

because he was unable to self-arrest. His slide ended at the Hot Rocks area. He had multiple abrasions, a sore elbow, and a knee injury.

Nearby climbers rendered first aid and notified authorities by cell phone. Call was evacuated by a ground team manned by Portland Mountain Rescue, American Medical Response, and the Timberline Ski Patrol.

Analysis

Self-arrest is a basic skill that must be mastered by all climbers. The steepness and exposure on this route resulted in at least two other injury accidents in the same month. (Source: Jeff Scheetz, Portland Mountain Rescue)

FALL ON ROCK, COLD FINGERS

Oregon, French's Dome

On September 4, Joe Leineweber (29) was leading a 5.8 to 5.9 bolted route on French's Dome. The weather was somewhat damp and there were wet places on the rock. Leineweber was reaching for a bolt when he fell about 20–30 feet. During the fall his right foot hit a projecting ledge, causing him a serious fracture of his tibia and fibula.

His climbing partner and a bystander lowered him to the ground. The climbing partner drove to cell phone coverage to call for an ambulance. Meanwhile three climbers (including two Portland Mountain Rescue members) backed off a nearby route to provide care until the ambulance arrived. Leineweber was carried to the ambulance by firefighters, ambulance crew, PMR members and other climbers.

Analysis

The slip was probably a result of the cold's affect on his fingers' ability to perceive variation in the rock. In the Leineweber's opinion, wet rock was not a factor. (Source: From a report by Hal Lilywhite, Portland Mountain Rescue, and Joe Forrester)

BELAYER ERROR - LEADER PULLED OFF, FALL ON ROCK CLIMB

Utah, American Fork Canyon

On August 10, two experienced climbers climbing together for the first time met at the mouth of American Fork Canyon at the suggestion of the younger climber, Christian Burrell (25), who proposed establishing a new route. James Garrett (59) had established many first ascents traditionally from the ground up, whereas Burrell, though he had been active establishing new routes, had confined his style to top down methods. He seemed eager to learn to drill on lead from the more traditional Garrett and had proposed a moderate-appearing slab where he had looked at doing a new route. Burrell also seemed convinced the climbing would be no harder than 5.6 to 5.7, a climbing grade somewhat lacking in American Fork Canyon. The first pitch (5.10ish) went well, though patches of loose scree intermingled with

the compact rock and belays were established to protect the belayer from inevitable rockfall. (Both climbers wore helmets.)

Burrell decided to jumal instead of seconding or climbing on top-rope to follow the first pitch. While leading the second pitch (the limestone accepted gear poorly), four bolts were drilled on lead. After the fourth bolt, the angle decreased considerably onto a loose scree slope. Garrett was now about 25 meters above Burrell, and after passing a small corner, visual and verbal contact became limited. Canyon river and car traffic noise further complicated communication. Burrell reported some rockfall, but Garrett suddenly felt a huge amount of drag on the rope as he climbed easy, albeit loose, terrain about two meters above the last bolt he had placed. He struggled with maintaining his position on the slope, but inevitably sent down more loose rocks in scrambling to maintain his position and avoid falling down the slab. No rock fall came from above. Suddenly and without warning, Burrell put his entire body into pulling the rope in as if he had someone on a top-rope who was falling or had yelled, "Take!" Only this was not the case.

As Garrett started to fall, he tried consciously to relax his body to lessen the injuries knowing that his last protection bolt was not far below. Instead, he fell and tumbled more than 20 meters, finally coming to a stop a mere three to four meters above the belayer. Garrett's helmet was so deformed that it fell off his head at the end of the fall and tumbled to the belay ledge.

Garrett, an RN and former Flight Nurse, self-diagnosed his most life threatening injuries and concerned about airway issues, asked the belayer to lower him the short distance to the belay ledge where Burrell could be free to better assess/care/and address the ABC's and comfort Garrett. Burrell decided to call 911 first and then followed their instructions not to move Garrett further and simply wait for EMS Rescue Helicopter evacuation.

After about 45 minutes, rescue crews reached Garrett by ground. They were instructed by Garrett how to install another bolt next to the second one placed while on lead. This provided a two-bolt anchor from which Garrett could be lowered by litter the short distance to the ledge. On the belay ledge, a backboard was placed and an IV with LR was started to allow the administration of pain medication. Garrett complained of mostly right chest wall pain. Thirty minutes later, Garrett was hoisted out by an Air Ambulance helicopter and flown to the hospital where X-rays revealed fifteen broken bones in the C-Spine, T-Spine, right hand, right ribs, and right foot. A right pneumothorax and lung contusion added to the list of injuries. No paralysis or head injury was incurred, but fusion of the T-spine was later necessary. The Black Diamond Helmet that absorbed all of the head blows clearly saved a life on this day.

Analysis

It is really difficult to deduce what exactly was going through Burrell's mind. Tension should never be applied to the lead rope when the leader is clearly above his last piece of protection. Though he had climbed for many years and rap-drilled numerous new routes, Burrell appeared new to the idea of traditional climbing and bolt installation as one ascends. He also possibly confused a falling loose stone for a falling climber. For the leader to have to endure such a long and painful fall when he was really so close to his last piece implies that the belayer additionally most likely lost control of the rope as well.

Burrell chose never to discuss the incident with Garrett. It can only be assumed that he realized his mistake after he had applied such massive amounts of tension. He then either fed out more rope to "overcorrect" his initial error or compounded the mistake by losing control of the belay.

As Burrell suggested the project from the beginning would be a slab climb no harder than 5.7 in difficulty, Garrett should probably have decided to abandon the project from the two-bolt belay anchor he had installed after completing the first loose 5.10 pitch. In hindsight, this would certainly have prevented the mishap that followed while leading the second pitch. Despite the looseness or chossy characteristics of the climbing, Garrett never felt outside of his comfort zone so had independently decided to continue. Perhaps mutual trust between climbing partners must be built up over time.

Also, while cell phones are good to have for use in the case of an emergency, many young climbers seem to be stuck in a nether land between the virtual and real worlds. Some younger belayers may not be fully aware of the consequences of multi-tasking. The importance of the relationship between a focused and competent belayer to a safe ascent/climb cannot be overstated. (Source: James Garrett)

(Additional comment: The implication that Burrell was using his cell phone while belaying is disturbing to say the least. This editor has written a piece called "Climbing With Blind Dates." It indicates some of the discussion points to engage in before setting out with someone whose climbing experience is known only through conversation. Source: Jed Williamson)

BELAY AND TIE-IN ERROR, FALL ON ROCK, NO HARD HAT

Utah, Big Cottonwood Canyon, Dogwood Crag

On September 26, University of Utah, Remote Rescue Training's High-Angle Rescue Technician class was practicing rope rescue systems at the Dogwood crag in Big Cottonwood Canyon when a nearby climber, not associated with the class, fell approximately 80 feet to the ground. The class immediately stopped the scenario and switched in to "real" rescue mode. The lead instructor delegated two students to stay at the top of the cliff where