BOOK REVIEW

The Avalanche Factor

REVIEW BY ROB COPPOLILLO

Since 2008, when Bruce Tremper's excellent title *Staying* Alive in Avalanche Terrain appeared, it's been easy to tell friends and former students to review it each fall, to reactivate their "avy brains." Wise advice, but this fall I began adding another title to my recommended reading: Joe Stock's The Avalanche Factor.

COLORFUL, WISE, AND DENSE

Factorreminds me of Joe Stockhimself—the book is full of stories, a ton of information, lots of hard-earned wisdom, and it is dense. No, no, I don't mean Joe Stock is dense in a pejorative sense—I mean he has a ton to share. Stock has been an internationally licensed mountain guide since 2009 and lives in Anchorage,

Alaska. He's done everything from clip bolts on French limestone to skitraverse the entirety of the Tordrillos and Neacolas in Alaska to summit glaciated peaks in New Zealand, all the while shooting photographs, amassing experience, and weaving fun tales along the way.

The Avalanche Factor captures all this. It's colorful, with hundreds of photos of avalanches, people, and mountains (309 photos and 45 graphics over 304 pages). Stock has adapted graphics from other sources and designed his own. Nearly every concept or idea has a photo or a chart/table/graph to further illuminate the idea or topic. At first pass, I thought to myself, Woh, this must have taken a lot of work.

And Stock did it all himself, laying out the book, copy-editing the thing, indexing it, and publishing it. (Full disclosure, I proof-read some early chapters and provided feedback.)

If there's an overall strength of the book, I'd say it's Stock's 30-plus-years of experience as a guide, climber, and educator. He can deep-dive into nearly every topic. He shares his deep knowledge through diverse and effective presentations - visual learners will benefit from notated photos, while the text provides clear explanations, without excessive jargon or technical blathering. Stock's parents were academics and (he tells me) his mother is quite a stickler for clear-headed writing. It shows!

For example, in chapter 5, "Problems and Danger," every avalanche problem gets its own heading and explanation, with a color photo (or two) to complement the description. In chapter 10, "Rescue," Stock delivers not only the familiar stick-figure illustrations we all know, but also a photo of a skier probing with the probe pattern laid over the photo itself. Between text, graphics, and photos, he delivers information in a digestible format catering to a variety of learners. Factor is the most visually appealing avalanche title I've seen to date.

WHAT'S NEW

But still—even beyond Tremper's Staying Alive, there are bunches of online (video and multimedia) and textual avalanche resources. Do we really need yet another book?

First off, I think Stock's work sets itself apart by aggressively curating some of the latest trends in application and craft. For example, Factor tackles the new 0-5 ATES scale, including the adapted version for waterfall ice climbing (page 226), complete with an illustrative photo, courtesy of pro-photog Tim Banfield, of a big route with real avy hazard.

Unique to the book is an entire chapter devoted to "Margins for Safety." As avalanche pros, we discuss this concept constantly, but Stock does a good job of developing the idea of managing uncertainty through concrete,



actionable behaviors and habits, for recreationalists and pros alike. It's a modern take, blending ideas from the European reduction method and expert terrain usage, sprinkled with a bit of psychology, too.

Chapter 8 introduces "The Avalanche Avoidance System," Stock's take on incorporating and applying the forecast and observations to plan and execute an appropriate tour. I appreciate that he devotes an entire chapter to a straightforward, integrative system, back-linked to the content of his previous chapters. The real challenge in the age of social media, real-time webcams and weather stations, endless apps, and crowd-sourced data is one of competence, rather

than ignorance. Stock recognizes that ample information exists these days; the trick now is integrating it into an actionable system.

QUIBBLES?

Sure, as with any title, there are things I'd do differently. I would have appreciated a bit more on mindset. Stock indeed takes Roger Atkins's idea, adapted through Colin Zacharias for recreationists, and incorporates it to his system. That said, I would have developed the idea a bit more and explained to an unfamiliar user (as most backcountry recreationists still are to the concept) why and how mindset can be such a powerful tool for our days in the snow.

The propagation saw test (PST), too, is still largely misunderstood by American rec practitioners, I think. When discussing deep persistent problems, or a snowpack with an ice layer or P-K midpack, I think Factor could have presented the PST in a bit more detail as the appropriate instability test for particular situations, such as weak layer tracking, not to mention its applicability in general conditions, too.

What else? Jeez, I'm trying to throw out some criticisms, so I don't seem biased. I'm friends with Joe and I really respect his guiding and approach to teaching. OK, if I'm really thinking on it, there's no info on sled-necking or mechanized recreation in Factor. And yeah, the sheer density of the book presents its own challenge, especially to someone new to the game. Some coaching/mentorship in digesting so much information seems warranted.

BUY THIS BOOK

In the end, Factor should be on your bookshelf. I'm recommending it to students, knowing that while it's a lot of info, it's an engaging, authoritative, fun, accessible resource geared towards avoiding avalanches. It represents an updated, modern system—and I think that's important—that any backcountry user can adopt and execute in her/his practice. Kudos to Joe Stock for undertaking such a labor of love and pulling it off with elegance.

> ROB COPPOLILLO owns Vetta Mountain Guides, is an IFMGA mountain guide, and a writer. He lives in West Seattle with his minxy wife, Rebecca, and their twin boys, Dominic and Luca.