Lonely parts – Elen Statham

The Silurian fossils of the Usk inlier include various brachiopods,gastropods, bryozoa, trilobites and corals amongst many others. Their Latin names are often a bit daunting, so I have given them some 'stage names' for your potential amusement.

Long ago on a Silurian seabed on a long forgotten wavelength, the conversation went like this:

Tina: This lockdown is getting me down. I'm stuck for something to do.

Shirley: That's not because of lockdown, it's because you're a brachiopod like me.

Polly: Well *I'm* not and I'm a bit flat too. And the food here is *so* basic.

Stella: Look, we're all stuck here and we just need to make the best of it.

Pat: That's easy for you to say. I'm a party girl. You just stick your head in the sand.

Stella: I'm just resting. Anyway, Tina's depressed because she's got a crush on **Dan** who doesn't give her a second look with those gorgeous eyes of his.

Della:(*coughs*) He's only got eyes for Shirley.She's really striking.

Mike: That Dan's got food on the brain. All he's eyeing up is his next meal. I don't trust him.

Shirley: Dan's not like that. Anyway, I thought *you* were his little friend. You always wave at him when he goes past.

Mike: I can't help it, it's the current. Spotty Bryan always waves.

Bryan: I'm not waving, it's what I look like.

Mike: *I* think you're pretty Tina.

Tina: Oh Mike, you're not my type. Or size.

Shirley: Oh come off it! None of them are your type. You're just dreaming. If you're not careful, you'll end up like old crag face with her invisible friend.

Algy (*quietly*): I'm glad you're not like them. It's what's on the inside that counts.

Coral: *(glowing*)Thanks, Algy.

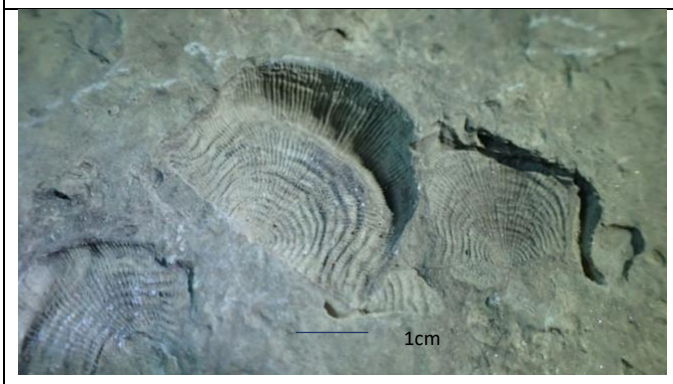
Can you match the names to the faces (the clues follow), and where is Algy?

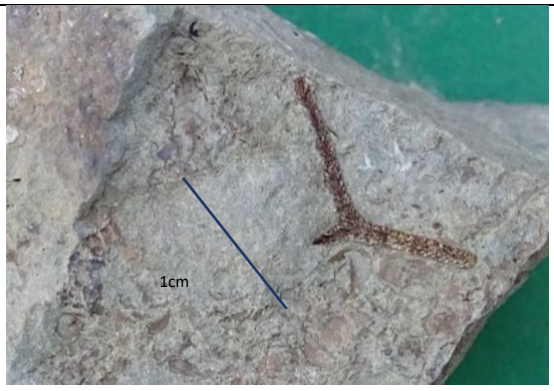
Good luck!

Homalonatus - the lockdown trilobite.

Here are the clues:

 1cm	Brachiopods were common on the Paleozoic seabed with over 30,000 different types but today there are few left. They have 2 valve like shells of unequal sizes, with a pedicle or stalk escaping through a hole in the hinge line between them at the back. Most brachiopods start out free swimming but then settle down to live on a rock or other firm surface. The smaller ones (like this one) are attached by the pedicle which allows for some movement in the current.	*Microsphaeridio-rhynchus* Or -------

 1cm	The fossils here are “moulds”, the white chalky material has been dissolved away leaving a sort of negative in the mud. The area of muscle attachments look like a nose at the back of the inner surface of the valve. These muscles could snap the valves shut for protection from predators or to expel anything blocking their feeding system, a bit like a cough.	*Dalmanella* Or ---------
	Some brachiopods are larger than others. This one is about 4 cm across. This is the internal mould of the bigger pedicle valve. This brachiopod rested on the sea floor and did not rely on the pedicle to keep its front feeding edge (bottom left in the picture) above the sediment. It simply used its shape and the weight of the larger valve. In the image, the valve is up side down.	Strophonella euglypha Or ----------
 1cm	This is brachiopod is a common find in the Llandegfedd RIGS site. The exterior of the pedicle valve is on the left. On the right is the  inner surface.The depressions are where some of the muscles attach.	*Leptaena* *depressa* Or ----------
 1cm	This is another common find through much of the succession. It has a strong fan of ribs with equally prominent concentric growth rings. The valve grows forwards by the addition of material by the inner surface which then moves out as if on a conveyor belt. The rings are pauses when the conveyor belt stops, whether it’s the season or anything else. They look like the frills of a party dress.	*Atrypa reticularis* Or ---------

 1cm	Often, only parts of the fossils are visible. Each brachiopod will present 4 different moulds – the internal and external surfaces of each valve. So it can get confusing. Shaleria Ornatella has a distinct pattern of wide ribs which is unusual and useful.	*Shaleria ornatella* Or ----------
 1cm BGS	Trilobites existed for a total of 300million years, becoming extinct 250million years ago. The armoured head,which protects the small  brain and the somewhat bigger stomach, carries unique calcite crystal eyes.The animal had many pairs of legs to crawl and swim. Some were predators. The pygidium,the tail ,is the piece most frequently found as a fossil.	*Dalmanites* Or ---------
	Another group of shelly fossils are the gastropods. They typically have spiral shells and today's Gastropods include snails and whelks.  These fossil gastropods looks like flattened snails	Poleumita sp. Or ----------
 1cm	Bryozoans are a group of animals that can look like plants. They form colonies of 1mm long tiny individuals, each with a mouth rimmed by tentacles to pull in bits of food. Their hard shelly coats stick them together so they form many branching structures. If they stand upright from the sea bed then get buried with mud, they look like tiny arms with the tiny mouths preserved.	Bryozoan Or ----------

	Another large group of animals that can be mistaken for plants are corals. These are made up of tiny individuals, polyps, with mouths and tentacles which grab food as it flows past.The reefs they form are so dense that they are important rock builders. Corals grow best in warm, clear, shallow water where there is still light. This is because the coral polyps live symbiotically with algae, which use the polyp's waste for photosynthesis to create more food for them both.	Favosites sp. Or ----------

Thanks to Lesley Cherns for advice and Guy Moody for some of the photos.

I am trying to collate a data sheet for would be fossil hunters at Llandegfedd

If you have time on your hands and a creaking fossil collection, any images of Silurian fossils would be gratefully received even if they are a bit of a mystery.

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