stuff I have seen while climbing. Risk, luck, and bad luck are pretty close together in climbing even if one is experienced. (Source: Robert Steiner)

NPS comments: This really was Robert's lucky day. If that backpack-sized block had bounced slightly to the right and hit his head, his helmet would have offered little or no protection. Regarding his effort to signal for help: people on the valley floor can usually hear climbers yelling (especially in good weather), flashing lights at night will usually get a response, and more and more climbers are carrying cell phones or family-band radios as a backup. But none of these options are guaranteed, so the ability and confidence to retreat on your own, injuries permitting, is the final line of defense. A cheater stick and a bolt kit may also be critical to a quick, safe descent. I'd put my money on Robert to get down on his own, but too many El Cap parties these days have neither the experience nor gear. (Source: John Dill, SAR Ranger, Yosemite National Park.)

## PROTECTION CAME OUT—FALL ON ROCK, PLACED INADEQUATE PROTECTION, DARKNESS

California, Yosemite Valley, The Nose

On May 14, Brian Smudz and Yanchun Su climbed from the ground to Dolt Tower, without fixing any part of the route. They had planned on one relaxed day on the climb, and they took it on the 15th because of the long first day. They climbed to El Cap Tower and fixed to Boot Flake, but otherwise spent the day relaxing.

Smudz and Su found the climbing straight forward, and Brian freed to 5.11b. The ascent was fairly relaxed, and there were no problems between the two of them. They never had to wait for other parties and weren't pressured by parties below. They saw only two parties in all: one group passed them at El Cap Tower on Tues. and rapidly climbed out of sight. Another group was below them, but they either retreated or climbed more slowly than Smudz and Su, because they never caught up and weren't seen again.

On May 16, they climbed to Camp Four and bivvied there. On May 17, they climbed to Camp Five, fixed no pitches, and bivvied there. On May 18, they arrived at Camp Six at about 1300 and Brian started up the next pitch. About halfway up a thunderstorm moved through the Valley, with lightning near Sentinel. They got rain and hail, and a small waterfall formed above them. Brian retreated to Camp Six for an hour until the storm passed.

They had to decide whether to stay at Camp Six that night or push for the top. Earlier they had figured they'd stay there if they arrived late and were tired. There were no important psychological factors at work. They wanted to summit but would also be willing to bivvy there. By this time it was about 6:00 p.m. and they would be climbing most of it in the dark, but they decided to go on anyway. They had headlamps and had climbed in the dark in the past.

It took Brian about 20 minutes to jug back up to his high point, and by that time it was dark. The rain had mostly evaporated, and they continued by headlamp with no problems.

After a couple of more leads, with Yan belaying about 100 feet below, Brian reached the Alcove. He had put in a fair amount of protection below the Alcove so he was running low on quickdraws. Although there were belay bolts in the back of the Alcove, they were out of position to be worth using for protection so he climbed past them, leaving his last piece of protection, a cam, two or three feet below the start of the Alcove.

The Alcove itself is a triangular hole a few feet high, with the apex at the bottom and one side of the triangle forming the roof. The low angle floor is only 4th class. The left wall sticks out forming a right facing corner. The route follows a crack that arches out to the right at the top of the hole. The climbing

as you exit the Alcove is 5.9.

Brian clipped his rope with a quickdraw to a fixed piton a few feet beyond the Alcove. He moved out another five to eight feet, still on 5.9 slab with fingers in the crack. Here he was able to place a bomb-proof nut in a vertical crack and clip through it with another quickdraw. About two feet further was a fixed #1 or #2 stopper, placed straight up under the flake forming the crack. He clipped a quickdraw to it and yanked hard to the left, right, and down, but the stopper was solid so he clipped in his rope. He had some distance to go to the belay and was low on quickdraws, so he reached back and removed the previous piece.

The climbing was harder now, maybe 5.10d, still feet on slab and fingers in an under-cling with one or two fingers. It was probably harder in the dark, since small holds might not be as easily detected. He was getting a bit tired but

was still comfortable.

While standing below the fixed stopper, he reached out to the right about five feet and found an under-cling pocket in the crack big enough for one or two fingers. He decided to use the pocket for protection. He placed a #2 or #3 Metolious Tri Cam straight up in the pocket, added a quickdraw, and tested it as he had the previous pieces, by yanking down hard, twice.

Because the hold was now blocked, the moves were now harder, 5.10, and as he was wearing his wall boots, he decided to go on aid. He clipped his daisy to an etrier and clipped the etrier to the TCU. He gradually weighted the etrier with his right foot. He was confident in the placement, but would wait until he

was fully on the TCU before clipping in his rope.

Just as his weight came fully on the TCU, he heard it shift and saw the cams open a bit, but he had no time to react. In less than a second it popped. His next protection was the fixed stopper, only five feet to the left, but it also ripped out, landing literally in his lap. Having cleaned the next nut, he was left with a 15-foot swing pivoting on the fixed pin, roughly ten feet lower and ten feet to the left. This would sent him directly into the right facing wall on the far side of the alcove.

As he was falling he had rotated 90 degrees to the left, and he swung with his left foot tucked behind him and his right out in front in the direction of the swing. He wasn't conscious of the swing, and he hadn't selected the position of his limbs.

His right leg took the impact on the wall directly on the bottom of the foot. There was no slide, bounce, or crumpling that might have lessened the impact. He looked down and saw that his foot was angled out to the side and already noticeably swollen, but he still didn't think that he'd received anything more than a sprain, at the worst. He called to Yan that he'd taken a bad fall. She had

felt almost nothing and thought he'd only been pulling slack.

Brian was pissed, and full of adrenalin. He hauled himself back up to the piton, free climbed further. He replaced the nut he had cleaned. Climbing 5.10 on one leg he moved up and right several feet to the TCU slot and replaced it. This time he rammed it in hard, so deep he could now get his fingers in also. He yanked on it and it seemed good so he continued face climbing—on one leg—to the belay bolts. (The belay is in the middle of the 33rd pitch per the Reid topo. They were out of synch because he had not stopped to belay at the Alcove but had climbed through it.)

He hauled the bag by pushing out—body hauling—on one leg. After Yan came up he led the 5.10b crack on aid—no real problem although it took a long time—and continued up the bolt ladder to the bolts at the lip. It was starting to get light by now. He couldn't do the 5.7 face section to the summit

belay tree, so Yan led that. They topped out at 0700.

Since the fall, there was little pain as long as his foot did not touch the rock or anything else. He was wearing high-top wall boots and he kept the right one on his foot as support. He realized that he'd be unable to hike or crawl to the Valley by any route including the East Ledges descent. They were supposed to meet a friend in the Valley on Saturday. He contacted him via one of the family band radios they all carried and asked him to call the NPS. He hoped he could hobble with support up the slope to the helicopter LZ.

His foot was still fairly pain free until an air splint was put on it. Then it began to hurt. He describes it as though his leg were over open flame or hot charcoal—so bad that he didn't want to do anything. It took 25 mg of morphine to get the pain down to where he could make it to the summit without

being carried.

## Analysis

Yan was belaying with a GriGri, clipped to her harness, and a 60-meter x 10.5-mm rope. She was about 100 feet below, but out of sight. There was no

appreciable rope drag as Brian led.

He thinks that, because it was dark, he wasn't thinking about a swinging fall. He could see the corner but didn't realize the full danger of that kind of impact. (Actually, the impact and injury could happen by falling vertically onto a

ledge. It could have been worse.)

He back-cleaned the other nut to get the quick draw, because he felt he was running out of them and didn't want to disassemble the quickdraws on his cams. He also had longer runners over his shoulder but didn't want to take the time to rig them as quickdraws. He simply trusted the fixed nut. He now wonders if the crack holding the fixed stopper was in fact expanding. Brian usually doesn't use nuts in horizontal cracks and doesn't clip into fixed nuts. Re the TCU, he thinks he simply should have jammed it deeper the first time.

Brian Smudz has been climbing for ten years, leads GriGri free to 5.10b comfortably, also harder, aid A4. He's climbed several short aid routes in the east. He had climbed no complete walls in Yosemite but had climbed partway up the Nose twice previously, once with his brother and once to Dolt Tower with Yanchun Su, his partner this May. He is a Wilderness First Responder.

Yanchun Su has been climbing for four or five years, but with little leading. She has led GriGri free 5.9, aid A2.

On this ascent Brian led almost all the pitches and did all hauling (because Yan weighs only 100 pounds and couldn't haul the bag.) Yan led a few easier pitches. For storm gear they had synthetic bags, Bibler bivy sacks, and rain suits.

As for injuries, he experienced a pilon fracture of the right foot (medial malleolus fracture), and the tibia was split up the shaft one-third of the way to the knee. It required surgery, with internal fixation (internal hardware). Ten months later there is still some pain, and he is not running yet. (Source: John Dill, NPS Ranger, Yosemite National Park)

## FAULTY USE OF CRAMPONS—FALL ON SNOW California, Mount Shasta, Wintun Ice Fall

On June 24, David Lowe (24) was glissading at 13,500 feet with his crampons on. His crampons caught and threw him into a tumble, and his leashed ice ax penetrated his thigh from hip to knee. He fell approximately 2000 feet.

David Lowe and his party had climbed the Hotlum-Wintun route on the northeast side of the mountain. Lowe, and many in his party, had very little climbing experience. Although this route is not technically difficult, it does have steep sections and crosses above hazardous areas on the Wintun Glacier. On their descent, he decided to glissade wearing his crampons and his ice ax leashed to his wrist. About 13,500 feet on a 40-45-degree slope, the heels of his crampons caught, tumbling him into an out of control fall. He came to rest at about 11,500 feet, where the slope had decreased to about 30 degrees. This area was right above a cliff over the Wintun Ice Fall.

His party summoned help from a commercially guided Sierra Wilderness Seminars trip. Two guides, Miller and Rodriguez, responded and used their cell phone to contact search and rescue around 1430. They assessed and stabilized Lowe's injuries. He had abrasions all over his upper body, and his ice ax had entered his thigh just below his pelvis and exited near his knee. It was deep in his leg and their concerns were that he had ruptured his femoral artery.

USFS Climbing Ranger, Harrington, who was at 10,400 feet on the south side of the mountain, was contacted and responded through whiteout conditions. He arrived at the scene at 1630 and found the injuries to be stable and bleeding under control. Lowe showed no signs of shock. They continued to monitor his condition waiting for air transport. A volunteer from Siskiyou County Search and Rescue arrived at the scene at 1900, and they wrapped Lowe in sleeping bags to maintain his body temperature. At 2030, a California Department of Forestry Bell Super 205 short-hauled Lowe in a litter with an attendant. He was taken to a lower elevation where he was transferred to the