



# WSPu3a Newsletter

November/December  
2025



St. Peter's Crossroads

Photo by the Editor

## The Committee's Briefs

### Contact the Committee

You can use this link to send a message to any of our Committee:

[Woodhall Spa u3a Committee and Contacts Web Page](#)

## Co-Chairs' Corner

### From Ced

Hello all and hope you enjoy reading this edition of our Newsletter.

I have come to the conclusion that it's not just an opinion, but to me a fact; time passes faster now than it ever used to. Or are we trying to pack so much into whatever our subconscious sees as ever-shortening time? Anyway, that's enough of that.

Oh, while I am talking about time, and I know it seems a long way off yet, but in May it will be the time when our u3a Chair(s) and Committee are elected. Our Constitution states that any committee member (bar the Treasurer) having served a maximum of 3 years has to leave the post they hold. So, as well as the existing committee members not wishing to continue we have, I believe, 2 members who will have to either stand down, or if they wish seek re-election to a different post.

*Continued*

What this is leading up to is the hope that sooner rather than later, we will have u3a members who are willing and able to give about 1 hour once a month to attend a committee meeting, and take one of the upcoming vacant positions. It would be ideal if you are considering volunteering to do so ASAP as this would give you the opportunity to shadow an outgoing committee member until May to see what is involved. Please, we need our committee to keep our u3a alive. We have to repeat the same mantra every year. Without new committee members we will have to close our u3a and disband all of our groups, which is obviously the last thing any of us want. In the meantime, on behalf of my co-chair Rosemary and the Committee I wish you all...

**A VERY HAPPY CHRISTMAS**

Ced Shurben – Co-chairperson

## From Rosemary

I am delighted to say that I am now in recovery mode following my recent knee revision operation and I am looking forward to being back among you all before too long.

2025 has been a very successful year for our u3a and here's to an excellent, enjoyable 2026.

A big thank you to all the committee, our Group Leaders and to all who help each month at Coronation Hall – this is a wonderful organisation run by its members so if you feel you can help out in anyway next year, don't be afraid to put your name forward..

Rosemary Brown – Co-chairperson

## Groups News

It's nearly the end of the year – a time to look back as well as to look forward.

2025 has been another interesting and eventful year.

Waiting lists obviously work as April saw the start of **Mahjong 2**, May – **M.O.T.O.2** and also in May **Sunday Lunch 2**. All three groups are now well established.

Sadly we lost **Flower Arranging**, **Antiques** and **Lunch 2** but it is always possible to start them again if there's new interest.

Looking forward there are several suggestions for new groups – *Music Appreciation*, *Local*

*History*, *Short Walks*, *Walking Cricket*, which already has 12 interested members!! If any of these are of interest to you, please let me know, either via the website or at the monthly meeting.

*Set yourself goals and celebrate your achievements.*

**Happy Christmas!**

Joan Willard – Groups Coordinator

## Groups List

You can use this link to find a current list of the groups we support, and how to join up:

[Woodhall Spa u3a Groups and Activities Web Page](#)

## Monthly Meetings

**Dec 4<sup>th</sup>**

2:30pm to 4pm

**Coronation Hall**

**Morecambe and Wise**

*Presented by Steve Short*

*Please note – there is no January meeting*

**Feb 5<sup>th</sup>**

2:30pm to 4pm

**Coronation Hall**

**Life of a songwriter**

*Nicola Haxby, Singer Songwriter*

## Upcoming Events list

You can use this link to find more details on all the events in our diary:

[Woodhall Spa u3a Events Web Page](#)

## Group Noticeboard

### Outings

#### Miss Saigon

*There is just one seat left for the visit to the Theatre Royal in Nottingham on Wednesday 25th March to see Miss Saigon. The cost is £79. For more information contact the committee via the Outings page on the website (see below).*

#### 2025

*The Outings Committee hope you enjoyed the six trips they organised for you in 2025.*

*The year started with a journey to the National Space Centre in Leicester, followed two months later by a lovely day out in Beverley and Burton Constable Hall.*

*It was a blistering summer's day in June when we went to Sewerby Hall and enjoyed a ride on the little train down to the promenade in Bridlington.*

*Our annual trip to the theatre at Tolethorpe in August was as popular as ever. We have already booked our usual seats for 2026! More details in the new year.*

*A journey back in time to the National Tram Museum at Crich was our outing for Autumn and finally a coach trip to the city of Norwich rounded off our programme for 2025 (see [Outings](#) – Ed).*

**We wish all members a very Happy Christmas and hope many of you will join us on some lovely days out in 2026.**

Outings Group Committee.

#### Find out more:

You can use this link to find more details on upcoming trips:

[Outings Web Page](#)

### Croquet

#### Seasonal Greetings to the Croquet group

*Christmas is just round the corner and it's only a short period to swinging your mallet once again.*

*Our 2025 season had its difficult times with senior members being unavailable for play which has interfered with the groups progress.*

*I'm most grateful to the small group of members who turned up at the croquet lawns every Tuesday morning and kept the group alive.*

*Although our group is small in number, it's extremely competitive and friendly and without too much coaching members have shown an improvement as to how they approach the game of croquet.*

*With the approaching of the 2026 season I will be once again asking for more u3a members to come and try their hand at swinging a mallet and striking that one pound croquet ball, it's easy when you know how, so if your reading Tom's (our editor) Croquet news come and enjoy the experience next April when the playing season starts – you will not be disappointed.*

*But Christmas first, so as Group Leader and on behalf of everybody who has contributed to our group I'd like to wish you all a joyful healthy and wonderful Xmas 🎅*

Regards to all

Bob Potter – Group Leader

#### Find out more:

[Croquet Group webpage](#)

**Continued**

### Craft

The Craft Group meets on the second and fourth Thursday from 2.00 – 4.00, in the Parish Room. All types of craft are included, **except** anything involving paint, glue or glitter. We are a friendly self-help group and welcome new members. If you would like to join us please just come along to the Council Meeting Room. Our next meeting is January 22nd.

Margaret Eborall – Group Leader

**Find out more:**

[Craft Group webpage](#)

### Walking Cricket

**Come And Join Our New Group – It's A Lot Of Fun!**

Don't know square leg from silly point or the difference between a yorker and a googly? Don't worry – you don't need to know anything about cricket to enjoy the walking variety and everyone can do it!

Walking cricket is an ideal outdoor activity for all and provides a great opportunity to get some gentle exercise and meet new people. It's friendly and inclusive because everyone in the team takes part in all aspects of the game equally, so everyone gets involved.

The rules are very simple and with just a little practice anyone can bowl underarm or whack the plastic ball to the boundary with a lightweight plastic bat, which also means it's very safe.

No hard cricket ball, no pads, gloves, helmets or silly hats required (unless you insist!) You don't need to provide anything except for comfortable footwear suitable for playing sport.

The cricket season runs from April to September and we will meet up for a game once a month (hopefully at Jubilee Park – watch this space) so sign up now to avoid disappointment.

If you want to find out more, please feel free to contact me at [j.s.hart@sky.com](mailto:j.s.hart@sky.com)

See you next year!

John Hart

### Solo Travellers

The aim of the group is to encourage members to broaden their travel horizons.

Many people find themselves in a situation where they are considering travelling solo but find the prospect daunting.

Getting together in an informal way allows members to share experiences, fears, aspirations, etc., and support each other.

By sharing knowledge and experiences, travellers can inspire others.


If you're interested in joining this group, please add your name to the form at the monthly meeting.

Joan Willard – Groups Coordinator

Online u3a

Find out more:

You can use these links to search for ways of furthering your interest in specific subjects, or even take part in some competitions:

<p><a href="#">Our own WSPu3a website</a></p>	<p><a href="#">Woodhall Spa u3a website</a></p>
<p><a href="#">u3a – Online Learning Events</a></p>	<p><a href="#">u3a Online Learning</a></p>
<p><a href="#">u3a Radio Podcast</a>  <i>We hear about the battle against scammers, are we destined to always be one step behind them? And music brings people together – have you ever wondered what really makes a great song so memorable? November is a month of remembrance of the two World Wars so let’s also remember women munitions workers who risked their lives &amp; well-being for the war effort.</i></p>	<p><a href="#">u3a Radio November</a></p> 
<p><a href="#">Interest Groups Online</a>  <i>As part of the u3a movement, members generously volunteer their time and share their knowledge, skills and experience with the members in their groups.</i></p>	<p><a href="#">Click here</a></p>

Around the Groups in 30 days

Dog Walking

Southery

Our walk at the beginning of November started at the Old Railway Station carpark in Southery. It was a lovely sunny day with a fresh breeze. The walk followed the old railway line along side the river. The dogs loved it. We had to be aware that the path is also a cycle track, but thankfully it wasn't busy that morning.



The Riverside Inn was open, and dog friendly, so some of us were able to enjoy a coffee before going home.

Judy Binks – Group Leader

Find out more:

[Dog Walking Group webpage](#)

5 Mile Walking

Gibraltar Point

On Thursday 13th September, 20 lucky walkers met at Gibraltar Point near Skegness in beautiful weather.



We walked a footpath until the North Car Park then onto the viewing platform at Mill Pond with wonderful views in the warm November sunshine.



We then continued on the King Charles path for some time before going to the beach and retracing our steps back along the coast.



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## ***Gibraltar Point – Continued***

In 1939 the army set up sea defences along the coast made up of scaffolding reaching up to six metres. These defences were quickly covered up by the dunes after the war, being briefly exposed after the 1953 floods and then covered again. Since 2021 natural erosion has been uncovering them again.



Gibraltar point is popular with photographers hoping to spot birds using the dunes during their migration.



After the walk we had a welcome coffee/tea/cake break in the new visitors centre, which is well worth a visit.

Diane Taylor and Ruth Wilkinson

**Find out more:**

[5 Mile Walking Group webpage](#)

## Woodhall Wanderers

## Kirkby on Bain to Haltham

It was glorious sunshine when we met in The Ebrington Arms car park for our final walk of the year. However, it was also very frosty and icy underfoot.

Twenty three Wanderers set off for a walk through Kirkby on Bain to the church and through the graveyard.

Leaving the graveyard we crossed the River Bain and turned to follow the river downstream to its junction with Haltham Beck where we turned to Haltham.



At the end of this path was the dodgy bit of the walk as the path runs alongside the busy A153, Coningsby/Horncastle road. Luckily it was only for a few yards before we turned at the garage up Ryme's Lane towards Red Mill Bridge and the River Bain again.

Crossing the stile before the bridge we then followed the river upstream this time to Haltham Lock and turned to Haltham village again!

This way was much more scenic and safer than walking along the main road. We get used to broken stiles but here we found the exception a missing fence with the stile still in place!

Retracing our steps we headed back through the village up a driveway, across a garden, through a gate all on the footpath back towards Red Mill Bridge.



*Continued*

## Kirkby on Bain to Haltham – Continued



As we walked across the fields we also crossed a bridge over the Old River Bain, before it was straightened, and moved slightly, to become the Horncastle Canal.

At Ryme's Lane we crossed the road and followed the river/canal downstream back to Kirkby on Bain where we again crossed the river just below The Old Water Mill and headed back up the road to The Ebrington Arms and our end of season lunch.



Many thanks to Alistair and his team for a very nice lunch and for kindly allowing us to use his car park.

John Cotton – Group Leader

Find out more:

[Woodhall Wanderers Group webpage](#)

## Art

### Work in Progress – Preparation for December Competition: *Christmas Leaves*



Irene Derwent – Group Leader

Find out more:

[Art Group webpage](#)

## Visiting Churches

## St Mary Magdalene Church, Bailgate, Lincoln

The Visiting Churches Group's last outing in 2025 was to the Parish Church of St Mary Magdalene Church, Bailgate, Lincoln. It is located on the corner of Bailgate and Exchequergate, close to the Cathedral and next to the White Hart Hotel.

We were met by the Church Warden, Dr Shirley Brooke, who gave us a very interesting talk all about the history of the Church, including many parallels with St Helen's Church in Brant Broughton – somewhere we are hoping to visit in 2026.



The Saxon Parish Church that originally stood on the site was buried under the Cathedral in the 11th Century, but the dispossessed parishioners were granted to the right to hold services in the Cathedral. They still exercise this right today once a year on St Mary Magdalene's Day, when the Great West Doors of the Cathedral are opened for them to hold Festival Evensong in the Morning Chapel. The congregation is now too large to fit into the Morning Chapel so the service is now held in the main Cathedral Choir.

The present Church, built in the 13th Century contains fragments of the original medieval building, including one of Lincolnshire's oldest bells, which is still rung before well-attended services, calling people to prayer. The inscription on the bell is: *Sacra Maria Magdalene ora pro nobis (Holy Mary Magdalene pray for us)*.

The Church was rebuilt after the Civil War, embellished by the Victorians and renovated in between. The 1882 restoration by GF Bodley survives virtually intact, but as with so many of our Church buildings is desperately in need of further restoration, particularly at the present time, to the ceiling.

*Continued*



## *St Mary Magdalene Church – Continued*

St Mary Magdalene offers an atmosphere of peace in the heart of the bustling city of Lincoln and is well worth a visit if you can find it open. It holds services every Sunday, which are well attended, and opens for many other events throughout the year.



Shirley and her helpers had laid on tea and cakes for us, which were very welcome on a cold, wet, windy Tuesday afternoon and we all stayed to have a good look at the Church and talk to several of the local parishioners before leaving for home.

*Barbara Michaelides – Group Leader*

Find out more:

[Visiting Churches Group webpage](#)

## Science Technology Engineering and Maths (STEM)

### Headaches

Our November meeting touched on the wide subject of headaches.

Most people experience common headaches, brought on by tiredness, stress or other conditions, but there are other much more serious medical conditions for which the word 'headache' is a misnomer.

They are neurological disturbances. In increasing order of severity, they are migraine, hypnic, and cluster. Cluster is a potentially life-changing and even life-limiting condition.

Symptoms, diagnosis and methods of treatment and/or management were discussed.

Sadly for the more serious conditions there is no cure. Therefore, a consultant specialising in headaches (as opposed to a general neurological consultant) should be approached for an individual diagnosis and management plan.

On a more cheerful note, the Group has its Christmas Lunch at the Abbey Lodge on 11th December, which should prove to be most enjoyable.

*Nigel Eborall*

*Continued*

## STEM – Continued

### Note:

What follows is an AI-summarised version of John Watts/ Paul Membrey's STEM October report. For the unabridged version, see [Appendix](#) (Ed)

## A World Through Different Eyes

We humans are visual creatures. We trust our eyes above almost all else. But what we see is just one version of reality. Today, we're going to step into the visual worlds of some very different animals:

### Birds – The Ultimate Visual Athletes

Birds possess some of the most advanced eyes in nature. Many are tetrachromats, with an extra cone sensitive to UV or violet light, giving them access to colours beyond human perception—patterns crucial for behaviours like mate choice. Their eyes also include the pecten, a structure that nourishes the retina and may reduce glare, aiding in fast, bright environments. Birds of prey excel further through extremely dense photoreceptors and dual foveae, enabling both long-range scanning and precise depth judgement. Their world is intensely detailed, colourful, and sharp.

### Dogs – Living in a Scent-Filled, Dichromatic World

Dogs see fewer colours than humans due to dichromatic vision, perceiving mostly blues, yellows, and greys. Yet this suits their ancestry as twilight hunters. They outperform humans in low light thanks to abundant rods and a reflective tapetum lucidum. Their motion detection is exceptional, and many breeds enjoy a wide field of view—though this comes with reduced depth perception for stationary objects. Their visual world may be muted, but it is optimised for movement and dim conditions.

### The Giant Squid – The Deep-Sea Giant with a Blind Spot

Giant squid have immense eyes capable of capturing scarce deep-sea light, allowing them to detect large predators far away. Unlike humans, their eyes avoid a blind spot because their photoreceptors sit at the front of the retina. Although the eyes are highly developed, the visual-processing region of the brain is less complex than in some smaller squid, suggesting these giants specialise in detecting large, faint shapes rather than fine detail.

### The Jumping Spider – The Eight-Eyed Acrobat

Jumping spiders use four pairs of specialised eyes. Their principal eyes provide sharp colour vision and can move internally, while secondary eyes act as panoramic motion sensors. Hunting involves detecting movement peripherally, orienting the body, then focusing with the principal eyes for a precise pounce. Some species also use vivid colours in intricate courtship displays.

### The Scallop – The 200-Eyed Marvel with Mirrors

Scallops possess up to 200 mirror-based eyes that use guanine-crystal reflectors to focus light onto two retinas. This system helps them detect motion and interpret dim surroundings, offering a design so efficient it inspires optical engineering.

### The Pit-Viper – Seeing the Invisible

Pit-vipers pair normal vision with heat detection via the loreal pit, creating a fused image of shape and warmth. This thermal sense allows flawless hunting in darkness.

### Conclusion: A World of Different Views

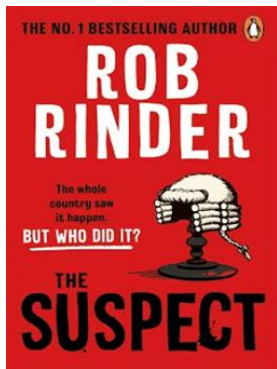
Each species sees a tailored reality, revealing the diversity of ways life interprets the world.

Find out more:

[STEM Group webpage](#)

## Reading

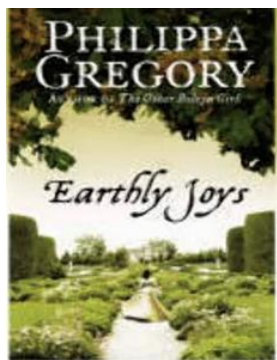
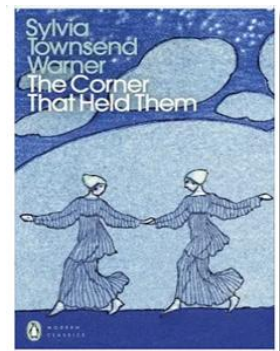
The Reading Group certainly choose an eclectic mix for their once-a month treat, and here are four more books from us that you might like to add to your own reading list. The only common thing about them seems to be that they're all novels.



Kathie chose a well-known celebrity author for our August reading. *The Suspect* picks up where Rob Rinder's debut novel (*The Trial*) ends, and continues the story of Adam Green, a budding barrister in a thriving London legal practice. When Hannah Holby, darling of UK Morning TV, dies live on screen in front of millions of viewers, the nation is devastated. Her death, of course, is not an accident, and the case is not as open and shut as it at first seems. The hero, Adam Green, is there to help the police solve the case and save the day.

There was general agreement that this is a good light read and that the legal aspect is well presented.

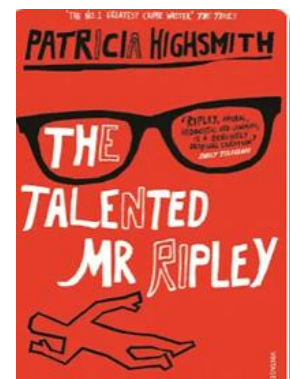
For a very different read in September, Lorna chose *The Corner That Held Them* by Sylvia Townsend Warner. The 'Corner' refers to the 14th-century Oby Nunnery, and the fragmented narrative focuses on the nuns living there over many years. The interest in the book is all in the dynamic relationships of the nuns and how these shift and change with the passing of time, their idiosyncrasies being described with gentle, tongue-in-cheek humour. Not universally recommended, this strange and haunting book holds so much attraction in the slow-paced, beautifully understated writing.



Different again, Philippa Gregory's *Earthly Joys* was Sue Lo's choice for October. The true-life historical main character, John Tradescant, lived in a time of discovery and was one of the greatest gardening pioneers of his day. As always, Philippa Gregory's historical research, particularly around the 17th century Royal Court of King James, is second to none and her prose is easy to read. The group was divided when it came to the need for the description of the short homosexual relationship between Tradescant and the Duke of Buckingham, but we all agreed the book was worth reading.

Margaret chose the book for December. The group was of one mind in recommending Patricia Highsmith's *The Talented Mr Ripley* as a great read, but we most definitely disagreed on whether we had sympathy for the psychotic, sociopathic main character. Written in 1955, the book follows apparently charming con man, Tom Ripley, from America to Europe, where his obsession with living the life of his friend leads to murder. There are four more books in this series, the last written in 1991. It will be interesting to find out how Tom Ripley's life unfolds.

Barbara Michaelides – Group Leader



Find out more:

[Reading Group webpage](#)

## Outings

## Norwich

Some photos from our recent coach trip to Norwich:



Photos from Bob Smith (Click here to return to [Group\\_Noticeboard](#))

## Line Dancing

The line Dance Group had its last meeting of the year on 26th of November.

We are now proficient in a wide range of dances. This month's firm favourites were:

[Waltz Across Texas](#),  
[The House of Bamboo](#) and  
[Wagon Wheel](#).

We have a few spaces available and new members are welcome. Our next meeting will be on 28th January.

***Merry Christmas from  
the u3a dancers.***

Lorna Hannah - Group Leader



## Poetry

Colour, in all its hues, was the theme for this month's Poetry session, and much of what we composed went beyond the mere visual aspect of it. Memories were stirred, as with Dennis' poem, of his father and uncle, games and unsavoury politics, and emotions, as with my own, a rage against the machine and the race to the ecological nadir, exemplified, perhaps, by the perceived impotence of the recent COP30 conference.

**A New Green World**

*Don't you think it's kind of ugly  
Seeing how the concrete flows?  
Towers of glass and miles of roadways  
Crushing ev'rything that grows  
They try to intercede  
Ten billion mouths to feed though  
The money tree's obscene  
And so the dollar's green*

*The change will come, and when it does it's over  
No more Savannah days to see Eden grow  
We stand and watch and make a new cross from  
dead sunflowers  
Remembering days that came before the last show*

*Geese are flying under grey clouds  
Try to shake the morning chill  
Ice floes carry starving bodies  
The sea is getting higher still  
New answers never seem to gain ground  
The earth is crying louder too  
Penguins starve, their numbers falling  
Denied by trawlers, stealing krill*

*Waking up we're looking to a new dream  
All across the world an ocean of green  
Spreading around, always to be found where the  
sun shines  
Change the ultraviolet to aquamarine*

*Rich men busy digging bunkers  
Fields of dead electric cars  
A new world will be less forgiving  
Sends them off in a ship to Mars  
The man in the Moon may shed a tear  
Desperate to see the end  
The tide is turning through a mindset  
To conjure new age avatars*

© thom Sefton 2025

**Simply Black and White?**

*I was born into a world of black and white,  
Truth ,things were either wrong or right .  
Nothing in-between.*

*Television the same, no autumn colours of many  
hues.  
Just black and white, there's nothing to choose,  
Whatever the scene.*

*My uncle showed me there was another way,  
For he watched billiards in different shades of grey.  
Clearly seen*

*Except for brown, a problem to contemplate,  
Shirts brown or black no difference to differentiate.  
Equally obscene*

*Out with that thought, perhaps you just frown.  
Tis the the season of thousands of autumnal brown.  
Fall, Huh! Autumn sounds poetical and renown.  
And color needs a U I mean.*

*This is Colourful ramblings, don't frown.  
But dad remembered black shirts and brown.  
Once seen,  
Never forgotten.*

© Dennis Walby 2025

**Read More:**

Use this link to see what else the group has written this month:

[November Colours](#)

## Sew and Sew

Barbara took a break from making quilts for the Linus project and decided to enhance her sewing area. She designed a sewing mat station to her own specifications, which ensures that all her sewing tools are in easy reach. The main fabric she used had been kindly donated to the Sew & Sew group. Needless to say, it has been exquisitely quilted and bound. There is a pocket for an acrylic quilting ruler to the right of the sewing machine and several compartments at the front; all of them perfectly sized for the specific tool. As if she needed to be more efficient!



Katherine has completed another beautiful cross-stitch kit: Hidden Valley, which is from the 'Mel's Stitches' range by designer and illustrator Mel Rodicq, who definitely has a good eye for colour.

Prior to this, Katherine had started another kit using black aida for the first time and, surprisingly, found it difficult to work with, and not the usual pleasurable, relaxing process. In my limited foray into cross-stitch, I had found this too; I had assumed that a lot of cross-stitch is muscle memory, as generally, I can find the correct hole when bringing the needle from the reverse to the front of the fabric, where I obviously cannot see where the needle is in relation to the hole. I did find placing white material behind the dark aida

improved the process slightly. No doubt our eyes and brain are doing more behind the scenes than we realise. So, if you are thinking of trying cross-stitch for the first time or buying a kit for a Christmas present, our recommendation would be to choose a light-coloured fabric.

How's your Christmas shopping progressing? Stef has shamed me by having completed and framed this lovely Christmas-themed embroidery for her mother. She's already working on other embroideries for presents too.

***Finally, I'd like to wish you all, on behalf of the Sew & Sew Group, a very Happy Christmas and a crafty New Year.***



Carmel Sefton

**Find out more:**

[Sew and Sew Group webpage](#)

## The Final Word

### Feedback

You can use [this link](#) to view past issues of the Newsletter, or to send a note to the Editor:

[Newsletter Web Page](#)

If you have any suggestions or comments about the Newsletter I'd be happy to read them. You can email them to me via [newsletter@woodhallspa-u3a.org.uk](mailto:newsletter@woodhallspa-u3a.org.uk), or use the link above.

The Newsletter wouldn't exist without the contributors, so I'm grateful to all those that made time to write an article for us all to read.

### And a Final Thought

Walking along Station Road yesterday, we came across this chap, using his considerable talent to decorate 'Sweet Emporium's' window: A marvelous rendering of the ubiquitous interpretation of the season's celebrations - no mere stick-on decals.



Whatever *your* leaning, whether it is a faithful tilt towards the story of the birth of Jesus, a New Age Pagan bent, or just a Pick 'n' Mix approach to the festivities, I hope you find it provides you with Peace and Happiness in good measure.

Very best wishes,  
Tom Sefton – Editor

**u3a**  
learn, laugh, live

## Appendix

### Science Technology Engineering and Maths (STEM)

#### A Talk for the u3a STEM Group: A World Through Different Eyes

A talk by John Watts (group member), enhanced by AI, curated by Paul Membrey

(Click [here](#) to return to [Page12](#))

We humans are visual creatures. We trust our eyes above almost all else. But what we see is just one version of reality. Today, we're going to step into the visual worlds of some very different animals: the bird soaring in our skies, the dog at our feet, the jumping spider, the scallop, and the mysterious pit-viper snake. We'll see how evolution has tailored their sight to their survival needs in remarkable ways.

#### Part 1: Birds – The Ultimate Visual Athletes

If there were an Olympics for vision, birds would take home most of the gold medals. Their visual system is arguably the most sophisticated on the planet.

##### **Tetrachromacy: Seeing a Richer World**

We humans are trichromats. We have three types of colour receptors (cones) in our eyes for red, green, and blue. By mixing these, we see about a million colours.

Most birds are tetrachromats. They have a fourth cone that is sensitive to either ultraviolet (UV) light or a specific type of violet light. This allows them to see a colour palette we cannot even imagine.

Example: What looks to us like a plain, dull plumage on a Blue Tit may, to another Blue Tit, be a dazzling pattern of UV-reflecting spots, crucial for mate selection.

##### **The Power of the Pecten**

Birds have a strange, comb-like structure in their eye called the pecten. Its primary job is to nourish the retina, but it may also help reduce glare – a built-in pair of polarised sunglasses! This is vital for a creature that flies at high speeds and needs a constant, sharp image.

##### **Eagle-Eyed Acuity**

The phrase "eagle-eyed" is no exaggeration. An eagle can spot a rabbit from over a mile away. How?

1. High Receptor Density: Their retinas are packed with photoreceptors. A human might have 200,000 cones per square millimetre; a hawk has over a million.

2. Dual Foveae: We have one central focal point (the fovea). Many birds of prey have two: one for forward, binocular vision (judging distance) and one for lateral, monocular vision (scanning the landscape).

In summary, birds see more colours, greater detail, and with less glare than we do. Their world is hyper-vivid and crystal clear.

#### Part 2: Dogs – Living in a Scent-Filled, Dichromatic World

Now, let's come down to earth and look at our faithful companions, dogs. Their visual world is much more limited than ours, but it's perfectly suited to their evolutionary history as crepuscular hunters (active at dawn and dusk).

##### **Dichromatic Vision**

Dogs are dichromats. They have only two types of cones, for blue and yellow. They lack the red-green cones that we have.

What does this mean? Think of a world painted in pastels of blue, yellow, and grey. A bright red ball on green grass likely appears as a dull yellowish-brown object against a greyish background. They don't see in black and white, but their colour world is muted.

*Continued*

## *A World Through Different Eyes – Continued*

### **The Trade-Off: Motion and Low Light**

What dogs lack in colour, they make up for in other areas:

1. Superior Night Vision: They have more rods (the receptors for low light) and a special reflective layer behind the retina called the tapetum lucidum. This is what causes their eyes to glow in the dark and gives them a huge advantage in dim light.
2. Motion Detection: Their eyes are exquisitely tuned to detect the slightest movement. A rabbit freezing in a field might become nearly invisible to a dog, but the moment it twitches, it's locked on.

### **A Wider Perspective**

Depending on the breed, a dog's field of view can be up to 270 degrees (compared to our 180 degrees). This superb peripheral vision helps them spot potential prey or threats. However, they have less binocular vision than we do, so their depth perception for stationary objects is not as sharp. So, while Fido may not appreciate the colour of his new toy, he is a master at detecting movement in the half-light, a legacy of his wolf ancestors.

## **Part 3: The Giant Squid – The Deep-Sea Giant with a Blind Spot**

Let's start in the deep, dark ocean, home to the legendary giant squid. These creatures have the largest eyes of any animal on the planet—up to 11 inches (about 28 cm) in diameter, the size of a dinner plate!

### **Why Such Big Eyes?**

In the near-total darkness of the deep sea, light is a precious commodity. A large eye can capture every possible photon of light, helping the squid detect faint silhouettes of predators—like the sperm whale—from over 120 meters away. It's a classic deep-sea arms race .

### **A Superior Design?**

Here's a fascinating quirk of evolution. Our human eye, while excellent, is built "back-to-front". Light has to travel through layers of nerves and blood vessels before hitting the photoreceptors at the back of our retina. This creates a small blind spot where the optic nerve exits the eye .

### **The Squid's Solution:**

The squid's eye is wired more logically. Its photoreceptors are at the very front. Light hits them directly, with nothing in the way, and the optic nerve is tucked away neatly at the back. This means the squid has no blind spot .

### **A Brain Mismatch:**

Interestingly, despite its enormous, sophisticated eye, the giant squid's brain shows a curious feature. The part dedicated to processing complex visual information (the optic lobe medulla) is less developed than in shallow-water squid. This suggests that while its eye is superb at detecting the faint, large shapes of predators, it may not be processing fine details like its cousins do .

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## *A World Through Different Eyes – Continued*

### Part 4: The Jumping Spider – The Eight-Eyed Acrobat

Now, let's shrink down in size and meet the jumping spider, a tiny acrobat with a visual system that is arguably one of the most complex in the animal kingdom.

#### **A Team of Specialists:**

Jumping spiders don't just have eight eyes; they have four pairs of eyes that work together as a team :

##### ***The Principal Eyes (the two big, adorable front ones):***

These are high-resolution, telephoto lenses. They provide sharp, colour vision but have a very narrow field of view. The spider can move these retinas internally to scan its surroundings without moving its head .

##### ***The Secondary Eyes (the smaller ones on the side and back):***

These act as motion detectors, providing a near-360-degree view of the world in black and white. They are constantly on the lookout for both prey and predators .

#### **How They Hunt:**

The hunting process is a masterpiece of coordination:

1. A blurry movement is detected by the secondary eyes.
2. The spider pivots its body to point its principal eyes at the target.
3. The principal eyes then lock on, providing a crisp, high-definition image. The spider uses its other front eyes to judge distance with precision before making its signature pounce .

#### **A Colourful Courtship:**

Some jumping spiders can see a broader range of colours than we can, including red. Males use this in their elaborate, colourful courtship dances. They use movement to get a female's attention with her secondary eyes, and then display their vibrant red faces or orange knees to hold her gaze with her principal eyes .

### Part 5: The Scallop – The 200-Eyed Marvel with Mirrors

Finally, let's consider the humble scallop, a clam that doesn't have a brain, yet boasts up to 200 dazzling, blue eyes peering out from the edge of its shell .

#### **Seeing with Mirrors:**

While humans and squid use lenses to bend light, the scallop uses a completely different principle: it forms images with a concave mirror .

The back of its eye is lined with a beautiful, iridescent mirror made of guanine crystals—the same substance found in our DNA. This mirror is perfectly shaped to reflect and focus light onto not one, but two retinas .

#### **A Double-Layered Retina:**

The scallop's mirror focuses light onto two separate retinas, likely allowing it to perform two different visual tasks at once. One retina may be specialized for detecting moving shadows (like an approaching predator), triggering an escape reflex, while the other may provide a more detailed view of its stationary surroundings in dim light .

#### **An Engineering Marvel:**

The guanine crystals are perfectly square, tiled together like a mosaic, which creates a smooth, high-quality reflective surface. Scientists note that this natural design is so efficient it could inspire the next generation of human-made compact, wide-field imaging devices .

*Continued*

## *A World Through Different Eyes – Continued*

### Part 6: The Pit-Viper – Seeing the Invisible

Finally, we come to the most alien visual system of all: the pit-viper. This snake doesn't just have two eyes for seeing light; it has a third "eye" for seeing heat.

#### **The Pit Organ**

Located between the eye and the nostril is the loreal pit. This is not an eye in the conventional sense, but a highly sensitive infrared detector.

It's essentially a thermal camera built into its face. It can detect temperature differences as minute as 0.003 degrees Celsius.

#### **How Does It Work?**

The pit organ has a thin membrane that acts like a retina for heat. A warm-blooded animal, like a mouse, radiates infrared energy, creating a "heat image" on this membrane.

Incredibly, the snake's brain doesn't keep this information separate. It merges the visual image from its eyes with the thermal image from its pits to create a single, multi-sensory picture. In its mind, it literally sees the warmth of its prey superimposed on its shape.

#### **The Ultimate Night Hunter**

This system is perfect for a predator that hunts warm-blooded prey in complete darkness. A mouse cannot hide from a pit-viper. Even if it's perfectly camouflaged and motionless, its body heat gives it away as clearly as a beacon.

The pit-viper's world is a fusion of the visual and the thermal, allowing it to perceive a dimension of reality that is entirely invisible to us.

### **Conclusion: A World of Different Views**

So, what have we learned from our six journeys?

The Bird lives in a world of hyper-detail and hidden colours we cannot see.

The Dog trades colour for a world rich in motion and scent, perfectly visible in the twilight.

The Pit-Viper sees the very heat of life itself, creating a composite image that is the stuff of science fiction for us.

The Giant Squid shows us an eye optimized for gathering light in total darkness, with an elegant wiring that avoids a blind spot.

The Jumping Spider demonstrates a system of specialised, collaborating eyes that manage attention and detail in a way that would make any engineer jealous.

The Scallop proves that you don't even need a lens—or a brain—to see, using a sophisticated mirrored telescope instead.

There is no single, "correct" way to see the world. Each animal's vision is a perfect adaptation, a window onto a reality tailored for its survival. It reminds us that our human perspective is just one version of a much richer and more varied tapestry of experience.

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