

# OFF-PISTE PERFORMANCE

Alison Thacker



**A PRACTICAL MANUAL**  
ESSENTIAL KNOWLEDGE FOR OFF-PISTE SKIERS



# **OFF-PISTE PERFORMANCE**

Alison Thacker

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Front cover photo: off-piste skiing in the Aiguilles Rouge, Chamonix. © Daniel Wildey



Kath Thow enjoying summit to sea powder conditions on an untracked mountain above the Norwegian fjords.



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For a while, I found myself resisting nudges from the people I skied with to write down what I was teaching on the hill. Eventually, their gentle persuasion got the better of me and I started to commit words to paper. I doubt that this project would have ever been completed if it wasn't for the words of encouragement from Hannah Hollinger, unknowingly offering a few simple words of advice, at exactly the right time, which enabled me to embrace the writing process.

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This book would not have been possible, or needed, if it wasn't for you, the reader and skier, seeking to improve your off-piste performance, and for that opportunity I am incredibly grateful. You have given me the opportunity to observe reoccurring themes but also see the diversity of individuals' styles. I hope that this book helps you to develop your off-piste performance further and maximise your enjoyment from the sport.



Alison Thacker

## ABOUT THE AUTHOR

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Alison Thacker started skiing aged two and trained as a child and teenager with the Gordon Skiers, representing both Scotland and Great Britain internationally. At 20 she gained the highest level of BASI ski instructor award, at the time one of the youngest people to do so. After achieving a First-Class Honours degree in Outdoor Studies at Ambleside, Alison moved to Chamonix where she lived and worked for 15 years as a ski instructor in winter and a walking leader in summer. During this period, she started running popular off-piste ski courses, later founding the specialist ski training and guiding business Off-Piste Performance, as well as a company delivering Duke of Edinburgh training and assessment expeditions for schools. Alison continues to run both businesses successfully from her home in Kingussie, in the Scottish Highlands, where she lives with her husband James, an IFMGA Mountain Guide, and their daughter Abigail.

## PHOTO CREDITS

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This book would have been nothing without the use of suitable imagery to accompany the text. I have been fortunate to be able to work with professional photographers on this project, whose skill in skiing made this job so much easier as they already had an eye for what I was looking for. I am incredibly grateful for the patience of Daniel Wildey, for putting up with me saying, 'Can we do that once more', not just on one photo shoot, but two, after I decided that I looked far too pregnant in the photos from the first one, some of which did make the final cut for the book. Thanks to Fiona Morrison for being Daniel's assistant on our final photo shoot, and pointing out my errors! Thanks to Olly Bowman for committing to a day before I informed him that what I needed was 'shots of skiing in bad snow', when we spent the morning skiing all the snow that others were avoiding. Thanks to Paul Mason for being available at short notice to help with the equipment shots, and to Hamish and his team at Cairngorm Mountain Sports in Aviemore for giving us the use of their space and equipment.

Thank you to all those who were happy for me to use their images: Claire Bennet, Bruce Goodlad, Di Gilbert, Tom Hill, Paul "Skinny" Jones, Gregor Mclenan, George Reid, Jim Savege, Alan Scowcroft, Rachel Spraggs, James Thacker, Alistair Todd, Andy Townsend, Kelly VanderBeek, BASI and La Clinque du Sport.

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James Thacker exploring some of the steeper terrain on Ben Nevis, Scotland.  
📷 Jim Savege

## INTRODUCTION

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This book is about developing off-piste skiing performance so that skiers can travel more efficiently in the mountains and gain more enjoyment from the sport. It looks at essential skills, discusses key movements which are transferable from piste skiing, and looks at how these are varied depending on the ever-changing terrain and snow types. It is not a definitive manual, rather an exploration of ideas and themes which will form part of any skiers' learning journey.

### PARTICIPATION STATEMENT

The author and the publisher recognise that off-piste skiing is a sport with a risk of injury, or death. Participants in off-piste skiing should be aware of and accept these risks and take responsibility for their own actions.



## GOING OFF-PISTE

Embracing some challenging snow conditions on steeper terrain (photo ▲).

📷 Olly Bowman Photography

Enjoying some easy angled powder skiing (photo ◀).

📷 Daniel Wildey

Off-piste skiing in The Dolomites (photo ▼), Scotland (photo ▲) and Norway (photo ▶).

Off-piste skiing, a sport unique to the winter mountains, draws participants for many different reasons. The lure of off-piste skiing may be the challenge of physical activity, the buzz of speed, to explore new areas, to escape the crowds, for mental focus, to journey efficiently in the mountains in winter, or simply the sensation of executing the perfect turn. Whatever the aspiration, poor technique can leave off-piste skiers feeling tired, frustrated, and exposed to the risk of injury. In contrast, perform skilfully and you will save energy, be less prone to injury, have heightened enjoyment, and feel motivated and inspired to do more. This book aims to help all off-piste skiers (and those with a desire to become one) with downhill ski technique, whether it be your first time venturing outside of the piste markers or if you are an experienced ski mountaineer wishing to refine your techniques.



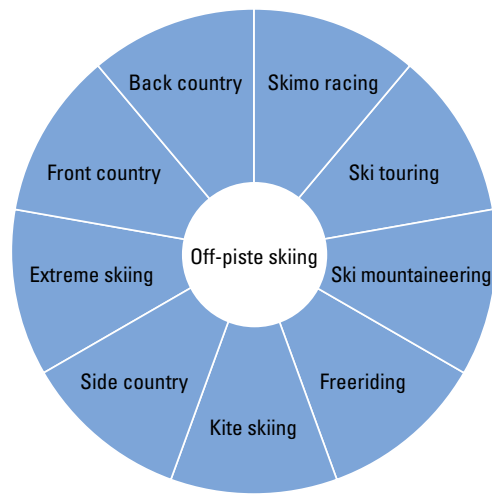
## WHAT IS OFF-PISTE SKIING?

Off-piste skiing is a winter sport best described as skiing that takes place away from marked ski runs. Marked ski runs are controlled and managed, and are most commonly defined by coloured marker poles down either side of the slope. When skiing within the marker poles, you are on-piste. When skiing outside of the marker poles, you are off-piste.

Off-piste skiing could take place just outside of the marker poles, but equally it could be in Antarctica, away from civilisation and ski lifts. Front country, side country and backcountry are non-specific terms used to informally describe off-piste ski environments, indicating how remote the off-piste skiing is from any marked ski runs. Whatever your interpretation of each of these terms, they all encompass off-piste skiing. Ski touring and ski mountaineering, where skins are used to ascend, both involve an element of off-piste skiing. As do freeriding and extreme skiing. Off-piste skiing isn't new, although arguably it has gained popularity with recent developments in equipment. At one time, all skiing was 'off-piste'. When marker poles and piste machines arrived, so did the term off-piste.

Many skiers find that off-piste skiing becomes their true passion as it allows them a form of self-expression and physical and mental challenges away from any constraints or perceived boundaries.

Off-piste skiing is involved in all the below activities, from being just outside of the marked ski runs to being on a remote ski mountaineering expedition.



The skiers in the foreground are off-piste, with pistes and ski lifts visible in the background.



Powder 'off-piste' conditions on a marked run, within the ski area boundary (photo ▲).



'Piste' conditions, with smooth grippy snow, outside of the marked ski runs (photo ▼).

It is often presumed that skiing off-piste means skiing powder in the depths of winter, and a velvety blanket of spring snow towards the end of the season. Unfortunately, this is not always the case, particularly if it has not snowed for many weeks. Instead, off-piste skiing encompasses every snow type that the weather and mountain can generate. An off-piste skier needs to become effective at skiing all snow types and terrain features.

When skiing between the marker poles it is sometimes assumed that the slopes will be pisted or groomed, having been smoothed by a machine. However, it is not unheard of to find snow conditions which are typical of off-piste, on the piste. This is common when there is a big fall of snow early in the morning without time for the runs to be pisted before opening. The deep powder found on-piste can quickly become bumpy due to the high volume of people skiing within a defined corridor, resulting in challenging 'off-piste' ski conditions within the confines of the marked ski runs. This is why an off-piste skillset can be beneficial even for those who don't intend to venture outside of the marker poles, and will lead to becoming a more diverse and accomplished skier, irrespective of where you wish to ski. It is also an excellent training opportunity to become familiar with different snow types, without having to worry about the additional hazards of skiing outside of the marked runs.

Conversely, 'piste' conditions can sometimes be found beyond the marked ski runs. This occurs most frequently when the wind has stripped any fresh snow away, resulting in a smooth, hard-packed, uniform surface to ski on.

It would be wrong to presume that when going off-piste skiing automatically becomes more challenging. This is not always the case. There are times when skiing off-piste is easier than skiing in between the marker poles. This can occur when pistes become icy through increased traffic and the snow off-piste is still firm and grippy. Also, this could be because the pistes are crowded and there is more space for skiing off-piste.

## MY APPROACH

My philosophy is that off-piste skiing is about going from A to B safely, efficiently and having as much fun as possible, whatever the conditions. There are many ways in which this can be achieved and what works for one person, may not work for another. At the heart of what I teach is the skier as an individual. I believe that any skier can go off-piste with the correct guidance and approach. In terms of technical skiing, the marker poles are often more of a perceived boundary than an actual one.

My thoughts and ideas have been developed over many years of seeing reoccurring themes and I strive to use simple, yet effective, language for potentially complex situations. I believe that there is often one solution to many problems, and equally, there can be many solutions to one problem. I have no intention for skiing to be learned solely from a book. Learning should be a holistic process, acknowledging that people learn in different ways. I believe and hope that this book will be part of the learning and development process for many.

Rather than perfecting individual techniques or turn types, I believe in blending appropriate movements for the desired outcome, leading to infinite possibilities. I prefer to think of movements rather than fixed positions. I'm reluctant to believe in 'bad habits'. More often it's a case of the wrong habit for the situation that results in ineffective performance. For example, a skier might perceive that they have a bad habit of facing their shoulders across the hill but, in some situations, this is a positive attribute. I encourage understanding when your 'habits' will help your performance, and learning some new 'habits' for the situations you find challenging. However, there are a few situations where I find myself saying "Don't do that," as the risk of injury is high, and these potential pitfalls are highlighted throughout the book.

In my view, all of the performance components (physical, psychological, equipment, environment, technical and tactical), which are discussed briefly in the next chapter, are of equal importance. However, the focus of this book is on the technical and tactical aspects as that is where my expertise and interest lie.

I hope that skiers enjoy the feel of skiing and develop an understanding of what feels effective, being less concerned by how their skiing looks. By developing an understanding of what feels good, we become able to respond to feedback that we get from the skis and the snow.

I believe that strong performances come through dedicated, appropriate and structured practice with clear end goals. But don't get bogged down, remember what it is all about. Take a moment to look around, enjoy the place that you are aiming to travel more efficiently in and enjoy the sensation of that perfect turn.

Alison teaching a few new habits.



## HOW TO USE THIS BOOK

This book is aimed at anyone who wants to improve their downhill off-piste skiing performance, whether it be the first time away from the piste markers, through to highly experienced off-piste skiers looking to develop their skills. It may also be useful to those who wish to offer guidance to other skiers. The book aims to use simple language and steers away from using technical terms, although reference is sometimes made to other terminology. It is hoped that it will be read with an open mind, by skiers who want to make changes.

It can be argued that skiing can't be learnt from a book. While that view holds some truth, this book would not exist if it wasn't thought to be of great benefit to all skiers. However, it must be acknowledged that this book is only part of the picture and it hasn't been written to be used in isolation. It should be used as a tool to aid progression alongside other learning methods such as plenty of purposeful practice, lessons and video analysis.

This book can be used in different ways. It can be used as preparation before undertaking lessons, or as a resource to refer back to after lessons and individual practice sessions. It can be used as a reminder of key points at the beginning of the season and as a reference book; referring to individual chapters when required. The book can be read from cover to cover, but there will be more value in referring to one element at a time, reflecting, practising, and coming back to it again. The book highlights the need to constantly change and adapt in order to be skilful in the constantly changing environment. It is not exhaustive. We are all different shapes and sizes and some adaptations will be unique to you. It is hoped that by reading the book, you will be more proficient at making changes and will be able to experiment to find solutions specific to you, so that you ski more efficiently and enjoyably.



Throughout the book are quotes from a diverse range of learners, from first-timers off-piste to ski instructors and mountain guides. These are their 'light bulb moments' when an aspect of off-piste skiing made sense for them, significant learning took place, and there was a huge leap forward in their off-piste technical development. It is hoped that these can be of use to other skiers, as they reinforce the key points and demonstrate where they have been put into practice on the mountain.



These are additional sections of information that might be of interest to some readers, and delve a little deeper into some subject areas that are mentioned briefly in the text.



Throughout the book there are a variety of different drills to practise on the hill. The drills are also good warm-up exercises.



These indicate significant points that will have an impact on safety and could result in injury.



"If I struggled off-piste, I used to find myself doing more of the same, thinking I wasn't doing enough and just needed to do more, do it better, do it stronger. I now know that if it's not working, I need to make a change. To a certain extent, it doesn't matter what that initial change is, but I need to try something different."

The underlying ethos of this book is about using techniques and tactics to improve and maintain control when skiing off-piste. Control is the core of skiing. Control allows the skier to control their speed and direction. Generally, a skier will feel satisfied with their performance if they have gone where they want to (control

of direction) and if they have travelled at the speed they want to (control of speed). In an optimum performance, the skier will have dictated the speed and direction. To achieve this off-piste, constant changes are required. Just as it feels that control has been mastered, the snow type may change and suddenly the next turn has not been executed as planned. In the off-piste environment, it is critical to regain control as quickly and efficiently as possible.

First, the Preparation chapter looks briefly at factors that can improve ski performance away from developing technical skills on snow. Essential Skills describes skills that are vital for skiing off-piste. Key Movements looks at movements that are transferable from piste skiing and have a huge impact on performance when skiing off-piste. The more familiarity and skill there is with these movements, the more they can be exaggerated and varied according to the terrain. Time spent ensuring these are well-dialled on-piste, will be time well spent. Turning describes two distinctly different ways of turning the skis, which can then be blended to adapt to the conditions. The book then looks at how to vary these key movements and turns for different types of snow and terrain, also taking into account poor visibility. Additional Skills covers tools which can further enhance performance and enjoyment. Lastly, the book has a chapter of Commonly Asked Questions. These mostly provide short answers and refer back to descriptions and drills in earlier sections of the book.



When skiers are confronted with a challenging situation, performance tends to drop as movements become inhibited. For example, if bending and stretching of the legs is required to absorb bumps, less bending and stretching tends to occur when faced with large bumps on a steep slope. Yet this is precisely the time when the movements need to be enhanced! In these challenging situations, when movements might be inhibited, envisage that you are likely to do about 50% of your movement potential, when in fact 100% would be optimal. Therefore, extensive practice with exaggerated movements is hugely beneficial. Practise with 150% and then 100% will occur when the movement is really needed.

*Practising drills is an excellent way to exaggerate movement patterns and help the movements to become ingrained.  
Do the drills to develop the skills.*



Performing drills both on and off-piste.



To gain maximum benefit, once rehearsed on-piste, drills should also be practised in a dynamic environment with constantly changing variables to make them directly relevant to off-piste skiing.

The difficulty level of all the drills can be increased in similar ways. The difficulty can be increased by any of the following methods or a combination of them, but ideally not all at once:

- Increase the gradient of the slope.
- Increase the speed at which the drill is being performed.
- Change the terrain / snow type.
- Challenge balance, e.g. do the drill without poles, with boots undone or with eyes shut.
- Add a competitive element to the drill.

If the drill is to be done without poles, and it's not possible to leave your poles at the bottom of the slope, they can be carried between your rucksack's straps.

If the drill can be achieved first time, then the level of challenge needs to be increased. The difficulty level should be increased gradually to a point where the drill is not easy and where you are initially unsuccessful at it, but the challenge is not too great, such that there is no hope of success. Drills are also a worthwhile way to spend time when the weather is bad or there are only a few runs open.



Storing poles for doing drills without poles.



"Every season I give myself the goal of trying to be successful at a drill that, at the start of the season, I cannot do. I'll try and have a little practice every time I go skiing, even if only for 5 minutes. Last season, the goal was to be able to ski on one ski by the end of the season. Not only did this keep me motivated when conditions were sub-optimal, but it also gave me concrete evidence that I was becoming a better skier, which in turn boosted my morale and motivation."

**A word on photos**

There are numerous photos throughout the book. The majority of photos highlight good movements. However, in a few cases, photos have been used to illustrate poor technique, which are the few things that could be classed as 'bad habits', where there is a likelihood of falling or risk of injury. For clarity, these have a red cross next to them.

Many of the photos have been taken on-piste so that the feet and skis can be seen clearly.

While photos are used here to illustrate key points, it is not recommended to use photographs as a way to analyse your own performance. Plenty of bad photos are taken to get one good one! Video is a much better alternative as it shows the movement rather than a still position.

**SAFETY**

The complete off-piste skill set extends far beyond efficient downhill technique. Off-piste skiing can be a hazardous activity and appropriate steps need to be taken to reduce the associated risks. Steps taken will include:

- Checking the weather forecast for the area.
- Checking the avalanche forecast for the area.
- Developing an appropriate level of avalanche awareness and avalanche rescue knowledge.
- Having the knowledge and equipment to navigate in the winter mountain environment, away from marked runs.
- Checking local reports of conditions via resources such as ski patrol, websites and social media feeds.
- Carrying the necessary equipment.
- Knowing how to raise the alarm for rescue.
- Ensuring you have the appropriate skill level for the chosen location. This may involve undertaking training courses in mountain safety.
- Developing knowledge of the terrain (specialised equipment and skills are required for skiing on a glacier).
- Developing knowledge of the non-technical skills that underpin sound decision-making.

Avalanche hazard information displayed within a ski resort (photo ▼).

Numerous mountain skills are required for skiing safely off-piste. This book only covers technique for descending off-piste (photo ►).



These safety aspects are outside the scope of this book as they are comprehensive subjects in their own right. They are covered in detail in Bruce Goodlad's book *Ski Touring: Essential knowledge for off-piste, back country, ski tourers and ski mountaineers*. It is recommended to undertake a winter mountain safety course before venturing off-piste for the first time and undertaking regular training to ensure your skills are current. Consider hiring an IFMGA Mountain Guide or suitably qualified ski instructor when skiing off-piste, particularly if skiing in a new area or undertaking objectives that exceed your current skill set.

Safety is of paramount importance and an important factor to consider when creating a suitable environment for learning. For example, you should not be worrying about where your off-piste run is going or if the snow conditions are stable, while trying to focus on technical development. Distractions need to be limited in order to be open to absorbing new techniques and to focus on practice. Addressing safety factors will significantly reduce many potential distractions. The key is to ensure safety factors are addressed, not ignored.

**OFF-PISTE SKIING GRADES**

Pisted runs are allocated colours to indicate their level of difficulty, ranging from green (easy) through to black (difficult). This is the usual approach although it is not standardised across all ski resorts. There is no such system for off-piste skiing. Due to the dynamic nature of the environment, an off-piste run that seems easy one day might become more challenging in different snow and weather conditions. Some organisations, guidebooks and map publications have developed their own grading system for off-piste runs. This is helpful for planning when comparisons are made within one system.

A good example of this is Strava, an app for planning, recording and discovering outdoor sports. Strava has its own grading system for off-piste ski runs, giving a rating for difficulty, exposure and remoteness, alongside detailed mapping with a gradient overlay.

Vamos produces an excellent set of guidebooks with English translations for the off-piste areas within, and close to, the major French ski resorts. These have a grading system for difficulty and seriousness.

Strava and its grading system (photo ▼).

Vamos guidebook for L'Alpe D'Huez, Les Deux Alpes and La Grave (photo ►).



Skiing in La Grave, lift-accessed off-piste skiing.



In some ski areas itinerary runs are marked on the piste maps. These are runs that are marked with poles and are controlled for safety but are not pisted. Itinerary runs are a good way to develop off-piste ski techniques within the confines of a managed area.

There are also a number of ski lifts which access areas with no marked pistes, leaving the majority of the ski area wild and natural. These are unique, command respect, and need to be treated as unmanaged off-piste. A good example of this is La Grave in France, which has become legendary as an off-piste skier's paradise. Here there are routes but not runs. These should only be embarked on with proficient downhill technique and all of the skills listed in the safety section, or alternatively, with an IFMGA Mountain Guide.

It is essential to find the right slope for the desired level of challenge or practice, and to recognise that conditions on this slope will change from day to day, or even hour to hour.



The skier is currently enjoying an easy angled wide-open space, but is mentally preparing for steeper slopes beneath the convexity, which the skier can't currently see.

## TERRAIN VARIATIONS

Groomed slopes tend to follow the natural fall line of the mountain and avoid dips and gullies which may be challenging to the skier. Also, the ground surface is sometimes landscaped in the summer months, resulting in a smooth and uniform slope to ski on. In contrast, no such management is done off-piste, with the snow falling onto an unprepared surface. An off-piste skier needs to be able to adapt their skills to deal with whatever terrain is encountered. There are many potential variations, but they will mostly fall into one of the categories that follow. Each category is looked at in isolation, showing how skiing skills can be adapted to fit whatever terrain changes you are faced with. However, within one off-piste descent, many of these terrain features will come in quick succession, highlighting how versatile and adaptable the off-piste skill set needs to be.

For example, imagine the following descent. The run may start as a wide-open snowfield, and then the slope disappears in front of you over a convexity, giving uncertainty as to what comes next. On approach, you discover that the steepening slope is channelled into a narrow gully. At the exit of the gully, you arrive at the treeline and have to ski between closely spaced trees. Then you pick up a narrow path to take you back to the lifts.

Within this one descent, lots of variations are required to maintain a feeling of flow and rhythm. By reading the description above, you have already undertaken one of the key practices, which is to visualise what you might expect to happen over the whole run. Depending on how the off-piste descent is accessed, there may be opportunities to use the uphill travel time to prepare for the downhill. While riding the chairlift, or skinning uphill, have

a look at what is to come. Visualise yourself making changes, adapting to the terrain in front of you. The changes will appear fast when skiing, so visualising the changes in advance allows the run to be rehearsed in slow motion.

## STEEP

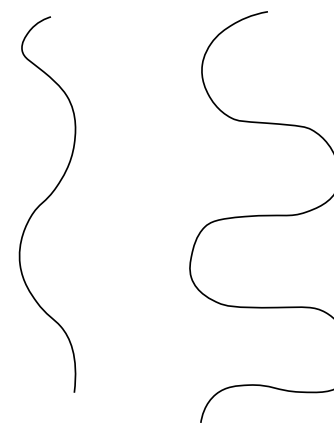
Rather than put a defined gradient on what is described as steep, think of steep as anything that makes your heart rate increase because of the gradient in front of you. This will be different for everyone, and may mean something different to the same person, on the same slope, but on another day. A slope might not feel steep when it is covered in fresh powder, but come back another day when it is icy and it will feel completely different, perhaps feeling steep when previously it did not. The same skill set needs to be deployed when a slope 'feels' steep, rather than necessarily is steep. For most skiers, this means keeping the speed down, maintaining a feeling of control and knowing that you are turning the skis when and where you want to.

*"The basic principle is keeping your speed down. The risk of falling is much greater on steep slopes, so it is extremely important to keep your speed to an absolute minimum when initiating a turn."*

Anselme Baud 2002 (IFMGA Mountain Guide and pioneering extreme skier)

Working with this principle, the skis need to be turned without gathering much, or any, speed. Therefore, twisting the skis is fundamental to success on steeper terrain. If the skis are turned in a small space, you will gather less speed. Hence there are huge similarities between techniques for steep terrain and for narrow terrain, and often what is steep is also narrow. The key to success is practising these turns before they are required, and that requires significant discipline and motivation.

'Steep' can mean different things to different people.



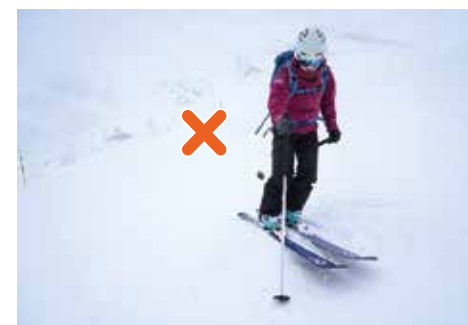
The skis are not coming perpendicular to the fall line on the line on the left, but they are on the right. Spend time practising skiing the line on the right to ensure you are good at balancing through the end of the turn.

### Practice perpendicular

One of the first things that will occur when faced with steep terrain, is that skiers bring the skis perpendicular to the slope at the end of the turn, to control speed. This is a good thing to do, and an effective way to control speed. However, it is less common that skiers ski this sort of line when on terrain that isn't steep, as it takes much longer to get from A to B. Therefore, skiers are less familiar with the body movements required to stay in balance at the end of the turn when the skis come perpendicular to the slope and can find themselves out of balance at this point. Spend time practising skiing a line where the skis come perpendicular to the slope as part of your training. Try some of the drills in this book skiing the same line.

### Pole plant position

Pole plant position is crucial on steeper ground. Stand with your skis perpendicular to the slope. Reach behind to plant the pole near the back of your bindings, opening out the shoulder joint. This turns your body to face downhill, gives space for your skis to turn, and allows space for the movement of bringing your hips in front of the feet. Notice that the skis will start to twist of their own accord if the pole plant is in this place. It's worth contrasting this with the counter movement of pole planting near the front of your skis. Notice how this turns your body into the slope, blocks the possibility of moving the hip forward and does not contribute to getting the skis to turn.



This pole plant is hindering performance in steep terrain. The pole plant is blocking the key movement of moving the hips forward, blocking where the skis need to turn and has turned the body to face up the hill.



This pole plant is helpful to performance in steep terrain. The skis have space to turn in a small area. The body has been turned towards the fall line. The hips can move freely in front of the feet.

Ensure the pole plant position helps, rather than hinders the performance. The great thing about the pole position is that this can be thought of when stationary in preparation for the turn, giving time to experiment with different positions and understand their implications.



“I used to traverse a steep slope, reach forward to near the tips of my skis, pole plant determined to turn, and then decide not to turn. I thought the pole plant would help me to commit to the turn, but it didn't. I would repeat this a few times before I found myself at the edge of the steep slope, on the steepest part, and still not able to execute a turn. I changed where I pole planted to behind me, and then I found that my pole plant helped me commit to the turn as the skis started to turn when I pole planted. I now think of pole planting 'forward' as pole planting down the slope behind me, rather than near the front of my skis.”

**Body momentum**

The key movement of moving forward into the turn is critical to success on steeper terrain. It ensures that the skis can be turned quickly and easily from the fall line to across the slope, as it's the moment when the skis are in the fall line that most speed will be gathered. The steeper it is, the faster and more dynamic the movement forward into the turn needs to be. The body should have lots of momentum, and the skis little momentum. Try doing an extra little sink down before bringing the hips across the skis, as this makes the movement more dynamic.

**'C' shape, 'C' shape, 'C' shape**

'C' shape is essential to being balanced over the outside (lower) ski at the end of the turn and staying in control. As shown earlier in the book there are a number of ways to maintain 'C' shape. On steeper terrain aim to have a trigger word that helps you to exaggerate this position. Here are some suggested ones.

- Top hand high
- Bottom hand low
- Squeeze (rib cage and hip bone together on downhill side)
- Stretch (on uphill side)
- Tilt

Maintaining good balance over the outside (lower) ski at the end of the turn on steep terrain. Have a trigger word to help you to achieve this.



This is a highly proficient skier who is getting into their 'C' shape position really early in the turn, so that they will already be in it by the time the skis come perpendicular to the slope.



**Skis on the snow**

The skis should be kept on the snow, if at all possible, while twisting them. At first this can feel hard, and the instinct may be to jump, but with pole planting behind and developing twisting skills, this will be the most efficient way to turn in a small space, or on steep ground. Jumping requires a lot more effort and accuracy, and puts a greater load on the slope and body. If the skis are 'on' the snow rather than in it, take full advantage of these conditions and aim to twist the skis on the surface.



**Turn in a Box**

This is a great drill for practising turning in a small space without gathering much speed. It is rarely done enough and is excellent for gaining confidence for steeper terrain. Draw a small box and try to turn your skis without coming out of the box, either at the sides or the bottom. Try turning the skis in the space with a jump. Notice the effort that is required to do this. Now try doing the same but keeping the skis on the snow. Keeping the skis on the snow will feel far less tiring, and will therefore be easier to replicate turn after turn down a long slope. It does take practice though!

Exercise of turning in a box, which is excellent to gain confidence for turning in a small space and is helpful for both steep and narrow terrain.



# OFF-PISTE PERFORMANCE

## A PRACTICAL MANUAL

Want to improve your off-piste skiing? Whether it's your first time off-piste or you are an experienced skier, this book will help develop your skills, fine tune your performance and take your skiing to the next level.

From essential skills to more complex movements, this manual provides tactics for all types of snow and terrain encountered off-piste. This, combined with drills to practise both on and off-piste, will help you achieve optimal performance.



**ESSENTIAL SKILLS**

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**KEY MOVEMENTS**

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**DIFFERENT TYPES OF SNOW**

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**POOR VISIBILITY**

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**DRILLS TO PRACTISE**

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**LIGHT BULB MOMENTS**

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**ADDITIONAL SKILLS**

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