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VIRGINIA FERGUSON CHARLOTTE E. MAUK

GOING LIGHT—*with Backpack or Burro*

3d printing, 1953

The Sierra Club could hardly ask for more praise for its book than JOSEPH HENRY JACKSON has given it in the *San Francisco Chronicle:*

. . . a little pocket-size book that contains at least as much in the way of advice, good tips and general common sense on its subject as any volume of comparable size ever printed. That's a pretty large claim, I suppose, but when you stop to note that it is written by ten experts and edited by another, and that it is recommended without reservation by still another, part of whose profession is to be knowledgeable in such matters as our wilderness areas, parks and the like (Newton B. Drury), then perhaps it is not surprising that the book can be mentioned in such extravagant terms.

* * *

There are sections on walking in general, with useful tips on uphill and downhill going; on planning and selecting what to take along; on first aid; on selecting a site and making (and breaking) camp; on cooking, eating and dish-washing. There is counsel on what to do if you are lost, and on how not to get lost, in the first place. Care of the feet? There is advice on this, too. What to wear! Check. Making and carrying the pack? That's here, too.

When it comes to how to manage on pack trips with a burro, the advice is just as explicit, even including three pages of clear drawings showing knots, splices and hitches that are useful in loading pack animals. An Appendix offers suggested food lists, and another provides equipment lists, both for the backpackers and animal packers. Finally, there are discussions of how to introduce a wife to the delights of hiking (take it slowly), and of the general question of children on pack trips.

As you see, this is a book of the utmost practicality, written and planned by people who know what they're doing. Editor is David R. Brower. Contributors are Lewis F. Clark, Elizabeth Cowles, Alex Hildebrand, Joel H. Hildebrand, Milton Hildebrand, Mildred Jentsch, Louis H. Klein, Dr. H. Stewart Kimball, Richard M. Leonard and Bestor Robinson. A note tells the reader that the several authors have had from at least ten to nearly sixty years of experience in wilderness travel, and that their experience ranges from the California High Sierra in both summer and winter to Canadian and Alaskan ranges, the Rockies, the Alps and the Himalayas. Four of them assisted in developing mountain training and equipment for the Army in World War II.

* * *

And one other point is worth making. As the editor notes in a foreword, recognized resort areas are growing ever more crowded. But the crowding, he has found, diminishes as the square of the distance from the highway, and as the cube of the elevation above it. That is a useful reminder for anyone who likes his scenery people-free, or near it. I don't know just how the expense diminishes; it would be interesting to have some figures on that. But it's certainly true that the self-sufficient, or almost self-sufficient, hiker gets a lot more of what he wants out of the mountains, and for a lot less.

Going Light—With Backpack or Burro
edited by David R. Brower, xiv + 152 pages, cloth **$2.00**

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Sierra Club Bulletin

VOLUME 38 OCTOBER, 1953 NUMBER 8

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THIRTY-TWO PAGES OF PLATES

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Sierra Club Bulletin

VOLUME 38 OCTOBER, 1953 NUMBER 8

Cordillera Blanca

By WILLIAM SIRI

IN THE GRAY FOG of early morning on July fifth, six members of the California Peruvian Expedition boarded an Air Force plane for the first leg of the long flight to Peru. Within minutes the plane burst through the clouds into a clear sky as six faces peered expectantly through the window. In the excitement of departure, the tension of inevitable last-minute complications and the weeks and months of tedious preparation quickly receded into dim memory. Again and again through everyone's mind ran the same thought: What did the next two months hold for us? How would we perform on 20,000-foot peaks? But, before many hours passed, with the rhythmic drone of the engines, everyone settled down into a torpor, interrupted occasionally by food, conversation, or a few edifying chapters from Mickey Spillane.

From Maxwell Air Force Base in Alabama, our plane headed out over the Caribbean, flicked the western tip of Cuba and touched down in Panama for the night. In the morning we continued south, skirting the shoreline of South America, 7000 feet above the jungles of Ecuador and the desolate wastes of the Peruvian coast.

An hour's flying time north of Lima, we eagerly scanned the eastern horizon for our first sight of the Cordillera Blanca. Sixty miles away but still rising above the high crest of the nearer Cordillera Negra, we clearly recognized the familiar outlines of Huandoy and Huascaran in the distant line of shimmering ice peaks. In two weeks by our schedule we should be

camped on the flanks of Nevado Huandoy, well on the way to high camp.

For many years Dr. John H. Lawrence, Director of Donner Laboratory at the University of California, and his associates had contributed to the development of the relatively new field of aviation medicine, mainly through studies of the effects of high altitude on the body. Dr. Lawrence had led a highly fruitful scientific expedition to Peru in 1950, in which I was fortunate to participate and now after two years' work in the laboratory at Berkeley, he planned a second series of studies on the inhabitants of high altitude in Peru. As before, the studies were to be undertaken in the laboratories of Dr. Alberto Hurtado in Lima and at 15,000-foot-high Morococha, as well as in the Cerro de Pasco Corporation's hospital at La Oroya. With more than adequate plane space available, I saw here an opportunity for obtaining transportation to Peru for a mountaineering team with which I could carry out physiological studies in addition to those planned by Dr. Lawrence and his associate Dr. Berlin.

Above 18,000 feet, the body seems incapable of adjusting itself permanently to the low atmospheric pressure. We were particularly interested in observing changes that occur in red blood cell production and in dehydration, i.e., changes in the total water in the body. The plan called for twenty days' residence at about 17,000 or 18,000 feet during which time the mountaineers would acclimatize and also have an opportunity to climb peaks in the surrounding area, while I carried out the special studies.

The mountaineering team consisted of Oscar Cook, Allen Steck, Fletcher Hoyt, Leigh Ortenburger, Dr. Peter Hoessly, the group's physician, and me. Oscar, Al, and Fletch, quite well known for their activities in the Sierra Club, each had an enviable accumulation of mountaineering experience and easily ranked among the best climbers in the country. Leigh, a graduate student in mathematics at the University of California, spent his summers as a guide in the Tetons. Peter left his wife, child, and the University of Utah Medical School for this rare opportunity. Once in the mountains, Peter was to double as mountaineer and expedition physician, and together he and I would do the studies in high camp. Before leaving Berkeley everyone was given a thorough physical examination and special tests by Dr. Berlin and later by Dr. Hoessly so that we would have no reservations about the health and physical condition of the members of the expedition.

Our stay in Lima was brief, only two days to complete final preparations and catch a fleeting glimpse of the city. The dry season was already well advanced and no time could be lost in getting to the mountains, the Cordillera Blanca, about 150 miles north of Lima.

Nowhere in the 4500-mile length of the Andes, nor for that matter in the Western Hemisphere, is there a greater concentration of ice-covered giants than in the Cordillera Blanca. Within its 112-mile length and 20-mile breadth there are more than twenty-nine peaks exceeding 20,000 feet, while a far greater number rise higher than 19,000 feet. The range runs roughly north and south, paralleled on its west side by the picturesque Santa Valley and on the east by lesser ranges rising from a high plateau. A series of deep lateral chasms that cleaves the range at almost uniform intervals is a feature unique to the Cordillera Blanca and provides easy access to the heart of the mountains from many points in the Santa Valley. To inhabitants of the valley, however, these canyons are a menace, and to the Peruvian government, a headache. Lakes of considerable size are forming in each of the high canyons and growing at an alarming rate, fed by melt water from the receding glaciers and precariously dammed by glacial debris. Occasionally, through seepage or just growing pressure, an insecure dam bursts, disgorging an entire lake 5,000 feet down into the Santa Valley. Everything in its path is utterly destroyed in the onslaught of mud, water, and boulders. Huaras itself, the capital of Ancash and principal city of the valley, was half-destroyed in the early forties, and even today, where once stood hundreds of homes and shops, there remain nothing but acres of granite boulders. The Peruvian government, endeavoring to solve this difficult problem, possibly by draining the lakes, faces a long and costly struggle.

The mountaineering history of the Cordillera Blanca is notably brief for a region that has been open to Europeans for more than 400 years. The range remained unmapped and relatively unknown until 1932 when Dr. Hans Kinzl led his first Alpenverein expedition into the area. In this and subsequent expeditions in 1936 and 1939 Dr. Kinzl and his associates made a thorough study of the range and produced an excellent map which even today no one has been able to improve. These expeditions were also remarkable for their mountaineering achievements. First ascents were made on all the highest peaks in the range but Huantsan.

In recent years interest in the Cordillera Blanca has again been increasing, and every year during the dry season from June to September small groups of geologists and mountaineers can be found wandering about the deep valleys and over the moraines. In 1951 French climbers led by Georges Kogan made the first ascent of Alpamayo, and in 1952, shortly before we arrived, a Dutch expedition organized by Dr. C. G. Egeler climbed 21,000-foot Nevado Huantsan. In coming years many of the great peaks will be climbed by the energetic and courageous members

of the newly formed Grupo Andiniste which has its headquarters in Huaras.

Before we left for the mountains, a photo-reconnaissance flight over the Cordillera Blanca was arranged through the generous coöperation of the U. S. Air Mission stationed in Lima. Flying at 19,000 feet we photographed the whole length of the range while carefully examining the routes into the peaks and scanning for promising sites for our high camp in the vicinity of Huandoy. Somewhere in our plans I had noted that an effort would be made to reconnoiter and possibly climb Chacraraju, a close neighbor of Huandoy. The sight of it now from the air was appalling. It gave the distinct impression of two nearly vertical walls of fluted ice, leaning together to form at the top a single ragged ridge of cornices. Later, looking at it from the ground, we had the same impression.

Late in the afternoon, July tenth, the six of us accompanied by Dr. Berlin left Lima by car and truck, driving north along the barren Peruvian coast, arriving at Huacho after dark.

All the next day driving eastward over the Cordillera Negra, we bounced over the rutted, rock-strewn road, immersed in a great cloud of road dust. For six hours the car and truck crawled steadily upward toward the crest of the range. At Gonococha, a dreary collection of adobe huts on the 15,000-foot pass, we saw for the first time from the ground the great ice-covered peaks spread out to the north. From here the road bent down into the Santa Valley and by five o'clock our car and truck eased through the narrow, cobbled streets of Huaras, crowded fore and aft by hosts of brown-faced children curious to see the "gringos." A few miles beyond, the Hotel Monterrey, which was to be our headquarters, was an agreeable contrast to the adobe huts and dirt we had seen since leaving Lima. Clean, spacious and comfortable, the hotel was the meeting place of the more adventuresome travelers from all over the world.

Porters and burros were not easily hired on short notice, especially porters willing to go above the snow line. Three days of fruitless chase up and down the Santa Valley failed to produce anything and had it not been for a graduate student from Columbia University and the Grupo Andiniste, it is likely that we would still be searching. Victor Benevides-Caceres, a graduate student at Columbia, but a Peruvian citizen, was spending his summer collecting paleontological specimens in the deep ravines of the Cordillera Negra. Leaving his own work, Victor stayed with us constantly for two weeks, translating and handling much of the transportation and porter problem. Finally, with his help and the coöperation of Dr. Augusto Soriano, Sr. Cesar Morales and Ing. J. Torres of the

Grupo Andiniste, seven men employed by the Lake Commission were hired for $1.33 per day.

The shortest route to Huandoy followed an ancient caravan trail directly into the center of the Cordillera Blanca from the town of Yungay, fifty miles north of Huaras. Although the trail continued on over a 15,000 foot pass to the plateau country beyond, our route left it at the Yanganuco lakes high in one of the lateral canyons, to ascend the alpine meadows and scree slopes to the east flank of Huandoy. When we arrived in Yungay on the the morning of July sixteenth, our seven porters and a dozen burros were patiently waiting. By ten o'clock the 1500 pounds of equipment were packed and on the way up the trail. Each of us in addition carried 30- or 40-pound packs containing personal gear. Dr. Berlin and Victor had been persuaded to accompany us as far as the first few camps. For Dr. Berlin this was the first exposure to mountaineering, an experience which left him with no further doubts that man was never intended to stray far from an automobile nor venture out of reach of a comfortable lodging. In spite of this he carried on like a veteran mountaineer.

The trail climbed steadily; from Yungay at 7,500 feet it rose 5,000 feet in sixteen miles, most of it rougher than our Sierra trails, some of it crudely hacked from solid granite, and all of it hot despite the elevation. At nightfall we assembled by the Yanganuco lakes for our first camp. Only then did I learn that the burro driver intended to return with his animals to Yungay that night. Not realizing this was the agreement Victor had made in Yungay, I descended in righteous wrath upon the poor man, first offering to raise his wages, and when this failed, threatening him with all sorts of improbable punishments for abandoning us in the mountains. Victor finally intervened to save what then appeared to be a desperate situation. The driver was persuaded to transport our equipment until the following noon, which fortunately proved to be as far as the burros could go in any event.

Our next camps were but a few miles apart as we ascended the steep meadows and scree slopes east of Huandoy. We did not want to get far beyond our porters who now relayed each day the twenty-five duffel bags and boxes to the next high camp; but more important, we needed additional time for acclimatization. By the time we settled into our third camp at 14,500 feet, all of us were experiencing some of the symptoms of mountain sickness, or "soroche" as it is known to the Peruvians. The symptoms are all too familiar to many mountaineers: headache, nausea, loss of appetite and sleep, malaise and the periodic deep and shallow breathing pattern of Cheyne-Stokes. Symptoms varied in severity, and as we expected,

the younger members appeared to acclimatize most quickly. Oscar seemed slowest to adjust but for a while I was hardly better. Peter, with whom I shared a tent, more than once awakened me from a troubled sleep to ask if I were dying. After a short period of heavy breathing I would lapse into a period of inaudible respiration from which Peter was certain I would never recover.

This camp (No. 3) was located by the lateral moraine of the great glacier that lay draped in a chaotic mass on the steep slopes of the eastern cirque of Huandoy. We had planned originally to ascend the glacier from here to the high saddle between the peaks of Huandoy as Schneider had done in 1932. It was quickly apparent that the route could be negotiated by climbers carrying light packs with supplies for two or three days, but that we could not expect our porters to carry full equipment for twenty days up the broken glacier, steep ice chutes, and over the final ice wall. Only three porters had shoes and even these could not be provided with crampons. Our disappointment at this setback was short-lived, for an alternative site was soon found for our high camp on a snow saddle in the northeast ridge of Huandoy, directly under the east peak.

While still in Camp 3, Dr. Berlin and Victor decided they would have to return, for they had spent as much time with us as their duties allowed. Taking one porter, the two men made their way down the scree slopes and trail to Yungay, Dr. Berlin to carry out his part of the scientific program and Victor to continue collecting paleontological specimens.

As soon as Dr. Berlin and Victor disappeared among the boulders everyone but Oscar and I shouldered loads to struggle across the lower part of the glacier and set up Camp 4 somewhere on the ridge beyond. I remained to rearrange loads to be taken up by the porters during the next few days. Oscar, despite his valiant effort to be cheerful, was clearly the most afflicted with mountain sickness and appeared to have a slight sniffle. There was no cause for alarm, however, because Oscar, like the rest of us, exhibited nothing but the classical symptoms of soroche, and the almost daily examinations by Dr. Berlin and Peter revealed nothing but the slight rise in pulse and blood pressure expected during the initial stages of acclimatization.

The next morning when the porters returned, Oscar and I accompanied them across the glacier to Camp 4. Al, Leigh and Peter had already left the camp, ascending a long rib of rock and a small lateral glacier to the saddle where they were to select a site for our permanent high camp. Camp 4 was a rocky but pleasant spot set in moraine debris at the foot of a small lateral glacier. A hundred-foot circular pond, fed by glacial melt,

provided fresh water, fine reflections of the peaks, and a bath for Fletcher after breaking the surface ice in the morning.

Soon after we arrived in Camp 4 the porters were sent back to relay additional loads while Fletcher and I, each laden with 75 pounds of food and equipment struggled upward to Camp 5 on the saddle. We were by now feeling better adjusted to the altitude but we quickly learned we were no match for the porters. At the final steep snow slope below the saddle, every step demanded a rest and our hearts threatened to beat their way through our ribs. We were only too glad to take off the loads so that they could be hauled up by rope from above. The camp was ideally located in a shallow trough in the hard snow where it would be reasonably well protected. Placed somewhat above the saddle at an elevation of 17,700 feet, it had sun throughout the day.

Standing there in the warm sun surveying the superb panorama of great ice-clad peaks, my earlier anxieties over the success of our venture suddenly vanished. With an easily accessible high camp finally established there were no longer any doubts that our ambitious plans for scientific studies, climbing and photography would be accomplished. Fletcher and I had carried up the scientific gear with the food and equipment, and with two men in the high camp that night, the first studies could begin with them the following morning. By afternoon everyone and most of the equipment would be settled in the high camp for twenty days' residence.

Al and Leigh "volunteered" to remain in high camp the first night. Peter, Fletcher and I descended to Camp 4, heeling down the glacier in the highest of spirits. Oscar had spent a restful day relaxing in the sun by the pool, and though he seemed rested and cheerful it was apparent when we arrived that he was still feeling the debilitating effects of altitude.

At daybreak the next morning, July 22, Fletcher was up as usual, coaxing the Coleman stove into life. Peter and I soon joined him for a pot of cocoa. We had enjoyed our first really sound night's sleep, but we were still not so well acclimatized that we could face that pot of gluey oatmeal with much enthusiasm. Disguising it successively with spices, dried fruit and jam produced only a more unpalatable mess.

Oscar was still in his sleeping bag as the sun rose high above camp. Every half hour I called to him to get up so that we could pack the equipment that was going up to Camp 5. At first we interpreted his muttered reply as an intention to sleep a little later, possibly because of a restless night. Later when he failed to answer I walked to the sandy area among the boulders where he was encamped to see how he felt. To my cry of alarm, Peter came quickly to my side to examine Oscar, whom I had found

in coma. Peter examined him and then appeared puzzled. Oscar's pulse was rapid but strong, his blood pressure was high, and he had only a slightly elevated temperature. Under the circumstances a clear diagnosis of his illness was impossible without more definite symptoms, but it was obvious that Oscar was gravely ill and Peter and I agreed he must be taken down without delay.

Recalling a demonstration once given by Bill Horsfall, Fletcher improvised an ingenious litter from a climbing rope while I signaled Al and Leigh to return from camp above; fortunately they were within sight on the snow slopes far above us.

By noon, Oscar, now bundled into two sleeping bags, was lifted gently onto the litter, and Peter, Fletcher and our five remaining porters, supporting it with sling ropes over their shoulders, started down the scree slope to the glacier. Before long, Al and Leigh arrived from Camp 5 and together we joined the litter crew now stalled by the lateral moraine. Camps 4 and 5 were made secure and everyone had been asked to take light emergency packs, abandoning everything not essential, including our cameras. For the next eight hours we struggled up and down great piles of loose rock covering the glacier, over the lateral moraines, and along the talus slopes beneath the southeast ridge of Huandoy. All ten of us were needed to support the litter, leaving no one in reserve. Long after dark we reached the head of the first high meadow where, completely exhausted, we were forced by the hazardous going to rest until daylight.

During the night, Peter picked up the first unmistakable signs of pneumonia and as morning came, Oscar's condition seemed to grow steadily worse. At the first light of dawn the litter party continued down the steep rocky meadows but by midmorning we were again forced to rest. Within a few minutes, while we stood helplessly by, Oscar quietly succumbed to his illness without ever regaining consciousness. Until that moment, ten o'clock, July 23, we were unwilling to believe we could not get Oscar to a hospital in time to save his life. But it was even more difficult to realize we had lost a close friend, a companion on many memorable trips in the Sierra, the Rockies and Canada.

Peter and I continued sadly down the twenty miles to Yungay to make advance arrangements, and to inform Oscar's family and the authorities. Before leaving, Eliseo was instructed to bring Oscar's body down the same day after he assured me that it would take only another eight hours. Al, Fletcher and Leigh remained behind to erect a cairn and then accompany Oscar's litter.

Dr. Berlin and Victor Benevides fortunately were still in Huaras where

they were able to enlist the aid and assistance of Sr. Pease Olivera, the Governor of the State of Ancash. Victor soon arrived in Yungay by truck to await with us the arrival of the rest of the group so that Oscar's body could be taken immediately to Huaras. At four o'clock in the morning they arrived, utterly exhausted by the twenty-mile hike down rocky slopes and the treacherous trail, most of the way in total darkness. Eliseo, Macario, Felipe and a fourth porter had carried Oscar's body the whole distance, making only one brief stop, an amazing feat of skill and endurance.

Dr. Berlin now bore the burden of undertaking the complicated arrangements for sending Oscar's body to Lima where Dr. Lawrence, in turn, faced the still more difficult task of shipping the body to San Francisco. All of us had reason to be grateful to Peruvian officials and friends for their sympathetic and efficient assistance. Prefecto Pease, particularly, stayed with us constantly, giving every assistance within his power as governor of the province.

Two days after Oscar's body was sent to Lima, we again started up the long trail to our abandoned camps, this time on horseback as far as the Yanganuco Lakes. Beyond we marched quickly over familiar terrain, past the cairn erected for Oscar and across the glacier. By July 27 we were back in our high camp on the saddle.

Little time now remained. Eight days had been required to take Oscar down and return to Camp 5, and to further complicate matters, our plane's departure date had been advanced a week. We had little more than time to retrieve our equipment but we could not leave before attempting one or two summits that could be reached from Camp 5.

The three porters, Eliseo, Macario, and Felipe, had returned with us. These men were more than just porters; they were good companions, intelligent, likable and always ready to perform any service. Their skill and stamina in carrying loads far exceeded ours, as did their ability to live in the mountains with virtually no equipment and the simplest kind of fare. Eliseo was a natural leader despite his youthful twenty years. In contrast to Eliseo's serious countenance, Macario always bore a cheerful grin that reflected his keen sense of humor. Together, Eliseo and Macario made a two-man team that would be difficult to beat for courage, endurance and initiative. Felipe was the clown of the group; somewhat older, he had had expedition experience with the French and knew all the tricks, including a thousand ways of avoiding the heavier loads. He was nevertheless one of the most able men and an asset to any expedition.

The first day in Camp 5 was devoted to a reconnaissance of the east

peak of Huandoy. We had earlier scanned its south face and by Brower's glossary of mountaineering terms, it was "fascinating."* This day we searched for routes on the northeast face and north ridge. Both seemed practicable and there was an even split about which should be tried.

As usual, clouds whirled around the peaks most of the day, obscuring the summits during the hours when photography was best, but we had little cause to complain so far as personal comfort was concerned. With a few unpleasant exceptions, nights were clear and still well into the morning. But with monotonous regularity clouds swept in from the east at ten o'clock, leaving the sky at least partially overcast until late afternoon. At four or five o'clock, the overcast miraculously dissolved to reveal in the fading light a magnificent display of color on the great ice peaks. As the sun dropped precipitously beyond the horizon, the glistening white peaks flamed yellow, turned orange, then red, and finally subsided into a cold, hard blue.

This night, clouds persisted until we crawled into our sacks at seven o'clock and, expecting something less than perfect weather the next day, we chose the less exacting Nevado Pisco for our first climb. From our high camp, Pisco rose for the most part as a broad undulating snow ridge to a height of about 19,300 feet. It had already been climbed by the French expedition in 1951, when with characteristic French humor they named the peak after the famed Peruvian beverage.

Before sunrise, Fletcher and Al were out of their tent noisily tying on hardware and eager to be off. Peter, however, refused to leave without breakfast, urging the rest of us to do the same. Everyone finally agreed that despite the delay one could travel farther on a full stomach. Less than an hour from camp we encountered the single obstacle which seemed questionable from below, a few pitches of steep ice and crevasses where the otherwise placid snow ridges erupted into great seracs. At close range it was less formidable than we had anticipated, and Fletcher on the first rope, Leigh on the second, led through it without difficulty. Above, the climb became little more than a plodding march and by noon we were standing hip-deep in unconsolidated snow on the steep slope immediately below the summit. The climb had been chiefly a long hike, except at one point where Fletcher convincingly demonstrated that not all snow bridges will hold a man's weight. When Fletcher exhausted himself on the last pitch of deep snow, I took my turn at the exasperating job and half swam, half climbed the last fifty feet to the table-like summit of the peak. For

* David R. Brower, Sierra Club Bulletin, Vol. 37, No. 10, p. 94. "Fascinating—one grade higher than you would care to lead ever."

an hour we photographed everything in sight and stared in awe at the "impossible" sides of Chacraraju, less than a mile away. At 1:30 we headed back to camp in thick overcast and within a few hours we were marching rapidly down the last snow slopes in a light snow squall.

The porters, observing our tracks leading all the way to the summit, showered us with congratulations when we marched into camp. They were immensely pleased and proud that we had finally reached the top of something. We were also pleased for the same reason, but our enthusiasm was a little more restrained in view of the easy day we had enjoyed.

As usual the weather cleared toward evening and we now felt ready for the east peak of Huandoy, not anticipating an easy day of it.

It was the first of August and 5:30 a.m. The sky was clear and the temperature about 20° F. Everyone was stumbling about in the darkness picking up pieces of equipment and snatches of breakfast. Leigh, who had been the most careful in avoiding contaminated food, was ironically the most afflicted with intestinal disorders. During the night he had suffered a severe attack of dysentery and was now forced to remain in camp.

The choice of route on the east peak was settled to everyone's satisfaction; both the north ridge and the northeast face would be attempted. Fletcher and Peter roped up and waved a cheery farewell as they vanished into the darkness to cross the nevé to the ridge a mile away. Shortly after, Al and I roped together, threw climbing packs over our shoulders and set out toward the northeast face.

We climbed steadily upward over the crevassed glacier, hugging the lower part of the face, and by 8:30 we had reached the base of the rock rib that provided the only route on the face that was safe from the constant fusillade of falling rocks. Alternating leads, Al and I slowly worked 1500 feet up the rock rib to where it met the main north ridge. The climbing was not particularly difficult but it did require the utmost caution to avoid loose and rotten holds that were a constant threat not only to the one leading a pitch but to his exposed belayer as well.

By one o'clock we climbed a 75° snow slope onto the ridge. Below us now, Fletcher and Peter were in sight for the first time and were making steady progress up the ridge, perhaps an hour behind us. From here the route continued unobstructed several hundred yards up the relatively broad portion of the ridge to the summit. In less than an hour Al and I stood on top of the mound of summit snow, some undetermined height above 20,000 feet. Without rocks to erect a cairn or a flag to plant, we could only leave our empty tuna cans and paper wrappers to record the first ascent.

Fletcher and Peter were again in sight on the ridge as we left the summit to await them below. In an hour they also had climbed to the summit and returned to join us for the descent by way of the face. From what Al and I could see of their route, as well as from their insistence on descending by our route, we guessed that Fletcher and Peter had enjoyed the more exacting of the two climbs. Below, the ridge they had climbed dropped away steep and jagged, nearly the whole of it crowned with hard snow that was heavily corniced to the west and nearly vertical on the east side. Fletcher, leading most of it, gave a brilliant demonstration of climbing skill.

When finally the four of us assembled for the rope-down, it was three o'clock in the afternoon, and with only three hours of daylight remaining, a chilly bivouac seemed almost certain. The absence of sound rappel anchors and constant danger from dislodged rocks made progress exasperatingly slow. When the last light left the sky we were only halfway down the face. The overcast earlier in the day had cleared, the air was still, and with the dim light of a three-quarter moon there seemed little reason to stop. Far below there appeared a friendly point of light from the Coleman lamp that Leigh had set out as a beacon. Occasionally a faint call drifted up to us, hopelessly muddled by the great distance. The last rappel was made to the base of the rib with little time to spare, for within a few minutes the moon passed behind the peak, leaving the face in complete darkness. Following the faint trail left in the hard snow seventeen hours earlier, we threaded our way through the maze of crevasses back to camp.

In the days that followed we made our way leisurely down the mountain to Huaras, shooting as much 16-mm. film as weather permitted, and hoping there still would be time to try an ascent of Huascaran. At Oscar's cairn we stopped to pay our last respects. For the porters, there were days of grueling labor relaying heavy loads down the mountain. In Huaras our hopeful plans for Huascaran vanished when we learned there remained barely time to reach Lima for the return flight home.

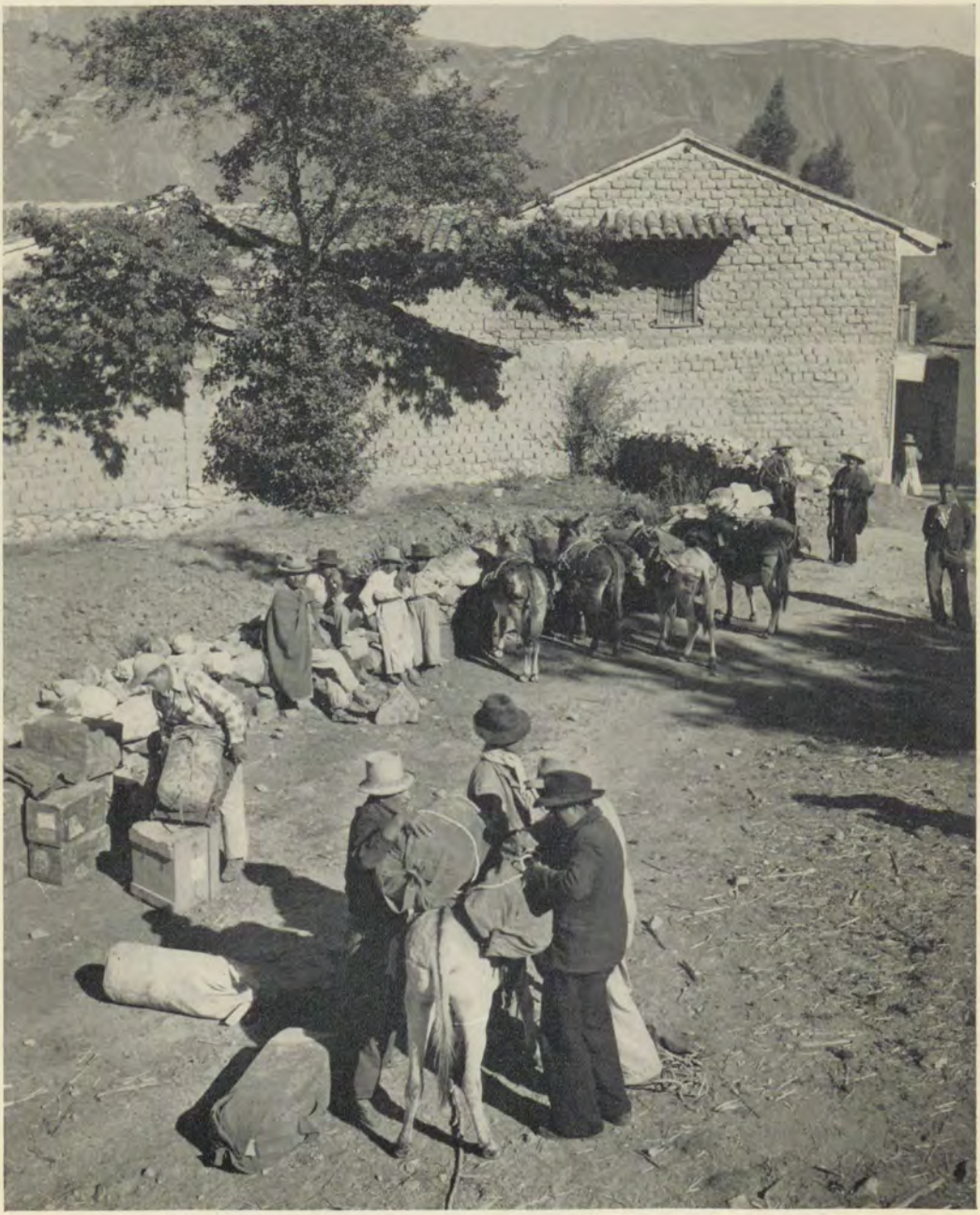
Before leaving Huaras, however, we were honored with a reception and flag presentation ceremony by the Grupo Andiniste, presided over by Dr. Soriano and Sr. Cesar Morales. None of us is likely to forget the overwhelming hospitality shown us that evening nor their diligent efforts to find porters and burros for us. In parting we were told that the glacier flowing from the east cirque of Huandoy that we had crossed under such tragic circumstances was to bear the name Cook Glacier in tribute to a good friend and mountaineer.

HUASCARAN (22,200 FEET) FROM YUNGAY

Cordillera Blanca, Peru

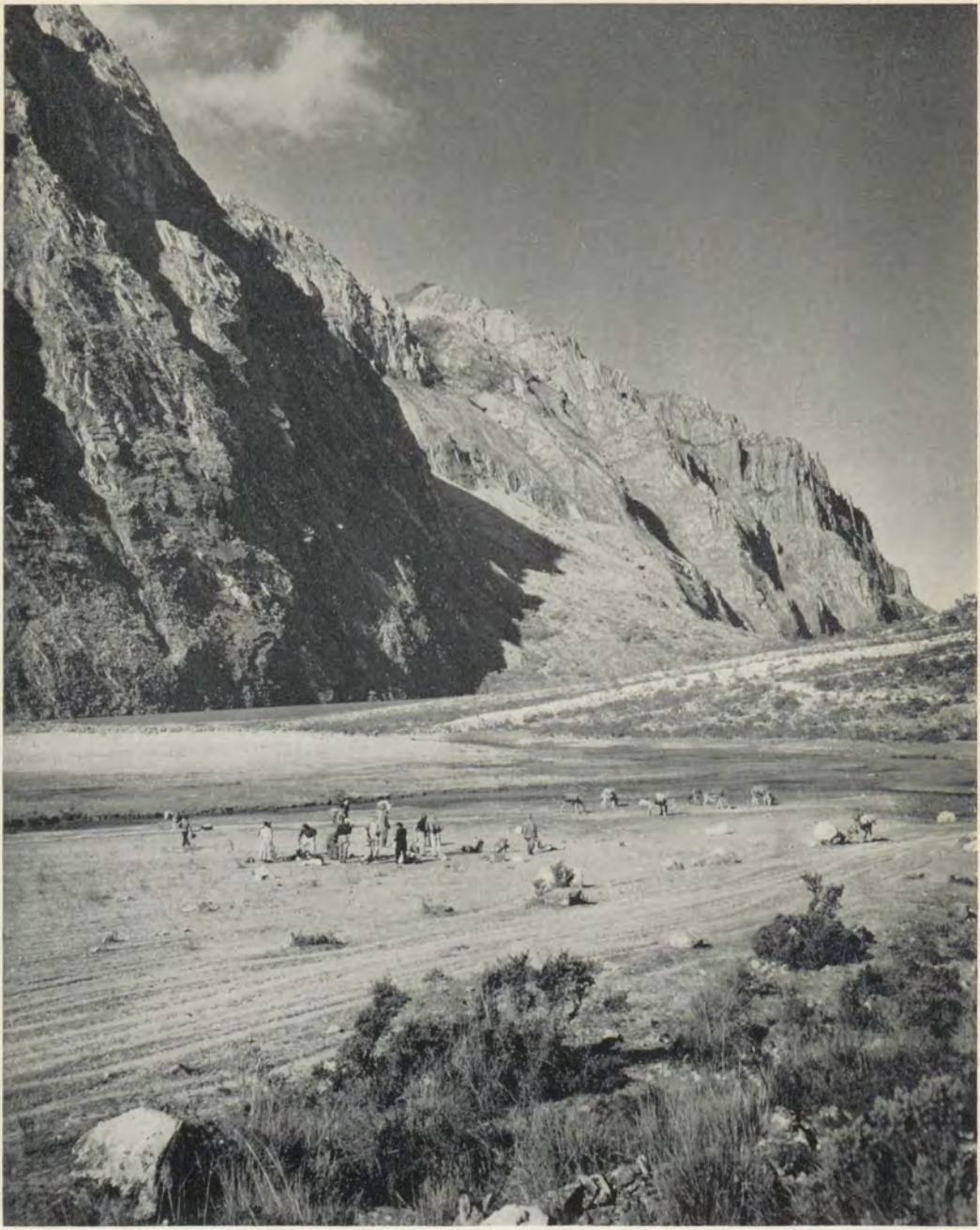
Nowhere in the 4500-mile length of the Andes, nor for that matter in the Western Hemisphere, is there a greater concentration of ice-covered giants than in the Cordillera Blanca. Within its 112-mile length and 20-mile breadth there are more than twenty-nine peaks exceeding 20,000 feet, while a far greater number rise higher than 19,000 feet . . . . Lakes of considerable size are forming in each of the high canyons and growing at an alarming rate, fed by melt water from the receding glaciers and precariously dammed by glacial debris.

FOURTEEN PHOTOGRAPHS BY LEIGH ORTENBURGER



LOADING BURROS AT YUNGAY

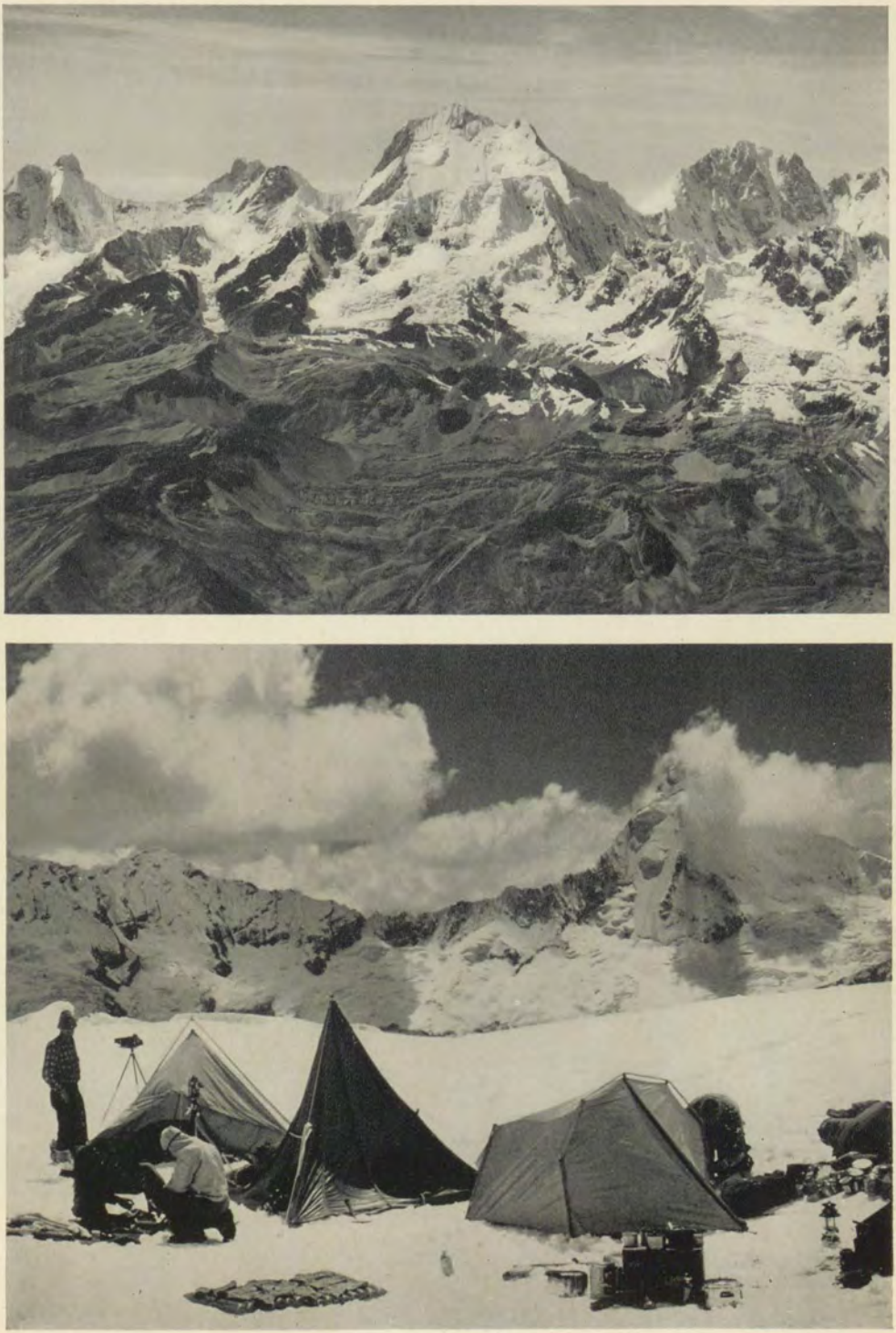
CROSSING STREAM IN THE QUEBRADA YANGANUCO



APPROACH MARCH UP QUEBRADA YANGANUCO

MAIN SUMMIT AND EAST PEAK OF HUANDOY, CAMP V IN MIDDLE FOREGROUND

SOUTH PEAK OF HUANDOY AND "COOK GLACIER" FROM PISCO



ABOVE, YERUPAJA AND THE CORDILLERA HUAYHUASH. *BELOW,* CAMP V, LOOKING NORTH TO ARTESONRAJU, *by William Siri*

ARTESONRAJU FROM CAMP V LOOKING NORTH

CHACRARAJU FROM SUMMIT OF PISCO

SOUTH PEAK OF HUASCARAN FROM NORTH

NEVADO PISCO FROM CAMP V

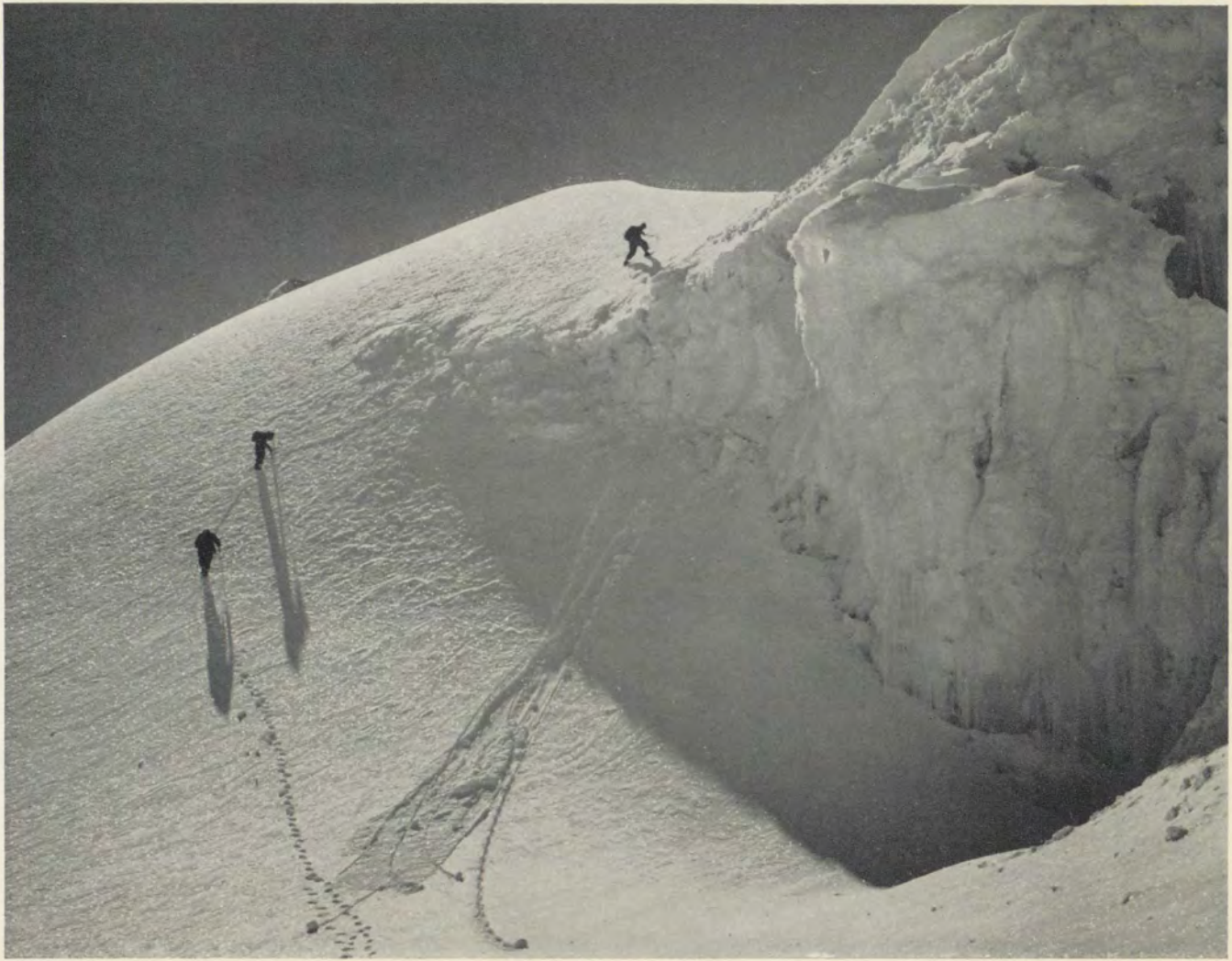
CHACRARAJU AND THE FOUR PEAKS OF HUANDOY

AERIAL PHOTO OF HUANDOY, CHACRARAJU, AND YANGANUCO LAKES (FROM 19,000 FEET ELEVATION)

SIRI ON SUMMIT RIDGE OF HUANDOY, AND PEAKS TO NORTH

By Allen Steck

ARTESONRAJU AND PEAKS NORTH OF NEVADO HUANDOY FROM EAST PEAK OF HUANDOY *By Allen Steck*



ASCENT OF NEVADO PISCO

Northeast Arctic: The Last Great Wilderness

By GEORGE L. COLLINS and LOWELL SUMNER

THE UNIQUE VALUES inherent in the Arctic wilderness, and the need for preserving them, have been recognized for many years. As early as 1937 the late Robert Marshall, a notable figure in national conservation affairs who knew a great deal about Alaska and the rest of America, stated his belief that northern Alaska belonged to all of the people of the nation as a frontier. There being little or none of the frontier left elsewhere in our country and with northern Alaska being so completely wild, Marshall believed that the highest purpose to which this region, including its native people, could be dedicated would be the retention of its primitiveness. Not only was he concerned with the cultural values of this wild land itself, but also he was concerned with the probable deleterious effects on the native people of close contact with white people and their modern way of life. He believed in the preservation intact, without any usurpation whatever by men except on an individual and temporary basis (as in the case of the occasional prospector or hunter, naturalist, or tourist), of all of the resources of this northland frontier.

Mr. Marshall stated his views unequivocally, and many thought him extreme, although he was a gentle and tolerant man. Few of us today, were he alive, would agree to the feasibility of all that Marshall wanted as protection for the entire Alaska Arctic. Scarcely anyone fully agreed with him 15 years ago when he was alive and active in pioneering Alaska conservation ideas, yet it is significant that with our new natural resources consciousness, born recently of our sense of dwindling reserves, almost everyone now will have an appreciation of Marshall's principles and purposes. And many will see justification in his terms for assuring the complete conservation of at least a reasonably adequate sample of the Arctic from careless or indiscriminate development and use.

. . . An indulgent providence had an arm around us that August night as we clattered along incongruously by seaplane between the giant ice peaks of the Brooks Range. . . .

Illustrations by George L. Collins

In recent years appreciation of the Arctic has become more widespread as an increasing number of investigators have become familiar with the region. The present writers gained first hand acquaintance with the Arctic in connection with an overall study being made by the National Park Service of the recreational resources of Alaska. Through the courtesy of Regional Director Clarence J. Rhode of the Fish and Wildlife Service, Alaska, we were able to participate in 1951 in one of that agency's annual surveys of game conditions. Shortly thereafter Dr. John Reed of the U. S. Geological Survey, during one of our discussions of the Alaska Recreation Survey, became interested in the possibilities for interpretation to the public of the natural sciences of the Arctic. Dr. Reed acquainted us with Dr. Louis Quam, Dr. Ira L. Wiggins, and others of the Office of Naval Research and advised with them and us in establishing an Arctic project with that office. This project enabled us to take advantage, in the summer of 1952, of the Navy's Arctic organization for transportation, field camps, library, and other aids. Without this ONR assistance, we could not have covered as much ground as we did, nor would we have had the advantages of field consultation with a number of leading scientists who also are engaged in ONR projects. The map indicates our travels within the region.

Northeastern Alaska and the adjacent Yukon region provides an adequate cross section of varied Arctic terrain and its associated plant and animal life. It includes perhaps the most completely undisturbed but accessible large wilderness area in North America today, with some of the most unusual and inspiring of all Arctic scenery. It is the setting for a unique chapter in the story of man's exploration and conquest in the far north, which extends back through recorded history and (it is believed) with notable significance into prehistory and archeology.

Scenery

THE LAND MASS of the northeast Arctic study area is dominated by the Brooks Range. This long, high wall of pointed mountains arcs across upper Alaska midway between the Arctic Circle and Point Barrow. It extends as a continuous highland from the Beaufort Sea at Mackenzie Bay, on the east, to the Arctic Sea at Point Hope, on the west, and contains the highest Arctic peaks in Alaska and Canada. Mount Michelson, 9,239 feet above sea level, and Mount Chamberlin, 9,131 feet, are within the study area. The highest peak of the Brooks Range, Mount Doonerak, is 10,000 feet. The only mountains within the Arctic Circle that exceed these heights are in Greenland and Siberia.

At the eastern end of the Brooks Range lateral spines project outward to the north, east, and south from the central highlands of Mount Michelson and Mount Chamberlin. Between these great spines the glaciers which once covered the region have carved numerous valleys that wind at first steeply, then gently down from their points of origin in the jagged crests of bare rock and ice to the coastal plains of the north, the Mackenzie River Basin to the east, and the Yukon Valley to the south.

During eight or nine months of the year the Brooks Range is a bitterly cold, almost unbroken expanse of snow and ice in which man does not move about without special equipment, knowledge, and skill. However, by way of contrast, there is a summer period of comfortable weather—at times ideal—which is directly opposite to the popular notion of the country.

During the three months of summer when the sun is high for many hours of the day, the bleakness disappears, and it is possible for the less hardy traveler to see and thoroughly enjoy much of the country. Then the valleys on both sides of the Brooks Range become warm, wet, and lush with life. The high peaks lose their hard antiseptically white winter coating and become colorfully verdant. High on the mountains the rocks are painted sharply with lichen colors of red and orange and yellow. These appear against ruffs of thick gray, contrasting with the green and brown mosses, grasses, and shrubs that carpet the slopes far down into the valleys where larger tree or shrub forms occur.

Occasional glaciers add here and there in the higher reaches an eerie, lunar-like quality to the scene. Indeed, when one is flying over the Chamberlin-Michelson high country in reasonably clear weather, "moon scenery" is the term that comes to mind. On August 6, 1952, while we were flying from the upper Sheenjek River to Schrader Lake at night in good weather, the landscape was impressively colorful. Vivid white ice floes draped about the jagged blue-black peaks against a background composed of great weaving shafts of light and a violet sky filled with patterns of bronze and copper and vermilion clouds; and as a final, almost unbelievable note, a full moon seemed to change from orange to green as it rose farther and farther above the horizon.

The long tundra plains, stretching back from the Arctic Ocean to the slopes of the Brooks Range, form an intricate webbing of narrow lands between great ponds. In some places there is more water than land, so great are the ponds and so thin the tundra separations.

At and near the coast the land is scarcely above sea level. The coast itself is a series of sandy or marshy bars with many points and bays and

inlets. It is left clean and fresh when the ice moves out in summer. When the visiting bird-life swarms into the river deltas to breed, the coast soon becomes a lively, raucous place. Miles across the hard, gray ocean, islands of pack ice form a thin line of stark whiteness. Nearer by, sailing along in stately parade with the changing winds and currents, there always is an array of grotesque icebergs as constant reminders that summer here is but a brief, feverish interlude in the Arctic night.

During the brightest hours of the day the light is intense but the surroundings are not spectacularly colorful. When the sun is low on the horizon or behind it, however, the skies radiate with bronze, gold, orange, red, yellow, green, blue, and violet in every gradation and flow of color harmony. It is as rich as the scenery of our Southwest, or of the tropics.

South from the coast, where the land begins to rise gently toward the Brooks Range, the lakes, although there are many of them, are far less numerous than in the coastal flats. Here the rivers have a distinctly serpentine form within their plains surroundings and are marked by broad green bands of willows. Tree growth higher up on this north slope, with the exception of the Firth River area, mentioned later, is limited to occasional small patches of creeping juniper and spruce in the middle elevations, and groups of balsam poplar in two or three known places.

The crest of the range is a mass of peaks sharpened by freezing and thawing and the cutting action of silt-laden streams. In the valleys erosion from the high peaks has produced the beginnings of good soil. For the most part, however, the low country is a perishable region where disturbance of the surface is easily accomplished and regeneration is exceedingly slow.

Even in the highest portions of the Brooks Range there are passes through which caribou and other game can move back and forth from one drainage to another. Man follows these passes also, but finds the

. . . After observing the wolverine for some time we shouted to him, and he stood staring at us for several seconds before galloping on. He did not appear especially malevolent. . . .

. . . He can see a mile, and smell farther than he can see. He stalks his prey usually, but will eat anything he can get when he's hungry. . . .

south exposures more productive of vegetation and other life. There is greater warmth on the Yukon Valley, or interior, side of the range, and the prevailing southerly winds carry the warmth up the valleys and into the passes. In contrast with the almost treeless north slope, good stands of spruce extend far up the valleys of the south side, and all vegetation is heavier. It is in the southern and eastern portions of the region under consideration that one will find the most fertile year-round wildlife habitats, the best camping places, and the best weather generally during the summer season.

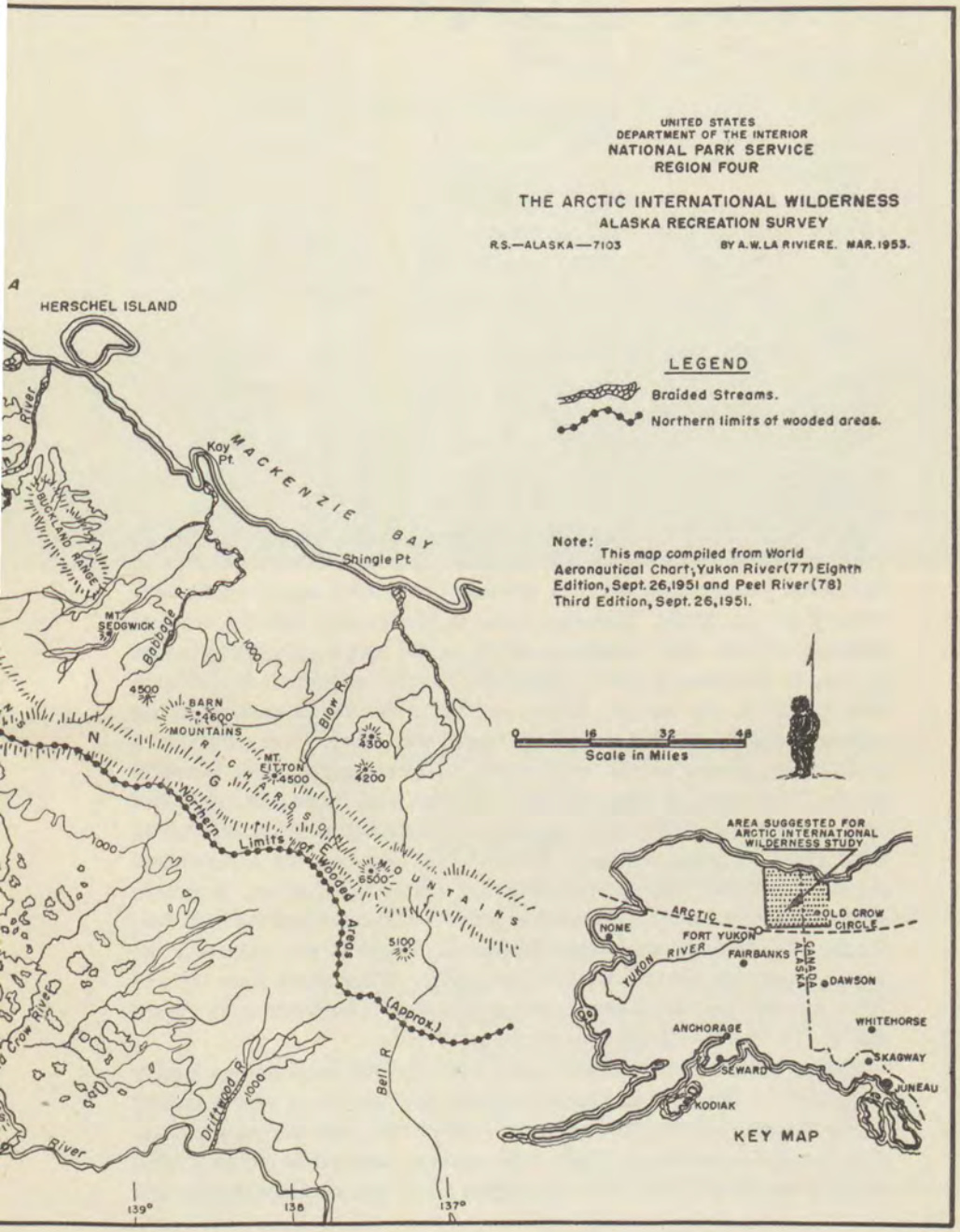
Values for Science

HIGHLY DIVERSE scientific values of the Arctic are important to many fields of study. The Navy's Arctic Research Laboratory has in the six years of its operation sponsored fifty-six field research projects by one hundred seventy-eight scientists from thirty-nine coöperating institutions. An increasing number of these projects has been undertaken in the Northeast region covered by this proposal, and it is obvious that scientific research will be stimulated greatly there by identifying and protecting the area permanently and providing adequate study facilities.

Among the larger mammals found in the Brooks Range and lands to the north are the Arctic grizzly, black bear, polar bear, Alaska moose, Stone caribou, Dall sheep, and wolf. Smaller mammals are several shrews, Alaska red fox, Arctic fox, Alaska marten, ermine, least weasel, mink, wolverine, otter, Canada lynx, snowshoe hare, Arctic hare, hoary marmot, Parry ground squirrel, Mackenzie red squirrel, several voles and lemmings, Canada beaver, and Alaska porcupine.

The sea mammals are principally the bowhead whale, white whale, and


Brownlow Pt
BARTER ISLAND
CAMDEN BAY
BEAUFORT SEA
KANGIGIVIK PT.
Canning River
Tamayagiak Cr.
Katakturuk R.
Sadlerochit R.
Hulahula R.
Jago River
Okerokovik Creek
Okpirourak Cr.
Jago R.
Humphrey Pt.
Siku Pt.
Demarcation Pt.
Aichilik R.
Kongakut R.
4922 MOUNT WELLER
SHUBELIK MTS.
6200
Shrader Lake
Lake Peters
MT. MICHELSON 9239
9131 MT. CHAMBERLIN
6100
MT. SALISBURY 6900
8700
7500
6500
6500
MT. GREENOUGH 7500
WHALE MT.
5900
1491
3065
MT. CONYBEARS
Malcolm River
4751
6709
6200
5421
8400
ROMANZOF MOUNTAINS
8500
8200
8500
7180
7900
7200
BROOKS RANGE
DAVIDSON MOUNTAINS
5500
6500
7400
5500
5500
5500
4725
Joe Cr.
4595
4516
Mancha Cr.
2784
BRITISH MOUNTAINS
5500
Chandalar R.
East
TABLE MT. 5500
3427 AMMERMAN MT.
UNITED STATES
CANADA
Old John Lake
2880
Chandalar River
Koness R.
SHOULDER MT. 4500
Sheenjek R.
2246
ALASKA
YUKON
OLD CROW
Old Cr
SPIKE MT. 3824
3247
Rapid R.
Coleen R.
RABBIT MT. 3014
Porcupine
Christian Village
1000
70° 00'
69° 00'
68° 00'
146°
145°
144°
143°
142°
141°


UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION FOUR
THE ARCTIC INTERNATIONAL WILDERNESS
ALASKA RECREATION SURVEY
R.S.—ALASKA—7103
BY A.W. LA RIVIERE. MAR. 1953.
HERSCHEL ISLAND
LEGEND
Braided Streams.
Northern limits of wooded areas.
Note:
This map compiled from World Aeronautical Chart, Yukon River (77) Eighth Edition, Sept. 26, 1951 and Peel River (78) Third Edition, Sept. 26, 1951.
MACKENZIE BAY
Koy Pt.
Shingle Pt
MT. SEDGWICK
Babbage R.
BARN MOUNTAINS
4600'
MT. EITTON
4500
4300
4200
Blow R.
Northern Limits of Wooded Areas
6500
5100
(Approx.)
Bell R.
Driftwood R.
Crow River
River
139°
138
137°
0 16 32 48
Scale in Miles
AREA SUGGESTED FOR ARCTIC INTERNATIONAL WILDERNESS STUDY
ARCTIC
OLD CROW
CIRCLE
NOME
FORT YUKON
YUKON RIVER
FAIRBANKS
CANADA
ALASKA
DAWSON
ANCHORAGE
WHITEHORSE
SKAGWAY
SEWARD
JUNEAU
KODIAK
KEY MAP

perhaps the narwhal, Pacific harbour seal, bearded seal and ringed seal, and Pacific walrus.

In the coastal portions of this part of the Arctic one does not find the auks and auklets, murres and puffins so common along Kotzebue Sound and elsewhere on the Arctic Sea coast and in parts of the Bering Sea area farther south. Those birds require rocky cliffs, and the area discussed herein has a coast of low, flat plains. Multitudes of shore birds and tundra-plains species inhabit this region, however, and in summer it is rich in birdlife. Geese and ducks pass over the low country of the Firth and Porcupine rivers in their migrations to and from the Arctic. They breed on both the mainland and the islands.

Gulls, jaegers, sea ducks, and other marine birds are common. The King eider and Pacific eider probably are the two best known ducks of this region, although there are others.

The Firth River valley and the upper Old Crow River country are reported to be notable breeding grounds for many species of inland birds that migrate southward into the United States.

Within the region covered by our study, the wildlife has been virtually undisturbed since the whaling industry withdrew from the Arctic shortly after 1900. The whaling industry, however beneficial it was, brought some tragedy to the Arctic. Firearms came to the Eskimo via the whalers together with the taste for strong drink, as did social and other diseases previously unknown to them. Therefore, in some respects it is fortunate that whaling in the western Arctic, i.e., along the Alaska coast and east to Mackenzie Bay, lasted only about twenty-five years. During the winter of 1894–95, fifteen vessels, with about 800 men, wintered at Herschel Island. Ernest deK. Leffingwell, in his Professional Paper 109, published by the U. S. Geological Survey, mentions the hunting parties from whaling ships traveling great distances on occasion. Between the whalers and the natives (after the natives obtained guns), the caribou, mountain sheep, polar bear, and other animals of the Arctic coast and far back into the Brooks Range were seriously depleted. Leffingwell, who worked in the Arctic (centering his activities in the Canning River area) from 1906 to 1914, believed that in his time more caribou were to be found on the south side of the Brooks Range than on the north side.

The point here is that once the game was depleted, hunting was largely suspended in this part of the Arctic, and the process of replenishment began. Today there is every reason to believe that with adequate protection this part of northeast Alaska will continue indefinitely as the habitat of a rich supply of game. Thus the region offers science probably the best

NORTHEAST ARCTIC

The Last Great Wilderness

The setting aside of a part of the original Arctic wilderness would be one additional long and significant step toward further understanding and use of the Northland's biological wealth; it would preserve one of the most valuable continental wildlife breeding areas—one of the great scenic and historic regions of North America

PHOTOGRAPHS BY LOWELL SUMNER

Only on the Firth River do special climatic conditions permit forest trees to extend to the Arctic coast. . . The remote and little known Brooks Range resembles the Rocky Mountains in majesty and scale.

The adjacent lake wilderness of Old Crow is considered one of the great game regions of the continent. . . . The broad Firth River Valley, here shown at the junction of Mancha Creek (foreground) is a highway for game today, and probably once served for man.

The largest caribou bands remaining in Alaska inhabit the vast Arctic plains. . . . Like the buffalo of 100 years ago, the great caribou bands have made "roads" through the country.

Rivers on the south side of the Brooks Range afford typical moose habitat of the Yukon drainage and here the animals have not been disturbed. . . . Over hundreds of square miles the open slopes are interlaced with game trails.

This native village of Old Crow, like the historic trading post of Fort Yukon, constitutes one of the gateways to the Arctic wilderness area. . . . A typical Arctic river winding to the polar sea.

Cave area on the Firth. The geographic location, gentle topography, and unusually mild climatic conditions lead to the belief that the archeological potentialities of the area are exceptionally rich and significant. . . . Within this region are hundreds of lakes where moose, bears, wolverines, waterfowl, and fish live undisturbed.

FLOWER-DOTTED ARCTIC MEADOWS SURROUNDING LAKES LIKE SCHRADER AND PETERS ARE NESTING GROUNDS OF WILDFOWL THAT WINTER IN THE UNITED STATES.

. . . As he sauntered along through the scrub willow and muskeg he seemed to us to be the biggest one we ever saw. Certainly his antlers were so large as to seem out of proportion. . . .

opportunity of any place in Alaska, if not in the whole of North America, for studying the processes by which these and other Arctic animals maintain their numbers through the natural checks and balances of climate, food supply, and predation.

Evidently there are but two life zones represented within the area, the Arctic and Hudsonian, with most of the area being within the Arctic zone, The northern limits of the wooded country in the Firth and Mackenzie River valleys, and on the south slopes of the Brooks Range, generally mark the separation between the two zones in this Alaska-Yukon part of the Arctic.

The whole field of cyclic population fluctuations, so characteristic of the smaller animals in the Arctic, can be studied here with no interference by agricultural or other human activities. Such research possibilities are of outstanding importance to various applied sciences such as game, fur and fish management, and human-survival techniques.

Ecologists recognize that research in an Arctic wilderness study area has special usefulness beyond the confines of the region because the comparative simplicity of environmental factors in the Arctic makes them easier to isolate and analyze. In this connection the scope and diversity of the following current Arctic Research Laboratory projects are significant: a survey of tundra range for the protection of caribou; studies of parasites transmitted from wild animals to men; systematic and cytotaxonomic relationships of Arctic vascular plants; reciprocal relationships between Arctic vegetation and its environment; the population biology of Arctic land vertebrates; the ecology of lemmings; the ecology of isolated, undisturbed Arctic fish populations; the ecology of Arctic crustacea, and the distribution of animal life by layers in Arctic lakes. Other ecological study projects that suggest themselves are the ecology, species relation-

ships, and management of the large trout of Schrader Lake and other Arctic lakes of the study area, and the ecology of the moose, caribou, and Dall sheep in a natural state.

In the fields of climatology and forest ecology the region offers special research opportunities, notably along the timberline front of the gradually advancing forest. The Firth River valley is unique among Arctic slope valleys of Alaska and adjoining Canada in that it contains an extensive spruce forest that reaches almost to the shores of the Arctic Ocean. Although this area is virtually unexplored by science, there appears to be a deep significance from the standpoint of climatology in that within the region the Firth River basin merges almost imperceptibly with the basins of the famous Old Crow and Porcupine rivers. The latter probably comprise the most outstanding big-game and waterfowl habitat of the entire Northland.

Geologically, the region exemplifies glaciation and the extensive changes in the landscape wrought subsequent to the glacial period by erosion and stream channel evolution. Numerous lake systems are being formed gradually through the continuing subsidence of tundra lands as underlying permafrost lenses are slowly melting away. In certain areas sedimentary deposits, some of great age, have been tilted and folded in a spectacular manner.

A scattering of geological studies has been carried on in the region over a period of about half a century, and it has been prospected to a limited extent for minerals. Some metallic minerals are known in the region just to the south of the survey area, and there may be some inside the area.

It is not believed from the evidence now available that the area is within that part of the Arctic in which oil is to be found.

Apparently, the Arctic coast portion of the region is receding at a rapid rate. Archeological sites found lately along the shore do not date back beyond the middle of the last century. However, there are records of Eskimo life there and all along the Arctic coast prior to the ages of any physical evidence found recently in place.

History

SIMPLY READING the place names from a map of the Arctic provides some idea of the richly interesting and romantic Northland history which occurs in the area we studied. For instance, the name of Herschel Island is a reminder of the early whaling days when ships found this to be

the safest place to stay when caught by the ice at the end of summer and forced to spend the long winter in Arctic waters.

Demarcation Point is associated with the international boundary which marks the separation between United States and Canadian territory on the coast and in the waters of the Arctic Ocean. This location was formerly a winter rendezvous of the Eskimo people. But when the whalers began staying on Herschel Island, sixty miles eastward, the natives deserted Demarcation Point for the island. We learn from Leffingwell that the first whaling ships to cruise east of Point Barrow reportedly did so about 1855. A Captain Collinson from England with his ship the *Enterprise* explored well to the eastward and upon his return (in 1854) recommended to the whalers that they work farther in that direction. From then on they advanced farther each year until in 1889 the first whalers were reported to have gone east of the Mackenzie River delta and to have wintered on Herschel Island.

The Hulahula River, one of the northward-flowing streams emptying into the Arctic Ocean just west of Barter Island, is so named because of the Hawaiian crew members who served aboard the whaling ships, some of which wintered in that region. The story of whaling in the Arctic is no less fascinating in the life of the Eskimo, with his sleds, skin boats, spears, and other primitive equipment, than in the experiences of the adventurers who came in ships of wood and steel from halfway round the world.

Barter Island was a rendezvous of whalers, and the jump-off point for some history-making flights into the polar regions by military and civilian explorers.

In 1826, the year after the international boundary was established between Alaska and Canada, Sir John Franklin worked westward from Mackenzie Bay surveying the coast. He reached the place known today as Return Island, midway between the Colville and Canning rivers. Franklin later was lost during further explorations, searching for a northwest passage through Arctic waters.

In 1847 a party led by McMurray of the Hudson's Bay Company came southwestward from the Mackenzie River region via the Porcupine River and established Fort Yukon. He and his party crossed over the divide between the Mackenzie and Porcupine-Yukon basins near the southeast corner of the study area.

In October and November 1905, Captain Roald Amundsen journeyed from Herschel Island to Fort Yukon, then up the Yukon River to Eagle, which is just west of the international boundary. He traveled through the Firth River valley, thence across the Coleen and down that stream to the

Porcupine, then down the Porcupine to the Yukon. At Eagle he reported his ship, the *Gjoa,* wintering securely at King Point, and that his people were safe. Thus, the first news of the first successful attempt to follow a northwest passage—something explorers had searched for since the sixteenth century — came out of the North via the historic route of the Firth River. Amundsen, in his book *Northwest Passage,* gives many valuable comments on the people, game, weather, and general nature of the country.

In 1918, the Department of State published a joint report upon the survey and demarcation of the international boundary between the United States and Canada along the 141st meridian from the Arctic Ocean to Mount St. Elias. This report contains many accounts of the people, the wildlife, and the nature of the country.

In the Kobuk River valley toward the southwestern end of the Brooks Range, anthropological studies have shown that the natives made use of articles associated with the northern forests since at the least the thirteenth century. Population appears always to have been relatively dense in the Kobuk valley. There are but few places along the Arctic coast of Alaska where forests and forest products are available to the local people. The only such place north and east of the Kobuk River is the Firth River valley, clear across Arctic Alaska from the Kobuk. Spruce trees occur in the Firth valley within eight miles of its termination in the Beaufort Sea, a fact which indicates, in view of the findings in the Kobuk, that the Firth River valley is a traditional (and extremely significant) route between the inland and coastal regions. The ONR assisted one special field project in 1952 in this connection and aided the writers of this report to reconnoiter the eastern end of the Brooks Range.

There is a conviction among the few students who have some first-hand knowledge of the country that our study area does contain significant evidences of early people, although this remains to be proved. That it is unique ecologically, and bears convincing circumstantial evidence of being a place of profound historic significance, already is granted.

Recreational Values

RECREATIONISTS have begun to enter this Arctic outpost wilderness. Tales of immense fish at Schrader Lake have brought increasing numbers of fishermen. The spectacular trophies obtained in 1951 and 1952 have kindled so much interest that a steadily increasing use of the region seems certain. In fact, there is now a danger that the fishing

resource at Schrader Lake will soon be depleted unless the rate of removal can be brought into balance with the rate of reproduction.

Hunting likewise is increasing. At present it is the pursuit of the well-to-do sportsman, who goes farther and farther afield for a sure thing in big-game shooting, and can afford the cost of an air expedition into the Brooks Range. Until a very few years ago there were no such expeditions. Now there are an increasing number each year; and soon it is going to be necessary to decide upon the best land-use policies for all interests concerned in this northland wilderness just as though it were located close to our larger centers of population.

Air transportation into this uninhabited area so far has been limited by the comparative scarcity of natural landing areas such as lakes, quiet stretches of river, and gravel bars near one's objectives. But even in the present absence of developed areas and refueling facilities, a few federal agencies and private operators have established their own fuel and food caches and by using planes and folboats are gradually extending their activities deeper into the interior. Already it is perfectly feasible, although it is expensive, to bring outing parties and their boats by air into the heart of this wilderness, where they can be supplied by air for the entire summer if necessary.

Even in Alaska, where the air age is relatively mature, today's planes, their landing and servicing facilities and degree of use, are in a stage of development comparable to that of the 1910 automobile and the highway system of its time. In those days it was as difficult to conceive of the enormous future growth of auto travel, and its manifold effects upon the old-time visitor-use patterns of national parks like Yellowstone and Yosemite, as it now is to predict the ramifications of recreation use in the Arctic after the growing air age has reached its full development. Already, aircraft being what they are, it is easier to get into the heart of the Arctic than it was to get into the heart of Yellowstone 40 years ago.

Outlook

THE TREND toward greatly increased use of the Arctic is already so unmistakable that the overall picture and the needs can be made out. For the immediate present the most pressing need is to establish and maintain for scientific use an undisturbed research area of adequate size in the heart of the last and greatest remaining Arctic wilderness region. For the future needs of Alaska and the entire nation, this superb area should be planned and dedicated now for perpetual preservation as a

scientific field laboratory and also for the education, enjoyment, and inspiration of all outdoor-minded people.

Life in Alaska changed at a bewildering pace during World War II as the demonstrations of the territory's immense military significance took practical form. It has not ceased to evolve since the war, although the military economy now is beginning to be accompanied by a substantial civilian trade and industry.

The people of Alaska realize that conservation of natural resources means something to them too. Already their favorite recreation spots are overrun. Already community and suburban recreation sites are at a premium. Signs reading "No Trespassing" plaster many places once open to the public.

Alaska by no means is a country teeming with moose, caribou, sheep, trout, salmon, and other game wherever one turns. In those places where wildlife occurs, there has been a fair to excellent supply. However, the general impoverishment of big-game populations is within sight unless conservation measures are made strong enough to keep pace with the constantly increasing hunting, fishing and trapping demands.

Whatever the final shape of Alaska's future, today's profound changes continue to accelerate, and opportunities for preserving original conditions decline. The nation is having to make long-range decisions now on the best economic uses of many areas, including the Arctic.

The highly specialized natural resources of northeast Alaska indicate that the best long-range economic returns there will come from wilderness use of a scope and breadth that is not possible elsewhere in our country. This area offers what is virtually America's last chance to preserve an adequate sample of the pioneer frontier, the Stateside counterpart of which has vanished.

The preservation of a part of the original Arctic wilderness would be one additional long and significant step toward further understanding and use of the Northland's biological wealth; it would protect one of the most valuable continental wildlife breeding areas, and one of the great scenic and historic regions of North America.

Letter from the Arctic

The authors of "Northeast Arctic: The Last Great Wilderness," on the preceding pages, again traveled and studied in northeastern Alaska in the summer of 1953, in the course of which Lowell Sumner, writing to Richard M. Leonard, expressed something which the article could not convey—one individual's personal feeling about the wild world from the Brooks Range north.

Kongakut River
August 12, 1953

THIS WILDERNESS is big enough and wild enough to make you feel like one of the old-time explorers, knowing that each camp you place, each mountain climbed, each adventure with the boats, is in untouched country.

One day we followed, by air, one of the great fresh "roadways" of the caribou up into the headwaters of the Kongakut across the upper reaches of the Malcolm River, at the foot of a towering, unnamed peak. The roadway led on and on over passes and down valleys and across rivers. Still following it, eastward, we crossed the International Boundary, soared low over the rocky gorge of the Firth River, climbed up a tributary valley of the Firth and over another pass into the Babbage River. And then all of a sudden, fifty air miles from where we had started trailing them, we came upon whole valleys, hill slopes, ravines and tundra flats *crawling* with caribou. They flowed up and down the slopes in all directions and we flew for *miles* finding more great herds of them. Now we knew what it must have been like to see the buffalo herds in the old days; we knew more vividly than ever what we have lost forever in the States. And are losing fast up here too.

We circled and counted for about an hour and a half and estimated 26,500 caribou in this herd. One feels one has lived, and seen some of the world unspoiled, as it was intended people should see it, after an experience like that.

The Kongakut is a rough, wild river in a gorge something like that of the Fraser River, though on a smaller scale. But the scale is big enough when you are the first people ever to take boats down it (folding boats brought by plane to the headwaters).

The cascades and rapids, and the big boulders, have made us battle to save the boats, and ourselves too, for days. We tried riding in the boats

at first, but couldn't manage them in the whirlpools and cascades, so we had to let them down through such places with ropes, working in the rushing white water up to our hip pockets. If you get in any deeper you get carried away. In fact, it is *very* hard to stand up in this water if it is above one's knees. I don't know how many times we have been knocked down by the current or dragged through the boulders and water by the boats, but on our toughest day we were in the water from 8:30 A.M. 'til 10:30 P.M.—too busy and too tired to slap at the mosquitoes.

We have only sunk a boat once, when a boulder ripped its side, and we saved everything and mended the boat. Now we are past the narrows and although it still takes some fancy work to make all the sharp bends in the river, by comparison its like "Cruising down the River on a Sunday Afternoon." We still see a wolf near camp occasionally, and moose are common. But the big excitement is about over.

Demarcation Point
August 21

After eight days of fog and rain and snow we ran out of grub and fuel, and hiked eighteen miles to here, carrying only what we could get on our backs. The plane was overdue three days, with no prospect of its getting through, and snow was getting so deep (8–10 inches in the pass, 4 inches at camp) we thought we might not be able to get out on foot if we waited longer. No word yet from the plane, which is 300 miles south of here on the other side of the Brooks Range. No messages via our camp radio, either. I have a chance to mail this on an outgoing LTS so will say goodbye 'til fall.

LOWELL SUMNER

. . . They move in a fairly compact mass, and so steadily that when one sees them in great numbers it is as though the land itself were rippling and flowing inexorably to fill some distant void . . .

Caribou. *O. J. Murie*

Return to Denali

By OLAUS J. MURIE

WHEN I BOARDED the plane a year ago last September at Seattle, and was told that I would land in Fairbanks eight hours later, I was overwhelmed with a sense of unreality. Surely this could not be the Alaska I had known—the far-away land where you traveled tremendous distances with dog team at 15 or 20 or at best 40 miles per day. I was still in a daze when, later in the week, I got off the train at McKinley Park Station to attend the Second Alaskan Science Conference. What would I find here after an absence of 25 years? Would *anything* be recognizable?

My brother, who had been stationed here with the National Park Service for several years, met me with his family. We got into a car and started up the road toward park headquarters. I don't know just what did it: the warmth of being met, the familiar northern spruce trees about us, the blueberry bushes, the moss and lichens. The air itself seemed a breath of welcome. This had not changed. I seemed to have come back to a happy reality.

I entered this national park already conditioned to finding things Alaskan. I did not explore the headquarters area critically, but my impression

was of an absence of "paint and varnish," figuratively speaking. Instead of formal lawns I found native vegetation and mouse runways, blueberry bushes, moss and lichens, cranberries, and squirrels storing cones from the spruces above the buildings—buildings which appeared to have been set among the trees with a minimum conflict with Nature. Later, in the nearby forest, I noticed evidence of someone's exuberance with a bulldozer, but such scars can heal. On the whole my impression on arrival was one of wholesome simplicity, with officialdom happily in the background.

My thoughts went back to 1923, when I talked with Charles Sheldon. He eagerly asked me about the park, the wilderness which he had worked to preserve. He wanted to know about the mountain sheep and the caribou. I told him about the railroad that had been completed, running by

Dall Mountain Sheep. O. J. Murie

Willow ptarmigan. O. J. Murie

the edge of the park; told him we had taken a wagon twenty miles, to our camp on Savage River. He shook his head and said: "I don't want ever to go back there."

Now there is a road all the way to Wonder Lake, some 90 miles, and to the Kantishna mining district beyond. We drove over this road, and I had forebodings in tune with Sheldon's sentiments, perhaps because of my acquaintance with other super highways through wilderness, and the cheap roadside accessories that we generally find. Here was a happy contrast. I had a comfortable feeling on this road. The moss, blueberry bushes and dwarf birch came close to the edge. We were not frightening the landscape away from us, as we seem to do on carefully manicured highways. Here, I thought, is a national park that has survived some thirty years in the condition envisioned by its founders.

We drove all the way to Wonder Lake, and I saw country that we had

not visited afoot in those earlier times. Most of the park is treeless, above timberline, which here is about 3800 feet. Patches of dark spruce here and there accent a landscape which, as we saw it in September, glowed with the richness of autumn—the red of dwarf birch, the maroon of blueberry bushes, yellow of willows, and some aspens here and there—a harmonious mingling of color spread over the slopes, reaching up to the bold, dark cliffs of the upper heights. And we shared with the grizzly and the ptarmigan the harvest of ripe berries.

During these few days, as we clambered over the mountains, we talked of our former experiences here. From a high ridge I looked down into the Kantishna district and recalled the winter when I traveled from Susitna into the Rainy Pass country, into the Kuskokwim, around to Lake Minchumina, and finally reached the Kantishna—with four dogs, no dog feed left, and my own supplies at low ebb. Much of this was without trail. But on that journey I had Denali as a landmark. I had nearly encircled the mountain on a wide perimeter. What rich memories at sight of such a landmark now! I recalled the trip I had with Harry Karstens in the early twenties. He had guided the first ascent of Denali to its highest point, and was the first superintendent of the park. He told me many incidents of his travels with Charles Sheldon and the climb with Hudson Stuck, and that first "Sourdough" climb, when a group of sourdoughs carried with them a flagpole which they set up on the lower summit, thinking they were on the highest point.

Denali Mountain, in its grandeur, is not the only feature of this park. We looked up the Toklat River, the Teklanika, Sanctuary and Savage rivers, and recalled wilderness experiences in the back country in which these streams rise. Some of these date back to the lively days when the railroad was being built. Once I went up to Savage River with Hobo Bill. I was new to the country and he offered to show me some grizzly hibernation dens. He did, too, though they were unoccupied at the time. He had a large Airedale and another nameless dog and a little sled. With this outfit we got as far as an old hunter's cabin on Savage River. Around it lay a big accumulation of mountain sheep heads and horns.

Hobo Bill took me to the camp of a market hunter whose tent was placed in the edge of the timber. He had mountain sheep cached out in the hills. This was not exactly legal; in fact, I believe the park had been officially established then and he knew I was a federal employee. But he was supplying railroad construction camps run by the federal government! One day I shot a mountain sheep for a specimen, for the Biological Survey. It was a fairly long shot, and Hobo Bill asked me if I wouldn't

stick around a while to shoot sheep for him. He wanted to help supply the government railroad, too!

These were not the only memories. I recalled a summer day on the crest of the Alaska Range, at the head of Savage River where we were out to photograph mountain sheep. How we maneuvered in the shaly rock to get in camera range! Once while we watched a band resting on a slope below us, part of a pinnacle farther along the ridge toppled and rolled down the slope with a thunderous roar, sending up a cloud of dust. We were surprised to see that the mountain sheep did not even get up out of their beds.

It was not alone the mountain sheep that made the high country memorable. We found broods of White-tailed Ptarmigan, which choose the highest elevations. One of them, crouching before us at a distance of a few feet, squatted low to the ground, turned one eye upward and froze in that attitude. Looking up, we spied a Golden Eagle sailing over, and we snapped the camera at the watchful ptarmigan.

There were snow buntings in these heights, an occasional wheatear, both nesting in the cliffs. A hoary marmot would whistle from a point. We found cushions of moss campion, the mountain avens, crowberry, colorful lichens. And in the ledges of rock we would come upon the pale yellow flowered Arctic poppy. I had one keen disappointment in this return to Denali: I did not see a wolf. However, a few have been seen, and we know they are still there in very limited numbers. The mountain sheep have been increasing steadily from a low population level of a few years ago. In fact, mountain sheep numbers all over Alaska are on the upswing. And so goes the see-saw of animal population as Nature has designed it.

The animal life ranks with Denali itself as a vital feature of this national park. There are three kinds of ptarmigan, gyrfalcon, herds of caribou, red foxes, the great Alaskan moose, to mention a few. The grizzly, wolf and wolverine are valuable characters. The wolf and wolverine are not often seen, but the grizzly is common. A group of us from the Conference watched a grizzly hunting mice, rearing on its hind legs for a better view, pouncing clumsily. Another time we saw a female and two cubs eating berries. Remember, this is open country, offering a better opportunity than any other place I know to see this animal living in its primeval way. To watch the grizzly going about his business, digging roots, hunting ground squirrels, picking berries, ambling across a mountain slope, or simply grazing; to watch the heave of powerful muscles ripping the turf —that is worthwhile experience. That these experiences can still be had today was the comfort of coming back to Denali.

What of the future? Will we continue to *want* this? Will we have the

wisdom not to tamper too much with a masterpiece? Have we the generosity to will it intact to those who come to Denali a century from now? For this high purpose we must encourage a wider understanding of our task. Apparently some developments are planned for the Wonder Lake area. Will we have the wisdom to establish these with appropriate humility? There have been some urgings for a road across and up on the base of the mountain itself. Will we have the strength to withstand such unwise proposals?

The prospect is hopeful, yet there are some dangers, such as the furore over wolves, the move to make Denali a game preserve with control of predators mandatory. Such feelings are the result of fears and lack of information. I know of no national park with greater promise. Denali is still a true part of wilderness Alaska. We have the opportunity, through cooperation of all, to keep it so.

Conservation—and Tinkering

CONSERVATION is a state of harmony between men and land. By land is meant all of the things on, over, or in the earth. Harmony with land is like harmony with a friend; you cannot cherish his right hand and chop off his left. . . .

The outstanding scientific discovery of the twentieth century is not television, or radio, but rather the complexity of the land organism. Only those who know the most about it can appreciate how little we know about it. The last word in ignorance is the man who says of an animal or plant: 'What good is it?' If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If the biota, in the course of aeons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering.

—ALDO LEOPOLD, in *Round River* (Oxford, 1953)

Marion Randall Parsons

DECEMBER 14, 1878–July 17, 1953

MARION PARSONS was a remarkable woman. She had the talent for life, and she had the temperament of the artist which transmutes life into forms that deepen the insight and enlarge the horizons of others. As musician, as writer, as painter she succeeded notably; as companion and friend, her interest and quality rose to that true distinction which derives from great imagination, swift sympathy, and a genuine intuition of the nature of reality. Those who knew her will not forget her delighted laughter or her quiet and often saddened comprehension. On a mountain trail, in a garden or by a fireplace, she unfailingly responded to life, its predicaments and aspirations. And in the extended solitudes which suited her she made the stories, the pictures, and in earlier years the music which were outward aspects of her inner life.

Marion Randall was born on Ellis Street in San Francisco, about three blocks from what is now Macy's. She was the second of five children of the Charles Wells Randalls, of whom the eldest—Mary Randall of Alameda—survives her. Her father, who came to California by way of Panama in 1861 from Buffalo, was business man and promoter, owning among other enterprises Wakelee's Drug Store. He was of New England stock. His wife, of the Garabrant family, came from New York, but was also of New England stock. Before Marion was six, the family moved to Piedmont where the nearest neighbors were the pioneers Isaac Requa and Lucius Booth, cousin of Newton Booth, the Governor. The nearest school being two miles away, she was privately educated with her sister and brothers. A gifted woman from New Zealand, an English vicar's daughter, and a young girl from Virginia, in succession, broke the local frame and set that sense of the wide world which was to endure. Of that period and the life in that place, she was at the time of her death preparing a glowing but humorous record, to be called "A California Childhood." In 1902, upon reversed fortunes, the family left the great estate in Piedmont, moved to Berkeley, and there through Wanda Muir, oldest daughter of John Muir, began for Marion that interest in The Sierra Club which was to last to the end of her life. Her first Outing was in 1903. After John Muir's death, she edited his *Travels in Alaska*.

In 1907 Marion married Edward Taylor Parsons, director and moving spirit of The Sierra Club. He died in 1914. She succeeded him as director, and was continuously active until she resigned the responsibility in 1936.

Through all this period she worked steadily in the cause of conservation, and had her historical part in establishing the National Park Service. It was, however, on the Outings that she had those experiences which were later to be so fruitful in her painting. Immediately, they were reported in a series of articles in the *Bulletin*. The first of these, in 1905, characteristically dwells upon the human side: "the lost trail, the bridgeless river, the firm-willed beast of burden, the camp-fire that will not burn . . . the crowd . . . comradeship and chivalry, simplicity and joyousness, and the care-free life of the open." But through the years, the mountains—rock, light, forest, stream, glacier—are there: the great names: Grand Canyon of the Tuolumne, the Merced, Mount Ritter, Kings River, Kern Canyon; and the lesser: Huntington Lake, McClure Meadow, Gnat Meadows and Jackass Meadows, Tehipite Valley, Marie Lake, often with touches from the painter's imagination. From beyond the Sierra came her reports too. Of her more than fifty ascents of major peaks, a fair half were in the Cascades, the Olympics, the Selkirks, and the Canadian Rockies. Hers was the first ascent of Mount Bruce, in the Southern Selkirks (1914). With the Mazamas or the Mountaineers, or in other groups, she explored the Tatoosh Range, Mount Rainier and Mount St. Helens, Glacier Peak and the Stehekin Canyon, Mount Robson. And in the 1920's, the Zillertal Alps and the Val d'Ampezzo aroused her enthusiasm and were reported to the stay-at-home members of the Sierra Club. In the latter, she indulged her love of flowers by every fortnight moving up a thousand feet from Cortina to lengthen the springtime.

On the Sierra Club Outings she found new friends, come from afar, and added them to the friends of her girlhood. In 1952, she made—considering the state of her health—a daring journey to the Eastern seaboard to visit those who had come from, or gone to, that part of the world. Returned, her account of the visits seemed to her California friends the perfection of the humane and the full flowering of her talent for life. Not least of the elements that contributed to that impression was her natural consent that people and times should change. It had been this consent that made her speak out in writing of the 28th Outing of The Sierra Club. It was a moment when some lamented the vanishing of older ways on the Outings, saw a threat to the very life of the club. Marion Parsons saw it all differently. She called the new leaders "second-generation Sierrans, . . . their ways necessarily not our ways, their philosophy not ours, nor their climbing methods—nor their clothes. . . . I for one am all for yielding up our tradition graciously . . . as something living and vital that still may grow and gather honor."

To Mount Ritter on Skis

PHOTOGRAPHS BY ROBERT L. SWIFT

SOUTHEAST OVER THE MINARETS. *(Facing)* SUMMIT BREAK.

HIGH CAMP, at an elevation of 11,200 feet between Banner Peak and Mount Davis. Koip Crest in left background.

SUPPER TIME. The ski mountaineer's mealtime dilemma: eat out or eat in? If out, food and feet chill quickly, even on clear, calm evenings. If he goes to bed before supper (most ski mountaineers do), he wears callouses on his elbows and in midwinter spends two-thirds of his trip in bed.

PARALLEL TURN (ski mountaineer's version). Uncertain snow and uncertain pack combine to recommend the tried-and-true stem turn, which makes up in control what it lacks in speed.

HOME STRETCH. Frozen lakes on Rush Creek become boulevards for the ski mountaineer.

SKI MOUNTAINEER'S DOMAIN—NORTHWEST FROM MOUNT RITTER TO MOUNT LYELL.

In 1918 Marion Parsons went overseas in the Civilian Relief Branch of the American Red Cross. For her work with refugees in the Department of Landes and further work after the Armistice on resettlement problems in the Department of Ardennes, the French Government conferred upon her the Medaille de la Reconnaissance Française, on February 3, 1920. She also received medals from the Civilian and from the Military Branches of the French Red Cross. It was the experience and not the honors upon which she dwelt. Of that experience she made a novel, *The Emigrée,* which did not find a publisher. The manuscript (among her papers in the Bancroft Library) shows a fresh, direct, engaging picture. Among her papers are skits and stories going back to her early girlhood. The prompting to make fiction was native to her imagination. In the years that followed, especially after 1936 when an illness curtailed her physical activity, she wrote several full-length novels. The best of these —with their authentic early California backgrounds true quarry for historians—deal with pioneer manners and morals, pioneer personality types. Lighted by a mild irony, they are vivid with the sense of history as well as the sense of personality. They may well find a publisher in the time to come. Her second novel, *The Daughter of the Dawn,* appeared in 1923, in the United States, in England and the Dominions. Founded in her early California observations, enriched by what she saw in the Hawaiian Islands on several visits with her husband, the novel is one of the earlier, and one of the most successful, accounts of the tensions of mixed blood—Asiatic and Occidental, and mixed heritages. Through three generations the stresses and strains are pursued with dramatic force, which is saved from melodrama by the lively humanity of the creative attitude. Two years earlier, in October, 1921, Mencken and Nathan published in *The Smart Set* a story by Marion Parsons which was, though muted, benefitted by the same qualities. A San Francisco dry-goods clerk of middle age, bound in routine, is lured by the foreign, the remote, half perceived by him to represent the wide tensions that were to make and mar life in the decades to come. In *The Red Gods and Mr. Norton,* the routine and the local were to prevail, but only after an experience of enlargement. There is in all these works, published and unpublished alike, something private, almost secret, suggested but not fully communicated—the delight of life in whatever form. One seems to overhear, rather than to hear, the word. It is as it was with her music. She could not free herself to play for an audience; but if one sat in another room, unrealized, the Beethoven Sonatas came from the piano with absolute dominion—the beauty enclosing and transcending the tensions which made them.

In 1952, Marion Parsons published *Old California Houses: Portraits and Stories*; in the December, 1952, *Sierra Club Bulletin* she published *Mono Vignette*. In the latter, particular fruit of twenty years of quiet holidays at Mono Inn, she suggested that in seeing "mountain history in stone and soil, vanishing glaciers, ancient course of rivers," we had neglected "the stories of the people who blazed the trails." In the former, she corrected the emphasis. The book and the article exhibited the "trail-blazers" in text and illustration—the early people in their houses, their churches, their stores, and their graves. The illustrations were photographs of her own paintings. For about 1930 Marion Parsons had begun to be interested in sketching. After her illness, in 1936, she set to work seriously, and was mostly self-taught as a painter. She exhibited pictures in the Santa Cruz Annual State-wide in 1941, 1942, and 1944; in Oakland Art Gallery in 1942, 1943; in the San Francisco Women Artists Annual in 1942, 1944, 1945, 1948. She had two shows in Cedric Wright's studio in Berkeley—one of varied subjects, in 1948, one chiefly of California Houses, in 1952. Discerning people acquired many of these pictures. After *California Houses* was published people from as far away as New York and New England sent in orders, choosing by photograph. Thus something of the Randalls and Garabrants returned to the places of origin. Discerning critics took her work seriously. It is proper to have a painter's judgment of it. It is fortunate to have at hand one so perceptive.

Ariel Parkinson writes: "I would divide Marion's paintings into groups which correspond to two main preoccupations of her life:—she had a passion for the mountains, and she was vastly entertained by people. The group carrying her sense of people are mostly oils and watercolors, and the large number of them are of old houses. The other group, much smaller, is rare and profound in statement, eccentric in technique.

"The oil paintings and watercolors are witty, tender and adroit. A sketched tree takes up in curving, twisting lines the bleak geometry of a deserted house. There is a fine gossipy sense of detail. Mouldings and cornices are elaborately, delightedly rendered. They are the carriers of fashion, intimate and superficial statements of personality. People themselves often appear nostalgically as ghosts; ghostly or concrete they are always in the full millinery trappings of their most worldly life.

"The paintings are strongly designed, the forms are stylized to emphasize their abstract nature. I think the secret of the wit and feeling lies in the simultaneous apprehension of intricate, fashionable amenity and the austere, abstract, skeletal major form which time and the painter now reveal.

"These paintings are charming and competent, but they are literary paintings as they depend heavily on the personality and story suggestions of the subject. I find the full revelation of Marion's depth and stature as an artist in the finger paintings and chalk sketches which she did mainly because they were good exercise for other more ambitious work, and many of which she had never shown to anyone. This group has such striking graphic quality that it seems as if she were employing a different set of instruments:—instead of humor, personality, nostalgia—color, volume, light, the play of light which is both volume and pure color, the relationship of mass. In these 'private' paintings the design is less carefully worked out—and richer, and more subtle; the forms are realistically rather than abstractly handled—they are bolder and freer.

"These paintings are rich and satisfying graphically. They convey those secrets of high mountains, storms, trees, water, that have to do with volume, mass, masked and moving light, organic form bleached down to death again. They reveal a sense of fundamentals, creation, destruction, force, to which the old houses and their inhabitants had made themselves almost irrelevant.

"I can suppose that if Marion had painted thirty or forty years instead of twenty she would have done these great things in oil and water color too. One works in chalk and finger painting with the whole hand. The idea or perception is near its instinctive solution in a body movement. The difference between a truth and a half-truth is in the interruption, fortunately remediable, of the brush.

"But we have these thirty paintings. And here I think Marion's deeds are the full match of her character, its objective extension, the statement of its value."

This admirable analysis may stand as a conclusion. Yet something may be added. Marion Parsons moved, remembering and researching, in the past that she might reach into the future. Her growing time had been in an era of limitation upon the young. Though modest and even shy, she avoided limitation for herself, in her thinking about life and in her living of it. What was beyond her actual grasp, she comprehended by a delighted and often merrily laughing act of the imagination. It made her a rich personality. In her bequests, she thought of those with life ahead and also fostered love of the mountains. She was one of the not very conspicuous people who quietly operate to make civilization. B. H. LEHMAN

To Mount Ritter On Skis

By GEORGE BLOOM

"Whew! Spring is here early this year!" someone exclaimed, and we stopped, stamped our skis crosswise on the slope, took off our packs and began to strip off some of the layers of clothing we had worn for our all-night drive. The hill was steep, the air still, the sun reflected and re-reflected from the deep powder snow. Floyd Burnette, Bob Swift, and I found it hard to believe that it was early February and that we were at 7,000 feet in the Sierra. Could this be the scene of the record snowfalls and the hard winter we had been reading about?

We swung our packs on and followed the power lines on up Rush Creek, soon to be kicking steps up a steep icy slope and towing our skis behind us on up to Agnew Lake, frozen and snow-covered—a fine route for skis. Just below Gem Lake Dam we were surprised to see two skiers coming down the hill toward us—snow surveyors coming back from their survey—and stopped for a brief chat about where they had been and how we were going to try Mount Ritter.

As we hurried across Gem Lake, night began to close in on us and the chill began to bite through. We pitched our four-man Army mountain tent on a knoll at the end of the lake and melted snow to make our dinner—a seething mass of canned tuna, dehydrated vegetables, margarine, and powdered potatoes, finished off with steaming hot Jello. Then came the nightly ritual of getting skiers and equipment inside the tent and leaving the snow outside—a very difficult trick, especially in deep powder snow. We took off our boots, cleaned the snow off them, inflated our seventeen-ounce air mattresses, stuffed our damp socks inside our sweaters to dry, and finally crawled, wiggled and squirmed our way almost fully clothed into our close-fitting mummy bags. This latter operation left us as tired as had the day's skiing, and we had little trouble in drifting off to sleep.

The morning was cold and clear. After breakfasting on a mixture of Grape-Nuts, powdered milk, sugar, salt, raisins, and cinnamon with added snow water, we skied on up the easy canyon. By midafternoon we had crossed Island Pass and could see Banner Peak and Mount Ritter—which, as far as we had been able to find out, had never before been climbed in the winter—rising above Thousand Island Lake. They looked quite impressive with their steep dark walls garnished with patches of bright fresh snow. We had decided to try Ritter from the southwest instead of the more easily accessible summer routes to the east. We skirted around above

Thousand Island Lake and climbed to the col between Banner Peak and Mount Davis. Camp was set up at 11,200 feet on a broad highway of snow that runs up toward the pass. Flanking either side of our camp were the steep faces of Banner and Davis, with snow on the cracks and ledges. From the front of the tent we could see a broad panorama of mountains, lakes, and the far-off desert we had left two days before. We brewed supper as we had the night before except that we had Spam instead of tuna in the stew. For lack of anything else to do, because we needed the rest, and because our sleeping bags were the only place we could be almost comfortably warm, we went to bed as soon as we had finished eating. The time was about seven o'clock—not an unusual bedtime on ski tours.

The next morning we awoke to find our luck with the weather still very good; there wasn't a cloud in the sky. The air was cold, however, and our breath filled the tent with clouds. We skirted the west side of the mountain looking for an easy route up, traveling first on skis but soon deciding to continue on foot. We found the snow fairly thin, and many sharp rocks exposed. We had chosen the west side of the mountain on the assumption that the snow would be better consolidated than on the north and east sides, and now headed for the far (south) side of the large snow-filled bowl on the southwest side of Ritter. Though the angle was about forty-five degrees the snow surface was little over a foot above the rocks, well packed and well stuck to the jagged blocks of talus, so we had little fear of avalanches. We took turns kicking steps with our lug-soled boots. Tiring of this, we decided to try a near-by rib of rock running up toward the ridge. This was easier; the rock was well broken and gave us a fine assortment of hand- and foot-holds to choose from, though in many places these gave out and we again found ourselves kicking steps in the thin snow. By 1:30 p.m. we were on the summit plateau just south of the low point of the ridge running south from Ritter. After kicking a few dozen more steps the summit was ours. The sun was shining but the air was cold and there was enough of a breeze to make us glad we had brought our parkas along. We rationed out the lunch goodies—dates, liver sausage, pumpernickel, and chocolate bars—while we looked at most of the higher peaks of the Sierra stretched out before our eyes.

At 3:30 we retraced our steps down the summit plateau. This was too arduous, so I, having the one ice ax in the party, went ahead to pick the easier routes down the snow for the others with their ski-pole substitute for an ax. The last man carried our nylon climbing rope coiled but ready for an emergency, but we never found an excuse to use it. About half way down I decided to try sliding. The snow was still too soft to

glissade so I tied the bottom drawstring of my parka tight, sat down on the snow, leaned back on my pack and watched the mountain slip by. The slope was concave so I could see my course clear to where it leveled out below and I could slow down or stop at will. Floyd tried sliding too, but Bob had ripped a large hole in a critical part of his trousers and thought it best to walk all the way back to the skis. We skied back to camp and melted truckloads of snow and drank many, many cups of bracing insipid tea before we began to feel that we had replaced the moisture lost during the day. We then threw the evening's allotment of food into the pot and divided it among the three of us.

The weather seemed to be changing the next morning, and with highway travel uncertain and our food running low, we decided not to try another peak. Breakfast over, we began the 5,000-foot ski run back to civilization. Most of the slopes we encountered were quite gentle and well suited to our thirty-five-pound packs — and to our skiing. We stopped for lunch on Rush Creek. Floyd nearly got into trouble while trying to get water when he broke through the snow and dipped one foot into the deep, fast-moving icy stream. He managed to get it out before the water could get inside and found only his pride hurt. We broke more of the ice with the ski pole and, using it as a boom, filled our cooking pot and retreated to safer ground to clean out our lunch bags.

Then the misery. Downstream, we ran into the stickiest snow ever encountered on a Pacific ski slope. Our noblest waxing effort was of little avail and at one point I found I was having difficulty walking straight down a slope that was a full forty degrees. The last thousand feet below Agnew Lake seemed even worse — so icy that it was difficult to hold an edge even while sideslipping. It gave me the impression of skiing on a Paul Bunyan grinding wheel, and I found myself wondering how long my skis could hold up under this sort of treatment. To make matters tougher we had to dodge power poles and partly submerged wires.

We got back to the car in the late afternoon. We were met by a number of children from the power station, who seemed very interested in these people dressed in funny clothes who had just come out of the mountains. In the course of the long ride back to Berkeley, we began to forget about the cold and the sticky snow and the ice. But we couldn't forget about sun on the summit and how the deep powder snow flew when we turned—and fell. Storm clouds thickened overhead, threatening to add soon to the ten-foot drifts we passed in the desert. We congratulated ourselves on having picked the best week end of the winter for our climb, and we settled back on the cushions out of reach of the new storm.

Mount Olympus Revisited

By FRANCIS P. FARQUHAR

In May 1951, Mrs. Farquhar and I arrived in Greece in the course of an airplane trip around the world which had given us brief but vivid experiences of life and scenes in India and the Near East. That very morning we had left Istanbul and in a few hours had viewed the scenes of many great events in Hellenic history, from the plains of Troy to the mountains of Attica. Then, as we came over Athens, there was the Acropolis, unmistakable, radiant, thrilling in all its connotations. A moment later we were on the runway of the airport at Phaleron and were greeted as we emerged from the gates by Jacques and Katia Santorinéos on behalf of the Club Alpin Hellénique.

For several years I had been in correspondence with Jacques Santorinéos, who has taken upon himself the task of Historian of Mount Olympus. He is also the outstanding leader of the Greek conservation movement, expressed in the Société Hellénique pour la Protection de la Nature. It was Jacques who had encouraged me in the hope that I might return to Mount Olympus and reach its highest point, which had been denied to me in 1914. And now, here I was, with an almost unbelievably good prospect of attaining the goal. From the moment of our arrival, Marjory and I, Jacques and Katia, were warm friends, and shortly afterwards others were added to the circle. We soon felt almost as much at home among members of the Club Alpin Hellénique as among members of the Sierra Club — whom, in fact, they very much resemble.

The following morning we were honored by a call from Messrs. Leondopoulos and Tzartzanos, president and secretary, respectively, of the C. A. H. They informed us that arrangements were being made for the Olympus trip and that meanwhile they would like to have me address a formal meeting to be held under the auspices of the Club. I readily agreed, for it was one of the objects of our trip to bring messages of good will from America to kindred spirits. On June 8 we were welcomed at a meeting of about three hundred members and guests and I was immensely pleased at having conferred upon me an honorary membership in the Club Alpin Hellénique, accompanied by the presentation of a beautiful certificate, hand-lettered and decorated with an original watercolor of Mount Olympus. Because of the character in which I appeared, representing both the Sierra Club and the American Alpine Club, it seems appropriate to record here my address of the evening, especially as it serves as a suitable

introduction to an account of our expedition to Mount Olympus which followed a few days later.

President Leondopoulos,
Members of the Club Alpin Hellénique,
Ladies and Gentlemen:

Why is it that in all parts of the modern world groups of people like ourselves —men and women—band together in societies devoted to the enjoyment of mountains? It is, I believe, because mountains stand for so many things that we need in these times, when life moves with ever-increasing rapidity, in these times of tensions and conflicts. To some people mountains are merely impediments to travel; to others interesting geological formations; while yet others see them only as capturers of snow and rain whence come springs and rivers for the benefit of agriculture and to provide water for cities. The practical man sees also that mountains furnish wood and stone for buildings and pasture for animals. That is all very well, but if men give no thought to the future and use things unwisely the supply becomes exhausted and the mountains become sterile.

This brings us to one of the reasons for the existence of mountaineering societies. Those of us who know mountains and love them see the necessity for protecting them. Thus, mountaineering societies are often closely allied with societies for the protection of nature. I know that this is true in America, and I understand it is becoming so here in Greece.

But while the protection of mountains is an important function of a mountaineering society, it is, of course, not the primary one. There is something else that brings mountain lovers together. In our search for this cause, let us look higher—to the mountains themselves. There we find a satisfaction, not only of our bodily needs, but of the mind and the spirit. To visit the mountains, to climb them, gives new life to our muscles, new capacity to our breathing, and we return to our accustomed tasks refreshed and invigorated. Yet, there is more — our eyes have seen many beautiful things and our vision has extended to far horizons. What is the effect of this? It is both a refreshment of the spirit and an expansion of the soul. The world looks better to us after a visit to the mountains. We rise above the petty restrictions of our lives and gain courage to strive for better things. That is why we who have experienced these things like to associate together. We enjoy one another's company and we are eager to open the eyes of our friends and bring them into our group.

This is also the reason why members of mountaineering societies traveling in foreign lands find such a cordial reception as we have found among you. Nationality and language at once become trivial as we recognize in each other the bond of a common interest, a common understanding of essential things.

From time immemorial mountains have been symbols of lofty ideas. Thus, in the ancient Hellas your poets conceived of them as the abodes of divinities. Parnassus was associated with Apollo; Helicon and other peaks with the muses and the lesser deities. But for the greatest divinities there was reserved the loftiest peak in the Hellenic world — snow-crowned Olympus. Nor have three milleniums diminished its grandeur. Olympus stands today, in the light of all we know of great mountains throughout the world, one of the most beautiful, one

of the most sublime. It is not necessary that a mountain be the highest in the world, or on a continent, nor that it be remote or difficult of ascent, to give it a high rank. There are other, and more important, attributes of mountains, and of these Olympus possesses many—a commanding position in the land or among its neighbors, strength and beauty of form, fine forested slopes and flowery alpine meadows, and above all, poetic associations and a history that engages the thoughts of the climber while the physical qualities delight his senses.

It was in such a mood that, in 1914, I approached this famous mountain with my companion, Aristides Phoutrides. I should like to pause for a moment before telling of our climb to lay a wreath, as it were, before the stele of my dear friend, for he should have a stele somewhere on the Eleusis road, as one who loved Greece as he also loved his adopted country of America. Phoutrides was a poet as well as a scholar and a man of practical affairs. He was born on the island of Nikaria and received his early education at the Gymnasium here in Athens. For his further education he hesitated for a time between Germany and America. The latter prevailed, and, after a year of studying the English language, he entered Harvard University, from which he was graduated in 1912 with highest honors. He went on to the degrees of Master of Arts and Doctor of Philosophy. While studying for the latter he spent a year in Europe and it was here that I joined him, in the spring of 1914, for a month in Greece—one of the most wonderful months of my life. Shortly after the outbreak of war Phoutrides returned to America, received his doctor's degree, then entered a training camp for a commission in the United States Army. When America entered the war he was called to active service, given the rank of captain, and assigned to the training of infantrymen. His services in this capacity were so valuable that he never saw combat, but emerged at the end of the war with the rank of major. That is why I say he was a man of practical affairs. But he was also a poet. A small volume of his poems, in English, was published, and many others remained in manuscript. His greatest poetical achievement, however, was the translation into English of the poems of Kostes Palamas, published in two volumes by the Harvard University Press. I had the good fortune to meet Palamas here in Athens in company with Phoutrides. His lines on Liakoura are among my favorite verses. It was a great loss to the world when Aristides Phoutrides died, in 1923, very suddenly of heart failure. His malady was undoubtedly caused by overwork in the huge tasks of teaching and writing he had undertaken at the universities of Harvard and Yale, but I am sure it was intensified by his grief over the tragic collapse in Asia Minor of the aspiration for a greater Hellas.

It was Aristides Phoutrides who led me to Mount Olympus and who taught me to know and admire modern Greece and its people. But on our approach to the mountain he was almost as ignorant as I was about how to climb it. In 1914 very little was known about Olympus. It had been restored only recently to the political domain of Greece. During the five hundred years of Turkish domination it had seldom been visited. Very little reliable information had been published about it, and we were at the time ignorant even of that. We did not know that in the preceding years two Swiss climbers, Fred Boissonnas and Daniel Baud-Bovy, had reached the highest peak—a first ascent. We did hear a little about the capture of Edwart Richter by bandits in 1911. Phoutrides assured me

that we were in no danger, however, for these bandits were now good Greek citizens and would respond to his patriotic words with a friendly welcome. Such actually proved to be the case. Our only course seemed to be to go straight towards the mountain and climb it. That we did, by way of Larissa, Elassona, and the monastery of Hagia Trias at Sparmos. We started from the monastery before daybreak, followed a ridge that seemed to lead towards the high peaks. It was an arduous climb—one that I could not repeat today—eight thousand feet or more up and down again in one day—thirteen hours of constant effort, part of it through deep soft snow. It was the last day of April and there was a great deal of snow on the higher portion of the mountain. Our way led through snow to the very summit of Scholion. It was only several years later that we found out that we had not reached the highest peak—Scholion proved to be fifty feet lower than Mitka, and Mitka was beyond our reach that day. But it made no difference to us then, nor does it to me now. It was a glorious experience and we could have had no finer impression of the majesty of Mount Olympus than we had that day on snowy Scholion amid swirling clouds which opened now and then for views that caused us to shout with joy and agree with Homer that here, indeed, was the abode of the blessed gods forever.

Olympus still calls. I have seen and climbed many mountains since that day in 1914, but I have never seen one that outshines it nor surpasses it in those attributes I have mentioned. I look forward to visiting it again in the coming week. This time it will be under quite different circumstances. While I shall miss the companionship of my friend Aristides, I rejoice that I shall bring my wife to the knowledge of this great mountain. And I am especially grateful to Jacques Santorinéos for making it possible for me to be here and to the Club Alpin Hellénique, in which I am proud to be honored with membership.

May Pallas Athena, patron goddess of this fair city, aid us in our journey, and may Zeus be kind to us!

Having invoked the gods, let us recall an earlier ascent of lofty Olympus, as recorded in the Iliad: "And Thetis rose up from the sea-wave, and at early morn mounted up to great heaven and Olympus. There found she Kronos' son of the far-sounding voice sitting apart from all on the topmost peak of many-ridged Olympus."

For us it was not quite so easy as that, but, in a measure, the results were the same. For we did mount up from the sea, and we did behold Zeus, the cloud-gatherer, on the topmost peak, and he was kind to us. Moreover, Pallas Athena was ever at our side, wisely guiding our steps.

On the evening of June 9, seven members of the C. A. H. boarded the *wagons lits* with us—Elias Venezis, Costas Goulimis, Constantin Eleftheroudakis, Dimitrios Karlos, Mrs. Helène Zographos, Miss Irene Papamanoli, and Jacques Santorinéos. Venezis, one of the leading radio commentators and columnists of Athens, was the publicist for our expedition. Marjory and I were the photographers, Goulimis the botanist, and Santorinéos the indispensable organizer and leader.

In the morning we awoke to see from our compartment window the plane trees and the silvery waters of the Peneus River as the train wound its way down through the Vale of Tempe to the Aegean Sea. Passing the little village of Platamona and the landing place of Litochoron, we alighted at the station of Katerini. The town was a mile or two away, but there were taxis of a sort and we were soon at this provincial capital of Southern Macedonia. Across the cultivated fields beyond the town there rose the great mass of Olympus, many-ridged, snow-clad, cloud-gathering, even as it was described by the ancient poets.

Our leaders had taken the precaution before leaving Athens to request protection by the local authorities against possible molestation by robbers. In fact, two requests were made, one to the military, the other to the Ministry of the Interior. The latter took the unexpected turn of an order prohibiting our expedition. Happily for us this order was so delayed that we knew nothing about it until we returned to Athens five days later. The request to the military also produced startling results, but of a more favorable nature. At Katerini our leader called on the Major General, who gave us a cordial welcome and referred us to the Brigadier at Litochoron.

Litochoron is a picturesque village perched on the first step-up of the foothills that rise directly from the narrow coastal plain. From it one may look straight up the great gorge that extends into the very heart of the mountain. Our friends eagerly pointed out to us every step of our journey, up to the Club hut, at 7,000 feet, near timberline, and to the summit peaks culminating in the towering rocks of Mitka, 2,918 meters, or 9,574 feet, above the sea.

As soon as he learned of our arrival, Brigadier George Vlassis, whose regiments form part of the garrison of Macedonia, invited us to his headquarters. He gave every appearance of being a very fine commander. His officers and men were smart and attentive. They were well equipped and obviously accustomed to action. Most of them had fought in many bitter battles. Although our wants were few, the General would not think of letting us proceed in such a modest fashion. Let things be done in proper style. Moreover, why would not this be a good opportunity to give his men experience in mountain tactics? Orders were issued, and we suddenly found ourselves supplied with an escort of forty or fifty (we never knew quite how many) officers and men, fully equipped and armed, and twenty-five mules for mounting our party and the officers and for transporting the baggage. Then, as an afterthought from the Brigadier: Had wireless messages ever been sent from the summit of Olympus? We thought not. Promptly there was an order: Take a portable set as far as a mule can go,

and carry on with walkie-talkies. All this was, of course, in Greek, but even without interpretation the meaning was made clear by the action that followed. We were introduced to Lieutenant Nicholas Rossis, who was in command of our escort. He spoke a little English which improved rapidly as we went along. We found him a most agreeable companion. In fact, by the end of the day we came to regard all our soldier friends as boon companions on what promised to be a thoroughly delightful expedition.

If there had ever been any need for protection, we could now dismiss the thought. Nothing short of a panzer invasion could have disturbed us. In one way our soldiers took things seriously. There was never a breach of discipline nor a relaxation of viligance. Scouts went on ahead and outposts were detached from time to time. Heavy arms were carried by the last remaining squad to the very summit. On the other hand, there was an air of light-hearted good humor among the men and an informality among the officers that was expressed in many acts of kindness and good cheer. Such was our admiration for these Greek soldiers that upon our return to Katerini I was able to say sincerely, in thanking the commanding general: "I am very glad that your men are on our side and not on the other side shooting at us, for they look to me like very brave and formidable soldiers."

When at last our cavalcade was assembled it was midafternoon. We climbed steadily up the steepening flanks of the mountain, then descended into the ravine and made our encampment outside the walls of the mediaeval monastery of Hagios Dionysius. Outside; for within all was rubble and ruin. Once one of the glories of Byzantine architecture, it had been blown to pieces by the invading Germans. As we wandered about among the ruins our poetical companion, Venezis, gave way to melancholy thoughts, while Marjory and I, less aware perhaps of all the implications, were, nevertheless, deeply moved by the spectacle of such barbarity.

The following morning we turned from the works of man and human problems and breathed a purer air. We mounted through the forest of fine pines and firs and huge birch trees, carpeted now with lovely lilies-of-the-valley, now with flowers of many colors. We halted at a meadow and visited a cold, clear spring that gushed from a cleft in the limestone. Then, a long slant up the side of the ravine to the snowfields that lay between us and our destination. A lively traverse across the snow by the mules and we were at the stone hut erected and maintained by the Club. Here was a substantial shelter, well designed for cold mountain nights. But, alas, robbers had recently despoiled it of everything detachable. Our Club associates and the officers made the best of it and established themselves

within, but Marjory and I chose to sleep outside in the comfortable sleeping bags provided through the courtesy of the American military attachés in Athens. The Air Force had also given us boxes of flight rations, which we found ideal for our purpose. The Greeks do not have a common commissary, but each soldier and club member provides his own food, and such cooking as is done is by groups of twos and threes.

To preserve the military order, sentries paced all night around the encampment and now and then one tripped over us in the dark. Some sang quavering songs around their bivouac fires. About ten o'clock another sound intruded. Yes, there was no doubt about it, rain was falling. It fell steadily for four hours, but Marjory and I, protected by our army tarps, slept well enough.

At an early hour on the 12th of June our little party set out on foot for the final climb. The rain had stopped, and as we emerged from the highest trees the prospect began to brighten. Clouds rose and fell among the snowy peaks, but for the most part we were above them. And now I began to recognize the landmarks of my former climb. I had come then from the other side of the mountain, but there was no mistaking the rounded central dome and the form of Scholion. Thirty-seven years! And what changes there had been elsewhere! Here all was the same—or so it seemed for a moment. But, ah, no, there was a change—a change in me. There was both a growth and a decline. But the decline was merely a physical one; in mind and spirit I was far more receptive to what I saw. I rejoiced to be again upon these Olympian heights and turned my thoughts to the full appreciation of the rare experience.

And rare and beautiful it was. The broad-backed ridges, with fields of gleaming snow leading up to the summit peaks; the clouds coming and going, now magnifying the rock-towers in filmy mist, now falling away to open up full views of the great precipices; and at our feet delicate flowers, yellow, blue, magenta, and white, ensconced among the slate-blue rocks—no wonder that the poets of old saw in Olympus the home of the gods.

The route to the top of Mitka now became apparent. Christo Kakkalos was there to point it out, but our eyes could hardly have failed to perceive it unaided. "Embros, embros," we joined in the call. Venezis says in the account he wrote for his newspaper: "Marjory Farquhar goes ahead. She climbs as if she were dancing ancient dances." I must confess I went more slowly. But, in half an hour we were assembled on the topmost peak of Olympus—Marjory and I, four of our friends from Athens, and a dozen of the Greek soldiery, with the veteran Kakkalos. Then began a series of spontaneous ceremonies. Christo, in his eighth decade, was acclaimed for

his many ascents; the soldiers fired a volley; Rossis and his fellow officers marveled to find themselves in such an unaccustomed spot; Venezis prepared to broadcast the news; and Francis kissed Marjory.

The wireless broadcast was soon in operation. Rossis called the operator of the portable two thousand feet below, who relayed his report to headquarters. I sent a radiogram to my partner, Cliff Heimbucher, in San Francisco, which was duly received. Then came Venezis with a lyric message to his paper in Athens. It included an interview with me in which I expressed my joy at revisiting Olympus and in which I offered a salute to Greece. The crowning moment was a tableau upon the summit monument. Rossis and I, with our arms about each other's shoulders, displayed the flags of our countries—the red, white, and blue stars and stripes of the United States and the blue and white stripes and cross of Greece. Zeus and all the other immortals, representing noble and beautiful ideas, smiled upon us as we left their lofty abode and resumed once more the humbler ways of man.

How Much for Their Signature?

Is it profitable for the individual to build a beautiful home? To give his children a higher education? No, it is seldom profitable, yet we do both. These are, in fact, ethical and aesthetic premises which underlie the economic system. Once accepted, economic forces tend to align the smaller details of social organization into harmony with them.

No such ethical premise yet exists for the condition of the land these children must live in. Our children are our signature to the roster of history; our land is merely the place our money was made. There is as yet no social stigma in the possession of a gullied farm, a wrecked forest, or a polluted stream, provided the dividends suffice to send the youngsters to college. Whatever ails the land, the government will fix it.

I think we have here the root of the problem. What conservation education must build is an ethical underpinning for land economics and a universal curiosity to understand the land mechanism. Conservation may then follow.

—Aldo Leopold, in *Round River* (Oxford, 1953)

Too Many Deer

By A. STARKER LEOPOLD
Museum of Vertebrate Zoölogy, University of California, Berkeley

SINCE 1925, the year of the great die-off of Kaibab deer, there has been blowing in conservation circles a minor gale of controversy over the hows and wherefores of managing our deer herds. Eddies of the storm have swirled through legislative halls in all the northern and western states, where deer are most numerous, and even into the southern provinces of Canada and, more recently, southeastern Alaska. Sometimes the winds of oratory have reached cyclonic proportions, as in Wisconsin in 1948 when Governor Rennebohm vetoed a bill to permit the shooting of female deer (and consequently was defeated for re-election), or in Pennsylvania when an irate public protested the kill of 171,000 does during the hunting season of 1938. More often the gusts are local and puffy, as fish and game commissions from coast to coast listen to arguments for and against liberalizing the deer kill.

The center of the tempest hinges on a seemingly simple point—should we legalize the killing of female deer as well as bucks?

Arguments in favor of doe hunting are all based on technical and biological grounds. The contrary view is not so simply defined—it springs from tradition, sentiment, and fear, and to understand it one must retrace the whole evolution of wildlife conservation in this country.

When Theodore Roosevelt and Gifford Pinchot came forth in 1904 with plans for the conservation and wise use of the nation's resources, there was quick and grateful acceptance on the part of the American public. Already there existed a growing awareness that the waste and slaughter of frontier days could not continue indefinitely. Although perhaps few people really understood the economic (much less the ecologic) significance of the butchering of the forests or the overgrazing of the grasslands, nearly everyone grasped the implications of the disappearance of bison and passenger pigeons. There crystallized rapidly a philosophy of conservation based on fear of resource exhaustion by overuse. In the specific province of wildlife conservation this concept was championed by such popular figures as William T. Hornaday, John M. Phillips, T. Gilbert Pearson, and others of lesser rank, and within a short time nearly all of the states had plunged enthusiastically into the crusade to protect remaining breeding stocks of game from threatened extinction. Indeed, nothing could have been more salutary at the time, for many species, especially of big game, were dangerously reduced in number.

The accepted techniques of restoration were (1) legal regulation of hunting, with necessary enforcement, (2) establishment of refuges or special preserves, and (3) control of predators. In the case of deer, this combination of devices was applied almost universally as *the* formula for deer management. The rapidity of its success was proof of its soundness and further was a source of gratification and encouragement to the conservationists of that day. From about 1910 on, deer increased steadily—sometimes spectacularly—over much of their former range, and one by one the states began cautiously to permit more hunting of the thriving herds.

One widely adopted phase of the protection program was to limit the legal kill to bucks only and to save all the does as breeding stock. Since deer are polygamous in mating habit, this procedure was biologically sound and served to sustain and perhaps even to stimulate the rate of increase among deer by enlarging the proportion of females in the herds. Much play was made of this differentiation of the sexes in presenting the problem of deer conservation to the public. Hornaday for example, and many others, depicted the true sportsman as a clean-shaven gentleman of high principle who went afield to match wits with the noble stag and who looked solely with affection on the limpid-eyed doe and her spotted fawn. Only the ruthless game hog would slaughter a female. Wardens preached this gospel in country stores and administrators expounded it in the banquet halls. It became at length a part of our national creed.

And then came the Kaibab. The north rim of the Grand Canyon had been set aside as a National Game Preserve by Roosevelt in 1906 and particular attention was devoted to restoring the remnant of native mule deer. By eliminating hunting and closely regulating the numbers of large predators, the herd of about 4,000 deer was built up to an astonishing 100,000 by 1924. In the interim the area of the original game preserve had been reallocated to Grand Canyon National Park and to Kaibab National Forest. In 1918 the forest officers first noted severe damage by the deer to forage plants on the range, and by 1923 they were urgently requesting that the Arizona Game and Fish Commission open the area to hunting, not only of bucks but also of does, for the purpose of reducing the deer herd. This was the first demand for reduction of deer and it came as an unpleasant surprise to the conservation-minded public. There followed a series of investigations by special committees, and several court cases regarding jurisdiction over the deer, but before a new policy could be formulated the deer herd had largely perished. In the winters of 1924–25 and 1925–26, sixty per cent of the deer died of starvation on the de-

pleted range. By 1930 the herd numbered only 20,000 and even then it dwindled slowly until in 1939 there were only 10,000 left. The Kaibab herd and the range had been sacrificed, but the point was borne home that there could be too many deer.

The spotlight shifted from Arizona to Pennsylvania where white-tailed deer were becoming locally overabundant. In 1905 the sportsmen of the state had fought against the adoption of a Buck Law, but in 1925 they opposed even more bitterly a plan to repeal that statute and to permit a limited kill of does to hold down the growing herd. It is to the everlasting credit of the Pennsylvania Game Commission that they followed the advice of their field men, despite sportsman opposition, and periodically from 1925 to the present day have legalized a sufficient kill of does to hold the deer at least partly in check. That is not to say that the people of Pennsylvania are in full accord with doe shooting. There is still much disagreement over the efficacy and morality of killing potential mothers.

In rapid succession parallel problems developed all over the United States—in Michigan and Wisconsin, Utah and Colorado, Washington and California. The technical literature on wildlife came to be almost dominated by reports of too many deer, damage to ranges or crops or forest reproduction, wholesale losses of deer to starvation or in warmer climates to disease, all leading to professional recognition of the need for herd control. But so deeply had the philsophy of protection and restoration penetrated public thinking that challenging the sacred position of the doe called forth a pitched battle in nearly every state, county, or local community where the issue was raised. And usually the sentimental view prevailed over the biological. Only Idaho and Minnesota were immune—the two deer states that were fortunate enough to have escaped the Buck Law. Parenthetically it might be added that these two states have plenty of deer today and only a few trouble spots—mostly in parks and refuges.

Fortunately, controversy in conservation affairs always stimulates field investigation and research, with the result that today we know a great deal about deer biology and range relationships. First let us examine the evidence pertaining to the causes of deer irruptions and secondly that regarding the biological after-effects, both on the deer and on the range.

In the mushrooming of deer herds in the first half of this century there was more involved than mere overprotection. North American deer generally thrive best in certain *secondary* stages of forest succession; that is to say, there is much more food for deer in cut-over or burned-over forest than in virgin forest, and as a consequence there are usually more deer. Virtually all deer studies have shown that the quantity and quality of

forage, specifically of winter forage, ultimately limits deer numbers on any given range in the absence of other controls. The indiscriminate slashing and burning of forests that occurred during the past century inadvertently created almost ideal food conditions for deer, so that when protection from both hunters and predators was offered, the deer were able to increase at a rate little short of their biological potential. Shrubs such as species of *Ceanothus* (deer brush), *Purshia* (bitter brush), and *Cowania* (cliff rose) grew in seemingly unlimited amounts through the western mountains where once were lofty stands of conifers with little deer food beneath. In the East and Lake States were thickets of succulent young maple, white cedar, and hemlock growing among the stumps of Paul Bunyan's pines. The timing of the protection program could not have been better conceived to assure a response from the deer. Actually, in many areas deer have achieved much higher densities in the past two decades than were ever seen by the pioneers. To take one example, perusal of the journals of Jedediah Smith, Walker, Frémont, and John Work leaves little doubt that deer originally were scarce in the Sierra Nevada as compared with what we have today.

When the natural predators of deer were removed from the range by government hunters, bounty payments, and by the sheer weight of popular sentiment to the effect that "the only good varmint is a dead one," and when further no provision was made to substitute hunting for predation as a regulatory force over deer numbers, the stage was set for our present crop of difficulties.

Without outside control, deer tend to increase beyond what the range will carry in security and health. In excess numbers they punish the very elements of the forage which support them, just as too many cattle in a pasture will overgraze the palatable and nutritious grasses and create finally a field of weeds. No matter how good a deer range is to start with, it will deteriorate with overuse as the better food plants are killed out. Over a period of time, therefore, the density of the deer population is bound to decline. In some cases, like the Kaibab, the exhaustion of the range and consequent collapse of the herd is sudden and spectacular. This is especially true in arid regions. In more humid climates the critical forage plants tend to be more resistant and the course of an irruption is usually longer and the decline more gradual. In either event, the fruit of overprotection of deer is a long-term loss in population.

On a short-term basis, there is a loss in year-to-year harvest of deer, which if not taken by hunters or predators will die anyway from malnutrition or some secondary effect of malnutrition. For example, a recent

study of the Jawbone deer herd on the west slope of the Sierra Nevada, just north of Yosemite Park, showed that the annual production (net increase) in the herd of 32 per cent per annum was dissipated as follows: 23 per cent to starvation, 7 per cent to hunters, and 2 per cent to predators. The 32 per cent represented a biological excess that could not possibly have survived, because there was not enough nutritious food. Had these animals all been killed by hunters there probably would have been no loss to starvation. But California has a Buck Law and although the herd was heavily hunted, the harvest took only a small part of the surplus. Other studies have yielded more or less parallel results. Where only bucks are killed, the harvest is usually from 4 to 9 per cent of the population each year, whereas net production normally runs from 20 to 35 per cent, at least two-thirds of which is wasted. It is as though a cattle rancher were to market only mature bulls, leaving the cows to compete for a place in the pasture—obviously an uneconomic operation, and hard on both cows and pasture.

In some areas like the northern Coast Ranges of California and the shinnery thickets of Texas, excess deer die from disease and parasites rather than starvation. But basically this appears to be but a modification of the same phenomenon, since epidemics occur only in overpopulated ranges where the animals are weakened by competition for food. The cure for disease in deer, just as for starvation, is in limiting numbers of deer to fit the food supply.

Research on the physiology of the individual animal has yielded additional pertinent information. The productivity of a given herd is by no means a constant. Studies in New York State and more recently in California have shown that well-situated deer on good range have a decidedly higher crop of fawns than overcrowded deer on poor range. The quality of food obtained by a given doe will influence the age at which she breeds (earlier on good ranges), the number of ova released from the ovary, the probability of successful implantation and pregnancy, and even the strength of the fawn after it is born. This means that on a given range with forage capacity for say 1,000 deer, the total production of fawns may be greater if the herd is held to 1,000 than if it is permitted to increase to 1,200 or 1,500. Since production of deer for hunters to shoot is one of the main objectives of managing deer, this point is important.

Furthermore, studies of starvation losses on overcrowded range indicate that it is mostly fawns and old deer that die under conditions of severe competition, and that the big majority of fawns lost are *males*. The reason for this is obscure—it is associated apparently with the higher metabolic

rate of young bucks and the more rapid growth of skeleton and muscle with less storage of reserve fat than in young does. Be that as it may, an overcrowded herd will tend to produce fewer bucks than a smaller balanced herd on the same range.

All of these are cogent arguments for regulating deer numbers, but they are reluctantly accepted by a public conditioned to think only of protecting and increasing numbers of wild animals. So we shall probably continue for some years to starve more deer than we shoot. The dyed-in-the-wool buck hunter, who professes indignation at the very thought of killing a doe, is losing as much as the summer vacationist who wants only to enjoy seeing the deer. There will be fewer deer for both a decade hence.

By the painful, upstream process of reëducating the public, some states have made commendable headway in increasing the deer kill to something approaching full production. Notable among these are Pennsylvania, Colorado and Utah. All are finding that a high yield of both bucks and does can be sustained, just as the game managers claimed. Among the most tardy in facing the issue have been Michigan, California, New Mexico, and—curiously—Arizona. All states, however, are making at least some progress on the problem. But on a national basis we have scarcely dented the pedestal on which is enthroned the queenly doe.

The depth to which this reverence has taken root might be attributed to the eloquence of Mr. Hornaday and his co-workers, but there is really more to it than that. In the public mind the recovery of deer from the dangerous low of about 1900 is associated with the Buck Law and there is probably a latent fear of recession if we relax the rigid code which was so successful in restoring the herds. Anyway, hunters and protectionists alike enjoy the great abundance of deer and are loath to admit that it cannot last. There is real danger too in making deer hunting too easy merely for the sake of getting excess animals off the range. The fine skills of buck hunting could well be lost in free and easy doe shooting, as several states have learned when they plunged too rapidly into herd reduction.

Alternate proposals have been offered to ease the situation. Attempts to trap and move deer from overcrowded ranges have proved exorbitantly expensive—$30 to $80 a head. All experiments in artificial feeding have ended in failure. When natural browse foods are exhausted the wild deer die even with bellies full of alfalfa or cottonseed cake, which is curious since deer are easily kept on such foods in captivity. Anyway extensive feeding of deer is economically out of the question. Perhaps the most practical idea is to permit some recovery of the large predators, but this proposal meets with even more vehement opposition than shooting does.

If there is a workable formula for coping with excess deer, other than by hunting, no one has discovered it.

Certain it is, however, that as conservationists and sportsmen, Americans will have to take a realistic view toward regulating deer numbers. The success of deer restoration in the past will have carried with it the seeds of its own destruction if we do not heed the example of the Kaibab and of the countless other ranges that have deteriorated markedly in the last two decades.

Holograph

I HAVE congenital hunting fever and three sons. As little tots, they spent their time playing with my decoys and scouring vacant lots with wooden guns. I hope to leave them good health, an education, and possibly even a competence. But what are they going to do with these things if there be no more deer in the hills, and no more quail in the coverts? No more snipe whistling in the meadow, no more piping of widgeons and chattering of teal as darkness covers the marshes; no more whistling of swift wings when the morning star pales in the east! And when the dawn-wind stirs through the ancient cottonwoods, and the gray light steals down from the hills over the old river sliding softly past its wide brown sandbars—what if there be no more goose music?

—ALDO LEOPOLD, in *Round River* (Oxford, 1953)

Henry Work's "Crossing the Grand Sierras"

By DON LEVY

HENRY CLAY WORK (1832–1884) was a prolific writer of songs who made many contributions to America's popular culture in the mid-19th century, not the least of which was his enthusiastic tribute to the completion of the Union Pacific Railroad in 1869. When the golden spike was driven at Promontory Point, Utah, the iron horse had finally spanned the continent. A traveler from the East could ride the coaches from Atlantic to Pacific; the climax of the journey, stirringly celebrated by this near-contemporary of Stephen Collins Foster, was the ascent and descent of the Snowy Range to the Land of Gold. He called it "Crossing the Grand Sierras."

Although Foster helped set the tone of the Westward migration with "Oh! Susannah," he sang specifically of the plantations of the Old South and of an era that ended with the Civil War; he died in 1864. Henry Work, imaginative, versatile, and adaptable, lived to be the historian in song of the great transformation from the last pioneer days to the dawn of an industrial society. And it seems that he was unique in setting forth the splendor and beauty of the Sierra Nevada in terms of the topical ballad of his time.

Work was born in Middletown, Connecticut, the son of Alanson Work, a fierce Abolitionist who, about 1835, moved his family to Quincy, Illinois, where he participated in the Underground Railroad and helped more than 4,000 Negroes to freedom — and himself into jail. As a hero of the Abolition movement, he received a letter of praise from a young lawyer named Abraham Lincoln. The boy Henry helped in his father's dangerous work, and absorbed a feeling for Negro life and attitudes which served him well when he came to compose his plantation and colored army songs.

In 1845 the father was released from imprisonment and the family returned to Middletown, where Henry had some formal education and was apprenticed to a printer. His first verses appeared in Hartford papers, he learned the rudiments of harmony by playing an old melodeon, and he began to write songs. The earliest to be published was "We Are Coming, Sister Mary."

Henry Work moved to Chicago in 1854 or '55, earning his living as a printer and continuing to produce songs. At the outbreak of the Civil War in 1861 he joined the publishing firm of Root and Cady, which issued his first great hit, "Kingdom Coming, or the Year of Jubilo." This jubilant

ballad has been a smash hit for more than 90 years. It was popular all over the North, and after the war, even in the South. Colored troops sang it entering Richmond; in later years it has been a radio theme song. Work, of course, was the author of both words and music, as he was in all his compositions.

During the Civil War, Henry Work wrote many songs of great popularity, varying the dominant theme of those years to present the temperance classic that began:

> "Father, dear Father, come home with me now,
> The clock in the steeple strikes one . . ."

But in 1865 came his most famous achievement; for many years, excepting only Foster's "Old Folks at Home," it was the best known American tune abroad. It was played throughout Europe and by the British in India, even by the Japanese entering Port Arthur in 1905. In fact, it was played everywhere but in our own Deep South—"Marching Through Georgia."

A year later, while on an ocean trip, Work composed another popular classic, "The Ship That Never Returned," whose melody became more or less immortal when another author gave it a new set of lyrics entitled "The Wreck of the Old 97." His "Song of the Redmen" in 1868, showing an insight not common in those days of Manifest Destiny, foretold the passing of great historic and inspirational values from the American scene. With quiet dignity he mourns the loss of the Indian nations and of "the ever-smiling land," "the blue-rolling lakes," and "forests deep and grand . . . crowded with game." The third and final verse is prophetic:

> "When the oaks, pines, and cedars were fell'd to the ground,
> 'Twas a sight that with sorrow we saw,
> For the game fled affrighted, and no food was found
> For the old chief, the papoose, and squaw.
> Driven Westward we came, but the Pale-Face was here,
> With his sharp axe and death-dealing gun;
> And his great Iron Horse now is rumbling in the rear,
> Oh, my brave men! Your journey is done;
> Like the beaver and elk, like the buffalo and deer,
> Oh, my brave men! Your journey is done!"

When the vast enterprise of the transcontinental railroad was completed in 1869, all America exulted. The tide of empire was at the full, and the nation's foremost tunesmith put this feeling into song in "Crossing the Grand Sierras," a descriptive ballad evoking the "Snow-clad Granites," "Peaks Gigantic," and "Tunnelled Steeps."

SWEET ECHO DELL

Song and Chorus.

WORDS AND MUSIC BY

HENRY C. WORK.

NEW YORK:

Published by C. M. CADY, 107 Duane St.

The song was written mostly in quartet form, and covers eight pages of sheet music. Once learned, it is stirring and powerful; it rises to an inspiring climax and gives ample opportunity for rousing vocal calisthenics. The text, expressing awe and pride in "Scenes Terrific," makes one wonder whether the author may not actually have made the adventurous crossing of the range and seen the "Canyons Wild" with his own eyes.

Henry Clay Work continued to produce popular songs for many years. In 1876 he composed his famous "Grandfather's Clock," with its climax when the clock "Stops, . . . Short, . . . Never to run again." That same year he wrote a second ballad set in the California mountains. Entitled "Sweet Echo Dell," it tells the melancholy story of three brothers, "Toilers in the Land of Gold." In a foreword Work states that "while crossing the Sierra Nevada, the youngest became ill, and in a few hours, breathed his last. He was buried in a lovely spot near the summit." The song itself describes the "Rippling Waves" and the "Warbling Birds . . . in the Shady Grove at Echo Dell." And in the chorus, "The Towering Granite Crest nobly guards the place of rest / Near the Lovely Lake of Sweet Echo Dell." The cover displays a scene in Work's "Grand Sierras," complete with snowclad granite mountains, tall timber, and a High Sierra lake.

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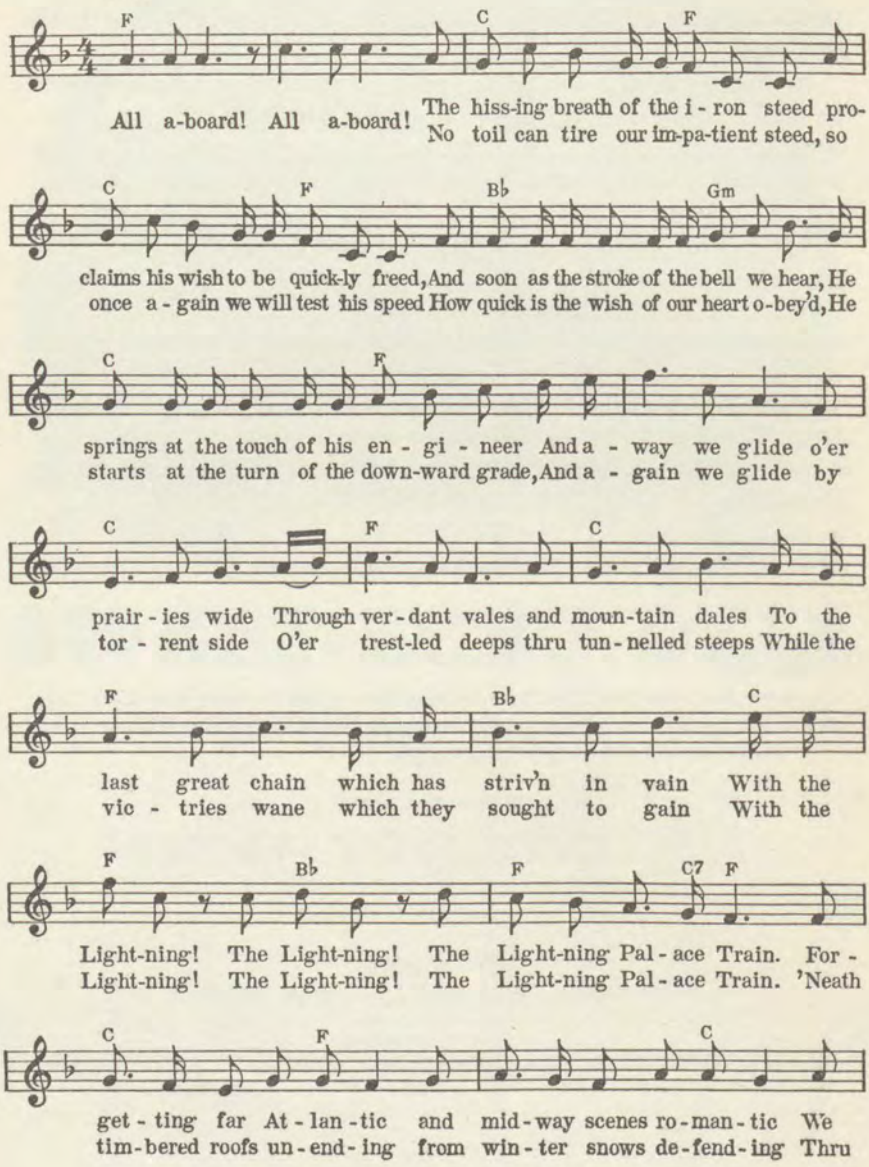
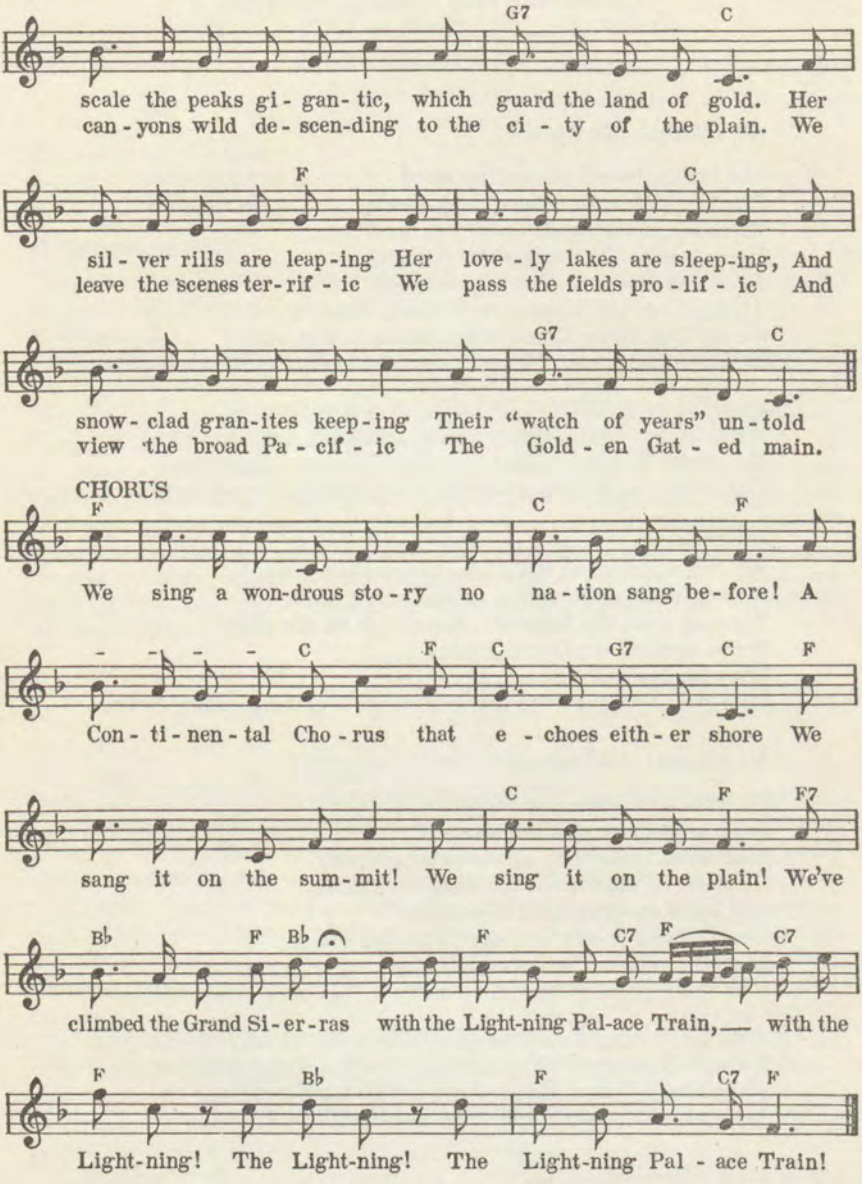
CROSSING THE GRAND SIERRAS

HENRY CLAY WORK
1869




G7
C
scale the peaks gi - gan - tic, which guard the land of gold. Her
can - yons wild de - scen - ding to the ci - ty of the plain. We
F
C
sil - ver rills are leap - ing Her love - ly lakes are sleep - ing, And
leave the scenes ter - rif - ic We pass the fields pro - lif - ic And
G7
C
snow - clad gran - ites keep - ing Their "watch of years" un - told
view the broad Pa - cif - ic The Gold - en Gat - ed main.
CHORUS
F
C
F
We sing a won - drous sto - ry no na - tion sang be - fore! A
C
F
C
G7
C
F
Con - ti - nen - tal Cho - rus that e - choes eith - er shore We
C
F
F7
sang it on the sum - mit! We sing it on the plain! We've
B♭
F
B♭
F
C7
F
C7
climbed the Grand Si - er - ras with the Light - ning Pal - ace Train, — with the
F
B♭
F
C7
F
Light - ning! The Light - ning! The Light - ning Pal - ace Train!

Crossing the Grand Sierras

By HENRY CLAY WORK

All Aboard! All Aboard!

The hissing breath of the iron steed
Proclaims his wish to be quickly freed,
And soon as the stroke of the bell we hear
He springs at the touch of his engineer,
And away we glide, O'er prairies wide
Through verdant vales and mountain dales
To the Last Great Chain, which has striv'n in vain
With the Lightning! the Lightning! the Lightning Palace Train.

Forgetting far Atlantic, And midway scenes romantic
We scale the Peaks Gigantic, That guard the Land of Gold.
Her Silver Rills are leaping, Her Lovely Lakes are sleeping,
Her Snow-clad Granites keeping Their watch of years untold.

CHORUS

We sing a wondrous story, No nation sang before!
A Continental Chorus that echoes either shore:
We sang it on the Summit! We sing it on the plain!
We've climbed the Grand Sierras
With the Lightning Palace Train —
With the Lightning! the Lightning! the Lightning Palace Train.

All Aboard! All Aboard!

No toil can tire our impatient steed,
So once again we will test his speed;
How quick is the wish of our heart obeyed,
He starts at the turn of the downward grade,
And again we glide, by Torrentside,
O'er Trestled Deeps, through Tunnelled Steeps,
While the vict'ries wane, which they sought to gain
With the Lightning! the Lightning! the Lightning Palace Train.

'Neath Timbered Roofs unending, from Winter Snows defending,
Through Canyons Wild descending, to the City of the Plain;
We leave the Scenes Terrific, we pass the fields prolific,
And view the broad Pacific, the Golden-Gated Main!

Correspondence

OLYMPIC NATIONAL PARK: FOR THE RECORD

Department of the Interior
Washington 25, D.C.
January 16, 1953

Mr. Richard M. Leonard
Secretary, The Sierra Club
San Francisco 4, California

My dear Mr. Leonard:

Thank you for your telegrams of December 19, 1952, to the President and to me, urging the addition of the Queets Corridor, Bogachiel and Ocean Strips to Olympic National Park.

The completion of this Park as originally intended and as authorized by the Congress has long been one of our major conservation objectives. I was pleased, therefore, that the President, by proclamation, added these lands to the Park on January 6. A copy of the President's statement concerning the enlargement is enclosed.

I appreciate your commendation of actions taken on behalf of the national parks during my tenure in the Department of the Interior. The Sierra Club is in the forefront among those informed and public-spirited conservation groups whose staunch support and advice have been of great value to the officers of this Department in carrying out their responsibilities in the several fields of conservation. I thank you for the support you have so freely and so often given to me and to the programs of the Department.

Sincerely yours,

s/OSCAR L. CHAPMAN
Secretary of the Interior

STATEMENT OF THE PRESIDENT

Under authority given me by the Act of Congress creating the Olympic National Park, I have issued a proclamation today adding to the Park 47,753 acres of land now owned by the Federal Government. This action brings the area of the Park to but 1693 acres below the 898,292 acres authorized by the Congress in 1938.

The present additions bring to completion a great conservation undertaking sponsored by two former Presidents and authorized by the Congress. Theodore Roosevelt first gave it form on March 2, 1909, when he issued a proclamation establishing the Mt. Olympus National Monument. The National Monument thus established included some 600,000 acres and was created primarily for protection of the Olympic elk. In 1938, the Congress made the Monument a National Park, and enlarged it and provided for its completion, for the purpose of preserving the gigantic virgin timber—trees up to 300 feet tall—which was so rapidly disappearing from the American Northwest. Franklin D. Roosevelt twice enlarged the Park by proclamations, issued in 1940 and 1943, which increased its area to 848,845 acres.

At all stages of the Park's development, careful attention has been given to the needs of Olympic Peninsula timber industries.

The present additions include an ocean strip of 41,969 acres acquired as part of the

1939 Public Works program. This portion embraces fifty miles of Pacific Ocean front connected with the Olympic Mountains by a narrow corridor of scenic forest along the Queets River. At its northern extremity, the ocean strip widens slightly to include the western shore of beautiful Lake Ozette.

In 1940, when President Roosevelt exercised the major portion of the power given by Congress to enlarge the Park, the boundaries were drawn to exclude an area one mile wide and nine miles long, extending straight into the park along the Bogachiel River. This area, privately owned, was left out in order that it might be acquired for future inclusion through an exchange for it of national forest timber. The Forest Service, after long and careful negotiation, has brought 5,653 acres into public ownership, and I am incorporating this into the Park. This insures the preservation of the 250-foot Sitka spruces of the Bogachiel Valley.

The Olympic National Park, established for the benefit and enjoyment of the American people, now becomes the only park in the world to extend from snow-capped mountains to ocean beaches.

[HARRY S. TRUMAN]

January 6, 1953

Mountaineering Notes

CLIMBING IN THE MONARCH DIVIDE REGION

IT HAS long been the opinion of Ax Nelson that the Monarch Divide region, separating the Middle and South forks of the Kings River, contains some of the most interesting rock-climbing country in the Sierra Nevada. With this challenge before them, a group of eleven climbers from the Loma Prieta Chapter made a reconnaissance of the area in the middle of June from the Crown Valley region to the northwest. The group hoped to cross the Middle Fork and continue up the rugged Silver Spur to a point from which the towers of the Gorge of Despair could be climbed. Unfortunately the high water of the Middle Fork at this early season thwarted the plan and the group settled for a second ascent of the Obelisk on Spanish Mountain, a splendid class-4 climb. The view from Tehipite Dome confirmed that a party climbing in that area would be amply rewarded with difficult first ascents.

On July 24, 1952, Ax and I set out in earnest to explore and climb in this fascinating region. This time, however, the approach was from Cedar Grove, leading 6,500 feet up and over the Monarch Divide and down 3,000 feet into the Gorge of Despair. In five days and some 17,000 feet of ascending and descending we made fourteen first ascents, six of them difficult enough to be called major ascents, leaving numerous cairns and registers for the convenience of future climbers. At that, we left unclimbed what seemed to be some of the more difficult virgin summits in the Sierra.

Crystal Spur, which divides the Gorge of Despair from Crystal Creek to the northeast, is made up of six major turrets. The first and higher one is Crystal Turret (9600) which provided a short class-4 climb to the summit. Cobra Turret (910) is probably the most difficult of the higher turrets, involving nearly 500 feet of class-4 and -5 climbing. El Commandante Turret (8600), seen as a remarkable tooth from Highway 180 as it approaches Tenmile Creek, offered several pitches of interest, although its lower twin spire was accomplished with class-3 leads on the remarkable solution knobs that often appear in this region. Considerably below, and nearly out of sight of the upper turrets we found two rock towers which appeared far more difficult (severe class-6) than the others. Even to approach them is a problem, for the spur begins falling off in 3,000-foot chutes straight toward Tehipite Valley. For reasons which will become apparent to those who venture to the bases of these towers, we named the upper one Frustration Turret (7500) and the lower one Fascination Turret (7000). We had neither the equipment nor the ambition at the time to attempt them.

To the southwest above the Gorge of Despair is Silver Spur. The most prominent feature of this spur is Silver Turret (marked 9,914 feet on the map). The summit is reached by a class-3 scramble from the south notch. Immediately to the south of this rock is Fang Turret, a more difficult 100-foot spire of rock which required five pitons for safety. Below and to the west of Silver Turret is another large rock mass which promises to provide some ambitious climbers with a difficult problem, and there are numerous other towers spread out over several thousand vertical feet.

After camping for three days at lovely sites in the Gorge of Despair, Ax and I headed back across Mount Harrington, the most rugged summit peak on the divide, to Happy Gap. On the trip up from the South Fork we had observed the eight towers of granite on Grizzly Creek that make up the Grand Dike. All eight towers are imme-

diately adjacent to one another at an elevation of about 8,000 feet and we guessed correctly that there would be several good climbs in the group.

We began our traverse of the towers from the south, or lower end of the Dike. The first two towers yielded a few class-4 pitches and the third provided leads of class-4 and -5 variety. The fourth tower, however, awed us with its Cathedral Spire-like architecture and its apparent lack of a feasible route. We did not attempt the climb. It may require considerable class-6 work. While not so long a climb as the Upper Spire, this tower is perhaps roughly comparable in difficulty. The rest of the towers were easier and we traversed seven of the eight by late afternoon.

DAVID HAMMACK

SOUTH FACE OF SUGARLOAF DOME

OUR INTEREST in the south face of Sugarloaf Dome, situated at the head of Little Yosemite Valley, dated back to May 1950, when two days of climbing had taken us only a little way beyond the half-way mark on the south face, our efforts bogging down under the impact of a thunderstorm. Up to this point the climbing had been on enjoyable class-4 and class-5 pitches, with one difficult class-5 chimney. Beyond, the difficulty appeared to increase, but a variety of apparently possible routes left the problem quite fascinating. On the week end of October 21–22, 1950, Gail Fleming, Will Davis, and I (all of the Stanford Alpine Club) climbed some 150 feet higher by a different route, but lack of time halted us some 500 feet from the summit.

On November 5, 1951, John Salathé and I arrived at the base of the dome at 2 o'clock. We roped up and began the now familiar ascent. Three hundred feet of friction climbing brought us to the first prominent brushy ledge. Above this, 250 feet of climbing, entailing alternately ledge traverses and class-4 and -5 vertical pitches, brought us to the main ledge, halfway up the face, where we bivouacked for the night.

John's musical yodel at 6 A.M. brought the tortures of the night to a close, and after a sumptuous breakfast of dried dates, we continued the attack. By 9:15 we were on a small ledge about a 40-foot class-6 pitch that marked our previous high point. At this point we were well out on the southwest face, and the exposure had assumed impressive proportions. What seemed the only feasible route continued upward and diagonally to the left, to a point underneath two prominent overhangs, some 400 feet above us. This turned out to be the most difficult part of the ascent, and involved mostly class-6 climbing. Alternating leads, we reached the overhangs by 4:30.

An expansion bolt brought John to within reach of a 30-foot 80° crack, which he negotiated by direct aid to a belay position on a 50° sloping ledge, above the first overhang and below the second. Beyond, the ledge appeared to die out. As I reached John's belay position, we were alarmed to see the sun vanish behind the ridges to the west. We were not too alarmed, however, to enjoy a breathtaking sunset .

Four pitons for protection enabled the leader to traverse a short face and cross a vertical chimney, beyond which the ledge once more appeared. One more lead, involving friction techniques and two pitons, was completed; and around the corner was the summit, a series of gentle, step-like ledges away. We arrived just at dark.

Apparently this was a first ascent of the face, since no previous records were found. The total climbing time was 15 hours, and the ascent required the use of 2 expansion bolts and 57 pitons, of which about two-thirds were used for direct aid. We walked down the back side.

CLIFF HOPSON

LOVERS LEAP

LOVERS LEAP, one mile east of Strawberry, is well known to travelers of U.S. Highway 50. To our knowledge before April 23, 1953, the face had not been ascended. On that day armed with nylon ropes, pitons, and carabiners, Robin Linnett and I tried it from a camp near Twin Bridges. Because of early-season snow conditions we found it necessary to use ice axes on the lower slopes. Our immediate aim was to reach a chimney 300 feet high on the western end of the face which leads to a point below the summit. The average angle of the face is eighty degrees. The first 100 feet was a fourth-class scramble to a broad ledge, where the real climbing began. Robin anchored to a piton and I started up the face, which provided cracks and holds enough to exclude need for direct aid—at first—although I did place pitons every five to ten feet. When I had reached a point ninety feet above my belayer the crack ended. Another crack led ten feet to my left across unbroken granite, but there was not enough rope and I felt too tired and my hands were too cold. Robin lowered me twenty feet to a ledge three feet long and less than a foot wide where I anchored, warmed my cold hands, and tried to think of reasons why Robin should lead that pitch I had recently left. I then belayed Robin to my position, which was now rather crowded.

Within a few minutes I was back in my former position. It took some time to gather nerve and start the traverse—that ten feet over small nubbins. The final twenty feet to the safety of the chimney required several pitons for direct aid. The belay point I christened the Garden Spot, and settled into relative comfort to bring Robin to my position. In spite of his best Irish, he could not retrieve several pitons, and for this my conscience was grateful—they were apparently well driven. Having come over the hump, or so we thought, we celebrated by sharing a chocolate bar and we tied a handkerchief to a piton as a monument.

Several leads later we were confronted by a double chockstone which overhung and was well saturated with moss and water. The sides of the chimney were too wide for cross-pressure technique. Robin, not wishing to bother with pitons, offered his shoulders, which I used to stand on. The second chockstone was not overcome so easily. While I belayed in the middle of a miniature waterfall Robin stood on rope slings hooked to two rather poor pitons in an attempt to overcome the obstacle. He made it; however, it was some time before I told him one of his pitons had bent through a full sixty-degree arc before he left it. The following lead took us out of the chimney and on to a snow-covered ridge. We needed the rope only occasionally from here to the top. As the sun shed its last rays on the summit—which were just about the first rays it had shed on us that day—we shook hands and tried to persuade each other how easy it had been.

The total climb was in the neighborhood of 1,000 feet. We used 25 pitons on the ascent. Undoubtedly less hardware could have been used; however, owing to the extremely wet rock and snow encountered, we felt we needed all those pitons for adequate protection.

PHILIP S. BERRY

Desert Peak Notes

DUBOIS MOUNTAIN

OVER THE FOURTH OF JULY weekend, 1950, twelve members of the Desert Peaks Section climbed Mount Dubois, 13,545 feet, highest knoll on Pellisier Flats north of White Mountain. This plateau has a continuous area nine miles long above the elevation of 12,500 feet and an area of two and an eighth square miles above 13,000 feet.

The cars were driven as far as Post Meadows on the Nevada side of the range. From here the climbers backpacked six miles to a roofless mining hut on Cabin Creek, at about 10,500 feet. A faint trail from the meadows followed a barely discernible timber road. Along the way there is a large timber wagon which cracked into a tree in '68.

The climb of the peak started at 3:00 a.m. The 12,500-foot south end of the Flats was reached in two hours, making possible a wonderful sunrise view of the Sierra to the west and of the numerous ranges to the east. From here the summit was only a thousand feet higher but seven miles distant. The Flats were broad and gently rolling, one continuous rock garden. The terrain was coarse sand scattered with small boulders. Much of the sandy areas were covered with colonies of small plants with flowers seldom over a few inches off the ground. Above 13,000 feet huge patches of Polemonium were found. The eastern edge of the plateau suddenly dropped into great cirques, whose continuing valleys were as large and deep as those on the eastern side of the Sierra.

A hundred yards from peak 13,500, and within an area fifty feet across, many Indian arrows and scrapers, and also chips of obsidian, were found. Indians apparently had brought the obsidian with them and made arrows at this spot. Another group of arrow heads was found about seven miles from this spot. Other points of interest were several stone rings about five feet in diameter which must have been built by the Indians, and three stone shelters used by sheepherders.

Although this is not the shortest route to Dubois Mountain, it is probably the most interesting. For greatest enjoyment of this area, trips should be planned on or before July 4, before summer dries up the marsh springs, green grasses, and flowers.

BILL HENDERSON

MOUNT KEYNOT

TOWARD the southern end of the Inyo Range is an aloof summit variously identified on those maps which name it as Keynot, Keynote, and Monarch. The one fact agreed on by most maps is its altitude of 11,125 feet, only two feet lower than the highest point in the range. In the summer and fall of 1950 there were three climbs of the summit. The first two were scouting trips in August, which disclosed that the peak could be climbed from either of two main canyons coming off the west face. Both approaches left a long tough climb. The third trip was scheduled in October by the Desert Peaks Section.

The first scouting group took the more direct, and accordingly steeper and more arduous route starting from a huge wash leading out of the Inyos to the northwest of the peak. They drove two miles up the wash to an altitude of about 5,300 feet, where the road petered out below a mine shack high up on the side of the canyon.

From here a trail, obscured by cloudbursts and rock slides during years of disuse, led to a broken-down cabin at 9,500 feet, about two-thirds of the way to the summit. This route reaches the pines a short distance below the cabin and stays with them to the summit. It is essentially a ridge climb, with a lot of exhausting scree to scramble up, and no semblance of a trail for the last third of the climb. Just below the summit is a sharp rocky point, to bypass which required us to lose altitude—discouraging at the end of a long and tiring climb.

The second scouting party chose the easier if longer route which starts at French's Spring in a canyon southwest of the peak. There is a good trail which, after leading nearly all the way to the summit, drops down on the east side to some untraced destination—quite likely the old Keynote gold mine mentioned in Knopf's *Geological Reconnaissance of the Inyo Range.* This route involves a round trip of 18 miles with 6,500 feet gain of altitude, which is just about the maximum for a desert-peaks day. A small spring midway on this route cinches its superiority.

After the two scouting trips, the Section scheduled a trip to Keynot late in October, using the route from French's Spring. Fourteen climbers, led by Bob Bear, participated in this trip. The route is a combination canyon, ridge, and face climb, which brings one into the forest of foxtail and piñon pines which mantles the upper slopes of the Inyo Range. Both during the climb and from the summit the view was exceptionally fine, with the rugged Sierra crest always the chief attraction. However, the view of Saline Valley directly at the foot of the steep eastern slope of the Inyo Range, some 10,000 feet below the summit, is far more spectacular than the average desert range affords.

This pioneering visit to Mount Keynot was a part of an organized effort by the Desert Peaks Section to expand the horizons of the club into the desert ranges of the Southwest. Section members feel that the desert ranges offer a fertile field for extending the club's conservation program. Aside from that, these mountains have a unique charm which soon enslaves those who expose themselves to them. BOB BEAR

Ski Mountaineering

THE TETONS IN WINTER

When we arrived in Jackson Hole we learned that abnormal weather (is weather ever normal?) had prevailed during the past month. Indeed, *wet* snow was falling as we arrived—and in a country whose average winter temperature is supposed to be far below freezing.

Since our plan was to attempt as many peaks as time and weather would allow (no Teton summit except the Grand had been ascended in winter), we reluctantly exchanged the comforts of the Ortenburger Shack for the rigors of the mountain. The weather yielded as we skied up Garnet Canyon to the Platforms, then promptly socked in for three straight days. Even with such entertainment as two-man games of Ghost and Go and intertent contests of Battleship, three days in a dripping mountain tent with no exercise, except when absolutely necessary, becomes somewhat wearisome. Norm Goldstein's and my sleeping bags were getting wet through from the condensation of vapor (from cooking and breathing) on the walls of our mountain tent; Leigh Ortenburger and Dick Long were slightly better off in Leigh's more porous homemade tent. Winds of gale force blew consistently down the canyon; we could hear them coming as they swept through saddles among the peaks above, and a minute or so later they would be ripping at our tents.

At 3:00 A.M. on February 4 we awoke with a start. There was no wind! From Dick's exclamation we knew that overhead skies were clear. By 4:30 we were pushing toward the peaks with a quarter moon casting weird shadows on the rockbound snow slopes, but by false dawn high clouds were rapidly blanketing the sky, and fresh winds more than suggested that our plans might be foiled. We cached skis at the saddle (11,350) as the sun on the horizon lit the upper rocks of the Middle and South Tetons for an instant and then disappeared into the cloud bank above.

The route up the Middle Teton (12,798) involved step kicking in a narrow couloir. Fortunately the snow was hard enough to preclude the possibility of avalanche, but we nevertheless didn't care to be caught in the middle of the chute and therefore climbed along the margin of the snow using frosty rocks for handholds. All exposed rocks were sheathed with foot-long ice feathers pointing in the direction of the prevailing wind. At Leigh's advice (Leigh had guided this peak in summer), I traversed out of the couloir to gain the narrow summit ridge. Here the airy north drop-off of the Teton admonished us to move with care, and we used the ice ax more frequently.

By the time we reached the scanty rime-covered summit the weather had so disintegrated that chilling winds threatened our balance, and visibility was reduced to fifty feet. Clearly these were no conditions for an extended summit stay, so retreat we did. It was lucky guesswork that we found the right couloir, for our old steps were blown over with snow. Pitches which had seemed easy on the ascent now required belays. Wind-whipped ice particles blasted our partly covered faces.

Back at the saddle we fastened downhill ski hitches and were off. Our former ideas of trying the South Teton that day were, of course, abandoned. Even in flat light, wind, and falling snow, the 2,500 foot descent to camp was one of the finest ski runs I've had, since snow conditions were remarkably uniform: several inches of new heavy powder on an unbreakable crust. We were in camp at 2:30 P.M. Snow was sifting down heavily now, so we packed up and continued on to Leigh's cabin, arriving

there at 10:30 P.M. Ironically, since we had shot our bolt, the next day dawned clear; but of course on the following three mornings, when we were prepared to renew our mountain attack, snow was again falling. We finally vacated the area in favor of the more tangible delights of Sun Valley. WILLIAM W. DUNMIRE

WHITNEY PORTAL TO MINERAL KING

THE WISHES to explore the Mount Whitney area on skis and to survey the Mineral King region seventy miles westward were combined into a second trans-Sierra tour. The group consisted of five students at the University of California, Berkeley, all members of the University Ski Club — Rudy Allemann, Bob Tripp, Stan Whetstone, Bob West, and myself. Spring vacation at the end of April gave a week's time when the weather would be relatively stable and avalanche hazards a minimum even considering the heavy 1952 snows.

The original plan of a car interchange was scrapped in view of an insufficient number of tourers plus transportation difficulties. The hopes of ascending Mount Whitney together with the absence of a known east-west crossing at this point, dictated the direction of travel from Whitney to Mineral King. Equipment was kept at a minimum but sufficient to insure safety, each man ending up with 44 pounds on his back. Two light mountain tents, two primus stoves, an emergency kit, 120 feet of ⅜-inch nylon, and one ice ax made up the bulk of the community gear. During the course of the trip no trouble was experienced with any equipment save one primus that became mountain sick. Food was packed for seven days, a compromise existing between Tripp's appetite and our wishes for lighter loads.

There was no difficulty in awakening Sunday, April 22; a light shower washed our faces as we peered at the cloud-shrouded eastern scarp. The road to Whitney Portal was clear of snow and there was company, as Warner Brothers was filming a Western. We were warned by some Civil War soldiers, "You can't go over there (the Sierra); there's no road!" In spite of this gloomy prophecy, at 11:30 we waved good-by to Herb Steiner, who was to drive the car back to Berkeley.

We decided that Whitney–Russell Pass would be easier than Trail Crest, so after leaving the Whitney Portal we cut into the north fork of Lone Pine Creek, following its canyon to Clyde Meadow, where the route leveled off and the clouds thinned to reveal the marvelous spires of Whitney's east face.

Camp was set up at the next bench above Clyde Meadow, where a little wood was gleaned for a fire that aided the ailing primus. A few snow flurries during the evening were whisked away by the morning sun that beamed down on us as we climbed first south toward Pinnacle Ridge then west to East Face Lake, where we removed skis in order to climb a steep embankment just north of the lake. The scenic beauty of this area was superb, brown spires of the eastern scarp outlined by a dazzling coat of rime which emphasized their grandeur. As we climbed the snow changed from corn to a wind-packed and consolidated surface offering no difficulty. We made the long traverse north to Whitney–Russell Pass fairly high and widely separated to minimize avalanche hazard, which existed to a minor degree. An occasional icy patch made crossing a bit tedious and it was pleasant to be in the shelter of the many rocks just below the pass. A pack lost here tumbled some 400 feet to a basin below; however, delay was but slight and soon we were peering down the west side of the crest.

The first objective was Mount Whitney. Ascending by foot about 500 feet on its

north flank but still 500 feet below the summit, we were halted by some steep rock, improper footgear (downhill ski boots), and time. We descended to our skis and sped downward over gentle inclines toward Crabtree Meadow, 2,500 feet below. A short search yielded the ranger cabin above the meadow, a most welcome shelter.

The effect of a roof was to delay our departure the following day, when there was a long northwest traverse to Wallace Creek. The occasional views of the Kaweahs from our wooded route were a constant reminder of much climbing ahead, but didn't detract from the wonderful descent into Wallace Creek just below its junction with Wright Creek. It seemed inadvisable to follow the creek; instead we traveled the partly bare summer trail. Near 8,500 feet things became mushy, owing chiefly to a sunny southern exposure.

Crossing the boiling Kern was somewhat of a problem until we found a jumping place. A little bushwhacking through thick stands of manzanita brought us out of the U-shaped Kern Canyon along the general course of the Kern–Kaweah River toward a campsite planned at Gallats Lake. Skiing was a bit maddening whenever we neared the river as a terrible tangle of trees impeded progress; hence, a medium was struck between the steep north slope and the river. A great pile of debris had been carried by the powder avalanches that slid down the north slopes above Rockslide Lake, but when we passed the slopes were fairly bare owing to their southern exposure. At Gallats Lake, a rushing water supply, plenty of dry wood, and a sheltered grove helped make a nice one-night home.

Light rain greeted us the following day, causing some apprehension, for Kaweah knapsack pass was on the day's schedule; however, after we had climbed a few miles the sky became blue and we were presented with some wonderful ski country on the north- and east-facing slopes of the Kaweahs. The rock chute which served the 1951 trans-Sierra tourers was surveyed and carefully avoided; our course led to the next notch south. We were mindful of a steep descent on the other side and it was up to our expectations — we had to scramble down 800 feet of rocky slopes before putting on skis and continuing the descent to Nine Lakes Basin. The long valley that slowly fell into Big Arroyo was generally our route for the rest of the day. The descent past Kaweah Gap was fairly easy and soon we were pushing hard with poles along the gradual slope. A few sections of topless trees were passed, standing in frightening array, their upper parts sheared by the great avalanches that tumbled down the northeast slopes the previous winter. Unfortunately a Park Service shelter which we espied and entered had a quite inadequate chimney of tin cans linked together with wire; heavy clouds of smoke forced us to spend a pleasant evening under the stars.

On the fifth morning, bright and clear, we were soon plodding toward Little Five Lakes, with constant wonderful views of the Red and Black Kaweahs. We decided to make the easy climb to Black Rock Pass, from which we could determine the best way to Mineral King. Later, looking down the Cliff Creek to the chain of lakes (Spring, Cyclamen, and Columbine) nestled one above the other on benches separated by steep cliffs, we saw that the obvious course was not up the giant lake-steps, but instead followed a descent to Spring Lake, thence climbed over a col just north of Sawtooth Peak and Glacier Pass. That 2,000-foot run to Spring Lake from Black Rock will always remain in our minds as one of the finest we have ever had, with perfect corn snow and a steady 20° pitch. Greatly exhilarated by this descent we quickly climbed to the steep col above Spring Lake. Although the slope was quite steep, avalanche conditions were not present; at times, however, this slope may be

a hazard. From the col we were struck by the fine ski terrain that presented itself above Mineral King, with numerous high-hanging valleys offering excellent possibilities for fine downhill runs, including the one from our col. The late afternoon run to the narrow Mineral King valley was quite pleasant save for the last 1,000 feet, where the corn changed to slush. The day of our departure being the first of May, we encountered many eager fishermen sloshing through the snow that became continuous above 6,500 feet.

The trip confirmed the suggestion of Bill Dunmire, that the best time for such a tour is spring. The route was quite satisfactory; however, certain slopes might, in years of less snow, be too rocky and other hills might have some avalanche hazard earlier in the year. On the whole the trip could be made by persevering third-class skiers, although more experiencd skiers would be better suited for such an undertaking. It gave us a fine chance to see numerous lovely areas for high-mountain running and it would certainly be worthwhile revisiting some sections at a more leisurely pace.

ROBERT FRENKEL

CREST TOURING IN THE SIERRA

THE AREA was not unknown to most Sierrans. Others had done it before. Even the terrain to be covered was not such as would inspire heroic exertions on the part of a ski mountaineer. Yet, the idea stuck with us, and almost before we knew it, we were on our way to ski the Sierra Crest from Echo Lake to Donner Pass.

Bill Doub and I met Stew Kimball at Echo Lake, just after the Easter week end, and there spent the night. Early the next morning we were off for a short skate across Upper Echo Lake before putting on climbers for the stretch up to Haypress Meadows. Tamarack Lake, still deeply covered with the winter's fall, Ralston, Cagwin, and Grouse all fell behind us as we climbed. After a last look back at the inviting slopes of Ralston Peak we removed our skins and skied off through the gently rolling terrain of Desolation Valley. Passing under the cleft in Cracked Crag, we looked briefly down towards Glen Alpine and Fallen Leaf Lake. Then came the traverse up the slopes of Jack's Peak to Mosquito Pass. There, with the upper Rubicon stretched in silence before us, we stopped to contemplate our afternoon's route, while munching on tack and salami.

Dreams of a long downhill run were discarded, and we took off for a contour along the faces of Jack's and Dick's peaks just below the rock line. During the afternoon thunder heralded the storm we had hoped to miss and soon the snow began to fall. But at least for the moment we enjoyed the relief brought by the cool, wet flakes falling on over-warm skin. The Sierra crest here is a long rugged hogback of shale which drops abruptly into the glacial depression above Emerald Bay. We headed for a small pass in the crest, but as we came near it were confronted with a huge overhanging cornice. To go around this obstacle would have required much time, and the hour was late. Fortunately, after a brief search we discovered a skiable break in the cornice wall.

The descent to Velma Lakes was thrilling, though tiring, and afforded a splendid climax to the day's touring. Camp was quickly made on some partly bare and flat rocks where fuel was plentiful and a small but adequate water supply was found in a depression in the rock.

The snow, which continued during the night, as well as our reluctance to unlimber

stiff joints, delayed our morning departure. But one of Stew's wonderful trail meals put us in the right mood, and eventually we were on our way up the west side of Phipps Peak. Keeping high, just under the rock line again, we crossed the broad gap to the west of Phipps, contoured into the bowl of Phipps Creek, took a half-mile downhill run due north, then climbed again to the Sierra crest where it takes a westerly turn just south of the head of General Creek. Now the whole length of the main ridge as it runs toward Lost Corner Mountain was open to us for easy running. Fog appeared at this point and we soon lost our view of the country ahead, then all was dimmed as the weather closed in for good. Camp was made in the dense lodgepole pine forest on the crest south of Lost Corner Mountain. Plenty of fuel here, but no water.

In the morning we looked out over General Creek into Meeks Bay and Lake Tahoe. But this rewarding panorama was left behind as we proceeded northward to the west of Lost Corner Mountain and took advantage of still-icy snow for a fast run down onto Miller Lake. Our morning's work was cut out for us in the form of Ellis Spur. We tackled it briskly, travelling almost due north and later swinging slightly to the west above Cothrin Cove. From here it was but a quick, steep run down the crest to Barker Pass.

Leaving Barker Pass on our right we traversed the east slopes of the Sierra for the first time as we headed for Twin Peak. Reaching the latter was no easy task, owing to several gendarme-like projections, and steep snow slopes to either side of the ridge. However, with careful leads by Bramani-soled Bill and by using our skis and poles as ice axes, we were successful in making the doubtful section before nightfall, when we camped close under Twin Peak, again on the Sierra crest.

The main ridge to the north was plentifully supplied with overhanging cornices, limiting our route the next morning to the western slopes. We travelled as much as possible right on the crest, dropping to the west in easy traverses only when the peaks proved too rocky for easy going. A series of runs and traverses took us past Ward Peak; then we were on our way down into Five Lakes basin.

After lunch we gained the basin ridge, then descended into the warm lower regions of Squaw Valley, where the snow suddenly became so sluggish to our skis that it was difficult to imagine that we had just left wonderful hard spring snow along the crest. From Squaw Valley we should have preferred to continue on skis to Norden as we had planned, but time was lacking, so we promised ourselves to complete the crest tour at a later date.

To those of similar interests who would care to undertake this tour, we can give only encouragement. With about five days' time, a minimum of good equipment, and a reasonable amount of determination this trip can be a very enjoyable and valuable experience in ski mountaineering.

HARRY ABRAHAM

Reviews

Edited by HARRIET T. PARSONS

SUMMER'S CHILDREN: a photographic cycle of life at Camp. By Barbara Morgan. Morgan and Morgan, Scarsdale, New York, 1951. $7.50.

In our devotion to wilderness problems and to the unique enjoyment of the primeval areas with which we are blessed even to this late date in our predatory history, we are all too often prone to overlook the element of response — the importance of the wilderness, of nature, even of rural life — to others in a spiritual sense. We think of much of the wilderness — of nature — as curiosities, as areas for private indulgence in dreams and action. The basically poetic qualities of the world exist more in the minutae of fact and experience than in the extensive prospects from high summits. In the earlier days there were probably good reasons why the great vistas were appreciated as evidence of the enormous actuality of the world. Now we fly over them at such heights that mountain ranges are dwarfed to stony ripples. Moreover, awareness of the incomprehensible scale of the astronomical universe further depreciates the importance of mere size and scope of the face of the earth.

In addition, the professional conservationist is dedicated to the solutions of weighty problems, largely legal and civic in character. The facts of the constant struggle against the exploiters are directed to a noble purpose, but the intimate and emotional qualities of the wilderness are sometimes neglected. Both a mountain and a pebble are, in actuality, mere pieces of stone, fragments of the infinite physical universe. They acquire significance when identified with spiritual and human experience — a valid experience when nature in its entirety is recognized as the ultimate source of life and being. It is rare when a work of words and pictures brings to juxtaposition the underlying facts of nature and the ever-present magic of experience.

In *Summer's Children* Barbara Morgan has effected this magical combination. Not only do we feel the presence of nature (albeit a mild form of eastern-American rural beauty), but we also feel the extraordinary fusion of almost mystical experience which the children have when pavements are temporarily forgotten in favor of grass and sky, of growing things and animals, of themselves in the bright aura of the out-of-doors.

Barbara Morgan is a unique and exceptional photographer and a person of deep spiritual and compassionate qualities. Seldom have I seen photographs in which the quality of the artist as a person is so poignantly revealed. At first glance we might dismiss this book as merely another documentary effort (we have been plagued with such efforts for many years). Then we are suddenly aware of a moment of seeing (which is really a moment of revelation). Other such moments are recognized; then, when we have gone through the entire book, we recognize a higher order of seeing and recognition — that of the intellectual and spiritual encompassment of a project relating to human beings in their most important aspect — as children. Throughout, there is delight, intensity, clarity of feeling. These are not purist photographs; all are not sharp, some are not smooth in tonal values. But — a purist is speaking now — such perfections are not necessary to a project of this kind. In fact, the purist forms of photography relate to rather classic, static, and nostalgic subjects, and all art is not so limited! I find myself thinking a lot about the relationship of Barbara Morgan's work to that of Cedric Wright — those images in which he treats of people. The

difference is perhaps this — he is dominated by a mystical symbolism of wilderness images, seen warmly and dramatically, and Barbara is dominated by the impressionistic symbolisms of human images. Barbara has a large experience in the world of art and intellect; Cedric a large experience in a very personal world of the Sierra, and with a chosen group of comprehending friends.

A serious question needs be asked about the role of photography in the interpretation of the wilderness: must we be content with static compositions of landscapes and minutiae and occasional interpolations of humanity in appropriate minor situations? This school of thought began (in America) in the 1870s; truly great photographers in their field — O'Sullivan, King, Jackson, and others *depicted* the western wilderness magnificently. I hesitate to use the word *interpret* because I do not think it appropriate to their accomplishment. Then came some photographers who are almost forgotten, but who used the grand subject matter to more expressive ends — Anne Brigman, W. Dassonville, George Fiske and a few others. Then, the magnificent work of Edward Weston and the group strongly influenced by him. Today, there are many tangents to this Western American school of photography. Brett Weston seeks a certain personal recognition in the forms of nature. Philip Hyde reverts to the austere depictions, plus an intense personal symbolic conviction, in the classic tradition. Philip Knight combines depiction with intense feeling. Dody Warren brings an extraordinary perception to the simplest aspects of nature. I, if I dare speak objectively, am still struggling between Wagnerian grandeurs and Proustian observations.

Every one of us can learn from Barbara Morgan. If you doubt this, look at page 70 in *Summer's Children*: the girl on the white horse; the white page space; the resumption of the image of grass, fence, trees in sharp sun. And page 75: the almost ballet-like disposition of small figures in a noble landscape. Each to his own reaction, but there are scores of meaningful photographs that grow upon you as the book becomes a familiar companion.

This book is important to all of us in the conservation world. It points a new vision on the realities of the world about us. We need more books of this character to clarify our basic objectives.

ANSEL ADAMS

BIRDS AND MAMMALS OF THE SIERRA NEVADA, WITH RECORDS FROM SEQUOIA AND KINGS CANYON NATIONAL PARKS. By Lowell Sumner and Joseph S. Dixon. University of California Press, Berkeley and Los Angeles, 1953. 479 pages, illustrated. $7.50.

Naturalists in California are singularly fortunate in having available a number of exhaustive faunistic surveys of local areas within the State. Most of these were conducted and brought to press by Joseph Grinnell, first director of the Museum of Vertebrate Zoölogy, on the campus of the University of California. Rather than scatter the efforts of his small field staff over a region as large as California, Grinnell focused attention on a series of cross sections or transects of the major mountains and valleys, within which intensive collecting of specimens and of field observations was largely confined. Over the years of Grinnell's directorship there appeared a series of publications on the higher vertebrates (amphibians, reptiles, birds, and mammals) of seven specific regions of California, as follows: San Jacinto Mountains, San Bernardino Mountains, Death Valley, Colorado River, Yosemite, Lassen, and the Trinity Region. Following Grinnell's death in 1939, one additional report was completed by members of the Museum staff, on the vertebrates of the Providence Mountains.

The present volume apparently had its origin as one of Grinnell's transects, although at an early stage it was taken over as a project of the National Park Service. As implied in the subtitle, it is essentially a report of the birds and mammals of the Sequoia–Kings Canyon sector of the Sierra. According to the preface, the study of this region was commenced in 1916 by a field party from the Museum of Vertebrate Zoölogy consisting of H. S. Swarth, Joseph S. Dixon, and Halstead White. For some reason the project was not brought to completion, so in 1932 the National Park Service asked Dixon to finish the field work and to prepare a book on the birds and mammals of Sequoia National Park, omitting the cold-blooded groups. In the ensuing decade Dixon faithfully executed this assignment, but when Kings Canyon National Park was created it was decided to broaden the scope of the report by incorporating materials which had been assembled by Sumner on the birds and mammals of that adjoining area. Thus it is that the ninth and one of the last of the transect reports comes off the University of California press.

The book consists of short introductory chapters on *Wildlife Policies and Problems, Human Use of Parks,* and *Life Zones,* followed by accounts of the individual species of birds and mammals that are known to occur in Sequoia and Kings Canyon parks. Most of the species accounts are briefly presented under three headings: *description, habits,* and *park status and records.* In the case of a few species for which much original material is available (i.e., black bear, mountain lion, mule deer, bighorn, etc.) the accounts are longer and are further subdivided. Species that have been locally exterminated and others that occur in the vicinity of the parks and might in the future be recorded within the boundaries are discussed briefly in separate chapters entitled *Vanished species and questionable records—birds* and *mammals* respectively. A list of references and an index are appended.

For visitors to the Sequoia–Kings parks, the volume will serve as a valuable guide to animal life in much the way that the reports of Grinnell and co-authors are used now in the Yosemite and Lassen areas. Likewise the book is an important addition to the technical literature on the fauna of California, though in this respect it suffers somewhat by comparison with its progenitors in being more general in approach and less analytical in treatment of ecologic and faunistic problems. There is a certain amount of inconsistency too in the accounts of habits of individual species, most being quite generalized and, to the amateur naturalist, informative statements, whereas a few are heavily weighted with transposed field notes to the point where general consideration of habits is minimized or obscured (California quail and nighthawk, for example). But these are minor shortcomings which will not detract from the general usefulness of the volume.

Joseph Dixon died on June 23, 1952, in Escondido, California, after an extended illness. Most of the credit for completing this project and for actually bringing the volume off the press goes to Lowell Sumner, who is properly designated as senior author.

A. STARKER LEOPOLD

SON OF THE FOREST. By Arthur H. Carhart. J. B. Lippincott Co., Philadelphia, 1952. 244 pages. $2.50.

An outstanding writer on conservation (Arthur H. Carhart, author of *Water — or Your Life*), goes into the woods and brings conservation back alive for the benefit, enlightenment, enjoyment and entertainment of young readers. On such an occasion mention of fiction in these pages is much in order.

Jim Craighead, seventeen years old, comes to Ragged Hills to spend the summer with his father, new Forest Service ranger for the district, looking forward to the fun of life at the ranger station, to riding, exploring, fishing, making new friends. Instead he finds himself in the midst of a conflict that has been going on for years in the area between the stockmen and the Forest Service, between two opposing concepts of land use — the short-sightedness, selfishness, and ignorance that would over-graze and abuse the land and eventually lose it and the far-sightedness, unselfishness, and knowledge that would conserve it for perpetual benefit to all.

The determination of the stockmen to run the new ranger out of the country and the even stronger determination of Ranger Craighead to hold his ground and fight it out at all costs bring on some tense and trying situations for Jim, involving him and his young acquaintances and jeopardizing their prospects for friendship. The mysteries of the Dawson ranch, the secret cave, and the lost fruit jar contribute to the suspense, and a forest fire adds danger and excitement. But it all comes out right in the end.

Throughout the book there is much in the way of the lore and craft of the outdoors, and the clean, peaceful feeling of the forest, with a background of the best of Forest Service tradition. B. S.

THE MOUNT EVEREST RECONNAISSANCE EXPEDITION 1951. By Eric Shipton. Hodder and Stoughton, London, 1952. 128 pages, 92 photographs, 4 maps. 25 shillings.

This is primarily a book of pictures — superb photographs of the little known area to the south and west of Mount Everest. Mr. Shipton, whose reputation as a narrator can scarcely be equalled, here displays his talents as a photographer. The account of the expedition is condensed into a scant fifty pages, a fact which provokes criticism of a book which, perhaps, should only be praised. There is much to be said in favor of the recently publicized picture-book type of publication which has added a new brilliance to mountaineering and placed a unique value upon the expedition photographer. These books, however, have neglected the art of written description. The many readers who have experienced the vitality and humor of Mr. Shipton's previous books may feel, even with the wealth of excellent photographs, that they are getting in this volume only an enticing sample, the bare bones of a massive adventure. I hope that in the future Mr. Shipton will leave the picture book to the less gifted of our mountaineer authors.

The account of the 1951 reconnaissance deals with the initial preparations in England, the approach to Mount Everest through Nepal, the successful attempt to climb the icefall leading into the West Cwm, and exploratory journeys among the neighboring peaks. The author's previous acquaintance with Mount Everest during the expeditions of 1933, 1936, and 1938 and the reconnaissance of 1935 suggests that no other individual can match his intimate knowledge of the area. It was Eric Shipton in 1935 who first noted the detail of the western face of the mountain and suggested the feasibility of the southern approach by way of the West Cwm icefall. The route beyond the icefall itself was unknown, and prior to the reconnaissance in the autumn of 1951, the prospect of finding a safe southern route seemed exceedingly remote. Inasmuch as the whole world was anticipating the Shipton report, the elated surprise at finding a route hardly more difficult than the northern approach was not confined to the few climbers who finally entered the West Cwm and stood below the great

southern precipices of Mount Everest. It can be said that this reconnaissance ushered in the successful era in the Mount Everest adventure.

LAWRENCE W. SWAN

THE SCOTTISH HIMALAYAN EXPEDITION. By W. H. Murray. J. M. Dent & Sons., Ltd., London, 1951. The Macmillan Co., New York, 1952. 282 pages, photographs, maps. $6.00.

This is a very direct and informal story of four men who spent four months in the Garhwal Himalaya. Tom Weir, Douglas Scott, T. D. McKinnon, and W. H. Murray decided to organize this expedition early in 1950. They were all members of the Scottish Mountaineering Club.

Only Scott had been to the Himalayas before, and that just for a brief visit to the Garhwal foothills during World War II. In spite of this they set up a very ambitious program. Their plan, which they successfully carried out, consisted of six steps: (1) In May, to cross the foothills from Ranikhet to penetrate the Rishiganga Gorge and attempt the first ascent of Bethartoli Himal (20,840 feet); (2) In June travel north of Nanda Devi and explore the Lampak Range from the south; (3) At the end of June when the monsoon breaks, cross to the Tibetan side of the chain and explore the Lampak group from the north; (4) In July, ford the Gorges of the Girthi River; (5) August, to cross the Ralam Pass (18,470 feet) to the frontier of Nepal; (6) Reconnoiter and attempt the Panch Chuli (22,650 feet). This would involve some 450 miles of walking through the mountains.

They traveled light, living off the land and getting their food from the small, high villages. This was done partly because of finances and partly because they desired it that way. Murray has attached an appendix showing that his total expenses were 369 pounds 4 shillings one pence, which included passage from England to India and return.

In spite of the fact that they only got to the top of five out of the nine peaks they attempted, there is no trace of disappointment. Rather you come away with the feeling of admiration for these men who previously had never been higher than the top of Mont Blanc.

ROBERT L. DOHRMANN

ZUM DRITTEN POL DIE ACHTTAUSENDER DER ERDE. By Dr. G. O. Dyhrenfurth. Nymphenburger Verlagshandlung, Munich, 1952. 290 pages, with 47 pictures, 8 sketch maps, charts, tables and appendices. 24DM.

With the North Pole only a few hours' flight from Fairbanks and the South Pole no longer a heroic trip by air, the metaphorical "third pole" of inaccessibility is the summits of those fourteen mountains over 8,000 meters high (26,248 feet). More than the other two, the third pole is cold, remote, difficult and dangerous of access.

Dr. G. O. Dyhrenfurth, one of the most eminent of contemporary mountain explorers, has collected available information on these great peaks (much of it gathered from his own extensive explorations) and produced a book of unique value as a reference source for information scattered throughout the mountaineering literature of eight languages. Like his earlier volumes on the Karakorum and Kangchenjunga, the book is complete with tables, maps, geologic section charts, and a remarkable bibliography of books, articles, pictures, and maps.

Given the conditions under which many of the photographs were taken, the plates

are of high quality. Many of the pictures are products of the recent expeditions to Annapurna, Cho Oyu, and Manaslu; they are relatively new to the literature. The other pictures, by Tilman, Smythe, Wiesner, Sella, and other photographers, while more familiar, are welcome all in one place. The endpapers offer a fine map of the Himalaya from the Pamir to Burma with the main peaks and the river system clearly indicated.

ALFRED W. BAXTER, JR.

NEPAL HIMALAYA. By H. W. Tilman. Cambridge University Press, 1952. 272 pages, photographs, maps. 25 shillings.

Tilman's antipathy to science is well known, although there have been times when he has been known to forego the pleasures of mountaineering in order to undertake a modest survey. In *Nepal Himalaya* he again sacrifices his principles of no science and becomes its handmaid, as a collector of the "meligethes" beetle. Indiscriminate collecting results in a new find, and the consequent renewal of the assignment provides the opportunity for another visit to Nepal.

Tilman made three journeys in Nepal: the Langtang Himal in 1949, and the Annapurna Himal and Everest massif in 1950. Although no great summits were stood upon, Tilman's casting of a wide net in order to find a mountain that would surrender at sight loses nothing in the telling. One modest summit, Paldor, 19,451 feet, was attained, and valiant attempts were made on several, notably Annapurna IV (24,688 feet). The descriptions are vivid and humorous. The reader will find wet, leech-ridden forests, repulsive crags and icefalls, reluctant coolies, harangues with the native headmen, leaking tents, and mountaineer's foot (reluctance to put one in front of the other)—all combatted by a sufficient dose of the stimulant raksi, or lacking this, chang.

Readers will be grieved to learn from the author that his powers, declining with age, are no longer sufficient to equal his standards. We can only hope for a lowering of the standards so that he can once again take to the field.

FRITZ A. LIPPMANN

SEARCH FOR THE SPINY BABBLER: A Naturalist's Adventure in Nepal. By S. Dillon Ripley. Houghton Mifflin Co., Boston, 1952. 301 pages, photographs. $4.00.

This intriguing title is a fitting introduction to a book of unusual interest. There really is such a bird as the spiny babbler. Dillon Ripley and his party of naturalists rediscovered this and other species of the birds of Nepal which had been known only from a century-old collection in the British Museum.

Obtaining permits to enter the remote valleys of Nepal was itself an achievement. Visitors are still restricted to the capital city of Katmandu in the central valley between foothills and the main range of the Himalaya. But persistence, luck, and diplomacy finally won the permission to travel and collect specimens in the far east and west sections of the country. This enabled the party to make important studies of the variations of the bird population under different climatic conditions. But the birds do not dominate this book. The real subject is Unknown Nepal, a narrow strip of oriental feudalism between the new India and the rest of Communist Asia.

The party attended the Durbar of the Maharaja with its fantastic display of jewels. They hunted tigers on elephant back, finding no tigers but proving that elephants are a most uncomfortable means of transport. An extraordinary variety of people and places is described, from the squalid huts of the Indian border to the charming, clean

hill town of Dhankuta, where each housewife is responsible for scrubbing the street in front of her home.

The spiny babbler was found at last, by a chance shot in the dusk; but the pink-headed duck and the lovely little mountain quail are apparently extinct. Mr. Ripley well understands the reasons for the disappearance of so many species. Peace and prosperity for a century has boomed the population, and the native hillside forests have been recklessly destroyed to create arable land, or to provide fuel. The view from the ridge at Dhankuta is typical of the whole land. Treeless except for remnants of the original shrub cover, the arable fields run far up the steep slopes. There are landslides, gullies, and the fertile valley bottom is aready abandoned because covered with eroded rocks. The author wonders how long this wasting of earth can continue, for the bare bones of rock are showing through.

There are a number of interesting photographs of people and places in this book (with not one bird among them). Of special interest are the two photographs of the Himalayan ranges, the Saipal Massif in the west and the Everest–Makalu range in the east. Both are taken in the cloudless moments at dawn when the whole vast panorama is sharply outlined against a clear sky, soon to disappear for the day behind swirling masses of vapor. Endpaper maps add greatly to the pleasure of reading. We hope no library will bury this book under "Ornithology" and so deprive the reading public of much enjoyment. CICELY M. CHRISTY

ANNAPURNA. By Maurice Herzog. Translated from the French by Nea Morin and Janet Adam Smith. Jonathan Cape, London, 1952, E. P. Dutton and Co., New York, 1953. 316 pages, photographs and sketches. $5.00.

Without doubt the riskiest of all endeavor, the challenge of the "magic summits"—the 8,000 meter peaks — demands the utmost of personal sacrifice that any group of mountaineers could hope to give. Dhaulagiri (8,127 meters; 26,811 feet) and Annapurna (8,078 meters; 26,470 feet) are among the more elite of this arbitrary list. Both are in central Nepal and are reasonably close to each other. Both were, for all practical purposes, unexplored until the spring of 1950, when this expedition of French mountaineers traveled up the Kali Gandaki gorge in Nepal, intent upon climbing one of the two summits.

Reconnaissance of the eastern slopes of Dhaulagiri evidently convinced members of the group that they should switch their efforts to Annapurna. But here, too, problems were to be met. The most pressing perhaps — just *where* was this Annapurna?

A tentative attempt toward solving this perplexing affair failed, mostly perhaps, owing to the inaccurate maps available. Another try from the southeast and the expedition found its goal. It was then May 23.

On the third of June, M. Herzog and Louis Lachenal struggled onto the summit of Annapurna. Past were the anxious days of establishing the chain of camps to bring them to the top; gone was the anticipation. Now, only hours of trying sacrifice with its taste of suffering and almost certain defeat, lay ahead. Herzog, conscious of the growing numbness in his hands and feet, viewed the retreat with a strange indifference toward either life or death. Lachenal, highly excitable, lost his power of reason; while Terray and Rebuffat, who had come up to help them, became snowblind. And so, losing their way, they spent a night in a crevasse without benefit of sleeping bag or warm food. They came down safely—and alive!

Through all phases of the narration we meet more with the human element than with the inanimate. More interesting is the psychological background of the pondering and forming of decisions than a mere description of a thing being done. When also, Herzog writing of a certain experience while crossing a meadow, can convey to us so realistically his homesickness for his native Chamonix playground, we should be grateful, for there are few who can so tellingly mix these things into the cold world of mountaineering. A. S.

BEYOND THE HIGH HIMALAYAS. By William O. Douglas. Doubleday & Company, Inc., Garden City, New York, 1952. 352 pages, photographs. $5.00.

This is not a climber's book, but it is one that will appeal to all who love good traveler's tales of strange people in faraway places of the world. William O. Douglas has a unique knack of getting below the surface of things. People everywhere to him are individuals with inherent human dignity, not "natives." The warm, friendly interest he feels for the people he encountered on this journey into Tibet, across Afghanistan, and through the Khyber Pass makes this volume invaluable background reading for the intelligent mountaineer who may have his sights on these greatest of mountains, the Himalayas. Few writers have succeeded so well in making the people of the region understandable.

Mr. Douglas's frequent remarks regarding the folk music of the Himalayan peoples and the brief piano transcription included in the book make us hope that some day there will be made available to us an album of recordings made by him on this purposeful expedition.

As do earlier books by William O. Douglas, *Beyond the High Himalayas* again demonstrates the great humanity, the wit, and the quick understanding of its author. It is a book for today, illuminating the problems of today in that crucial portion of the Orient. But even after the current crisis has become a thing of the past, armchair and other travelers will continue to find in it good reading that is challenging to both the head and the heart. HARRY C. JAMES

CORDILLERA BLANCA (Peru). By Hans Kinzl and Erwin Schneider. Tiroler Graphik, Innsbruck, Austria, 1950. 119 photographs. Text in German, Spanish and English.

The wild beauty of the Cordillera Blanca is vividly pictured in this quite selective collection of photographs, taken by members of three expeditions to this alpine region of Peru, in 1932, 1936, and 1939. Not only do we catch a glimpse of the spectacular ice landscape, kingdom of the mountaineer, but here and there the photographer has taken care to give us a casual view of the cultural scene in the mountain villages and along the pathways of this Inca land.

Sponsored by the Alpenverein of Germany and Austria, these expeditions opened a new area of conquest for mountaineers with an eye for the distant regions of the earth. To this date, maps drawn from measurements taken by the Austrians on these early parties are the only serviceable guides to the Cordillera. One such map (scale: 1:200,000) is included in this edition. In the text is a short geographical sketch of the region, primarily above the 4,000-meter level, touching upon such topics as early explorations, geological structure, climate, flora, fauna, and settlements both antique and modern. Also, a brief discussion of mountaineering objectives is to be found, together with a list of peaks ascended prior to 1950.

Since that date most of the major peaks have been scaled, but there are many more less obvious summits to be climbed, some quite difficult. These will undoubtedly attract the interest of members of the recently formed Peruvian Alpine Club, whose headquarters are in Huaras, a town situated in the main valley immediately to the west of the Cordillera. Already adapted to the rigors of high altitude work, they have shown themselves quite capable of continuing mountaineering tradition. A. S.

THE BUTCHER, The Ascent of Yerupaja. By John Sack. Rinehart and Company, Inc., New York, 1952. 213 pages. $3.00.

John Sack, although not a mountaineer, has endeavored to write a story about mountaineering. In his effort he has created something unique in the annals of mountain literature. This is the true story of six college men attempting unclimbed Yerupaja, 21,769 feet, in the Peruvian Andes. The story in its own novel way relates the troubles, problems, humor, gastronomic difficulties, final success, and subsequent disaster of a truly magnificent ascent to the top of the peak. Until Dave Harrah, Stanford student, drops into space through a thin cornice at 21,000 feet on the summit ridge and hangs free on the end of their climbing rope, the book is a light-hearted traveler's tale. From this point on, however, the tempo increases as Harrah and Maxwell rescue themselves and then proceed to get off "The Butcher." Frozen limbs, 10° temperatures, and strong winds almost finish off the wounded, but the fact that most mountaineers like to climb again wins out and the pair return with only frozen toes as a reminder of their ordeal.

The story is told as college students might relate it. However, it tends to play down the actual deeds accomplished, for indeed Yerupaja was an outstanding first ascent. The final pages give a rather good discussion of the age-old problem of "Why do they do it?" John Sack comes close to some of the reasons behind climbing, a problem that seems to bother everyone except the mountaineer himself.

RICHARD C. HOUSTON

HIGH IN THE SIERRA '52. By C. F. Brandi, 1952. 96 pages, photographs. $1.00.

Californians will never forget the snowy winter of 1952, and neither will the Brandis, who spent that long winter in their beautiful "Vikingsholm" on Emerald Bay, Lake Tahoe, and whose story this is of how they spent it.

In the South Pacific during the war, "Flip" Brandi had dreamed of being in a place with snow — "great beautiful flaky drifts of it" — where there would be ice to skate on and the kids could build snowmen every day. "Shovel the stuff? Not me, just let it fall and we'd just watch it and love it . . . " So he dreamed. Then that winter of '52 — seven months of the "wonderful cold flaky snow" — a total fall of twenty-five or thirty feet of it, solid as ice; a pack fifteen feet thick; the bay frozen over so the boat was useless; the roads impassable; three children, aged six, four, and two to consider; the telephone out of repair some of the time; the water supply endangered, the electric power off for several weeks; the radio the only regular touch with the outside world.

How they managed to get along is interesting reading. The many anxious times, the narrow escapes from serious trouble, the deprivations, are met with courage, ingenuity and humor. Other people helped, too, although not always within reach —

the Coast Guard Auxiliary which stood by for emergencies, the people at Bliss Park three miles away where Flip snowshoed for occasional mail and supplies, friends on the telephone, and the children with the entertainment and the problems they brought.

This little book gives a wonderful picture of what that winter in the mountains really was, and how one family was able to cope with it. H. T. P.

GUIDE TO THE COLORADO MOUNTAINS. Edited by Robert M. Ormes. Sage Books, Denver, 1952. 239 pages, illustrated. $3.50.

One by one the mountain ranges of the United States are being put between the covers of authoritative climbers' guides. Latest to be roped and corralled are the Colorado Rockies, with a fine, inclusive guide edited by Robert M. Ormes and sponsored by the Colorado Mountain Club. But this handy little coat-pocket book should be welcomed not only by technical climbers, but also by hikers, trail riders, jeepers, skiers, motorists, and even narrow-gauge railroad enthusiasts. For there are chapters covering all these activities, as well as outlines on the geography, geology, zoölogy, botany, and history of the Colorado mountains. Detailed routes to the summits of all the Columbine State's fifty-two "fourteeners" are described; many lesser, interesting peaks are included; and there is a chapter on difficult climbs for the benefit of rope-and-hardware devotees.

The book contains 32 outline area maps of the fourteeners and is illustrated with 34 photographs, 6 in color. The pictures are excellent, but one unaccountable slip occurs — the illustration titled "Isabel Glacier" is actually of the Andrews Glacier. The back section has a valuable Peak List, with latest altitude figures, and an Index to Named Summits in Colorado. The text is also fully indexed. A more complete story of the Pleistocene glaciation and fuller reference to the state's sixteen known glaciers would have added interest.

It is unfortunate that we mountain enthusiasts do not live five hundred years, for it would be a fine thing to head for Colorado and take all the alluring trails, and top every soaring peak that Bob Ormes and his collaborators so well describe. But we are lucky, at least, that we can now read about them. WELDON F. HEALD

NO PICNIC ON MOUNT KENYA. By Felice Benuzzi. William Kimber, E. P. Dutton Company, New York, 1953. 230 pages. Illustrated, endpaper maps. $3.75.

This is the story of three Italian prisoners who escaped from a British prison camp in order to climb a mountain. From the first time that Felice Benuzzi looked out through the clearing clouds of the rainy season and saw Mount Kenya in its ethereal beauty floating on the horizon, his mental attitude began to change. The boring monotony of prison life had begun to break his nerve. But now suddenly a challenge came to him; he would get out, climb Mount Kenya, and return to the prison camp.

The preparations for this extraordinary adventure began, and if we sometimes think *we* are ingenious concocting articles out of things not originally intended for that use, we would not be so proud after reading how these men manufactured ice axes and crampons from barbed wire and other odds and ends of metal they could find — all done secretly and under great difficulties. Their only knowledge of the mountain was what they could see from the camp when it was clear, and the picture on the label of a "Kenylon" brand of oxo. A book by Father F. Cagnolo on the natives of the central Kenya highlands, and his account of the climb by some Italian Fathers

of Lenana, the lower peak of the mountain, was quite helpful; and an article in the *East African Annual,* 1942-43 told about the plants and animals to be found on Mount Kenya and below it. The prospect was not too pleasant when they read of the rhinos and the buffaloes and herds of elephants; the forest zone sounded like the most dangerous part of the trip. With the help of friends but with extreme difficulty, they hoarded what they hoped would be enough food for the trip, and finally they escaped, leaving a note saying where they had gone and when they could be expected back.

It is a wonderful story of the three men, the hazards they encountered, and how they contended with them; the intense cold, the fear of the unknown, the illness of one of the climbers, the blizzards on the mountain, the hardships and the hunger. And finally the great disappointment; they did not reach the highest summit of the mountain. But in spite of this, and although they suffered all the way back into the camp, they experienced what meant more than anything to them in this whole adventure: for eighteen days they were free men.

Notwithstanding the grimness of the background, and the graphic sketches of the life in the camp, the book is not grim. Through it all there is humor and the light touch that the true mountaineer should aways have as part of his equipment.

H. T. P.

ASPIRING, NEW ZEALAND: The Romantic Story of the Matterhorn of the Southern Alps. By W. Scott Gilkison. Whitcombe and Tombs, Ltd., Christchurch, 1951. 80 pages, photographs, maps. (No price.)

This little book is an invaluable and interesting history of one of the most beautiful of the New Zealand mountains—Mount Aspiring. Although the peak was first recorded in 1857 when J. T. Thompson, Chief Surveyor of Otago, saw to the northwest from the summit of Mount Grandview, "a glorious pyramid of ice and snow which he named Mount Aspiring," not until 1910 was the first ascent accomplished. The second was three years later, and there have been comparatively few even during these forty years — only about twenty-five up to 1950, with eleven ascents during the season of 1950-51.

It is interesting to read tales of the climbing in the early days, of the explorations, of the climbers themselves, and of the gradual building of the shelter huts which were to make so much more accessible the remote region of these mountains. Important also is the story of the runholders, the settlers in the valleys and hills of the eastern slopes, whose help has always been a part of the climbing in that area.

Mr. Gilkison, who presented this book to the Sierra Club, knows the New Zealand mountains well, and is also the author of *Peaks, Passes and Mountain Tracks,* and joint author-editor of *Moir's Guide to Tramping Routes of Western Otago and Southland,* published by the New Zealand Alpine Club in 1948. The photographs are historically interesting and those of the mountains show well what superb climbing country it is.

H. T. P.

OLD CALIFORNIA HOUSES: Portraits and Stories. By Marion Randall Parsons. University of California Press, Berkeley and Los Angeles, 1952. 143 pages, 17 illustrations. $3.75.

The houses of which Mrs. Parsons writes — and whose portraits are reproduced (unfortunately only in black and white) to illustrate the book — are the setting for

engaging stories of California's past hundred years. Some of them may be familiar to readers of this area's history, but others are probably very little known. All are told with a lively sense of recollection and frequent touches of humor which focus into reality the families who dwelt in General Vallejo's adobe or James Flood's "Linden Towers," the Rotcheffs of Fort Ross, or the Pellatons of Mokelumne Hill. A pleasant nostalgia for those unhurried days pervades the book, and one can "feel the drowsy summer heat, see the summer-brown hills, smell the tarweed — and the dust."

For much of her material the author has happily been able to draw on conversations with descendants and friends of the original occupants of the houses, and on her own memory. The atmosphere conveyed by story and portrait may lead many readers to follow for themselves her excursions along back roads and to almost forgotten corners of old towns. The lists of source material for each story should similarly stimulate the bookshelf explorer. V. S.

CHINA TO CHITRAL. By H. W. Tilman. Cambridge University Press, New York, 1952. xii+124 pages. Illustrated by 69 photographs taken by the author, and 4 maps. $4.75.

If there were more books written in Tilman's humorous, ever-pleasing style, there would be no need for the lines in the preface: "Since nowadays so few people can be bothered to read, the text is brief but the pictures numerous." Not only are the pictures numerous, but they are also a tremendous improvement over Tilman's usual snap-happy carelessness; in fact, so much so, that Tilman, always the master of understatement, can justifiably point with pride to outstanding illustrations embodying beauty and competency. The captions to the illustrations are exceedingly well done, for example, plate 8, "The truck in mid-Gobi. 'My beautiful, my beautiful . . . Fret not to roam the desert now with all thy winged speed.' The telephone pole (back right) is as fatal to Romance as the truck, but without them the picture would be singularly vacant." And another, plate 10, "This butcher's stall in Hami has on its long array of meat-hooks some fleshless ribs and three scraggy legs of goat—a butcher's shop in England in A.D. 1950 cannot display much more."

The text is not lengthy, true, but it is indeed pleasing. Following Tilman's view, that "The less successful a mission the more reason there is to wrap its lame conclusions in a cloud of verbiage," we must agree that Tilman's venturings were highly successful, as indeed they were, perhaps not in the sense of the number of mountains climbed but rather in the sense of remote mountains explored and strange peoples visited. As a despicable "passenger" in a machine age we are transported from Shanghai by air to Lanchow on the Yellow River in Kansu province, then ride by post bus to Urumchi, capital of Sinkiang, whence we are in a position to take up the more honorable role of "traveler," to explore and attempt Bogdo Ola, to attempt Chakra Aghil (22,000 feet), and to find a new way home. In China we are made aware of the difficulties which a traveler may encounter in getting enough to eat when the language is not known, and in Sinkiang we realize that in the climbing of distant mountains the danger may arise not only from the mountains themselves—from cold, wind, and avalanche—but also from the natives, for on several occasions Tilman's life was threatened by the nomadic Kazaks. Who can fail to agree with Tilman, however, that "On the whole I think that Romance in travel is inseparable from an element of risk?" Particularly pertinent in this age of mass guilt is Tilman's reaction to these threats to his life: he judged the actions of the individual and did not fix blame on

the group. We can happily report that Tilman, for all his extensive adventurings in Asia, cannot be accused of absorbing " . . . 'the business of Tao which is one of day by day dealing with less and less until you arrive at inaction'." This is a book for those whose senses are quickened by strange place names, even if these last are unpronounceable.

FRITZ A. LIPPMANN

MUDDY WATERS: The Army Engineers and the Nation's Rivers. By Arthur Maass. Foreword by Harold L. Ickes. Harvard University Press, Cambridge, 1951. xiv + 306 pages, 4 maps. $4.75.

Conservationists are deeply disturbed at the long-continued jurisdictional competition between the United States Corps of Engineers and the Bureau of Reclamation with respect to water conservation projects. Under the direction of the Department of Government in Harvard University another of the Harvard Political Studies here presents a closely documented analysis of the problem. As is indicated by its source, the study emphasizes the relationship of the problem to the broad political policy of the nation as a whole on a nonpartisan basis. Mr. Maass, a member of the former National Resources Planning Board which had the responsibility for attempting to reconcile the conflicts and trying to achieve a truly National Water Policy, had access to all sides of the complex questions involved. His study has been further strengthened by thorough examination of the National Archives; citations to the source material are given. The result of the study is a general concurrence with the Hoover Commission on Organization of the Executive Branch of Government and its Task Force on Natural Resources. They concluded: "There is simply no escaping the fact that so long as the present overlapping of functions exists with respect to the Corps of Engineers, the Bureau of Reclamation, and the Federal Power Commission, costly duplication, confusion, and competition are bound to result. It has been demonstrated time and again that neither by voluntary cooperation nor by executive coordination can the major conflicts be ironed out."

The Commission therefore proposed that the water resources functions of the Corps of Engineers and the Bureau of Reclamation, the power functions of the Interior Department, and certain functions of the Federal Power Commission all be consolidated in a Water Development Service. The report was presented to the nation in 1949. Mr. Maass shows why it has not yet been possible to carry its recommendations into effect, and may still not be possible for years to come.

RICHARD M. LEONARD

NAVAJO MEANS PEOPLE. Photographs by Leonard McCombe. Text by Evon Z. Nogt and Clyde Kluckhohn. Harvard University Press, Cambridge, Mass., 1951. 159 pages. $5.00.

Leonard McCombe lived intimately with the Navajos while making this photographic essay. His 180 unposed photographs reveal the Navajo as he follows his daily and seasonal activities; his family life, work and play, ceremonials, and also his tragedies, for tragedy has always been a frequent visitor at the Navajo hogan. The concise text was written by two distinguished anthropologists of Harvard University. Each has spent years of research with the Navajos and Clyde Kluckhohn has written other books about them.

Any real solution of the Navajo problem must be based upon the suggestions these

authors make in their chapters on "The Impact of an Alien Ideology" and "The Problem of Cultural Adjustments." They speak from deep sympathy and understanding of the needs of these people, and they are well aware of the disturbing effect that conflicting and erroneous theories held by Indian Service officials may have if they materialize. The Navajos need help in making the economic and cultural adjustments necessary to their future progress, but this help must be given by those who respect them and have the tact and knowledge to deal with them intelligently. The Navajo's way of life is based upon age-old tradition and experience. It is a leisurely way with abundant vitality and true human values. His activities are geared not to the clock, to the minute and the hour, but to the cycles of the sun and the moon. Many of the photographs reflect the ugly clash of alien cultures; we in our egotism and our ignorance have often sought to force upon these people adjustments which were disruptive of their customs and beliefs.

All too few Americans realize that in the Navajos we have a rare and valuable human resource which, because of our lack of imagination and wisdom in our dealings with it, is in grave danger of being destroyed. This book makes a real contribution to a more general appreciation of the complexity of the Navajo problem.

RALPH MOCINE

IN THE JOURNALS

ONE OF THE most important parts of the Sierra Club library is the series of bulletins and journals received in exchange from mountaineering organizations in this country and abroad. The annuals and semiannuals reviewed here are:

Alpine Journal, November 1952. London.
American Alpine Journal, 1952. New York.
Appalachia, December 1952. Boston.
Cambridge Mountaineering, 1952. Cambridge, England.
Canadian Alpine Journal, 1952. Banff.
Climbers' Club Journal, 1952. London.
New Zealand Alpine Journal, June 1952. Christchurch.

The library also receives journals published by the Mountaineers, the Mazamas, and the Himalaya Club, but the 1952 issues were unavailable for review.

Most of these journals differ from the *Sierra Club Bulletin* in that they are strictly concerned with mountaineering. Of 137 articles in the seven journals 95 deal with routine ascents, 20 with major expeditions, 7 with mountaineering history; 3 discuss special techniques or equipment, and the rest are concerned with general mountain topics. I looked in vain for a single article plugging conservation of wilderness, that resource which is so vital for the stimulation of mountaineering. The 1952 journals seem to stress expeditions more than usual, and so even the local publications have widespread interest.

Perhaps the *Alpine Journal* has the best-balanced content of all the publications reviewed, for articles on expeditions, local climbs, mountaineering history, and mountain equipment are all included. In a summary of the 1951 reconnaissance of Mount Everest the merits and demerits of the western route vs. the old northern route are weighed, with the new route having the apparent preference of the author, W. H. Murray. Mountain historians will find interest in an article which traces exploration

in the Ruwenzori region from Greek scholar days to the present. The theoretical aspect of fuels for mountain cooking is discussed along with the practical problem of stoves and their use in high altitudes. Unfortunately, however, the author relies on older Himalayan expeditions for evidence and does not include recent stove experiments.

Air-supported North American expeditions make up the bulk of this issue of the *American Alpine Journal*. Bradford Washburn's new route on the west buttress of Mount McKinley is well described in words and pictures. Washburn feels that this west route is safer, easier, and therefore superior to the conventional Muldrow Glacier route, provided, of course, that air transportation is used. Airdrops also play important roles in two expeditions to the St. Elias Range. In this vast roadless (and porterless) country air drops are a great boon to mountaineering both in time and expense; however, when visitors by plane "drop in quite casually with a load of miscellaneous equipment" (on McKinley), the illusion of pioneer mountainering would seem, to me at least, to vanish. In his account of Ruwenzori ascents Ray Garner comments on the paradox of plane travel to mountains: "This is the great disadvantage of the airplane: it outspeeds perceptions. The Duke (of Abruzzi) was better prepared by his lengthy journey." Of special interest to rock climbers in this issue is P. K. Schoening's note on angle pitons and photograph of a complete "Rock Anchor Bolt Set." The *American Alpine Journal* probably contains the best collection of photographs of all the journals reviewed; the glossy plates are nearly all superb.

In *Appalachia* we find mountaineering narratives interspersed with poems and articles on knapsacking and mountain enjoyment. W. L. Putnam presents a good account of early railroad exploration in the Selkirk Range. A solo climber tells of harrowing experiences in Utah (and somehow manages to avoid the "accidents" section). From *Appalachia* we learn that a Sierra Nevada National Park which includes seven peaks over 15,000 feet has been created in Venezuela. Since one of the Appalachian Club's activities is stated to be "the conservation of natural resources and the preservation of the wilderness," one might hope to find more than the single paragraph that was devoted to that subject in this issue of the journal.

The brevity of articles in *Cambridge Mountaineering* is rather striking; no report, not even those of pioneer expeditions to Scandinavia, is longer than six pages. Most of the accounts deal with routine ascents in Wales or in the Alps, so this journal probably has less interest for American readers; however, a composition by N. E. Odell which delves into the philosophy of climbing is well worth anyone's time.

Except for two articles on the Alps and one on Sikkim, the *Canadian Alpine Journal* is entirely devoted to home climbing, but, of course, home to Canadians includes some rather extensive territory. First ascents are described in the St. Elias Range, the Coast Mountains, the Selkirks, and the Rockies. The many maps which are included in this journal are very helpful in locating specific regions. A physician contributes an essay titled "Dynamic Posture in the Mountains" which is quite instructive. From this we learn the correct postures of standing, walking, jumping, and rock climbing.

The *Climber's Club Journal* presents a varied and highly readable array of articles. Two small, presumably inexpensive expeditions to the Garhwal Himalaya are described: one a successful attempt on Abi Gamin (24,130), the other a less successful but nevertheless enlightening reconnaissance north and east of Annapurna. Abi Gamin, Kamet's neighbor, had been attempted several times previously, but the ascent

was made by a party whose total size numbered only four Europeans and four Sherpas; and three of the Europeans had never been to India. A miniature anthology of chalk cliff climbing is contained in this number as is a brief history of the Mountain Club of Uganda. The issue is rounded out with accounts of climbs in the Alps, Wales, Norway, and the Canadian Rockies (ascents by N. E. Odell); even climbing fiction is included.

Three Himalaya articles head the contents of the *New Zealand Alpine Journal,* two of these, the Everest and Annapurna reconnaissances, are described in other journals, the third tells of a four-climber expedition to the Garhwal Himalaya where four summits, including Mukut Parbat (23,760), were attained. Again we have a light inexpensive Himalayan expedition successfully managed by members previously unfamiliar with high-altitude climbing. The remainder of the journal consists of many short narratives of mountaineering in New Zealand. The members of this alpine club, celebrating its 60th anniversary, appear to be extremely active on the local snow and rock. Thirteen mountaineering huts are operated by the club. Numerous first ascents are made, and many new peaks are accorded names. Ski mountaineering is popular both in winter and in summer (summer snow line is about 4,500 feet in New Zealand), and several articles are devoted to methods of building snow huts and igloos. One cannot help but envy New Zealanders for their mountain exploration opportunities so close to home. WILLIAM W. DUNMIRE

ROUND RIVER: From the Journals of Aldo Leopold. Edited by Luna B. Leopold; illustrated by Charles W. Schwartz. Oxford University Press, New York, 1953. xiii + 173 pages. $3.00.

Those who have discovered the rewards of Aldo Leopold's *A Sand County Almanac,* a series of cogent, beautifully written essays published in 1949, just after Leopold's death, will be delighted to learn that more of Leopold's writings, compiled and edited by his son, Luna, have now appeared in *Round River.* Again there is an opportunity to say of a book, as we said of *Sand County,* that here is one every conservationist (and who cannot be one?) should own two copies of—one for constant reference, the other to be constantly on loan to friends.

Examples of what Aldo Leopold has to say, and the right way he says it, will be found elsewhere (on pages 34, 50, and 57). Just to read those examples is a reward in itself; they speak all that need be spoken in behalf of the book. It may, however, be added that *Round River,* unlike *Sand County,* is more of journal than of essays, and therefore tells more of the experience out of which Leopold wrote; of how he came to notice "that a deer's taste in scenery and solitudes is very much like my own." The Schwartz illustrations are again appropriate and handsome. D. R. B.