



Subject: **The Cool Ones**

Instructional Support

A Review of Texts on the Topics of Ice Climbing and Glacier Travel

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Early snow and ice climbs were either technically easy or exercises in the art of step cutting, which on a long steep face could be a most daunting prospect. Hobnail boots helped, but did little to radically alter the difficulties that could be tackled. With the advent of crampons ice climbing took off and became a calling unto itself. Then came front points and ice axes with teeth and another revolution ensued.

With each ensuing improvement in equipment came a corresponding quantum leap in technique. Ice screws, curved picks, drooped picks, curved shafts, all helped to accelerate the pace of development of this "sport".

In the past three decades, the massive technological advances in equipment and techniques have continued. Ice climbs that were considered impossible soon were possible as multi-day climbs. Then these impossible climbs were done in one day. Now several are often "enchained" by masters of the genre as solo climbs in one day.

In the last half of the decade of the 90s, the new rage became pushing the frontier of mixed climbing. Somewhat akin to summer sport climbing, many new extreme mixed climbs are short, have bolted protection and represent the epitome of the art of movement on mixed terrain.

The pace at which new equipment is coming onto the market also continues to attest to the popularity that the sports of ice and mixed climbing, once reserved for hard-core and lunatic climbers, enjoy.

Here then is a survey of recent books on

glaciers, ice and/or mixed technique including a few added for historical perspective. The list is not exhaustive and the descriptions are brief. Some of the less comprehensive new books are not included. Texts are listed in order of date of publication.

West Coast Ice: The Climbers Guide, 2nd edition by Don Serl, published by Elaho Press, 2005. This is the West Coast (Canadian) equivalent of *Waterfall Ice* in the Canadian Rockies. This latest edition of the classic guide to the ice-climbs of Southwest British Columbia lists over 430 climbs. If you climb on the West Coast, what are you waiting for?

Mixed Climbs in the Canadian Rockies, 2nd edition by Sean Isaac published by Rocky Mountain Books, 2004. This second edition describes 295 mixed rock/ice climbs from M4 to M12. The routes vary from runout horror shows to bolted "sport mixed" routes.

Glacier Mountaineering: The Illustrated Guide to Glacier Travel and Crevasse Rescue, 2nd edition by Andy Tyson, illustrated by Mike Clelland, edited by Michael Kennedy, published by Climbing Magazine, Carbondale, Colorado, 2004. The name says it all. Using well drawn caricatures or cartoon style figures, the authors illustrate a vast arsenal of equipment and techniques to use when traveling on glaciated terrain. As with the previous book, once again the authors have a bias toward systems and techniques common in the USA, but even with that, few issues of major contention can be found and even fewer

mistakes. My only real complaint is that the authors consistently show the roped being clipped into both the waistband and leg loops of a climber's harness. This practice should be discontinued and the climber should clip into the belay/rappel loop instead when using carabiners to clip onto the rope for glacier travel. This book could have benefited from several photographs (perhaps a dozen) to augment the hundreds of great drawings. Otherwise, this is an excellent choice for a supplement to hands on glacier travel training. It may be a bit overwhelming for the absolute beginner, but it is a most excellent review for intermediate or higher level mountaineers. It does not contain any information on ice climbing for which some of the other books in this review should be consulted. One of the best buys!

The Outdoor Knots Book, 1st edition by Clyde Soles, published by The Mountaineers Books, 2004. This book has nothing to do with glaciers, snow or ice climbing but is such a valuable reference on knots and rope that I chose to include it here. It is a must have for any serious climber. Buy it for yourself or someone you love.

Alpine Climbing: Techniques to Take You Higher, 1st edition by Mark Houston and Kathy Cosley, published by the Mountaineers Books, Seattle Washington, 2004. Another new and worthwhile book published by the Mountaineers. The production is not quite as good as Will Gadd's *Ice & Mixed Climbing*, but the information presented is equally as impressive. This book fills a long-standing void in the body of work on alpine climbing. It covers gear and technique for getting up and down the alpine projects of the world in a safe and timely fashion. Mountain guiding techniques influence the book throughout as illustrated by the fact that it covers short-roping and several systems of crevasse rescue including the 6:1 dropped loop often missing from other texts. Hazards, preparation, routefinding, technical skills, they are all there. That being said, this is NOT a book for beginners. If you are ready to move onto the bigger peaks and have a good solid foundation in basic mountaineering and a fair amount of experience then this is the book for you. Another best buy.

Ice & Mixed Climbing: Modern Technique, 1st edition by Will Gadd, photography by Roger Chayer, published by the

Mountaineers Books, Seattle Washington, 2003. One of the newest and perhaps the best produced book in this review. It sets the standard for production value. The photographs and drawings are unmatched and provide excellent illustration for Will Gadd's unerring wisdom on how to climb on this emerging medium. Will is a master of the genre and provides tips for how to climb, how to rig systems, how to train, what to bring and how to avoid many common disasters. This book is a one trick pony in that mixed climbing is all it addresses; no glaciers, no alpine, just mixed. This is without doubt the best buy if you are moving into mixed climbing. Bravo!

Mountaineering: The Freedom of the Hills, 7th Edition, edited by Steven M Cox and Kris Fulsaa, published by the Mountaineers, 2003. How is it that one of the best ice climbing books is not dedicated to ice climbing at all, but is rather a general text on mountaineering? The answer is simple. The mountaineers periodically review their text alongside most of the other books and when appropriate decide to update various sections by revising old techniques or adopting new ones. That was certainly true in the last two editions. The result is that, in my opinion, you cannot currently get a better book on mountaineering instruction. If you are going to get a book on ice climbing you should get *Freedom* first, as the ice climbing section is very respectable, plus you get everything else at the same time. In addition, there is general information on avalanches, weather and much more. Some of the few shortcomings of this book is that it has limited coverage of the revolution in mixed climbing technique (get Gadd's book), It has a very "American" perspective on things, it does not include the 6:1 dropped loop system of crevasse rescue or provide information on shortroping. Be that as it may, if you do not have this book by now, you should!

Waterfall Ice, Climbs in the Canadian Rockies, 4th edition by Joe Josephson, published by Rocky Mountain Books, 2002. The current guide to where to play in the Canadian Rockies. This guide covers both the Alberta and B.C. sides of the Canadian Rockies from the U.S.A. border to Grande Cache. Approximately 800 routes of which 320 are new to the 4th edition. If you are going to climb in the Canadian Rockies, buy it now!

Glaciers! The Art of Travel and the Science of Rescue, 1st edition by Mike Strong, Eck Doerry and Ryan Ojerio, published by Globe Pequot Press, Guilford, Connecticut, 2001. The most recent of three small books (from different publishers) on this topic, this Falcon guide is part of the "How to Climb Series" and is a good blend of technical information and illustrations. Using a combination of photos and drawings, the authors illustrate numerous techniques to use when traveling on glaciated terrain or performing crevasse rescues. There is an obvious bias toward a particular set of systems and techniques common in the USA, which is not necessarily a problem if you remain open to learning from other sources as well. A few issues of contention can be found in the areas of belay technique. This is a very good book to use as a supplement to hands-on glacier travel training. It does not contain any information on ice climbing for which some of the other books in this review should be consulted. One of the better buys.

and only a few contentious issues made their way into the text. A best buy for budding serious alpine and waterfall ice climbers!

Glacier Travel and Crevasse Rescue, 2nd edition by Andy Selters, published by the Mountaineers, Seattle, Washington, 1999. This book separates out the glacier travel skills from the greater body of mountaineering knowledge. In five chapters, it covers glacier hazards, travel techniques, rescue techniques and skiing & hauling sleds. Most of the material is now found in other texts and in my opinion this book is superceded by the two newer glacier travel books listed in this review. The version of the hauling ratchet shown and the technique for aiding a victim in a crevasse are two items that prior to the first edition of this book (1990) had not been addressed in other books. There are other crevasse rescue systems that I thought should have been addressed more fully, including the 6:1 dropped loop system that is the rage in Canada. The Abalakov (ice hourglass) and ski anchors were also neglected. It is an easy read and the diagrams are usually clear and self explanatory, however the diagrams showing a tension release mechanism are difficult to follow. Given the other options available, this is no longer my first choice on the topic.

Technical Handbook for Professional Mountain Guides, edited by Karl Klassen, published by the Association of Canadian Mountain Guides, 1999. This book contains 8 major sections on the craft of mountain guiding. It is primarily concerned with the technical aspects of guiding and is the only current source for some of the guiding techniques shown. There are sub-sections which deal with almost every conceivable ice and glacier related topic. The instructional text, diagrams and photos are usually clear and easy to follow. There are very few mistakes in this manual and those that exist are minor in nature. The manual's intended audience is professional mountain guides and aspirants who are already highly skilled and experienced. For this purpose, it is the best manual available. It has gathered accolades from around the world and has been adopted by the American Professional Mountain Guides Association in the USA. Those new to climbing and anchors systems may find there is a vast amount of basic or beginner level material lacking, therefore I would not recommend it as an introductory manual. A best buy for advanced

Basic Mountain Safety from A to Z, 1st edition by Leslie Johnson, published by Altitude Publishing, 2000. This book is not about ice climbing, alpine mountaineering or crevasse rescue but simply a general text on year round mountain travel. It is included here as it is a great introduction to anytime mountain safety. Of mountaineering and winter interest are the sections on avalanches, frostbite, glaciers, hypothermia, and snow covered terrain. Take a look and buy it for a young budding mountaineer before they can get into trouble. Then buy them the more serious texts once they have digested the wisdom in this little gem!

How To Ice Climb, 1st Edition by Craig Leubben, published by Falcon Publishing, 1999. This is likely the best of a large number of small books that have recently come out to cover the new and old techniques for hard ice and mixed climbing. This Falcon guide is part of the "How to Climb Series". This book does a very good job of covering technical ice climbing from technique to anchors and includes both one and two rope techniques. It covers both alpine and waterfall ice environments, but does not cover glacier travel and crevasse rescue. It should be paired up with one of the two preceding texts for the most complete treatment of the snow and ice world. Great side bars from other experts add value and the section on equipment testing is enlightening. Very few mistakes can be found

climbers and leaders!

Ice World, *Techniques and Experiences of Modern Ice Climbing*, 1st Edition by Jeff Lowe, published by Rocky Mountain Books, 1996. This glossy work was one of the first books to cover many of the newer techniques for extreme ice and mixed climbing, written by one of the masters of the art. The section on glacier travel and crevasse rescue is thin and one of the weakest in the book. Anecdotes and "Loweisms" abound. This latest offering provides a brief history, stories of state of the art routes and instruction on how to do it. The book has two companion videos, one on Waterfall Ice, the other on Alpine Ice. Buy the book, forget about the movies (or perhaps just rent them). They are only worth watching once and would have been better served by employing a professional narrator. The videos need work!

Alpine Climbing, 1st edition by John Barry, published by Cloudcap Press, 1988. Another selection that is a bit out of place in an ice climbing list, this book is very much what its name implies, a treatise on alpine climbing. Technical snow and ice skills are included, but only as part of the greater body of the alpine craft. Crevasse rescue, short roping, rescue, avalanches and much more are discussed with an eye toward reaching the high summits. You will immediately notice the strong British and European flavor in this work. I have turned away from many books for this reason, but this book led me on, for alpine climbing came from the Alps, and my first alpine climbs in the Rockies were inspired by stories of epic struggles and even death in the high places. This study of alpine techniques will help to get you there in one piece. It is not quite in the same class as Houston and Cosley's 2004 classic *Alpine Climbing: Techniques to Take You Higher*.

Snow and Ice Climbing, 1st edition by John Barry, published by Cloudcap Press, 1987. This ice climbing text is a reasonable guide to what was then current techniques, and as with all of Barry's books, a British accent prevails. This is one of the few books to show short roping (albeit slightly differently from common practice in Canada) and the T - axe or Saxon Cross belay. It has faults, as do the remaining books on this list. As with many of the works before it, the entire topic of crevasse rescue and glacier travel is ignored (perhaps due to the lack of glaciers in Britain or perhaps because they

are covered in this author's work *Alpine Climbing*). It was once worth picking up as an alternate perspective once you have purchased *Freedom of The Hills* but may not be hard to find.

Modern Snow & Ice Techniques, 2nd Edition, by Bill March, published by Cicerone Press, 1984. This outdated tiny paperback is not in the same class as the other choices, but it can be recommended as an inexpensive historical perspective on things. One or two questionable items are included, such as retrieving an ice screw or ice axe after a rappel. Try things like this out in a safe place to find out their short comings before risking your neck on a climb. Glacier travel is also excluded here. Sadly this book will not see a third edition as Bill died of natural causes. Out of print and hard to find.

The Ice Experience, by Jeff Lowe, published by Contemporary Books Inc., Chicago, 1979. The precursor to *Ice World* and only included here because this was probably the best specialized text to come out on ice climbing in its' day. It adequately described the state of the art at the time of its' publication. Not only geared toward the "hard men", this book covers the basics as well as techniques for climbing the hardest waterfall routes imagined at that time. This book is well produced and written by a man who's been there. Its downfall is that it does not cover glacier travel, crevasse rescue and related concerns. If you find one on sale at a used book store, buy it for the unique late 1970s perspective it offers. Out of print and hard to find.

Climbing Ice, by Yvon Chouinard, published by Sierra Club Books, 1978. Another hard to find book with historical interest. Yvon Chouinard did as much to advance North American ice climbing as any other person. This is a good coffee table book with numerous glossy photos and a humorous anecdote to begin each chapter. A number of things seem to have been taken for granted when this book was written; namely that you should know what you are doing before you read it and that you do not fall! Some of the advice given in this book could have led inexperienced persons to grief if they didn't use caution. This book did incite many to break the barriers of the 70s and 80s by espousing a style of super lightweight, "go-for-it" adventuring. You were told to do such things as leave some of the essentials behind to increase

your speed but decrease your safety margin. This was good advice for the experienced alpinist, but certainly not for the neophyte. For those who took such things with a grain of salt, this book was a welcome addition. A very fine book worth owning. Out of print and hard to find.

Icecraft, by Norman Kingsley, published by La Siesta Press, 1975. One of the first comprehensive, ice - specific instructional books to come out. Unfortunately a number of errors in technique and information made their way in. If you are not rich put your money on the newer choices. This older book has some good sections but is not recommended. Out of print and hard to find.

On Snow and Rock, by Gaston Rebuffat, published Nicolas Vane, 1959 (English version 1963). Step back into the late 1950s with this well illustrated classic on what was then state of the art. Ten point crampons, French technique, straight picks with no teeth on long wooden ice axes, cutting steps and placing spooky ice pitons was how it was done back then. If you really think you are good, try one of the standard "easy" ice routes with the gear shown in this book. You will no longer think that boldness is a quality unique to modern climbers. The word bold was invented for ice climbs in those days! Excellent photography in a splendid old book. Out of print and hard to find.

Special Note: There have been a number of

recent advances in the body of knowledge regarding ice climbing protection. Ice climbers should seek out the November / December 1997 issue of Climbing Magazine (number 172) and read the article *Can You Trust Ice Pro?*, by Craig Luebben. *Myths, Cautions & Techniques of Ice Screw Placement* by Alex Lowe circa 1997 can be found on the Needle Sports website and gives quite sound advice on how to apply the research regarding positive versus negative angles of screw placement. Similarly the 1998 Black Diamond catalogue describes current thoughts on ice protection and it's capabilities. Murray Toft presents an opinion in his 1998 book *Playing It Safe*. (Lowe's synopsis may be the best of all.)

Be careful how you interpret the information presented, as many feel that the recent tests and information presented in some of these articles and mentioned in Luebben's book *How To Ice Climb!* as well as others have not yet been repeated and sufficiently verified with additional studies regarding strength and failure of ice protection. A conservative attitude is likely best in this regard.

Most recently a very interesting research project gave differing results from anticipated. It is worthwhile to download and digest *Simulating and Testing Ice Screw Performance in the Laboratory*, Spring 2003 by Warren Bennett & Stefano Alziati. Much food for thought is presented.

About the Author: Cyril Shokoples is an internationally certified Mountain Guide and is a Past President of the Association of Canadian Mountain Guides. He has been a member of the Alpine Club and Edmonton Section since 1975. He became a Senior member in 1979 and received the Silver Rope Award in 1988. He received the Distinguished Service Award from the Alpine Club in Canada in 2002. He subsequently received the Distinguished Service Award from the Association of Canadian Mountain Guides in 2003. He received the George Stefanick Legacy Award from the ACC Edmonton Section in 2005.

Cyril Has been ice climbing for thirty years and has numerous first ascents to his credit on both summer and winter ice routes. He currently resides in Edmonton and is the proprietor of the firm Rescue Dynamics, which is involved in climbing, rescue and safety instruction, as well as mountain guiding.

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