

Meilee Rafe placing a sinker wire in Icarus (HVS 5a), Rhoscolyn, Anglesey. All photography: Mike Robertson



Libby and Meilee worshipping The Sun.



Libby Peter's Rock Essentials

No. 5 : Quartzite

How Quartzite is formed

The exotic sounding quartzite rock type is classified as a metamorphic rock, which started out life as sandstone. Sandstone is converted into quartzite through heating and pressure usually related to tectonic compression within orogenic belts. Pure quartzite is usually white to grey, though quartzites often occur in various shades of yellow, pink and red due to varying amounts of iron oxide. If you've climbed on a few of the Gogarth cliffs you'll have viewed this amazing colour chart from the almost pure white Holyhead Mountain and Wen (white) Slab

to the burnt ochre and deep magenta of Rhoscolyn and Red Wall.

When sandstone is metamorphosed to quartzite, the individual quartz grains and most of the cementing material recrystallize to form a tightly interlocking mosaic of quartz crystals. This welded rock is incredibly hard and homogeneous but small rebellious amounts of the cementing materials, such as iron oxide, carbonate and clay, often migrate during this process to create streaks and bands of non-conformist (and much less solid) rock within the quartzite. Again this is witnessed on the Gogarth cliffs intermingled with the good stuff.

Geographical Spread

Quartzite is not a common rock type in the UK but where it occurs it is spectacular. In the North West Highlands the top tier of the sandstone Triple Buttresses of Beinn Eighe is pale quartzite, but I think all climbers would agree that Gogarth, on the West coast of Anglesey in North Wales, is the jewel in the quartzite crown.

Worldwide you could climb on quartzite in South Africa, in the Canadian Rockies and in Morocco's Anti-atlas mountains but none of these venues are as 'characterful' as our dear own Gogarth.

How to Climb it

Crags built out of the pure white compact strains of quartzite are often confused with limestone and indeed they are similar to climb on; steep, with positive in-cut holds and sinker gear placements.

At the other end of the spectrum the cliffs with a more mixed genetic inheritance create a mesmerising sea of weirdness. Sculpted rock that defies the normal rules of climbing and confusing angles determined to baffle the uninitiated. Add to this an unpredictable rock quality and the result is scary and insecure yet at the same time brilliant and memorable.



The chaotic looking Llawder wall of Rhoscolyn is in fact one of the more solid and normal feeling Gogarth quartzite crags.



Lou contemplates the next delicate step of the unearthly space walk that is *The Moon* (E3 5c), Yellow Wall, Gogarth.

So you need to adapt your climbing style according to the nature of the cliff or route that you're on at the time. On the solid quartzite cliffs you can crank away to your hearts content without worrying about the holds parting company with the cliff. These steep climbs respond well to a positive and dynamic approach.

However, once on the softer or more brittle cliffs you need to avoid pulling hard on small flakes and avoid hanging all your weight on the tempting jug like horns, snappy holds are commonplace. Instead try to spread your weight over a big area, don't pull hard but push and weave and use forces of levitation rather than hard pulling.

The Sun and *The Moon*, featured in the photos here, sum up these contrasting styles; steep secure laybacking and jamming with excellent gear versus ledge shuffling on dusty holds with some loose rock and less obvious runners.

One of the peculiarities of the Gogarth cliffs is the changeability of the rock quality during the course of a route, so always be ready to change your style if you suspect you've hit a less solid section.

How to get gear in it

You've probably heard of a Yosemite style big-wall rack, well a Gogarth rack is not dissimilar. Take lots of everything and keep on placing it, this'll compensate for the dubious rock and unorthodox placements. Sometimes you can stare at a chunk of rock in horror seeing no obvious places for gear, at such times you need to adopt a creative approach, bunch runners and make liberal use of spikes and threads. A Gogarth rack should include at least a full set of cams as well as nuts and lots of extra slings. The skinny ones can be really useful for tiny holes to thread and horn like spikes.

Special features and particular hazards

Top outs – are rarely friendly, the crag top either ends abruptly but with scarce placements or merge into the hillside so you find yourself on a steep grass exit. Always place a runner before you exit the better rock, alert your belayer and press on with extreme care.

Belays – place several anchors to compensate for poor rock quality and less than perfect placements. The same goes



Getting up close to quartzite.

for runners. Use the rope in the belay rather than simply using slings to make it all a bit more dynamic.

Cams in dusty or flaky cracks – are common and it's virtually impossible to gauge their holding power. Treat them with suspicion and place lots of them.

Best Loved Crags and routes

This list has to start with Dream. A *Dream of White Horses*, HVS 5a on Wen Slab is a journey of beauty and route finding genius. Once nominated by Rock and Ice as one of the top 25 climbs in the World, it rarely dissappoints

- Rhoscolyn – *Symphony Crack*, a delightful and rare Diff,
- Rhoscolyn - *The Sun*, E3 5c, gorgeous.
- Holyhead Mountain – *King Bee Crack*, HVS 5a, always tough always enjoyable.
- Castell Helen – *Lighthouse Arête*, VS 4c, a gentle introduction to the Gogarth sea-cliff experience.
- Upper Tier – *The Strand*, E2 5b, has stood the test of time, take your place in the queue.
- Main Cliff – *Gogarth*, E1 5b, a marvellous journey that unsettles many strong leaders.
- Yellow Wall – *The Moon*, E3 5c, as brilliant as everyone says!
- Red Wall – *Red Wall*, E2 5b is a good place to start on this brilliant but baffling and serious cliff. Once you get a taste for it you'll be addicted, be warned!
- Mousetrap Zawn – *Mousetrap*, E2 5c, confusing route finding, insecure rock and poor gear but nonetheless absolutely fantastic! □



Lou Neill pulling into the fiery corner of *The Sun* (E3 5c), Rhoscolyn, Anglesey.



Libby has been climbing for over 20 years, she's a qualified Mountaineering Instructor and IFMGA Guide and is the author of *Rock Climbing – Essential Skills and Techniques* published by MTUK and recently produced *Get Out On Rock* – the definitive instructional DVD. Her base is NorthWales from where she runs the guiding outfit Llanberis Guides (www.llanberisguides.com)