are more serious; reducing them requires training and present a risk of complications, especially if shoulder fractures are involved. A Wilderness First Responder course provides the training to decide when and how to attempt a reduction; it's now high on my list of things to do. (Source: Rob S. and John Dill, NPS Ranger, Yosemite National Park)

FALLING ROCK

California, Yosemite Valley, Glacier Point Apron

After climbing in the Valley for a couple of weeks, Peter Terbush (22), Joseph Kewin (21), and Kerry Pyle (20) were nearing the end of their vacation. On June 13, in late afternoon, they decided to climb Apron Jam, a one pitch, 5.9 crack near the west end of Glacier Point Apron. Pyle led the pitch while Terbush belayed at the base and Kewin lounged beside him.

Just after 7:30 p.m., as Pyle was finishing the pitch, he heard a loud rumble above, and, within a second or two, boulders the size of Volkswagens were flying by to his right. He scrambled the last few feet to the belay (a pair of bolts), clipped in two quickdraws, and began forming a clove hitch in his rope, as a tie in. Before he could finish, rock fragments slammed into his head. He dropped the rope and simply grabbed the quickdraws and pressed himself against the wall. He grew faint and nauseous from the blows but hung on and survived. Without a helmet, he received severe scalp lacerations, but no other major injuries. As the rockfall ceased, he noticed that his lead rope was still snug, and called down to his friends. Kewin responded that he was OK but that Terbush might be dead.

When the rockfall began, Kewin scrambled several feet east to get out of the way, and, like Pyle, hugged the wall. After the noise stopped, he went back to Terbush and found him unresponsive and pulseless. Terbush had not moved from his original position; in fact, he was still holding Pyle's rope as if on belay. Kewin removed the rope from Terbush's hands so that Pyle could use it to rappel, then he ran down to the parking lot for help. One ranger arrived a few minutes later and confirmed that Terbush had received fatal head injuries.

The NPS delayed bringing Terbush out until it could assess the risk of more rockfall. On the 14th, NPS and USGS specialists examined the release point by helicopter and telescope; despite a couple of very small rockfalls that day, they permitted a ground team to make the recovery on the 15th.

Analysis

The rockfall that killed Terbush—estimated at 525 tons—originated 1200 feet up the Apron, just above the Oasis, and fell directly down the Harding route. Terbush, Kewin, and Pyle were 300–500 feet left of the main fall, yet unfortunately within range of the shrapnel. The same release point has been active since at least November 1998, when an even bigger fall occurred that sent small rocks as far as the tents at Camp Curry. (For a detailed geological report on this series of rockfalls, go to http://landslides.usgs.gov/html_files/landslides/newsinfo.shtml)

Large rockfalls occur in the valley almost every year. However, with granite

walls so steep and fractured, it's surprising that there aren't more. In fact, almost all rockfall related climbing injuries and deaths are from single rocks pulled off by the victims or other climbers nearby, rather than from spontaneous releases.

Peter Terbush was not anchored, so he may have had a brief opportunity to unclip the ATC from his harness and run for cover. We'll never know his thoughts or intentions, but he did know that his partner was still on belay. Whether deliberate or instinctive, he stayed put, maintaining that belay at the expense of his own safety. It's fitting that his friends have nominated him for the Carnegie Medal for Heroism. (Source: John Dill, NPS Ranger, Yosemite National Park)

FALLING ROCK, NO HARD HAT

California, Kings Canyon National Park, North Dome

In mid-June, we—Brandon Thau (23), Matthew Pollard (24), and Jennifer Pollard (25)—completed a new route up North Dome, topping out around 4:00 p.m. The climb had involved hanging bivouacs. After repacking the bags, we started our descent. We started heading in the direction of the descent gully, but it was slow going with Grade VI haul bags. We were forced to bivy. We didn't have much food, but had plenty of water.

We started the next day by scouting for the best way to achieve the descent gully with minimal rappels and exposure. With the burden of large packs, we were forced to do a handful of short rappels. It was during one of these rappels that the accident occurred.

Before every rappel, we would clear the loose rocks and debris from the area around the rope and anchor to minimize the risk of falling rocks while we rappelled. After the third rappel, I dropped my pack and hiked up a little to reduce rope drag when I pulled them. I don't remember how much—if any—of the rope I pulled before a rock whacked me in the head. I was on a little ledge and when the rock hit me, I went flying—and began yelling. A plethora of small bushes cushioned my landing. Brandon and Jennifer heard me. Brandon immediately started running to help me while Jennifer went for the first aid kit. While Brandon was scrambling up to me, he was asking me my name, his name, my birthday, where we were, if I could feel my fingers and toes, if I could see him clearly. Luck was on my side, because I could answer all those questions correctly.

There was a lot of blood, but direct pressure stopped the bleeding, and it was determined that I only had a flesh wound. I was able to scramble down to the packs by myself. After dressing the laceration, the bandage was held in place by my helmet. I descended without a pack, letting Brandon and Jennifer shuttle the gear. About an hour after the incident, I felt strong enough to carry my pack. We arrived at our cars about 4:00 p.m.

Analysis

Be skeptical of descents that you do not have first-hand knowledge of. Take your time—even if it means putting down the packs and scouting.

Even though we took utmost care to clear away potentially dangerous rocks