

Training for Mountaineering

A high-altitude mountain landscape with snow-covered peaks and a cloudy sky. The foreground shows a smooth, snow-covered slope. In the middle ground, there are several jagged, snow-covered mountain peaks. The background shows more distant, lower mountain ranges under a sky filled with soft, white clouds. The overall color palette is dominated by whites, blues, and greys.

Tom Green



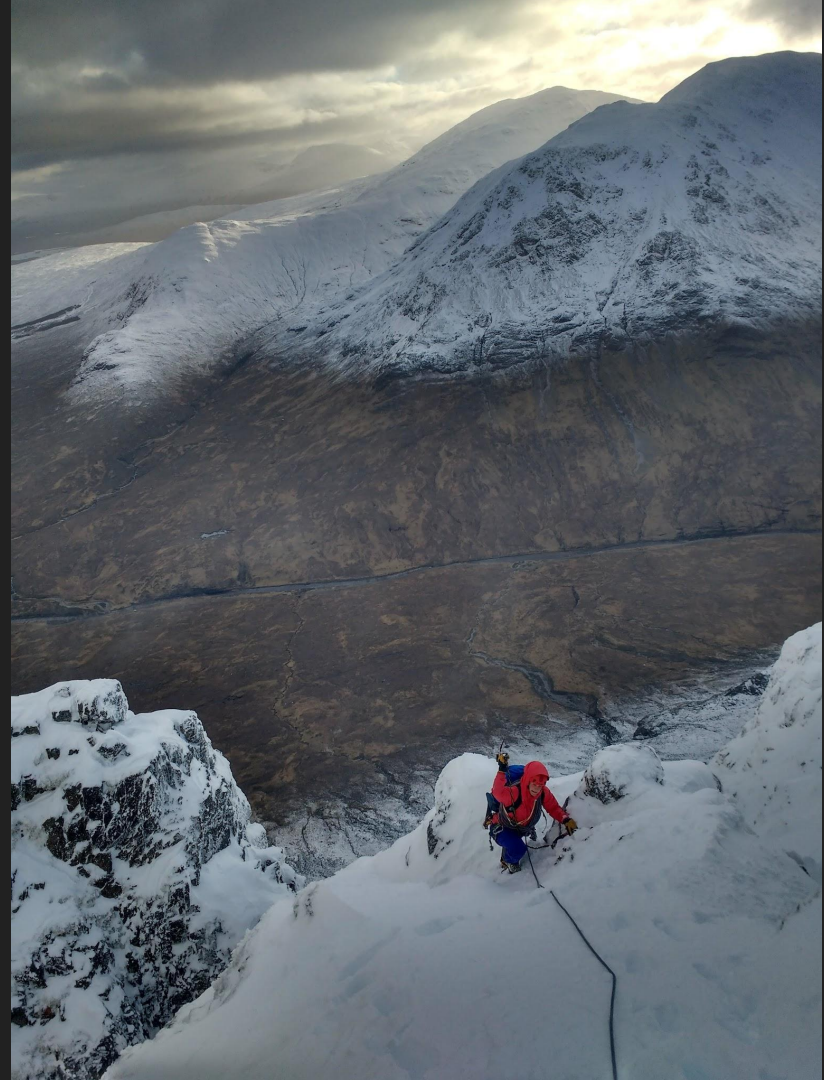
Aims and Objectives

By the end of this session you should:

- Understand the aspects of fitness relevant to winter mountaineering
- Understand how you would train these aspects
- Make an assessment of your current fitness.
- Start to develop some aims and objectives for the Scotland trip
- Write a training plan appropriate for your current level of fitness, targeted at meeting your aims and objectives.
- Be psyched to follow your training plan and have an amazing trip to Scotland!

Contents

- What a Scottish day might look like
- Possible Objectives and their fitness requirements
- Fitness self assessment
- What to Train
- How to Train?
- Putting it all Together
- Summary



Training Plan Worksheet

What is your Goal/ what do you want to do?

Distance:
Naismith Equiv (distance+height gain*8):
Naismith pace (Duration/Naismith Equiv):
Terrain/scrambling/climbing grade:

Height Gain:
Duration:

Pack Weight:
Skills Required:

Notes:

Self Assessment - Where are you now?

Most Similar Activity in the last year:

Distance:
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Observations (how did you feel, skills that need work, what are you good at, how big is the gap between this and your goal):

Current state of fitness, estimate for an average week:
Hours doing Aerobic activity (walking, running, cycling):

Hours climbing: Number of Pitches: Meters Climbed:

Hours doing strength/conditioning:

Use your average week + 10% as your starting volume for your training plan
If you are unsure start at 6-8 hrs per week

Training Constraints e.g. Christmas Holidays, Exams, injuries, how many weeks left etc.



What does a typical day look like on the Scotland course?

- ~6 hour of activity
- 10 km walking ~1000m of ascent
- Adverse weather - strong winds, deep snow, “aggressive” precipitation
- Digging/climbing/playing in the snow
- Carrying ~10 Kg

Can you do it all again the next day? (and the day after?!)

Further Objectives

Ring of Steall - 18km 1500m grade I

Ben Nevis Via CMD Arete - 18 km 1600m grade I

School Ridge and the Ballahulish Horseshoe - 15km 1300m grade 2

Aonach Eagach Ridge - 10km 1300m grade II

Dorsal Arete - 10km 1000m grade II

Curved ridge - 10km 788m grade II/III 3

Routes on Aonach Mor (lift access) - 9 km 704m various grades I-IV

Ben North face routes - 18 km 1600m grade I-XII

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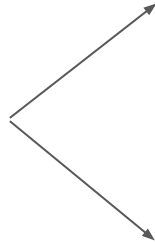
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Is there a gap
between these
two?

How big is it?

In 9 weeks you
could reasonably
expect to improve
by 75%. (i.e.
walk/run/climb
75% further at the
same level of
effort)



Why Train?

- Do more, have more fun
- Better decision making
- Improves learning
- Make better use of opportunities
- Training is self care
- Training is fun
- Fitter students do better in exams (but don't over do it)

Components of fitness

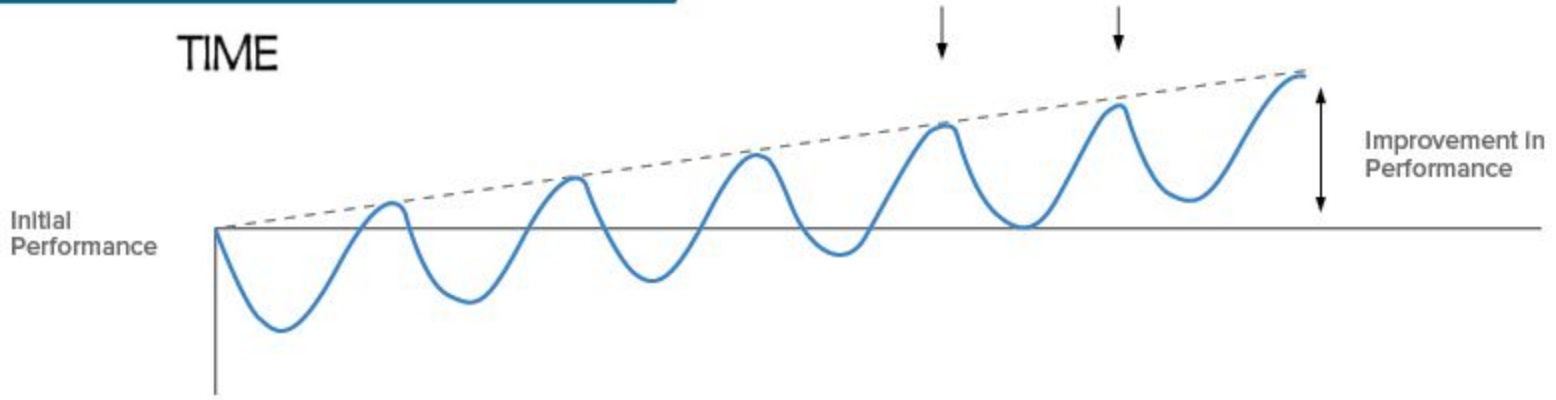
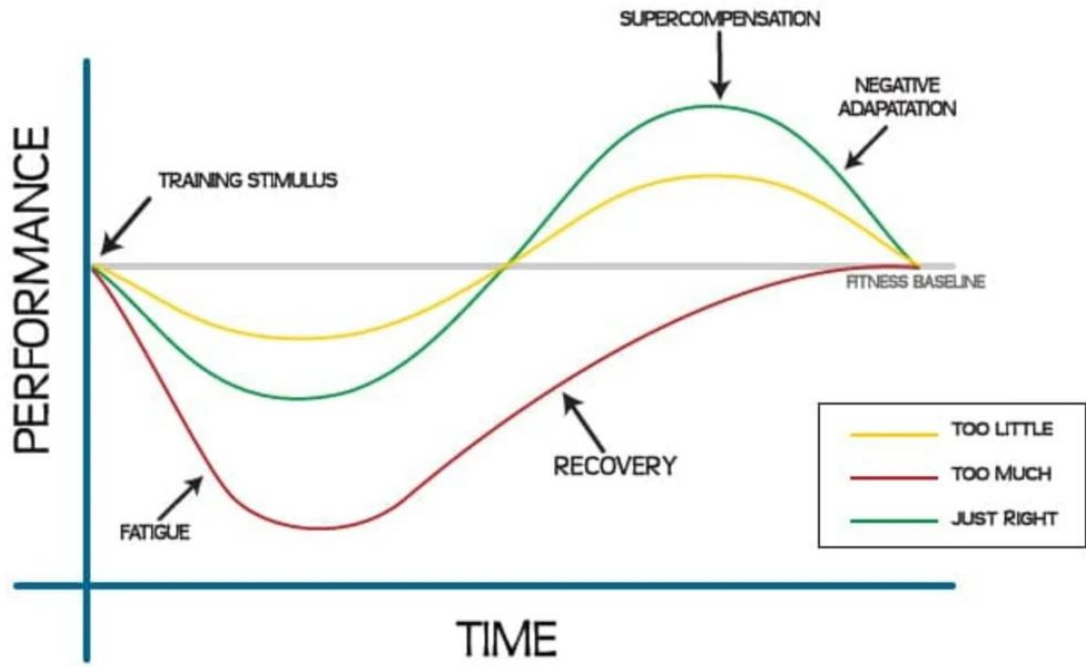
- **Endurance**

- The ability to resist fatigue during exercise
 - **Aerobic Endurance** > Typically limited by cardiovascular system
 - **Muscular Endurance** > Typically not limited by cardiovascular system
- In our case measured in hours
- “Endurance begins when you want to stop” Mark Twight & co.

- **Strength**

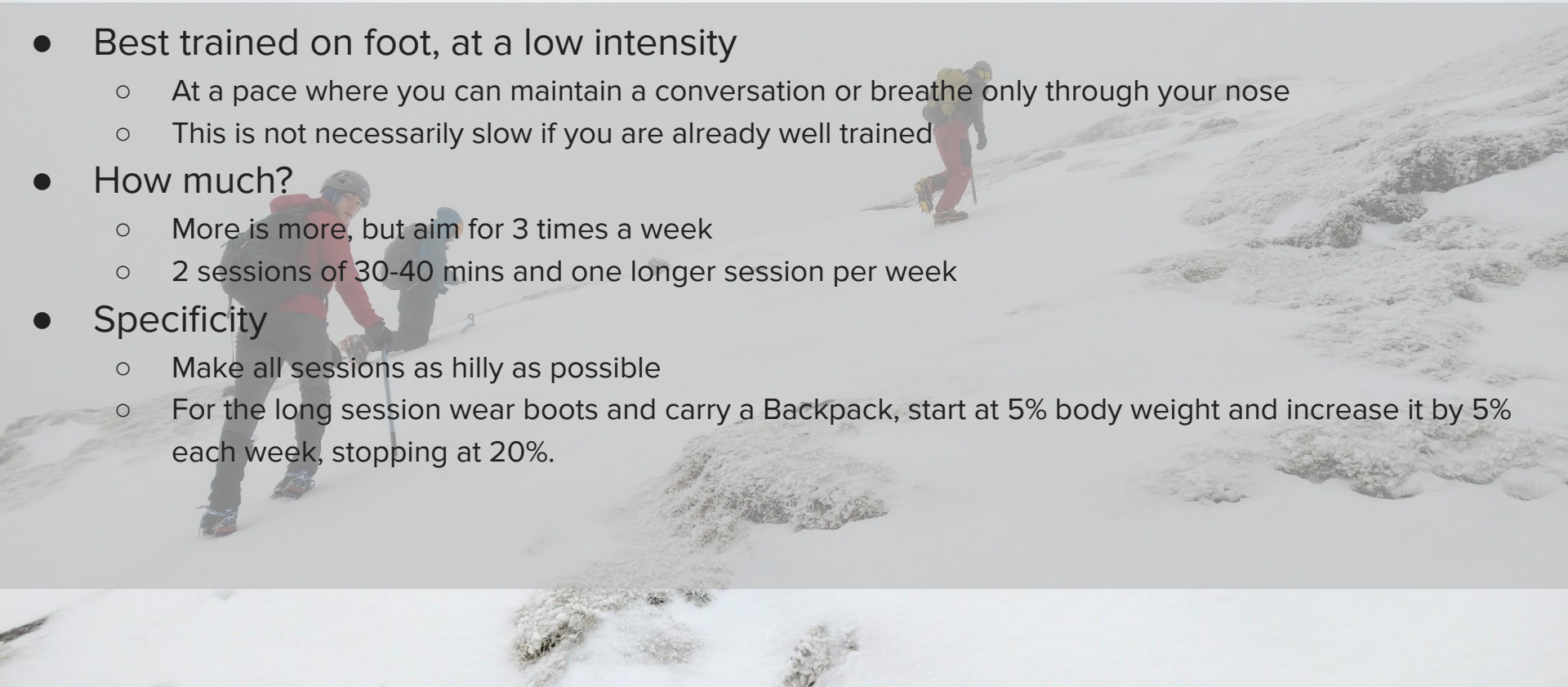
- The ability of a muscle to apply a force and overcome resistance
- “Without strength... There’s nothing to endure” Tony Yaniro
- **Strength Reserve**
- **Core Strength is vital for balance in windy conditions!**





How to train - Endurance

- Best trained on foot, at a low intensity
 - At a pace where you can maintain a conversation or breathe only through your nose
 - This is not necessarily slow if you are already well trained
- How much?
 - More is more, but aim for 3 times a week
 - 2 sessions of 30-40 mins and one longer session per week
- Specificity
 - Make all sessions as hilly as possible
 - For the long session wear boots and carry a Backpack, start at 5% body weight and increase it by 5% each week, stopping at 20%.



How to Train - Core and General Strength

A person is snowboarding down a snowy mountain slope. The snow is bright white with some shadows and tracks. The background shows a valley with a river and some buildings under a clear sky.

- **Quality over Quantity**
- 2 x 30-45 min sessions per week
- Create your own circuit or routine
- Box Step ups, pull ups, front lunge, press ups, leg raises, Plank, windscreen wipers, Squats, Kayaker
- Good form!
- Keep Quality High, if you are tired or Flat postpone the work out

Putting it all together

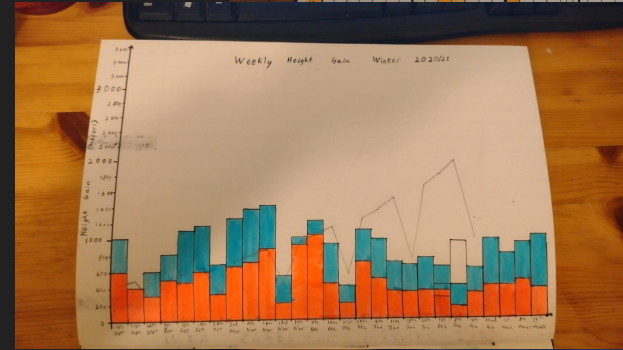


Week	1	2	3	4	5	6	7	8	9	10
Date	21/11/22 to 27/11/22	28/11/22 to 4/12/22	5/12/22 to 11/12/22	12/12/22 to 18/12/22	19/12/22 to 25/12/22	26/12/22 to 1/1/23	2/1/23 to 8/1/23	9/1/23 to 15/1/23	16/1/23 to 22/1/23	23/1/23 to 29/1/23
Macrocycle (season plan)	Preparation								Taper	Event
Volume Intensity										
Events/ training constraints	Training Begins!				Christmas	New years eve				Scotland Trip
Mesocycle (3 week training block)	Preparation Cycle 1			Preparation Cycle 2			Preparation Cycle 2			Performance Phase
Volume per week	Build week 1	Build week 2	Recovery week	Build Week 3	Build week 4	Recovery week	Build Week 5	Build Week 6	Taper Week	
	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	
Microcycle (week Plan)	Planned sessions									

Recording your training

“What gets measured gets managed (even when it’s pointless to measure it and manage it, and even if it harms the purpose of the organisation to do so).”

- Distance, Height Gain, Time
- Online Tools
 - Strava, Trainingpeaks, Garmin Connect, Suunto
- Analogue
 - Training Diary
 - Wall Chart
- Rate how you felt in your session
 - A - I am Superhuman
 - B - I Felt Good
 - C - I Felt Flat, but managed
 - D - I Felt Tired, I cut the workout short
 - E - I am Exhausted did not attempt work out
- If you score consecutive workouts at C or below (or any E’s) you need to reduce the level and quantity of training



A training diary titled 'Transition STRENGTH 2020'. It features a grid for tracking strength training sessions. The grid has columns for months (Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec) and rows for various exercises. A vertical column on the right is labeled 'MAX STRENGTH WINTER 2020'. The diary includes checkboxes for session completion and performance levels.

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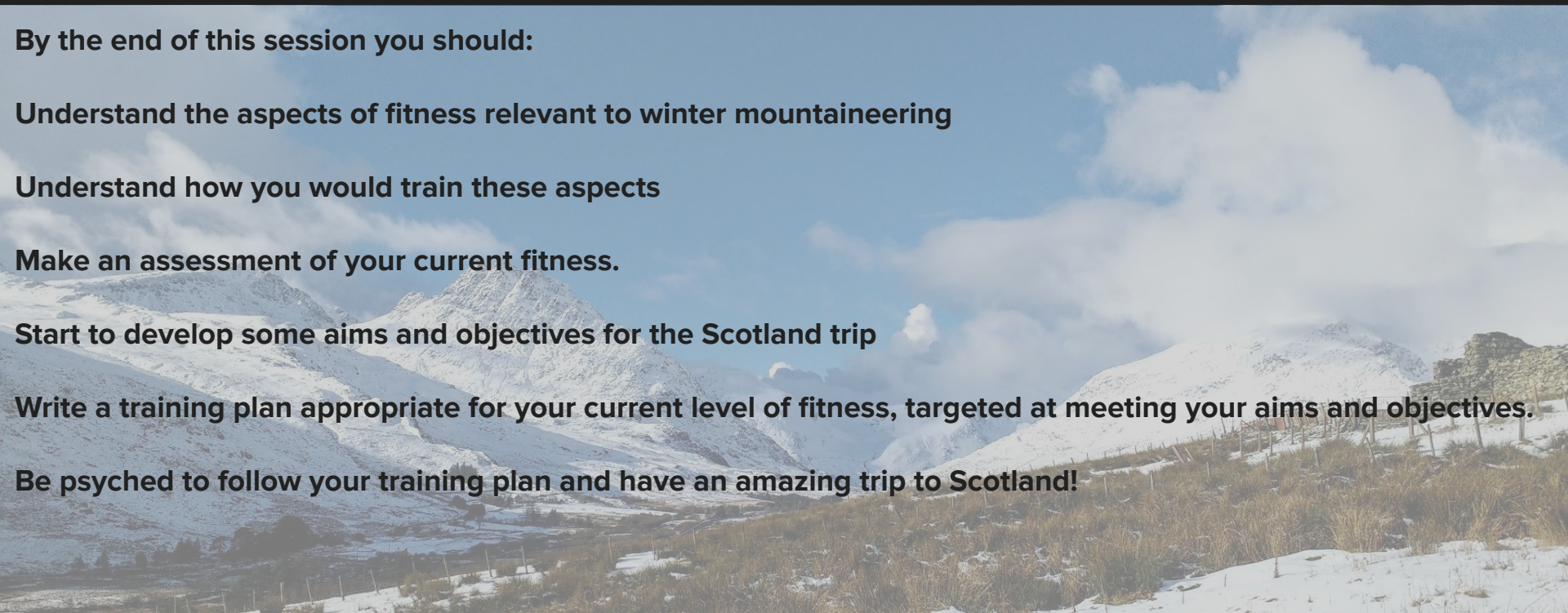
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Further Reading

Training “Text Books”

Training for the New Alpinism (TftNA) - Steve House, Scott Johnston - *Mountaineering focused*

Training For the Uphill Athlete - Steve House, Scott Johnston, Killian Jornet - *Mountain/Ultra Running and Ski mountaineering Focused*

Training Psych

Revelations - Jerry Moffatt

Waymaking: An Anthology of Woman’s Adventure Writing Poetry and Art

Kiss or Kill: Confessions of a Serial Climber - Mark Twight

The Rock Warriors Way- Arno Ilgner

Any Questions?

