

gear, an enormous rock-and-snow avalanche swept the face. Luck was with us that day. We moved camp to just north of the base of the southeast ridge and tried to find a route onto the ridge from this side. Charlie Carr, Chip Morgan and I climbed steep avalanche-prone slopes beneath séracs and over large slanting bergschrunds. Charlie led the last steep pitch on loose snow and rock to a knob on the ridge where we could assess the 2000-foot exposure on both sides of the knife-edged ridge that grew to 5000 feet where the ridge leveled off. Immediately ahead lay loose steep snow that with the slightest loading appeared ready to collapse onto the Newton Glacier. Then came a steep multi-pitch rock section that looked loose and slightly overhanging near the top. These sections were minor in comparison to the steep rock and ice 3000 feet higher. It was obvious it was too late in the year for safe snow conditions. Regrouped for the east ridge, we carried loads and camped just below 11,000 feet. We had a choice of either the sharp, jagged ridge or a long, steep snow face. Charlie Carr led onto the steep face and discovered loose granular sugar snow that would not pack and offered no protection. On our return we found that the face would have involved at least eight pitches of completely unprotected, steep, exposed and avalanche-prone climbing. The next day we tried the jagged ridge. An hour and a half of painstaking step-cutting and stamping put me near the top of the ridge where one slip would have sent all of us tumbling 2000 feet to the Newton Glacier. I put in all my remaining protection, plus both my tools; the snow could not have been more dangerous. Karen Bush led past me onto the ridge and found slightly denser snow. Steve Bain climbed along the ridge and Charlie Carr went past him. They found weak cornices. We agreed that we could not justify the objective hazards and quit. One last note: for most of the climb we had a commanding view of the Abruzzi route. The huge avalanches that swept down all parts of the upper Newton Glacier, some starting from Russell Col itself, others sweeping across the glacier and up the other side, deposited sérac blocks larger than small houses and made this route and its approaches highly dangerous. It would be foolhardy to consider the route, especially in May, June and July.

PETER A. COOLEY*

Washington—Cascades

East McMillan Spire, North Buttress, Southern Pickets. From Terror Basin, Rachel Cox and I walked north along the Terror Basin-Azure Lake divide. Where this ridge steepens and merges with the east ridge of McMillan Spire, a horizontal ledge leads to Stetattle Ridge, the divide between McMillan Cirque and Azure Lake. We followed Stetattle Ridge to a col (class 3), made two 165-foot rappels, climbed down ice and snow to benches in the upper McMillan Cirque and traversed west on slabs which were exposed to falling ice. A rock spur led up between icefalls directly to the base of the north buttress of East

* Recipient of an American Alpine Club Climbing Fellowship Grant.

McMillan Spire. We began at the toe of the buttress, scrambling east around a large gendarme to a prominent notch. From the notch a fifth-class pitch and 200 feet of third class brought us to a bivouac on a large shelf. From there it was possible to walk down and right to active springs in a large shallow cave. There was no water higher. In the morning we climbed six fourth-class pitches up and left to a large rubble-covered platform on the crest of the buttress, overlooking the huge chimney-and-corner system on the lower east face. We climbed up and right for three pitches to the base of a long open-book. This is the first corner system west of the crest of the buttress, ending in a series of blocky overhangs. Three beautiful pitches of 5.7 to 5.9 on excellent rock led up the corner to grassy ledges immediately below the overhangs. A short horizontal pitch to the left on ledges brought us back to cracks and corners near the crest. Here we made a second bivouac. After a pitch, crack systems to the left and right were blocked by overhangs. We opted for an improbable outside corner leading straight up between the overhangs, which provided a surprisingly moderate and safe 165-foot pitch. After one passes the overhangs at about mid height on the buttress, many lines are possible. We climbed up and left along the crest for several pitches of solid, enjoyable fourth and fifth class. Where a loose and blocky vertical step about 60 feet high blocks the crest, we traversed up and right, emerging on a huge ledge. Above this point the rock deteriorates. Whereas the lower two-thirds is solid gneiss, the upper portion is loose, slabby schist. However, the climbing, mostly third class, is much easier. We climbed seven rope-lengths just west of the crest, then traversed 200 feet right to join the 1977 route for two pitches to the summit. We descended the west ridge and couloir to Terror Basin. Bergschrunds necessitated two 150-foot rappels. (28 pitches, 10 of which are fifth class. V, 5.9.)

PETER KELEMAN, *Fourth Avenue Alpine Club*

Johannesburg, Northeast Face, Winter Ascent, North Cascades. In mid February Josh Lieberman and I took advantage of perfect weather and low snow cover to drive 18 miles up the Cascade River road. We walked the last four miles up the road. Johannesburg was nearby. We traversed out onto the glacier beneath the northeast face to the bottom of the prominent couloir on the left side. This couloir is described by Mark Bebie in *A.A.J.*, 1986. We were drawn upward. Instead of traversing right as Bebie and Stoddard did, we stayed in the couloir. Most of the climbing was third class. Large chockstones occasionally blocked the parallel-sided gully, forming vertical steps. Snow beneath the chockstones was unconsolidated and so these steps entailed climbing on one of the walls on thin ice and rock over the abyss. Once we followed a tunnel beneath a big block. As darkness fell, we dug in under another block. The couloir reaches the top of the face several hundred yards east of the summit. After traversing the horizontal crest toward the summit for some time, we saw the last few hundred feet: jumbled gendarmes and crazy cornices. We decided not to proceed. As it was, we were benighted in the "wrong" couloir as we descended the south side of the east ridge.

PETER KELEMAN, *Fourth Avenue Alpine Club*

Cutthroat Peak, East Face of North Summit, North Cascades. Joe Bajan and I on September 21 did this fine route, which is about 500 feet north of the Chouinard and Burdo routes on the main east face. We followed granite flakes just right of the obvious gully in the middle of the face directly below the north summit. The second pitch ascended a large left-facing open-book for 165 feet. The third pitch went up the right side of the "Black Staircase," which is easily seen from below. The fourth pitch finished the staircase and led up the gully to easier climbing. Eventually we got to the north summit and followed the north ridge to the main summit. (III, 5.9.)

STEVEN C. RISSE

Dorado Needle, West Buttress, 1985. In October 1985, Dan Cauthorn and I found our way to Dorado Needle. Our route starts in a recess to the right of the buttress proper and ascends a wall just left of a chimney for the first pitch. Several more moderate pitches lead to a huge slabby platform. A loose pitch up a gully leads to a chimney on the exposed crest. Ledges, edges, and blocks lead left across the buttress face, then up to the blocky crest. Another lead works along the crest, past a tower (5.7), to the base of the inviting slabs forming the upper pillar. Three excellent pitches up faces and along narrow arêtes lead to gullies which are followed left to the regular route and summit. (III, 5.7.)

WILLIAM PILLING

El Dorado Peak, North Couloir. The north face of El Dorado Peak is a hazardous enigma. In October, Dan Cauthorn and I—carrying plenty of noodles and tuna packed in oil—emerged from the depths of the Cascade forest empire to investigate this hidden facet of the "Queen of the Cascade River." There were no clouds to cause concern. (Still, you never know.) We left our camp below the west face of El Dorado at six A.M. and walked toward the Dorado Needle-El Dorado col until we could climb onto the glacier beneath the north face of Eldorado. The elegant and unmistakable couloir required 6 to 8 pitches of frozen snow and water ice between 55° and vertical, finishing on the knife-edged summit arête. On the summit at one P.M., Cauthorn summed it all up: "Good climb, good climb . . . I think so, don't you?" (III).

WILLIAM PILLING

Mounts Triumph and Despair, Winter Ascents. The winter of 1986 was an unpredictable one in the Cascades. During the last two weeks of February, six feet of new snow were followed by torrential rains and spring-like clearing. On March 1, Mark Bebie, Brian Sullivan and I skied the Thornton Lakes road and an old logging spur leading up Damnation Creek. From the head of the creek, the effect of the previous two weeks of weather was obvious. Avalanche fractures were visible everywhere, and we stumbled across two miles of debris to reach our campsite at Triumph Pass. The next morning we cramponed up the

northwest shoulder of Triumph, then climbed a steep snow ramp to the south ridge, placing an occasional snow fluke or picket to combat the exposure. Brian and I admired our corniced and fluted surroundings as Mark struggled up the crux of the route, a glazed chimney of loose rock. One easier pitch of mixed ground brought us to the summit. We stomped out platforms and spent a long lunch gazing at the winter spectacle of the Picket Range. Later that afternoon we moved our camp to an avalanche-choked lake below Mount Despair. On the morning of March 3, Mark and I climbed perfect frozen snow up the southeast face of the peak. The clouds and wind were increasing, so we began a careful descent after just a few minutes on the summit. We rejoined Brian back at camp and started the long trip back to the car. The skiing was terrible, but the pleasure of having visited such wild and remote country made up for it.

LOWELL SKOOG

The Pyramid, North Rib. This rib begins in MacMillan Cirque 2500 feet below the summit of the Pyramid. It starts as a rock buttress, then changes to an elegant snow crest as it merges with the east shoulder of Degenhardt Glacier. On June 27, my brother Carl and I crossed from Terror Basin into the cirque by downclimbing and rappelling the steep glaciers just east of MacMillan Spire. We crossed the glacier below Inspiration Peak and gained the rib about 200 vertical feet above its toe, where a horizontal vein of dark rock cuts across toward some trees. We belayed a rightward traverse for a short lead, then started up. The rock was exceptional, and features that looked imposing from below were easily passed by turning corners or following hidden ramps. Six pitches along the rib, a steep snowfield, then four more leads in a fault just right of the crest brought us to the crux of the route. From here a grassy ramp left of the crest appeared to lead into space. A vertical corner above and a wide crack to its right were running with water. I traversed the wall to the right of the crack with minimal protection, then reached an edge beyond it and climbed carefully up and back left. One more pitch on wet, grassy hummocks led us to the snow crest. We climbed for several hundred feet along a knife-edged ridge that the evening sun lit up like a flame. We bivouacked on a shelf next to the snow. The next morning brought threatening clouds. As we hurried up the glacier, the rain began. It stayed with us to the summit horn, down the rappels to Terror Glacier, and through the soaking brush as we hiked down Goodell Creek the following day. (III or IV, mid class 5.)

LOWELL SKOOG

Mount Shuksan, Lower Curtis Glacier and Southwest Face. On August 24, John Stull and I completed a route up steep ice in a broad gully on the upper right side of the Lower Curtis Glacier. Easier but dangerous séracs on the right side forced us left up two pitches of ice adjoining the rock. From above the second icefall we traversed left and ascended class three-and-four rock for 1500 feet up

the right side of the southwest face. Higher on the face we followed a rib of better rock that produced several fifth-class pitches. From the top of the face we followed the Sulphide Glacier to the summit.

ALAN KEARNEY

Half Moon, Lunar Rubble. On July 12 Sue Harrington and I completed a six-pitch route on the northwest face. The climb begins to the right of the two prominent dihedrals below the summit. Flakes, cracks and ledges diagonal from right to left and lead into a right-facing corner higher up. At the top of the corner a large roof is traversed on the right ending on the west ridge below the summit. Most of the rock was good but loose rock and poor protection on the fourth pitch elevated the fear factor. (III, 5.10.)

ALAN KEARNEY

Table Mountain, Death Picnic. Due west of Austin Pass and the Mount Baker Ski Area is a mesa-like peak called Table Mountain. When it is cold, the east and northwest faces offer good one- and two-pitch ice climbs. In December of 1985 I attempted a 250-foot climb on the northwest face with Andy Selters. It began 200 yards southwest of Herman Saddle and involved hollow and vertical ice on the first pitch. The second pitch had a half-inch layer of ice separated from the rock by 8 inches of air. A bold mouse with some skill could have succeeded. We retreated. On December 11, 1986, Mark Houston and I did the climb in two pitches and found the ice better than the last year but still weird. The climb is comparable to a Canadian grade V.

ALAN KEARNEY

Amphitheater Mountain, Sunday Morning Buttress. On July 27 Don Monk and I did a short climb on this buttress located one mile northeast of the summit. It is prominent from Cathedral Pass. The route begins on the left of a 50-foot pillar and continues straight up for three pitches. The middle pitch was the crux. The rock was not as good as it appeared (II, 5.10). We also did the Middle Finger Buttress free. The first pitches are some of the most spectacular in the area (5.10).

GEORGE BELL, JR.

Mount Slesse, Northeast Buttress, First Winter Ascent. During the first eight days of March, Jim Nelson and Kit Lewis made the first winter ascent of the northeast buttress of Mount Slesse. After helicoptering to the base, the pair spent the next seven days on the route. Two days were spent waiting out a storm 250 feet below the summit. It was their fifth attempt of the climb.

Mount Stuart, Northeast Face. On October 18, Charlie Hampson and I climbed a new line to the left of Girth Pillar. From our bivouac atop the Ice Cliff

Couloir, we descended to where we could start traversing toward the Girth Pillar access ramp, which we climbed for one pitch. Here, the approach ramp intersects the pillar, and we headed left up a corner, remaining left of the pillar all the way up the false summit face. With the exception of the third pitch in the corner, which went almost all on aid, we free climbed mixed snow and rock. (IV, 5.9, A2.)

MARK BEBIE

Colonial Peak, New Route in Winter. On February 8 and 9, Marc Twight, John Stoddard, Monte Westlund, and I climbed a direct line on the north face of Colonial Peak. Having seen this face towering 2000 meters above the North Cascades Highway for many years, many climbers speculated about the possibility of a cold-weather route. Instead of using the left-trending gully at the head of the basin that Bill Pilling and I climbed on a previous attempt in December, we paired off and opted for two different lines of ice which led from the basin up to our bivouac at about 5000 feet. Our routes involved five or six pitches of ice. The next morning, we aimed for a 50-foot-high ice curtain in mid-face directly below the summit. Above and to the right of this feature are two prominent ice pillars. We climbed these, interconnecting snowfields and one short mixed chimney to gain the summit. Access to the second pillar was tricky, but Monte found a traverse into it from the left. Marc and I climbed a spectacular direct finish under some huge pillowy cornices. This last pitch was composed of the same scary shallow sugar snow John and I had found on Johannesburg in December. We reached the summit five hours out from our bivouac. Since Monte and John third-classed the route, they did not do the direct finish and summited an hour earlier. We descended the west face and reached the highway by 4:30 P.M.

MARK BEBIE

Travel in the Austera Peak Region and Primus Peak, North Ridge. From the southwest, access to the northeast rampart of Austera Peak is a logistical hassle. On September 7 I climbed Austera Peak, then down-climbed toward the northwest, to the first major notch. Here, I descended the 45° snow-and-ice slope to the North Klawatti Glacier. The bergschrund crossing was easy. I then climbed Primus Peak. Where the North Klawatti Glacier joins the west ridge, I descended a couloir to reach the unnamed glacier north of Primus, which I traversed to the north ridge. The 1000-foot ridge is made up of blocks and towers of good rock, but is somewhat loose. I stayed on the crest unless forced to either side by difficulties. Toward the top, the ridge goes through a section of banded rock common in this region. This provided enjoyable climbing to low fifth class. Time: 1 hour on the ridge. I returned by the same route. It is unlikely that this route of approach has been used before.

MARK BEBIE

Lichtenberg Mountain, Northeast Ridge. With mountain bikes offering quick access, Jens Kuljurgis and I made a one-day excursion of this climb. The route began on the west corner of the ridge, where we encountered an awkward (narrow) body jam in half a lead. From there a short scramble put us on the crest. Two more enjoyable leads cleared the difficulties, leaving only a scramble to the summit. The rock was surprisingly sound, encrusted with typical Northwest lichen in places. (II, 5.7.)

GORDY SKOOG

"Wolf Peak, Howling Ridge." This route is located on the north ridge of the minor summit between Sperry and Vesper peaks. Viktoria Stepitova and I approached the climb via the Headlee Pass trail, then over the pass between Sperry and Vesper into the Copper Lake basin. We followed fourth class gullies to the north (right) up to the col between our summit and Big Four Mountain, where the climb begins. (Alternatively, one could approach directly from Copper Lake basin, ascend above the lake until it is possible to cut north to the start of the route. This is likely the fastest approach.) The peak has a substantial unclimbed north face with perhaps 800 feet of vanishing cracks, brush, and questionable blocks. After inspecting the face, we chose to attempt the obvious curving ridge bordering the face on the west and pointing directly at Big Four Mountain. The route is for the most part quite obvious, following the knife-edge ridge for about 8 to 10 pitches. We passed several towers on their west sides. The climbing is mostly quite moderate (5.6 or 5.7) and enjoyable. The route is solid, protects easily with nuts, and has wonderfully exposed belay stances. Towards the summit some minor brush and several short sections of more difficult climbing (5.8 to 5.9) were encountered. (However, we feel it is likely that these more difficult sections could be avoided by future parties.) Climbing time was about 5 or 6 hours; the descent was an obvious walk-off. (III, 5.8.)

DAN JAFFE

Chianti Spire, East Face. "Let's see, the slide is here somewhere. . . . It's an outer space-like hand crack . . . Looks fantastic! I wonder how steep that direct start is." Once below the spire we changed our plans: ". . . It would be nice to get there directly, but it doesn't make sense; it's all broken and undercut. How about over there? That corner looks as if it might go." I spied this start, so the first pitch was mine. A spectacular traverse left under roofs led to a hand crack in the corner. Jim Nelson started the second pitch up a wide icy crack leading to the top of the right shoulder of Chianti's east face. Five pitches up, I approach the crux—it's wet, and I aid around it. The next pitch is wet too, and our "hand crack" now needs a #4 Friend. We rappel off. Two weeks of hot weather later, we swap the leads, Jim taking the good ones this time. Dry rock finds us quickly free-climbing to our high point and then into the unknown. Very soon we top out, making the fourth ascent of the spire, just a tyrolean away from Burgundy. (May 25 and June 8. III, 5.10 —.)

MARK BEBIE

Liberty Bell Mountain, North Face Direct. After an unsuccessful attempt on the Red Gully last year, the stage was set on August 8 for Jim Yoder, Bob Vaughn and me to push up one of the last unclimbed faces on Liberty Bell. Third-classing up left of the Red Gully brought us to the ramp system that leads left to the north-face route. Our climb loomed above a cave-like bullet-hole, 30 feet in diameter. Exposed climbing with limited protection passed through the bullet-hole, then traversed between two huge roofs. Ramping left to an obvious right-facing corner on the left edge of the slabs brought us to a steeper section. Quality face-climbing linked a line of crumbly corners that characterize the weaknesses of the north face. I was thankful for our moderate stash of pins as I finished a 5.10 corner, overpounded a lost arrow and traversed 40 feet of dicey face up to a large crumbly expanding flake. Atop this touchy flake, we used for anchors the first two bolts. From there, Yoder made a remarkable traverse right, using hooks for protection and climbed up to a tension traverse, which turned out to be the only aid on the route. He finished with a scary 5.10 layback to another one bolt-one pin belay. The day was lengthening as we gathered at this remote oasis centered in the middle of the Great Slab with only blank face in sight for another full pitch. A white streak plummeted down the upper portion of the pitch and became the landmark for the finale. Thus began "Bold Bob" pitch. Armed with his 23-ounce framing hammer, Vaughn journeyed up through 5.10 to a toe-aching stance where he jackhammered a bolt in ten minutes, including breaking and replacing a bit. A crux was encountered 20 feet above. Then smiles and backslapping as 5.5 led to the summit ridge. (IV, 5.10.)

LEE CUNNINGHAM, *Unaffiliated*

Washington Cascades Correction. Three climbs done by Gordy Skoog in the Cascades were incorrectly placed in the Utah section. These were Crescent Mountain, "Mother Lode" and Mount Elijah. The Elijah climb was done solo.

California—Yosemite

Lower Sentinel Falls Ice Climbing, Yosemite. In January 1987, during an unusual cold snap, Ed Sampson and I climbed the lowest 750 feet of the frozen Lower Sentinel Falls. The ice was thin but well bonded to the wall. The route was repeated over the next three days by Jim Bridwell and Paul Tier, and then by Jay Smith and Paul Crawford. Six days after our ascent, major sections of the route fell off.

DICK LEVERSEE, *Pro Leisure Society*

California—Sierra Nevada

Mount Russell, West Face. This route starts just right of the Rowell-Jones route, and left of a route I reported last year (A.A.J. 1986), in a left-leaning dihedral. After two pitches, I led up and left, crossing the Rowell-Jones to the base of a small right-facing corner. Delicate laybacking and face climbing take

one to a hand-crack that is followed to the summit ridge. (III-IV, 5.10). *Mount Russell, Direct South Face*. This route follows the major crack system in the center of the south face. Third class leads into the amphitheater between the Curved Arête and the south buttress. We started in a hand-crack below a large right-facing dihedral. Higher, a left-facing dihedral is entered (crux). Both of these routes were done by Rich Romano and me in July. (III, 5.10.)

FRED YACKULIC

Mount Russell, Sbruno-Sbruski Route. In August, Scott Ayers and I climbed a six-pitch crack system on the south face, to the right of the south buttress. (III, 5.10.) (*Editor's note*—This route and the preceding one are undoubtedly very close to one another. It is not known which route is further right on the south face. Indeed, the routes may share pitches, or even be the same route.)

PAUL LINAWEAVER

Mount Whitney, Peewee's Big Adventure. Joel Richnak and I climbed this fun route which closely follows the northeast buttress of the peak. We roped up about 100 feet right of the east-face route and climbed up and right on flakes to a large detached flake, then back left to a block. After a short distance in a gully, we exited left and went up a beautiful, exposed face. Several more pitches, generally tending left, led to the Peewee, a giant block (also on the east-buttress route). We climbed through the spectacular roof crack of the Peewee, and several easier pitches took us to the top. (III, 5.8 + .)

MIKE CARVILLE

Mount Sill, East Face, Dead Larry's Pillar, Left Side. In August, Kent Davenport, David Wilson and I climbed a new route on the 1400-foot high east face of this spectacular mountain. Our route ascended the left side of a prominent pillar on the southern half of this massive face. The center of this pillar was climbed by Mike Farrell and me in 1978. At that time it was traditional among Palisade Guides not to report new routes in their alpine *Klettergarten*. I hope a departure from this policy will clear up some of the confusion. Both routes ascend a left-leaning crack through an overhanging section before they split. The new route is very steep and the rock is excellent (III, 5.9, 10 pitches.)

MICHAEL GRABER

Twilight Pillar, Clyde Peak, Winter Ascent. In February, David Wilson and I made the first winter ascent of this classic Grade III summer route. A 5.7 pitch directly off the snowfield provided us with the hardest climbing, since it was diagonal and quite icy. Only after we were into the steep rock of the upper arête did we shed our Koflach outer boots and use the Firé Hivernale alpine rock-climbing shoes we were wearing as inner boots. We rappelled to camp with

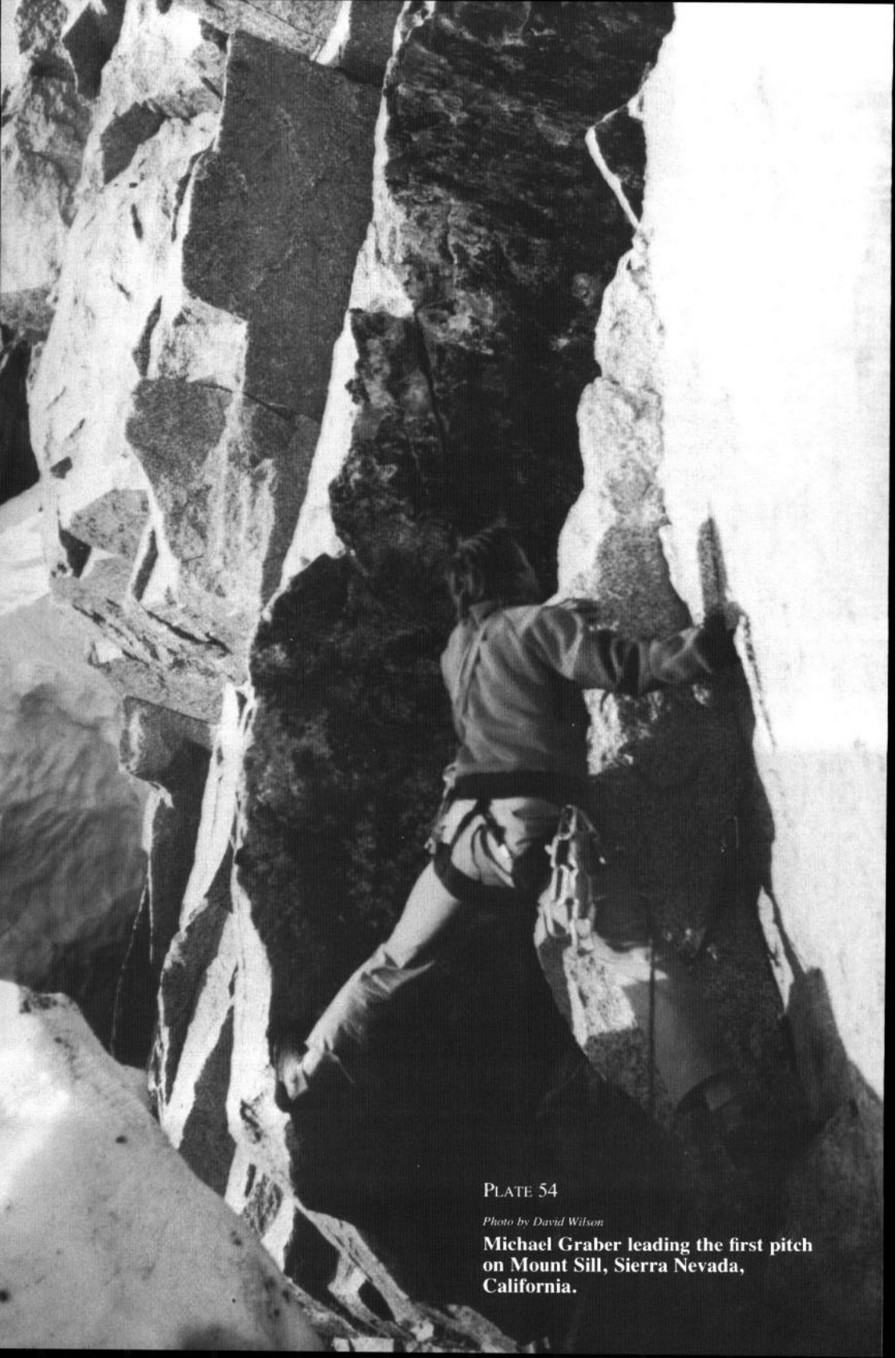


PLATE 54

Photo by David Wilson

**Michael Graber leading the first pitch
on Mount Sill, Sierra Nevada,
California.**

several hours of daylight left, but decided to save our ski run until morning. A storm moved in, dumped eight inches of fresh powder overnight, and gave us the best of all worlds: clear, dry weather for climbing and fresh powder for the 5000-foot ski descent.

GALEN ROWELL

Disappointment Peak, West Face. In September, Dan Frankl and I lugged hardware over Southfork Pass and around the "back side" of the Palisades to a camp on a terrace below Middle Palisade. Our goal was to find a large rock climb on one of these unclimbed west faces, and Disappointment Peak had more to offer than the loftier Middle Palisade that had first drawn our attention. Our route began on the southwest arête, then traversed left into a crack on the main face where fear and cold fingers forced me into about 20 feet of aid after completing a 5.10 section below. Dan and I alternated easier leads for another thousand feet until reaching a knife-edge ridge leading to the summit. In the morning, a snowstorm prevented us from returning over Southfork Pass, and we were forced to walk all day through the blizzard to the easier Bishop Pass trail, completing yet another summer climb in the "Gentle Wilderness" that seems to catch me unprepared far more often than the Himalaya or Alaska. (IV, 5.10, A2.)

GALEN ROWELL

Consummate Corner, Patricia Bowl. While ski touring in Patricia Bowl, above the 10,000-foot road in Rock Creek Canyon, I spotted a wall of granite crags that were hidden from the road. In July, David Wilson and I hiked into the cirque in just half an hour and found one dihedral that was by far the most appealing line. It lies in a cleft about midway along the southern wall of the cirque, and begins out of a snow couloir. After negotiating the snow, two continuous 5.10 pitches led to easier climbing and the summit plateau of a minor unnamed peak. (III, 5.10 + .) (*Editor's note*—At least two other routes have been done here, both 5.10.)

GALEN ROWELL

Mount Stewart, Dawn Pillar. On June 17, David Wilson and I ascended a new route on Mount Stewart's north face. We began climbing on the steepest section of this face, following jam-cracks up the left side of a small pillar directly underneath the west summit. Nine pitches later we stood on the west summit exhilarated over the fine quality of rock that we encountered. This route is about 100 meters west of that climbed by Hooman Aprin, Jack Roberts and me in 1973. (III, 5.10.)

MICHAEL GRABER

Sequoia National Park. On the Memorial Day weekend, Herb Laeger and I added another classic route, *Aspire*, on the magnificent 1200-foot west face of the Fin, facing Castle Rock Spire. We started 150 feet up and right of a prominent pine growing at the base of the original Silver Lining route on the apron. This new route winds its way up and slightly right for 9 continuous pitches, paralleling Silver Lining most of the way. (IV, 5.9.) Foxtrot Dome is the best looking piece of rock on the Mineral King road between the Lookout Point Cliffs and Atwell Mill. It faces east on a hill about a mile to the north of the road and is easily recognized by the long, slender left-facing corner which winds up the center of the face. Park at the creek and walk up the hill to the base. After an easy pitch, Eddie Joe, Roy Swafford, Barry Fowlie and I found a rusty old bolt at the real start of *Foxtrot Corner* proper. Above this, we found no evidence of anyone. We descended the south side of the dome. (II, 5.10, 3 pitches.) From Courtwright Reservoir, looking north, one's eye is drawn to several elegant domes all in a row on the east of Dusy Creek. The dome farthest to the north is Locke Dome, which is the largest of all the formations in the area (1000 feet), two miles north of the reservoir. Access to the area is via the four-wheel-drive road from the reservoir past Maxon Dome; it takes a couple of hours. In July, Herb Laeger, Harold Seiden and I did the first route, *Best of the West*, on the impressive west face. We chose what appears to be the only reasonable line directly up the center of the face, connecting discontinuous cracks with 11 bolts. The climbing is excellent on beautiful rock. (IV, 5.11 + , 8 pitches.) *Knob Business Being Here* is a short route, a variation of Levity's End, which gets to one pitch above Condor Watch Ledge on Moro Rock. In February Ron Carson and I climbed two spectacularly steep knob pitches, one below and one above Condor Watch Ledge. The first pitch comes up to the right side of the ledge (bolts), and the second takes the bold, extremely steep line of knobs above the very left end of the ledge for 165 feet to belay knobs. (II, 5.10 + .)

DICK LEVERSEE, *Pro Leisure Society*

Watchtower and Castle Rocks, Sequoia National Park, 1984 and 1985. The easily accessible and exposed 8-pitch route, *Watch Out*, is on the central main face of the Watchtower about 30 minutes easy hiking from the Lodgepole Campground. Ron Carson, my wife Eve and I completed this route on July 28, 1984. It has several difficult traverses and requires route-finding capabilities. All natural protection was used and the rock was generally clean and solid, but not throughout. The only aid on this 1000-foot, steep climb was a 10-foot section near the start of the fifth pitch. This section would go free if the crack were cleaned or a large needle-like loose flake were pushed off. If free-climbed, it would probably not be harder than the rest of the route. *Watch Out* (IV, 5.11, A3) is between the Timex route (A.A.J., 1984, page 165) and the nose of the Watchtower. A trail to the top of the Watchtower provides an easy descent to the Generals Highway. On May 26, 1985 Patrick Paul, Ron Carson, my wife Eve and I completed *Silver Lining* (IV, 5.9) on the Fin of Castle Rocks massif. Nine

long pitches on some of the most beautiful face climbing in California make this climb a must for the High Sierra climber. The setting is spectacular, the rock excellent and the route has substantial 5.9 on every pitch. Natural protection is supplemented with bolts where needed, but often there are thought-provoking runouts. The route ascends the longest section of the west face of the Fin for over 1100 feet and passes the prominent block on its right side during the seventh pitch. Access to the Fin is via an old WPA trail which ascends the 4000-foot gain from the bridge at Hospital Rock. Three days are recommended for the climb and water is usually available in the gully between the Fin and Castle Rock Spire for a few weeks after Memorial Day. A 165-foot rope is recommended. A rappel route starting at a manzanita bush near the top of the Fin's narrow summit ridge avoids a tedious climb down. Two ropes are needed and three bolts have been placed at each rappel point.

HERB LAEGER, *Unaffiliated*

Tombstone Shadow, Big Baldy Dome, Sequoia National Forest. In May, Roy Swafford, Barry Fowle and I climbed a four-pitch route which starts in a huge left-facing corner on Big Baldy's south face. Steep but easy climbing up the corner leads to a pitch of precarious climbing up an overhanging, leaning finger-crack and chimney. Easier climbing then led to the summit. The loose blocks which helped the route earn its name are now removed. (III, 5.10.)

E. C. JOE, *Stonemasher Alpine Club*

Nowhere To Run, South Buttress, North Mountain, Kings Canyon National Park. Along the "Motor Nature Trail" and above a Park Service residence rises a prominent pillar of rock. In May, Bill McConachie, Barry Fowle and I found that the route had five outstanding crack pitches, from fingers to off-width. The crux was the fourth pitch. (III, 5.11.)

E. C. JOE, *Stonemasher Alpine Club*

Artesian Route, Charlito Dome, Kings Canyon National Park. Situated next to and just south of the famous Charlotte Dome is a large southwest-facing slab. A right-facing corner on its upper half and a peculiar spring of water halfway up mark the route. In June, moderate but serious face climbing to the corner and two crack pitches put Dick Leversee and me on the summit of this fun back-country route. (III, 5.9.)

E. C. JOE, *Stonemasher Alpine Club*

Kings Canyon Climbs. "The Matterhunk" is our unofficial name for the huge limestone peak formation a mile south of Boyden Cave on Highway 180 on the south fork of the Kings River. In October Herb Laeger, Eddie Joe and I climbed the dramatic 1500-foot northeast arête from the Boulder Creek trail to the summit, staying as close to the edge as possible the whole way. Descent is via the

gully below the north face and back down the trail to Boyden Cave. The climbing is very enjoyable, on good limestone, a rarity in California. (IV, 5.10+, 10 pitches.) In August, Eddie Joe and I hired borros to ferry loads to the junction of Charlotte and Bubbs Creeks below Charlotte Dome. We spent the next 2½ days completing one of the Sierra's only two Grade VI back-country routes. *Crystal Banzai*, on Bubbs Creek Wall. (The Kroger route on Tehipite Dome is the other.) We chose an obvious line of cracks, arches and corners on the longest section of the wall (2300 feet), just left of the center. This line curiously follows a bizarre white crystal band from base to top. The route went 90% free with less than 200 feet of aid and entirely clean. We used bathooks to pass a blank section on the fourth pitch and a total of 15 bolts on the 17 pitches. Start at a big pine 100 yards up and right of a huge, white, left-facing dihedral which marks the beginning of the crystal band. Diagonal up and left, intersecting an obvious ramp, to the "Crystal Palace" (ledge) with its "Dungeon" at the top of the huge white dihedral (3rd pitch). Follow the "Crystal Corner" and arch above up and left to bathooking which leads past four bolts to a small stance (2 bolts). From here we climbed up and slightly right to join the main crack-and-corner system, which followed for five more pitches, ending at "Zero Point Ledge," just above the obvious huge "Seagull Roof." Two more pitches of cracks lead up and slightly left to a good ledge. Above this, climb up and right for 100 feet to the arching right-facing dihedral which is visible from the ground. Here, instead of following the corner system up and right, face-climb left for 20 feet to a large right-facing flake and follow this and the thin crack above for a full pitch to "Dead Tree Ledge." Above, face-climb up and left to gain entry into a huge right-facing corner one pitch below the top. Here, instead of climbing the perfectly blank corner above, face-climb left over the corner to easy knobs which lead to the top. Descent is via Charlotte Creek to the west (toward Charlotte Dome). Recommended rack: tiny nuts to 4" (2 each), 1 #5 Friend, 1 skyhook, 2 bathooks, 2 Leeper cam hooks, hammocks. (VI, 5.11, A3.) In July, Karl McConachie and I finished a new all-free route on the south face of North Dome, above Zumwalt Meadows, *A Tall Cool One*. We followed the obvious continuous crack system to the right of the original Frost route for 11 pitches to the very top of the dome. This is a serious route involving some climbing on less than perfect rock with 8 of the 11 pitches being 5.10 or harder, ranging from finger to off-width cracks. This route is best done late in the season as the third pitch can be very wet and slimy. Recommended rack: Friends-3 each to 4", 1 #5 Friend. (V, 5.11, 11 pitches.)

DICK LEVERSEE, *Pro Leisure Society*

"*Scarlet Slipstream*," Cedar Grove, Kings Canyon National Park. In July, Eric Rhicard, Vaino Kodas and I climbed this 6-pitch climb, four of which are 5.10 and the other two 5.11. The rock is superb and the route follows a prominent red water streak for its entire length. Two 165-foot ropes should be taken to rappel the route, which is primarily protected by 30 bolts, but RURPS, a few

small stoppers and small to medium Friends are useful. To find this easily accessible route, park in the day-hiking parking lot at the end of the road near Zumwaldt Meadows. Cross the Kings River on the foot bridge just east of the parking lot and follow the trail upstream along the south bank for 1½ miles. Look for a reddish streak on a low-angle slab on the south wall of the canyon. Climb the red streak for six pitches, starting on the right side with a series of steps just left of the corner in order to reach the first bolt. Then follow bolts, small cracks and corners to the top. Runouts are moderate.

HERB LAEGER, *Unaffiliated*

North of Eden, North Dome, Kings Canyon National Park. In July, Roy Swafford, Todd Vogeland and I climbed an 11-pitch route on the east buttress of North Dome. The route follows a distinct corner system consisting of wide cracks. The crux reminded us of the "Ear" formation on the Salathe Wall, only much harder. Where cracks end, face climbing left around a headwall leads to bushy ledges and more face climbing to the top (V, 5.10+.)

E. C. JOE, *Stonemasher Alpine Club*

North to the Bone, North Dome, Kings Canyon National Park. In August, Dick Leversee, Mike Meng and I climbed this 11-pitch route which starts left of the 1968 Herbert-Frost Route in vertical left-facing corners and goes up thin cracks near the arête left of the 1968 route. Two sets of roofs are passed at about mid-height and airy free climbing eventually meets the 1968 route near the summit (V, 5.9, A3.)

E. C. JOE, *Stonemasher Alpine Club*

Mama Told Me Not To Come, Voodoo Dome, The Needles. In October, Steve Brower and I climbed this "indirect-direct" start to the *White Punks on Dope* route. Starting left of the normal start, several bolts protect difficult moves leading to a belay at the edge of a giant arch. Two easier face pitches take one to the dihedral pitch on *White Punks*. We found evidence of a previous ascent which had traversed in from the side on the first pitch, and we used their anchor bolts. Higher, though, we felt compelled to remove two bolts that were placed next to good cracks or knobs. (III, 5.11.)

E. C. JOE, *Stonemasher Alpine Club*

It's No Game, Schaffer Buttress, The Needles. In October, Dick Leversee, Steve Brower and I climbed this four-pitch wall which is located across the Kern River from the Needles, near Schaffer Meadow/Cedar Canyon. The climb starts in a gouged-out area with some solid, but dubious looking brown blocks and cracks. A ledge below a steep headwall is the belay. Thin cracks lead to an overhanging slot and a stance right of the crack. After ascending the right side

of a huge flake, a difficult step left leads to steep mantels and cracks heading to the top (III, 5.11.)

E. C. JOE, *Stonemasher Alpine Club*

Bear Creek Spire, P 13,600 and Ruby Lake Wall. In December of 1985, Kevin Ball and I made the first winter ascent of the east ridge of Bear Creek Spire, finding it much as Galen Rowell had described it: long and enjoyable. In February of 1987, I returned with Greg Orton to make probably the first ascent of the north buttress. P 13,600 rises on Wheeler Ridge, east of Rock Creek Canyon just below Tamarack Lakes. In December of 1982, I climbed the snow-and-ice gully right of the summit (5.4 rock, 50° ice) and in May of 1984 returned with Susan Williams to climb the arête left of the gully which rises directly to the summit (5.8). Both are probably new routes. To the north of the main Ruby Wall ascended by Galen Rowell in 1982 and 1983 lies a steep wall hidden from the lake. In October Bill Kerwin and I made the first ascent of "The Wall of Flying Reptiles" via the *Pteradon* (5.10, A1.) We followed the prominent corner system with an ever-widening crack on the left wall for five pitches.

ROBERT J. PARKER, *Unaffiliated*

Crystal Crag, North Arête. On a blustery day in late June Rick Taylor and I climbed this beautiful arête. We reached the base after a short hike from Crystal Lake. The route begins in a prominent dihedral on the prow of the arête. The first pitch was reached by dropping into the moat between the remnant of a giant cornice and the clean rock. A few 5.7 moves in a layback-offwidth crack led to a comfortable belay stance on a large sloping ledge. An easier pitch was climbed to an area of broken rock. A third-class pitch led up from here to a shallow gully on the west side of the arête. The fourth pitch ascended the easy fifth-class flakes in the gully to an area directly below a huge deposit of white quartz. A final short pitch of fourth class went up the "crystal dihedral" directly above and led to a short scramble to the summit. The higher south summit was reached along the classic knife-edged ridge after dropping into the notch between the two summits. (II, 5.7.)

WILLIAM L. KRAUSE

Utah

Gates of Hell, South Side of Provo Canyon, 1985. This climb, done on November 27, 1985 by Thomas Koch and Bill Robins, ascends the major face west of the ice climb, *Stairway to Heaven*. Bush whacking and scree climbing from a parking lot a half mile west of the Bridal Veil parking lot got them to a large alcove below the center of the face. Unprotected climbing over the alcove roof (5.10) led them up two pitches of 5.7 limestone to a longer headwall. The headwall went at 5.10, the crux being a 30-foot layback on a broken, unstable flake. Two more pitches of 5.7 to 5.9 limestone led to a large ledge and the

sandstone climbing. They traversed 50 feet west and climbed a large dihedral which splits the upper face for three pitches. The last pitch on this good sandstone wanders up to the capping forest. (IV, 5.10+, varied climbing on loose, dangerous limestone and good sandstone, 12 pitches.)

BRIAN SMOOT

Notch Peak, North Face. Notch Peak is 60 miles west of Delta, Utah at the south end of the House Range. The 2500-foot-high limestone north face was first climbed by Thomas Koch and Peter Deinen in June. The route ascended right of center to a prominent chimney, mostly on poor rock. The third pitch of a white, chalky limestone was so poor that two pins were used for aid and major blocks were broken in the climbing. The bivouac was two pitches from the top. They descended the northwest ridge, using eight rappels. (V, 5.10+, A3, 18 pitches.)

BRIAN SMOOT

Zion National Park. The classic route, *Space Shot*, had its first solo ascent in October by Rich Strang, an inspired performance especially in light of its being his first desert wall! Some climbers fail to note the critical importance of hammerless ascents. For example, *Space Shot* suffered considerable damage at the hands of two Colorado climbers despite its being a hammerless route. A new generation of Zion locals have made their presence felt with the establishment of Zion's first significant face-climbing route. In May 19-year-old Leif Bjarnson and Bob Quinn completed *Facetastic*, a high-quality 5.11 route up the apparently blank slab below the south face of Observation Point. Among the other shorter routes established in the past year is *Master Blaster* (5.8, A1), a perfect Friend crack that ascends 45 meters through two body-length roofs similar to inverted steps; it is 100 meters to the left of *Headache*. It was put up in June by Bob McLaughlin and me and repeated shortly afterward by Todd Gordon. Equipment should include at least five 1½ Friends! In September Earl Redfern and I made the first ascent of the main north face of Timbertop Mesa via *Thunderbird Wall* (VI, 5.9, A3). This had originally been attempted fifteen years earlier by Jeff Lowe and Cactus Bryan before the mesa had been climbed by any route; the wall had seen at least three even less successful attempts subsequently. The climb required 7½ days for the sixteen 165-foot leads. We discovered the Lowe-Bryan highpoint on the 12th pitch. We found absolutely no bolts despite having used eleven for aid ourselves up to that point (the lines differed by at least four pitches) and several more to reach the top, including one right above their final piton. A hundred meters from the top, Earl performed the crux, a 5.9 layback up a series of bushes. Rather than descending the 1975 Mormon route, we made six rappels down the buttress 350 meters east of the finish of our ascent to intercept the final section of the Mormon route. This may have been only the third true ascent of this enormous mesa.

RON OLEVSKY

Hell Roaring Canyon, 1984 and 1985. On October 31, 1984 I completed the first ascent of the Witch, one of several Wingate Towers, roughly a quarter of the way up the canyon near its south rim. The route, *Midnight Rider* (III, 5.7, A3), is highly aesthetic and recommendable, consisting mostly of clean A1. A previous attempt on the main tower of the group, the Warlock, by Dave Mondeau and me was thwarted by bad weather, lack of time and a relatively minor rockfall injury. We returned in May, 1985 with Dave Kruse and used an alternative approach, rappelling into the canyon from the rim. This attempt was successful in reaching the summit via a spectacular route that actually climbs through the tower from northwest to southeast, but the rock was so loose that it cannot be recommended.

RON OLEVSKY

Snow Canyon. Many new routes have been established in this state park just northwest of St. George. 1986 saw several first free ascents of note. Todd Gordon eliminated the aid from the second pitch of *Pygmy Alien*, thus freeing the route at 5.9. Chris Pendleton freed the aid on the second pitch of *Trouble No More*, a very aesthetic hand-crack that saw numerous repeats. I freed the first pitch of *Highlander* (5.10d), which was originally soloed with aid; this provided meter for meter the finest quality sandstone I have ever found. Most noteworthy of all was a visit by Rob Robinson, who drove all the way from the AAC Annual Meeting in Denver to free *The Journey From the Future*, an awesome overhanging fist crack near the mouth of the canyon on the east side. The eleventh-hour attempt was successful despite two falls with a lowering to rest. This produced the canyon's hardest route at 5.12b. This is no elevated bouldering problem. Robinson carried four N° 4 Friends and "could have used more."

RON OLEVSKY

Wyoming—Tetons

Teton Climbs. Art & Brent Pinnacle. In September 1984, Renny Jackson and Tom Kimbrough climbed a newly discovered and difficult pinnacle on the south side of Cascade Canyon, on the east side of the main Teewinot-Owen cirque. The route required A1 aid to start on the north side, then ascended a 5.9 jam-crack to and over a ceiling. It was surprising to find such an unclimbed tower so close to Jenny Lake at this late date. *Death Canyon Routes. Aerial Boundaries*, one of the finest rock routes of the many in Death Canyon, was climbed in September 1985 by Greg Miles, Mike Fisher, Jeff Bjornsen, and Tom Vajda. This five-pitch, 5.10b route on the southwest corner of P 10,552 consists of liebacking and underclimbing, with an overhanging jam-crack as the crux. The first three pitches take one to the lower Sanz descent ledge, with the final two excellent leads exiting onto the normal Sanz descent ledge. *Lay Back in Death* (III, 5.8), first climbed in July 1983 by Dan Burgette, Paul McLaughlin, and Jim Woodmency, also is a west-facing climb above the Sanz descent

trail. It ascends a prominent dihedral involving considerable liebacking, while the first pitch contains a squeeze chimney. *Cascade Canyon*. Four new and difficult rock climbs were completed in the vicinity of Guide's Wall and the lower south walls of Storm Point. In August 1984 Renny Jackson and Larry Dietrich climbed *Blobular Oscillations* (5.9), directly to the right of a prominent dihedral on the right side of Guide's Wall. After a few attempts, *Bat Attack Crack* (5.11a) was climbed by Paul Gagner on July 4, 1985. This severe route follows the left-facing arch immediately to the right of the Chouinard start to Guide's Wall. *Hotdogs* (5.8) was climbed by Paul Gagner and Jim Woodmency in July 1986. The route begins at the start of Bat Attack Crack, making a hand traverse to the right, and then follows a delicate flake above. *Morning Thunder* (5.10) consists of two pitches which surmount an improbable roof below the rock scar formed by the July 1985 landslide in Cascade Canyon. It was first climbed on July 9, 1985, by Paul Gagner and Dan Burgette. *Mount Owen, Northwest Face variation*. A second variation on this large face was made on August 9, 1985, by Renny Jackson and Paul Gagnon. After an approach to the face by a traverse from the vicinity of Gunsight Couloir, the upper portion of the face was taken somewhat more directly than either the first ascent (1965) or the first variation (1982). As a result, greater difficulty was encountered and exit onto Serendipity Arête was made higher, only one pitch from its top. In all some five pitches between 5.7 and 5.9 were climbed. *Teewinot, Direct East Ridge*. The steeper sections of the direct east ridge of Teewinot remained unclimbed until August 9, 1986, when Renny Jackson and I approached the base of the ridge by traversing north from the top of the tree-covered apex of the regular route. Two steep sections were climbed. While the lower half is the more difficult pitch, 5.8, the upper is more prominent and contains beautiful solid cracks in the finest of Teton rock. Staying on the crest of this ridge required traversing over three towers before arriving at the summit. *P 10,080 +*. This unnamed minor peak, rising directly above and west of Grizzly Bear Lake, was climbed for the first time on July 29, 1986 by Tom Kimbrough and me. Protected by substantial cliffs on the east, the route selected was on the west face to the summit ridge which was followed north to the summit block, climbed by its northeast corner. Three pitches, one of F7 difficulty, were involved. It appears that this was the last unclimbed peak in the Teton range. *Grand Teton, Enclosure, Emotional Rescue*. A new, more difficult, and more improbable route on the north face of the Enclosure was climbed on July 26, 1985 by Renny Jackson and Steve Rickert. This outstanding climb of ten pitches on excellent rock (IV, 5.10a, A2) is currently the most difficult route yet completed on the Grand Teton. The climb starts at the upper of the two ledges used for entry into the bottom of the Black Ice Couloir from the west; this is below and well to the left (north) of the beginning of the Lowe route (1969). The first lead on the massive rock wall above ascends a 5.8 crack and chimney, followed by a 5.10 crack ending in a hanging belay. Two pitches zigzag upwards toward the gap in the large ceiling which runs all across the west face of this north buttress of the Enclosure. Passing through the gap involved some 5.9 with 15 feet of A2 in one

blank section to a second hanging belay. Two more leads exited onto a 4th-class section which was followed for 200 feet to the right to the final difficult 5.9 section on the extreme north corner. Once above this scary pitch, easy mixed climbing on ice and rock led again back to the right, ultimately around to the uppermost west face, from which the summit was attained. *Grand Teton, West Face of Exum Ridge, variation*. In July 1986 Renny Jackson and Steve Rickert made an important new variation to the original Pownall-Merriam route (1954). The variation involved six pitches, starting in the prominent crack just above the beginning of the 1954 chimney system. Three pitches of 5.7, 5.8, and off-width 5.9 with little or no protection were the key to this variation which ended at the beginning of the "V" pitch of the normal Exum ridge. *Grand Teton, Otterbody Chimneys*. Rising from the upper right corner of Teepee's Glacier is a long very steep chimney system formed between the southwest walls of the Second Tower and the main southeast face of the Grand below the East Ridge Snowfield. Because of the obvious very steep and rotten rock in this part of the mountain, no ascent had been attempted in the normal summer climbing season. Renny Jackson and Dan Burgette took advantage of winter snow and ice to make the first ascent of this chimney system on December 28, 1986 in a single day from the valley. Six pitches of mixed ice and rock were found, including vertical ice sections as well as snow over rotten rock. The rock itself was of 5.7 difficulty. *Cloudveil Dome, South Face, variation*. Paul Duval and Beverly Boynton climbed on July 23, 1986 a new 5.9 variation to the left of the Armed Robbery route. Two pitches were climbed by continuing up the ramp at the start of the hard climbing of Armed Robbery.

LEIGH N. ORTENBURGER

Wyoming—Wind River Range

Stroud Peak, Northwest Face. In August, my wife Tommie and I climbed a 12-pitch route on the northwest face of Stroud Peak. We began at the prominent buttress which extends out from the center of the face and ascended cracks and flakes near the crest. Where the buttress joins the face, there are three parallel corners. We chose the crisp, leftmost corner, which is right-facing. Above the corner the last quarter of the face offers many moderate options to the summit (III, 5.9).

JAMES A. HOWE, *Unaffiliated*

Montana

Mount Cowan, Absaroka Range, 1985. In August 1984 Curt Vogel and Lisa Schassberger climbed the first four pitches of a route on the most prominent buttress of Mount Cowan as seen from Elbow Lake. Due to a lack of time, they could not finish the route. In July 1985, Vogel and I returned and completed the remaining two pitches. The route ascends the obvious crack that splits the lower

detached flake on the buttress. The climbing consists of fist- and hand-jamming (5.7 to 5.8) on excellent rock with occasional bits of face climbing. There is one roof.

PAT LANG, *Unaffiliated*

The Needles, Big Belt Mountains. The Needles are located on the eastern side of the Big Belt Mountains and can be reached by a private-access road of Bill Galts. This seldom visited area saw much climbing activity in the summer of 1986. Over a dozen friction and face routes from 5.2 to 5.8+ were done on fairly good granite. Protection is a problem, but tri-cams and small nuts seem to protect most routes. Of the climbs Tom Bozeman, Keith Brunckhorst and I pioneered, *Steppin' Out* (5.7) on Arch Rock and a roof route called *Wings* (5.8+) on No Name Tower remain the best.

RON BRUNCKHORST, *Unaffiliated*

CANADA

Yukon Territory

Season in the St. Elias Mountains. There were fifteen groups climbing and skiing in the St. Elias Mountains in the summer of 1986. They spent 1451 man-days in the area. I summarize the results of some. Canadians Sandy Briggs, Don Merryman, Richard Eppler and Rob McDonald failed to climb the north-west ridge of Vancouver. Canadians Martha McCallum, Geoff Porter, Michael Hendrick and Roderick McIntosh failed to climb Kennedy by first the north and then the east ridge. Americans Howie and Michael Fitz, John Rake and Randy Walter climbed both Hubbard and Kennedy by their standard routes and skied off. They had only three good days out of 20. Americans Jim Rawding, Greg Leger, Jim Hennessey, Kurt Gravara and Lee Schipper were unsuccessful in their attempt on Steele's east ridge. Americans Steve Young, David Phillips, John Powers, Kyle Mathews, Peter Albert, Roger Kubby and Terry Kennedy failed to climb Logan by the King Trench route as did Canadians Mark Rosen and Blair and Scott Halperin. Canadians Dave Chase, Bill Hoyne, Bruce Hart and Mike Saunders failed on Logan's east ridge, but Canadians Bert Middleburg, Darrel Adzich, Max Lautenbader, Ralph Crawford, Eric Ridington and Keith Favelle did succeed; unfortunately Favelle was killed on the descent.

LLOYD FREESE, *Kluane National Park*

Mount Logan Glaciology Project. Our party members were M. Demuth, R. Glykherr, B. Sheffield, G. Ferguson and me. Beginning on May 9 on the upper Quintano Sella Glacier, we dug and sampled snow pits at Base Camp, King Trench, King Col, Northwest Col and AINA Peak at 2875, 3350, 4200, 5340 and 5630 meters respectively to study snow chemistry variations with