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The Association
of Mountaineering
Instructors

British Mountain
Guides

British Association
of International
Mountain Leaders

Mountain Training
Association

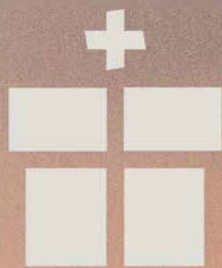


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NEXT ISSUE

Spring 2021 Science of navigation, reviewing and effective warm ups at the crag. Copy deadline: Friday 15 January 2021.

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Our front cover

WMCI Benjamin Gibson abseiling down Fallout Corner after a day of winter cragging.
© Alex Riley.

Woodland Carbon scheme



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EDITORIAL



ABOVE The editor working at a residential Outdoor Education Centre © Steve Long.

... And so we approach the end of a year that all of us will remember for ever. A year that personal freedom was temporarily suspended for varying durations, and the year that the U.S. acknowledged a desire to return to the Paris Agreement, days after formally leaving it.

The UK government in Westminster debated whether to make Extinction Rebellion an act of terrorism and civil rights groups clashed over whose lives matter and vented their frustrations on statues. It's been a stop-start year for most businesses, and required financial interventions that follow a decade of austerity and will heap future tax burdens even on people who found themselves outside the safety net this year.

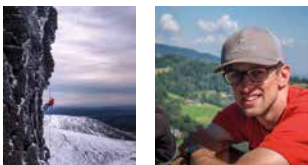
While the nation asks "What can give us the resilience to cope with such momentous events?" our profession provides many of the answers, within the scope of outdoor education. The outdoor centres that have been barred this year from residential work were for many of us the catalyst that showed us the healing power of nature and nurtured confidence in risk and project management; the very skills and aptitudes that society

is currently re-evaluating. We need to baton down the hatches to weather this storm, but the world – through lockdown – is rediscovering the value of what our profession delivers so effectively.

As we go to print there are hints that a vaccine may soon be available, and advanced bookings may start to feel a realistic option. This edition of the magazine blends ideas, knowledge, coping strategies and innovations. Compiling it has been a lockdown privilege, thanks to our wonderful contributors. Every new issue brings a moment of doubt – how can we match this quality next time? But that is the true value of adventure – next time we will all be stronger, braver and more resilient!

Steve Long
Technical editor

OUR COVER



Alex Riley

Alex is a Mountaineering and Climbing Instructor based in North Wales. He offers instruction and leading throughout the UK at www.moelwynmountaineering.com.

OUR WINTER ISSUE CONTRIBUTORS INCLUDE



Gavin Kelly

Gavin is a Mountaineering and Climbing Instructor providing Technical Advice, Mountain Training schemes, BMC courses and leadership and management coaching based in Dartmoor.



Will Nicholls

Will is a Winter Mountaineering and Climbing Instructor and works for Plas y Brenin. He loves teaching people to become independent winter mountaineers, and finds avalanche education fascinating.



Iona Pawson

Iona is a self-confessed obsessive ski mountaineer, who has a passion for exploring the mountains by ski during the winter months. She is a Mountaineering and Climbing Instructor and International Mountain Leader.



Jeremy Williams

Jeremy is an International Mountain Leader based in the western Pyrénées. He is an 'encadrant' (trainer/leader) for CAF in the Ossau valley, and a 'baliseur' (footpath marker) for CDRP64.

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Feeling inspired?
If you would like to contribute to the next issue, please contact **Belinda Buckingham** at belinda@mountain-training.org

Fancy advertising?
If you would like to advertise in the next issue, please contact **Caroline Davenport** at caroline@media-solution.co.uk

NEWS



THE ASSOCIATION OF MOUNTAINEERING INSTRUCTORS (AMI)

Despite the unpredictable nature of local and national lockdowns, AMI members' work is still taking place albeit nowhere near the normal volume. The support that members are offering each other is amazing and underlines the positives of being part of the AMI community.

The AGM took place as a closed event in November, but ensured that the necessary legalities were carried out. We look forward to welcoming everyone to the 2021 AGM/workshop weekend at Plas y Brenin on 27th – 28th of March.

CPD events have resumed after the initial national lockdown, and by the time you read this the Winter Mountaineering and Climbing Instructor workshop programme should be available. After a positive response to the three yearly member survey the results will now feed into the 2020-21 Delivery Plan. This will be developed at an AMI committee meeting late November and presented at the AGM.

Finally, Rob Pugh has stood down as a Trustee after six years in the role as AMI Secretary. We owe him a huge thank you for all his work and commitment. We will shortly be advertising for a new Trustee/Secretary and a Chair Elect, to start at the next AGM. Please consider stepping forward – AMI relies on volunteers and it's tremendously rewarding to be involved!

Phil Baker (Chairman)



AMI is the representative body for professionally qualified Mountaineering and Climbing Instructors in the UK and Ireland and is committed to promoting good practice in all mountaineering instruction. Full members hold the Mountaineering and climbing instructors qualification or higher qualification the Winter Mountaineering and Climbing Instructor.

T 01690 720123
www.ami.org.uk



BRITISH MOUNTAIN GUIDES (BMG)

Writing this at the start of new and diverse Covid-19 measures across Europe, the business that is the main stay of BMG members is becoming very challenging. The uncertainties that Brexit is bringing to the freedom of movement and work in the EU economic zone are also a great worry. Working groups have been established to try to find solutions to the problems that will be encountered.

Due to the measures both the IFMGA and BMG annual general meetings will both be held remotely on the 27th November and 5th of December respectively.

The training and assessment of BMG candidates have managed to continue with some adaption of dates – many thanks to Adrian Nelhams and the training team.

This will be the last BMG news that I will write for this magazine as my tenure as President comes to an end. Martin Doyle will be taking my place, and Tim Blakemore will also take on the role of Technical Director from Adrian Nelhams. Best of luck to both Martin and Tim, and thanks to Ade for guiding the training group for the past four years.

With the restrictions imposed many new faces have been seen in the great outdoors and this is a great opportunity to educate and enthuse in an environmentally responsible and caring way.

Mark Charlton (President)



The BMG is a member of the International Federation of Mountain Guides (IFMGA), currently comprising 24 nations worldwide, with growing membership, it is the professional organisation that trains and assesses Mountain Guides in all disciplines. A British Mountain Guide operates to the highest recognised level throughout the world, in all terrain and in diverse roles.

T 01690 720386
www.bmg.org.uk



THE BRITISH ASSOCIATION OF INTERNATIONAL MOUNTAIN LEADERS (BAIML)

I'm writing this as much of the UK enters a second lockdown and we hope all of our members are safe and well, but if you're not, then please reach out to the BAIML team and we'll be in touch – I can be contacted at president@baiml.org, and others are on the website.

By the time you read this we'll either be about to or have just had our first online AGM. Sadly, we had to cancel the conference, so the leadership team have taken two decisions to support members:

- 2021 membership fees have been halved for renewals made by 31st December. From 1st January 2021 they'll default to the standard rate – please take advantage of this reduction and renew promptly.
- We've put a real effort into getting as much CPD into the regions as possible – too much to list here – and a lot of it is free or being subsidised by the association – a big thanks go to Michelle and the Regional Reps team.

The coming year will be a challenging and different one for BAIML and members, but one that I'm sure we'll be able to overcome together. I hope you all get to spend time with your loved ones and on the hills over Christmas – and we hope to be able to all meet up again in a happier New Year.

Kelvyn James [President]



BAIML is the professional association for International Mountain Leaders (IMLs) in the UK. It represents the UK at UIMLA, the Union of International Mountain Leader Associations, which is the international governing body for IMLs. Full members hold the IML award and are committed to a dedicated CPD programme.

T 01690 720272
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THE MOUNTAIN TRAINING ASSOCIATION (MTA)

Firstly, we'd like to thank all our members for continuing to support the association, enabling us to do the work that we do.

We'd also like to give a big thank you to all our regional coordinators, support volunteers and workshop providers who despite the challenges Covid-19 has brought have been innovative, adaptable and creative in order to provide both practical and virtual learning opportunities for the benefit of others throughout this year, which has been very well received by members.

MTA are delighted to be able to offer a winter CPD weekend at Glenmore Lodge on 24th and 25th January 2021, providing a host of winter focused workshops. Numbers will be limited so we will include other winter workshops on the programme.

The Met Office has done a sterling job this year taking our Mountain Weather workshops online and developing resources at short notice. We are delighted to be able to continue this collaboration work and will be offering another series of workshops throughout 2021.

Next year we'll also be developing our mentoring programme, focusing on promoting members and working with the YHA to provide leader opportunities.

Finally, we wish all our members a very Merry Christmas and a safe and prosperous New Year.

Belinda Buckingham [Development Officer]



The MTA is a membership organisation providing support and development opportunities for all candidates of Mountain Training. Promoting good practice and providing continued personal development opportunities as part of a UK-wide community of outdoor leaders. Full members hold one or more of the Mountain Training Awards.

T 01690 720272
www.mountain-training.org/mta

SNOWSHOEING IN ARMENIA



WORDS AND PHOTOS BY KIRSTY BRIEN

The Molokan Valley – Armenian Snowshoe Adventures



Kirsty Brien has been an International Mountain Leader for 12 years and is the Regional Representative for BAIML in Yorkshire and the North East. She is the Technical Advisor for a Schools Expedition company and Head of Outdoors for an International College. When not working in the mountains she runs a small company making bespoke rock art pictures using fossils, rocks and sea glass. <https://www.facebook.com/gniessrocks>.

She spends a lot of time with her kids & border collie who all love an adventure, she is also trying to summit the high point in every European country and really thought she would be finished by now!

The Landrover wheels squeak on the crisp snow as I pull off the road and onto the track. I turn the engine off and sit for a moment, enjoying the stillness and watching my breath steam the window up. The heating has packed up again, so I get out stamping my cold feet. Rowan (my collie) bounds off the passenger seat, disappearing into the trees looking for a stick. A gate squeaks and there is a cheery 'Barev Dzez' from Grigor. In his mid-70's, Grigor is employed as a security guard at a fish restaurant and lives in a tiny gatehouse. We have met a few times before; he ushers me to the stove and insists I have a cup of black tea, sweetened with local honey and some lavash (Armenian flatbread) and homemade jam. We only share a few common words, my Armenian is basic and his second language is Russian, which I don't speak at all. We 'google translate' to discuss the weather and how our families are doing, he tuts and shrugs at the politicians on the grainy picture on the TV (absolutely no translation needed...). Toes thawed, he sends me on my way with a snack, a warning about the bears and an offer to call in on my way back for a shot of homebrewed vodka.

As the Head of Outdoors for an International college in Dilijan in Central Armenia, at least once a week I try to get out and find new routes to take my students on; during the summer on mountain bike or on foot, in winter on snowshoes or touring skis. It's the turn of the snowshoes today as I try to find a good 'easy' loop for my beginner snowshoe group at the weekend.

Mountain and outdoor tourism in Armenia are very much in their infancy, which makes for an incredible destination to explore. The mountains are empty, in the space of a year I must have seen no more than 40 people, and most of them were shepherds or foresters. A quick glance at the Dilijan National Park 1:25:000 map will reveal thousands of paths and trails (including a section of the long distance – Trans Caucasian Trail) above 2,000 metres. Very few fences or walls exist and the freedom to roam through peaceful mountains is open to endless possibilities.

Winter presents some fantastic snowshoeing and ski mountaineering, and outside of the popular resort slopes near the town of Tsaghkadzor (about an hour south of Dilijan) the chances of meeting anyone else skinning or plodding up a slope are next to nothing – however, this also means there is very little in the way of accurate avalanche forecasting and no rescue teams should you need help.

Full of tea and jam I head off on a wide easy-angled slope, tracks now buried under a couple of feet of snow. The Pambak Mountains rise sharply to the south reaching over 2,500 metres, the sky is a startling blue, but the sun hasn't risen over the ridge, so the snow is solid and I move quickly, enjoying the solitude and only occasionally tripping over the dog. I creep along the line of the forest, Grigor's bear warning is messing with my head, and my heart lurches as Rowan belts out of the forest as if something is hot on his heels, plumes of glittery snow flying off his tail.



1



2



3

1. Rowan, my trusty sidekick and bear scarer. 2. The view from the clearing of the Pambak range. 3. First steps in snowshoes.

I pick my route, exploring some shallow gullies to see if I can find a good area to look at the snowpack with my students and after a few kilometres I zig zag up a slope through neat lines of an apple orchard, topping out on a broad ridge. The valley widens with far reaching views into Lori Province, the endless Caucasus range fades into the distance.

I turn south along the ridge, emerging from the trees onto a small clearing giving fabulous 360 degree views, breathing in the sharp air and enjoying a moment of *Shinrin Yoku*, listening to the forest sleeping under its snowy shroud, and making a note of its perfect location as a lunch stop at the weekend.

The snowshoe possibilities are endless in this area. Many of my starting points are above 2,000 metres giving reliable snow conditions until well into early spring. I spend hours poring over maps, putting together circular and linear treks to take in hidden monasteries, abandoned forts and high mountain lakes. One of the main reasons I have chosen this route is because the valley is home to three 'Molokan' villages Fioletovo, Margahovit and Lermontovo; a religious orthodox sect, closed off from the rest of Armenia.

The most popular theory of their name is that it's derived from *moloko*, (milk in Russian) 17th Century Molokans expressed their disagreement with the official Church by disobeying the ban on drinking milk on fast days (the Molokans are often dairy farmers).

Today's Molokans have no churches, meeting in houses (painted in a very bright blue), they don't eat pork or shellfish, drink alcohol or smoke. Only reading the Bible, shunning the trappings of modern life, marrying within their community, uncompromising in their pacifism, they feel uneasy with the outside world.

I feel my own sense of unease as I walk back through the village of Lermontovo. The snow is icy, compacted and slippery but I take off my snowshoes; I am already being watched by the community with a mixture of amusement and bewilderment, and I would

prefer to fall on my backside on the ice, than tramp through looking like an alien with bright pink tennis rackets for feet. I smile at the whispering onlookers. Rowan avoids eye contact with the dogs and trots close by my side until we cross the frozen stream, hurrying back towards Grigor and a glass of something warming.

TOP TIPS

Bring everything you need

Even in Dilijan, which likes to think of itself as a mecca for outdoor tourism there are no equipment shops, few marked trails and little infrastructure! Trails are often changed due to logging (both legal and illegal), many routes require 4 x 4 access to start, there are very few official campsites, bothies or bunkhouses (although there are many hotels and they are often very cheap indeed). Even in Yerevan there are only a few and very expensive outdoor stores.

Weather: Winter in Armenia often brings long stable cold conditions with temperatures in the mountains dropping to -20°C or lower in the central and northern regions.

Wild things and wild driving

There are lots of wild dogs around farms – the sheepdog (an Armenian Gampr) is bred to fight off wolves and can be a terrifying encounter, a handful of rocks lobbed in the right direction will scare them off, but caution and respect is required. Armenia also has a reasonable population of syrian brown bears, and although rarely seen, did hit the headlines in September 2019 when a Polish trekker was killed in a run-in with a bear on the slopes of Mount Aragats.

Travel: Shut your eyes and put your seatbelt on, crashes are commonplace on Armenian Roads. Mashrutkas (people-carrier minibuses) are common place. If you do hire a car, go for something with a fair bit of ground clearance, winter tyres and a loud horn. ■



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SKI TOURING SWEDEN



Northern Sweden – the land of the midnight sun... and some pretty incredible skiing!

WORDS BY IONA PAWSON, PHOTOS BY IONA PAWSON COLLECTION

Between the famously wild and rugged mountains of Norway, and the flatlands of Finland, you would be correct to assume that Sweden must contain a combination of the two. Swedish lapland is associated with reindeer, 'more huskies than people', Sami culture and the northern lights. Whilst many a tourist visits Sweden for these reasons, for the mountaineer, there is even more on offer. The wide Cairngorm-esque valleys are perfect for the keen cross-country skier or snowshoer to travel through. This can be along the way marked path of the Kungsleden (King's trail), or wherever you fancy. Whilst not particularly famous for its peaks, there are some fantastically skiable ones. So much so we were supposed to head back there this year.

A couple of years ago, one of my ski mountaineering friends suggested a self-sufficient trip to Northern Sweden: the goal was to explore the mountains between Sareks and Abisko.

Between searching the internet, looking on FATMAP and browsing various books and journals, I started to wonder why information on ski touring in the area was so hard to come by. Having spent many winters working as a ski instructor in Verbier, I remembered that there were lots of Swedes who moved to the Alps for the winter. Was this because their skiing wasn't that good? Riksgränsen is one of the famous ski resorts in the area, and it seemed as though most people who ventured beyond it were on cross country skis in the winter.

Freedom from a plan

We decided to begin our trip at the winter road head at Vakkotavare, and two weeks later, arrive in time for the train at Abisko. We would use the Kungsleden as access and egress, in addition to being a bad weather or escape route option. What we did in between the start and end was going to be made up as we went. This was a rather refreshing plan, and it enabled us to choose the peaks we wanted to

ski as we went, in addition to deciding upon our exact route along the way. Camping along the way would also add to our flexibility. (Perhaps I should add that most ski touring journeys tend to have a relatively fixed or common route, with various options in the case of condition changes).

Most days went a bit like this

Pack up camp, see peak in distance that looks fun to ski. Cache kit at bottom of peak. Climb peak. Look across and see a peak that would be feasible, safe and fun to ski tomorrow. Ski back down to kit cache. Pick up kit and move around to camp somewhere near the next objective, all the while moving further North towards Abisko.

The first few days of the trip were spent getting to the main mountains, near Sweden's highest mountain, Kebnekaise, 2,099 metres. This was also our first ski peak. It was amazing, everything we had hoped for despite our approach from the South West (most people visit it from the STF hut in the East). A long easy skin up the mountain, fantastic views, and a pleasant ski of powder and spring snow on the way down.

We skied another nine mountains on our way north, including Rusjka, Vaktposten, Pässustjåkka, Njuikkostak and Adnjetjärro. Most of the time we had fantastic spring snow, so much so that we would often yo yo the peak, skiing it two or three times until the heat of the day turned it to unstable slush, in addition to melting us. A highlight of the route was finding a way from Stuur Reaiddávággi over the V Bossos and O Bossos glaciers to Unna Visttasvággi.

Upon reaching Alesjaure we thought we would run out of snow and frozen water courses, leaving us with a 40km walk to the train. The hut guardian informed us that we could safely ski over just an inch of ice and that people had recently snowmobiled in from Abisko. At times we were skiing along the top of frozen rivers with an inch of water flowing on top. There was the occasional



MAIN PHOTO Skiing down Kebnekaise. 1. Enjoying another summit. 2. Anticipation of frozen burgers. 3. Snowshoe tracks on the right as we move camps.



'Scottish-esque' heather-bashing between snowy sections, and most nights involved desperately trying to dry my saturated skins out on my belly in my sleeping bag! Thankfully the nights were still freezing, providing good peak skiing in the mornings.

After an exhausting final day, knee to thigh deep in slush, we reached the edge of Abisko, set up camp and went in search of a supermarket. Despite being a relatively big town, the supermarket seemed to sell more sweets than fresh food. We settled on frozen burgers with salad, devoured with ease. The following day the train whisked us back to Luleå and we were already discussing where to explore next by ski.

Maps

I ordered mine online after a lot of searching. Calazo make 1:50000 waterproof ones. Most of the other maps available are 1:100 000 ones, which meant everyone else kept studying my map! I used FATMAP significantly before the trip, trying to figure out which valleys we might be able to head down, attempting to determine what various glaciers were like, and which peaks looked skiable.

Avalanche conditions, weather and when to go

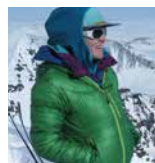
We were there in an unseasonably warm April, so much so, that the glacier on the highest peak, Kebnekaise, shrunk, meaning I have no longer climbed Sweden's highest peak! When the sun returns during January it can be bitterly cold, reaching -30°C . The ski resorts open in February, and most of the STF huts open in March, with thirteen daylight hours. During April, it is often around -5°C with more daylight hours than darkness. The nearest avalanche forecast is for the Abisko area, <https://lavinprognoser.se/en> or over the border in Norway <https://www.varsom.no/en/avalanche-bulletins/>.

Getting there

The closest airports are Kiruna and Luleå, which both connect to Stockholm. Or if you prefer the train, there is a main line running along the North of the main Swedish mountains towards Narvik in Norway, originally built for the transportation of iron ore in the early 20th century – since then it has transported more than 1 billion tons of iron ore. There are also plenty of roads in the area, but expect it to be very wintery, and some will be partially closed.

Accommodation

In the mountains you can camp or stay in the huts. You can camp almost anywhere in Sweden. Some of the huts are manned, some are more like bothies. The odd one has a food shop in it, and occasionally a sauna too! ■



Iona Pawson is a self-confessed obsessive ski mountaineer, who has a passion for exploring the mountains by ski during the winter months, preferably in a self-sufficient manner. She is a Mountaineering and Climbing Instructor, Winter Mountain Leader and International Mountain Leader. During the summer months she loves sharing her enthusiasm for and knowledge of the mountains by working as a member of the instructional team at Plas Y Brenin, in addition to being self-employed in the outdoors too. Having always taught skiing during the winter months, enjoying the sun and powder, more recently Iona has been enjoying the suffering that comes with Scottish winters.

www.instagram.com/outdoors_with_iona/

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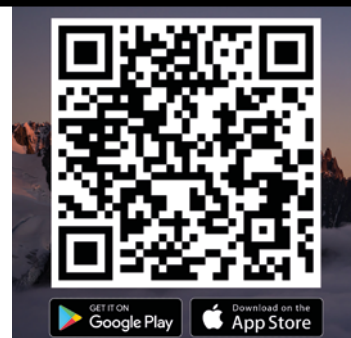
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KNOWING THE ROPES

Here is some basic information on commonly used ropes in our sport of climbing.

WORDS BY MARK GARLAND
WITH INPUT FROM SIMON VERSPEAK

Dynamic Rope

Dynamic rope has an inherent ability to stretch in order to absorb the shock created during a fall; on average up to 10% in a static loading, and an overall dynamic elongation of up to 40%. It should adhere to EN 892 and is made from woven nylon thread in the core, with a nylon outer sheath which mainly protects the inner. The stretch limits the impact force on the climber, belayer and the placed protection, particularly important if used for trad climbing. The amount of stretch can be determined by the diameter of the rope, (i.e. thinner ropes generally stretch more). When buying a rope ensure you are buying the correct rope for the style of climbing that you're planning to do.

The lighter the climber, the more abrupt the deceleration, and the more the climber feels the impact. A belayer would need to give a softer catch, allowing more movement into the system to reduce this impact. In winter, a low impact force is particularly desirable for routes protected by ice screws.

At the point of purchase, ropes will always be easily identifiable in length, and the symbols below will be used to indicate whether they are a Single, Half or Twin.



Mark Garland is a member of AMI and runs Garland Mountaineering which offer the full suite of Mountain Training climbing and walking qualifications. He offers Technical Advice for walking, climbing and coastering and moderates for NICAS, NCFE and Mountain Training. He also runs MIAS mountain biking awards.



A single rope. It can be used alone and is the most commonly seen rope at the crags. This is used for Sport and Trad climbing where routes don't wander too much.



A 1/2 indicates that the rope requires two of these. These are used most commonly in a British winter climbing situation where the route may wander. The ropes can be run parallel, reducing rope drag significantly.



The interlinked circles represent a Twin rope and again will require two ropes to

climb safely, this time both are clipped to every runner. Twins are often used on long routes, predominately in the Alps. They provide weight sharing on the walk-in and the ability to retreat twice as far as a single rope if an abseil descent is required.

“Triple-rated” ropes are now available that can be used for each of the above systems, either singly or as a pair. These tend to be a little more expensive and often have more stretch due to their thinner diameter. These are gaining popularity for winter climbing due to being less prone to damage from carelessly aimed ice axe or crampon point whilst climbing. Ropes do need to be carefully checked after use, as damage does occur when ropes are flaked on the floor and stood on with crampons (not ideal) and particularly when they are under tension (think abseils).

Wet treatment

If you intend to use a rope in wet or wintery conditions, consider getting a treated rope. Treatment was initially confined to the sheath which prevented some absorption of water, but not by the core fibres or in between them. Once wet your rope could increase in weight by up to 50% and then could freeze, leaving you with a very stiff protection system and a tough job to feed through a belay device. Nowadays manufacturers offer a multitude of options which vary in cost; whilst treatments aren't cheap they are generally worth it for the benefits longevity, overall durability and handling, whilst preventing dirt ingress.

Different manufacturers use various names for treatments, but the UIAA recent standard for DRY treated ropes is absorption of less than 5%. Sheath-only coatings are cheaper but better for rainy summer conditions, whereas ropes used in full winter would ideally be treated on the core strands as well as the sheath. ■

ABOVE Rope management in winter An Teallach. © John Cousins.



Tupilak Jacket

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Emergency winter shelters have played an important part in the survival of many major mountaineering figures over the years, so it is no surprise that it also forms part of the Winter Mountain Leader and International Mountain Leader syllabi. One of the simplest emergency shelters to construct is the so-called shovel-up shelter (also referred to as a mouse-hole bivi or quinzhee). It relies on the fact that soft snow will metamorphize into a more rigid structure if you heap it together and pat it relatively hard so that it compresses, in the same way as you would do when making a snowman.

SHOVEL UP!

WORDS AND DIAGRAMS BY DR RON HOLT

There is a long list of possible scenarios when an emergency shelter during winter becomes a necessity. The short winter days, the extremes of the weather, the conditions underfoot, the condition of the party, will all influence the need to stop and rest, maybe for a short time, but perhaps longer. In an emergency, there is a decision to be made, to either continue the descent – even though everyone is exhausted (or injured) – or stay and put some effort into erecting or constructing some form of temporary or emergency shelter, that will give the group an opportunity to recuperate and descend later, maybe in the dark. The wind may well be too strong for a bothy bag to satisfy the needs of your group, ranging from difficulty in deployment through to total destruction of the stitching and fabric.

Choice of shelter

If you decide to stay there is a choice of shelter that your (tired) group may be able to construct, but this depends on resources. Winter shelters, whatever their construction, take time to build. If you find yourself on a slope, then it is perhaps more pertinent to build individual bivvy shelters into a lea slope, where the snow is accumulating. They are relatively quick to construct with an ice axe and you can sit up inside the shelter with a sense of relief from the forever present wind and its persistent noise. However, communication within the group is lost, and avalanche risk can increase rapidly.

The alternative, and this applies particularly well to flatter areas, is to construct a shovel-up for the whole group. This is possible even when the depth of snow is poor and it relies on the fact that snow changes its structure and bonding properties if it is stressed, or should we say ‘patted’ or even ‘bashed’. However, not all types of snow are suitable for a shovel up.

The right type of snow

Snow comes in essentially five flavours depending on its moisture content (as well as the surrounding air temperature and its crystalline structure), as shown in *Table 1*.

Type of snow	Moisture content*
Dry	0%
Moist	<3%
Wet	3% – 8%
Very wet	8 – 15%
Slush	>15%

Dry snow is like loose powder snow; the snow particles do not stick well together, if at all. At the other extreme slush snow is far too fluid to hold a shape. Moist to wet snow are ideal, although even dry snow is not impossible; snow compaction, achieved by ‘patting’ or ‘bashing’, provides an energy source to the snow that manifests itself in the form of pressure on the snow crystals, resulting in a degree of melting. The water released during this phase will quickly become crystalline once again (depending on the air temperature), and it is this process that binds the snow particles together. This is what gives the snow its stronger structural integrity, and an increase in the snows bulk density can vary from perhaps 200 kgm⁻³ on the ground to 500 kgm⁻³ when transformed and compacted.

How to shovel-up

In comparison to other emergency shelters, the shovel-up is relatively ‘quick’ to construct, particularly if you have the help of most of your group. Naturally, its size, and therefore the time taken to build it, depends on the number in the party, but expect to take a minimum of about 45 minutes to an hour.

Begin by piling several rucksacks into a heap on the ground and throwing a bivvy bag over the top of them (keeping some emergency provisions accessible).

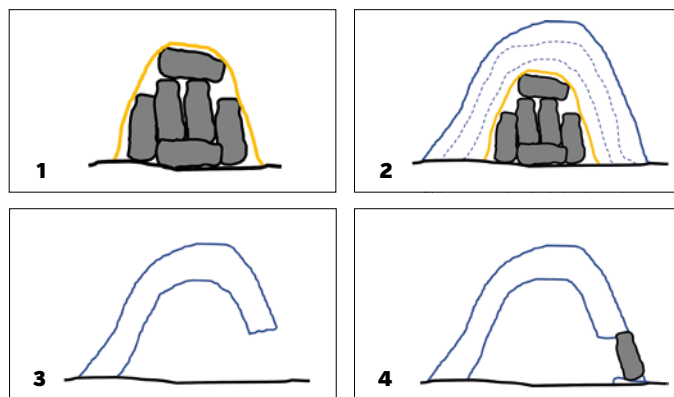


FIGURE 1 (ABOVE) The basic method of a shovel-up. 1. Pile the rucksacks together and cover with a bivvy bag. 2. Heap snow over the rucksacks, beat down, and repeat until a large mound is formed. 3. Tunnel in (on the leeward side) and remove the rucksacks and bivvy bag. 4. Smooth the interior and block the entrance with snow and/or a rucksack[s].

TABLE 1 Different types of snow and their moisture content*

(* this is the amount of free water relative to ice crystals and not the amount of water the snow would produce if melted)



1. A well-constructed shovel-up in the Cairngorms suitable for 2-3 people.
© Peak Mountaineering.

Using the available shovels (or other flattish implements) throw as much ground snow (beginning with the snow closest to the rucksacks) over the bivvy bag (*Figure 1*). Every so often the snow mound needs to be patted or beaten in order to compact the snow as much as possible. This tedious process needs to be repeated many times until there is a sufficient thickness of snow (at least tens of centimetres) that the group feel that the mound is now more or less structurally sound and stable (if in doubt keep piling and compacting the snow until you are happy). The final structure resembles a large (sometimes a very large) dome of compact snow that looks relatively igloo-like (see *Image 1* above).

The next step is to retrieve the rucksacks. This is done by tunnelling into the mound, depositing the removed snow on top of the mound and beating it as before to consolidate the structure even more, or using it to form an entrance. Once all the sacks have been removed, it will be possible to scoop out even more snow from the inner layers to enlarge the inner volume and accommodate all the people in the party. Again, this residual amount of snow can be used to block up the entrance, thrown on top of the dome, or can be used to form part of the entrance. The entrance can also be blocked using a rucksack or two when everyone is inside (the remaining rucksacks can be left outside). Once out of the wind, heat from the group's body will soon warm the cave, as will that welcome warm drink. Shovel-up shelters, if well-constructed, should be adequate for several hours depending on outside conditions. If a prolonged period of time is being spent in a shovel-up, you need to be aware of problems such as condensation and shrinkage of the volume available to move around in as the snow compacts further, just like snow holes. They are uncomfortable for any extended periods of time unless a large shovel-up has been pre-planned to form part of the expedition experience.

Shovel-ups can be practised in almost any terrain if weather conditions allow (I constructed one in Lyme Park on the outskirts of the Peak District last year), so if lockdowns extend into a snowy period, remember that practice makes perfect sense. ■



Dr Ron Holt is a member of BAIML and has led several high-altitude expeditions for Jagged Globe. He is a physicist, teacher and author and runs bespoke navigational courses in and around the Peak District National Park.
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THE NORWEGIAN 'KANTGROP' SNOW SHELTER

In this article we explain how to build a two person snow shelter that is quicker, drier and safer than a conventional snowhole. This method was created and refined over the last 30 years by Trond Augestad and Jannicke Høyem, *friluftsliv* staff at the Norwegian School of Sports Sciences.

WORDS AND PHOTOS BY TROND AUGESTAD, JANNICKE HØYEM AND SIMON BEAMES, NORWEGIAN SCHOOL OF SPORTS SCIENCE

'Kantgrop' translates as 'edge pit'. This is not an altogether accurate translation, but neither is incorrect, as the kantgrop shelter is built into the leeward side of a low ridge. In Scottish terms, this would mean precisely the same locations as classic snowholing venues, such as Coire Domhain. What is important in selecting the site for the kantgrop, is that the slope is not so high as to present an avalanche risk (5 metres or less). Somewhat counter-intuitively, the construction starts by digging-out what will become the roof!

There are three main advantages over the traditional snowhole. First, it is much faster to build. It is possible for two people to build a functional, livable snow shelter in about an hour. Second, the builders remain much drier. Since the initial digging is done from the top, much of the claustrophobic digging-in from the side is avoided, as there is much less rubbing of bodies against snow. Third, the kantgrop is much safer than a snowhole. This is mainly because the roof is built from blocks cut-out from the interior, which have been laid across the trench; thus, there is relatively little snow and weight above the shelter's residents. Furthermore, all builders are visible to the supervising instructor until the very end of the process.

That's enough of the background and rationale for using a kantgrop. We'll now explain how you can supervise several pairs of students as they build their own Norwegian snow shelter.

Step 1 Site selection

Ideal slopes can be found near big rocks or terrain formations where the prevailing wind has created a 'tail' of wind-drifted snow that has left an edge with a drop below it. Once the slope has been selected, use an avalanche probe to confirm that there is enough snow to build the kantgrops. We suggest 2m from the top and 3m from the side of the edge.

Trenches are then 'mapped-out' from the top with a probe. Each trench is approximately 0.5m wide and 3m long, and only 2m is needed between the sides of neighboring trenches, as marked from the top (see *Image 1*).

Step 2 Breaking ground

On top of the ridge, partners will measure out a narrow trench that is approximately hip width. The blocks that make the roof will lie across this gap, so too wide a trench will make this last part of the project more difficult.

Start digging! Throw the snow down the slope. The minimum height for the trench is about a meter (for a speedy bivouac) and the maximum height will be neck height (for a comfortable overnight stay) (see *Image 2*).

Step 3 Interior design

On each inside wall of the trench, the carving process can now begin. Start from the top, a good hand-width below the top surface. Each group will need a snow saw (or a stiff carpenter's saw) to carve out horizontal blocks (see *Image 3*).

The sawing begins on an angle, in order to yield blocks that are more like long wedges than long rectangles. These blocks will become the roof, so care should be taken as they are placed on the top of the edge on either side of the trench. These will sinter and harden as the construction continues.

The room will have an A-frame cross-section with slanted walls and a flat floor. Be sure to finish the interior before building the roof. (see *Image 4*).



Trond Augestad and **Jannicke Høyem** have for many years worked as assistant professors and in the Institute for Teacher Education and Outdoor Studies at the Norwegian School of Sport Sciences (NSSS), in Oslo.



After 14 years at the University of Edinburgh, **Simon Beames** joined the NSSS team in October 2019, as professor of Outdoor Studies.



Step 4 Roofing

The blocks that were cut out from the living space are now ready to cover the top of the trench. The people on top must be sure to keep their weight away from the edges of the trench, as this the highest part of the shelter walls are the weakest.

Once the trench is covered with blocks, throw wind-drifted snow over the top. Once this snow sinters, it will bind together, and thus insulate and strengthen the structure. If done well, you'll be able to walk on the roof the next day (see *Image 5*).

Step 5 The entrance

The entrance is dug downwards and will become more of a canal with a staircase in front. You can use remaining blocks to cover this entrance canal, which will in turn make for a warmer sleep. The living space must be higher than the entrance in order to keep the warmth inside (see *Image 6*).

We advise cooking dinner before the last blocks are put in place across the entrance. Bring your shovel and saw inside with you, for further interior decorating. Note that the snow walls contain

enough oxygen for at least two nights, so no additional air vent holes are required. You can pee in a corner of the kantgrop, as the snow will absorb any smell.

Do keep in mind that during the night, transported or fresh snow will cover any snow shelter entrance. Be sure to place an avalanche probe with a reflector to the left of each entrance, so that the groups are easy to find.

Besides kantgrops being quick, dry and safe, they also allow students to spend more of their time to explore their surroundings, learn other skills and knowledge, or simply prepare their evening meal and bed for the night without being completely exhausted. Of course, we highly recommend that each kantgrop is adorned with a snow sculpture!

An instructional video with English subtitles on how to build a kantgrop can be found at <https://www.youtube.com/watch?v=HQpTPdSzUyo>. Please get in touch with Trond Augestad at trond.augestad@nih.no or Jannicke Høyem at jannicke.hoyem@nih.no, if you would like to discuss how you can adapt the kantgrop for your own work. ■

WILDLIFE CRIME ON THE HILLS

WHAT TO LOOK OUT FOR

WORDS BY MIKE RAINE IN
CONSULTATION WITH IAN COOPER,
PHOTOS BY IAN COOPER

I started walking on the moors of the south Pennines and the Yorkshire Dales a good few years ago now.



Mike Raine is the author of *Nature of Snowdonia* (2020) and he runs CPD workshops for Mountain Leaders and Mountaineering and Climbing Instructors. You can find out more at www.mikeraine.co.uk



Ian Cooper is a Mountain leader, owner of Mountain Escapes, trustee at Glaslyn Osprey Project, and organiser of Hen Harrier Day Wales.

A self-confessed raptor geek and raises public awareness on wildlife crime and raptor persecution. You will find him walking the hills of Snowdonia, usually with his eyes looking up! <https://sites.google.com/view/mountain-escapes>

Many of you will have started out on similar journeys. Large, flattish, heather moors, with peat hags and grouse. Moors above Hebden Bridge, around Nidderdale and over by the Lyke Wake Walk all came with the added bonus of grouse butts, grouse shooting huts and 'chaps' in tweed. Disturbing a grouse, peering through a dirty window at a raucous lunching party or encountering a game keeper bedecked with dead grouse were all perfectly normal parts of a typical day's walking.

In recent times you may have noticed in the press that driven grouse shooting is being challenged about the way it interacts with the natural world. I'd always ignored the Glorious 12th and all it stood for in the past. I turned a blind eye; it's not my cup of tea, no kind of shooting would be, so who am I to question them? They own the land; they create jobs and keep rural economies turning over. Or so we are told.

There are some uncomfortable truths emerging. The BMC have now issued a statement of concern, the RSPB have toughened their stance on the licensing of driven grouse shooting and governments in England, Wales and Scotland are increasingly aware of the negative environmental impacts that accompany driven grouse. My eyes were first really opened on reading *Inglorious* by Dr Mark Avery. Mark Avery, a former conservation director with the RSPB, got fed

up with wildlife crimes and decided to blow the whistle. Mark asserts that all is not well in the world of driven grouse shooting and calls for an outright ban on the activity. The world of driven grouse shooting has itself recognised that crimes have taken place in its name and has issued a strongly worded statement that you will see below.

In terms of wildlife 'management' to maintain a moorland full of grouse for the shoot, an ecosystem every bit as managed as a field of wheat is required. Areas of new growth heather are encouraged by burning; old growth is left to straggle ready for the burn. Grouse have lots of young, up to ten chicks, as they will lose large numbers to predators. To maintain high numbers of grouse for the shoot, predators must be 'controlled'. It is this 'control' of predators that feels uncomfortable and as you traverse land managed for grouse, it smacks you in the face how little else you see there; just grouse, lots of grouse.

Red grouse are wild. They are not reared like other birds for shooting such as red-legged partridge or pheasant. It's actually quite nice to see red grouse in Snowdonia or the Lake District; they are a part of the fauna of those regions but have become an unusual sight. Other grouse species are all in decline, black grouse, ptarmigan and capercaillie, but red grouse thrive on their manufactured moorland habitat because of their demand in the 'game' of driven grouse shooting.

Moorland is a special feature of British uplands. Only here have moors been so intensively managed for the benefit of one species. This is not a natural habitat, heather is a woodland understory and edge plant, a plant of scrub. Curlew and lapwing do well on some grouse moors and the Moorland Association, rightly, celebrates this fact. This is, however, an area of some controversy with conflicting claims made by supporters and opposers of the shoot. This is a difficult and nuanced conversation, but we should be aware of it. *What matters*, as a walker or climber, is thinking about what you are actually seeing and hearing. We need to take our own observations and ask questions that challenge both ourselves and those with whom we share the moors.

We tend not to be people who call for bans; not wishing to restrict the freedom and enjoyment of others. We tend to look for the middle ground and seek to compromise: Mark Avery addresses this instinct in *Inglorious*. But for now, the least you and I can do is read more widely and learn how to keep an eye out for wildlife crimes. They are going on, and they are difficult to police. The RSPCA and the RSPB are trying, and they need our support. In response to a greater awareness of raptor persecution on moorland groomed for the driven grouse shoot, the British Association for Shooting and Conservation, Countryside Alliance, Moorland Association and National Gamekeepers' Organisation issued the following statement in January of 2020, visible on any of their websites:

"There is no excuse for the illegal killing of any bird of prey, and we unreservedly condemn all such acts. The shooting community has been tarnished with a reputation for persecuting raptors, and while many reports of such persecution have proven to be false and confirmed cases are decreasing year-on-year, the illegal killing of birds of prey continues to be carried out by a small minority of irresponsible individuals. We strongly condemn their actions and have a zero-tolerance policy towards any such incident. These people have no place in a sector that is otherwise overwhelmingly positive; one that is the economic driver for many of our more remote communities, and the largest contributor to conservation schemes in England and Wales."

The organisations that issued this reassuring statement will surely welcome our extra eyes 'on the hill'. Unfortunately, however, in May of 2020 Mark Thomas, RSPB Head of Investigations UK, said: *"Since lockdown began, the RSPB has been overrun with reports of birds of prey being targeted. It is clear that criminals on some sporting estates both in the uplands and lowlands, have used the wider closure of the countryside as an opportunity to ramp up their efforts to kill birds of prey."*

The issue is to be mostly associated with 'driven' grouse shooting; other types of shooting, including 'walk up' grouse shooting, are less of a concern as

they appear to respect the law (although there are questions being asked about the environmental impact of the importation of vast numbers of pheasant for shooting).

It is normal and legal for gamekeepers to shoot or trap grouse predators such as carrion crow, fox, stoat and weasel. The intention is to keep numbers of these animals as low as possible, particularly during the grouse breeding season. All these species can be controlled without a special licence.

It will be hard to spot wrongdoing. Any questionable activities will tend to take place at quiet times of the day. Some snares and traps are legal, so it's not a straightforward business. Where we can really help is by being 'off the beaten track' and by engaging in conversation with gamekeepers. These conversations can be uncomfortable, but it does help us to see someone doing their job, the way they were taught to do it and have always done it. These are 'country' people, we can learn from them and you will find as wide a range of views amongst their population.

Whilst it is not unusual to come across someone shooting crows and rabbits in the countryside, here are some other things we should keep eyes peeled for:

SNARES

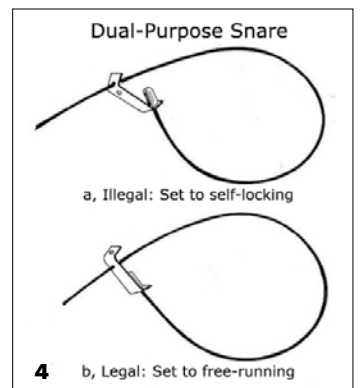
A snare is a loop of wire designed to tighten round a limb of a, so called, vermin species such as fox. It must be set to hold the animal and should be "free-running" i.e. does not tighten when the animal stops struggling; contrasting with a locking snare, which is illegal. Snares should be fixed to a solid object and not one that could be dragged by a wounded animal. They mustn't be set on animals' 'runs' where there is evidence of regular use by non-target species such as badgers, deer, otters, farm livestock and domestic animals. Snares should not be set on fences, bridges, fallen trees or logs spanning watercourses. Every snare should be checked at least once a day. If you find a snare with a dead animal caught, either the snare has killed it, or it hasn't been checked.

FENN TRAPS

The Rodent Fenn trap is a spring trap with treadle trigger mechanism, rather like a large mousetrap for the control of grey squirrels and rats. As with snares they shouldn't be placed on animal 'runs' where they could catch non-target species.

LARSEN TRAPS

This looks like a cage: think of a lobster pot into which an animal can gain entry but can't get out. They are used for catching crows (magpies, crows, jays, jackdaws and rooks). This kind of trap has been around since the 1950's and there are now several different designs. The trap is set with a live bird. This bird must have food, water, shelter and room to stretch its wings. The Larsen Trap has to be checked every day. If you find a trap that has a pigeon or meat inside, this is illegal and has probably been set to target birds of prey.



MAIN PHOTO Grouse dominated moor near Ben a Bhuid.

1. Eagle Fenn trap. 2. Pole trap on the Brewlands. 3. Red squirrel in illegal bridge trap. 4. Dual-purpose snare.



5. Red squirrel in cage trap. 6. Buzzard in Larsen trap.

ILLEGAL TRAPS

Gin traps have been illegal in England and Wales since 1958 and in Scotland since 1973. You may have seen them though as they have been around for a long time and will crop up from time to time in works of fiction. These are the sprung, cast iron, clamp type, traps that cause severe damage to the limb of any unfortunate creature to happen upon one.

Pole traps are spring traps, either a Fenn or Gin trap, set on top of a fence post or pole and baited. They are set exclusively to catch birds of prey, so are absolutely forbidden.

So, keep your eyes peeled, don't shy away from conversations in the country, it's good to understand why people might have different viewpoints from yourself. But you'll be doing all sides of this conversation a big favour if you do spot, and report, any illegal wildlife crimes taking place.

Advice if an illegal trap is suspected

Recognise, Record, Report.

- Note the location. Be as accurate as possible use an 8 fig Grid Reference if possible.
- Date, time and weather conditions.
- Take photos from various angles. If a live animal is involved, consider a video.

- Report any suspected crime by dialling 101 and asking to speak to the local WCO for that area. If not available report to regular officers. Obtain an incident number.
- Never move or touch anything, Live traps or poison could be a danger. If the trap is legal, you could be breaking the law if you tamper with it.

Further reading

- *Inglorious*, Mark Avery, Bloomsbury Press
- *Snared*, Bob Berzins, independently published
- *Killing by Proxy*, Alan Stewart, Thirsty books
- *Grouse Shooting*, David Hudson, Quiller Publishing
- *Skydancer*, John Burns, Vertebrate Publishing

Useful websites

- <https://moorlandmonitors.org/>
- <http://www.snarewatch.org/>
- <https://raptorpersecutionscotland.wordpress.com/>
- <https://www.moorlandassociation.org/>
- <https://www.gwct.org.uk/>

Other useful contacts

RSPB investigations 01767 680551 (England, Wales, NI)
 SSPCA 0300 0999 999
 RSPCA 0300 1234 999 ■



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Libby Peter
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 and mother of two

The twenty-first in a series of articles on wildlife.

WORDS BY SUE HAYSOM

ROE DEER



“Doe, a deer, a female deer...” Join in if you know the words! Why have I come over all Julie Andrews? To introduce a little terminology. The three species of deer you’re most likely to encounter in the Scottish uplands today are the red, the roe and sika deer. In the last edition we looked at red deer, where the males, females and young are called stags, hinds and calves respectively. Here we focus on roe deer: bucks, does and kids.

Like red deer, roe are truly native in Britain. Records of them date to before the Mesolithic period (6,000 to 10,000 years BC). They experienced a significant decline in abundance and distribution through over-hunting and deforestation but then recovered in response to the increase in woodland planting in the 20th century and reintroductions in Victorian times.

Compared to red deer, roe are dainty nymphs often associated with woodland edges. They’re active throughout the 24-hour cycle but activity peaks at dawn and dusk so don’t be too surprised if you get barked at on emerging early from your tent or returning to camp or car as the sun sets on a long hill day. As a lone fieldworker mooching about in the undergrowth before dawn there was nothing quite as heart-stopping as a surprise encounter with a roe buck – we were generally equally startled but only one of us vocalised... usually.

More heart-melting moments occur when you encounter a tiny, curled up and seemingly abandoned kid. Fortunately, that’s not the actual scenario here. A mother will leave its young

hidden as the kids can’t keep up when she’s feeding. By laying still they’re hidden from predators and the doe returns to feed them every two to three hours. Roe deer typically have twins or triplets but, cleverly, do not leave them together thus increasing the chances of one or more surviving.

These adorable youngsters don’t need rescuing and shouldn’t be touched. Move away as quickly and quietly as you can as it may be your presence and smell that’s the only thing preventing the doe returning.

So, best keep that singalong for the journey home...

Q What can *you* do for roe deer?

A Encourage your clients to keep their dogs under close control, especially in spring and summer. Roe kids are born between mid-May and mid-June and are regularly left alone relying on stillness and a dappled coat for camouflaged safety. If you encounter one, quietly retreat and leave it in peace.

Q What can roe deer do for *you*?

A Give you an excuse for a singalong: “Doe, a deer, a female deer, Ray a drop of golden sun...” ■



Sue Haysom is a professional ecologist, Mountain Leader and member of MTA. Sue is the owner of Greyhen Adventures.



MAIN PHOTO Roe deer. © SNH and Lorne Gill. TOP INSET Sika deer. © SNH and Lorne Gill. BOTTOM INSET Red deer. © SNH and Lorne Gill.

Vital Statistics

Size: average height 60 – 75cm to shoulder, bucks slightly larger.

Weight: adults 10 – 25kg.

Habitat: all types of woodland, heathland, arable land, gardens and urban areas.

Food: a varied vegetarian diet: deciduous tree and shrub buds and leaves, bramble, rose, ivy, herbs, conifers, ferns, heather and grasses (your favourite ornamental one according to my parents!).

Voice: Bucks ‘bark’ in alarm and grunt when chasing rivals or does. Does make a high pitched sound during the rut (mid-July – end August) and call ‘peep peep’ to their kids. Kids make shrill lamb-like bleats.



TOWARDS A NEW NORMAL...?

WORDS AND PHOTOS BY JEREMY WILLIAMS



Jeremy Williams is an International Mountain Leader based in the western Pyrénées. He is an 'encadrant' [trainer/leader] for CAF in the Ossau valley, and a 'baliseur' [footpath marker] for CDRP64.

James Lovelock proposed his 'Gaia Theory' in the 1970's, suggesting that processes and organisms interact with the Earth to produce a self-regulating system to maintain life on the planet.

Over the millennia, as conditions of temperature, moisture and atmospheric gas balance have drifted to extremes, living organisms and their inorganic surroundings have adapted. The outcome has seen conditions return to those that favour the progression of life on Earth. An early example, he suggested, was how the activity of photosynthetic bacteria during Precambrian times completely modified the Earth's atmosphere to make it aerobic as it is now, thus enabling the evolution of complex lifeforms. Other examples have been the shifting of ocean currents and major volcanic eruptions triggering the end to ice ages. During the ice ages and during 'greenhouse' periods, however, the numbers and diversity of life on Earth saw significant change.

A very long-term cycle would have seen the Earth entering the next ice age in around 50,000 years. However, over the last thousand years, a combination of wide-scale farming, deforestation and the Industrial Revolution have produced

conditions driving the Earth, in contrast, towards another greenhouse extreme. That extreme will limit human and animal life as we currently know it. National and international initiatives have encouraged reductions in travel, reductions in pollution and reductions in energy use for many years. Responses have been slow and nothing like what may be required to improve air quality and limit climate change. What few saw approaching the horizon in 2020 was a relatively unknown virus. COVID-19 has produced, as a side effect, the most dramatic reductions to-date in travel, pollution and energy use. The reductions ⁽¹⁾ seen while parts of the world were in major lockdown between March and May this year, were of the magnitude required to reach certain climate change targets. It was perhaps a salutary demonstration of what is possible.

⁽¹⁾ Using data from over 10,000 air quality monitoring stations in 34 countries, average reductions of 60% in NO_x and 31% for particulates were recorded during lockdown periods up to mid-May 2020. PNAS 2020, pnas.org/content/117/32/18984.



For many, the changes that were seen during that period offered an opportunity to make a step-change in human behaviour. Flying and business travel almost ceased; video-conference meetings became routine. Commuting was no longer necessary for those who were able to work from home. Private travel, holidays and exercise became in-country and local. Mass transport was distinctly unpopular and there was a major boom in cycling. Cycle lanes were hastily defined in towns and cities and plans have been drawn up to make many of them permanent.

Understandably, visits to the countryside, coasts, forests, hills and mountains were discouraged or halted as emergency services were otherwise occupied. The European ski season came to an abrupt early finish in March, disappointing many skiers and compromising many businesses. Even before COVID-19, the potential impact of Brexit was taking its toll on UK businesses and outdoor professionals active in Europe, notably reported on elsewhere. Under the influence of climate change, snowlines in Europe are creeping upwards. Swiss banks now take note of scientific models of snowline rise in setting a lower altitude limit to lending on winter sports projects. Environmental concerns are similarly limiting the expansion of ski resorts and the construction of new ones. Some low altitude resorts, however, continue to invest in snow-making, and reservoirs for the increased water demand. Making artificial snow is energy

intensive and controversial.

Winter sports holiday bookings are already down in Europe. There have been small increases in domestic demand as residents choose staycations. That, however, will do little to compensate for the huge reduction in incoming winter visitors, and even that may well be disrupted by “Circuit Breaker” or longer lockdowns during further waves. Will the requirements for Covid-secure chairlifts, gondolas and cable cars reduce uphill capacities? One resort has adapted a snow cannon to drench the interior of gondolas with a disinfectant mist as they pass with the doors open. Austria has announced that facemasks will be required on all enclosed uphill ski transport which will, however, operate to normal full capacities. It is likely that winter walking, snowshoeing, cross-country skiing and ski touring will become a more attractive proposition for many as physical distancing can be achieved. For mountain professionals able to offer these activities, this may be a continuing trend. As these sports tend to be local, low in impact and in energy footprint, they certainly deserve promotion – alongside offering learning and guided experiences for post-lockdown new converts to outdoor activities. However, for the time being we are all going to need to be quite opportunistic in spotting and utilising moments of stability in order to exploit any working opportunities that may arise – even so we need to be prepared for late cancellations. ■

MAIN PHOTO Queyras, French-Italian border. Spacing is easy to achieve on a ski tour. 1. Refuge d'Arrémoult, western French Pyrénées. Mountain visitors have been reluctant to return to shared dormitories given current health advice. 2. Queyras, French-Italian border. Spacing is easy to achieve on a ski tour.

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MAIN PHOTO Mountain walking in Snowdonia, Wales. © Arete Outdoor Centre.

Instructors across the country have turned their hands to lobbying the Government. We want to be recognised for the contribution we can make, for the benefits we can bring. We are a small sector of the workforce, but we want our voices to be heard.

WORDS BY DAVE BARNARD

What can you do to help?

Go to [@saveoutdoored](#) on Facebook, Twitter or Instagram. Share stories and post about the benefits of outdoor education with [#saveoutdoored](#). Use the BMC link to write to your MP <https://campaigns.thebmc.co.uk/save-outdoor-centres> and ask them to join the new outdoor learning All Party Parliamentary Group (APPG). A letter personalised with your experiences to your MP or Secretary of State for Education would be more effective.

Everyone has to start somewhere. Readers of *The Professional Mountaineer* will recall a first rock climb, or the first time they stood on a mountain peak. For some, that first experience will have been enabled by a family member. Or a friend. But for many people, their first contact with mountaineering comes from their experiences at a residential outdoor centre.

Those dedicated teachers and youth workers who arrange school trips that see youngsters being transported from the towns and cities of the UK to centres based in the mountains or on the coasts don't do so in order to develop the next generation of mountaineers. They do so because they know that the pupils they will take back to their schools will be different. Better.

Exactly how those pupils will be better is hard to pinpoint, not least because different pupils will take different things from their experiences. Not all pupils arrive at an outdoor centre lacking an appreciation for the outdoors, but some will. Some have never seen the sea, or a mountain, let alone climbed one. Some have never even seen farm animals or crops before, let alone wild creatures. Not all pupils arrive lacking self-confidence, but some do, and through their successful engagement with the challenges presented during their visit they can develop reference points, memories, realisations that can enable them to approach difficulties with a more positive attitude back in school and beyond. And not all pupils will arrive lacking the interpersonal skills they require to realise their potential. But the emphasis on having consideration for others, helping others, communicating effectively and working as a team that many outdoor activities demand will help many pupils develop an understanding of what is required of them.

Can a visit to a residential outdoor centre really make the difference? Working as an instructor one witnesses pupils enjoying moments of realisation, shares reflections on lessons learnt, and hopes that the experiences they have enabled will have led to lasting benefits. We wave goodbye at the end of a course hoping that what

we have done, what we have said will have made a difference...

Fortunately, we don't just have to hope. Whilst we rarely see those pupils again those teachers or youth workers that brought them return, and they tell us of the differences we have made. Teachers tell us how the experiences of the residential remained a point of reference back in school. How they have reminded pupils of their achievements as they encourage them to become independent, resilient and responsible learners. We know we make a difference because the teachers who take the pupils back to school tell us that we do.

But how? And why? How can the experiences of the different activities really make an impact on the development path of a pupil? Well, the secret lies in the subject matter. We're not working in an outdoor centre to teach pupils rock climbing. Or kayaking. Or surfing. We're not even doing it so that we can teach them environmental awareness. Or teamwork. Because the subject matter is those pupils themselves, and what their needs are. For one week of their lives those **pupils as people** are the exclusive focus of trained professionals whose only interest is in enabling them safely and enjoyably to **develop themselves**; something that could never be achieved by short day trips but needs the pupils to be fully immersed in the temporarily alien environment of the multi-day residential alongside peers.

We find ourselves in the frustrating position of seeing young people struggle to cope with the consequences of this pandemic whilst being prevented from helping. Outdoor centres remain closed, our skills unused. But worse than the feeling of impotence as we witness the burgeoning mental health crisis is the worry for our futures, that we may not be there to help with the post-pandemic recovery. With the Government continuing to 'advise against overnight education visits' the almost complete loss of income since March is leading to a wave of closures and redundancies. We are in danger of losing over half of our – already reduced – capacity to deliver outdoor education in this country.

Does the Government envisage a reopening

in a year or two with freshly trained instructors ready to take our places as we are forced to take up alternative employment? With 3,000 jobs already lost in the sector and a projected 15,000 more redundancies if Government guidance remains unchanged there is a real danger of losing expertise for good. Rarely a week goes by that I don't reflect on the fact that the experiences I enabled were made possible by drawing on my years studying environmental science, gaining NGB awards, teaching in schools, and reflecting on two decades of pedagogy in the outdoors. Professional expertise is not easily replaced.

But isn't Rishi Sunak protecting outdoor education through financial support? It is welcome that the furlough scheme has now been extended until March 2021. The last minute nature of the change at the start of November has not helped the centres already forced into making redundancies, the hope that some of these can be reversed at least for now. Self employed will also have grants for 80% of average profits extended into 2021. This still won't cover those recently self-employed or limited company directors. There isn't any funding to keep centres financially soluble though, with the many regular bills piling up that still need to be paid but impossible without any income. While we are kept closed it is requested that the Government provides funding to residential centres so all are ready once they can operate again.

We have adjusted though. Across the country outdoor centres have put in place protocols to reduce the risks of spreading COVID-19. Nobody thinks we can operate in the same way we did before the pandemic. Appropriate measures for social distancing and enhanced hygiene have been built into reopening preparations. We believe that the minimal risks involved in allowing a pre-existing school bubble to isolate itself in an outdoor centre, away from the myriad of potential transmission risks in the school and local community, are outweighed by the benefits. We also believe that school leaders who have risk-assessed the opening of their schools are capable of making their own risk assessments concerning overnight visits to licensed outdoor centres. ■



Dave Barnard is a Mountaineering and Climbing Instructor and is the Senior Instructor at Arete Outdoor Centre in North Wales. He has taught outdoor education at a number of schools and outdoor centres in that region.

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COPING WITH COVID

During my work throughout 2020, primarily as a trauma therapist working online, I made a number of observations about how we – humans in the UK – are responding to the COVID-19 pandemic

WORDS AND PAINTINGS BY LEE ANNA SIMMONS

Working and living in isolation for several months clearly creates new habits; when the first national lockdown ended, I wondered how people might cope with getting back outside and knew many wouldn't recognise acrophobia symptoms because of the current context.

I come from the Westcountry, and with friends and parents in the countryside over 70 but now being based in a city myself, I was aware many people in the countryside feared an influx of city dwellers spreading the virus to vulnerable communities. I was naturally curious and critical of public communications and rules that pitted people against each other potentially setting up boundaries between communities.

Pressure and release

My work as a therapist meant I spoke to people in both the city and country (online) throughout lockdown and recognised some patterns that were forming with my colleagues.

Although people needed more connection spiritually, there was often less motivation for connecting. Financial pressure and different deals being given out promoted envy and competition. Where the initial, natural human response had been very generous, supportive and community-oriented, there was the danger this could be damaged as fatigue set in and people spent more time apart. Social media and news channels can stoke this fear; there had been some good communications from the World Health Organisation early on suggesting people limit the amount of news they watch, and to manage their social media time to protect their mental health. I often remind my clients that everyone has struggles; these are not usually on display so comparison with facades and imagined lives can compound feelings of isolation and lack of self-worth, making it harder to share concerns and connect.

As lockdown eased, I thought about ways to help encourage people to navigate the new social and economic terrain. Unfortunately, further local lockdowns seem to be exasperating many problems. The not knowing, not being able to plan one day to the next; maybe fearing reconnection – in case it will be to cut off again – can be disempowering and make it hard to look toward the future.

Some coping strategies

Working with a five-hour and five-year perspective seems helpful. To connect with people and be present with them, as well as with everyday tasks, and think about the broader direction of life and work; rather than getting dragged along the tideline by waves of news and rumours.

There is a quote, 'any task that you can do without thinking too hard about it, has the potential to make you feel good. Treat it as a meditation, connecting wholly to the moment and you can be more fulfilled'. I have no idea where I found that, but I like it!

Focusing on one thing, gardening, cooking, running, yoga; whatever it is can give relief to rumination on wider world problems. Ring-fencing time to think about finances independently can also be helpful, proactively focusing for a timed slot of say 90 minutes, as opposed to trying to ignore a growing fear. This can also be applied to brainstorming new business ideas and areas you'd like to train in.

As well as thinking about what needs to be done, it can be helpful also to allow space to think about what has been achieved – a 'Done list' – no matter how big or small. A phone call with an old friend, cleaning and decluttering the house, applying for funding or a bounce-back loan, getting out when possible for a climb, boulder or walk.

Anything can go on a 'done list'; for one it might be eating a decent meal, for another it might be accessing furlough payments for their staff.

Here are some questions you might like to give a little thought to and note a response:

Is there one thing you can do over the next week to help take compassionate care of yourself?

What one thing might do over the next week to support yourself with regards to working in isolation?

Can you think of one reason why you have chosen the path that you have, or that you like about it?

Think of one thing that you are good at in your work, can you visualise yourself doing this, past and/or future?

Some of my work over lockdown has included online group sessions on working in isolation and focus. I am sure that working from a place of compassion, where people are gentle with themselves is more effective than working from fear, which can be crippling. Without the release and camaraderie of climbing communities that many of us usually access, it seems essential to put some systems in place as winter approaches. This can include small things like decisively building new habits within the space that we have (a stretch or short walk each morning or lunchtime, getting dressed before opening the laptop, planning meals) and recognising the formation of destructive



MAIN PAINTING *Sea Turtle by day*, mixed media on aluminium, 46x61cm, L. A. Simmons 2020. ABOVE *City Lovers* mixed media on aluminium, 30x40cm, 2019.

ones, such as becoming nocturnal, losing touch with loved ones, alcohol and drug use, over and under-eating.

Thinking of yourself as you might a friend or colleague can be effective for if you are feeling low, if they were in your situation what might they do, or what might you say to support them?

These are not easy times, it is natural to feel confused, angry, low or anti-social, for it to be harder to reach out and to take it more personally when the people you try to connect with are less responsive than usual.

It can help to write a few lines summarising what you did each day, to look back over as time merges, to break tasks down and lower your expectations, to understand if you feel lethargic or panicked. The unresponsive friend/colleague or family member might also be feeling this way.

Grief and resilience

There has been a lot of loss this year, of the activities we love, deaths, communities and with loss comes mourning. Grief can be complicated, it can make one feel mad, the bargaining (if I do this, he/she will come back, it will be OK) denial (it's not real) the anger can also feel unusual and frightening. Without the release of climbing, group activities and self-worth from the job and friends it might be the right time to speak to a professional from another field.

This may appear to be a "plug", but it is a fact that just one or two meetings with a therapist can provide great relief; to know that what you are feeling is natural and with the exception of hurting yourself or another there is no wrong way to mourn. Discussing your feelings in confidence can also make it easier to then share them with friends and family.

Early in lockdown I made some recordings for people who were anxious: www.socialarttherapy.com/blog/sound-files-for-between-sessions. They are flexible meditations and thought processes that can be adapted on a case-by-case basis.

In the next edition of this magazine I would like to share with you some ideas that I've tried and tested using adventure as a medium for therapy, including practical applications of some of the issues explored above. ■



Lee Anna Simmons is an artist and psychological therapist providing trainings for people at risk of secondary trauma and burnout. She has included climbing in trauma therapy sessions through her small business Social Art Therapy Ltd. based in the UK and working in Albania.

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THINKING ABOUT AVALANCHE RISK

When I started venturing into the winter mountains, I found the avalanche forecast difficult to interpret, particularly the hazard levels.

WORDS BY WILL NICHOLLS



1. A good time to cross. © Unsplash.

2. Not so good? © Unsplash.

3. Poor visibility makes it harder to avoid danger. © Markus Spiske, Pexels.

I couldn't really grasp what moderate or high actually meant – clearly one was worse than the other, but how much worse? This confusion was compounded by watching people wandering about on snow slopes designated as higher risk, and yet not triggering avalanches. I just didn't get it.

Since then, I've gone through the winter-based Mountain Training qualifications and spent a lot more time in the snow. I love introducing people to the joys of winter mountaineering and climbing; helping them on their way to becoming independent winter warriors! I could see that students were struggling to piece the avalanche jigsaw together, just as I had. I thought it'd be easier for people to understand what's going on if they could relate it to normal life, so I started using the following metaphorical approach.

I inform students of the statistic that 90% of avalanche victims trigger their own avalanches, which suggests they're generally a result of our actions. In that case then, by making good decisions, we should be able to greatly reduce the risk of being avalanched. I think it's easy for someone starting out to watch an avalanche lecture and find it all a bit overwhelming and quite alarming. So, here goes. I ask students to think about crossing a motorway and consider when the safest time would be – see images 1 and 2.

I then liken this scenario to walking into, or below avalanche terrain, where we could trigger something ourselves, or be exposed to something triggered above. I try and explain what avalanche terrain is – it's exactly where we like to hang out as winter walkers, mountaineers, climbers, and skiers: slopes of 30° to 45°. We seek these places out. It's where an ice axe becomes really handy, skiing or boarding is fun, and is often the gradient of approach and exit slopes to winter climbs. I point out that avalanches do occur on both gentler and steeper slopes, but that these are the ones to treat most conservatively. To do that, it's all a case of timing. Back to the motorway then, I ask:

- When would you **most** like to cross it?
- When would you **least** like to cross it?

I imagine most folk would prefer to cross in the early hours of the morning. It's quieter, so there's less chance of being hit by a vehicle. I doubt there would be many takers to cross during rush hour. It's busier, so it'd be much more likely to be hit by a vehicle.

As winter mountain goes, we can find out when the quietest and busiest times are for the snow slopes – by checking the avalanche forecast. Just like a road, timing is everything – a snow slope in avalanche terrain could be fairly safe one day, yet death-on-a-stick another. I suggest:

- Crossing the motorway at the quietest time could be akin to a low, or moderate avalanche hazard.
- Crossing it during the busier times could equate to considerable, high, or very high.

I then ask the students to think about visibility. Crossing the motorway in fog would make it substantially riskier, as does walking on a mountain side in bad visibility. It's really difficult to see where the steep slopes are to avoid standing on, or below them. If visibility is poor, things need to be reined in.

- Crossing in the fog is the same as walking into avalanche terrain with poor visibility; it's impossible to see the cars, or the steepness of the slopes until it's too late.

Venturing into avalanche terrain is about being patient and waiting for the right conditions. It's like waiting for all the lemons to line up when you pull the lever of a one-armed bandit – we're after low avalanche risk, good weather, and a strong team. This is the time to take on more demanding objectives. I point out that sometimes these things never align for specific goals in a given winter; it may be too dangerous to approach Point Five gully on every day of a trip, but that's just how it is. These things will always be there.

In conclusion:

- We cannot change the weather;
- We cannot change the snowpack and avalanche hazard;
- We CAN choose where we go and when.

This is what keeps us safe: informed choice.

Some excellent resources

The Scottish Avalanche Information Service website is the go-to for avalanche forecasts in Scotland. The 'Be Avalanche Aware' framework is excellent to work through.

Bruce Tremper's terrain management video explains how various factors must be balanced to have a day with an acceptable level of risk.

The Fatmap website makes planning a day really straightforward. The terrain layers allow you to see how steep the slopes are and which way they face within the area you're thinking of visiting. ■



Will Nicholls is a Winter Mountaineering and Climbing Instructor and works for Plas y Brenin. Will loves teaching people to become independent winter mountaineers, and finds avalanche education fascinating, he is a keen climber and skier.



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SKILL FADE

MAIN PHOTO Targeted CPD to develop key skills.

WORDS BY GAVIN KELLY, WITH INPUT FROM ALAN HALEWOOD, PHOTO BY GAVIN KELLY

A brief exploration of medical practice learning applied to the adventure sector

Skill fade is a term many of us are familiar with in a professional context; “The depletion of our ability to exercise a skill through a break in practice”. Recent events and the onset of lockdown due to COVID-19 has all but halted the outdoor adventure industry almost overnight. As the situation continues to change many of us are thinking about the restart. So, can we avoid skill fade and how do we do it?

My recent reading has highlighted the lack of published research on the subject in the outdoor sector; what is publicly available appears to be largely relating to other industries. Some of the concepts and ideas from medicine have significant parallels to our industry and may perhaps provide some insight into how we can minimise the problem.

A 2014 General Medical Council literature review captured some key findings that would appear to have direct relevance to our own practice:

1 Skills have been shown to decline over periods ranging from 6 – 18 months, according to a curve with a steeper decline at the outset becoming more gradual at the outset becoming more gradual.

Many of us will have experienced this in our own practice, where a break from a specific skill; be it personal climbing, belay supervision or orientating a map, leads to getting rusty or errors impacting performance. Knowledge of our skills start point either through reflection or feedback will allow us to better assess the impact of a break from practice e.g. “I follow a set procedure to safely achieve the outcome” – In *Figure 1* the curve starts close to the required competence and the critical intersection of the two lines take place relatively quickly.

2 Keeping in touch with peers and staying aware of developments, can mitigate skills fade.

So, maintaining conversations with peer groups and professional membership organisations can help stay abreast of changes in practice and keep useful knowledge at the top of our minds. The question remains in how this affects the practical application of that knowledge on the ground, where our actions decide our outcomes.

3 The higher the level of learning and proficiency prior to any break from work, the higher the level of retained skill will be.

It makes sense that the greater skill we have over and above the minimum requirement the longer it will take for us to meet that minimum without practice, therefore the relationship between Required Competence and Skill Fade in *Figure 1* will vary for everyone. It’s worth mentioning here that the time periods mentioned refer to medical professionals, most of whom have years of training and practice. A new instructor in their first year may have had no time to consolidate their skills in a working environment. It follows on then that for those with extensive experience and skills we perhaps should be examining the top end of our skills spectrum where fade is likely to be more pronounced. For less experienced practitioners we may need to examine whether our skills meet the minimum requirements and what implications that has. Those deploying instructors may also need to brush up on their assessments of competence and how it is managed, or indeed may choose to seek external input.

4 There is evidence that self-assessment of competence doesn’t necessarily match the findings of objective assessments.

Using tools such as Mountain Training’s Skills Checklists or qualification syllabi will undoubtedly give us useful insight into our performance, but that also requires us to have an in-depth knowledge of the related skills which we may have lost and a further skillset in the analysis of them. This statement may also suggest that there is clearly value in some form of objective assessment, particularly where skills have only been trained and practiced to minimum standard. The Johari Window (see *Figure 2*) offers a useful insight into our blind spots when assessing own competence.

5 Scottish Winter – a specific example from our industry

Those of us who make use of winter qualifications from Mountain Training will be familiar with the sensation of “first time out fuff” on that initial walk or climb in winter conditions. The extra gear, the difficulties of performing with heavy gloves, wearing extra clothing and carrying an extra load, walking in crampons, climbing with winter tools etc. all feel particularly awkward early in the season. Most people will cope by making sure that they can get out a little for themselves (no hardship since after all, arguably, to be a good Winter Mountain Leader or Winter Mountaineering & Climbing Instructor you have to be an active recreational winter walker/mountaineer/climber) before working in winter so that they are getting back up to speed on their own time rather than with paying clients!

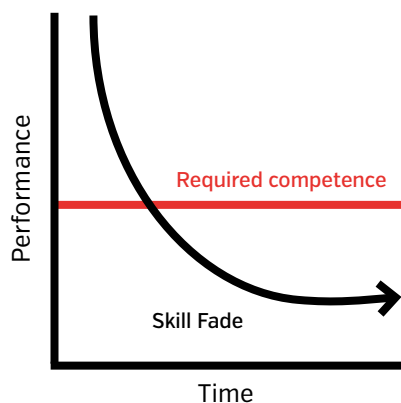


FIGURE 1.

Crucially, the difficulties of avalanche avoidance need to be factored in and a checklist approach like the 'Be Avalanche Aware' process is a very powerful tool to help cope with the annual seasonally enforced skill fade that even working in the Alps or a trip to the Greater Ranges only partially compensates for.

Then comes the spring, and when was the last time I had my rock shoes on?

To answer the original question; nobody will entirely escape a degree of skill fade. Everyone, regardless of experience, is likely to experience it somewhere in our practice – whether we recognise it or not is a question of awareness.

Looking forward

The full effect of COVID-19 on future operations is still not fully clear, but we can be certain that it will undoubtedly impact how we deliver our services. It is not beyond reason, at this stage, to expect there to be further periodic restrictions and breaks in our practice. Skill fade, while limited as a research subject in the outdoors, is well recognised across the industry, if only by virtue of the well-established place of

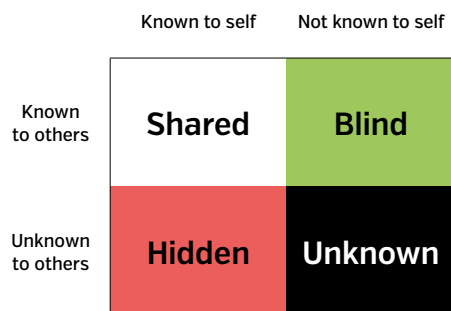


FIGURE 2. The Johari Window.

CPD among many professional bodies and national governing bodies.

Refresher training

Planning opportunities to refresh skills, with or without formal assessment will allow practitioners to exercise skills and develop confidence, while providing feedback to managers and technical advisers about the level of fade

Easing In

Giving practitioners time to get warmed up with the basics in manageable settings will help to limit the demand for those top-end and rusty skills in the first week. Easy venues, low ratios and strong mentoring will also redevelop skills and the judgement to deploy them effectively and safely.

Checklists and mantras

Not just for beginners. A well-designed checklist or a useable mantra or mnemonic can be a great way to prevent us forgetting steps in complex activities.

Overlearning

Incorporating an effective ongoing CPD programme which develops skills and

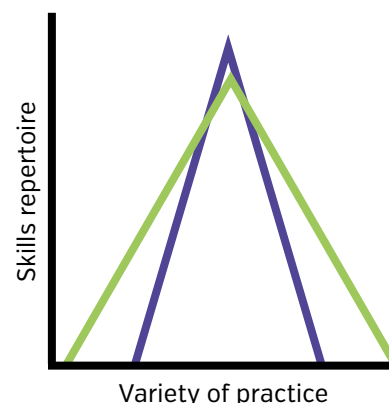


FIGURE 3.

knowledge above and beyond those required will help to increase organisational resilience and flexibility by minimising retraining and delays after any fallow period. Overlearning is not always about increasing the repertoire of skills to draw on though, often variety of practice in the fundamental skills can have a profound effect on ability and judgement – see *Figure 3*.

Stay connected

Just staying in touch and keeping teams connected socially or more formally through remote tasks and training could help to reduce a team's lead in time to operational effectiveness, as well as general cohesiveness on return to work. ■



Gavin Kelly runs www.ibexoutdoor.co.uk, he is a Mountaineering and Climbing Instructor providing Technical Advice, Mountain Training schemes, BMC courses and leadership and management coaching based in Dartmoor. He is also a part time lecturer in Adventure Leadership at South Devon College.

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Swedish brand Woolpower, established in 1969, developed its unique Ullfrotte Original fabric in the early 1970s in cooperation with the Swedish Armed Forces, today it is renowned for its merino layering system which conforms to strict ethical standards. With all manufacturing kept in Östersund, northern Sweden, the family-owned company works to avoid wastefulness and is OEKO-TEX certified – an international certification that guarantees garments do not contain any toxic substances. The unisex range is timeless, functional and of the highest quality – the perfect choice for adventurers and those who enjoy outdoor pursuits. New nature-inspired shades of Autumn Red, Rust Red and Forest Green are introduced to the colour palette for the Autumn/Winter season.

The Woolpower layering system for heat regulation helps you to retain your body heat whilst transporting away moisture and the excess heat that your body does not need. The system can be combined differently depending on the temperature and form of activity. Woolpower base layer undergarments are LITE, or Ullfrotte 200, the flat-knit fabric which gives more direct contact with the skin, this means that heat is conducted more easily from the skin and out through the garment, then add one of Woolpower's tighter-knit Ullfrotte 400-600 garments as a mid-layer to increase insulation between the base layer and your wind and water resistant outer layer.

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ABOVE Having a range of harnesses available that provide appropriate Support, Sensation and Circulation, can make a significant difference to the success of a session.

Making inclusive climbing decisions EASIER

WORDS, PHOTOS AND ILLUSTRATIONS BY EDWARD KINNEAR, ROKKA PROJECT CIC

We all work regularly with individuals with impairments or disabilities, because an impairment can be a permanent or temporary loss of ability (anything from severe mental illness or sensory loss, through to a ‘bit of a dodgy’ back or knee).

You too will almost certainly wake some mornings with a ‘bad...X’; this is an impairment.

No matter what the impairment, we hope that this article will provide a framework that can assist you in many ways.

We can distil this framework down to 5 stages, comprising of ten key words:

- To *inspire* and to *reassure*
- To *ask* and to *assess*
- *Support, Sensation* and *Circulation*
- *Informed choice*
- *Keep it simple*

This framework can support you to be more inclusive, and to deliver a more personal service with an individual. It can increase the likelihood of making effective, efficient and consistent decisions with an individual, regardless of whether their impairment or disability is learning, mental, physical or sensory.

It may also help to increase your awareness of where you can professionally develop.

This is the basis of our Decision-Making Framework (DMF)¹. A tried and tested process that works for the absolute majority of coaches* and individuals who use it regularly.

By expanding on the ten words and placing them within the context of the DMF, this article starts to show the relevance of this process to individuals with ANY level of impairment or disability, be it permanent or temporary.

The 5 stage Decision-Making Framework (DMF)

1 Discovery = To *inspire* and to *reassure*:

Rightly or wrongly, first impressions matter.

Those initial moments of meeting others can set the tone and expectations of the session ahead.

Consciously make the time to explore the individual’s hopes and wishes, and to engage with the person in front of you and (at this stage) *not*

with their impairment. By asking open questions and by directing your effort and energy into developing rapport, the coach is starting to gather information to inform initial decisions in the DMF and throughout the session.

2 Functionality = Ask and assess:

When working with any person – with an impairment or not – the process of understanding their current functionality is essential. Functionality (or ability) is about focusing on what the individual CAN do, as opposed to what they cannot. This is especially so with an individual undertaking a new experience.

Ask and assess, as opposed to assume and guess; because the majority of individuals (or their support staff) are willing to guide and explain their current functionality, given a suitable rapport and when questions are asked openly and with empathy. They are the experts about their world and their ability.

The more information that is appropriately shared with you (including interferences or obstacles to ability e.g. discomfort, distraction, fear, energy usage etc), the more information-rich you are to make better decisions.

If you are unsure about how to refer to the individual’s impairment, refer to it using the term ‘impairment’ and then be guided by their response.

3 Activity preparation = Support, Sensation and Circulation:

As a coach you are already making efforts every day to ensure that these three powerful elements are being met. For example:

- Using positive coaching language or a sit and chest harness (**Support**).
- Ensuring sessions have minimal sensory interference (e.g. background noise or visual distractions) or using equipment that fits the person properly (**Sensation**).
- Enabling toilet and hydration breaks or providing warm clothing (**Circulation**).

This stage therefore supports and encourages you to:

⁽¹⁾ Gilligan, J. Kinnear, E. Morrison, G. Inclusive Climbing – a manual for inclusive adventure activities in climbing. rokkaproject.org

* For us, a coach refers to a person providing climbing expertise, either working independently or for a provider, regardless of qualification, experience, status or reward.

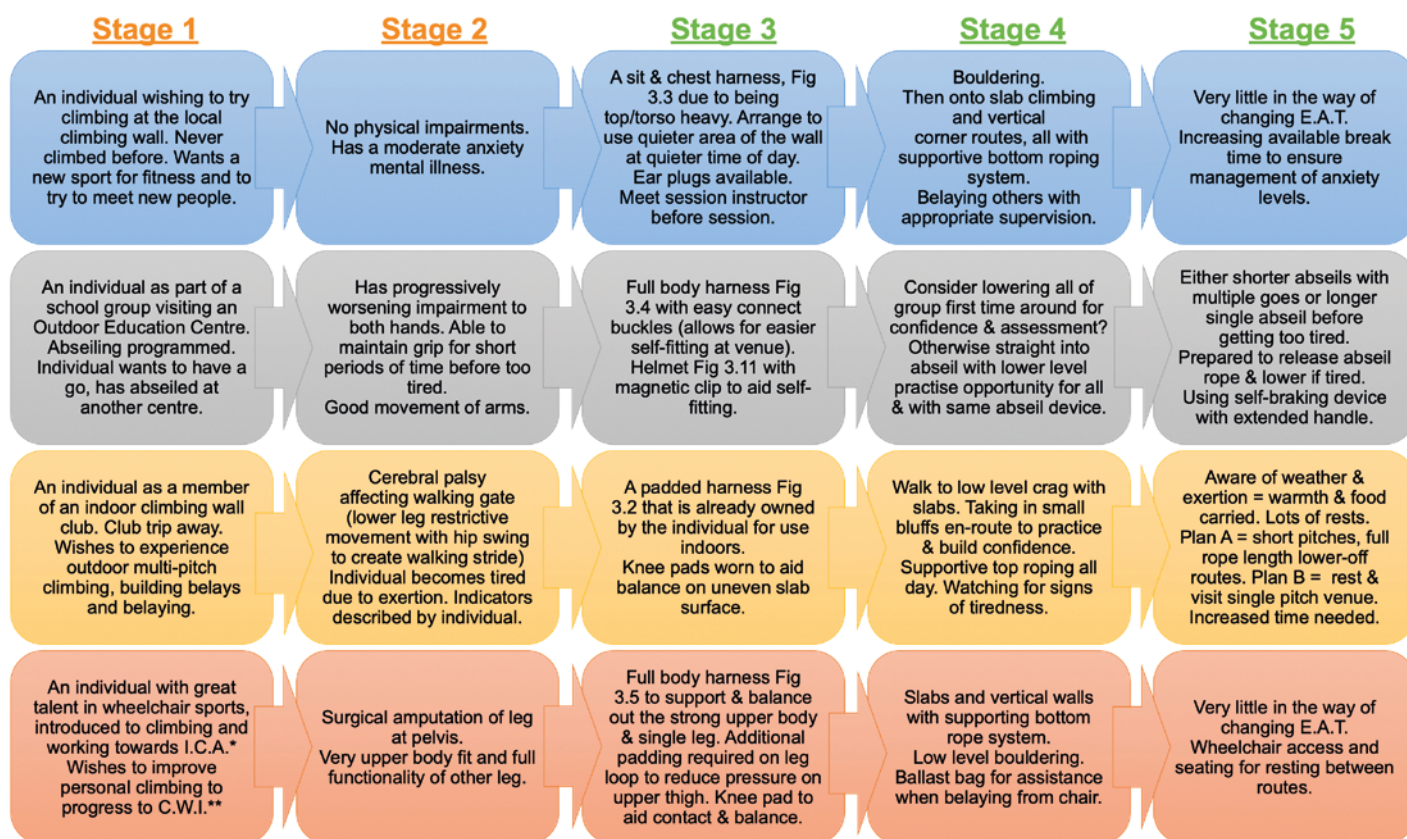


FIGURE 1 The functional steps undertaken at each stage of the DMF with individuals.

- Make the time to appropriately explore these three elements.
- Continually ask and adjust equipment around these three; thereby preparing the individual for the activity ahead by fitting the equipment to them and not the other way around. This then ensures maximum functionality during the activity and minimises any negative after-effects.
- Share your thoughts and feelings around **Support, Sensation and Circulation** with the individual. This empowers them to work with you to make better decisions around the fitting and use of equipment; something which is likely to improve their independence, control and performance.

4 Activity opportunities = **Informed choice:**

The logical continuation for the coach and the individual, is to now consider activity options that are appropriate (e.g. bouldering, abseiling, climbing up slabs or corners). There is no magic formula to be used here.

By recalling all the information gathered in the previous stages, the coach weighs up; the individual's wishes; their functionality; the equipment that 'fits' the individual and the advantages and challenges of each activity option. It is only now that an **informed** choice be made for the session's Plan A, B and C.

5 Technical considerations = Keep it **simple:**

All too often pulleys, rigging plates and semi-static ropes get pulled out when coaches hear of an 'inclusive climbing session'. In our experience, the absolute majority of

individuals are unlikely to need more than good communication, appropriate support and a confidence-boosting snug rope. If a sheave, plate and speckled white rope are required, then work within your knowledge and experience. As the expression goes; Keep it simple because it ain't rocket science!

So, what can this look like?

The Decision-Making Framework is applicable to and successful with a wide range of individuals, regardless of their impairment or disability.

To demonstrate this, *Figure 1* is based on real life case studies and illustrates a range of impairments that may be encountered and supported by the DMF. Each stage highlights the functional steps to enable the individual to participate in a successful climbing session.

Where next for you?

The more coaches, support assistants, carers, parents AND individuals who become familiar with these ten words and the stages of the DMF, the greater the expectation for it to be used as a common vocabulary; to be used before, during and after an adventure by everyone. Adventures that can be anything from hill walking, climbing, caving, snow or water sports.

We believe that this is a vocabulary worth learning and sharing, to make your inclusive decisions easier.

In the next article we will look at how the Decision-Making Framework can help the individual develop as a climber and increase the odds of a successful follow-up session. ■



Edward Kinneer is a member of AMI and has more than 25 years' experience as an outdoor professional. His enthusiasm spans climbing, caving, mountain rescue and everything in between.

Co-author of *Inclusive Climbing* – a manual for inclusive adventure activities in climbing and co-director of Rokka Project CIC; A social enterprise with the vision of inspiring and improving the provision of inclusive climbing and other disability sports in the adventure activity sector.

www.rokka-project.org

Developing Teaching and Learning Skills # 3

The third article in our series looks at our communication and feedback skills.

WORDS BY PAUL SMITH AND DAN WILKINSON, PHOTOS BY PAUL SMITH

Communication

No matter what role you are fulfilling for your clients, the ability to send clear and unambiguous messages is often safety-critical. Our experienced eyes spot hazards that our clients may not. In these situations we find it easy to give precise information. ‘Stay here’, ‘hold this’, ‘come one at a time’ are all simple instructions that leave very little space for misinterpretation.

Hopefully from the previous two articles you will have started to understand why maintaining a directive approach at all times doesn’t meet the needs of our clients. We are trying to create an environment that allows people to explore challenges in order to craft their own understanding. Our role in this process is to help them to shortcut the learning journey by ensuring that their practice is as purposeful as it can be. Thus we need to ensure that we can be both ambiguous and clear at the same time. Ambiguous in that we are not giving the solution, and clear about what task we are setting and where that task should be carried out. There is no silver bullet to ensure that we are effectively communicating, but having a clear definition helps us to stay on track.

“When the meaning of the point you are making is received, absorbed and understood.”

We all create a view of the world in our heads based in part on our previous experiences. We then translate all information received to fit in with or attach to that worldview. This is more relevant when discussing non-technical issues with implied values such as environmental views, appropriate leadership behaviours, teaching philosophies etc.

Having identified the task we want our client to be undertaking (see part 2 of this series) we need to present it in such a way that they understand exactly what is expected of them (what they are going to do and where they are going to do it). This can involve a demonstration, a brief explanation or multiple other ways of presenting information. The only critical bit here is that the message is received. This means you have to adapt how you may present for the audience in front of you. We naturally resort to the method that we prefer to receive information when giving it, so need to experiment with a variety of methods when faced with new clients to match the method to the person and the situation. Although,

no matter what: There is no reason to talk more than your clients. Don’t do it – stop talking – minimise your words – just stop already!

A top tip for this is to start with a task that is very quick and easy to get started and then make it more complex as the clients show that they understand what is required of them. The more complex you make the task, the more explanation is required, which leaves a bigger chance for misunderstandings to occur, resulting in frustrations – yours and theirs.

Feedback

“Feedback can be defined as a return of information about a result, OR completed portion of a process”

For us, this means that any time we interrupt someone undertaking a task we are creating a distraction (or noise) within their learning cycle (Plan, Do, Review, Conclude). It may be that we have noticed something very specific that we wish to provide feedback on (External or Extrinsic feedback), but we do need to give them time to generate their own (Intrinsic) feedback first. This is vital to understand in order for good quality teaching and learning to occur.

By interrupting them, we may think that we are just helping them to understand better, but if the element you offer information on is not what the client’s attention is on at that point then you interrupt their learning process. If the message you send is taken negatively (‘why was I told how to do X and not left to play with it, even though that was what I was told was going to happen in this session?’) that can affect the learning environment.

At some point we will need to provide more information. This may be **reinforcement**, **reassurance** or **recalibration**. The important thing here is to ensure that your client is ready to receive the message you want to send, but that you have also allowed them time to reflect on their own actions. A good default setting here is to wait for them to look at you. This signifies that they are ready to communicate. If they immediately look to you after every attempt at a task, and require you to confirm or correct after every attempt then they are fully dependant on you. This is not supporting their development towards independence, and you should develop their ability to self reflect.

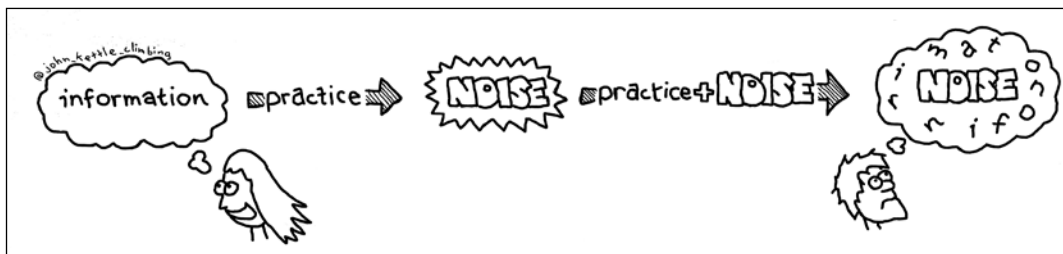


FIGURE 1. Practice Noise. © John Kettle.

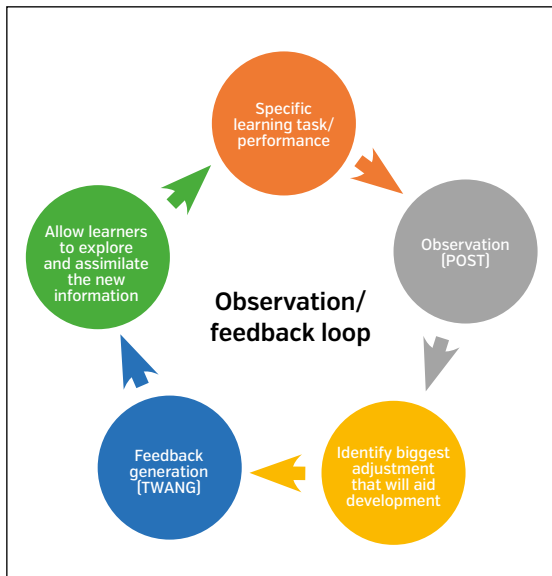


FIGURE 2. Observation/feedback loop adjusted from 'Observation for feedback'. <https://goo.gl/Hv9WHc>. 1. There is a time and place for being directive. 2. Using questioning to review the understanding of a climber. 3. Candidates on a course actively reviewing their own learning. 4. Climbers generating their own intrinsic feedback, thanks to the aid of video.



The good news with all of this is that it becomes very easy for us to check for understanding, both of the task and of the outcomes. If they understand the task you have set then they are busy and actively engaged (as long as it's the right level of challenge and in the right environment (again... article 2)). If we want to check that they have understood the outcomes we can increase the complexity or the environment and see if they can adapt what they have been practicing into a new scenario.

Generating intrinsic feedback – the tasks need to be designed to allow it to happen in the first place. If a client doesn't have the ability to self-reflect already, then you are going to need to train them to be able to. This is where you need good questioning and observation ability. A method of doing so is explained in the Pendleton Model below.

Pendleton Model*	
1	Invite client to tell you what they think went well. People often struggle with this step – don't let them off the hook. They need to find at least one thing they did well.
2	Acknowledge those successes and add to them. Reflect on what they share first, but make a real effort to find other areas that were good.
3	Ask your client if there was anything they would do differently next time. This is not discussion about what went wrong, simply about what could be done differently. This removes any judgement but makes the question about exploring options.
4	Acknowledge their ideas and add to them. If you have another example or viable option to add to their reflections then share it now. You're not saying that this is the only way to do something, but suggesting an approach that is worth exploring.

With both intrinsic and extrinsic feedback, there needs to be a limit to the amount of feedback that is generated. In the majority of cases when a client is working towards the top of their skill level, they will only be able to focus on one additional change or refinement. Together, come up with just one thing to change – the element that will make the biggest difference in the shortest amount of time and let them have another go. This concept of the single biggest change you can make is linked back to your technical understanding, your technical templates, your clients goals and their motivations, as well as the environmental constraints you are managing. ■



Dan Wilkinson is a Winter Mountaineering and Climbing Instructor, British Canoeing Level 5 Coach and has an MSc in Performance Coaching. He has worked in coach education and instructor development for the past decade and is passionate about effective teaching in adventure sports.

@danwilkinsoncoach



Paul Smith is a Mountaineering and Climbing Instructor and is a multi-disciplined Adventure Sports Coach and Coach educator. After successfully completing a PGCE at Bangor University in 2001, Paul worked in secondary education until 2014. He provides the full spectrum of Mountain Training Climbing leadership schemes from Indoor Climbing Assistant to Rock Climbing Development Instructor, as well as the Foundation and Development Coach schemes.

@paulsmith_coach



1. Motivation can take a “nose-dive”. 2. Mountain days are often long. 3. Hydrate, hydrate, hydrate!

CLIMBING, MOUNTAINEERING, ENDURANCE ADVENTURE AND YOUR HORMONES!

WORDS AND PHOTOS BY SARAH KEKUS

Hormone disruption is so widespread in modern life that it is likely most of us have some level of imbalance going on; it is a pandemic of sorts!

Maintaining hormonal homeostasis, particularly as we age, is a challenge for all of us; we have more than 60 different hormones to keep in balance and these chemical messengers control everything from reproduction and growth to mood, immunity and motivation. Hormones manage the functioning of our organs, e.g. heart, kidneys, digestion, and regulate fluid concentrations such as blood sugar. But levels decline as we age and with this decline comes an increased risk of imbalances, which can be tricky to spot, as signs are subtle and often attributed to other causes.

Hormones prone to imbalance	Signs of hormone imbalances
Reproductive Oestrogen, Testosterone, Progesterone	Mood changes depression, anxiety
Stress Cortisol, Adrenaline	Increased infections e.g. colds/flu
Thyroid Thyroxine, Thyroid Stimulating Hormone	Sleep disturbance
Blood-Sugar Regulation Insulin, Cortisol	Weight gain/loss
	Temperature regulation problems
	Reduced motivation e.g. to train/climb
	Low sex drive & ♀ menstrual issues

But, why should those of us who have chosen to spend a lot of time “hanging-out” in adventurous playgrounds fair any differently? Well, if we look at the top three mechanisms for hormone disruption – **diet**, **lifestyle** and **toxic load** – we can see that our “adventure-loving” lifestyle can present specific challenges. And, once imbalance creeps in, our body has to adjust. Adaptive physiology can bring some unhelpful changes however, that interfere with our ability to function optimally in the environment we love.

Dietary factors

Fuelling appropriately for our adventurous pursuits can be harder than we think. A diet that consistently provides too few calories will precipitate a cascade of adaptations; a perceived lack of food availability by the body causes physiological stress – our brains need to be fed and if our food supply is in danger so are we. Low blood sugar will cause a surge in the stress hormone cortisol, which can mobilise glycogen stored in our muscles, to restore blood sugar levels. If this is not sufficient our body can break down muscle tissue and over-time this will lead to wastage of skeletal muscles as well as muscles in the heart and lungs. Furthermore, an energy deficit is a clear signal to the body that “all is not well” – a starving body is not capable of nurturing new life – so in women it precipitates a cascade of hormonal adjustments leading to amenorrhea.

Equally problematic is a hyper-caloric diet or one where there is a high intake of simple carbohydrates e.g. sugary snacks, energy bars/drinks and a low intake of fat, fibre and protein. Erratic eating is part of mountain life; days are long, we run out of food or it is just not safe to stop and eat. The problem is compounded by eating a large meal late in the evening, especially if alcohol is added to the mix. The consequence of all this is a destabilisation of blood sugar; instead of fairly constant levels, a vicious cycle of peaks and troughs develops. Too much sugar, and insulin will be released to bring levels back down, then, if levels fall too low, cortisol will be released to raise levels again. The body adapts by increasing insulin production so that circulating levels remain higher. This doesn't work well for anyone and eventually will lead to insulin resistance, type 2 diabetes and increased levels of circulating oestrogen and testosterone.

Lifestyle stresses

Life can be stressful enough but we often create our own stresses! Our stress response is primitive – we were designed to respond to short term stress; cavemen could run away, kill the tiger and enjoy tiger burgers for tea – or get eaten! The response is the same if we reach a crux move and can't find any gear – our body doesn't know whether a tiger chased us up there or if we are just out having fun!

This “fight or flight” response is actually well-suited to activities such as rock climbing – a boost of adrenaline can help us “power up” that tricky move, but prolonged stress, can lead to chronic adrenal overstimulation. Maybe you keep pushing your on-sighting day after day, or you spend a lot of time in areas of high objective danger, such as the Alps or Greater Ranges. In these situations, stress hormones start to remain elevated, ultimately leading to stress hormone decline. In particular, cortisol, which increases mental and physical energy and boosts confidence, will decrease, which is why our mood and motivation can take a “nose-dive” after sustained periods of adventure.

Toxic load and endocrine disruptors

This one may surprise you but our “healthy outdoor lifestyle” can expose us to more chemicals than we think and some play havoc with our hormones. Plastic water bottles can contain Bisphenol A, a known endocrine disruptor and the common sunscreen chemical, Oxybenzone, has been linked with reduced sperm count, menstrual cycle disruption and thyroid issues. Also, how many times do you put a karabiner in your mouth? – plastic or paint covering can also increase your toxic load. In addition, our detoxification system – including the liver, kidneys, colon, skin and lymphatic system – is significantly challenged by mountain life; dehydration puts a strain on our kidneys, impairs lymph drainage and slows colon transit time. Clothes or sunblock, make it harder to excrete toxins through our skin and our liver might already be taxed due to alcohol and insufficient nutrients. Plus, poor sanitation (remote travel and mountain huts) poses a threat to our gut microbiome – unwanted “guests” can bring a host of toxic problems!

Management strategies

The great news is that modest adjustments to lifestyle and diet can have a positive impact:

- Prioritise adequate hydration and avoid alcohol
- Avoid high-sugar foods and “energy” drinks/gels
- Increase complex carbohydrates, high quality protein and healthy fats
- Reduce caffeine, especially on an empty stomach or late in the day
- Eat regularly and avoid heavy meals late in the evening
- Keep track of your weight and adjust calorie intake accordingly
- Use sunscreen only where essential (e.g. hands & face) and look for a mineral-based one
- Check water bottles are BPA-free
- Support your liver with a varied diet, including organic eggs and chicken (I also often recommend a *broad-spectrum Liver Support Formula for my active clients*)
- Hydrate, hydrate, hydrate – this is the best way to flush out toxins!
- Notice your gastro-intestinal health – get a stool-test if you regularly have grumbling guts. ■



MTA member **Sarah Kekus**, has an MSc in Nutritional Therapy, is an experienced yoga teacher and holds the Winter Mountaineering and Climbing Instructor qualification. She lives in the Lake District where she runs her business The Health Architect, offering nutritional therapy, lifestyle coaching, yoga classes and retreats. She has a special interest in the effects of endurance exercise on female health and specialises in hormone balancing and gastro-intestinal health. She also teaches a range of yoga classes including specific functional movement for climbers, runners, cyclists and triathletes. www.thehealtharchitect.co.uk



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All of our training courses will provide Outdoor Professionals (old and new) with the skills they need to operate safely and confidently. Using a combination of practical and theory to teach, train and assess, our courses are always very well received.

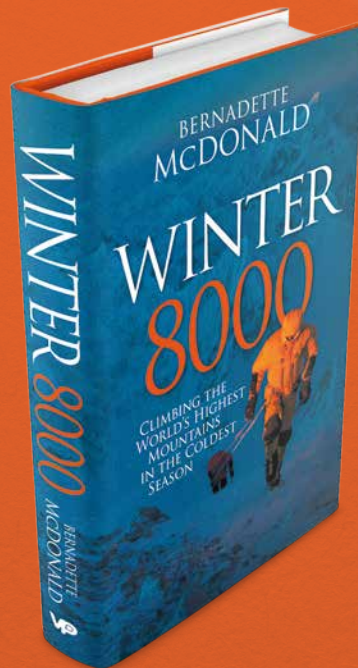


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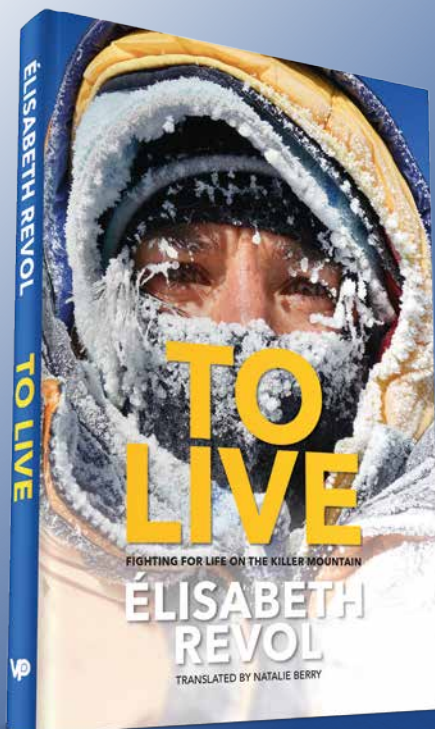
New mountaineering narratives from Vertebrate Publishing

BERNADETTE
MCDONALD
**WINTER
8000**

For the first time, award-winning author Bernadette McDonald tells the story of how Poland's ice warriors made winter their own as they fought their way to the summit of Everest in the winter of 1980 – the first 8,000-metre peak they climbed this way but by no means their last.



CLIMBING THE
WORLD'S HIGHEST
MOUNTAINS
IN THE COLDEST
SEASON



TO LIVE

FIGHTING FOR LIFE ON THE KILLER MOUNTAIN

**ÉLISABETH
REVOL**

On 25 January 2018, Élisabeth Revol and her climbing partner Tomasz Mackiewicz summited Nanga Parbat, the killer mountain.

But their euphoria was short-lived. As soon as they reached the top, their adventure turned into a nightmare as Tomek was struck by blindness. In *To Live*, Élisabeth tells the story of this tragedy and the extraordinary rescue operation that resounded across the globe.

BOOK REVIEW



WINTER 8000 – CLIMBING THE WORLD'S HIGHEST MOUNTAINS IN THE COLDEST SEASON by Bernadette McDonald

Reviewed by Al Mackay

Bernadette McDonald has done it again. Her latest offering, *Winter 8000 – Climbing the World's Highest Mountains in the Coldest Season* is

destined to become another classic and it wouldn't surprise me in the least if it joined *Freedom Climbers* and *The Art of Freedom* to win her a third Boardman Tasker award.

Winter 8000 tells the epic history of the thirteen out of fourteen 8,000 metre peaks that have had a winter ascent so far and that siren of the Karakorum, K2, that still waits. It is primarily a tale of the Polish ice warriors who made this most demanding – and dangerous – mountaineering pursuit their own.

Each of the 8,000'ers is given its own chapter, in chronological order of first winter ascent starting with Everest in 1980 through to a sobering chronicle of the so far unsuccessful attempts on K2. More than an inventory of who went on expedition, who summited, who didn't return (although this is a comprehensive history in that regard) McDonald helps the reader to perhaps understand the character of these outstanding examples of humanity treading the razor-thin line between life and death at its most sharp and defined.

Andrzej Zawanda was the instigator of the extraordinary dominance of the Poles and looms large over the story. However, the person who has made the deepest impression on me was Tomek Mackiewicz who became entirely obsessed with a winter ascent of Nanga Parbat. He finally summited on his seventh expedition there but tragically was to die on the descent. The rescue of his partner on the attempt, Elizabeth Revol, by the team on K2 at the time was another example of the spirit and grit of these people brought to stark life by McDonald.

The book is also a monument to the human body's capacity to suffer, and some personalities' embracing of that suffering:

Back in Poland, Voytek Kurtyka for one identified strongly with Tomek's (Tomasz Kowalski) appetite for suffering. 'The ability to prove that I am stronger than my suffering is a source of huge joy and emotional strength... If I can be stronger than myself, then I raise the art of suffering to new heights'

This is an outstanding book and I would recommend it to anyone with an interest in mountaineering. It is however more than a mountaineering book. If you spend any time thinking about the motivation that drives people, perhaps including yourself, to risk so much in spending time amongst and upon peaks, then there is something here for you especially.

McDonald quotes Adam Bielick (Gasherburn1 and Broad Peak first in winter, part of the rescue team for Revol):

'Climbing in itself is a useless pursuit. It has no real meaning. My choice to pursue Himalayan climbing is my way of spending my life but I don't intend to convince anyone else that it's a fun way to spend your time.'

Simone Moro, the first non-Pole to climb a Winter 8,000'er does try to convince, and maybe remind us why we do these things:

'What joy something so apparently useless, so dangerous, and so stupid can give.'

It is neither useless, dangerous or stupid if you do heed my advice and buy this book, but I am certain you will experience some of that joy. ■



IRISH PEAKS – A CELEBRATION OF IRELAND'S HIGHEST MOUNTAINS

Reviewed by Lily Cousins

Irish Peaks: A Celebration of Ireland's Highest Mountains is a window into the gorgeous mountainsides of Ireland, pairing vital information with stunning photography.

The 100 tallest mountains of the country feature, and Mountaineering Ireland has compiled a succinct account of each. The book is published 38 years after the original *Irish Peaks*.

For those new to mountain walking or in need of some Irish perspective on the subject, they should look to the chapter entitled 'Staying Safe on the Mountains'. A description on how to plan and execute a route is provided, as is a list of the correct equipment to bring on such a walk. Clothing, food and weather are all mentioned, with tips on avoiding issues such as hunger, dehydration and tackling unreliable weather. Imperative information for Lyme disease is also provided, with prevention methods and symptoms listed.

For the expert there is much to inspire. Nestled amongst alluring images of plant and wildlife are descriptions of the natural environment of these Irish mountains. Any hesitancy about the appeal of these mountains will quickly dissipate! The spectacular outdoors boasted by Ireland is gloriously illustrated, leaving one with the desire to climb these mountains immediately. The impressive geology, plant-life and animals are catalogued, along with explanations on things such as how the landscape itself formed and how to identify plants found in this area.

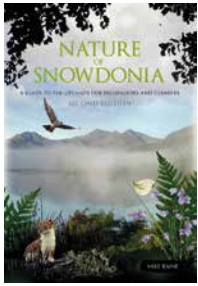
The mountains themselves each receive a detailed profile, with directions, ascent details and accessibility levels, alongside a translation of each name. The names alone are so appealing; take, for example, Muckanaght or *hill like a pig's back*. Divided into the regions of Ulster, Leinster, Munster, Munster/Kerry, and Connacht, each account is accessible and simple to follow. Mountains such as Knocksheegowna (*hill of the calf's fairy mound*), Coomacarrea (*hollow of the stag/hart*) and Silsean (*place of lights*) display striking features and scenery. Not only are the routes described, but also their history: for example, Slieve Donard contains two cairns associated with Christian saint, St Donard (The remains of a megalithic grave form part of the summit cairn). Map sections of the route are also provided, furthering an informative and useful review of each of the 100 mountains.

The book is a tribute to the late Joss Lynam and seems a fitting memorial for such an influential figure. Described as the 'father figure' of Irish mountaineering, Lynam's influence is apparent throughout the book and his importance to the mountaineering community as a whole is clear.

These mountains are indeed special, and this book puts particular emphasis on this. The Irish peaks require protection and conservation, as the places shown are simply too beautiful and rare to become tarnished. Information on how to effectively preserve the mountains is provided and such beautiful scenery offers every incentive to do so.

Irish Peaks is a well of information alongside desirable images of natural beauty at its finest. A vital resource for anyone wishing to explore these mountains and one that has reignited my desire to continue climbing these precious peaks. ■

BOOK REVIEW



NATURE OF SNOWDONIA – A GUIDE TO THE UPLANDS FOR HILLWALKERS AND CLIMBERS 2ND EDITION

by Mike Raine and reviewed by Ju Lewis

As a biologist and outdoor leader, hill day conversations are frequently punctuated with ‘What is that?’ from my sons, young people I work with, or just to myself! The desire to list what we see by name is a strong one, born

of the booming Victorian era of collection and naming new species, and carried on into traditional hobbies such as birdwatching and nature journaling, which are enjoying something of a comeback in times where the need for us to connect with our natural surroundings is being further understood and researched. Professionally there is an increasing interest in CPD around nature and the geomorphological environment that we work and play in – a refreshed acknowledgement that leading in the hills comes with a responsibility to inspire and educate about the organisms that inhabit those places.

Mike Raine’s book is a rich compendium of plants, animals, fungi and inorganic features commonly found in the hills and mountains of Wales, and much of the rest of the UK’s upland environment. Small enough for a rucksack pocket, it weighs under 500g – for anyone keen to take it into the hills but wary of extra load. The cover is shiny enough to feel splashproof and has handy half folds for marking a

particular page. Most entries are contained within one page or double page, meaning also that the reader could take a phone snapshot of a particular section rather than carrying the book for the day.

The book strikes a perfect balance between often complex taxonomic keys and terminology of traditional field guides, and the simple folding ‘spotters’ guide’ type resource. A quick glance at the contents page assumes that the reader knows whether they are looking at a tree, bird or bee, and leads on to snappy sections covering amphibians and reptiles, insects and spiders, plants including non-native species and fungi. Each organism is named with its common name, Latin binomial and also in Welsh, which for the non-Welsh reader provides a further element of learning and interest. Short paragraphs of information allow identification but also storytelling points, which are always a great addition to a hill day with a more novice party as well as being a good memory tool for leaders! In addition to the biotic side there are short chapters highlighting key physical features such as glaciological formation, archaeology, myths and legends as well as current hill farming methods – the latter giving a vital understanding of the hills as a working environment far beyond leisure. The alternative way to access the book is to look through the relevant seasonal section – all features and species are cleverly grouped in a way that fits what you might be most likely to be looking for or notice at different times of the hill year.

This all-round guide is perfect for anyone walking or climbing in the upland environment of Wales or beyond, on a personal interest or professional basis. ■

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