

Ross was unconscious and bleeding from head wounds. Hollinger lowered him three or four feet further to a large ledge, where Pearce and Woolfard could help him, then drove to the Arch Rock Entrance Station to notify the NPS. When the first rescuers reached Ross a few minutes after receiving the report, they found him unconscious and not breathing but with a strong pulse. As more rescuers arrived, paramedics stabilized him with an endotracheal tube, oxygen, IV, and spinal immobilization. He was lowered 300 feet down cliffs and scree, and flown by helicopter to Doctor's Medical Center in Modesto. He died the next day from his head injuries.

No one saw the start of Ross's fall (the sun was in Hollinger's eyes), and he did not say anything to Hollinger about the quality of the Camelot placement. The crack at that point was slightly flared; if Ross had brushed the Camelot as he moved up it may have rotated upward and walked closer to the edge of the crack. When we inspected the Camelot, it showed no unusual wear and functioned perfectly. (Source: Mark Fincher, NPS Ranger, Yosemite National Park)

Analysis

According to Ross's partner, Jason Hollinger, Ross was very experienced and led mid 5.11, A4, while Hollinger had been climbing three years and led 5.10c. They had climbed one route together previously. Because this climb starts in steep terrain, the leader faces a serious fall almost immediately and the protection should take this into account. First, the belayer should insist on the leader placing a bombproof directional just off the ledge to establish a direction of pull. Second, the leader should attempt to place solid protection higher, not just a single piece that he/she will move, since it is the only insurance against striking the ledges below. Third, although it apparently did not play a role in this incident, trusting a single fixed piton for a belay, and one that's only a foot off the ledge, is asking for trouble—even if it holds, the belayer may not be stable against a downward pull.

It seems obvious that wearing a helmet might have made all the difference in this situation. All these points may seem obvious after the fact, but all the shortcuts above are common. Maybe the key lesson to remember is that the mistakes were made by a climber with lots of experience - like many of us. (Source: John Dill, NPS Ranger, Yosemite National Park)

PROTECTION PULLED OUT, FALL ON ROCK, NO HARD HAT

California, Tuolumne Meadows, Stately Pleasure Dome

On June 7, 1996, Shannon Meredith, 25, and Dennis Papa decided to climb "West Country", 5.7 PG, on Stately Pleasure Dome in Tuolumne Meadows. Shannon had been climbing for three and a half years and handled nine or ten traditional 5.7 routes. Dennis had been climbing intermittently for ten years and comfortably led 5.8. Shannon led the first pitch, a dihedral on a 70 degree slab allowing only occasional protection in a shallow, somewhat flaring crack. She climbed about 40 feet, placing three nuts. Finding the climbing more difficult than she had expected and fearing that she lacked adequate protection for the rest of the pitch, she decided to retreat. She checked her top piece, a DMM Walnut, by tugging on it to set it and partially weighting it. Dennis lowered her to the belay, but she decided to climb back up to remove the first two pieces. When she had done so, Dennis again began lowering her off the top piece using his belay device, a figure eight in belay plate mode.

When Shannon was about ten feet above Dennis, the nut pulled. She flipped over and began sliding head first. Dennis tried to grab her as she passed him but she was out of reach. Since there was 70 feet of slack in the system, she continued to slide, going over an overhang and striking her head. Meanwhile, Dennis took up what slack he could by dropping the figure eight and creating a hip belay; he stopped her fall despite being flipped upside down by the impact, and tied her off to the anchor (two Camalots). She did not respond to his calls and he could see that she was hanging from the rope apparently unconscious.

He rappelled to her with their second rope, and called for help to bystanders on the road 400 feet below; they called the NPS dispatcher from the nearby pay phone. Shannon regained consciousness after about 20 minutes, complaining of wrist pain and a headache.

The Yosemite rescue team lowered Shannon to the road three hours after the accident and sent her by ground ambulance to Mammoth Lakes Hospital. She was diagnosed with a moderate concussion, a fractured left wrist, and several abrasions and other soft tissue injuries.

Analysis

Shannon chose a route that she felt was within her ability, but soon discovered that, as the Tuolumne guide book states, route descriptions may be incorrect. She wisely backed off when she found it harder to climb and protect than she expected. Having already lowered off her top piece, she assumed it would hold her weight a second time. However, if she felt she had to test the top piece at all she should have backed it up—only a nut that is visibly trapped in a pocket is secure, for a given direction of pull, and even then you are relying on the integrity of the metal, the sling, and the rock. The guide book warning page—must reading for any climber—states that one should not trust a single piece of fixed protection. That should also include any piece you place yourself.

If you've decided to lower from a single piece, consider either lowering yourself (the line from the belayer runs through a descender on your own harness) or rappelling on both strands. In both cases the force on the piece is roughly half the force on it when the belayer lowers you. This doesn't guarantee security, of course, so keep the belayer in the system (see below).

Dennis's quick thinking in creating a hip belay may have kept Shannon from falling the full 70 feet, but there was a risk of losing control altogether, especially if he had not clipped the rope into a carabiner on his harness. If he had put Shannon on belay with their second rope (or with the unused 90 feet of lead rope) while she climbed and lowered, she would have fallen only 20 feet plus rope stretch.

Their second rope was useful after the fall. Dennis was able to reach Shannon with it and to provide a line for the first ranger to arrive (enabling him to radio information needed by the rescue team and the medical clinic). Dennis had been trained in first aid, but neither of them had discussed or practiced rescue techniques, and neither knew how or where to get help. Could Dennis have gotten his partner to a comfortable spot if no one else were around?

Finally, like Stephen Ross and Joe Presuto (see below), Shannon might have prevented her head injury by wearing a helmet. (Source: Martin Ziebell, John Dill, NPS Rangers, Yosemite National Park)