front of the tank enabled it to fill a ditch or form a step. Metal pipes in the centre of the fascine permitted water to flow through.

Dawson (Sgt), War Office official photographer, Public domain, via Wikimedia Commons

CENTAUR BULLDOZER:

A Centaur tank with the turret removed and fitted with a simple winch-operated bulldozer blade. These were produced due to a requirement for a well-armoured obstacle-clearing vehicle that, unlike a conventional bulldozer, would be fast enough to keep up with tank formations. Not used on D-Day they were used by the 79th Armoured Division in Belgium during the latter part of 1944.

Not stated, official photograph , Public domain, via Wikimedia Commons

Photographer unidentified. "Official photograph".Post-Work: User:W.wolny, Public domain, via Wikimedia Commons

THE CHURCHILL ARK

An ARK (Armoured Ramp Carrier) was a Churchill tank without a turret and extendable ramps at each end. This created an even surface over which other vehicles could drive. Also to scale obstacles, effectively functioning as a mobile bridge. The photograph below illustrates its operational capability.

Brown (Sgt), War Office official photographerPost-Work: User:W.wolny, Public domain, via Wikimedia Commons

Laing (Sgt), War Office official photographerPost-Work: User:W.wolny, Public domain, via Wikimedia Commons

THE CHURCHILL AVRE BOBBIN

This tank carried a reel of 10-foot (3.0 m) wide canvas reinforced with steel poles on front and unrolled onto the ground to form a path, so following vehicles (and the deploying vehicle itself) would not sink into the soft ground of the beaches during amphibious landing.