

DSWA Dorset News

February 2021

‘February brings the rain, thaws the frozen lake again’. After ten days of icy weather, which I enjoyed because it froze all the mud on the footpaths and made possible some of my ‘off piste’ daily walks, we are now in the wet and muddy phase of winter. But it’s warming up, the days are drawing out, bulbs and plants are stretching towards the sun, and the wildlife is tuning up. Still in lockdown but hopefully, with the vaccine being rolled out at record speed, we could all be back on a wall by April. Meanwhile, I’ve been working on interesting newsletter stories to raise our spirits and keep at bay the nagging resentment at having to pay our subs whilst twiddling our thumbs and losing our walling muscles. Yes, you are not alone, we all boil over at times.

I hope you enjoyed the extended review of Trev Haysom’s book, *Purbeck Stone*, in January’s newsletter. This month I reviewed a new biography of Mary Anning for the *British Journal for the History of Science*, so I’ll be sharing her story in this newsletter. Some of you will be aware of the crowd-funding campaign, ‘Mary Anning Rocks’, which was launched in 2019 to commission a statue of Mary for her home town of Lyme Regis (<https://www.maryanningrocks.co.uk>). The campaign reached its target £100,000 by January although fund raising continues in order to create a learning legacy.



Thanks to everyone who gave me feedback on last month’s newsletter. This is always very welcome, particularly if you can add more information to any of the stories featured. Professional waller, Martin Stallard, did just that after he read the feature on vertical walling.

More about vertical walling



Martin lives and works mainly in South Devon. One of his specialities is building traditional stone facing earth banks usually topped with a hedge. This particular wall (left), which also features in the DSWA 2021 calendar (July), is built of slate with huge boulders of schist, the oldest rocks in Devon. Most of these are mica schists, characterised by the predominance of the flaky mineral mica, hence

their local name 'shiners' because they shimmer in reflected sunlight. When building these walls, Martin says that it's important to bury stone equivalent to a third of the height of the wall and compact the soil all around it firmly with a tamper. It is hard work to get the shiners in place and Martin needed a digger to manouevre this large one into position at the end of the wall.



There are also shiners in this recently repaired single face granite commons boundary wall on Dartmoor. Martin hopes to run two-day courses on Dartmoor when we're finally out of lockdown so if you're keen to build a Devon-style wall, contact Martin at:

<http://www.martinstallardstonework.co.uk>

Mary Anning, ‘Princess of Palaeontology’ (1799-1847)

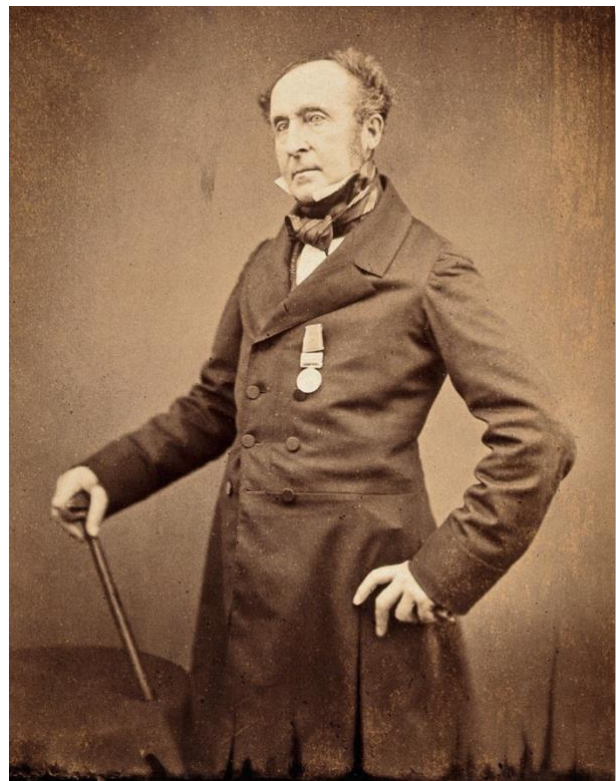


Mary Anning’s importance in the history of vertebrate palaeontology has never been in question. A professional ‘fossilist’, exploring the sedimentary rocks deposited under the sea around Lyme about 200 million years ago, she became a significant figure in the burgeoning geological community. Anyone interested in fossils went to Lyme Regis to meet and learn from her.

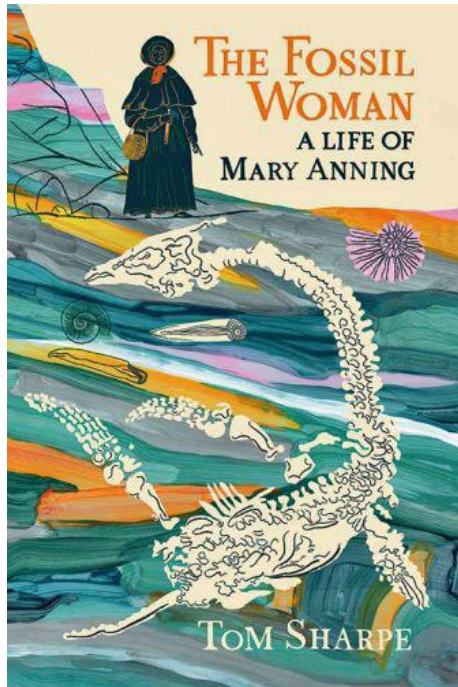
This portrait of Mary by William Gray, was painted in 1842, a few months before her 43rd birthday. Her little terrier Tray lies at her feet, and in the background, are a very indistinct Golden Cap and Thorncombe Beacon. The painting was in the Anning family so it probably hung in Mary’s fossil shop on Broad Street or in her home. In 1935, it passed to the Natural History Museum, London.

Mary corresponded with leading scientists in Britain and Europe including William Buckland, Henry De la Beche, Charles Lyell, Roderick Murchison, Adam Sedgwick, Georges Cuvier and Louis Agassiz. Murchison called her ‘that indefatigable purveyor to the store-houses of our science’, and Anning herself informed King Frederick Augustus II of Saxony that she was ‘well known throughout the whole of Europe.’

Photograph of Sir Roderick Murchison (1792-1871), who took up geology after leaving the army in 1815. Anning thought him ‘certainly the handsomest piece of flesh and blood I ever saw’. Murchison’s most celebrated geological work was the classification of Palaeozoic rocks into the Silurian system – the oldest contemporary classification of fossil-bearing strata. The film *Ammonite* (2020), which imagines a love affair between Mary (Kate Winslet) and Murchison’s wife Charlotte (Saoirse Ronan) has no basis in fact. The film producers also took liberties with the dates.



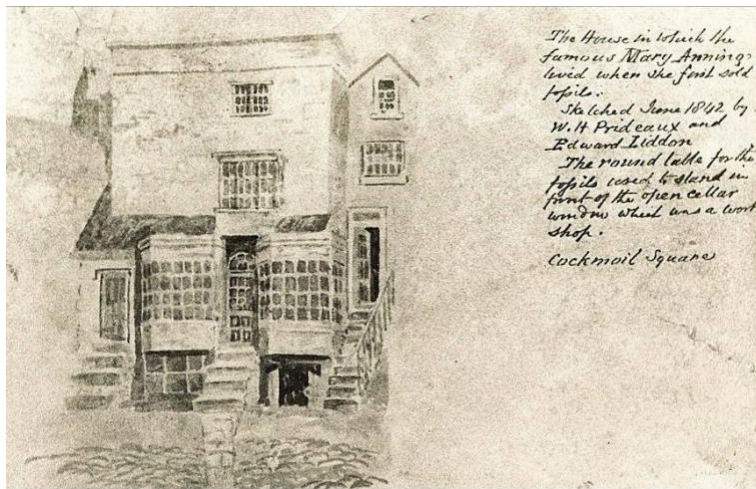
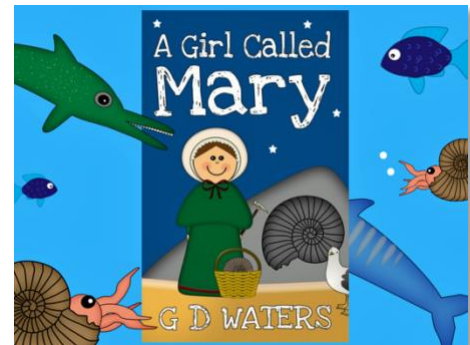
Charlotte Murchison was eleven years older than Mary, not twenty years younger as she appears in the film.



Geologist Tom Sharpe, who has written this latest biography, points out that more has been written about Mary Anning than any other British geologist apart from Charles Darwin. However, much of the literature is for young readers and the repeated re-telling of her story has meant aspects of her life accepted as fact with scant evidence to support them.

Whilst some of the children's books are cute, they focus on Mary's fossilising 'adventures' as a child with her

father, Richard, who was a carpenter but also collected and sold fossils from the family home in Cockmoile Square (below) where they lived from about 1808 to 1826.



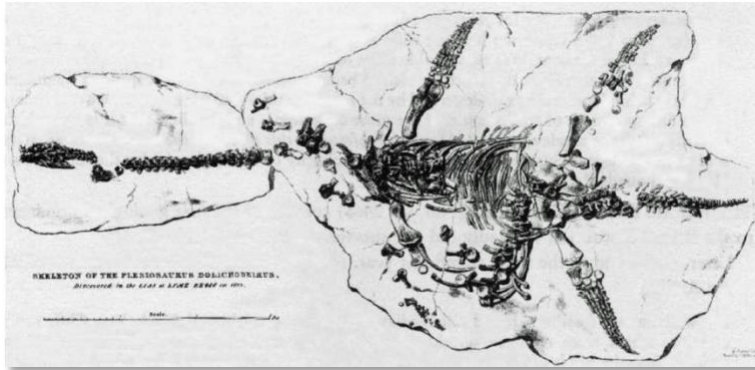
The house no longer exists but its footprint has been incorporated into Lyme Regis Museum.

Following her father's death from tuberculosis in 1810, leaving debts of £120, the family required parish relief, and so for eleven-year-old Mary, 'fossilising' was a necessity. She was a working-class woman in rural Dorset, at that time one of the most deprived counties in England, and a contemporary of the Tolpuddle Martyrs (1833-34), who came to represent the

early union and workers' rights movements. We have no idea if or what Mary thought about the Martyrs and their popular cause because most of her diary notes in the form of common place books have been lost, apart from her final note book.

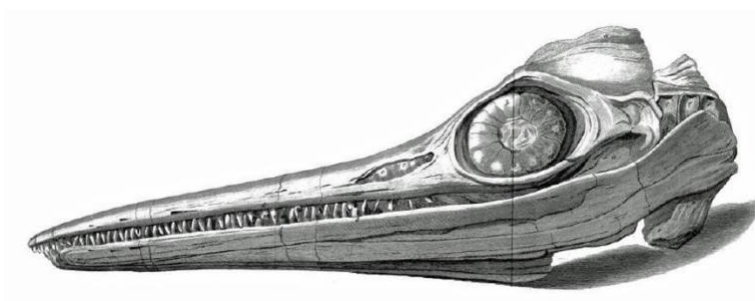
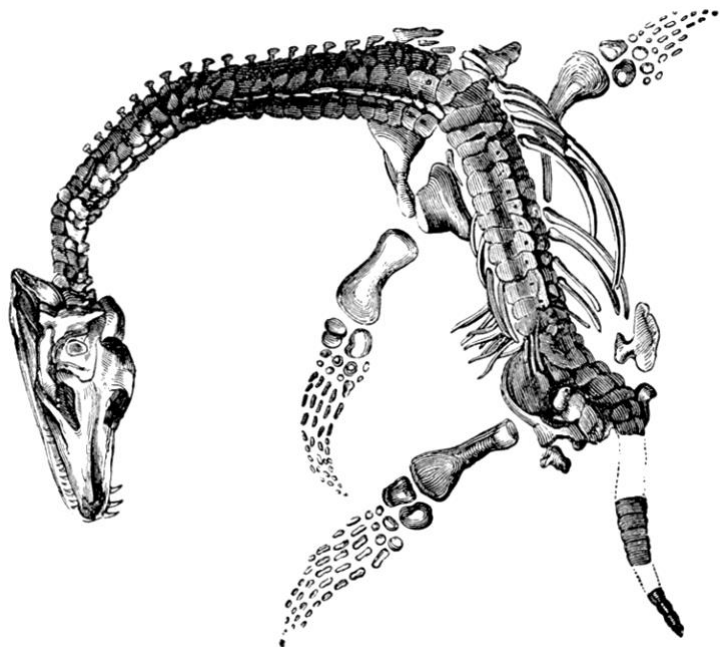
Exploring the facts of her life is no easy matter. There is no straightforward 'Mary Anning' archive and she left few personal effects. Historians are thus obliged to approach their subjects obliquely, in this case largely through the archives of her famous clients.

Mary Anning's wonderful discoveries

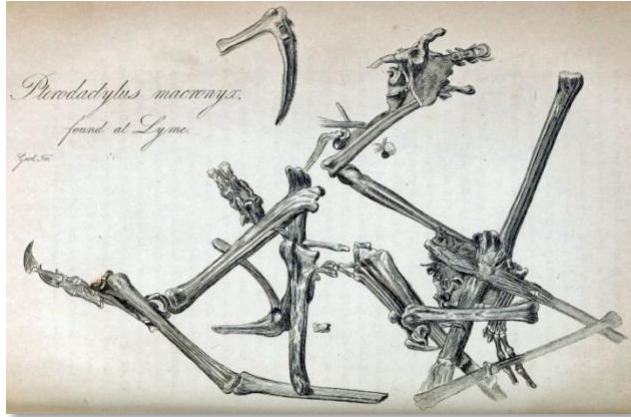


From 1811, sometimes accompanied by her older brother Joseph, Mary's discoveries included ichthyosaur skeletons and skulls, the first complete *Plesiosaurus dolichodeirus* (left), which looked so improbable that the French naturalist, Georges Cuvier thought it might be a forgery;

a *Plesiosaurus macrocephalus* (right), which she called 'the most beautiful fossil I have ever seen', and which was purchased in 1831 by William Willoughby, later Earl of Enniskillen, (and Fellow of the Geological Society) for 200 guineas (£14,916 today). The specimen is now housed in the Natural History Museum, London. Also, the first 'Pterodactyle' (*Dimorpodon macronyx*) seen in Britain, the fossil fish *Squaloraja*, belemnite fossils and their sepia ink bags, ammonites, 'verteberries' (isolated ichthyosaur vertebrae), coprolites (fossilised faeces), and fossil crinoids.



Ichthyosaur skull (*Temnodontosaurus platyodon*) found by Mary and Joseph Anning between Lyme and Charmouth in autumn 1811.



Fossilised bones of the ‘Pterodactyl’ (*Dimorphodon macronyx*) discovered by Mary in 1829 – the first seen in Britain although fossilised remains had previously been found in Germany. The following year this watercolour of a huge winged dragon was painted by the reverend George Ernest Howman. Presumably he knew of Mary’s find but not its size, which was that of a bird no bigger than a raven.



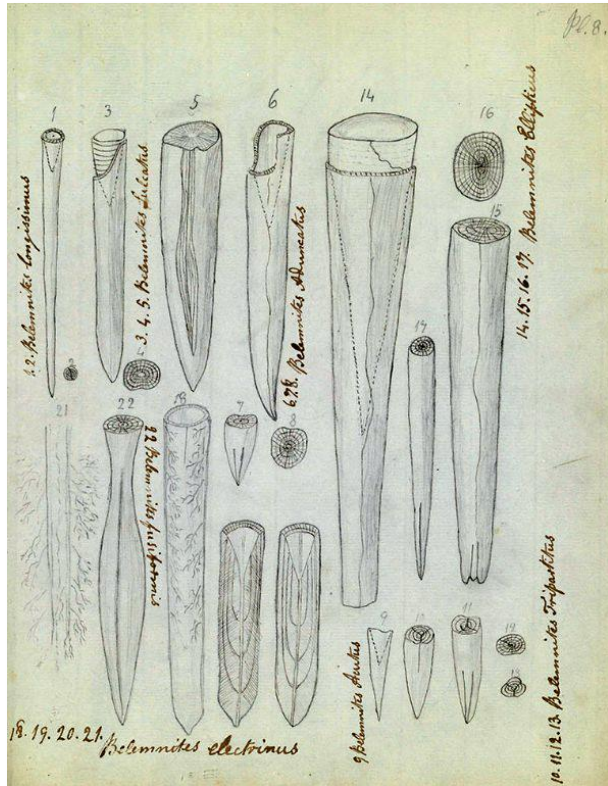
Ammonites, coprolites, and other small fossils were daily collections for Mary and these she sold in her shop to tourists and often to the local children.

She faced daily hazards in her work, walking for miles under the hanging Lias cliffs (below), usually after winter storms when cliff falls and landslides revealed fresh rock. She possibly enlisted the help of quarrymen who were accustomed to moving large blocks of stone onto barges and rowing them to the

Cobb. She also purchased fossils discovered by quarry workers.

Following an important find, Mary exposed the fossil from the rock in which it was embedded – a skilled task requiring an understanding of the creature’s anatomy. She often made a number of forays to search for missing anatomical sections before fitting together the blocks of bone-bearing rock. She was not reconstructing the skeleton but recognised the importance of displaying the fossil as it was preserved in the rock.





Belemnite fossils (also known as ‘bullets’) are very easy to find along the beach between Lyme and Charmouth – although not necessarily intact.

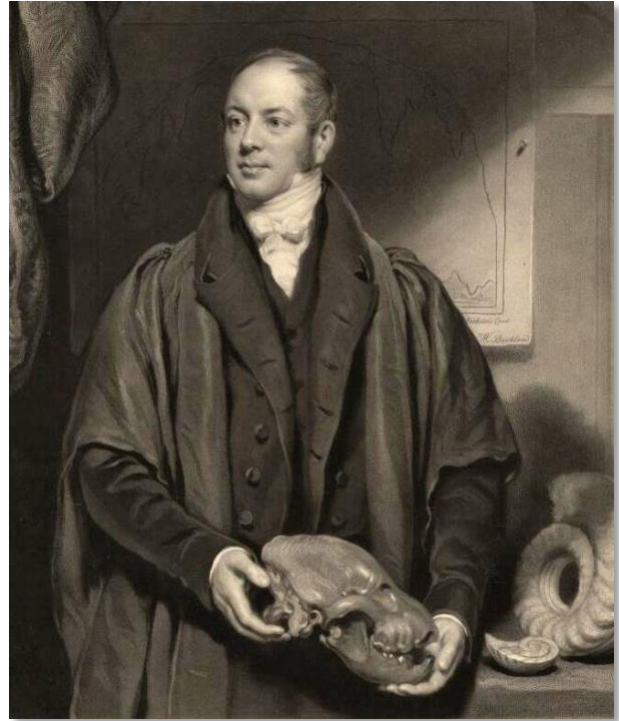
This was the pre-photography era so the only way of informing collectors of her discoveries was to have them visit her or to send drawings, which were time consuming after a day toiling by candlelight over a rock-embedded fossil in her workshop. Nevertheless, Mary was no mean artist as seen here in her diagram of belemnites. These were squid-like animals belonging to the cephalopod class of the mollusc phylum, therefore related to ammonites as well as to modern squids, octopuses and nautiluses.



As more of these hitherto unknown animals came to light, The Great Chain of Being, which repudiated extinction, became increasingly vulnerable. The Chain of Being was a hierarchical structure of all life and matter formulated by the Greek philosophers Plato and Aristotle. It was further developed by Christian theologians who placed God at the top of the chain and then down through man, animals, plants and minerals. By placing each species next to its closest relative, one could build up a linear arrangement linking man with the lowest forms of life. Such an arrangement was believed to represent the divine plan of creation.

The notion of extinct species caused particular difficulties for the Anglican clergy, especially as some were at the forefront of the new science of geology. Reverend William Buckland (1785-1856), a friend and client of Mary Anning, who became Reader in Geology at Oxford (1818), and eventually Dean of Westminster (1845), believed that geology confirmed the occurrence of a universal deluge as reported in the story of Noah. As such, he held that the period in which Anning's prehistoric animals flourished had been terminated by a great deluge.

Portrait of William Buckland by Samuel Cousins.

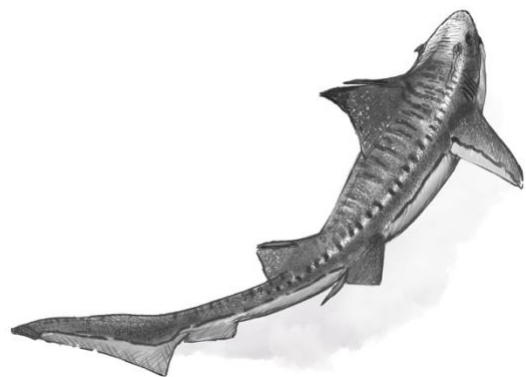


Until recently it was assumed that the portrait (left) was of Mary Anning, and it not only features on a book entitled *Mary Anning: A Life on the Rocks* by Nigel J Clarke (2011) but it was also used as the icon for the Lyme Regis Museum.

Despite the costume it is in fact a sketch of William Buckland fossilising in Snowdonia in 1841 by fellow geologist Thomas Sopwith.

Anning's thoughts concerning the origins of the natural world are unknown. Her family were Dissenters and Mary learned to read and write at the Chapel Sunday School in Lyme. Later, she and her brother joined the Anglican congregation but she seems to have reconciled the significance of her fossil discoveries with her beliefs. Perhaps she felt that it was enough to find the remains of these creatures and up to others to interpret them.

She was more piqued by attitudes towards her sex, education and social status. Described by a visitor to her fossil shop as a 'poor, ignorant girl', Anning later responded tartly to Edward Charlesworth, editor of *The Magazine of Natural History*, who queried her observation on the hooked teeth of a newly discovered fossil shark, *Hybodus delabecheii* (above right, Jurassic Coast Trust).



She replied: ‘as I am illiterate, [I] am not able to give a correct opinion.’ To a female friend she was said to have bemoaned ‘these men of learning’ who sucked her brains, and made a great deal by publishing works, of which she furnished the contents, while deriving none of the advantages.



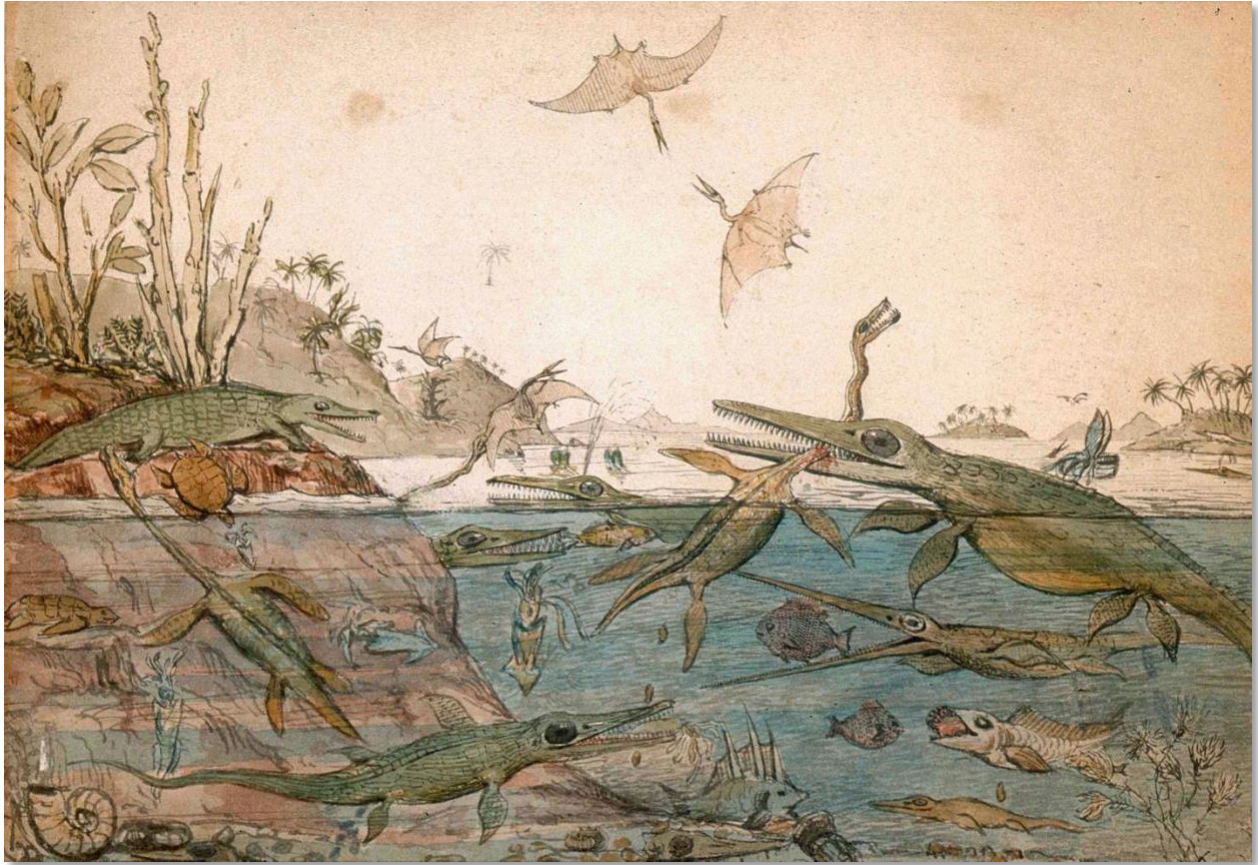
Whilst most of these ‘men of learning’ acknowledged her in their papers as the source of their specimens, she was nevertheless considered ‘a dealer’ – provincial, isolated and female. As such, she could not join the Geological Society of London or take part in debates in Oxford or Bristol. Whilst there *were* influential women fossil collectors, including her collaborative friends, Elizabeth, Margaret and Mary Philpot, all were gentry or aristocracy. The photo above of the 18th century Grade II listed Mariners Hotel, Silver Street, Lyme, incorporates Morley Cottage, home of the Philpot sisters.



None of Mary’s female collaborators were to be found clambering over slippery rocks or down precipitous cliffs in all weathers hampered by voluminous skirts and hob-nailed boots. This photograph (Lucie Goodayle, NHM) of a complete Plesiosaurus in London’s Natural History Museum, discovered and prepared by Mary shows the enormous size of the fossil and the effort it would have taken to meticulously expose

it from the Blue Lias cliffs, transport it to her workshop, and painstakingly extract it from its 200 million-year-old rock bed.

In short, Mary had fame but no money. One wonders what she would have made of the sale at auction in 2020 of a letter written by her to Buckland in February 1829 which fetched over £100,000.



During periods of financial hardship, however, her influential customers were generously supportive. Thomas Birch sold his fossil collection in 1819 so that the Annings could pay their rent, and in 1829-30, Henry De la Beche produced the now famous *Dura Antiquior* (above), a watercolour of the Lias seas of Dorset illustrating Mary's discoveries as living animals, the first ever reconstruction of its kind. Prints were sold for £2 10 shillings, of which a proportion went to Mary.

Mary's last years were undoubtedly difficult. She died on 9 March 1847, two months short of her 48th birthday, of a breast cancer which she had developed a couple of years previously. The following year, De la Beche dedicated his Presidential Address of the Geological Society of London to remembering Mary Anning who, had she been alive, could not have attended the meeting because she was a woman. In the audience was Charles Darwin whose book *On the Origin of Species by Natural Selection*, published a decade later, argued like his geologist friend, Charles Lyell, that the earth was immeasurably old, that it had no beginning and no vestige of an end. Into this environment, in gradual increments, nature selected organisms that tended to become ever more appropriately suited to their conditions of existence. Under these circumstances favourable variations would tend to be preserved and unfavourable ones to become extinct. Perhaps some of Mary Anning's awesome fossils flitted through Darwin's mind when he wrote: 'There is grandeur in this view of life ... whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.'

If you are interested in buying Tom Sharpe's biography of Mary Anning, these are the details: Tom Sharpe, *The Fossil Woman: A Life of Mary Anning*. Stanbridge, Wimborne Minster: The Dovecote Press, 2020. Pp. 240. ISBN 978-0-9955462-9-5. £20.00 (hardback). Amazon price is £18.00.

Members weekends, courses and exams 2021

The Government's roadmap out of lockdown means that we're expecting members' weekends to be starting at the beginning of April. Phyllis will be emailing everyone with dates. At the moment the rule of six still holds but we are considering a couple of locations to run concurrently – one east and the other west of Dorchester.

We also plan to run three beginners' weekend courses. Dates are still to be confirmed as do locations but early June, early July and September look likely. Anyone interested in doing a course, or know somebody who does, please complete the form on our website (<https://dorsetdswa.org.uk/courses/>) or contact Peter Curtis whose details are on this web page.

We expect to be holding exams for initial and intermediate qualifications in early September, with training at weekends throughout August. Again, if you are interested please contact Peter Curtis (dorsetdswa@gmail.com) / telephone 07748 982316.

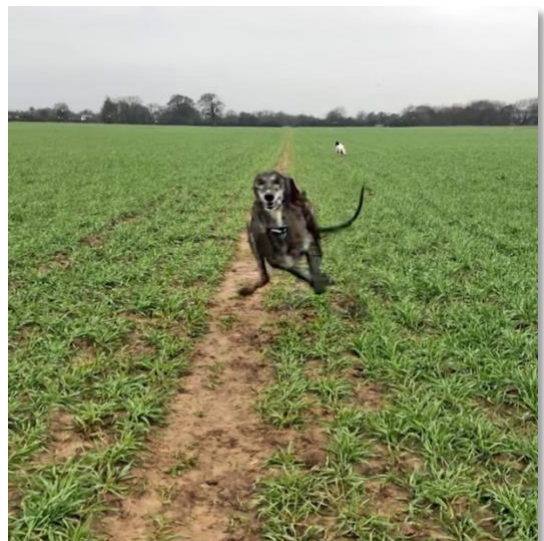
Just a reminder that members have to be up-to-date with subscription payments in order to join a members' weekend. If your subscription has lapsed you won't be insured and the risk is too great for the committee to take a chance on mishaps.

Tom's Month – A February not to be forgotten

What a month, from a bitter beginning to a spring like ending and just what we all need as we all dare to dream of what is to come!

Of course, Cherry would like you to know that she has had a busy month... in front of the wood burner and of course lying in the sun when it shines through the windows; heaven she says. In case you thought she was idle, she asked me to let you see her away from the fire and stretching her legs!!!

Our walls at The Newt are progressing well; three are finished but alas I have taken no pictures of them in their completed state... next month all will be revealed. I can promise you we have had some chilly



days there along with some very wet ones... the joys of working outdoors, I wouldn't change it for anything. This week we begin the final wall which once complete will have an enormous water cascade on the steep bank behind it.



Our pond clean that we began last month was held up due to our isolation period and then the bitter weather but one advantage of the cold was to be able to take a picture of the pond and waterfalls in a rather frozen state. I do love how nature can create such beautiful forms.

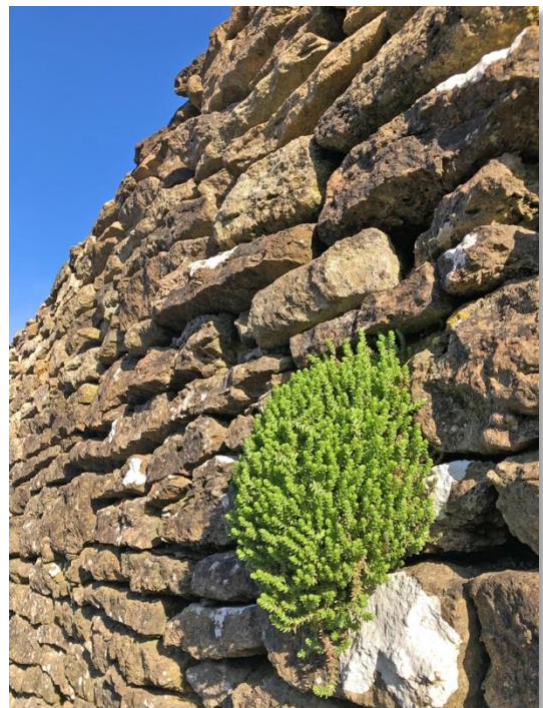


We have had another project to repair a wall near Bruton where a car had crashed into the wall in four places! The car was a write-off but the driver apparently escaped unscathed. Judging by the damage caused to the wall it was a miracle that the person was not harmed. The wall is very old and built using Forest Marble sandstone, a beautiful stone that is no longer quarried. There are small quantities in the Sherborne area but unfortunately it is not viable to quarry. We had to add a little Forest Marble limestone to finish the wall.



I hope the picture shows the colours of this stone. There were not many through stones so we had to build using what is called 'three quarter' stones where you lay a stone that covers three quarters of the width of the wall and then on the next course another stone on top of the previous three quarter stone from the other side of the wall. It works well and is often the case in walls built using limestone.

Another joy was to see this succulent growing out of the wall next to where we were working. Proof that the walls we all create are a living structure.





Life comes in so many forms and I just had to include this image of an enormous stone we incorporated into a wall with a huge ammonite and literally hundreds of smaller fossils surrounding it. A reminder of past lives! (And very apt for our article on Mary Anning – ed)



We have also completed a small pond and stream. It is still a work in progress but hopefully will give you a taster of next month's adventure. I think the water will have cleared a little by then.

And so, we head into March and the beginning of spring. This year maybe more than ever before, we need to grasp the hope of spring and look forward to a future where we can all be one another again.

Tom

Tom Trouton Dry Stone Walls and Garden
Landscapes

Tel: 01963 351850 / 0207 310 87 67

Mob: 07966 836659

Email: info@ [tomtrouton.co.uk](mailto:info@tomtrouton.co.uk)

Well, fellow wallers, it's another bumper newsletter which I hope you enjoy reading. As ever, thanks to Tom for his regular column from the world of the professional waller. Meanwhile, stay safe and embrace your Covid vaccination ...

I look forward to seeing you on a wall as soon as possible.

Carole Reeves

