AUTUMN/WINTER 2025 ISSUE #16

BULB MAGAZINE

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Portrait de Florence
© Matis Leggiadro

FREE

Art, Culture,
Science and **More**...

WELCOME to BULB Magazine # 16. We are pleased to continue with our commitment to producing a free journal for the interest and entertainment of everyone who wishes to look at it. We have been fortunate to have contributions from talented writers and artists, we take care to include original pieces of writing, artwork & thinking. We now have a new website (see below). It will feature the current issue and all previous issues. Thank you to all our contributors and readers.

Cathy Bell (editor). View all issues of **BULB Magazine** at www.readbulbmag.com

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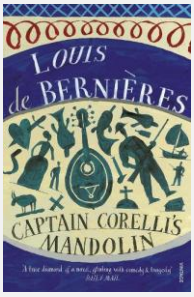

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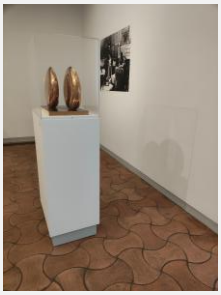

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Cover Image – Matis Leggiadro

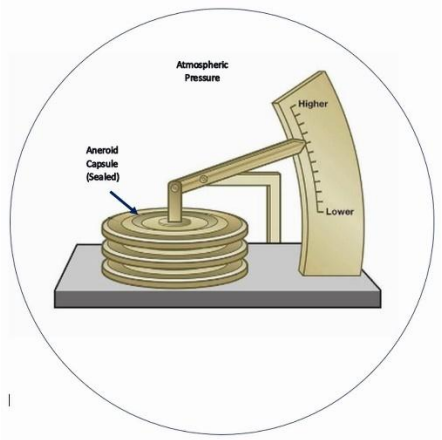
FEATURES

READY FOR TAKE-OFF – PART TWO: FLYING AT ALTITUDE

Previously we looked at a brief history of aviation and the wing / flap characteristics which created lift to get our aircraft into the air and maintain sustainable flight.

Once the aircraft is airborne, the pilot has to control the direction and altitude of the aircraft in order to efficiently and safely reach their destination. In this section we will look at how the pilot determines the aircraft altitude and the international standard of measuring altitude.

Once airborne, all aircraft must be able to maintain accurate altitude and position in relation to other aircraft so they can maintain safe vertical separation distances. The barometric altimeter is one instrument used to measure altitude. This is a mechanical device which makes use of the principle that air pressure decreases as altitude increases.



This instrument uses a sealed aneroid (Containing no liquid) capsule connected through linkages to a pointer to indicate a value against a calibrated scale.

As the atmospheric pressure decreases outside the capsule, the capsule expands. The expanding capsule moves the pointer downwards indicating the external atmospheric pressure is decreasing. When atmospheric pressure increases, the capsule contracts, the pointer moves up and indicates an increase in external pressure. The altimeter in the cockpit is connected by pipework to the outside of the aircraft to constantly measure atmospheric pressure.

There are three-pointers on the altimeter one for each of the values for 100, 1000, and 10,000-feet levels. The small control knob on the bottom left is used to adjust the altimeter atmospheric pressure reading for different flight datum references.

Other Altimeters used

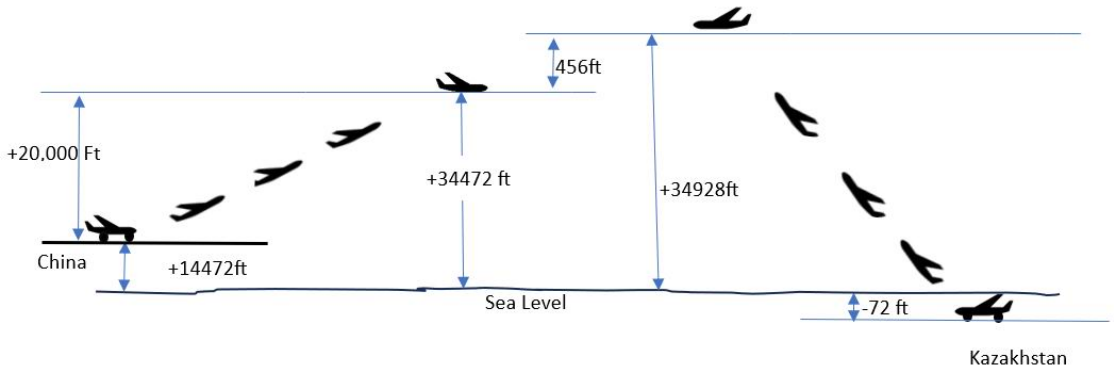
- **Radio Altimeter**
- **Laser Altimeter**
- **GPS – Global positioning satellite**
- **Sonic altimeter**

Airfields around the world are at different altitudes and any aircraft parked at an airfield may calibrate their altimeters to indicate 0 feet at the location where the aircraft is on the ground. This creates a problem once airborne as aircraft altitude readings will be in relation to the starting point. i.e.: on the ground at zero feet.

Example below: The Chinese airfield is 14472 ft above mean sea level (The highest in the world) and the Kazakhstan airfield is 72 ft below mean sea level (The Lowest in the world). Both aircraft altimeters would read zero feet when they are on the ground and the altimeter is adjusted with the atmospheric pressure at airfield level.

After take-off, the Chinese aircraft climbs to 20,000 feet and the Kazakhstan aircraft to 35,000 feet, we would expect a 15000 feet vertical separation.

If both altimeters started at 0 feet on the runway and climbed to height indicated, vertical separation would actually be 456 feet which is lower than the minimum requirement of 1000 feet separation.



To overcome this situation, Standard atmospheric pressure datums are adopted in the form of Q codes which allow for adjustments to altimeters during various stages of the flight to ensure accurate altitudes and vertical separations are maintained around the world.

The three specific "Q" codes adopted for aviation are, **QFE, QNE and QNH**.

The "Q" has no official meaning however sometimes may be referred to as Query or Question.

Aviation Q-Codes

QFE - (Field Elevation) This is measured as the atmospheric pressure at the airfield and is equivalent to the airfield elevation **i.e.** the height of the airfield above sea level. If the QFE value, obtained from air traffic locally, is set on the altimeter on the ground at the airport, the altimeter would read zero.

The pilot altitude after take-off would now be referenced to the ground level, i.e. the runway they have just taken off from.

QFE may also be requested as the aircraft is approaching the airfield, usually when the airfield is in sight, so the altimeter can once again be reset to reflect the referencing of the aircraft's height above the runway during the approach and landing.

Not every airport will use the QFE setting as they may use the QNH (local area atmospheric pressure).

QNH (Nautical Height) – When set on the altimeter will indicate the altitude of the aircraft above mean sea level and is local to the area as it is derived from the current local sea level atmospheric pressures. QNH varies between locations and the value must be requested from local air traffic stations to ensure all aircraft at the location are using the same datum for the area. If using QNH on landing, the altimeter will read the altitude of the airfield above mean sea level on landing.

With all aircraft in a local area using the same QNH value, they can all be confident the altitudes reported by other aircraft are accurate and vertical separations can be maintained at a safe level.

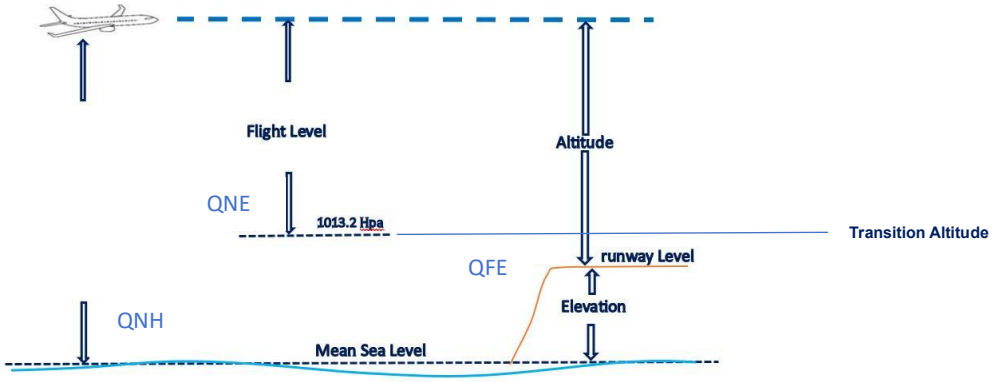
QNH will be set for take-off so altitude referenced from mean sea level are established before take-off. If using QNH on landing, the pilot must remember the landing pattern and landing altitudes for that particular airport as on touch down the altimeter will read the altitude of the airport above mean sea level and not zero.

QNE (Nautical Elevation) – This setting uses an international standard setting of 1013.25 Hectopascals (1013.25 millibars or 29.92 inches of mercury) and is applicable above the transitioning altitude. When

altimeters are recalibrated to this value, it will ensure all aircraft operating in the flight level zones will all be using the same standard settings on their altimeters and therefore maintain an accurate vertical separation between all aircraft in the zone.

This setting will be inputted when the aircraft passes the transition altitude.

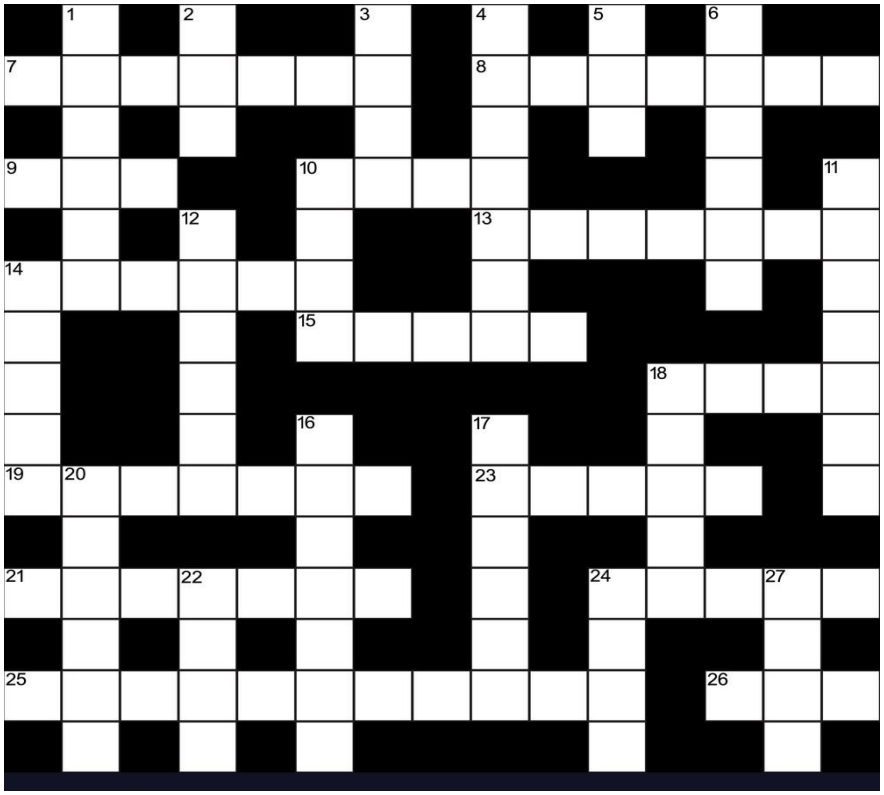
The graphs below show the air pressure reference points for each of the Q Codes.



By adopting these international codes, we can all be confident the aircraft can climb, transit and descent in a safe operating environment where vertical separation of aircraft should always be a minimum of 1000 feet and ensure the accuracy of all altitudes reported by pilots.

In part three, we will look at the flying control surfaces that help the aircraft change direction climb and descend.

BULB CROSSWORD #16 (Solutions on page 11)



Clues Across:

7. Record or take by force (7)
8. Refer to briefly (7)
9. Request answer (3)
10. Object, person, place? (4)
13. Pastis ingredient (7)
14. Bring in (6)
15. Exceed or outdo (5)
18. Way out? (4) 19. What's left over is mostly deaths (7)
21. Drawings used in books? (7) 23. The best! (5)
24. Moray town (5)
25. A Person's quality of character (11) 26. Small mouthful of liquid (3)

Clues Down: 1.Demand money in manors? (6) 2. Greek letter (3) 3. Verne's captain (4) 4. Originate from (7) 5. Stop, finish (3) 6. Male title (6) 10. Short written message (4) 11. Made suitable (7) 12. Start of morning coupled with flower for gloomy feeling (6) 14. Contribution? (5) 16. Location found in PC (7) 17. Constellation (6) 18. Bit more? (5) 20. Action deserving medal (6) 22. Clean (4) 24. Very small technology (4) 27. Precipitation (4)

CHAPTER 2 – A SHEEP IN SHEEP'S CLOTHING

It is possible to trace Hirst's use of animals as a subject matter back to early man, the earliest known figurative visual art reveals a preoccupation by the cave-men artists to depict the animal life around them. However, these pre-historic artists might have been more inclined to view the beasts as dinner rather than ponder over whether they were biologically related to them. Nevertheless, the animal interest in Hirst's art is as old as art itself, man and animal have existed side by side for an exceptionally long period of time.

Having noted this, however, I want to travel forward in time from these pre-historic days to the eighteenth-century, to a time just prior to Charles Darwin's theories, but still a time of tremendous intellectual and scientific endeavour. It was in this environment that the artist and poet William Blake produced his powerful and mystical religious writing and paintings which seemed to run contrary to the Age of Reason. Blake was a visionary who displayed a sense of religious fervour which was irrational, yet questioning. These, however, were not questioning in an empirical sense although he still sought answers. This is particularly noticeable in Blake's literature, for example, his poem The Tyger reveals an intense desire to understand God's creation (if it is God's creation) through the observation of animals. He writes –

Tyger! Tyger! burning bright

In the forests of the night,

What immortal hand or eye

Could frame thy fearful symmetry?

However, Blake's observation is not scientific or empirical, rather he engages with the unfathomable nature of other species questioning the relationship between man, animal and creator. The poem, like Hirst's art, is popular being taught line by line to school children it has somehow become a verbal icon in a similar way that many images become visual icons. One such visual icon of the present time is the shark piece by Hirst entitled The Physical Impossibility of Death in the Mind of Someone Living (Fig 2). When confronted with this piece it is difficult not to connect it with Blake's Tyger poem. Hirst has claimed on occasion that his titles are deliberately misleading, of the shark piece he has said that he hopes that "at first glance the shark will look alive". This betrays a contradiction of the title since, if the viewer were imagining the shark to be alive, the title would lose its relevance. What seems overwhelming about the piece is not so much the incomprehensibility of death (which is still an issue but, in some way a side-issue) as the incomprehensibility, from the perspective of a human being, of this creature. The piece could almost be renamed The Impossibility of Being a Shark in the Mind of a Human Being. This leads back to Blake's Tyger and who created him since Hirst's piece also delves into the mystery of creation. It seems an interesting coincidence that the species of shark used in the sculpture is a tiger shark. It is known that Hirst was particularly interested in a stuffed tiger which he allegedly spent hours staring at in the Leeds Natural History Museum (while an art student). Obviously, he would not have been able to use a real tiger since they are an endangered species so perhaps a tiger shark was a compromise which, nevertheless, has worked wonderfully. This might seem like speculation, and it is, I have no idea whether the shark piece was inspired by Blake's poem. However, I am aware of the personal response I have towards the piece. This is an inexplicable detachment about imagining myself as a shark and the alienness of such an experience. The

resulting uneasiness is akin to standing in front of a painting by Francis Bacon. You know something unpleasant lurks there, it is like an itch you are unable to scratch, something psychologically disturbing in an inexplicable way. Blake vividly describes the alienness of such a wild and fearful creature and agonises over how it came into being. Was God responsible for its creation, he asks, "what immortal hand or eye could frame thy fearful symmetry"? In his shark piece Hirst echoes Blake's question and calls on the viewer to examine their relationship with animals (other species) in a manner that seems to reach people at a subconscious level. It seems that he has asked himself the same questions on many occasions and felt the same experience. His intention seems to be to communicate a feeling to others which is almost too remote to put into words . However, Blake managed to do quite a good job in his poem , he makes us aware that he is experiencing very human doubts, like Hirst he throws out questions such as " who made such an alien creature as you" and "am I related to you"? Before Charles Darwin's Theory of Evolution Blake was asking related questions and looking for answers "did he who made the lamb make you" he asks the Tyger. A century later those affected by Darwin's theory were taking the question a step further asking "did he who made the lamb make thee – and me"? It is almost as if Hirst is visually answering Blake's poetic question. By creating a shark piece (which I identify with Blake's tyger) by becoming the creator of tiger shark and a sheep piece Away From the Flock (image in part 1, Fig 3) Hirst seems to be answering in the affirmative by becoming the creator (or the re-creator) of both the savage, alien shark and the docile, familiar sheep he artfully evokes the different essential nature of each creature. Hirst is still asking and seeking to provide answers to these questions today as we go into the twenty-first century as are many others. It is an issue that will tax the intellect for generations to come.

Before considering modern opinions, however, it is important to look at those late-Victorians who were reeling from the effects of Darwin's research while also wrestling with their religious conviction in the light of the scientific challenge to their view of the creation of the universe. The Victorian age was a particularly religious period, or maybe pious would serve as a more accurate description. Whatever the case, it was difficult for those with strong religious beliefs to accept that God did not create the universe and it was, in fact, an accidental occurrence. Without going into too much historical detail, I would like to introduce the artistic group from this period known as The Pre Raphaelite Brotherhood into the discussion. The PRB laid great emphasis on getting as close to nature as possible. In their view, this meant painstakingly painting every minute detail of what they saw before them in order to achieve true communion with nature and the creator of that natural world, to them it was a religious quest. I would only liken Hirst to one of these painters William Holman Hunt (who remained a PRB to the end). Hunt stands out from the other artists associated with the PRB by virtue of the genuine intensity of his vision and religious conviction. Although he has often been derided (along with the others) as sentimental and over-zealous, he seems to be a prime example of a deep-thinking individual trying to come to terms with his faith in a changing world, a world which has witnessed the ground being pulled from under the feet of those who felt secure in their beliefs. How then does Holman Hunt relate to Hirst? Again I come back to Blake's lamb (which seems to him so much the antithesis of the tyger) which was a subject occasionally used by the PRB artists. However, the creatures portrayed in Ford Maddox Brown's Pretty Baa Lambs (Fig 4) bear little resemblance to the lambs Hunt portrays in his painting The Hireling Shepherd (Fig 5). Maddox Brown glosses over the doubts , presenting man in harmony with nature, these lambs are cute and fluffy; they are part of the happy family portrayed . In other words a quiet acceptance that man and animal are united through God. By contrast Hunt's lambs are out of control, they stray out of the field, eat green apples and throw up, in other words they are a problem. The human protagonists are shown integrated with the animals unlike Maddox Brown's figures who exude gentility and are physically separated from the animals. The shepherd and his wench in Hunt's painting come across as course and uncouth specimens of human kind, that is, they are closer in nature to the animals and the behaviour they display. Some interpretations of Hunt's painting suggest that he is using the animals to symbolise the state of affairs within The Church of England in that there was an increase in unorthodox behaviour, it has been viewed as an evangelical image. This may be true, however,

the way in which Hunt has used the lambs as a metaphor for bad behaviour is interesting. This painting suggests that he has not come to terms with Darwin's findings, he is reacting against such ideas suggesting if man admits to being related to animals the consequences will be chaotic. That is, humans will be brought down to the level of the beasts in the field.

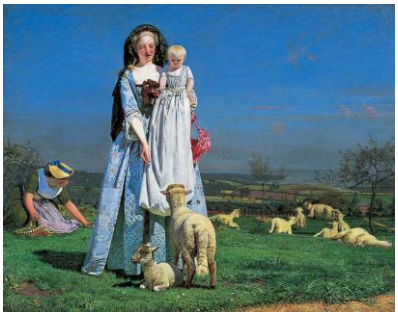


Fig. 4

Fig. 5

Fig. 6

In a later painting Strayed Sheep (Our English Coasts) (Fig 6), Hunt portrays sheep, in a stunningly realistic style, wandering beside the cliffs on the coast of England. It is a strange painting which does not seem to relate to anything, Delacroix is said to have been astounded by Hunt's sheep and there is no doubt that they are extremely naturalistically rendered. However, they do not seem to appear as problematic in Hunt's view in this case and (apart from the demon-eyed black sheep) it is a rather bland and neutral statement which seems to suggest he is coming to terms with the animals. Nevertheless, it is in his superb painting The Scapegoat (image in part 3) that Hunt truly comes to terms with the human/animal relationship. He took great pains with this work in which he depicted an animal from a biblical tale whose fate was to be sent out into the wilderness as a sacrifice (a scapegoat as the title suggests). Hunt was almost obsessed by this image, he endured discomfort and danger in order to capture the beast in its authentic habitat beside the Dead Sea in the Holy Land. I find this painting moving since it seems to show Hunt eventually coming to terms with his internal struggle and thereby reconciling his reaction against the idea that man and animals are related with his faith and belief in the biblical version of creation. In The Scapegoat Hunt captures the beautifully pathetic relationship between humans and animals , how man has mistreated animals and how he has come to understand that all God's creations are deserving of respect. The face of the animal is one of the saddest images in the history of painting, the painting itself is an apology – it's purpose is to vindicate the human race for regarding animals as inferior. "I am sorry" it seems to say, "I did not know that you were one of my own kind". Hunt's painting is significant in this respect because it retains his religious convictions yet, at the same time, it acknowledges scientific findings.

The sentiment of the sculpture by Hirst entitled Away From the Flock (mentioned previously), could be seen to embody the three stages of what I regard as Hunt's transition to acceptance of the evolution theory. The title of this piece echoes Hunt's The Hireling Shepherd since it presents the sheep as something apart, a different species, not human. It is also reminiscent of Strayed Sheep (Our English Coasts) in that it presents the animal in a bland, matter-of-fact way which neither disputes nor confirms anything regarding views on the human/animal relationship. However, at another level, Hirst's piece evokes the pathos of The Scapegoat and the viewer is encouraged to empathise with the beast. It is a fairly domestic, intimate sculpture when compared to the shark piece, for example. The comparison of the faces of the animals in The Scapegoat and Away From the Flock reveals an uncanny similarity in the expression of suffering in each, they also might be said to produce a similar response from the viewer, that of a combination of shame and absolution. However, Hirst's shark piece is quite a different tank of fish. Formally it is massive and awe-inspiring, there is a less discernible relationship between the animal and the spectator than in Away From

the Flock whose size and format almost enables the viewer to pat the animal on the head. Not so much with the tiger shark, he is kept at a distance, intimate contact is not possible nor does it feel desirable or comfortable.

UPDATE: YOUNG'S DOULBLE SLIT EXPERIMENT

Can the future influence the past? Why does the quantum world behave so strangely?

In 1666, Isaac Newton conducted a series of experiments on light, concluding that light was made up of streams of tiny particles. A little later, in 1678, the Dutch scientist Christiaan Huygens, suggested that light also behaves like a wave, however, because of Newton's notoriety, most scientists stuck with Newton's corpuscular theory of light.

This remained the case until 1801 when Englishman Thomas Young performed what has become one of the most famous of all physics experiments and one that is today relatively easy to repeat – Young's Double Slit Experiment.

The experiment is simple and the basic set-up is shown below.

Coherent light source*

**Constant phase relationship and frequencies – allows interference to take place*

Metal plate

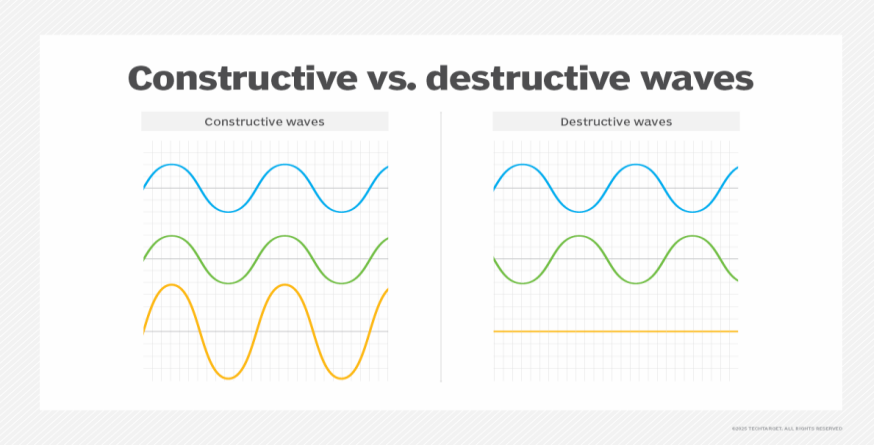
With two slits

Screen

Screen when rotated through 90 degrees

Brightness reduces away from centre.

The pattern on the screen shows a series of light patches separated by darkness. Young's explanation is that as light emerges through both slits, two separate waves are produced; of the same frequency and in-phase (peaks and troughs occurring at the same time). As they move towards the screen the two waves criss-cross resulting in what is known as interference. To see this effect, simply drop two stones into water at the same time and watch as the waves move away from their point of origin and eventually come together. You should see that some parts of the resultant wave are higher than the height produced by any single wave. In the experiment above, albeit using light instead of water, the white pattern on the screen is produced in the same way, that is, when two wave peaks coincide. This is shown below.



So Young had shown that light was in fact a wave and in the 19th Century, James Clerk Maxwell, added that it was an electro-magnetic wave.

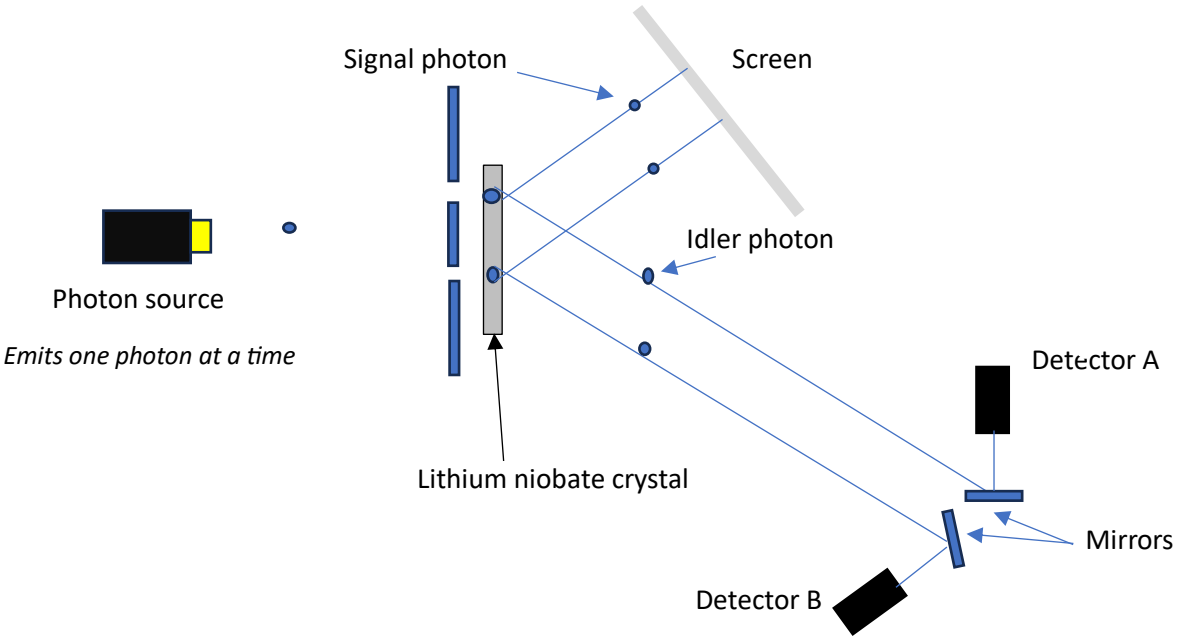
Moving forward another hundred years and two very famous physicists produce experimental results at odds with light as just a wave. Firstly, Max Planck, on observing radiation emitted by a black body (a body that emits the maximum amount of energy based on its temperature, sometimes a black box with a very small hole), found that the radiation was emitted in discrete energy packets or quanta. The amount of energy emitted was in direct proportion to the frequency of radiation, i.e. higher frequencies are more energetic than lower ones and the spectra of frequencies was continuous based on the temperature.

Next was Albert Einstein. Einstein was able to show that the photo-electric effect (light to electrical current) can only be explained by the assumption that light is made up of small particles. The process relies on electrons gaining energy from light particles, or photons, which enables the electron to overcome its binding force thus producing an electrical current.

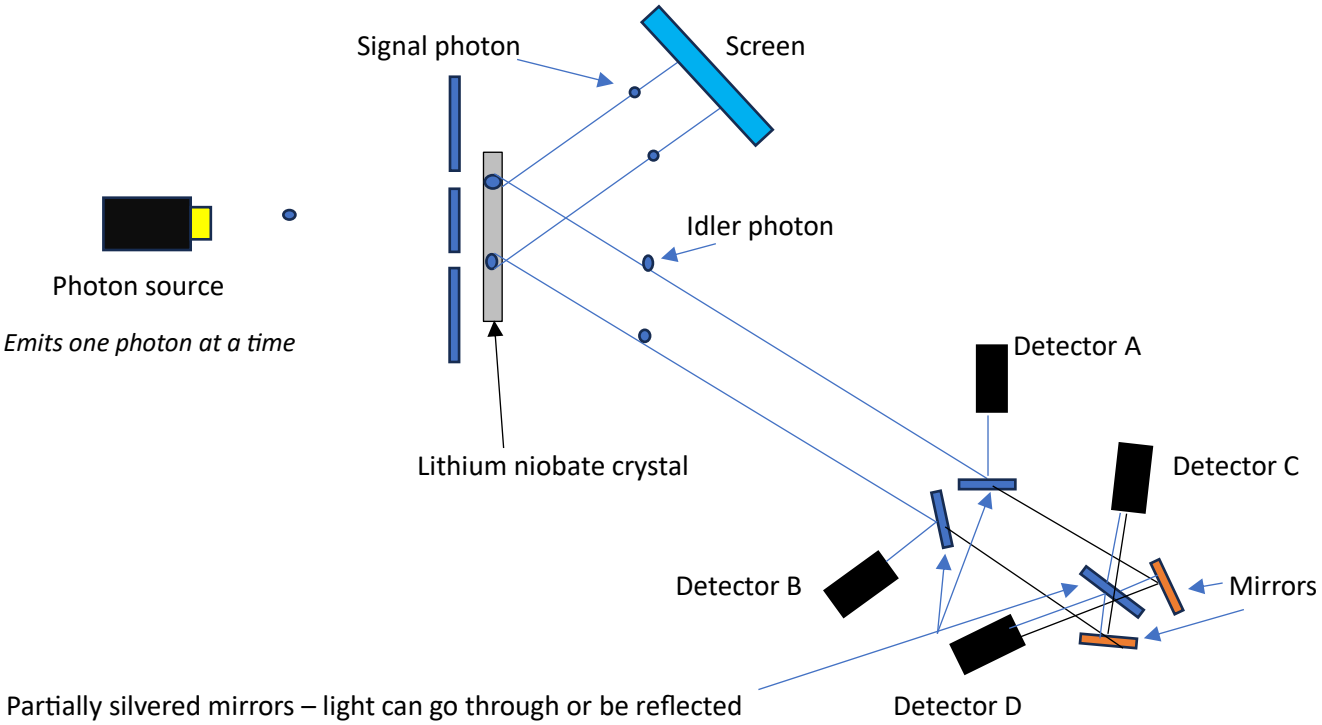
Light then, was now seemingly particle and wave, appearing as either depending on your experiment. All seemed well until, in 1924, Frenchman Louis de Broglie postulated whether matter also has the same duality.

The same experiment was repeated in 1961 with electrons and did indeed show the same interference pattern proving that de Broglie was right in that matter could also be wave or particle. But then the strangeness began. A similar experiment where only one electron was fired towards the double slits at a time still showed the same interference pattern. How is this possible? An electron may produce a wave but the interference pattern needs two waves to interact with each other. Could a single electron have passed through both slits at the same time thus producing the two waves needed?

Twenty years later, a new experiment using electron detectors would surely find out what was going on. With a detector placed at each slit to determine which slit the single electron went through, the interference pattern disappeared leaving only a single trace in the middle of the screen. It seemed as if the electrons, when observed, decided to behave like particles. When the detectors were removed, the interference pattern returned. The conclusion was that somehow the detectors were disturbing the electrons. A modified version was constructed as shown below.



Lithium niobate crystal was used to produce an entangled pair of photons. In other words two photons that share the same quantum states. Disturb one of the pair and the other reacts instantaneously to the same disturbance; no matter how far apart. By measuring the idler photon and not the signal photon, physicists believed they had eliminated the possibility that the measuring apparatus was somehow disturbing how the photons behaved. After all, the detectors could be moved to ensure that the measurement took place after the signal photon had landed on the screen. The result was the same. Observing the photons always meant that there was no interference pattern – that is they behaved as particles. Was something in the future influencing the past? Another experiment was proposed.



The use of partially silvered mirrors meant that light passing through the top slit could be detected at detectors A or else pass through a non-silvered part of the mirror and arrive at the mirror next to detector C. From this point onwards there is no way to know where the light went next. It may pass through the partially silvered mirror and travel on to detector D or else be reflected back by the same partially silvered mirror to detector C. The same possible outcome applies to light passing through the lower slit, only it may be detected at detector B or else pass on to the lower circuit. And the results?

Results show that when we are able to determine which slit a photon passes through, there is no interference patter, i.e. detected at either A or B. When photons are detected at C and D, the interference pattern returns but we now have no way of knowing which slit was used. This clearly shows that when we have information relating to where the electrons came from they behave as particles. Eliminating this information and they behave as waves. Very strange!

CROSSWORD SOLUTIONS

Clues Across: 7. Capture 8. Mention 9. Ask 10. Noun 13. Aniseed 14. Import 15. Excel 18. Exit 19. Threads 21. Artwork 23. Elite 24. Nairn 25. Disposition 26. Sip

Clues Down: 1. Ransom 2. Eta 3. Nemo 4. Emanate 5. End 6. Mister 10. Note 11. Adapted 12. Morose 14. Input 16. Address 17. Gemini 18. Extra 20. Heroic 22. Wipe 24. Mano 27. Rain

VIKA YASYNSKA – PHOTOGRAPHS FROM UKRAINE

VIKA YASYNSKA *is a photo journalist from Ukraine. Before she left her home country because of the invasion by Russia, Vika was engaged in making a record both visually, with photographs, and textually with testimonials written by Ukrainian soldiers and their mothers. This was before the full invasion and in response to Russia's annexation of Crimea. Since 2022 she has lived in Scotland, she takes short trips back to Ukraine to visit family and, on these occasions, she uses her skill as a photographer to capture images that speak about the way she feels about her country. Below is a moving short description about her relative's house and how she is struck by the idea that people (and nature) can survive against all the odds.*

A photo with a window and tomatoes, that reminds me of a painting, was taken by me this summer, 2025. I came to visit my relatives in a small village 200 kilometers from Kyiv. As a child, I often visited them, but it was very long ago that I had been to this specific place. Once, small trees and bushes grew around this old hut, now the hut has almost gotten lost in the thickets, but opposite it and behind it are all the same boundless Ukrainian fields. My mother's cousin Kateryna still lives in this hut. Alone. She has another home, but she doesn't want to completely leave the house where she was born yet. We were drinking coffee in the yard with homemade pies that Kateryna baked for us, when suddenly I drew attention to the tomatoes lying on the window - and somehow, together with the old frame, it instantly formed into a composition. Then I just took a picture of it on my phone. The hut won't last long, there are cracks in the walls, the roof needs to be replaced - there's no one to save it, but as long as flowers, an apple tree, and bushes with berries grow near it... and there's someone to put the harvest on the windowsill, the hut is still alive. **V.Y.**

All photos, except the one with the open window and pots behind glass, were taken in the area of the city of Berdychiv (around 200 kilometers from Kyiv) in the villages Raihorodok and Lemeshi. The photo with the open window was taken in Kyiv, in one of the utility premisses of the St. Sophia Cathedral in Kyiv.

THE NORTON COMMANDO MOTORCYCLE (NORTON VILLIERS GROUP) 1967

The Norton Commando was designed out of necessity to provide a more up-to-date large capacity motorcycle in the late 1960's. This came towards the end of the British motorcycle industry which all but ceased to exist by 1975; though Norton struggled on until 1977. ***** The Japanese were already making major inroads into motorcycle markets worldwide during this period, with the UK being no exception; their world dominance soon to be realised.

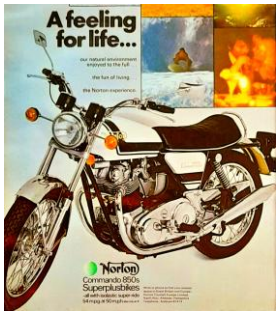
Norton (a marque with a famous pedigree) on a limited budget set about the design process by electing to use their top-of-range 750cc "Atlas" twin cylinder engine. The use of this engine, which was first laid-down in 1948 as a 500cc unit, was only meant to be a stop-gap until a new engine was designed and developed; this never happened. The engine produced massive torque and was powerful, but like all long-stroke, overhead valve engines, which ran 360' degree crankshafts, it produced almost unsurmountable vibration. This was well known to engineers for almost all British motorcycle companies used this same "classic" engine layout in their parallel twins, which once above 500cc vibrated badly, damaging ancillary components and made riding them tiring.

The team tasked with producing a new Norton twin was headed-up by Dr Stefan Bauer (ex-Rolls Royce) aided by engineers: Bernard Hooper and Bob Trigg commencing on the 1st January 1967: Commandos began to roll off the production line in April 1968.

Norton chose to drop the famous "Featherbed" frame used on its longstanding "Dominator" range of bikes so beloved by enthusiasts for its great handling and decided to have a completely new and novel frame designed specifically for their new bike. This frame and its components would be the key to insulating the rider and ancillaries from the vibration inherent from the old engine design; though the vibration remained. It was lightweight but very strong and utilised three mounting points for the engine: at the cylinder head, front bottom of engine and rear top of gearbox cradle using special rubber mounts which became famously known as "Isolastics". Due to the engine being rubber mounted and oscillated on them, the engineers had to mount the rear suspension swing- arm directly onto the gearbox cradle to ensure correct alignment of the final drive chain on its sprockets. The two main Isolastic mounts had to be kept within certain tolerances specified by the factory or poor handling could result, and were controlled by Teflon coated washers and metal shims to take up any end play as they wore. This was a tedious task to get right with the final 1975 850 Mk3 Commando getting vernier adjustable Isolastics which much simplified the procedure. The engine would be inclined forward from the vertical in the frame to improve the machine's line and received many upgrades including to breathing system, oil system and electrics, but of special note it was given a "diaphragm" spring clutch (car automotive practice) which was light in action and very robust.

Left: 1969 Fastback 750

Right: 1973 850 Mk1 Roadster



Right: 1975 850 Mk3 Interstate

The first (1967) 750cc pre-production model designated 30M3 and then "Fastback", was well received by the press and public alike and there quickly followed many modifications and derivatives, with perhaps the biggest one being stretching the old engine design once more to 850cc (actually 828cc) for the 1973 range onwards. However, during its long production life 1968 -1977 there were many pitfalls surrounding the reliability of the engine and ancillaries, none worse than when Norton introduced a tuned 750 engine to most of the 1972 -1973 series named the "Combat". This engine caused many problems and warranty claims and was eventually dropped and subsequent 850cc models received many modifications to the engine, gearbox and ancillary parts to increase reliability. The last models were produced between 1975-77, being the 850 Mk3 Commando with left-hand gear change (international homologation) and electric starting. However, around sixty-thousand Commandos were built and although they did require meticulous maintenance and upkeep, they have attained classic status and few could deny their great looks and sound in that great British tradition. ***** The use of the Norton name continues to this day with three companies currently in legal dispute as to the use of it for various business activities**. R.M.**

FICTION

THE OLD BANK (PART 3)

Nancy was feeling unnerved by the night before. How could it be that the old bank was made from non-terrestrial material? Greg must have got it wrong. She decided to take a walk past the building to try and work it out in her head, “where do we go from here,” she asked herself.

Just as she neared the old bank something caught the corner of her eye, she looked around and saw two young women, identical twins. One twin was running and the other was chasing her. Nancy was instantly struck with an uneasy but also curious sensation. After all, this was why she came, to find out anything she could about what might occur in the vicinity of this building. She noted that the twins both had serious expressions, this was not fun or mucking around on their part, there were no smiles on their faces, no laughter. They disappeared around a corner, Nancy shook her head to erase the strange image from her mind, “should I go and see if everything is okay?” She opted not to. If Greg had been there maybe she would have.

She continued on past the old bank without paying much attention to it, even the dead trees didn’t seem as peculiar now.

The previous encounter seemed so intense that it had replaced her curiosity about the bank itself, she was thinking that it wasn’t only the building that was not right but there was something going on with the people there, had these twins been inside the building and, if so, how did they get in?

As Nancy walked on she saw Trisha a work colleague come towards her. Trisha was with another woman and a little girl.

” Hi Nancy, how are you? This is my sister Jane and her daughter Sophie,” Jane nodded politely. “Jane is one of the people who disappeared recently, it was in all the papers.”

“Oh really,” said Nancy.

She was trying to feign disinterest while she was, in reality, keen to ask Jane what happened in great detail. Jane was reticent offering a vague explanation about having some “me time”. Nancy turned towards the little girl, smiling she said

“I bet you’re glad to have you’re mummy back, are you having a nice day out?”

Sophie’s eyes trailed across the ground

“That’s not my mummy,” she said.

Trisha looked dismayed and laughed nervously while Jane remained without emotion.

“Oh well, I better be on my way nice to see you.”

As she walked, off Nancy tried to think who Jane reminded her of. That was it, it was the woman who was chasing her twin.

She was shaken, something is very wrong here.

“Hi Greg, how are you? Do you have time to meet for a chat?”

“Okay, I’ve got an hour or so. Are you okay, you sound terrible.”

“I’m fine, I can tell you when I see you.”

Nancy explained what had happened. Greg sat quietly listening.

“I suspect all of this must be connected to everything that’s going on with the old bank, what we’ve already discovered. What do you think?”

“Yes, said Nancy, “ I think we need to find a way to investigate this, but not on our own, we need expert help.”

“Well I’ve been searching on the net and I found a few interesting places that might be where to go, especially one not far away in the city.”

“Okay, are we going to go for it then?”

“Yes, I’m going to see them tomorrow.” Nancy felt slightly less stressed at this news.

“I’ve got to go now I’m meeting my mate Jack for a drink. Will you be okay?”

“I’m fine, I’m just going to finish my coffee. Remember, don’t say a word to Jack and keep in touch, let me know how you’re getting on?”

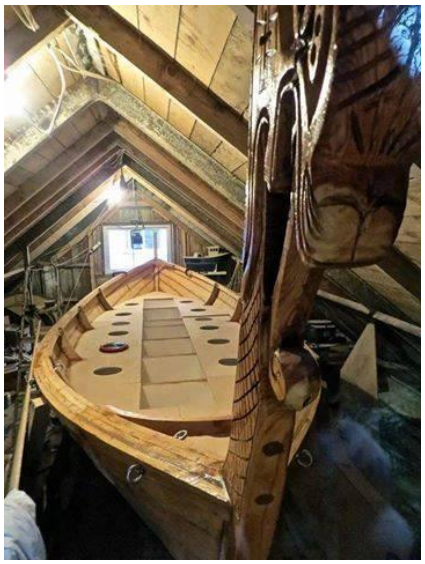
“Of course,” Greg lent over and gave her a peck on the cheek.

Nancy finished her drink and left the café. She stopped to swallow two headache tablets. It was evening now, a still evening, there was no one around. She noticed someone coming out of the dusk towards her, someone familiar. When she could see more clearly she realised that she was looking at herself. Nancy fainted.

ARTIST IN FOCUS

Duncan Hutchison lives in Lochinver in the Scottish Highlands. He and his brother David learned how to weld steel from their father who had worked in the shipyards in Glasgow. Duncan himself became a shipwright loftsman at Hall Russell shipyard in Aberdeen. After moving back to Lochinver, he built a steel creel fishing boat (Tarragh)

He later worked on the oil rigs travelling all over the world. Not content to build one boat, he embarked on building a rowing boat calling it Sleipher (which is a six-legged horse from Norse mythology). He rowed this boat single-handedly from New York to the UK in 2018 but, unfortunately, the electronics failed and the boat had to be abandoned just a few hundred miles from the UK coastline. Fortunately though, the boat was found ashore in Norway and £50,000 was raised for Water Aid as a result of Duncan's efforts.



Sleipher rowing boat

Totem Pole

Giraffes

After this adventure he started making outdoor furniture from recycled materials and also turned his hand to making wood and recycled metal sculptures. When some trees were blown down after a gale Duncan carved them into large scale giraffes and a totem pole. He now also makes stainless steel and scrap metal sculpture such as Heron and Neptune – these hardy pieces live in the water and, even with rising and falling tides, they require no maintenance. His most recent piece is a rendition of Toad (from Wind in the Willows) rowing his little boat which, like the other pieces, when spotted around the landscape, Toadie puts a smile on the face of those who encounter him. *(Photos courtesy of: Eilidh McLeod, Cheryl Smith & Duncan Hutchison)*

Neptune

Toadie

CAPTAIN COLRELLI'S MANDOLIN BY LOIUS DE BERNIERES

Captain Corelli's Mandolin combines the horror and brutality of war with a love story, that sadly, never realises its true potential.

Set on the Greek island of Kefalonia, the story begins with two of the main characters, Pelagia and her father Doctor Iannis, as they go about their daily business in the peacefulness, warmth and isolation of the beautiful southern Mediterranean island. Despite the onset of war in Europe, political turmoil in Greece and the ambitions of near neighbour Italy, led by Benito Mussolini, to create a new empire of the southern Mediterranean, life goes on, on Kefalonia, as it has done so since time immemorial.

An Italian officer surveys the island of Kefalonia

As the novel moves on the horrors of what is happening elsewhere in Europe, especially in nearby Albania, are juxtapositioned with life on the island as chapters flit between the two, bringing, at times, a stark contrast to the reader of how different life can be in those places at war and those at peace.

Another significant character entering at this point is Carlo Guercio; a soldier in name only. Instead, despite having to do his duty as a soldier including killing his supposed enemies, Carlo is a man of great sensitivity, kindness and loyalty; qualities that will become especially apparent later on.

A recurring theme by the author, is to continually bring into question the effectiveness, organisational ability and competence of the Italian army, in particular those people, including Mussolini, who have any sort of decision making role. This makes survival for its soldiers doubly difficult and so when Carlo is eventually posted to Kefalonia he is both grateful and slightly disbelieving as to how he has managed to survive. Alas, the day will also come when even occupying a small island will appear to be too much for the Italians, at which time, a hyper-efficient German regiment arrives; something that will eventually have the direst possible consequences.

At last, the books main character makes an appearance. In common with Carlo, Corelli does not consider himself a soldier and finds soldiery duties hard. Instead, he is a musician; a mandolin player; a writer and composer of music; a connoisseur of operettas and symphonies with or for the mandolin. He is also not a typical occupier but instead is almost apologetic for the inconvenience his country men's presence on the island has caused.

His apologies continue when he is billeted at Pelagia and Doctor Ianiis' house, moving Pelagia from her bedroom to sleep in the kitchen in order that he can take her room. This makes for a tense and resentful

atmosphere, frequently bordering on outright hostility. Corelli offers to move out but his hosts prefer him to stay, afraid that whoever comes in his place may be worse. At least, he is polite.

Tensions in the house soften when Corelli brings out a beautiful mandolin, that he has named Antonia, and plays it with equal beauty leading his hosts to momentarily forget their current uneasy relationship. This also signals the beginnings of a new closeness between Corelli and Pelagia.

Life, on the island takes on an almost holiday like feel. Italians and some Germans, in particular a fellow music-lover Gunter, enjoy the warm weather, the safety of being well away from an active front line and swimming in the clear azure sea. Musical ventures, organised by Corelli, brings culture, optimism and even camaraderie between the Italians and Germans to the island, furthermore pushing away from their thoughts what is happening nearby and in the rest of the World.

But life cannot remain the same forever. Germany is now losing the war. The Italians can no longer be trusted as allies and, if anything, are now considering changing sides. German high command directs brutal reprisals against the Italian army on the island.

Hundreds of Italian soldiers pay the ultimate price. Heavenly like peace has turned to hell and with it the wholesale slaughter of anyone opposing the Germans. Carlo and Corelli do not escape. Their fate is the same as so many of their countrymen, however, by some sort of a miracle, Corelli survives.

Carried by the island strongman, Velisarios, barely alive, from the town centre where he fell, to Pelagia, Corelli begins his long path to recovery.

Eventually, when well enough, Corelli leaves for Sicily, departing Pelagia's life, it would seem, forever.

At this point, the story, as it were, settles back into a routine, however, this is not to suggest that nothing else of real note happens. Instead two events come to define the next three and a half decades; an earthquake and the arrival of a baby girl, left by someone at Pelagia's and her father's front door. They name her Antonia.

These two events shape the remainder of the book and Pelagia's life.

Did Corelli return? Perhaps.

Captain Corelli's Mandolin is a book of contrast and reminds me a bit of Birdsong by Sebastian Faulks and even Doctor Zhivago by Boris Pasternak, in so much that war and a love story co-exist as they do. However, Captain Corelli is lighter and has a sense of humour about it that the other books do not have. This is what makes Captain Corelli so enjoyable and whereas the other books mentioned have sad endings, in both cases with the deaths of the main characters, Captain Corelli ends with a sense of optimism and the beginnings of a new and happy adventure.

Captain Corelli's Mandolin is highly recommended. The reader, however, must bear in mind that alongside the humour, the romance and Bernieres' excellent writing, that conjures up images of a beautiful sun-drenched Greek island, there also exits something more sinister at work in the background. This part is not to be taken lightly and may put some readers off but to continue on will leave you with a sense of 'this is what life is all about', good and bad, and in a way this makes the good parts even better. **G.W.**

Captain Corelli's Mandolin by Louis de Bernieres. Published by Penguin Vintage, 1994. Pages – 533.

BARBARA HEPWORTH

ART & LIFE

FOUNDATION MARGUERITE ET AIMÉ MAEGHT

BARBARA HEPWORTH ART & LIFE

THE MAEGHT FOUNDATION, SAINT-PAUL-DE-VENCE, FRANCE

Barbara Hepworth Art & Life was the major temporary show at the Foundation Maeght in southern France in 2025. The prodigious gallery is known worldwide for the high quality of art in both the permanent collection and the temporary shows it has hosted over the years such as this Hepworth show. The exhibition spans over four decades of the artist's work so, therefore, it is divided into categories such as: *Into Abstraction, Circle, Figure in the Landscape, Movement and Metal, Public Sculpture, Sun and Moon and Forms of Life.*

Even from a young age Hepworth remembered herself being driven around her home county of Yorkshire by her father who travelled often for his job. She remembered having imagined the landscape in formal terms, the mountains and roads became something other, something visually interesting to her childlike curious mind. She saw them as forms and lines. It was an abstract way of looking at the world and this stayed with her into adulthood when she became a sculptor, when she was able to translate this abstract vision of the world into works of art. The time was right in terms of visual art for her to become one of the figures at the forefront of international modern art. After moving to Paris in 1932 with her partner the artist Ben Nicholson, she was introduced to the Parisian avant-garde, visiting artists such as Pablo Picasso, Jean Arp and Constantine Brancussi, to name a few, she soon became a member of the influential Abstraction-Création group.

Fig. 1

Although this was a major achievement, her private life was becoming increasingly hectic and she probably had little time to drink this in. In 1934 she and Nicholson had triplets, it was then that she declared that her work had changed, claiming the work was more formal and all traces of naturalism had disappeared. This change could have been her way of keeping control of her world by concentrating on the formal aspects thereby instilling order where there could have been chaos. This exhibition presents decades of Hepworth's work including sculpture, drawings, paintings and prints some abstract and some figurative, she perceived no reason why abstract and figurative could not work alongside each other.

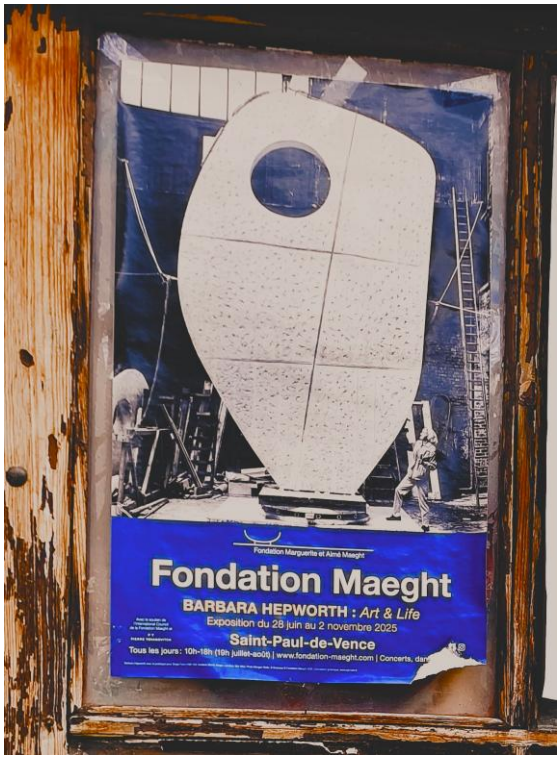
Her political values were another aspect of her life and also her spiritual beliefs, while in Paris she had become a Christian Scientist. She became interested in fighting fascism and after moving back to London in the mid 1930's she became closely involved with the British and European Abstract Artist's for Cultural Change movement. Writing in Circle: International Survey of Constructivist Art, Hepworth said, "the language of colour and form is universal and not for one special class. It is a thought that gives the same life, the same expression, the same universal freedom to everyone."

After a move to Cornwall in the mid 1930's she became interested in using strings and colour, she declared that the strings were the tension she felt between herself and the sea, the wind or the hills. A trip to Greece in 1954 inspired her to work in bronze and other metals instead of the direct carving she had mostly practised previously. This was probably one of the reasons she was able to take on large public art commissions. Through her interest in the CND (Campaign for Nuclear Disarmament) movement she was introduced to Dag Hammarskjöld the Secretary General of the United Nations. They became friends and this friendship led to her being commissioned to create a piece of public sculpture for the UN (Single Form, 1956 – see image on exhibition poster below). Sadly, Hammarskjöld was killed in an air crash before the work's completion, however, the commission did go ahead.

In the 1960's Hepworth moved into an enormous studio (previously known as the Palais de Dance), this enabled her to work on large more ambitious pieces. Here she made many sculptures, in fact more than her entire output up until then. She was a modern, forward thinking person and possibly this aspect of her character led to an interest in aviation and especially space exploration which was in its very early stages at that time. The moon landing in 1969 was a great inspiration to her and, as a Christian Scientist, the mix of spirituality and technology is evident in her work. For example, the moon and sun became repeated images in the iconography along with a deep connection with ancient standing stones. She stated, "the forms which have had special meaning since childhood have been the standing form (which is the translation of my feelings towards the human being standing in the landscape)."

She had a formula which relates to this i.e. 1.three sculptural forms 2. two standing forms 3. closed forms. Using this formula she also used various materials and coloured painted areas related to the idea of the singular and the universal. In the 1970's she experimented with new materials, however, she continued to

use circles and spheres as related to Christian Science and space exploration. She continued working until she was very sadly killed in a fire in her studio in 1975.

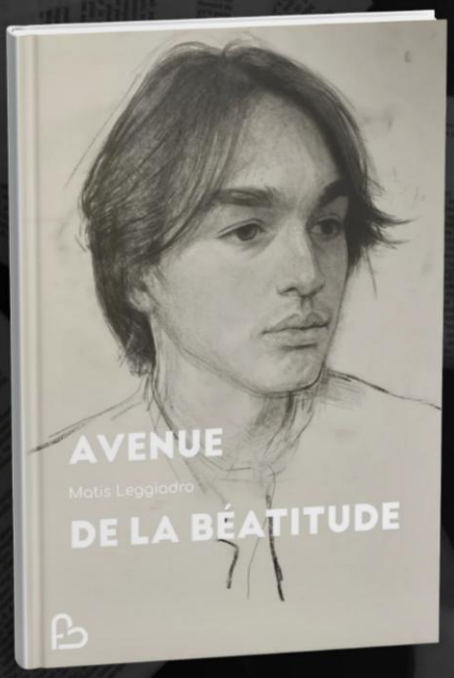


Looking at the work on display at the Maeght Foundation one can follow Hepworth's journey from an early small ceramic figure of two girls and a dog, a very delicate piece (fig. 1) through to the larger totemic painted pieces. However, putting size and materials aside, these sculptures still convey the artist's dedication to the human being not only in the landscape but in the cosmos. Whether executed in bronze, tropical hardwood, polished bronze, aluminium, ceramic or stone, whether painted or interspersed with coloured string. Whether abstract or figurative all the work can be viewed in the round and appear perfect from every angle, and aesthetically beautiful.

Hepworth is a giant presence in the world of sculpture and will always be such. Her work is of outstanding quality and, although rooted in the twentieth-century, it remains timeless and ageless.

AVENUE DE LA BÉATITUDE

crédits : Jordan Sapally & Joël Person



les Bonnes feuilles

"You must not read Matis.
Absolutely not.
What you must do,
is read him aloud."
Edwart Vignot

A new book by Matis Leggiadro —
prepare for impact.