Over the Edge: Death in the Grand Canyon

Michael P. Ghiglieri and Thomas M. Myers
 Flagstaff, AZ: Puma Press, 2001
 US \$34.95, hardcover, US \$22.95, 424 pages,
 softcover

Fateful Journey: Injury and Death on Colorado River Trips in the Grand Canyon

Thomas M. Myers, Christopher C. Becker, and
 Lawrence E. Stevens
 Flagstaff, AZ: Red Lake Books, 1999
 US \$20.00, 178 pages, softcover

There is something about the vastness of the Grand Canyon that seems to inspire audaciousness. How else can you describe 9 inexperienced boatmen running the pre-dam Grand Canyon in the 1860s? Or the idea of building a railroad along the base of the Grand Canyon. In its own way, *Death in the Grand Canyon* is equally audacious. How else can you describe a book that deals with every death in the canyon from the 1860s to the present while commenting along the way on air traffic regulations, boating safety, and even wilderness medicine? The stated aim of the book is to find what lessons can be learned from Grand Canyon fatalities, which it achieves with aplomb, and like the Colorado River, it is not a dry ride.

The book is divided into 8 main chapters, each devoted to a different way of meeting one's maker in the Canyon. Along with the expected falls from the rim and drowning on the river are chapters on aviation accidents, murder, and suicide. The latter 2 chapters are often as unbelievable as Hollywood fare and as gripping as a pulp thriller. The chapter on air accidents not only tells the stories of the accidents in a highly engaging manner, but it also takes the reader along into forays on air traffic regulation and air safety that are readable enough to keep you from realizing you're learning something.

The authors have done an impressive job of researching the book, with 19 pages of references, although footnotes to the references would be appreciated in future editions. The fruits of their labors shine through. Not only is the book a wonderful repository of Grand Canyon lore, but it also contains interesting new theories on some Grand Canyon classics, including the fate of the Hyde couple and the members of Powell's original party who left the river at Separation Canyon.

Mixed in with the stories of tragedy are some of the successes. Cases of heroic survival and close calls are also recounted. Without arrogance or preaching, the authors draw out some of the lessons of these events

throughout the book in an effort to fulfill their intended mission.

Overall, *Death in the Grand Canyon* is a success on many fronts. Primarily, it succeeds as a readable and interesting book. However, it is also a well-researched history, a repository of canyon lore, a collection of anecdotes on wilderness travel and mishap, and even a discussion of air traffic regulation. With so many facets, it reaches out to many different audiences of which readers of this review are likely to be members. You are unlikely to be disappointed.

By narrowing their scope to the river, the authors of *Fateful Journey* attempted a more scientific scrutiny of injury and death in the canyon. Their stated goal was to help people to "understand the potential risks and consequences of (Grand Canyon river running)" by resorting to data as opposed to anecdote.

As in *Over the Edge*, the book is well researched. Unfortunately, by including injuries as well as deaths, the authors are faced with a much more difficult research problem. There are multiple reporting biases in their injury database—from the liability concerns of commercial trips to a private boater's willingness to tolerate a minor injury in order to complete a trip that he spent 10 years on a waiting list for. Although the authors briefly try to address these limitations, they are difficult to overcome.

Nonetheless, the data they obtained are rigorously scrutinized, with attempts made to elucidate any patterns of injury. This analysis is performed with attention to statistical detail, including Bonferroni corrections for multiple looks at various portions of the data set.

At times, it seems like too many hypotheses were tested, with each possible variable being checked for possible significance. For example, the effect of day of the week on injury frequency is checked. In a wilderness setting without preordained calendars, it is unclear why one might expect such a relationship. This sometimes makes it difficult to tease out the important points in the avalanche of data. Given the great amount of river running experience shared between the authors, more incisive hypothesis generation would have been appreciated. Similarly, results are often presented one after the other, with accompanying values for statistical significance but no elaboration of the conclusions that can be drawn.

Two models are developed from the data, one for injury frequency and one for body recovery. Both have the potential to be quite useful. Park service managers would doubtless appreciate the ability to predict the resources that will be required in a given season or to know the highest probability area to look for the body of an accident victim. Given the noisiness of the data, the models will doubtless need more refinement and

more years of data; indeed, these initial attempts are interesting but deserve more explanation.

Interspersed in the technical “meat” of the book are 23 “sidebars.” These 1- to 2-page anecdotes help show some of the personality of the Grand Canyon river community and are a welcome addition to the book, as are the various photographs and drawings.

All in all, this is a valiant effort at a difficult problem. The authors went to great lengths to acquire their data

and should be commended for their efforts. Unfortunately, their analysis, while rigorous, wasn’t clearly directed. This book has much to offer the interested reader, but it requires some work to mine out the nuggets of wisdom.

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