

Climbing Notes - Summary & Personal Interpretation

Dave MacLeod, *Nine Out of Ten Climbers Make the Same Mistakes*, Rare Breed Productions, November 25, 2009, ISBN-10: 095642810X / ISBN-13: 978-0956428103 ([link to purchase book](#))

Central message of book — “*climbers are stuck on the basics, but lost in the details*”, this means that we climbers are busying ourselves with worrying and focusing our climbing energy on small details of the sport instead of concentrating our climbing time and energies on a few simple fundamental things that we have not mastered -> these are *concepts* to apply across the whole scope of our climbing. STUCK = we have not internalised the basic principles, DETAILS = superficial elements of climbing that we think (wrongly) will solve our problems.

Almost all climbers are stuck on one or two big, basic errors. These basic errors are maintained because it is hard to change habits = become aware of your climbing habits, identify one or two self-limiting habits that will cause improvement across all areas of your climbing.

FEAR: fear of loss of climbing status, fear of loss of climbing identity, fear of looking foolish, fear of looking like a beginner, fear of change and making changes -> the fear of any ‘loss’ through making changes is the first and largest hurdle to get over. Applying the attitude of actively embracing change and discomfort that is part of change must be overcome if you want to improve your climbing.

Do not fear change and the associated possibility of failure.

Major weaknesses to consider are 1) fear of falling, 2) fear of failure. Failure = struggling, looking ‘bad’, not knowing climbing solutions straight away, not performing to expectations of yourself, perception that you are not living up to the expectations of your peers, etc.

Failure is INTEGRAL and an absolutely central part of breaking performance barriers

USE FAILURE AS MOTIVATION

Personal Revelation / Insight = determine if you are uncomfortable, shy, and avoid climbing with those you perceive as better climbers, or climbers that have a good/high opinion of your ability (Do you have to live up to others expectations?). Are you afraid of not measuring up to others expectations and will disappoint their image of you?

PERSONAL LONG-TERM SUCCESS AND GROWTH COMES THROUGH REPEATED TEMPORARY FAILURES -> this means that the occurrence of small, recurring ‘failures’ is a positive indication that you are on the right track.

You must pro-actively immerse yourself in training situations that bring eventual success after repeated temporary struggles and failures.

Actively seek out situations in your climbing that expose your weakest climbing limitations — publicly and privately.

Let go of the concept an attitude of ‘failure’ as negative. Change to a disposition of, “Nothing to lose” -> ALWAYS DIRECT YOUR CLIMBING AWAY FROM YOUR COMFORT ZONE

Embrace climbing situations that intimidate you the most and expose yourself to them as fully as possible:

- always climb on lead
- climb on long overhanging walls and roofs

- climb until you fall off
- climb with different partners
- prepare and send routes on red-point
- climb in front of those you perceive as better climbers, those who you feel that you must meet their expectations, even those of those who you feel are critical of you.

Surround yourself with good climbers — positive, supportive, motivational, hard working, those that value strong efforts. “You are the combination of the five climbers you spend the most time with.”

Separate yourself from the thinking and attitudes of the “norms” of local climbers so that your level of effort is much higher.

4% less effort gets 90% less results — the return on just 4% more effort over the long haul (years) with the accompanying adjustment of your mental attitude towards practice, skill acquisition, short comings, etc., brings a windfall of tremendous benefits and improvements.

Seeking comfort in climbing situations is the enemy. Do things that make you feel uncomfortable, what your bad at, what you hate doing, what you avoid, etc.

WEAKNESSES GROW FASTER AND BECOME MORE STRONGLY ENGRAINED THE LONGER YOU AVOID AND IGNORE THEM —> DIRECTLY CONSCIOUSLY CONFRONT WEAKNESSES.

It will take 10,000 hours to reach mastery (Malcom Gladwell book, “Outliers”) - you must work through the inevitable dips along the way.

Learn to distinguish between endless ‘dips’ that are dead ends (you must escape/change immediately from these situations) with the struggle of the right ‘dips’ that you must stay with and persevere through, (Seth Godin book, “The Dip”) >>> quit the bad dips and stay with the good ones (finding which is which takes a lot of experience, a good coach/trainer/instructor, and the quiet ability to listen to your intuition)

Adopt and cultivate habits that result in good performance

Four components of climbing:

- 1) movement technique
- 2) finger strength
- 3) finger endurance
- 4) body composition & mass

Further attributes that breed better climbing performance:

- 1) tactics
- 2) mental skills (fear of falling, trying hard, etc.)
- 3) training volume (optimal level of intensity and amount, circumstances, environment, routine, etc.)
- 4) lifestyle
- 5) attitude / motivation / disposition

Scientific laws of sports training:

- 1) Specificity - what you do, you become
- 2) Overload - to improve you must do more than before (increase training stress), the ‘more’ is achieved by adjusting several training factors
- 3) Recovery - gains come through adapting and compensation (restoration) from the stimulus of overload
- 4) Reversibility - ‘use it or lose it’
- 5) Individuality - everyone has different weaknesses, recovery abilities, and training priorities

Become aware of your character aspects, personality, emotions, and outside influences that derail climbing/training success, i.e., impatience, fear, ego, procrastination, avoidance, ignorance, ingrained habits, social influences outside and within the sport

Become aware of the negative effects of the pressures and influences to conform to the 'norms' of the sport, local scene, climbing peers, etc., and the sport's social atmosphere (alcohol, poor nutrition) >>> do not feel guilt or fear of upsetting someone, being labelled as "no fun", etc., => many of these people or situations are others pulling you down, making themselves feel subconsciously more comfortable with their own climbing performance

Goal -> follow sport science training principles, eliminate and screen out negative influences and habitual behaviours, embrace as many positive influences as possible, listen to messages from your body

TECHNIQUE

Movement technique = focus on good examples from other climbers and videos (do not underestimate the value of watching climbing videos!)

Learn / Refine movement technique on easy climbs, warm up routes, easier on-sights & repeating known routes and bouldering

Technique must be made automatic and outside of conscious thought

Crucial skills to advance technique =>

- 1) mentally record, replay & review moves, sequences and routes
- 2) analyse movements that felt good or bad, why?
- 3) understand how to utilise holds - apply direction of force, use same hold in various ways, etc.
- 4) planning subtle changes in movement to make the climbing easier / more efficient
- 5) tactical planning, i.e., rests, rhythm of climbing. chalking, shaking, etc.

DRILLS & PRACTICE

- 1) focus on one technical aspect during warm-up climbs, endurance climbing laps, bouldering, or working on sections of routes, etc.
- 2) tune into feedback from the body - what feels right and what feels wrong
- 3) first define the exact movement sequence, then apply 100% effort
- 4) refine quality and details of movement
- 5) think of every possible way of doing the movement and work through each one methodically

This is all about what your mind is focusing on, sensations, feelings and feedback - awareness - it is not about performance (goal or solution oriented) => use the climbing opportunities to learn super technique

Spend most of your time learning climbing technique and perform just at the few proper moments

Dynamic Balance (sense of balance and equilibrium while moving)

Coordination and equilibrium while moving body (or body part) in the direction of the next hold —> momentum replaces big muscle work to move outside of your base of support

Generate momentum: reduce force on the hands, increase the force from feet & lower body

Use of momentum: drop down low to prepare move, crouched position with bent legs, position body so you are poised to apply force and start move from the lower body

Momentum produces efficiency =>

- 1) with using very small holds where you can not generate force through the fingers and hands
- 2) when using big holds, momentum saves energy
- 3) less stress/force on fingers, more from lower body
- 4) conserve upper body strength
- 5) use momentum on nearly every move

Types of Momentum

apply momentum in different directions & means - towards rock, sideways, with various body parts

carry momentum from one move into the next by climbing quickly without sacrificing accuracy

MOMENTUM TECHNIQUE DRILLS

- A) Leg Thrust - hang low from hand holds, feet high, legs fully flexed in a compact crouched position, knees are fully bent, shoulders relaxed, push hard with legs applying force through feet and legs to move upwards at speed and catch the next hold as far above as you can
- B) reachHip Swing - hang low from hand holds, feet high, legs fully flexed, compact, crouched, knees fully bent, shoulders relaxed, swing hips side-to-side like a pendulum, follow swinging motion with an increasingly stronger/bigger swing out to the side to reach for a hold as much to the side as possible (horizontal, slanting upwards, etc.)
- C) Hip Thrust - on a steep wall in a low hanging position with flexed, bent legs and straight arms, let hips sag down away from rock/wall, thrust hips up and inwards towards the wall, strongly arching back moving pelvis - add a twisting motion to the same side that you are reaching towards with your hand to the next hold
- D) Head Butt - use this type of momentum on vertical, technical climbs with very small holds, position body close to wall, hips in, arch back to move head and shoulders away from rock, use a gentle head butt motion to throw head and shoulders back inward -> the inward movement gives you a brief moment to grab the next hold
- E) Trunk Roll - used with crossing through with hands, roll trunk on its axis, twisting, to extend reaching shoulder to next hold, hand that is reaching for the new hold initiates movement with a sharp 'flick'
- F) 'Discus Swing' - on steep, buggy routes and aerates (edges) take low hand off hold and drop it down, bringing it back and behind with shoulder rotation, swing arm and shoulder sharply towards next hold, this can also be done with the legs on foot holds out to the side

Learn climbing movement through intense visualisation and kinetic replay - imagine the sense, feeling, look, etc., of moves —> also tap into the emotional feelings that come and are part of the move

Practice and search for all possible ways of using momentum when warming up, on easy boulder problems and drilling sections of routes

Momentum is a pivotal component of climbing technique - static movement is hugely inefficient!

FEET

improve overall climbing technique by getting feet to do more of the hard work — initiate moves from lower body and feet, pull with feet (especially on steep walls)

Become aware of when feet are pulling and pushing within the various phases of the same move on the same foot hold

Foot Placement: accurately set foot on the best part of the foot hold, toes pointed down, curl/grab foot hold with toes (wrap toes around foot hold)

PULL HARD WITH FEET!

Special Aspects of Climbing Technique

- 1) apply maximum force to foot holds
- 2) maintaining body tension on steep rock and walls

Learn & practice applying maximum force with the feet and lower body => precision with the hands / generate force with the feet

Consciously apply and engage body tension => hips/pelvis held in tight, feet pull on holds - maintain strong bridge or arched position: do not let hips sag

Be precise with your finger placement on hand holds and your toe placement on foot holds: climbing outdoors as often as possible is crucial, use nice, fussy, foot holds on indoor walls —> first look to feet to find solutions when failing on a move

Become aware of the tendency to delaying using and pulling on poor hand holds and/or using poor foot holds - do you avoid the moment of committing to the crux move(s) with your feet or hands? => this is a mental laziness and avoidance, this behaviour can easily turn into a poor habitual behaviour, which manifests that overtime you have a bit of mental insecurity about your feet or fingers, you unconsciously stop yourself or hesitate from making the movement

Readjusting fingers and/or re-gripping holds is a bad habit of avoidance: loss of energy, mental doubt, interrupting flow of momentum - this interrupts your rhythm and leads to slowing down your climbing

“Testing” feet by placing and readjusting your foot on a hold wastes energy and interrupts the action of generating force through your feet

An aggressive attitude, and increased pace help the most - trying hard trumps everything - and will help the most when on-sighting routes, not conscious move planning and route reading >>> this is a ‘performance’ situation (also when executing a red-point attempt), the time for reading, evaluating, planning is when you are learning, not when performing

Do not overvalue strength —> climbing is technique and movement

BOULDERING

The most efficient way to get strong for climbing is through bouldering

Always choose to train on bouldering problems than basic strength work -> basic, supplemental strength work should never supplement time climbing (principles of sport-specific training)

Bouldering sessions = maximal pulling on holds to develop finger strength

Hard red-pointing work on sport climbing routes can be a substitute for bouldering

Always look and discover what you are weakest on (rock type, wall angle, exposure, type of move, etc.) and spend 3 to 4 times on what you are weakest at, avoiding, find frustrating, feel inadequate at, than in your climbing comfort zone

Embrace, struggle and actively engage in your weaknesses —> seek out what is uncomfortable and spend time on those things ==>> GREAT RESULTS

Commit to discovering, exposing and working on weaknesses, shortfalls, deficiencies, etc., determined perseverance over the long haul

MENTAL TRAINING SHIFT ==>> weaknesses are opportunities, take comfort in confronting them and focusing on fixing them = SHIFT YOUR FRAME OF REFERENCE

Focus on improvement and not on the results, or reaching a goal - mastery comes through focusing on small improvements and being curious as to how to continue to improve

Strive to find your individual balancing point between working towards improvement and achieving results -> this is key to maximum enjoyment, fun and motivation

INDOOR WALLS (climbing & bouldering) = how to use climbing gyms and view indoor training
Indoor climbing is good for intensity: ability to do multiple powerful moves on 'fingery' holds

Indoor climbing = monotony, lack of variation of hand and foot hold types lessen the value of training time

Vary the indoor climbing/bouldering experience as much and as often as possible: climb as many boulder problems and routes as possible, do not let 'failure' dictate your training session, persevere and be determined to find as many moves that you are really weak on AND EMBRACE THEM -> success is based on how many new, uncomfortable, unfamiliar, strange moves you confront

RULES OF A GOOD BOULDERING SESSION

- 1) balance of shock value of confronting weaknesses & satisfaction of doing known/comfortable problems
- 2) delay gratification: climb 2-3 problems that expose weaknesses to every one problem that plays to your strengths
- 3) quick, targeted session: 2x two hour bouldering sessions over two training days (with rest day/days in-between if needed) is better than exhausting yourself and recovery resources in one 3-4 hour session and than needing a number of rest day, causing injury, becoming ill, etc.

FINGERBOARD RULES

- 1) fingerboarding is a supplement to real climbing -> it can not replace climbing
- 2) fingerboarding is suitable as keeping training volume up during busy times in your life , for example 2x's real climbing + one or two additional 30 minute fingerboard sessions in a week
- 3) fingerboarding can be used to aggressively stimulate the body to get stronger (stimulus of short-term over-compensation)

Gains through fingerboard training happen over a long time period —> persuade your forearms to develop, grow and become stronger gently and consciously over years (attitude of gentle persuasion)

The minuscule gains on the fingerboard translate to bigger gains in actual climbing. Good. precise form and listening to the body is critical to successful fingerboard training.

Apply maximum force to tell the fingers to hang on harder

Dead hang with slightly bent arms — come off holds by engaging feet and not letting hand 'rip off' of the holds

Progress from dead hangs to pulling

When climbing 2-3 times per week, add 1-3 fingerboard sessions

Long-Term Perspective When Viewing Your Climbing

- take advantage of a lot of *varied* climbing and the company of good climbers
- climbing is reliant on technique
- flexible approach to climbing: train on your weaknesses & send routes that fit to your strengths
- advance at the pace of your body: absorb injuries, allow for recovery

BODY SHAPE & COMPOSITION

Climbing hard changes the body, but it takes time: thin, compact, strong legs / muscle mass in upper body to handle training volume & prevent injury

Strength-to-Weight Ratio: fingers & forearms need to be strongest, upper body needs to be just strong enough to move lower body around

Lean Mass vs. Body Fat

Losing excess body fat & excess muscle mass will benefit a climber with good technique and the overall fitter climber

Climbing Weight: your weight should be as low as possible with as low as possible (healthy) body fat percentage — small lower body mass and adequate upper body muscle (8-10% male body fat percentage)

How to Get Lighter

- increase activity: not to burn more calories, but to cause hormonal adaptations
- adjust portion size: eat consciously, slow down, focus on food alone when eating
- slow, steady weight loss over a long period of time
- varied, healthy diet with lots of low-starch vegetables
- develop techniques to take attention away from appetite - a way of eating that nourishes you will automatically control your cravings and hunger signalling

It is important to use all the components of weight loss & body fat reduction tactics together

Motivation: losing weight and body fat for climbing will have a substantial effect on performance —
> it is often a game changer and plateau breaker

Measure the effects of optimising body composition through athletic performance (not the mirror): number of continuous pull ups, fingerboard training, climbing the same boulder problems or routes, ability to generate force on smaller holds, etc.

The best weight loss activity for climbing is *more climbing* (as seen from a strictly sport climbing perspective). It is best to increase climbing endurance training: laps on pump routes or boulder circuits combine the benefits of aerobic and anaerobic training

Clean up your diet by eliminating unhealthy or counterproductive eating and drinking habits = nutrient dense diet without 'empty calories', eliminate:

alcohol

simple carbohydrates

processed food

refined sugar

self-medicating with alcohol -> drinking when unhappy, overworked, under appreciated, boredom, etc., be aware of emotional cues that cause an alcohol related response

food portion size: rationalising / justifying overeating as compensation for dissatisfaction with what you are doing -> 'things are going bad, so it doesn't matter'.

You should not feel that you are overly restricted or hungry — cravings are due to the subtle addictive-like effects of processed food, sugar & alcohol

Aim to reduce weight by 0.5kg & 2kg of weight loss per month

Replace hyper-palatable foods that are calorie dense with nutrient dense foods with lower total calories

Drink water as main beverage, green tea and black coffee

Adjust eating to match physical output / training load: fuel up before training & replenish afterwards, moderate eating on rest days

Supplemental training for climbings — weight lifting, campus boards, fingerboards, etc., is *supplemental* and not the best use of time to improve climbing performance

If you are not climbing enough, than fingerboard training is better than weight training

If you have too much weight, whether fat or muscle, than get rid of what you do not need

Campus boards are very dangerous methods of training: risk of finger and elbow injuries

For strength and power, use hard bouldering, then fingerboards, and last - at an elite level - use campus boards

Cardiovascular Endurance

climbing is not a cardiovascular sport —> the challenge is local anaerobic endurance in the fingers and forearms

climbing has bursts of anaerobic effort followed by aerobic recovery = train systems to increase amount of work at an anaerobic level and improve recovery at an aerobic level

climbing endurance: forearm muscles endurance is key -> lactate acid build up is not high, the fingers hold with isometric contractions (static strength) without the forearm muscles changing lengths, which means the blood vessels are shut closed

Capillary density limits the efficiency of blood flow and therefore the climbing endurance in the forearms

Capillary adaptation takes place through high intensity anaerobic climbing (stress response) and low intensity aerobic climbing (recovery response) —> train muscles to reach high levels of blood flow in and out of forearms

Climbing endurance means working the forearms while training climbing through a combination of short intense efforts and long, less intense routes

General cardio training (i.e., running, jogging, biking, etc.) has little effect on climbing performance

Climbing Endurance Training

goal: high volume of puppy moves and aerobic level routes on a regular basis

Boulder traversing can be good for low intensity climbing endurance training, yet note that the sideways movements and techniques are different and can not always be applied to routes

Boulder circuits are more intense, time efficient and best for *anaerobic* training and development

Interval Training = most effective way to load and generate sport-specific physical adaptations through anaerobic workouts

- length of 45 to 90 seconds
- circuits of 25 to 50 hand movements
- overhanging wall / panel of 30 to 45 degrees

- simple moves on positive holds
- ego-driven performance should not get in the way of training
- rest 2 to 5 minutes between set repetitions
- complete 4 to 7 sets

Aerobic Training

note that anaerobic circuits influence and benefit aerobic conditioning

Tactics for endurance training on routes:

- separate anaerobic routes from aerobic routes
- train anaerobic routes going up & down climb easier aerobic routes or use all holds to decrease intensity to an aerobic level
- circuits of 'up - down - up' on steep routes that are well below physical / technical limits

Anaerobic Endurance (Power Endurance) Training Intensity:

- 1st circuit = significant pump / deep & fast breathing
- 3rd/4th circuit = deep & painful forearm pump (firm muscle) & and gasping for breath at end
- final circuit = fight with 100% effort to complete -> exhaustion

Contrast with aerobic endurance training intensity that is a deeper forearm pump that can be maintained while climbing

Aerobic climbing intensity has a somewhat painful forearm pump but without a burning sensation, forearm will be hard to the touch, breathing is elevated yet steady

Be careful not to completely exhaust glycogen in muscles -> this will add to recovery time and an overall loss of total training volume (stop at around 15% of total exhaustion)

Endurance Training Rules

- work steady and hard with being tired
- full recovery before next training session is not necessary
- after warming up, muscles should feel good
- if performance level drops significantly, then stop

You can do quite a few endurance-type climbing sessions per week = gains in climbing & climbing fitness

Adaptation and response to endurance training happens in just a few weeks - strength gains and adaptations take much longer

Structure of an 'All-in-One' single climbing session: warm up > basic strength > hard bouldering > easier bouldering > anaerobic circuits / routes > aerobic circuits / routes

FEAR

Fear of falling => inhibits using and developing momentum in personal climbing style

Negative feedback loop that develops when fear of falling becomes too prominent: fear of falling > static, restricted movement > inefficient climbing > climbing feels harder & insecure (mental & physical) > more fear & insecurity > slower, insecure movement and decision making > further restricted and static movement

Overcoming the challenge of the fear of falling is hard to initiate but the response is immediate and is simple to train

Goal => retrain the basic, gut instinct that falling feels "wrong" — practice falls regularly over a long period of time

The mistake is not taking enough falls — practice falls day in and day out as a standard part of training over months & years: measure practice falls in the hundreds

> 5-10 leader falls per session over a year to lose irrational fear

> 5-10 leader falls per session over a couple of years so that the thought of falling does not alter climbing technique

> 5-10 leader falls per session over a number of years to “stress-proof” climbing confidence and decision making

The skill of falling is reversible if no falls are taken over a period of time —> it may take weeks to regain your high point of being comfortable with falling

NOTE: a single bad experience with a fall can wipe out months or even years of confidence gained

Falling Technique

- preparation - fall - swing
- preparation = evaluate fall zone, jump into ‘safe’ space & landing zone
- fall = push towards direction to make fall clean, move away from wall but not too far to induce a violent swing into wall
- swing = balance the need & amount of push/jump away from wall, flex to absorb fall energy (not too rigid)

proper belay technique to hold fall — dynamic, safe amount of slack in the system = soft swing in wall

Practice Falls — Indoor Walls

Safely build up falls & level of confidence

Slowly move bit-by-bit above quick draws

Build up & practice a great number of falls with the quick draw at your feet (foundation of 10-100 falls of this type)

“Stress-Proofing” Falling — longer falls, various wall types & angles, intimidating situations, etc.

Continue to change situations of falling as diversely as possible: different belayers, while pulling up slack, in roofs, etc.

Note that fall training must be regularly maintained and the training is never complete and can be reversed

Practice Falls — Sport Climbs, Outdoors

Falling outdoors adds a new stress level to falling: distance between bolts, line of route, moving further past protection, confidence in climbing ability during run outs

There are no ‘short cuts’ to getting comfortable with falling outdoors — apply practice of indoor fall training to outdoors: climb as high as comfortable above bolt and take repeated controlled falls, make one or two moves further and take another set of repeated controlled falls, etc., etc.

It is a common mistake to underestimate the number and amount of practice falls needed at each stage of learning, becoming uninhibited (losing fear) and ingraining habits

Ingrained habits (i.e., not falling, saying ‘take’, grabbing quick draw, using other holds indoors) need more focused practice to break if not addressed and confronted from the outset —> they take more energy and longer to overcome

Falls as Part of the Daily Climbing Process

- 1) focused fall training
- 2) falls done in isolation during training
- 3) build falls into routes while climbing
- 4) falling during regular climbing converge — falls happen often and spontaneously during demanding leads attempting red-points and during hard on-sights

Fall Training Methods

- fall from last bolt on routes
- fall above last bolt before clipping lower-off
- fall from set point, repeating falls as you move up further and further above bolt
- fall after clipping each bolt, starting at third or fourth quick draw
- fall unannounced three to five times on a route
- fall on command of your belayer
- fall while pulling up slack to clip anchor
- fall while moving first upwards as if going for the next hold

Build up volume of falls during hard climbs (red-points & on-sights)

Do not grab non-route / different coloured holds indoors, say 'take' or grab quick draws — confidence is not freezing up and becoming static in these situations >>> you will regress if you do things to avoid falling

Training Specificity = WHAT YOU DO, YOU BECOME

Remember that avoiding a fall unconsciously ingrains the habit every time so that not falling becomes more and more "calcified" hardening as time goes on

The habit of using a crutch to avoid a fall makes bold, confident climbing melt away faster and faster in times of discomfort and panic

Tackle the issue of fear of falling, fight against your inhibitions and experiences —> DO THIS NOW OR IT WILL ONLY BECOME HARDER IN THE FUTURE

The process of dealing with the fear of falling is like breaking an addiction — it is best to 'go cold turkey' (bad habits - avoiding falling - only appear on hard routes or when pumped).

- 1) never say 'take'
- 2) never use other "bail out" holds
- 3) never grab quick draws
- 4) inform belayer of your commitment & determination and keep your word

The earliest stages of this process are the hardest, but as you wean yourself from the habit of avoiding falls it gets easier and easier —> just get over the first couple of hurdles and work step-by-step

Falling Outdoors = you must not avoid falls on hard routes: NO CLIP STICK

A single year of sport climbing falls will allow you to improve your climbing grade by 2 to 5 levels

Make sure that regular falls become part of your normal climbing routine

Commit fully with determination to climb hard on-sights until you fall-off or send route

Make a mental note of how often you fall in a month — keep up the total number of falls, or the routes you are climbing are too easy to create physical and technical improvements

Falling on Trad (Mobile Protection) Gear

sport climbing falls are the foundation for developing ability to fall on trad gear -> apply sport climbing falling methods and tactics to falling on trad protected routes

use well protected routes with solid and backed up gear: there should be no doubt that the gear will hold a fall

pushing further with falls on trad gear is a subtle game of balance between what is outside of your comfort zone and what is safe with risking a bad experience or injury — stay conservative

No-Fall Situations

insure the correct mental conditions = clear decisions, then act without hesitations or distractions — confusion and panic should not result in bad decisions

Eliminate Unknowns

unknowns can be eliminated through self-knowledge, practice & prior experiences — drastically reduce the unknown elements by viewing the climbing from the ground: predict scenarios and make corresponding plans

be aware of options of escape at any point of the route - options of escape replace falling on bold, dangerous, 'no-fall' trad routes:

- stay put & be rescued
- stay put & search for protection until you find it
- stay put, calm down & climb on
- down climb to ground
- down climb to last piece of gear and rest on it
- down climb to a position where you can safely fall on the last piece of gear
- down climb to a rest & evaluate options
- go on with the realisation that you are committed

GENERAL ATTITUDE

Thinking outside of the actual climbing sessions gives you a limitless potential for improvement — reflection, visualisation, re-playing situations, diagraming, writing descriptions of sequences, re-living emotional states, etc., etc.

Lifestyle: there are significant benefits from changing and optimising routines, lowering stress, eliminating un-necessary, needless stresses and bothers, proper work, optimal nourishment, prioritising sleep, making recovery actively important, etc.

Circumstances: attitude towards climbing challenges, established (unconscious) attitudes due to upbringing, beliefs (unchallenged), environment (physical, people, community, self-created situations), psychological approaches

Tactics: awareness of tactical options in climbing, training, organisation, etc.

PERSONAL, SPECIFIC ATTITUDE

- do not compare yourself to your peers — the benchmark is much too low (even when they climb better than you)
- do not compare yourself to others because you are only “competing” with yourself = intrinsic motivation
- make yourself into a good athlete as quickly as possible
- understand that you must do the learning for yourself — learn how to coach yourself
- successful climbing athletes DO NOT FIT INTO THEIR SURROUNDINGS: successful, outstanding climbing athletes have unique and clearly different standards of effort and activities - they never do what “everyone else” does
- do not be inhibited or apprehensive to be and do something completely different

- develop critical, sceptical thinking and self-knowledge of the components of performance and their application
- climbing is a very long-range endeavour, focus on the big picture not the small successes or setbacks
- be aware of the big fish in the small pond syndrome — do not let the ‘comfort’ of being a local big shot hold you back from greater things
- getting to a high level of climbing is relentlessly trying, demanding and requires a tremendous amount of work: frustration is a signal to alter your outlook, expectations and short-term desires
- DO NOT DEPEND ON REGULAR SUCCESS
- congratulate yourself for commitment, perseverance and persistence -> not immediate results
- enjoy moments of small daily successes (look for them at all opportunities and be grateful) - just keep showing up

Perseverance

most people stick way too long to working on things they do well = emotional gratification of performing well on things you already do well -> wasting time and opportunities to improve

When doing something new or uncomfortable: most people give up way too soon at the start of struggling (desire for instant gratification)

Being “almost there” in overcoming a performance deficiency is the most vulnerable place — this is the point of frustration when you feel that, “i just can’t do it anymore ...” at this junction you have a choice to consider: do not automatically given in and give up without more information and introspection

Frustration

This is the emotion that signifies that you are stuck on something and it begins the process on getting “unstuck”

- step back from negative emotions and give yourself space
- do not turn negativity into a self-fulfilling prophecy of automatic failure
- you always have the choice to start fresh and keep going

Gathering more information

- is it pointless to continue?
- do you have adequate information?
- acknowledge fatigue (physical & mental), monotony, frustration, etc.
- make an unemotional evaluation of the progress made -> detach
- how much more improvement is needed?
- determine improvement need in relation to how far you have come

Seek out a clear, unemotional, sense and perspective of where you are — no emotional involvement

In many instances of the process of training climbing, the most painful, frustrating, self-doubting moments are just before a breakthrough

Improvement

Standard progression = 10 years to get used to training, 10 years to develop basic climbing-specific strength and fitness (body adaptations), 10 more years to learn how to climb really well — then comes a period of peaking (note: we all think we are “special flowers” and this doesn’t apply to us, we’re smarter, more gifted, work with more intensity, etc., you’re wrong)

The body does not hold you back from training — you must learn proper training stimulation, stay injury-free, a give recovery (nutrition, sleep, stress) the highest priority possible

Lack of progress is due to:

- do not believe in your own ability
- settle for an easy life
- assume you can't improve and stop trying
- injury
- climbing is no longer important
- let your job or work dictate your life
- lifestyle factors - your life is not set-up to have time and prioritise climbing

Age is not a barrier to climbing (note: Stevie hasten climbing 9a at 60+ years of age, many people climbing 8a when in their 60's)

Managing Injuries

- preventing, early care & attention and managing injuries is key to longevity in climbing - treat your body well and always look to ways of improving recovery and regeneration
- diligent, thorough warm up
- carefully add intensity
- rest and recovery (sleep & nutrition)
- quality, real, whole natural food
- importance given to quality of sleep
- relaxation - releasing/avoiding unnecessary stress & tension, meditation, visualisation
- immediately correct actions and behaviours that lead to injury
- steady progress, not too fast, persistent 'blue collar' work ethic and attitude = stubborn determination without being obsessive and narrow minded

Efficient use of training time (limited resource of your time and energy)

- focus on skills that you are weakest at - biggest return on time and energy investment
- insight = we tend to 'waste' training time the more training time is available
- volume of learning various moves: create a huge, vast data base of climbing movement
- acquisition and training (intelligent, deep practice) of movement
- finger strength -> , technical, 'fingerey' routes, hard bouldering, fingerboard training
- try to fit more climbing into weekly schedule — fingerboard sessions, dry tooling
- technique drills on warm up routes with fall training/practice
- mental review of routes, movements & climbing while belaying
- extra bounding session(s)
- bouldering endurance circuits (high intensity)

Successful climbers succeed because they create the circumstances to work harder (and more intelligently, efficiently and effectively)

You must view yourself as an athlete and cultivate an athletic mindset — if you do not do this, ask yourself, "why?"

Athlete Mindset

- willingness to do what others will not
- love the grind and determined perseverance of long, drawn out, seemingly unrewarding years of diligent training
- embrace set backs, struggle, getting thwarted, 'beaten' back, coming up short, being frustrated and worn out from hard effort
- positive relationship to failures — failure & set back bring out the best in you

Do not avoid the prospect of failure: use failures, disappointments, set backs, etc., to reassert, work more diligently and focus on mastering the task

Love of Suffering — this is an attribute & attitude of all successful athletes

“Sacrifice” some of life’s ‘good’ things (easier, more comfortable, ‘fun’, social, etc.) things

Successful athletes break habits and circumstances that cause limitation in their lives and actively steer, cultivate and force new, more productive behaviours & habits in to their lives so that their action align with their goals and therefore make achieving their goals possible

The Dilemma = find balance (on-going process) for life as an athlete

Tactics for Creating Balance in Climbing

avoid the trap of trying to ‘perform’ too much while training _ stick to your training and your processes

Deep practice of climbing strength and movement techniques + performance on goal routes (hard red-points and on-sights) is the way to best use training resources

The actual tactics that you employ on final performance on a red-point or on-sight are more important than the elements of previous training -> during performance: trying hard, determination, climbing until forced to fall off. never giving up, smart pace and rhythm, finding/using rests, resting well, equanimity, breathing, shaking out, etc.

Good tactics are a combination of imagination & common sense

Develop the habit of thinking about all of the purely tactical advantages that you can imagine and use while climbing before you even begin an attempt on a goal route — what are all the things that you can do, think of, plan for, etc. before even getting off the ground?

Common Tactical Considerations

- wait for good conditions — temperature, humidity = cool, dry air, highest possible friction for skin and shoe rubber
- properly reading sequences when on-sight climbing: examine the route from the ground at various angles, look for potential rests, shake-out possibilities, rhythm/pace of route, obvious holds, blank sections, chalked holds, thumb prints indicating left or right hands
- determining best sequences and solutions for red-point climbing: do not automatically settle on first solution — strive for easiest, most efficient, smoothest way through technical and physical challenges
- control and set up the absolute best environment for you to send a hard red-point: right gear & amount of gear, time food intake appropriately, drink enough water, take care of skin, brush & clean holds, observe other climber’s solutions to your routes, create appropriate emotional climate and support (people & PARTNERS)
- manipulate everything for a high probability of a successful send — one high-value attempt is better than three of a lower value

Warm-Up

- careful warm up prevents injury and prepares body for further climbing and training
- get nervous system activated and the various body systems to work together in a coordinated manner
- muscles —> direct blood flow, proper temperature and free circulation
- mind —> clear head of distractions and create focus

Pace & Progression of Warm-Up

a too short or too easy warm-up will cause you to tire out much more quickly

warm-up time frame = five minutes to two hours — short for a fingerboard session, 20-60 minutes of bouldering, much longer for hard red-point projects (including pauses between warm-up routes), longer and very gradual for endurance training sessions

Warm-Up Content

- movement & mobility with actively increasing range of motion
- climbing specific —> easy routes with big holds
- special attention must be given during warm up to previous injuries and/or problem areas of the body (hip mobility, knees, shoulders, etc.)
- avoid getting on a warm up route that is too hard and then ‘fighting’ to the top — it will then be almost impossible to have a good climbing session afterwards

NOTE. What do you do when there are no ‘warm-up’ routes available (can often happen at outdoor climbing areas)?

- traverse wall with feet on the ground - low intensity for fingers
- do hand and foot placements/movements from a static position on wall
- traverse wall, stepping off to adjust for proper intensity
- use thera-bands or other resistance bands to activate muscles
- climb only the easy, lower portions of routes
- up & down climb the easy portions of routes
- do appropriate moves and sequences resting on rope at every bolt

Sustaining and Activating Motivation for Climbing

To sustain and activate motivation use either 1) association, or 2) disassociation

association —> focus mind by associating, sensing, feeling a particular aspect of the effort: heart rate, breathing, emotional state, level of excitement, pace, rhythm, forearm pump, etc., you are ‘tuning in to body’

disassociation —> ignoring and tuning out physiological and/or psychological thoughts, sensations and concerns (pain, unpleasantness, mental/physical discomfort)

there is a slight danger when using motivational tactics of disassociation that you overlook look and/or under evaluate risk in climbing & possibly ignore signs of an impending injury

Mental Arousal - Psyche

develop to ability to create the proper level of arousal and excitement during climbing — this is highly individual and you must control the level according to the situation, type of climb, and within the climb itself

techniques & tactics: breathing, pre-climb routines & rituals, encouragement from belayer and others

learn to integrate the elements of proper arousal with delivering and withholding power and energy expenditure at different moments while climbing

Psychology of Hard Climbing

There is a paradox inherent in climbing = we look for difficulty & seek challenges, but are frustrated and impatient with success, in other words we want to get better and improve but we do not want struggles and set backs —> it does not work like this, the conscious or unconscious disposition is irrational thinking and irrational expectations

There is no improvement and growth without struggle and frustration - thinking and acting/behaving otherwise is immature, irrational and unprofessional

FOCUS ON THE ACT AND PERFORMANCE OF CLIMBING NOT ON THE RESULTS OF CLIMBING

Defining or characterising success by number of routes climbed, routes sent, grades climbed is a dead-end, grades help structure training and guide intensity, however putting too much importance to grades undermines morale and motivation

Focus on value based, measurable results that you control —> that is quality of deep practice, concentrating hard, applying maximum force, accuracy and precision in movement, completing training sessions as planned, long-term commitment to work ethic, thoroughly finishing training activities, mental work away from climbing, etc., etc.

Strive for valiant attempt and committed, deep engagement all the time - quality of mastery - climbing success is therefore a by product of high quality, focused effort —> satisfaction comes through focusing on the quality of effort and will always remain high

Empower yourself to be successful by measuring the proper variable that you control = quality of the performance in all aspects of climbing, not the results of the performance

Frustration has little to do with skill level and everything to do with your outlook and attitude

Skin Care

- fingertip skin is your connection to the rock - you must care for your skin and value it highly
- at all costs avoid split skin on finger tips
- take holds with care - soft hands, placement of fingers then add appropriate force and tension
- keep skin smooth: lightly smooth out with an emoryboard or sandpaper & use sport specific healing & regenerating creams & lotions
- cool and dry conditions are always best - wet, moist skin leads to problems
- manage skin wear & preserve skin for maximum climbing time

Flexibility

- good flexibility is needed around hips for high steps & turning out (“frog” position)
- active flexibility and range of motion are important - cultivate and develop strength at the ends of the range of motion in joints
- add active stretching, mobility, movement, fascia release (foam rolling, etc.), yoga, as resting time between climbing - very good in combination with boulder workouts - and can be done at every climbing session
- stretch and increase extreme joint angles through progressive relaxation and breathing
- give special attention to hamstrings and inner-thigh muscles
- it is crucial to stretch previously injured ligaments, tendons and muscles (they heal with a shortened structure and hold scar tissue)

Planning for Improvement

A basic truth is that improvement is a curved, not linear, progression —> a deficiency will improve rapidly once you focus on it to a good, competent level before the improvement levels off and takes more and more effort to get smaller and small amounts of improvement

Improve and focus on sub-set climbing abilities until the progression of improvement has tapered off or flattened out, ca. 80% - 85% of ‘perfection’, then turn your attention to a new deficiency in a climbing ability/technique sub-set, skill, aspect, etc. — this tactic will help you improve faster and further with less frustration and overall less effort

The flat, tapering off part of the climbing learning progression curve is a psychological comfortable place to be — your performance is stable and predictable, you feel good and are confident ... but to improve you have to escape this cycle and give up the comfort to address the next climbing hurdle

Settling into comfort leads to performance plateaus, boredom, drudgery and loss of motivation

Training Volume

look to improve recovery: most of the time training volume is usually okay or could be more yet quality of recovery is deficient

Ways to Make Climbing More Body-Friendly:

- vary the type of climbing, style of climbs
- warm up better and smarter
- improve & control conditions
- stop before completely exhausting glycogen stores

Ways to Improve Recovery:

- proper and optimal diet - no processed food, natural whole real food, high quality protein → strive for a low inflammation way of eating
- make sleep the highest of priority = cool, quiet, dark environment, 8+ hours
- reduce general stress, eliminate excess/un-necessary stressors & cultivate relaxation
- minimise alcohol intake, especially beer
- find stress-releasing & muscle recovery enhancing activities, i.e., stretching, yoga, sauna, foam rolling, self-massage, fascia release, etc.

Frequency - Resting, Recovery, Training

smaller frequent training doses interspersed with fairly short rest periods give best overall results

you do not always have to be completely fresh from previous training session to maximise gains in the next session → long-term gains come from sustained training sessions with limited rest: strength will go down but remain stable, after a training period just a few good rest days will refresh body

at the end of each training period you have a choice at this point to either send a goal route(s) after taking more rest/easy days - or - start a new block of training

Insights as a Professional or Full-Time Climber

nothing comes easy — talents are easy to see, but hard work and sacrifices made, pain, struggle, etc., are hidden: the best climbers work harder and smarter than anyone else

Improvement at all levels is closely correlated to hard work → hard work is not 'mindless', it is deep practice, perseverance, determination, commitment to self, putting in the time, etc.

Same Routine = Same Results

expecting improvement while doing the same things over and over again is irrational — only climbing routes at your current level makes you good at climbing routes at your current level

training works by forcing your body to respond → struggle at a higher level forces mental and physical adaptations

DO NOT DO THE SAME OLD THING!

Changing (Bad) Habits

all changes to established climbing routines and practices, and therefore improvement, require changing habits

it's one thing to know what you have to do and wanting to do it, the challenge is to actually break free from engrained old habits

establishing a new behaviour, movement, practice may feel 'wrong' because it is foreign to your experience and way of being

- new habits will feel comfortable once established and ingrained
- new habits will bring positive results
- it is actually just the moment of change that is painful
- allow for temporary failures & relapses
- relapses occur under great psychological stress or fear
- common mistake: a relapse can lead you towards sabotaging the whole effort of establishing a new behaviour and habit

Best strategy: jump in 100% with instant changes you must instil to improve (most of us know in our hearts what these are)

Look to ways of adding external motivators to instil change = tell people close to you

Keep long-term benefits in mind: the resistance to just jumping in a making the necessary change can be weighed against the fact that you will never overcome the hurdle unless you engage → regular reminders and restating benefits of changing habits

Reasons for 'failure' are due to the wrong tactics and how they were applied - not inherent weakness or inability - make a new plan, regroup and try again and again

Training Day Rules

"structure of loading principle" — activities that require highest output of force (after competent warm-up) come before those with lower output → you can manage greatest benefits in training effect at each session

be flexible and listen to your body: mental flexibility and balance in keeping in touch with body feedback is critical to maximising training effect, recovery and preventing injury over the long term

Note: a single episode of inadequate or poor recovery can linger on for a week or more of poor training sessions + you are vulnerable to injury

Indicators of Poor Recovery

- overall body tiredness
- general muscle soreness
- nagging, minor injuries
- rehabilitating injuries
- length of warm-up time
- level of strength
- lack of motivation -> drudgery associated with climbing, boredom

To make gains the body must be stressed — general feeling of soreness and stiffness post training and some discomfort at the start of the next training session is okay, but it should go away during warm up

The goal is to have significant soreness yet the body "bounces back"

The motivation and desire to train and improve should also ramp up during warm up as your mind becomes more focused

To make adjustments increase the quality of all recovery elements and reduce non-training stressors

Process of optimising training load, having high quality recovery, resting, sleeping eating, and listening to your body are consistent variables of balancing progress and hard training

Training Season Rules

- prioritising the volume of stimulus of each component of training and noting how the various components respond to intensity and loading of stress
- finger strength - slow response to stimulus and must be trained with low intensity, careful volume yet high frequency
- hard bouldering throughout year
- hard red-pointing throughout year
- having stronger fingers will translate into better overall endurance because the fingers are always the weakest link in the chain of climbing-specific muscles, ligaments and tendons
- there are no short cuts or hacks to finger strength → gains come only through continuous activity over years

Endurance responds very rapidly to training stimulus - adaptations transpire within weeks - maintain endurance throughout year, focus on building a foundation of finger strength

Total number of moves climbed is critical to developing technique → create a vast, exhaustive databank of movements — do the vast majority of finger strength, endurance work, recovery training, etc., by actual climbing

Yearly climbing schedule revolves around how learning technique, increasing finger strength and climbing-specific endurance responds to training stimulus

Period(s) of Rest & Recuperation in Year

it is a mistake to just do nothing — it's best to vary your type of climbing

climb alpine

climb multi-pitch

climb ice & mixed

dry tool

do some mountaineering, ski touring, mountain biking, etc.

climb with new people

completely re-organise and shuffle climbing routines — do the opposite of everything

Most climbers are lost in the details and minutia of a tiny, limiting sub-set of the total climbing experience → and worse they are stuck and continue to hammer away on the same things that they have maxed out in - the benefits of doing the same things are producing a smaller and smaller return for the time and energy investment

Learning more details, getting narrower and narrow in focus, trying to do the same things only "better" will not solve your climbing problems and bring about improvement => to be a different climber you must do different things

Ask yourself, "am I getting too caught up in one tiny, self-limiting area and distracting myself from tackling another area of my climbing that might yield much quicker results?"

Think about: what one thing, if I only applied myself and addressed this one thing, would have a drastic, global effect on my climbing performance