Dorset GA Group

Newsletter Autumn 2018

Contents

Welcome to the Autumn Newsletter. In this edition I've tried to catch up with field-trip reports so they feature strongly. There's also a thought-provoking article on Stair Hole and details of our annual dinner (menu choices form included). Since the last edition we've been able to develop a new DGAG website. Thanks to Geoff Rowland, our new website manager. Take a look at the website on:

https://dorsetgeologistsassociation.org/

DGAG Visit to the Wren's Nest, May

Shropshire Day 2 Ercall Quarries and Maddox Hill. Leader: Noel Donnelly, Report: John Scott

A series of 5 disused quarries ranging from very little, overgrown exposure to magnificent exposure. All ably shown and explained by Neil.

Quarry 1. This was not clear but showed flow banded "rhyolite" from welded pyroclastic ash flows of Uriconian (Late Pre-Cambrian) age cut by a Dolerite dyke although this was difficult to make out due to the poor face quality. The rocks were probably formed in an island-arc situation.

Quarry 2. This was quarried to extract the Cambrian Wrekin Quartzite, actually a pure, well-cemented sandstone. We examined a tear fault (horizontal displacement) which displayed slickensides with "steps" that could be felt. These showed Sinistral (movement to the left when viewed across the Fault) displacement trending east-west.

Quarry 3. A large quarry face of pink Ercall Granophyre intruding the Uriconian volcanics seen earlier. These are overlain unconformably (technically a non-conformity) by the Cambrian Wrekin Quartzite. They had all been tilted to the east by the Caledonian Orogeny.

Those of us who scrambled up to the contact could see the Granophyre fingering into and replacing the volcanics. While other areas showed two phases of intrusion of more massive homogenous Granophyre.

These units had been eroded by a transgressive sea giving a "knobbly" sea floor upon which the Wrekin Quartzite and conglomerate were deposited. Five layers of conglomerate were seen in the exposure. Some of the clasts were of the Granophyre and the Volcanics. Around the corner was a bedding plane showing well developed ripple marks in the mature sandstone. These were formed by waves in a shallow sea with a shoreline to the S.E. Above the Quartzite is the Lower Comley Sandstone which is a fine silty sandstone, micaceous with a green colour. The green is due to the presence of the mineral glauconite showing it to be a marine deposit. *Continues overleaf….*

The group at Ercall Quarry (Photo: AH)

Early Cambrian brachiopods are rarely found in the sandstone, though not on this occasion. The published maps of the quarry area show a complex arrangement of dextral and sinistral tear faults. Noel, using block diagrams, showed us a possible simpler alternative using vertical fault movement.

Maddock's Hill

When is a hill not a hill? When it's been quarried out! This hill has been quarried out to provide construction materials for the M54 motorway in the early 1980's. It is now a steep sided, wooded valley. The quarried rock is a Lamprophyre intruded into the Shineton Shales (now classed as Ordovician). While the intrusion is nearly vertical it is actually a sill as it is bedding parallel, the shales dip at 85 - 90°. On the NW side of the intrusion it has baked the shales into a hard, grey rock by thermal metamorphism giving a "baked" margin of at least 2 metres thickness. The Lamprophyre shows a chilled margin against the shales. The Lamprophyre shows compositional variation with different colours (the pinker parts being more syenite like). The S.E. side of the quarry is the top of the sill and contains some small blocks of dark, baked hornfels as xenoliths (foreign stones) which had previously been the shale. Noel pointed out a large block that was possibly a large (several metres across) xenolith of the shale within the sill. A great place to visit. *John Scott*

Shropshire Day 4: The Wren's Nest. Leader Graham Worton, Report and photos: Pauline Dagnall

The Dudley Area and the Industrial Revolution

The geology of the Black Country has influenced culture and industry. This was an early centre for mining at the start of the Industrial Revolution thanks to mineral resources such as coal, ironstone, limestone, sands and gravels. These were the basis of industries like mining, iron and steel production, foundries, glass manufacture and brickmaking, giving the area the name, 'The Black Country'. Modern iron making began here with smelting using coke; a process invented in 1619 by Dud Dudley, illegitimate son of the Earl of Dudley, who passed the knowledge to nephew, Abraham Darby (born Wren's Nest 1678). He developed the technology at Ironbridge Gorge in Shropshire to avoid local opposition. The trilobite fossil *Calymene blumenbachii*, the 'Dudley Bug', was adopted as the symbol of the limestone mining industry and is part of the town's coat of arms.

GEOLOGY: Much Wenlock Limestone

The Silurian was 443-417 Ma. The three major divisions of the Much Wenlock limestone are exposed at Wren's Nest – Lower Quarried Limestone Member (**LQLM**), Nodular Member (**NM**) and Upper Quarried Limestone Member (**UQLM**). The Variscan orogeny (end of Carboniferous) folded Silurian rocks NNW/SSE as elongated domes or periclines. The structure was faulted along the axial plane and the western limb downthrown. The limestones formed from lime-rich sediments on a shallow tropical or sub-tropical shelf sea in a quiet environment with some turbulent periods, creating conditions suitable for the development of patch reefs The area was 30° south of the equator. The shape of these lens-like reef structures (bioherms) depends on the circulating currents and the amount of water/sediment washed to sea. They provided a habitat for a large number of marine creatures. Extra non-carbonate sediment would cause the reef to contract. Bentonite clays (underwater volcanic activity) also caused reefs in the **LQLM** to contract. Terrigenous mud from the land mass to the east created the **NM** during sedimentation in calmer seas. The reefs that developed were smaller than in the **LQLM.** The **UQLM** purer limestone was produced by moderately agitated shallow waters with strong currents and little mud. These are massive limestones with cross bedding and in quieter periods, small reefs developed. Towards the end of the NM, the occurrence of sun cracks, ripples and cross-bedding indicates agitated waters with some periods of sub-aerial exposure, maybe as littoral or sand bank environment. This high quality limestone has been extensively quarried, leaving quarries and trenches.

Wren's Nest Natural Nature Reserve

Black Country geologist and guide, Graham Worton (who is involved in the UNESCO Geopark project) led us to key locations in the Wren's Nest Natural Nature Reserve which was established in 1956. The Wenlock Limestones of Dudley contain some of the most well preserved Silurian fossils and as such are highly prized.

The site is the type locality for 186 species of fossil (more than any other British site), 63 of which are recorded nowhere else. Another interesting feature at the site include bioherms (fossil 'patch' reefs preserved 'in situ'), and expansive ripple beds, which provide evidence of littoral zone conditions.

Cutting excavated in 1977 to provide a dip section through **NM** containing about 3 Ma. of Earth's history.

Seven Sisters Caverns with LQLM supporting roof and bioherms

Ripple-marked beds

The fossil remains can be found in the loose material in the old quarries and trenches of Wren's Nest. Fossils include, along with the Dudley bug, compound and solitary corals, crinoids, brachiopods, stromatoporoids and bryozoans. As with Mary Anning in Lyme Regis, the Dudley quarrymen played an important part in fossil discovery, especially in conjunction with Murchison.

Limestone mining has left a spectacular legacy of quarries and caverns, including Dark Cavern, Britain's largest man-made limestone cavern. The caverns were linked by subterranean canal tunnels, which are unique to Dudley. *Continued on page 4…..*

These were connected to the national canal system by the Dudley Tunnel, the earliest narrowboat canal tunnel in the world. Built in 1785 and just over a mile long, it cuts the English watershed and when first built was the longest canal tunnel in England.

In the footsteps of Murchison

Sir Roderick Murchison cited the strata of Wren's Nest and Castle Hill to help define the Wenlock series in his seminal work *The Silurian System* (1839). 65% of the Wenlock fossil species described and figured by Murchison in The Silurian System were from Dudley. Murchison visited here in 1839 and 1849 to address members of the British Association inside Dark Cavern – by gaslight. An estimated 15,000 people

References

Wren's Nest National Nature Reserve Geological Handbook and Field Guide 2nd Edition.
DGAG Field Trip background Information Guide
http://bcgs.info/pub/local-geology/sites/1-wrens-nest-nature-reserve/

Editor's note: Graham informed us there will be over 40 sites in the Black Country Geopark (opens 2020), so another visit may be in order!

Visit to Mam Tor, Derbyshire.

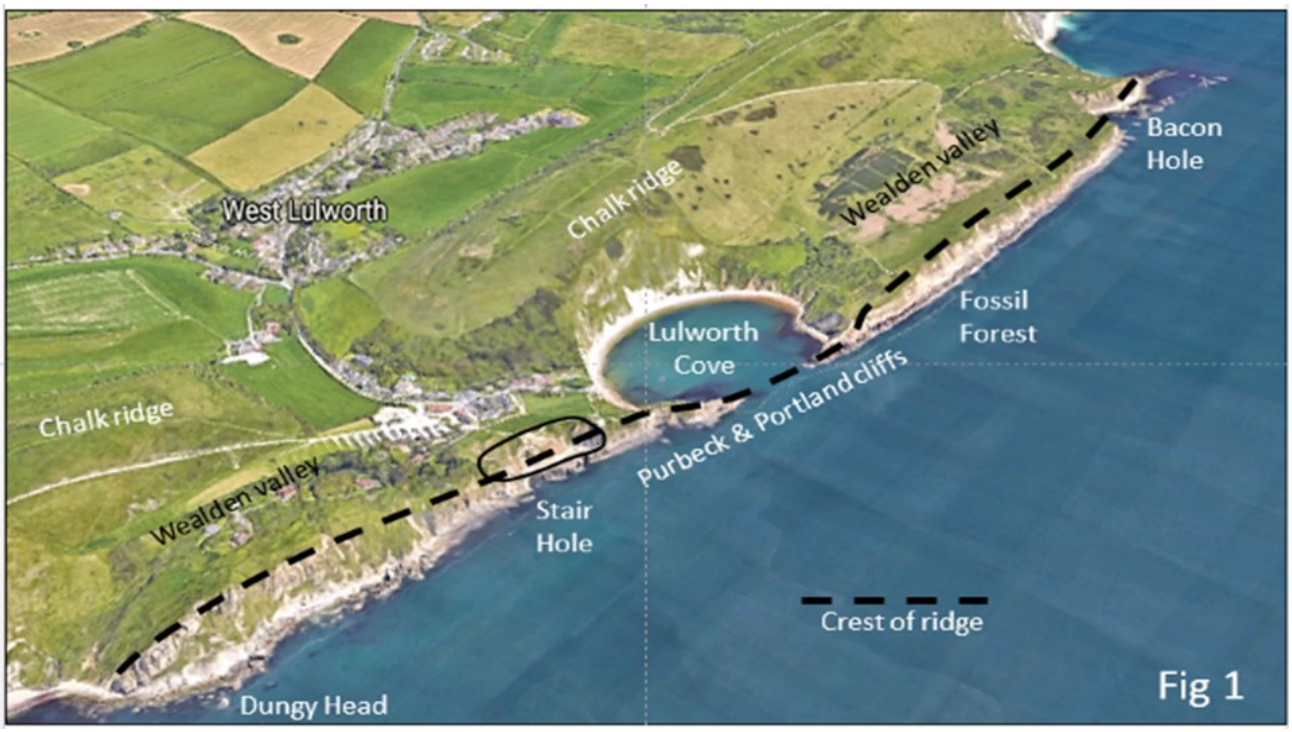
Until recently, I had seen pictures of Mam Tor but never visited. However, during a recent visit to Derbyshire I was able to appreciate the scale of the feature and the impact of mass-movement on the local infrastructure. It is located at GR SK127836 near the Blue John Cavern and east of Castleton. Underlying the landslide are Lower Carboniferous Dinantian limestones which are not included with the landslide Overlying the limestone is the Bowland Shale Formation which consist of dark grey mudstone. The top of the landslide exposes the Mam Tor Beds. These are a sequence of turbidites of mudstones siltstones and sandstones. The landslide has resulted in it being called the shivering mountain. The summit of Mam Tor (517 m a.s.l.) is ringed by the remains of a great ditch and rampart of a once great Iron Age hillfort, but it is estimated that the landslide has been active for around 4000 years so presumably destroying at least half the hillfort. More recently the Sheffield Turnpike Company constructed a road from Manchester to Sheffield across the area in 1819 and this became the A625. Subsequently constant repairs and reconstruction were necessary until 1979 when the road was permanently closed and relocated. The road terminates and becomes a footpath and access to the landslip area is very easy with good parking nearby. Another part of the severed road is a cul-de-sac west of Castleton. This is within the debris toe of the landslide area. Visiting the site now you can see the remains of the road and many levels of tarmac laid to try and keep the road serviceable. The back scar is around 70m. although some say 105m. in height and exposes the Mam Tor Beds and the landslip area extends for around 1 km east of the back scar. The broken ground between the two sections of road show how active things have been. Visiting during a dry period there was little evidence of current activity but more rainfall entering the dry ground should soon fix that! *Alan Holiday*

Cliff-face of Mam Tor (AH)

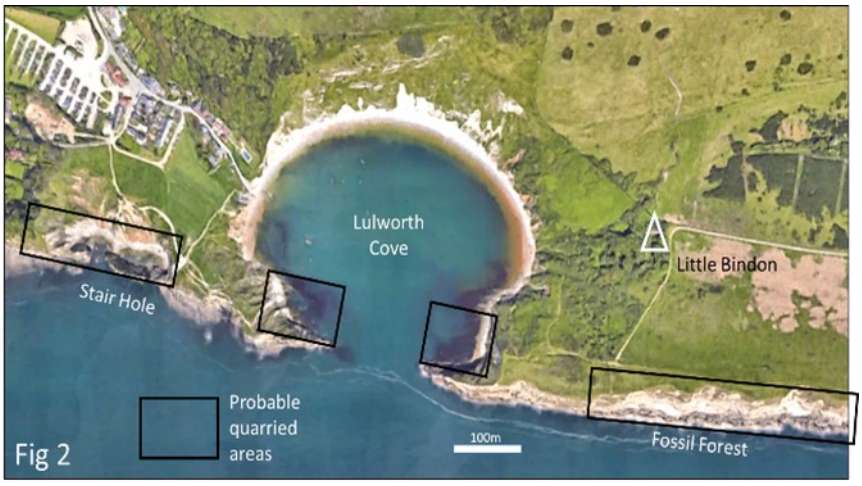
View of the damaged road (AH)

The coastline Dungy Head to Gad Cliff – how much is man-made?

Surely I can't be the first to wonder where that great volume of Purbeck beds has gone from Stair Hole. That can't be marine erosion – I suggest a medieval quarry. I suspect there was the one small gap at the west end (even that may have been man-made) and then building stones removed in an easterly direction. Originally it would have been a high ridge - as most of it still is between Dungy Head and Bacon Hole (Fig 1).

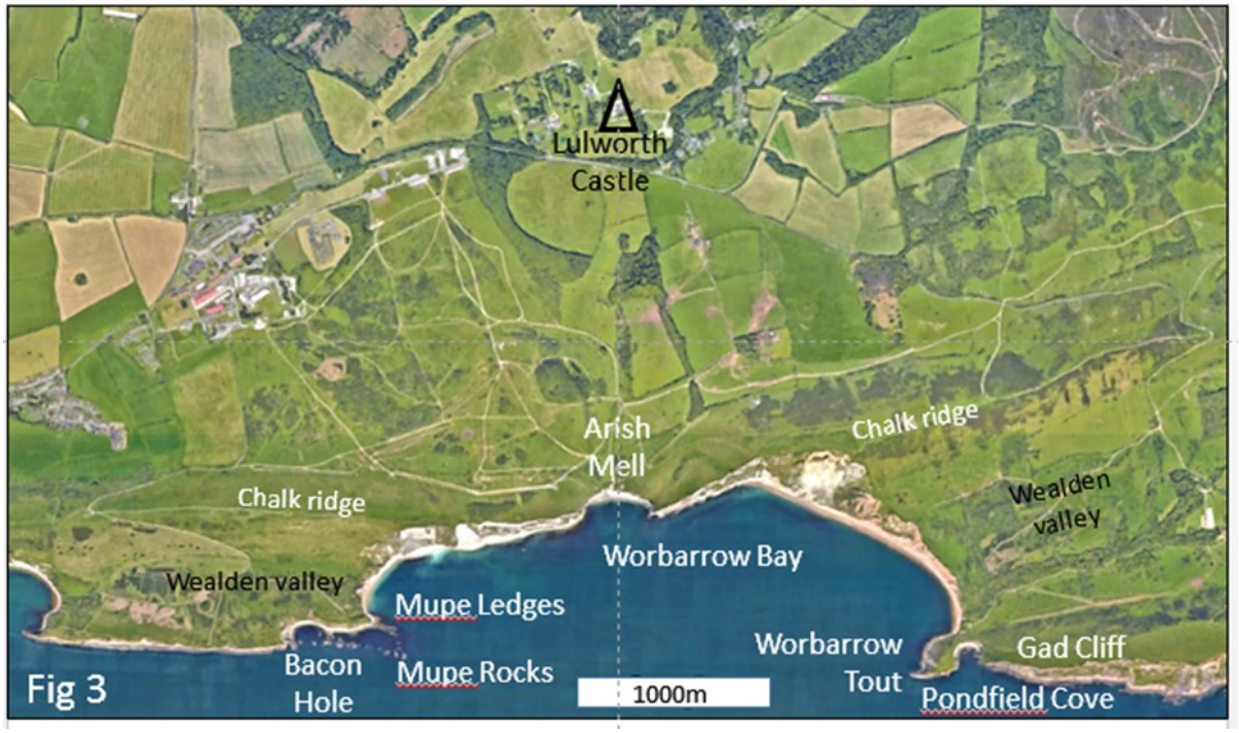


I also suspect Purbeck building stone was extracted from both sides of Lulworth Cove, exaggerating the shape behind the Portland Stone entrance. The original Bindon Abbey (Little Bindon) was constructed in 1149 from local stone. The closest source would have been the Lower Purbeck limestones of what is now the Fossil Forest (200m) and the east side of Lulworth Cove (300m). Fig 2.



When a new abbey (Great Bindon) was built near Wool in 1172 it appears to have been constructed of Portland and Purbeck stone from this coast. It seems reasonable to suggest the stone was extracted from what is now Stair Hole, from both sides of Lulworth Cove and from the Fossil Forest "ledge" (not a natural feature).

Transport could have been by sea to Arish Mell or Poole Harbour and up the River Frome to Wool, or by ox-cart from Lulworth. The Portland Freestone of this area is oolitic - as on the Isle of Portland but the latter was not quarried in medieval times (the Portland Freestone or "cliff stone" of the Isle of Purbeck is bioclastic, not oolitic). However, the coastal quarries would have been mainly for the more accessible Lower Purbeck limestones rather than Portland Freestone. It is documented that the Purbeck and Portland building stones of Lulworth Castle (1608-41) were sourced from Worbarrow Bay via the Arish Mell gap (Fig 3). *Article continues on page 6…..*



It is also possible that some stone was recycled from Bindon Abbey when it was dissolved in 1539 and later demolished. It is probable that the Purbeck limestones on both sides of Worbarrow Bay were quarried at Bacon Hole, Mupe Rocks, Mupe Ledges, Worbarrow Tout and both sides of Pondfield Cove. It is also likely that fallen blocks of Portland Freestone below Gad Cliff were removed for building stone. The Portland Freestone in this area includes about seven metres (20-25 ft) of oolites & bioclastic limestones.

Bacon Hole still shows signs of quarrying. The remaining "stacks" of Portland Stone at Bacon Hole could have been left as protection for extracting the Cypris Freestones behind (and not all the "Broken Beds" are broken). When being worked, the sea quarry may have had very neat straight-sided inlets for loading and sheltering vessels. By analogy, the coastline around the Bill of Portland has been extensively quarried and some "stacks" left – it is not the coastline which would have been seen pre-1700.

It is likely that medieval quarrying ceased when dissolution of the monasteries provided abundant recycling options. Since then, several hundred years of natural erosion: cliff degradation, rock falls and the occasional tsunami (1755 Lisbon earthquake?) and you have today's configuration. The coastline from Dungy Head to Gad Cliff would have looked quite different 1000 years ago - **does every geology and geography textbook need revision...?** *Geoff Townson*

DGAG field trip to Portland, 2nd June 2018

Leader: Alan Holiday, Report by Saleem Taibjee

1. We started off at Jordan's mine, shown around by Mark Godden and his team. This was a rare opportunity to see a working mine in operation. After donning our hard hats, we were escorted deep into the mine, and were able to appreciate the geological succession of the Portland Stone (Roach, Whit Bed Freestone, Curf and Chert, Base Bed, Cherty series), the different appearances and characteristics of the layers, and the merits which have reinforced the reputation of Portland Stone as a premier building material. The underground operation has minimal environmental impact (the furthermost point of the mine is now underground community facilities including a former school), able to safely extract up to 75% of the stone using a retaining pillars and roadways 6m x 6m grid system. More recently the deeper and higher quality Base Bed is being excavated in previously mined areas. We were shown a Fantini mining machine with diamond-tipped saw used to cut horizontal and vertical faces into the rock, and inflated steel Hydro bags to free the rock ready for forklifting. The mined spaces are then reinforced with rock bolts impregnated with resin.

Hydro bag (left) and mine wall showing Fantini horizontal and vertical cuts into the Portland stone (Roach and Whit Bed), with overlying basal dirt bed visible close to the roof. The roof of the mine comprises the natural **bedding** plane with the overlying Purbeck group (right).

2. Portland Heights Hotel
The original intention was to take in the view North from the 'Olympic Rings' across the Weymouth Anticline (Alpine fold on an East-West axis). Although we were bathed in sunshine in Portland itself, we weren't so lucky, completely unable to see anything to the north due to the mist rolling in!

In the immediate area the stone in the Olympic rings monument contrasted the finer carved upper oolitic limestone (Whit Bed) with more shelly Roach below (comprising mainly aragonitic fossiliferous gastropods and bivalves such as *Aptyxiella portlandica* and *Laevitrigonia gibbosa*. The rock differences may reflect the higher wave energy of a shallower marine environment of the former.

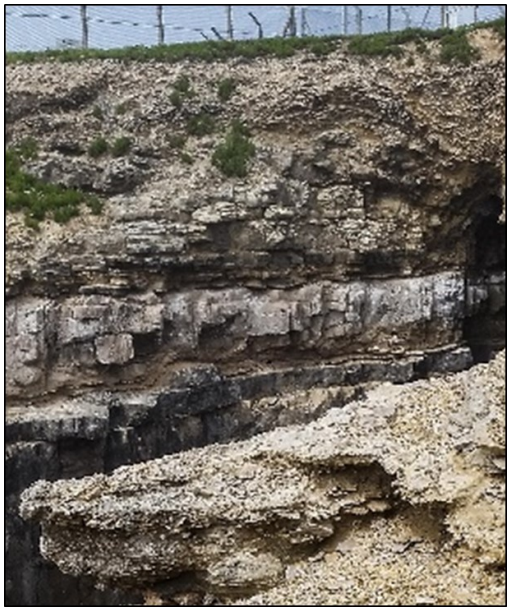
3. Kingbarrow Quarry A short walk took us to this disused open quarry which is now managed by the Dorset Wildlife Trust due to the rare habitat including flowering plants such abundant yellow vetch. Although somewhat overgrown and in need of some geological conservation, this is still a fantastic example of stromatolitic rings providing evidence of a fossilised forest, similar to that seen east of Lulworth cove. A short walk to the Drill Hall afforded further excellent examples of Tufa and fossilised logs with stromatolitic encircling, as well as artistic sculptures earmarked for the Tout Quarry Sculpture Park.

Stromatolitic rings of fossil forest, limestone quarry in the background

Siliceous fossilised tree fern (cycad) in museum grounds

Church Ope Cove with evidence of historic rock slides due to the underlying softer Portland Sands and Kimmeridge Clay series.

4. Portland Bill. We proceeded to the southernmost tip with opportunities to see fantastic examples of raised beaches east and west of the Bill. On the western side of the Bill we saw a raised beach (below left) resulting from a rise in sea level during an interglacial period 210,000 years ago. In the background are limestone cliffs with periglacial head material (with features of cryoturbation) above. The detail of the raised beach shows cherty pebbles within a calcareous matrix. The matrix derives from periglacial head material with dissolved calcium from above percolating deeper. On the eastern side of the Bill is a raised beach formed 125,000 years ago (below right), more shelly than that in the west, perhaps reflecting lower energy wave action and better preservation of shells.



We wish to thank Alan for a brilliant day in Portland. The rolling mist didn't detract too much. Thanks also to the entire group for making a new member so welcome and providing a wonderful introduction to the geology of the region. I hope that this will be the first of many field trips I can attend! Salim

DGAG Trip to Worbarrow Bay on July 21st 2018 Leader: Alan Holiday, Report: Val Fogarty

We met Alan at the car park at Tyneham Village on a beautiful sunny day. After an introduction of the rock types in the area we set off to walk to Worbarrow Bay. At the Bay we could see the striking northerly dip in the strata of the oldest Portland and Purbeck limestone rocks in Worbarrow Tout.

This compared to the 2° southern dip in the wedge-shaped Isle of Portland that we could see out to sea past Weymouth at the other end of the Weymouth Anticline. This folding of the rocks was caused by the Alpine Orogeny (mountain building due to the closure of the Tethys Ocean as Africa moved north colliding with Central Europe), which had a significant effect on the rocks now exposed along this section of the coastline. The Purbeck and Portland strata could be seen at the far side of Mupe Bay too.

These would have been present between the two points before the sea eroded through these rocks to form the bays. The rocks in the northern parts of the bay dip quite steeply 55° to the north exposing these rocks quite dramatically. Looking westward from Worbarrow Tout across the bay we could see the brightly coloured Wealden Series, containing grits, sands and clays, deposited by rivers and lakes in the early Cretaceous around 120 Ma. We could just make out the Lower Greensand, Gault and Upper Greensand formed in marine conditions from a marine transgression (rise in sea level) followed by an extensive section of chalk formed when the sea levels were even higher. Flowers Barrow Fort was on the Chalk Ridge although about half of the hillfort has been carried away by over 2000 years of erosion. One of the aims of the trip was to find evidence of the different environmental conditions causing the formation of the different sedimentary rocks, Portland, Purbeck, Wealden, Lower Green Sand, Gault, Upper Green Sand and Chalk formed over a 70 million-year period (140-70 Ma.)

We walked to Pondfield Cove to see a group of youngsters coasteering and jumping off the cliffs into the sea! In comparison we climbed carefully over boulders on the west side (east of Worbarrow Tout) looking at the Portland and Purbeck rocks. At the southern point we could see the zone fossil ammonite *Titanites giganteus* which helps us date this bed of Portlandian age rocks (around 140 Ma.) when the climate was tropical and the sea was shallow. Ammonites are not found in the Purbeck strata showing the conditions had changed. Ammonites lived in the sea rather like Nautilus and other cephalopods do now. Uniformitarianism is the geological term to show how the present helps us work out what happened in the past. The Portland stone is also oolitic, so it must have been formed in the shallow sea. The Purbeck formation contains quite a number of different thin beds of limestone, clay and shale. The Purbeck beds were deposited in an extensive lagoon 38° north of the equator which extended from west Dorset into the Paris Basin. Water levels rose with the influx of marine water from a considerable distance, but the depth was rarely higher than 1 metre, so thin beds were formed by the filling of the lagoon and the next phase of exposure. Ripple marks in the Purbeck stone showed wave action in the lagoon. Cross-bedding showed the direction of the flow of water across the lagoon floor at this time and we saw it in different planes so it did vary. We found evidence that conditions in the lagoon fluctuated from freshwater to hypersaline as the lagoon periodically dried out. The climate was subtropical with pronounced wet and dry seasons. We found a number of highly fossiliferous rocks some abundant with the bivalves such as *Neomiodon* which lived in brackish lagoon water, others containing small crustaceans called ostracods and some containing the gastropod *Viviparus* which preferred less saline conditions. Purbeck marble is made of fossilised *Viviparus* and this is found as a bed easily seen on the other side of Worbarrow Tout.

As environmental conditions were variable and the concentration of salt changed one species sometimes dominated. We certainly saw evidence of this in these rocks. Cinder Bed rocks in the Pubeck series were packed with the bivalve oyster *Praeexogyra*, which preferred saltier conditions, whereas, the freshwater bivalve *Unio* was also found here in a separate bed. We saw salt pseudomorphs where salt crystals had formed during periods when the lagoon dried out in the hypersaline conditions. We also saw fossilised faecal pellets and chert in the Purbeck strata, the chert being formed from silica formed in burrows of animals in the lagoon floor. Once again this is evidence of biological activity at that time. Although we didn't find any dinosaur footprints they are found on the western side of the Tout along with satin spar gypsum crystals formed in highly saline conditions when calcite crystals were replaced by calcium sulphate crystals.

We walked up Worbarrow Tout to see the rocks of the coastline from St Aldheim's to the east to the Isle of Portland to the west. Alan named all the rocks between the two. The sea was busy with boats, canoes, paddle boarders and swimmers.

After lunch we walked westward on the shingly beach below the Wealden Series which is fluvial (river) or lacustrine (lake) in origin. We passed round a very heavy dark red Iron stone rock which had been formed when Iron rich ground water had percolated slowly through sand stone. The rich grey clay beds looked very dry and crumbled on this hot day where normally they could be moulded. The striking vibrant colours of orange, red and brown were due to chemical changes and mostly due to Iron compounds. Many gullies were seen on our walk showing areas where water had run over the impermeable clay layer. Fossilised wood (lignite) was readily seen and there was evidence of conifer trees falling into the rivers and muddy flood plains. The yellow colour next to the lignite was the element sulphur released in bacterial action. At one point we saw a whole tree trunk which had only recently been exposed due to continued erosion of the cliff. Although there are few fossils in the Wealden there can be evidence of organisms living at that time in and we found a fossilised beetle wing in a sandstone bed. Reed like plants called Phragmites grow on the clay rich deposits next to the beach.

As we continued to walk westwards we were impressed by the colourful Wealden cliffs. We saw all the different types of rocks the clays, sandstones and grits. The rivers coming into this area came from the north-west in the area where Devon and Cornwall are now. Erosion of the granite brought material here with evidence seen in black haematite, mica and quartz crystals. Beautiful liesegang patterns were seen up in the cliff and on rocks on the beach. These were formed as iron and manganese rich compounds diffused through the sandstone at different rates causing the intricate, delicate bright red lines. There was a huge rock on the beach that had fallen from the cliff and was still upright and showing excellent cross bedding and an erosion surface.

The beach in this area has many white stones that look like Chalk but are in fact clay casts seen up in the Wealden cliff. The Wealden Series is extensive and it took us a long time to reach the Gault and Upper Greensand which is quite narrow in comparison. We did find fallen Greensand rocks on the beach, one of which was bioturbated with burrows. The green material in the Greensand is glauconite. Another surprising find was a large ammonite impression in the Greensand. We walked as far as we could to see some of the Chalk but we could go no further because of the tide. We walked past several nude bathers and tried to keep our eyes fixed ahead! Lots of erosion had occurred at this section and there were many chalk blocks on the beach. Those that had fallen from the Upper Chalk contained Flint. We could see in the distance the Chalk at Cow Corner and we could see the edge of the Chalk beds dipping at 55° north. The walk back along the shingly beach and to the car park seemed hard work on such a hot day. It was all worth it though as it had been such an interesting trip and we had learnt so much. Alan surprised us by opening some bubbly and he said very kind things about Doreen Smith and John Chaffey. So, we drank to their memories and all they had contributed to DGAG.

Ripple marks

Salt pseudomorphs

Large fossil log in the Wealden Series with Jeremy for scale!

DGAG Field Trips and allied events 2018

Contact Malcolm Wright (Field Trip Officer) on m.wright603@btinternet.com or 01305 259712

Saturday 8th September. Swanage Coast Field-trip. We will be looking at the Swanage coast between Peveril Point and Ballard Down. Meet at Broad Road Car Park for 10.30 a.m. (GR SZ035785, BH192AR) and walk to Peveril Point to look at the top of the Purbeck sequence. Then drive and park near Bull and Boat Café / Restaurant (GR SZ031796, BH19 1LH) and walk north along beach to look at Wealden Beds and Greensand as well as evidence of mass-movement and coastal protection. Around 4 km walking total.

Saturday 23rd September. Lecture: 'Bumps in the Bay' by Prof. Dan Bosence at 2.30 p.m. The remarkable seafloor images of Weymouth Bay obtained by Dorset Wildlife Trust's DORIS project provide new insights into the geology of the Jurassic Coast. Venue: The Etches Collection, Kimmeridge. Entry by donation at the door. To reserve your seat contact Julie Hatcher, 01929 481044 or email to: kimmeridge@dorsetwildlifetrust.org.uk

Saturday 6th October. Dedication of a stone bench in memory of Doreen Smith at the Etches Collection, Kimmeridge.

Saturday 13th October. Holiday Rocks event at Broadmayne Village Hall, 2.00-5.00 p.m. Talks on the geology and scenery of the Alps.

Saturday, November 17th. Annual Dinner at the Wessex Royale Hotel, Dorchester. Guest Speaker: Robert Chandler. See insert with this newsletter.

Saturday December 8th. Christmas Workshop at Broadmayne Village Hall. Please let the Secretary know of your table needs if you plan a display.

DIGS (Dorset's Important Geological Sites)

The group welcome anyone wishing to help with conservation work on Local Geological Sites. Please contact Alan Holiday if you are interested. Working parties go out on both weekdays and weekends.
alanholiday@btinternet.com

Wessex OUGS events

Sunday 21st October 2018

Conservation session at Crack Lane LGS, Langton Matravers with Alan Holiday.

Sunday 11th November 2018.

Introduction to Geology, Bowleaze Cove.

Leader: Alan Holiday

Please contact Jeremy Cranmer on: wessexdaytrips@ougs.org or telephone 01305 267133 to book a place. £2.50 day trip charge.

Advance notice:

The weekend residential field-trip for Spring 2019 will be to South Wales to look at the Glamorgan Heritage Coast.

Committee news:

We welcome Geoff and Jeremy to the Committee but still need an Events Officer. Offers of help would be very welcome! *Kelvin*

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