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1822



# NEWSLETTER

## Yorkshire Philosophical Society

Promoting the public understanding of science since 1822

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### *From the Chair*

Dear Members,

We are pleased to enclose your copy of the YPS Annual Report for 2020 with this newsletter. Thank you to Carole Smith, Editor, and her team, for producing it in such unusual circumstances. Reviews of our lectures and other activities are included as usual, whether held in person or on Zoom, and after a year dominated by the Covid-19 pandemic we are particularly interested to present John Bibby's article on contemporary parallels with York's nineteenth century cholera outbreak.

The Yorkshire Museum will open in July (see page 2) with a Richard III exhibition and we will email further details as soon as have them. In the meantime we are continuing our programme of lectures and other activities on Zoom. The programme of speakers is updated regularly on <http://www.ypsyork.org> and we are experimenting with recording some of the talks.

#### With this Newsletter

- ◆ Garden Party at York Medical Society Rooms, 15 July
- ◆ "The Missing Lynx" lecture, 20 July
- ◆ AGM papers
- ◆ Annual Report 2020

*If anything is missing, contact Frances Chambers as below.*

**LARGE PRINT COPIES OF THIS NEWSLETTER ARE AVAILABLE ON REQUEST FROM [info@ypsyork.org](mailto:info@ypsyork.org) or 01904 656713.**

Opinions expressed in the articles that follow are those of the individual writers and do not necessarily reflect the views of the YPS.



*Who is this? See page 8 to find out.*

In January we enjoyed Professor Laurence Wilson's lecture on "Learning physics from ancient microbes: archaea and life at extreme conditions". In February we hosted Professor Paul Dodds, from University College, London, although speaking to us on Zoom from Spain. The slides from his lecture on "The Hydrogen Economy" are available on the Society's website <https://www.ypsyork.org/events/the-hydrogen-economy/>

March saw an inspiring Café Scientifique on "Farming, food and climate change – can we eat

our way to a brighter future?”, presented by Neil Douglas Fuller, Technical Director, Atlas Sustainable Soils Programme. Neil suggested that anyone wanting further details could follow the project at <http://www.soilguide.co.uk>

At the AGM this summer we will be thanking two members who have undertaken two of the most important roles in the Society over many years and who are also retiring as Trustees from the YPS Council. Dr Rod Leonard, as Honorary Treasurer, has been meticulous in his care of our finances and has worked in great detail to rationalise the accounts and hand over this role in excellent order. As Honorary Secretary, Mrs Margaret Hammersley has worked hard to update our policies, codes of conduct and other documentation to ensure that we are operating accurately to Charity Commission requirements for societies such as ours. Throughout the last year I have particularly appreciated their advice at a time which has been challenging for the YPS, as for most charities. I will find an opportunity when we can meet again in person to thank them both more fully.

As a result we are interested in recruiting volunteers who may have some free time to support the management of the Society. We are particularly keen to recruit some help from members with financial, marketing, publishing or charity governance backgrounds. Do contact myself, the Clerk or any Trustee, to discuss potential involvement; most of the roles are fascinating, rather than onerous, and you will be made welcome on Council or within other YPS groups.

On behalf of the YPS Trustees and myself I send you our good wishes.

*Catherine Brophy, Chair*  
[chair@ypsyork.org](mailto:chair@ypsyork.org) York 499179

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## Conservation Area Advisory Committee

In the March newsletter we asked for a volunteer to replace Jim Spriggs as the YPS nominee on the **City of York Council’s Conservation Area Advisory Committee**. In response two members kindly offered their services, and we can now announce that John Stevens has taken on this role. We are very grateful to Jim Spriggs for his many years reporting planning concerns to the Society.

John has reported two areas of interest from recent committee meetings that members may wish to follow up:

Enterprise Retirement Living is undertaking the redevelopment of Bootham Hospital into a retirement complex. There is concern about the loss of heritage items relevant to the history of the building, which is important in the development of mental health provision in the city. Members can give their feedback online at: <https://www.boothampark.co.uk/feedback.html>

The Rowntree Society has set up a Cocoa Works Redevelopment: Heritage Working Group which is working with the developers on the future of the historical Joseph Rowntree Memorial Library. Details on their website:

<https://www.rowntreesociety.org.uk/currentprojects/cocoa-works-redevelopment-heritage-working-group/>

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## Annual General Meeting

22<sup>nd</sup> June 2021

At the April meeting of the YPS Council it was agreed that, as it was not clear when indoor venues will be available and what capacity limitations there will be due to Covid-19 regulations, we would hold the 2021 AGM on Zoom on 22<sup>nd</sup> June at 7pm followed by a talk at 7.30pm. Members will be able to vote via the **poll** tool on Zoom and the Zoom invitation will be sent nearer the time to all members who have given us an email address.

*AGM documents are included in this mailing.*

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## York Museums Trust News

We were delighted to hear the news that York Museums Trust has been awarded £423,226 from the second round of the Government’s Culture Recovery Fund.

**Reyahn King, chief executive of York Museums Trust, said:**

“This money is a lifeline for the Trust which gives us the support so badly needed following the devastating impact of the pandemic.

“We are delighted that it will allow us to reopen the Yorkshire Museum in the summer for the first time in over a year; we can’t wait to welcome visitors back to see some of the city’s, and the country’s, finest treasures.

“It will also ensure we remain financially viable as we hopefully begin to reopen all of our cultural venues in a way that enables us to welcome larger audiences and generate our own income once more.”

The Trust continues to welcome individual donations to help it through these difficult times. If you would like to support YMT and the Yorkshire Museum in this way, donations can be made using Paypal or credit or debit card via the YMT website:

[Donations - York Museums Trust](#)

## News from the Activities Group

We are delighted to announce that the much-postponed Cambridge tour will finally go ahead, leaving York on 1<sup>st</sup> July and returning on the 4<sup>th</sup>. As some who booked earlier had to withdraw, we opened the tour to other people, and have had a good number of new bookings. At the time of writing, there are only two vacancies, which we would like to fill.

However, we decided to postpone the Stratford tour, planned for November, as the Guide Dogs for the Blind puppy breeding centre, which was a major feature, will not be accepting visitors. We plan to run this next year, so do watch out for it; it should be a fascinating tour.

In spite of the ongoing problems in making arrangements for real-life activities, with many of the staff who arrange bookings still furloughed, Catherine Brophy has managed to arrange a get together on Thursday 15<sup>th</sup> July in the lovely setting of the York Medical Society. She will bring us up to date with future plans while we take the opportunity of meeting friends over strawberries and cream, and drinks. See below for further details.

Sharon Lusty has also been able to reserve the York Hilton for our annual dinner on Wednesday 8<sup>th</sup> December, so please save the date.

Over the last three months, we have been able to arrange a number of virtual events, which have been well received by members. In March, Manuela Sowter took us on a virtual tour of York Cemetery, which she had been visiting during lockdown. Catherine Brophy arranged a very informative presentation on Wentworth Castle and Wentworth Woodhouse by Dr Patrick Eyres, and an informal presentation on the manufacture of chocolate by Ashley Petch, York Cocoa House Events Manager. In April, Margaret and Rod used their lockdown review of photographs to present memories of their experiences in the Caribbean in the early years of the millennium. This will be repeated on 26<sup>th</sup> May, as an experiment in recording presentations. We hope that when we have mastered this technology we will be able to record lectures and other presentations and make them available on YouTube. For this event we will invite an audience from YANT (the National Trust group), but it also gives you a second chance to spend an hour enjoying the sunshine of the Caribbean if you missed it first time round. Sadly, we felt we had to cancel the virtual tour of Bletchley Park, originally planned for 20<sup>th</sup> January, and then postponed. It seemed that their Education Department had no clear plans about when to make these tours available again, We might try again in the winter, when, with luck, it will be only the cold weather keeping us indoors.

Our next committee meeting is by Zoom on 20<sup>th</sup> May, by which time the situation should be clearer, and we can try to arrange a more active programme for the rest of the year.

Margaret Leonard

## YPS Garden Party

Thursday 15<sup>th</sup> July

Members are invited to join us at the York Medical Society Rooms at 2.30 pm for a celebration to include a short presentation about future plans, including for the 2022 Bicentenary, followed by time to talk to friends both new and longstanding, over strawberries and cream accompanied with wine or juice. There will also be a chance to explore the secret garden here, weather permitting, and to look at the Tempest Anderson Exhibition. Booking form enclosed at £10 per head to cover costs. (*We are hoping that by July we will be able to host this indoor/outdoor meeting for 50 people, starting in the lecture room but then spread out through the building and garden.*)

## Notes from the Geology Group

Further notes on geology in the time of Covid.

- 1a) Virtual Trips:
 

**Try the North Pennines AONB.** This is also a UNESCO Global Geopark.  
<https://www.northpennines.org.uk/visit-explore/area-guides/>  
 The Whin Sill is particularly dramatic  
<https://www.northpennines.org.uk/whats-special/geology-and-landscape/>  
<https://www.northpennines.org.uk/wp-content/uploads/2019/03/North-Pennines-Geodiversity-Action-Plan-2018-to-2022.pdf>
- 1b) Virtual Events and Talks:
 

**The Geological Society** runs talks for each year on a theme. 2021 is the Year of Space.  
 A few of the talks have passed and some are sold out, but all are or will be available on their YouTube channel. They also run public lectures online and YouTube  
<https://www.geolsoc.org.uk/space21/lectures>  
[https://www.youtube.com/channel/UCzhX\\_LOB1xUwIDmckTrPOqw](https://www.youtube.com/channel/UCzhX_LOB1xUwIDmckTrPOqw)
- 2) Women and Men in Geology:
 

With the 200<sup>th</sup> Anniversary of Kirkland Cave and then YPS, it is time to start looking at **William Buckland (1784-1856)**. He investigated the fossil bones and coprolites, identifying some of them and experimented with the effects of hyena gnawing on bones and their faeces. Buckland's views developed, over a few years, from a great flood theory of a deluge of water sweeping bones into a cave to an appreciation that bones represented ancient communities of hyenas from a time when life and climate were very different. He wrote *Reliquiae Diluvianae* (1823; "Relics of the Deluge") and *Geology and Mineralogy Considered with Reference to Natural Theology* (1836), published as one of the Bridgewater Treatises.  
<http://www.oum.ox.ac.uk/learning/htmls/buckland.htm>  
<https://makingsscience.royalsociety.org/s/rs/people/fst00048325>  
<https://whitbymuseum.org.uk/whats-here/collections/fossils/kirkdale-cave/>  
<https://www.bshs.org.uk/travel-guide-kirkdale-cave>  
<http://nymcc.org.uk/kirkdale-cave/>  
<https://www.ypsyork.org/about-yps/yps-history/1822-2/>

- 3) Online Study: Yorkshire-based. The following carry over from last month:  
**York University CLL and Liam Herringshaw.**  
 York University CLL course **The Geology of the Yorkshire Dales** is being repeated on 22<sup>nd</sup> May.  
<https://store.york.ac.uk/short-courses/centre-for-lifelong-learning/short-courses/the-geology-of-the-yorkshire-dales-second-cohort>  
 Liam is also running CLL courses on 7<sup>th</sup> and 19<sup>th</sup> June, **Exploring the Landscape of York** and **Exploring the Landscape of Yorkshire**  
<https://www.york.ac.uk/lifelonglearning/saturday/>
- 4) Trips outside: Yorkshire-based. (North Pennines within reach, see #1.)  
 To accompany the Café Scientifique Geopark talk held on 5<sup>th</sup> May, look at:  
**Jurassic and Cretaceous rocks of the Market Weighton area - an excursion**  
[http://earthwise.bgs.ac.uk/index.php/Jurassic\\_and\\_Cretaceous\\_rocks\\_of\\_the\\_Market\\_Weighton\\_area\\_-\\_an\\_excursion](http://earthwise.bgs.ac.uk/index.php/Jurassic_and_Cretaceous_rocks_of_the_Market_Weighton_area_-_an_excursion)  
 Rifle Butts is the site of late Cretaceous Northern Province Chalk sitting unconformably on Lower Jurassic mudstones, demonstrating the effect of the geologically important Market Weighton Block; a putative granitic batholith. Walk on a meltwater spillway now a disused railway. On a sunny day, the chalk flowers flourish and the birds sing.
- Hidden Horizons are running Hidden Geology Walks with Liam Herringshaw on 31<sup>st</sup> May, 14<sup>th</sup> and 28<sup>th</sup> June at Burniston Bay, Staithes and Filey.  
<https://hiddenhorizons.co.uk/collections/expert-geology-walks>
- 5) Our Museum of the Month:  
**North Lincolnshire Museum in Scunthorpe.** This has an excellent display on the Jurassic Seas, including the Frodingham Ironstone (which created the iron and steel town of Scunthorpe) and a recent discovery of the Jurassic Scunthorpe Pliosaur. Not much online, better to visit when open, though there is a 3-D virtual tour available.  
<https://www.northlincs.gov.uk/tourism-museums-the-arts/welcome-to-north-lincolnshire-museum/>  
<https://www.northlincs.gov.uk/news/prehistoric-sea-monster-found-in-north-lincolnshire/>  
[https://www.thecollectionmuseum.com/assets/downloads/IS\\_geology\\_1\\_the\\_jurassic\\_sea.pdf](https://www.thecollectionmuseum.com/assets/downloads/IS_geology_1_the_jurassic_sea.pdf)
- 6) Books and Mags:  
**Deborah Cadbury: The Dinosaur Hunters.**  
 Buckland gave the first description of a dinosaur, Megalosaurus, though Robert Owen named Dinosauria. Buckland was the midwife of the rivalry between Gideon Mantell and Robert Owen.  
[https://www.abebooks.co.uk/servlet/SearchResults?isbn=1857029631&cm\\_sp=mbc--ISBN--all](https://www.abebooks.co.uk/servlet/SearchResults?isbn=1857029631&cm_sp=mbc--ISBN--all)
- Ross Barnett: The Missing Lynx, The Past and Future of Britain's Lost Mammals.**  
 From last month. The author will be coming to talk to us about Kirkdale Cave on 20th July (see page 10 and enclosed booking form).  
<https://www.bloomsbury.com/author/ross-barnett>

*Paul Thornley*

## Contemporary Scientist No 5

### Dr Joanna Buckley

Back when I was seven, the gift of a chemistry set sparked my interest in chemistry. I completed every single experiment, charring the kitchen work surface with the spirit burner and staining the dining room carpet with indicator in the process (when we changed the carpet several years later, my Dad made sure he kept that bit for posterity!). Thankfully, my practical technique improved and I studied for a Masters degree and PhD in Chemistry at the University of York, where my research focused on nanomaterials and I developed a passion for science communication.

I now work for the Royal Society of Chemistry and am based at the University of Sheffield, helping to promote chemistry in the region. I write and talk about science whenever I can to whoever will listen, and I'm particularly passionate about food chemistry. In 2021 I introduced the RSC's "Steps into Science" for Primary School teachers.

<https://www.sheffield.ac.uk/chemistry/schools/edible-experiments>



## George Stubbs (1724-1806)

*There is more going on in Stubbs' paintings than the simple representation of animals in landscapes<sup>i</sup>*

George Stubbs may not be thought of primarily as a scientist. Nor was he a member of the Yorkshire Philosophical Society, and yet his associations with York, Yorkshire and the Society were not inconsequential.

Like Leonardo da Vinci, Stubbs was intensely interested in anatomy, both human and animal. The son of a currier, engaged in curing leather, Stubbs began his anatomical studies at the age of eight, just as he was developing an interest in painting. After a very brief and unsuccessful apprenticeship with Lancashire painter, Hamlet Winstanley, Stubbs moved to York in about 1744 where he was able to pursue his interest in anatomy, studying human anatomy under Charles Atkinson, brother of James, founder member of the Yorkshire Philosophical Society and based at the County Hospital.<sup>ii</sup> His first experience of the publishing world, while still at York, was with his illustrations for a 1751 textbook by John Burton entitled *Essay towards a Complete New System of Midwifery*. In order to perfect his illustrations, Stubbs personally dissected the bodies of women who had died in childbirth. However, although he continued to study human anatomy throughout his career, his main focus was on animals and especially horses.

Following a short trip to Italy in 1754, Stubbs returned to Britain, setting himself up in a barn just outside the Lincolnshire village of Hockstow, where he pursued his anatomical studies, largely thanks to his early patrons, the Nelthorpe family who commissioned several paintings. Stubbs was nothing if not thorough. Over a period of eighteen months, he suspended the carcasses of dead horses by means of block and tackle, systematically dedicating himself to an understanding of their workings by peeling off

layer after layer until he reached the skeleton, whilst making copious sketches of each stage of the musculature, ligaments, veins, glands and cartilages. In order to preserve the rigidity of the carcasses, he injected their veins with tallow wax. Owing to the dreadful smells of decomposition, seclusion was vital for this work, in which Stubbs was aided by his partner, Mary Spencer, by whom he had a son, the artist George Townley Stubbs.

Moving to London in 1758, Stubbs attempted to get an engraver interested in his anatomical drawings, but when this failed he set about engraving them himself.<sup>iii</sup> By 1766 he produced *The Anatomy of the Horse* based on eighteen of his engravings, profiling the front, rear and side of the horse, firstly as a skeleton and then building up the layers of animal tissue. For Stubbs, the primary aim of this study was to help artists understand the workings of the horse and to inform their art, though he also attracted the interest of natural scientists such as Joseph Banks and John and William Hunter. Significantly, Stubbs was not interested in the internal organs of animals, but focussed purely on their structure, using his scientific knowledge to enhance his art. Unlike most of his contemporaries, he rejected the study of classical sculpture and the grand masters, relying instead on his own powers of observation from nature. In this he was a true student of the eighteenth century enlightenment.

Whilst in London, notwithstanding he was largely self-taught as an artist, Stubbs attracted the attention of several wealthy young men, who actively pursued their interest in art with commissions for their country houses. One such was Lord Rockingham, who combined his passion for art with a love of science and horseracing, and it was at Rockingham's invitation that Stubbs visited his Yorkshire home at Wentworth Woodhouse with its extensive stables. It is not clear which of the two had the idea of a full

size painting of *Whistlejacket* against a plain background and with no mount, saddle or other accoutrement. What is clear is that what emerged was a striking and unprecedented portrait of a horse, and a horse with personality. One theory is that Rockingham had intended an equestrian portrait of George III, but on seeing the painting, was so taken with it that he abandoned his original idea. A more prosaic theory is that the painting was never finished. I suggest that this is unlikely as Stubbs had already painted a smaller portrait of the horse for Rockingham, also against a plain background, though with other horses alongside almost in the nature of a frieze. *Whistlejacket* had not been a particularly successful racehorse - certainly not in the top rank - and by the time Stubbs was in Yorkshire, had been put out to stud.<sup>iv</sup> However, bred from one of the first three



**Gimcrack**

Image credit: York Museums Trust (York Art Gallery)

Arabian stallions in Britain, the Darley Arabian, progenitor of thoroughbred Arabian stock in the country, *Whistlejacket* was valuable.<sup>v</sup>

Stubbs shows *Whistlejacket* rising to a levade, with his face turned towards the viewer. Although on closer examination some of the brushwork is loose, the horse's flexing musculature and veins are evident while his gaze exudes attitude. His luxurious pale tail flies out behind suggesting a wildness to this horse without saddle or rein. This is a vibrant depiction of a free and characterful animal and one drawn from personal observation. It is said to have been so lifelike, that when *Whistlejacket* accidentally caught sight of his portrait he reacted aggressively as if to a rival, though this may have been a story circulated by Stubbs himself.<sup>vi</sup> The painting remained at Wentworth Woodhouse, on show in a specially created *Whistlejacket Room* until the 1970s when it was loaned out to various galleries before being purchased in 1997 by the National Gallery. York Art Gallery was fortunate in 2008 to benefit from the loan of the painting for an exhibition, just squeezing in the doors by centimetres.



***Whistlejacket***

© Copyright The National Gallery, London 2021

Among Stubbs' other subjects were dogs, lions, tigers, monkeys and even a kangaroo for which he only had the skin brought back by Banks to study, and which he inflated to inform his painting. Always keen to experiment, Stubbs started adding various unusual substances to his pigment such as pine resin, beeswax, oils and fats. Then in the 1770s he developed an association with Josiah Wedgwood, working on his ceramic tablets. Stubbs became fascinated by the possibilities and especially the development of enamels suitable for the firing process and as Jules

David Prown has observed, *The Reapers* created for Wedgwood was "constructed on a compositional armature as precise as an anatomical skeleton".<sup>vii</sup>

In spite of the standing in which Stubbs is now held by both the art world and the public, he was not regarded as being at the top of the profession as a mere 'horse painter' and was never made a full member of the Royal Academy. It was not until the middle of the twentieth century that his work was promoted by art historian Basil Taylor and collector Paul Mellon who was inspired to create what is now the Paul Mellon Foundation for British Art in Yale. It was Mellon who went on to acquire the world's largest collection of Stubbs' paintings which are now housed in the Yale Center for British Art.

For Stubbs, it was his love of painting which led him to delve into the world of anatomy, and his study of anatomy which led to a novel and more realistic portrayal of the animal world; science and art working hand in hand. Today, his legacy may be seen to lie more in his paintings, but scratch the surface to reveal the man of science.

Dorothy Nott

#### Notes

- i. *The Art of George Stubbs (1724-1896)* Jules David Prown, *British Art Journal* Vol. XVIII, No. 2, p.32.
- ii. He is likely to have met Francis Drake, author of *Eboracum* at the hospital.
- iii. Stubbs previously had some experience of engraving from his illustrations for Barton. As with his painting, he was self-taught and spent time perfecting his skill before publication in 1766.
- iv. His most famous win was the four-mile race at York in 1759.
- v. The Darley Arabian was introduced to Britain by the Darley family of Aldby Hall in East Yorkshire, where a lifesize portrait of him can still be seen. The other two horses were the Godolphin Arabian and the Byerley Turk.
- vi. It appears in a memoir by fellow artist and friend, Ozias Humphrey, part of which is devoted to Stubbs and to which Stubbs is said to have contributed.
- vii. *The Art of George Stubbs (1724-1896)* Jules David Prown, *British Art Journal* Vol. XVIII, No. 2, p.34.

#### **Gimcrack** (1760 – after 1777)

One of the 18<sup>th</sup> century's most famous racehorses, Gimcrack, a small grey horse descended from the Godolphin Arabian, had a successful career with 27 wins out of 36 races, before retiring to stud. The image on page 5 is a sketch by Stubbs, who painted the horse several times.

His name is perpetuated in York by the Gimcrack Stakes, run in August on the third day of the Ebor Festival, the annual Gimcrack Dinner, held at the racecourse in December, and the former Gimcrack pub on Fulford Road, which is now apartments.

## Spring has Sprung

Spring has finally arrived, ushering in longer hours of daylight and hopefully more sunshine. This heralds the arrival of Spring flowers and plants and shortly afterwards, Spring insects. In fact, for many, it is the appearance of the first bumblebees, after the snowdrops appear that heralds the arrival of Spring. One of the first to show is the big bumblebee, the Buff-tailed Bumblebee, *Bombus terrestris*

Many insects are now present in the Museum Gardens. The early hoverflies can be seen, often in sunny areas, particularly the brightly striped members of the Syrphidae. The hedge to the right of the entrance to the



*Syrphus sp* by Stuart Ogilvy

Edible Wood is a good place to spot them, especially in the afternoon when the sun is in the South. They can be seen resting on leaves in the sunlight. Another place favoured by hoverflies is the limestone pavement with the abundance of flowering plants.

Hoverflies really are the gardener's friends as they are good pollinators and in some families the larvae predate aphids and other plant-sucking insects.

Butterflies are starting to appear. Some of these, Peacocks, Small Tortoiseshells and Red Admirals will have hibernated over winter and will have been brought out by warmer temperatures. Brightly coloured Orange-tips and also Brimstones are out in the Gardens in good numbers. The butterfly border is a good place to see them. Peacocks can be seen particularly on the limestone pavement, basking in the sunshine and enjoying the warmth from the rock.

Beetle of the month in May has to be the Common Cockchafer or Maybug, large, brown and spectacular. A fresh one is covered in a downy golden "fur" which clings to the chestnut brown wing cases and the rest of the body and the big eyes are a glossy black. These



*Cameraria ohridella*  
by Stuart Ogilvy

beetles are often rather clumsy and the first you know of them is when they have fallen out of a tree and hit you on the head! The beetles spend up to three years as large curved larvae that are known in some parts of Britain as rook worms as this bird appears to have a particular liking for them as food.

Most people do not associate moths with daytime, but this is not the case. There are a large number of day flying moths, although many are small. May and June is a good time to see a beautiful daytime moth, the Mint Moth, *Pyrausta aurata*. Never present in large numbers, it is easy to spot because of its bright colouration. Very purple when freshly hatched, it

gradually fades to brown. This micro moth, (forewing length 7- 9mm), can be found, not surprisingly, by the mint in the Edible Wood. Another day-flying moth is the Chestnut Blister Moth, *Cameraria ohridella*; this tiny moth (forewing 4mm) is the moth whose larvae produces the brown blotches on horse chestnut leaves later in the year. First recorded in Britain in 2002 in the South of England it has rapidly spread north. It is now very common in the York area and is present wherever the food plant for the larvae is found. There are at least two broods a year. Another insect to spot is the spectacular Bee Fly with its imposingly large proboscis. Several have been sighted this year. They are often to be seen on the bank to the right of the pavilion and near the large log near the entrance to the Gardens from the riverside walkway.

Spring is of course synonymous with nesting birds and the Museum Gardens have a variety. Several of the commoner species like Blue Tit, Great Tit, Dunnock and Blackbird regularly nest here each year. This year there are Sparrows nesting in the walls of the Hospitium and a Blackbird near the gardeners' office. It is also likely that a pair of Nuthatches have nested in or near the Gardens. The Nuthatch has to be one of our most attractive birds. You often hear them before you see them; they have a characteristic whistling call. Unusually, they also have a tendency to run down tree trunks, which helps to identify them. The Nuthatches are often seen between the Hospitium and the city walls in any of the large trees. Other interesting birds to nest in the Gardens are Goldcrests, (Britain's smallest bird) and Long-tailed Tits. The latter make the most incredible globular nests out of moss and feathers. Sparrowhawks have also nested, behind the Art Gallery, and recently a pair of Mallards in the hollow tree near the butterfly border. Wrens regularly build their beautiful globular nests in the Gardens.

Birdsong is one of the harbingers of Spring and early mornings can be a riotous cacophony with Blackbirds, Song Thrushes and Starlings all in full voice. It is this time of the year when the Spring bird migration begins to gather pace with birds arriving along the Yorkshire coast. Hotspots for migrating birds are Spurn Point, Flamborough and Filey Brigg. The tired birds take shelter and rest in the wooded "cloughs" before moving inland. In the Museum Gardens Chiffchaff warblers are amongst the earliest migrants to appear, easily located by their distinctive "chiff chaff" call.



*Peony tenuifolia* by Stuart Ogilvy

Goldcrests also arrive in the Gardens, often in surprising numbers. If there is an influx along the coast small flocks can sometimes be seen here about a week later. Blackcap warblers can be heard in the gardens in most years, often singing from a concealed spot in a tree. In recent years both Chiffchaffs and Blackcaps have been noted to overwinter in Britain which may be the result of global warming.

Flowering plants are now appearing in increasing numbers. In the Museum Gardens snowdrops have come and gone but tulips are still much in evidence. Bluebells are to be found near the pavilion and in the limestone pavement the spectacular Peony tenuifolia is flowering. Wild flowers and plants are becoming more important now that Spring is in full sway. Lesser Celandine, one of the early flowering plants (sometimes as early as March), with their rosettes of yellow petals may still be found in shady places. Comfrey is very important at this time of the year for pollinators, attracting many types of insects including bees, hoverflies and beetles. The White Cowslip by the riverside walk is a favourite of the wonderfully named Hairy-footed bee. These small dark, very active bees are particularly plentiful when it is sunny. At this time of the year wild garlic is coming into season. It can be identified by its straplike leaves, white flowers and strong garlic smell. It can be responsibly foraged and used in salads, soups and stews. Its flavour is milder and sweeter than commercial garlic.

*Stuart Ogilvy*

## Meet Moses B. Cotsworth, member of the Yorkshire Philosophical Society



While preparing monthly accounts for the North Eastern Railway, Cotsworth became exasperated with the untidy fact that months were of different lengths, and in the habit of ending on different days of the week. The only logical solution to NER's accountancy problem, obviously, was to reorganise the year into 13 months, each of exactly 4 weeks. (No, I

know that doesn't add up to 365 days!). Although he did have other achievements in his career, such as reorganising British Columbia, Cotsworth pursued his obsession with Calendar Reform throughout his life, even persuading the League of Nations of its desirability.

This photo comes from his 'Rational Almanac', and was explicitly placed there so that the citizens of York would recognise him on the street, should they wish to approach him to discuss Calendar Reform. Although, possibly, recognition might have caused a hurried crossing of the street to avoid this ...

Should you wish to make the further acquaintance of one of our more unusual members, don't cross the street but proceed to our [Yorkshire Scientists and Innovators](#) pages where, should you wish, you will learn a great deal about Calendar Reform and, indeed, about Moses Cotsworth.

*Peter Hogarth*

## *The World According to Physics*

by Jim Al-Khalili

Princeton University Press, 2020

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In this elegant introduction, for the layperson, to the most profound insights of modern physics Jim Al-Khalili hopes to provoke wonder at just how far humanity has come in understanding the world we live in. Throughout the book the author stresses that the essence of the scientific method is the testing and verification of ideas through observation, measurement and experimentation. Physicists through the ages have often thought that "a theory of everything" is just round the corner but once again contemporary physicists are questioning this possibility. Although stressing the scientific method throughout, the author acknowledges the importance of "thought experiments" whereby the physicist develops a hypothesis and then they or others devise an imaginary experiment that can test its validity. One example given is of Einstein's two theories of relativity. Another example is Peter Higgs' theory of the existence of the Higgs boson, which was not confirmed until 2012 when the Large Hadron Collider particle accelerator provided the necessary data. Higgs was then awarded the Nobel Prize for Physics. This prize is only awarded to theories or discoveries that have been confirmed experimentally.

From exploring the fundamental concepts of space, time, energy and matter Jim Al-Khalili then explains how the three pillars of modern physics: quantum theory, relativity, and thermodynamics must come together in a future deeper understanding of reality. A list of popular science books for each chapter is included at the end of the book, which provides an opportunity for the reader to continue their exploration of contemporary physics. The writer is an excellent communicator who explains difficult concepts in an accessible and fascinating way.

*Catherine Brophy*

## The Yorkshire Museum Clock

It feels like a long time since we were able to walk into the foyer of the Yorkshire Museum, on our way to hang up our coats before a lecture, take grandchildren to see the Roman lady's hair, or head into the shop to buy a birthday gift. While doing any of these things, perhaps you have paused to wonder about the handsome longcase clock which has stood there as long as any of us can remember.

YPS member, Angus Bell, was not content just to pause and wonder. The clock has no label and museum staff knew little about it, so Angus, a horological enthusiast, decided to find out more. He was introduced to Kenneth Cobb, then studying for a MA at West Dean College, and together they started to research the clock and its maker, discovering that it

was donated to the Yorkshire Philosophical Society by one of its early treasurers in 1831 and has probably remained in the same location for nearly two centuries.

The outcome of their research has recently been published as two articles in the March issue of *Antiquarian Horology* which has the dial of the Yorkshire Museum clock adorning the front cover. Off-prints of the articles, “*Charles and Joseph MacDowall and their helical clockwork*” and “*Technical note: An examination of the MacDowalls’ helix lever gearing*”, are available in the Reading Room of the Lodge and may be borrowed by members. Please contact Frances if you would like to know more about this fascinating timepiece – and when we are once again allowed into the foyer of the Yorkshire Museum you can pause to look at the clock with admiring rather than questioning wonder.

## New members needed!

One of the good things to emerge from lockdown has been our introduction of online lectures and virtual events. Of course, we miss gathering in person, but we have received many positive comments from those who live away from York, dislike coming out on a dark winter’s night, or find it difficult because of domestic commitments. As one member put it, Zoom lectures are “a very satisfactory experience from the luxury of a sofa at home”.

We’re delighted to announce that our limit on attendance at Zoom lectures has now been increased from 100 to 500, meaning that even for our most popular topics no one should be disappointed by being unable to join the session. The next step is to start recording lectures (where we have the speaker’s permission) in order to make them available via a YouTube channel to those unable to join the live event or who have suffered one of the pitfalls of attending a Zoom lecture from home – the telephone call! We plan to try recording Margaret and Rod Leonard’s repeated talk “**Caribbean Memories – an escape from Covid**” on 26<sup>th</sup> May; we’re keeping our fingers crossed that the technology runs smoothly.

The temporary cessation of live events has, however, brought one particular disadvantage. Our Tuesday evenings at the Yorkshire Museum attracted many non-members who willingly put donations in the basket and piggy bank (remember that!) on our reception desk and, in many cases, joined the Society. Without this, our income has decreased and membership numbers are falling.

### *We hope you can help!*

a) Now that we can accommodate more attenders at our Zoom lectures, please spread the word about them – and do suggest to non-members that if they enjoy what they see, it’s possible to make a donation to the

Society via Paypal using the **Payments** link at top right of our website homepage. It’s not necessary to have a Paypal account; just a credit or debit card.

b) Better still, invite them to join the Society! Even when times have returned to something more normal and live events have resumed, we still plan to include some virtual lectures as part of our programme and to make recordings available. This means that people no longer have to be based in York to enjoy YPS membership. Please recommend us to your friends elsewhere.

c) Finally, if you know of a local venue that could display a poster or a stock of leaflets, please tell us.

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## Exploration from your armchair

York festival of Ideas (8<sup>th</sup> to 20<sup>th</sup> June 2021)

Hard to believe but York Festival of Ideas has reached its 10<sup>th</sup> anniversary. This year’s programme is once again mainly on Zoom but the lack of live interaction is balanced by the opportunity for contributions from outside York and even outside the UK, making the Festival title “Infinite Horizons” particularly appropriate.



Our own contribution to the programme comes on 9<sup>th</sup> June, 7.30 to 8.30 pm via Zoom:

**You’ve changed your tune: intonational variation and change in Middlesbrough (and York)** by Dr Sam Hellmuth, Senior Lecturer, Department of Language and Linguistic Science, University of York

Intonation patterns form a large part of how we characterise regional accents and dialects but the description and documentation of variation in intonation patterns across English dialects lags far behind our understanding of other accent features such as vowels and consonants. This talk offers a first description of Middlesbrough English intonation patterns and show that there is a stark difference in the patterns used by younger and older speakers, a common indicator of dialectal change, and closes with analysis of an initial set of recordings from York speakers, suggesting potential change in York also.

This talk is free but advance booking is required via the York Festival of Ideas website, including for YPS members. Please go to: [You’ve Changed Your Tune: Dialect change, York Festival of Ideas](#)

For further information about the rest of the Festival and details of how to book: [2021 Festival, York Festival of Ideas](#)

**Pint of Science** (17<sup>th</sup> to 20<sup>th</sup> May 2021)

By the time you receive this newsletter, York's Pint of Science festival will be drawing to a close but many of the talks will be available later on its YouTube channel which also has recordings from past years. The programme is available at: [pint21 | Pint of Science](https://pint21.org/)

Here's one to whet your appetite:

***From Atoms to Galaxies, the Circus Act of Gravity*** – 7pm on 18 May

The invisible & mysterious force of gravity is all around us and affects everything from atoms to galaxies. We look at scientific discovery using the medium of circus. Tickets and further details are available here: <https://pintofscience.co.uk/event/from-atoms-to-galaxies-the-circus-act-of-gravity>

And finally one for historians and needlework enthusiasts ...

**The Bayeux Tapestry** can now be viewed online. Scroll through the story of the Norman Conquest, and use your mouse to magnify the image until you can see the individual stitches. "Hic Harold" and "Hic Willem"! [Explore the Bayeux Tapestry online - Bayeux Museum](#)

**Diary**

Please note that the following is correct at time of going to print but details may change and we continue to add new events. For the most up-to-date information, please check the website: [www.ypsyork.org](http://www.ypsyork.org)

**Wed 26 May, 7.30 pm – YPS Talk**  
**Caribbean Memories – an escape from Covid**

Margaret & Rod Leonard

*A second chance to hear this very enjoyable talk, given on 7<sup>th</sup> April*

**Tues 1 Jun, 7.30 pm – YPS Lecture**

**Plastics in the World of Art**

Professor Norman Billingham

**Wed 9 Jun, 7.30 pm – Café Sci**

**You've changed your tune: intonational variation and change in Middlesbrough (and York)**

Dr Sam Hellmuth

*Hosted on Zoom by YPS this event is part of the 2021 York Festival of Ideas (see page 8). Please book via their website <https://yorkfestivalofideas.com/2021/calendar/changed-tune/>*

**Mon 14 to Fri 18 Jun** *Frances is on leave this week*

**Tues 22 Jun, 7.00 pm – Annual General Meeting**

**On Zoom – an invitation will be sent out by email - Please do join us if at all possible**

This will be followed by a YPS Lecture at 7.30 pm:

**Time Travel for Beginners: the new and old worlds of archives**

Gary Brannan, Keeper of Archives and Special Collections, Borthwick Institute for Archives

**Thur 1 to Sun 4 July**

**Cambridge & Sutton Hoo Study Tour**

*STOP PRESS - Two places available!*

**Thur 15 July, 2.30 pm**

**Garden Party at York Medical Society**

*See enclosed booking form*

**Tue 20 July, 2.30 pm – YPS Lecture & Prize Giving**  
(Venue to be confirmed)

**The Missing Lynx with Ross Barnett**



To celebrate "Kirkdale 200" we are delighted that Ross Barnett will be coming to York to speak to us about his research. We will also be presenting the John and Anne Phillips awards for both 2020 and 2021 to Hull University Geology students.

*We plan to hold this in a physical venue but as we are not sure if any Covid-19 restrictions on numbers will still be in place, please book your free place on the enclosed form. We will email or phone you with details nearer the time.*

**Wed 8 Dec**  
**Annual Dinner**

Venue: York Hilton

**A Stratford-upon-Avon Tour with a difference!**

*This tour has been postponed to 2022.*

*Unless otherwise stated, all the talks listed will be on Zoom. Details for each lecture will be sent to members by email. We have now increased our limit to number of participants so no one should be unable to access our lectures on the evening, and we continue to look into recording lectures and making them available on a YPS YouTube channel.*

**SAFEGUARDING**

The Yorkshire Philosophical Society (YPS) takes seriously its obligations and responsibilities to protect and safeguard the welfare of any child, young person or vulnerable adult who attends our events.

Unless otherwise stated, all our events are open to members and non-members. We welcome children provided that they are accompanied by a responsible adult.

The Safeguarding Policy is displayed at the Lodge. The Safeguarding Officer is the Chair, Ms Catherine Brophy ([chair@ypsyork.org](mailto:chair@ypsyork.org)) to whom all safeguarding concerns should be addressed.

**PRIVACY**

The Yorkshire Philosophical Society (YPS) holds members' names and addresses and, where supplied, telephone numbers and email addresses. This personal information is used for sending out details of our activities. The information remains confidential and is retained within the Society. Members may have access to their personal information on request by contacting the Clerk at [info@ypsyork.org](mailto:info@ypsyork.org)