

TradCLIMBING+

The positive approach to improving your climbing

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Cover: Adrian Berry on *Cockblock* (E5), Clogwyn y Grochan, Snowdonia, Wales.

This page: Steve Ramsden on *Fay* (E4), Lower Sharpnose, Cornwall, England.



Alex Barrows on the crux of *Quietus* (E2) Stanage Edge, The Peak District, England.

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A guide for newcomers showing the various ways to get into trad climbing, the important differences between climbing indoors and outside, plus an introduction to the key safety skills and terminology.

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A comprehensive look at the myriad of gear available, with advice on what to buy to build up your climbing rack.

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A thorough analysis of how to place protection, with tips on how to make the very best of every feature found on the rock.

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There's no use in having the best gear placement and ropework skills if you can't do the moves - this chapter takes a trad-specific approach to moving efficiently and securely.

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For many climbers, the mind is the weakest link. By taking a more positive approach your mind can be turned from being a weakness to being your best asset.

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So you're climbing like a pro, here's where to go! There's trad climbing to be found all over the world, so quit your job, pack your bags and check out these destinations!



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Tactics
The Mind
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Training
Destinations



Paul Evans climbing *Comes the Dervish* (E3) Llanberis Slate Quarries, North Wales.

Tactics

To improve your climbing standard you can train many things. You can get stronger, fitter, and more flexible; learn to read moves better, place gear more quickly and learn to cope with the stresses of the sharp end. But when you arrive at a crag with a route in mind it's too late for all that. You are not suddenly going to get better as a climber but there are still many things you can do to improve your chances of getting up your target route.

Tactics are ways of making the most of your current ability and turning it into success on your chosen route.

Styles

Trad climbing has no real 'rules'; this is one of the reasons many people are attracted to it. You are largely free to choose what you want to climb and how you want to climb it. What matters most is that you don't spoil it for others, such as by chipping holds or hogging a route for hours on end. Beyond that it's largely up to you to choose how you want to climb.

While many people would agree that the most fulfilling way to climb a route is to start at the bottom and work it out as you go up, there are occasions when sticking rigidly to this approach will limit the range of great climbing experiences available to you.

As a result, a great many terms have evolved to describe the style in which climbs are done. What's more, these terms and definitions are continually adapting, with the result that very few climbers ever seem to agree on their precise meaning at any one time. But climbers are a competitive bunch, always striving to succeed on routes in the best possible manner. When they share their experiences in the pub or café afterwards, you'll often hear them use (or misuse!) the following terms to describe the way they climbed.

Free

A free ascent is one where no gear has been weighted. For an ascent to be free, you can't have rested on gear, or used direct aid by pulling on gear. Reversing to the ground to rest or re-think is fine, as is coming back another day if it doesn't feel right the first time. The term 'free' is also often mis-used by non-climbers to mean solo climbing without ropes.

Onsight

An onsight ascent is one where you had no knowledge as to how to do the climb prior to your successful ascent. Of course you can get a good idea of what to expect by studying it from the ground, or by climbing other routes nearby, and sometimes the guidebook will offer helpful advice.

Flash

If you get to the top of a route first time without falling, you've flashed it. You can't have top-roped any of the moves or failed on a previous attempt. A flash is distinguished from an onsight by the presence of 'beta' - helpful information about the climb: if you've watched other people on a route to see how they climb it, or asked people who've done it for specific advice, then your ascent will be considered a flash rather than an onsight.

Yo-Yo

If you fall off a route you may choose to lower to the ground (or the last hands-free rest), leaving your rope in place and trying the route again. This is called 'yo-yoing', and it isn't widely practised now that top-rope rehearsal has become accepted as a legitimate - albeit less than ideal - tactic.

Headpoint

The term headpoint comes from its sport climbing equivalent: redpoint, which means climbing a bolt-protected route from bottom to top in one go regardless of the amount of top-rope practice required. On a successful headpoint all protection will be placed during the ascent. The very hardest trad climbs have only ever been headpointed, as they are so dangerous that a fall may be unthinkable.

More on headpointing on page 204.

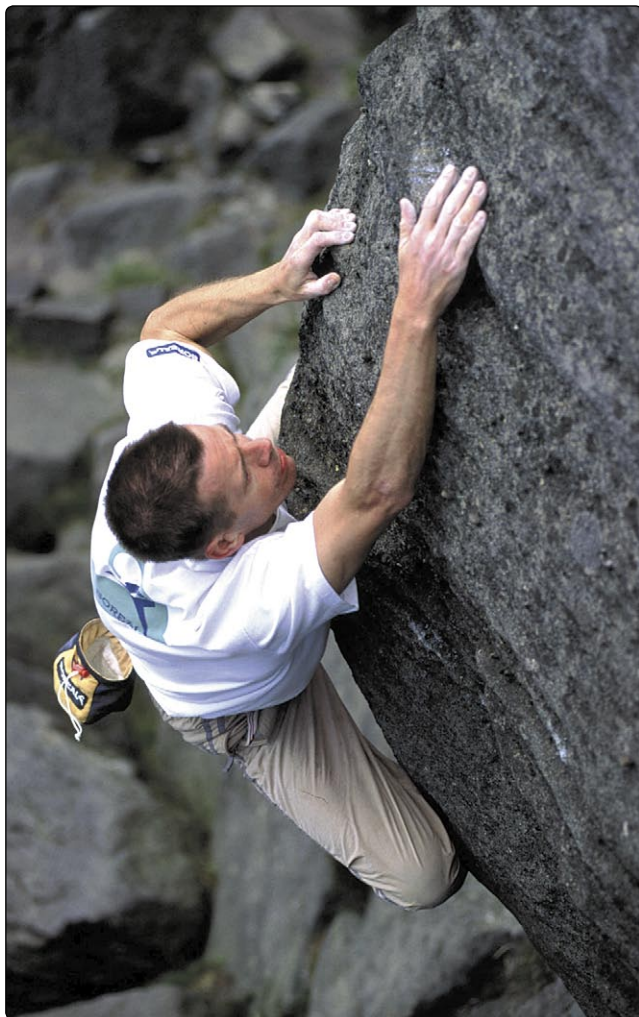
Pre-placed gear

On many climbs, particularly multi-pitch routes, there is no convenient way to get the gear out after a fall, as you cannot easily run around to the top and abseil. In these cases it is common to lower to the belay, pull the ropes and try again with some of the gear in place. While it certainly 'taints' your ascent somewhat it's often a better option than failing completely. Routes that have only been climbed in this style still await a truly clean ascent.

Many routes have been climbed after protection has been pre-placed on abseil. While such ascents are still free ascents, the general consensus amongst climbers is that deliberately pre-placing protection is a style that can and should be improved upon, and that routes established in such a way should be clearly reported as such.

Soloing

Soloing means climbing alone. In free-climbing terms it usually means climbing without using a rope or any protection, although there are ways to self-belay, in which case it is usually called roped-soloing.



John Arran soloing on gritstone during his record setting ascent of five hundred routes in one day. The route is *High Flyer* (E2) Burbage North, Peak District, England.

While many climbers choose to solo - particularly on shorter crags where the rock is solid like gritstone - it is not usually considered better style, even though it may be more impressive. Of course there are some routes that are soloed by necessity, having no options at all for placing protection. Soloing such a route is in fact no different from leading it and the route will have been given a grade that reflects this.

Choice of style

There are some who would argue that onsight is the only real way to climb and that anything else is somehow cheating! While it is true that many of your most memorable climbs are likely to be those you've climbed onsight, if you stick to this rigidly you will miss out on many great climbs, and may well develop your climbing skills less rapidly than you otherwise might.

To onsight or not to onsight?

If you really want to try a hard climb ask yourself whether you ever will feel able and confident enough to try it onsight. If the answer is yes or maybe, consider saving it for later. Otherwise, rather than never climbing the route, a bit of inside knowledge or some top-rope rehearsal may be enough to convince you to go for the lead after all. Afterwards you could end up regretting you didn't try it onsight, if it wasn't as hard or as scary as you'd feared, but equally you may have found it desperate and really enjoyed the challenge of a headpoint or even top-roped ascent. Even if you do headpoint routes you wished

you'd onsighted, your ascent will have taught you a valuable lesson, and will probably give you the confidence to try other routes onsight.

... or to flash?

Would it lessen the experience for you if someone told you the best way to do the crux and what gear goes in best just below? Or are all such tips welcome? Will you be you happy to trust that thread you've heard is getting quite old now, or should you abseil down and replace it beforehand? Getting some useful information may lose you the onsight - but it could still be a very satisfying way of climbing something hard, and as with headpointing, it will probably boost your confidence so that next time you may be willing to try another route onsight. Sometimes limiting yourself to just 'gear beta', is a good way of preserving the onsight climbing experience, and yourself at the same time!

Adrian Berry headpointing *Diazepan* (25), The Grampians, Australia. The protection, consisting of a mixture of bolts and gear, was placed on an unsuccessful onsight attempt, and left in situ. Photo by Carole McGloughlin



Conditions

The term 'conditions' refers to the external factors affecting the difficulty of a climb. With experience, you will find that the level at which you can climb is strongly affected by conditions.

Heat

While it's pretty obvious that wet rock is not good for climbing on, fewer climbers are aware that climbing in the heat makes everything feel much harder. When it's hot the rubber on your shoes softens making it harder to stand on poor footholds, your feet swell making your shoes feel too tight, your hands sweat making sloping holds much harder to use and necessitate hanging on longer so you can chalk-up. The heat also saps strength and if you start to dehydrate your energy levels will plummet.

Cold

Climbing in the cold makes sense for climbing styles such as hard slabs and rock types such as gritstone where friction is all important - the important thing is ensure you are fully warm, cold fingers give very little tactile information and are prone to injury.

A good tip to test if your fingers are warm is to touch them to the back of your neck - if your neck feels warm, your fingers are too cold. If you're heading out in the cold, remember to take plenty of warm clothes, pay extra attention to warming up and keep moving.

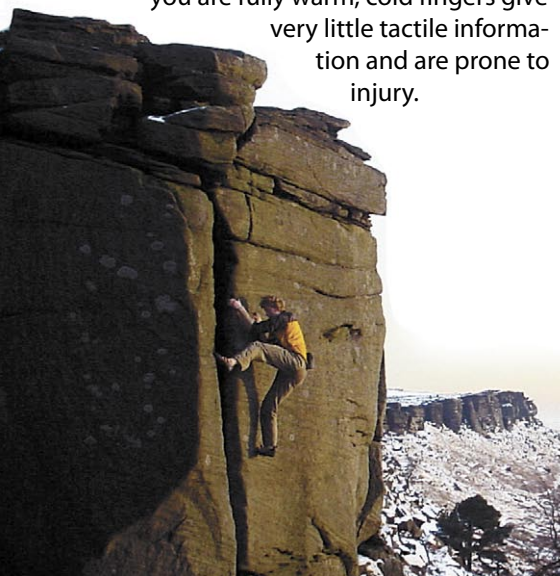
Avoiding poor conditions

Getting on a hard route when the conditions are not right is often a demoralising waste of time, so do all you can to make sure your route will be in condition; maybe ask around to see if other climbers have been on it recently and if it was dirty or damp in places. If you arrive at the base of your route and you can see wet rock, or if it's hot and sweaty, consider returning after a dry spell, or later in the day when the sun has moved around. Other things worth bearing in mind are distractions from other climbers. For example, if someone is having a mini-epic on the route next-door, maybe it would be wise to return when it's quieter. Lastly, make sure you choose a day when the weather is right; you'll have enough on your hands already without worrying about it raining when you're half-way up.

Your condition

In addition to getting the conditions just right, it is of course at least as important to be in good condition yourself! To climb at your best, you will naturally want to arrive at the crag well rested. This doesn't necessarily mean that you should have had a rest day just beforehand, but it does mean your forearms shouldn't still be aching from having overdone it the previous day!

Matt Heason soloing *Taurus Crack* (VS) on a cold Stanage Edge, The Peak District, England.





Preparation

We've all heard stories of climbers, still hung-over from a long night's drinking, turning up after a full fried breakfast and straight away dispatching the hardest route on the crag. These stories get told a lot because they are rare. Far more likely is that the climber gets half-way up, is pumped stupid, sags forlornly onto a good wire they're reluctant to climb above, and we never hear the story. The simple truth is that if you want to climb your best it pays to prepare well, and top of your preparation list should be warming up.

Before looking at warming-up in detail, let's just dispel the most destructive myth in climbing: when you arrive 'fresh' at the crag you are not at your best. Your first route will be the one you are least prepared for both physically and psychologically. The idea that you should jump on the 'big lead' straight away while you're fresh is nonsense. If you have climbed your hardest without warming up, then you can probably add a grade to that just by adopting better tactics!

Warming up

An effective warm-up will ensure you have:

- 1) Muscles that can pull as hard as possible and for as long as possible
- 2) Your best range of mobility
- 3) The lowest chance of injuring yourself
- 4) The best possible familiarity with the type of rock and the type of moves expected
- 5) A positive and confident frame of mind

The psychological benefits of a good trad climbing warm-up may be at least as beneficial as the physical ones, since how relaxed and confident you are can make an enormous difference to how easily and efficiently you climb.

The first part of any warm-up should be exactly that: getting warm. Often the walk-in to the crag carrying a backpack full of hardware will have you peeling off layers to avoid overheating, but for roadside crags you may need a little more. Jogging on the spot can work well, as can a brisk walk or jog to each end of the crag to re-acquaint yourself with possible options for the day. In cold weather try to get your body warmed up before leaving the house, and keep the car heater on higher than usual to give yourself a head start.

Once your body is warm it's safe to stretch. Stretching will not only allow you to contort into odd positions, it will help prevent all sorts of tweaks and strains when you suddenly ask a lot of a particular joint near the limit of its extension.

As well as stretching at ground level it can also be useful to continue stretching on your first route. The grade should be very easy for you, and it's a good idea to deliberately seek out or exaggerate any bridging, high-step and shoulder-extension moves as you climb.

The number of routes you climb before being fully warmed up will vary a lot, but three decent-length pitches is probably a good average. Try to climb pitches of similar length to your goal route so you're using the same energy systems. Ideally you will start with a route many grades lower than your maximum and work up gradually. Where possible start on large holds first and move on to longer reaches and smaller holds. If you're climbing a long multi-pitch route you may be able to warm up on the lower pitches, but if the crux is very low down consider doing a couple of other pitches before you start, maybe even at a different crag. Failing that try to simulate it by traversing the bottom for a while, or even climbing up and down the first section of your route until you feel it's starting to flow more easily. If all the routes at the crag are too hard to warm up on, you can traverse around the base keeping your feet on the ground so you can vary the force on your fingers - also if you have a home wall, consider warming up before you set off assuming the crag isn't that far away.

Your warm-up pitches should, wherever possible, reflect the type of climbing you're expecting on your goal pitch. If you're aiming for a hard finger-crack try to find easier finger-cracks to warm up on. Not only will you prepare your muscles and joints well for what they are to expect later but you'll also prepare your head. A very thin bridging corner will look a lot less intimidating if you've just cruised up a slightly easier one, and you'll waste a lot less time and energy worrying.

Dave MacLeod on *Dalriada* (E7), The North Peak of The Cobbler, Arrochar, Scotland.
Photo by Dave Cuthbertson.

Eat, drink and be merry

Making sure that you have enough glycogen (food) in your muscles is key. As is being sufficiently hydrated, since performance decreases significantly even before you realise you're thirsty. Eating small amounts regularly throughout the day is best, high G.I. foods such as bananas and white bread are rapidly absorbed, whereas lower G.I. foods such as flapjacks and dried fruit release energy more gradually. G.I. stands for *Glycaemic Index*, and there is a wealth of information on this subject available online.

Watch what you wear

There are few things better at putting you off trying a hard lead than getting cold belaying. While you're doing your warm-up routes it's better to get too hot climbing than to freeze at the top bringing your second up. Maybe clip an extra fleece to the back of your harness to belay in, alternatively, compact wind-proofs can make a huge difference to your warmth in a breeze - they often pack up to next-to-nothing and can be clipped onto the back of your harness.

Hats and gloves are easily carried too and can make a big difference in preventing numb fingers. Maybe consider hauling the clothes up after pulling a rope free - or leaving them at the top of the route if you start at the top.

When it comes to your target route, be careful not to overdo the warm clothing. You'll probably be working very hard and generating a lot of heat, so focus on lightweight clothing that gives you good mobility. If you make it up the pitch you should be happy enough not to mind getting chilly at the top! Aim to feel a little cool when setting off.

Clean your shoes

The soles of your shoes are your main contact with the rock and with the evolution of rubber technology we now enjoy a level of friction that would have been unthinkable a few decades ago. However, this advantage will be completely lost if you start with wet, muddy or sandy shoes, and even a little dust can make a big difference on friction-dependent smears and laybacks.

Before you start, check that the soles of your shoes look black, clean and dry. If they need cleaning give them a good wipe, then apply a little water (spit works well) and rub until 'squeaky' dry.

Remember also that clean, sticky shoes will pick up dirt again while you're climbing, so when you get to a good ledge or resting place use the opportunity to give your soles a quick wipe again, so you have maximum confidence in them at all times.



Paul Dyson taking time for a quick snack between routes at Arapiles, Australia. Next stop: *Kachoong!*

Learn by looking

When you're on a climb you'll rarely see more than three or four moves ahead very clearly, and if you can't spot a gear placement or place to rest it can be very hard to commit yourself with that level of uncertainty. Having spent some time 'reading a route' from the ground can make a huge difference to your chances. Knowing there's a crack just beyond that bulge, or that the roof you're approaching has a big jug on its lip, will make you feel a whole lot better about continuing.

Route reading

There are three things to look for when viewing a route from the ground: moves, gear and rests. Working moves out from a distance is never easy, but with practice it's surprising how much you can learn in advance. Try standing well back and walking left or right to look from different angles. You may get a much better idea as to whether that blank-looking section will be a thin, hard crux, whether it has a big hold in the middle you couldn't spot from underneath, or whether you'll be better off traversing a little and climbing around it.

If it's a popular route there may be chalk on the holds people use the most, and if it's a hard route there may also be tick-marks next to critical handholds or footholds that are particularly useful and hard to spot on lead.

Cracks usually mean gear and if you've been warming up on similar routes you'll have a good idea of what type of cracks will take what type of gear. Make a mental note of what you're likely to need where and make sure you don't use your last piece of that size before you get there! If you know you'll be able to rest afterwards you'll be that much happier to run it out through a committing and strenuous section. Apart from obvious ledges, look for small corners you can bridge across, big holes or pockets you may be able to crawl into, or knee-bar across, and big flakes you can stuff your whole arm behind.

Break a route into sections

A long and tiring pitch can be a daunting prospect, but if you can identify probable rests and good gear you can reduce the problem to a series of smaller challenges. Focusing on each section in turn can stop you getting disheartened when you're already mega-pumped and still less than halfway up!



Tailor your rack

While a standard rack may work well for most routes, when you're pushing your grade you should question very carefully what you carry with you. Taking too much gear has three negative effects: firstly it weighs you down, making everything more strenuous than it needs to be, secondly it makes you feel encumbered, and thirdly, the more gear you have, the harder it can be to locate the piece you want.

Racking up is very closely related to route-reading. You can't choose what gear to take with you on a climb until you've had a good look at the route. It's usually better to err on the side of caution, as getting to crucial runner placements that you can't make use of will have more of a detrimental affect on your climbing than carrying a couple of extra pieces that you don't use.

Looking at the route, the first thing you need to work out is what size range to take. If the route is a series of wide cracks then you are naturally going to want to take some big gear. Alternatively, if your route is a thin slab with hairline cracks, you'd be better off taking plenty of small wires and micro-cams, leaving the big stuff in your sack. It is generally better to leave out big stuff that you don't envisage using, than small stuff simply because big gear placements are easier to spot, and the weight saving is greater with big stuff than small stuff. Lastly, don't forget you'll need some gear for the belay!

Once you've decided what sort of gear to take, you need to work out roughly how much to take. Once again, err on the side of caution as it's better to top out with a couple of extra quickdraws than it is to run out with ten metres of protectable hard climbing remaining.

Take the length of the route and the distance at which you'll be happy (or forced) to run it out, and divide the former by the latter to know how many placements you are likely to be using. So if your pitch is forty metres, and you are expecting to place a piece every two metres, that's twenty pieces. Of course there will be instances where you run it out on easy ground, or stop and place several pieces together, but on average you should be expecting to be able to place twenty. This may well translate to taking three sets of wires, a set and a half of cams, and fourteen quickdraws. Needless to say if you only have eight quickdraws, you're very likely to run out - in one way or the other.



Tools of the trade in Indian Creek, John Varco sorting out a typical monster rack of cams for a desert crack-line. Photo by Ian Parnell.

Optimising your rack

There are some good tricks to optimising your rack so you don't carry unnecessary gear. Much of the gear we carry is wasted, even when we place it. Take, for example, a cam placed then extended with a quick-draw. Often the cam will be placed with its own racking karabiner, then extended with a quickdraw, using three karabiners in total. A cam with an extendable sling may avoid using those extra karabiners. Alternatively you could just place a sling through the cam's own sling, joining the ends to the rope with the karabiner from the cam - saving a quickdraw and allowing you to save two karabiners from your rack for each cam you extend.

A good way of saving weight is to optimise the number of screw-gate karabiners you carry. While, ideally, belays should be built with screw-gates for optimum safety, if a karabiner is under tension, and not in contact with anything that could interfere with the gate, it won't be a problem. A couple of belay screw-gates is probably all you need.

Another area we can consider is how gear can be used for multiple jobs. We've already looked at how using slingdraws can remove the need to carry extra short slings, and how using a prusik loop to attach your chalk-bag ensures you've always got a spare prusik without taking up valuable harness space. Consider also things like the karabiner you carry your nut key on. If you like to take a nut key when you lead (can be very useful for threading slings through holes and cleaning out dirty cracks), it may seem good strategy to rack it with a non-load-bearing 'accessory' karabiner to save weight, but consider using one of your screw-gates instead - you'll be able to use it to build your belay as well as carry your nut key - saving some weight and space.

Tactical racking

Reducing the clutter on your harness makes it easier to find the items you're looking for. While on slabby, low grade routes you can stand around for ages looking for things, when you're hanging off your arms you need to be able to locate the right piece as quickly as possible. Whichever way you rack, consider placing size-critical pieces at the front of your harness where you can see them, and non size-critical pieces at the back (such as quickdraws), put other gear such as your belay device, prusiks and screw-gates at the back of your harness out of the way.

It is always a good idea to rack items according to size, this will help you quickly identify the right size. Wires are best racked according to size, so you might have one karabiner with small wires, one with medium, and one with large - oval karabiners seem best for racking wires - again, use full-strength karabiners for racking gear as you will probably find yourself wanting to clip it one day.

Too much gear?

If, after optimising your rack, you still find your harness struggling to fit all your gear - firstly consider changing your harness to one with more gear loops - five or more is ideal. Next, you can make a lot of space by Yosemite racking your quickdraws - simply clip the first to your gear loop, then clip subsequent *identical* quickdraws to the top karabiner of the first. Lastly, consider an over-the-shoulder bandolier, purpose made ones are much more comfortable than a thin sling.

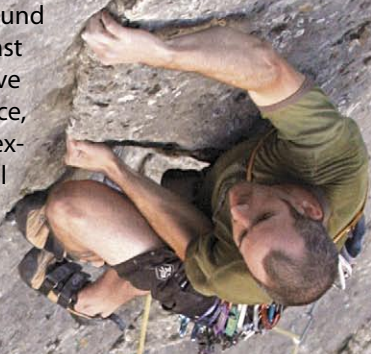
Tactics when climbing

Be prepared to adapt

When you're on the route things can look very different from what they appeared from the ground and you should be prepared to make some fast decisions. One common problem is that you've misjudged the scale of the wall from a distance, and all the cracks are much bigger than you expected, in which case you'll have to be careful not to use up all your biggest cams too soon.

Hopefully your expected resting places won't disappoint, but the length of time you hang around at each will vary. Unless you're on a big ledge there'll be a limit to how long you can 'milk' a rest before some part of your body starts to get pumped or painful. Look for ways to vary the resting position and try to get a feel very quickly for how long you'll be able to hang around, so you can be mentally prepared when the time comes to move on.

While you're resting use your time to make certain your gear's as good as it can be and have a good look at the holds and moves above so you're ready to launch into a sequence without hesitation when the time comes.



When the going gets tough ...

... Go for it!

As long as the gear keeps coming, and the potential fall would be safe, there should be few reasons to back off, even if you're completely pumped. Try to think rationally. Have you even seriously tried the moves, or have you been too preoccupied with getting (or failing to get) gear in? After all, the next hold might be a jug then you'll have done it! And what's the worst-case outcome? If your top runner fails, is it really a big deal to fall onto the previous one? If you can't find a convincing reason to back off, don't!

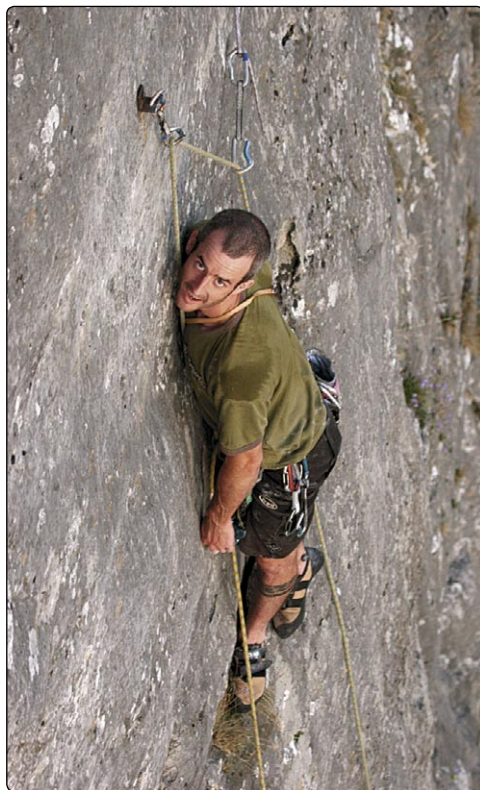
... Run away!

Sooner or later you'll find yourself in a situation where you're unsure about the gear, the moves above feel desperate, you'll have run out of ideas and you'll wish you were no longer there. This is the time to take a few deep breaths and consider your options. Climbing down is best if you can; not only will this mean not testing the gear, but if you make it to the ground without weighting the gear you won't have blown the onsight and you can come back another day to finish where you left off.

Lowering off is the other option and whether you're down-climbing or lowering you should think very carefully about your ropework. Assuming you're climbing on double ropes, and that the gear at your high point isn't the best, consider equalising it and clipping it all into only one rope. That way as you descend, your belayer can take in on the free rope and any gear you have in lower down on that rope will become more useful as you get closer to it.

To fight another day

Whether you're successful or not on a hard route, if you're pumped afterwards the best way to recover is to climb more! Whether you're wanting to try another hard route later in the day, or to be as fresh as possible for tomorrow, take a break then warm down on one or more easy routes or alternatively do some gentle traversing. This will stimulate the blood flow to your muscles and help clear any remaining lactic acid, actually speeding up the recovery process. Some light stretching can help too. Just make sure any climbing you do is very, very easy!



Both photos: Mike Grant on an onsight attempt at *Darius* (E2) High Tor, The Peak District, England.

Turning failure into success

If you are onsighting routes near your limit, inevitably there will come a time when you fall or have to hang on your gear. Disappointing as it may be, at least it shows you were being ambitious in your choice of objective. The question then becomes: what to do next?

One option is to rest, boulder out the moves you couldn't do, and continue to the top. This may be convenient but 'dogging it' (as this is termed) means you won't get the satisfaction of having successfully led the route, since you were using aid while you were hanging on the gear.

Ground-up

An alternative is to lower off, pull your ropes and try it again.

Knowing how to climb the lower section you should be able to climb to your high-point more efficiently this time, giving you a better chance of continuing.

In an ideal world you would take all the gear out and re-place it on each attempt, but in reality this is often impractical. Besides, doing so would usually mean having to abseil the route, and that could take away much of the fun of working out the higher moves onsight. A 'ground-up' ascent can be an ideal choice if you've slipped unexpectedly low down on a route. You'll still keep much of the onsight experience, and it'll be a whole lot more rewarding than having aided it.

**Headpointing**

Headpointing is climbing a route after any amount of rehearsal. Having perfected the moves and knowing the best gear placements, climbers can usually headpoint routes up to three grades harder than they can onsight. Remember though that the adjectival (E) grade describes the difficulty of onsighting a route and isn't intended to assess headpoint ascents.

An obvious way to start is to try headpointing a route you failed to onsight; particularly one you didn't feel able to commit to because you weren't sure whether the gear would be good enough. After a quick session on top-rope you'll know the best way to do the moves and you'll know exactly where the best gear is. Leading it may then feel like a formality. This can do wonders for your confidence when you come to try onsighting another route at that grade. Be careful not to use this tactic too often though or there's a danger of your mind becoming conditioned to expect top-rope rehearsal before committing to any hard-looking climbing.

The greatest intrinsic rewards from headpointing come on routes you find very hard indeed, such that you wouldn't even dream of trying them onsight. A hard headpoint ascent will push both your mental and physical limits in a way that onsighting rarely can. Because the level of difficulty is much higher and the danger involved can be much greater, you'll need to do everything possible to control the risks you're taking and reduce them to an acceptable level.

Optimum protection

With no limit to the amount of preparation possible, you should try every available gear placement option and decide what works best. Because you're not restricted to a standard lead rack, this could include anything from tied-down skyhooks to hand-placed pegs. Indeed, anything you're able to place while you're leading that isn't going to cause any damage. In extreme cases a hard headpoint can be as much of an engineering challenge as a physical climbing one!



A big swing can often be reduced by using a second belayer stood well to one side and they can help even if the rope they're belaying you on isn't clipped into any runners. If you're not sure whether a piece will hold, or whether it's high enough to prevent you decking out, try dropping a rock-filled backpack from the crux. If the highest piece is just too low, place a bomb-proof outward-pulling low runner and get your belayer to practise running from the base of the route to take in vital metres of slack as the rock-filled bag falls. All this may seem like a lot of effort and time that could otherwise be spent climbing, but if the route is hard enough you'd be foolish to commit to it without the best possible detailed knowledge.



A sawn-off peg used to protect the first ascent of *Soul Doubt* (E8) Froggatt, Peak District, England. The peg was cut to exactly the depth of the placement to ensure the optimum protection. It was hand-placed on the lead. Top: a skyhook.

Optimum confidence

The only way to be sure you won't fall is to practise. Even then you may find you can't succeed on every try, especially if the climbing is insecure, involving fine balance or marginal friction. With enough practice you'll learn every tiny nuance that can help. Placing a foot slightly differently on a crucial hold - even half a centimetre or less - could be the difference between reliable success and certain failure, and it's far better to find this out while you still have the security of a rope from above.

The big day

Once you're confident you have the perfect sequence there are still two important variables to consider. The first is you. Some days you feel great and climb well, other days things just don't feel 'right'. Top-roping the route just before a possible headpoint will tell you how 'right' it feels; but don't overdo it, as the moves will probably be near your strength limit so you won't be able to do them many times before your strength begins to fade.

The other essential factor is conditions. Get to know when it's too warm, too cold or too humid. If you've worked a route for a long time you may be tempted to seek closure on it. But imagine how bad you'd feel (not to mention how injured you'd be) if you fell off trying it on a warm day. The route will still be around when the conditions are right. The important thing is that you're still around too! Cooler conditions are nearly always the best for climbing at your limit - you will have to chalk-up less, and the rubber on shoes will be harder and less prone to creeping off marginal holds. Bear in mind though that *you* still have to be completely warmed-up to perform.

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