

THE CROWN OF THE SMOKIES: Le Conte

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Unlike most peaks of the Great Smokies, the Le Conte massif stands alone. It is as high above its near-sea-level base as the Front Range of the Rockies is above Estes Park.

The virgin spruce and fir forest on Tennessee's Mount Le Conte is often blanketed by dense fog in the early morning. If you were to stand on top of the mountain, wrapped against the chill, you might imagine the figures of Samuel Buckley and his expedition emerging from the fog in 1858. The men labor to assemble a big, unwieldy, delicate mercury barometer, raising its column as carefully as savages erecting a fragile idol. Buckley eyes the height of the silver fluid in the column and notes it in his log. Then the process is reversed, the barometer is disassembled and the figures pick their way over the forest floor back through the fog. At that time there were no trails on the mountain.

Buckley was leading the first scientific expedition to Mount Le Conte. The westward frontier had long since moved beyond the rugged Great Smoky Mountains; Tennessee had been a state for over a half-century. Seventy-four years had elapsed since the first scientific assault on Mount Washington in New Hampshire. But in 1858 men did not know the elevation of Mount Le Conte, a bare 300 miles from the eastern seacoast where the English-speaking colonists

had entered the continent some 200 years earlier.

Buckley was measuring this elevation with his barometer. With care, the method of measuring altitude by the decrease of air pressure is reasonably accurate. Buckley's measured value of 6670 feet above sea level for Le Conte is quite close to the currently acknowledged figure of 6593 feet. Such precision requires a second barometer at a fixed location to account for weather conditions. Buckley's second one was in Waynesville, North Carolina, at the time. It was manned by South Carolina College Professor Joseph Le Conte. Buckley gallantly repaid Le Conte for his labors by naming the mountain for him.

Travel through the virgin wilderness of Mount Le Conte was quite tedious, as anyone who has tried twentieth century cross-country travel there can attest. Then as now there were no screaming verticals nor tricky overhangs. But the mountain was overgrown with a lush, temperate rain forest. The thick underbrush tore trousers and even flesh. The straggling branches of the aptly named hobblebush were very troublesome. "Notwithstanding all this," Buckley wrote later, "we have the mountains and their glorious scenery."

The weather was unusually dry that fall, for which Buckley was thankful. Donati's comet appeared soon after sunset each evening, pro-

viding a backdrop for the campfire. The guides entertained at night with stories of bears, panthers and wolves in the mountains.

Buckley's expedition provided the first detailed account of the wonders of Mount Le Conte and its surroundings. Except for a few other reports (such as Arnold Guyot's 1860 article on the geography of the Appalachians), the nineteenth century is mute on the subject of Mount Le Conte. The area was too thick and impenetrable to make exploration tempting.

The Cherokee Indians had dominated the Great Smoky Mountains before white men arrived. The Indians called the mountain *Walasiyi*, the place of a large, green mythical frog. Thirty years before Buckley's arrival the Cherokee had withdrawn to the south, forced out of the Great Smokies by white land hunger. The white men, who were either unaware of or indifferent to the Cherokee name, called the mountain *Bullhead*. It was considerably later that Buckley exercised his rights as belated discoverer and Le Conte came to be the accepted local name for the mountain.

Unlike most peaks of the Great Smokies, the Le Conte massif stands alone, unencumbered by a retinue of lesser peaks. It rises regally, southeast of Gatlinburg. Le Conte compares with western mountains. It is as high above its near-sea-level base as the Front Range of the Rockies is above

Opposite: This is a typical scene from Alum Cave Trail on Le Conte at the higher elevations in the fall. Rarely is the summit clear of its misty smoke.

Estes Park, Colorado, for instance. But such comparisons overlook the unique character of Le Conte: it is the last virgin eastern mountain wilderness. Clothed essentially in the same forest which grew there before the voyages of Columbus, it was saved from early twentieth century lumbering and preserved within Great Smoky Mountains National Park. It is an unparalleled example of the virgin forests which once grew throughout the East.

The Continents Collide.

The forests of Le Conte flourish on the remains of a once-higher mountain range. Its rocks were formed by sediment deposited on a sea bottom in Precambrian time, the long, long era of earth history before life had sufficient structure to leave fossil impressions. This deposition continued long enough for rock strata as much as 40,000 feet thick to accumulate. These rocks are now called the Ocoee Series. For millions of years, time passed placidly for them, as they were buried under an overburden of their sedimentary rock layers.

During the same millennia, the southeastern edge of the North American continent was approaching the northwestern coast of Africa at the geologically breakneck speed of perhaps an inch a year. The two continents collided about 250 million years ago like two large layer cakes meeting edge on. The rock layers ground and buckled. When the energy of the great collision had dissipated centuries later, the Ocoee rocks had been shoved 75 miles inland. The rock strata were pushed on top of much younger rocks to form a new mountain range which would have rivaled the Himalayas.

The continents broke apart, as if recoiling from their collision. Attacked by erosion, the topmost rocks were sluiced down river valleys, exposing the Ocoee rocks. The relentless power of moving water carved out Le Conte from the Ocoee block. Unlike its brothers farther north, it owes none of its present features to glaciers.

Today Le Conte occupies some 30 square miles of the earth's surface. Long ridges lead away from the 50-acre tableland at the peak, providing

ramps for the trails which quarter the compass from its summit. One knife-edge ridge called The Boulevard extends five miles southeast to the main ridge of the Great Smokies. The others plunge more steeply, carrying such descriptive pioneer names as Scratch Britches and Rocky Spur.

Canadian Climate on the Peak.

The streams that cascade down the valleys between these ridges are reworking Mount Le Conte's outline. The southwestern flank of the mountain is scarred by several recently opened erosion slopes. Heavy rainfall is normal on Le Conte, the average at the peak being about 90 inches annually. In the United States, only the Pacific Northwest receives more rain.

The temperature range on the mountain is quite broad. Near its base in Gatlinburg the climate is similar to that of the Tennessee Valley, with a record high of 106 degrees Fahrenheit. At the peak the thermometer reached 80 degrees Fahrenheit in the hot summer of 1925. Since then it has not passed 78 degrees Fahrenheit, and the overnight low has never been above 60 degrees Fahrenheit. You would have to travel 1,000 miles to Canada to find a sea-level equivalent to the climate of the peak.

Le Conte provides a well-watered environment for all the forest types that grow between Tennessee and Canada. Since it has never been lumbered, the variety of trees is striking. Almost as many species grow on Le Conte as in all of Europe.

Buckley was certainly impressed. Along the Little Pigeon River (which rises on the north skirts of the mountain) he stopped to inspect a chestnut tree which measured 33 feet around at four feet above the ground. Nearby was a tulip tree 29 feet around, and a hemlock more than 19 feet in circumference. This list, he wrote, "could be greatly extended."

The chestnut no longer grows to any such size, but the world's largest hemlock thrives on Le Conte—a tree nearly 20 feet in circumference. At least four other tree species reach record sizes here. Their variety can indicate the range of species on the mountain. Record firs, at home in Canada, flourish within a few miles of record yellow buckeyes, which

grow as far south as southern Tennessee. The world's largest Fraser balsam fir, nearly eight feet around, grows near the peak of Le Conte. Lower down the mountain a yellow buckeye 15 feet around claims the world's title. The record specimens of mountain maple and American mountain ash, both growing along The Boulevard, complete Le Conte's list of title holders.

But others besides Buckley noted the big trees. The great lumbering firms were working their way south from Maine, devouring the remaining virgin timber in their paths. These early firms practiced little forestry and had no thought of ecological consequences. Most were out for a fast buck and harvested the fruits of centuries of growth as quickly as possible before moving to the next virgin tract. The lumbermen behind them left a wake of nude erosion gullies and fire-susceptible brush. By 1910 several firms were well established in the Great Smokies. World War I created a strong demand for lumber. Spruce was needed for airplane parts, so a special effort was made to reach the spruce trees on the highest ridges. Some peaks were stripped bald; others were burned over by the fires that accompanied steam-powered lumbering. On Le Conte cutting began low on the northeastern slopes, but the great harvest never came.

The Move to National Parkhood.

It is hard to pin down the genesis of the idea for a national park in the southeastern mountains. By 1920, nevertheless, the park idea was common among an assortment of what today might seem strange bedfellows. The fledgling conservation movement decried the disappearance of the last virgin wilderness in the eastern mountains. Outdoor writers such as Horace Kephart pleaded for the remaining forest. Even local businessmen favored the stable economic base of tourism other than the slash-and-run timber firms. Colonel David C. Chapman of Knoxville, Tennessee, organized the Great Smoky Mountains Conservation Association to woo politicians before the trees were all gone and to bicker with boosters of other

possible sites for a southern Appalachian park. At Chapman's invitation, a Knoxville college student named Paul J. Adams (who regularly visited the Great Smokies, knew Le Conte better than the local guides and foresaw the coming destruction of the loggers) joined the Conservation Association.

Congress was vaguely interested in a national park in the South, and the Southern Appalachian National Park Commission was established to study the matter. In the traditional manner of such commissions, a field trip through the study area was necessary. In 1924 the Conservation Association hosted the commission in Tennessee. Anxious to impress, Colonel Chapman took them to Le Conte. Adams helped guide the party up the most direct route from Gatlinburg to a rough camp at the top. They descended the next day by Alum Cave bluff over a new trail cleared a few days before by the Conservation Association. The commission was impressed. In December they recommended the Great Smoky Mountains as the site of a national park. Le Conte was listed as one of the unique appeals of the area.

The following May, Adams camped on the peak with Harry Ijams and Albert Ganier. In a campfire conversation, the idea of a permanent camp on top of Le Conte was born. Unlike many campfire dreams, this one solidified. Colonel Chapman was enthused. The 13th of July found Adams and three young local lads climbing Le Conte from Gatlinburg with the beginnings of what would eventually become Le Conte Lodge on their backs. They placed the camp at the very crest, near a spring that Adams had discovered. Within four days they entertained their first guests. In August Colonel Chapman brought the Park Commission through for a repeat tour. With the party was Arno Cammerer of the National Park Service, who later developed the boundaries of the park and played a crucial role in raising money for its establishment.

Congress passed enabling legislation for the park in 1926, but refused to finance purchase of the land. The private collection of money to buy the property from the loggers and to present the park to the government was a decade-long struggle. President

Joseph Le Conte, 1823-1901

Professor Joseph Le Conte was a protean man of natural science in the 1800s, making contributions to medicine, physiology, geology and the study of evolution. Born on a Georgia plantation, he began visiting the southern mountains and river gorges in his early twenties. His autobiography is replete with memories of his mountain visits, told with affectionate detail. He often vacationed in the North Carolina mountains with his family, as he did in the summer of 1858 when he stayed into the fall to aid Buckley.

But he has little to do with our story. Some have even doubted that he was Buckley's stationary barometer observer, although Buckley names him specifically. He seems to have been unaffected by having a mountain named for him. His autobiography, for example, fails to mention it. Perhaps Buckley failed to inform him of the honor, although that seems unlikely.

All authorities do agree on one point: Joseph Le Conte never saw the Great Smoky mountain which bears his name.

Franklin D. Roosevelt attended the formal opening ceremony on Labor Day of 1940, although the land had enjoyed full national park status since 1935. Le Conte was finally safe from the loggers.

What had been relatively terra incognita became the most popular national park of the twentieth century. It provided both wide publicity and improved access to the area. The transmountain highway linking southwestern Gatlinburg to Cherokee, North Carolina, along the southwestern edge of Le Conte, was widened and improved. Foot trails were cleared, and new ones blazed.

Natural scientists took advantage of the park improvements and came to the Great Smokies. But the day of the generalist like Samuel Buckley was over. Each field of knowledge became much more intricate, and the wealth of the wilderness cried for specialized study. Willis King was

such a specialist—a zoologist specializing in reptiles and amphibians. He poked around the peaks of Le Conte, looking under rocks and logs. Under one he found a tiny two-inch-long salamander with a herringbone pattern on its back. King was puzzled and consulted his books. No one else had ever seen such a salamander anywhere. Therefore in 1936 King announced the discovery of *Desmognathus wrighti*, the pygmy salamander.

Hiking History.

More recreationists began coming to the mountain. Paul Adams's permanent camp became Jack Huff's Le Conte Lodge, a rustic hike-in hostelry providing basic food and shelter for those hardy enough to hike up the mountain. Log cabins replaced the canvas tents of the permanent camp. In the only wedding ever performed on the mountain, Jack and Pauline Huff were married on April 29, 1934, on Myrtle Point just southeast of the lodge. They served as gracious hosts for the steadily increasing band of overnight guests. By 1936 Huff estimated that a whopping 10,000 persons annually climbed the mountain.

Hiking on Le Conte is most popular in the early summer when the rhododendrons are in bloom. These and other shrubs such as mountain laurel, sand myrtle and blueberry form extensive tracts known locally as slicks. In season the slicks paint the mountain with patches of purple, pink and white. For reasons not completely understood, the slicks, over head-high and often impenetrable, completely displace trees from large areas on the mountain. On the southwest slope of Le Conte lies a particularly large slick known as Huggins Hell. Local legend has it that one Huggins boasted he would travel through that slick even if it took him to hell. He never returned.

Le Conte Lodge was taken over from the Huffs by Herrick and Myrtle Brown in 1960. Brown is another old-timer to Le Conte, having first climbed the peak in 1927. The Browns and their college-age crew can provide for 50 overnight guests. The lodge also serves an occasional meal to hikers on a space-available basis.

Several three-year-old children have climbed the mountain, includ-

ing the Browns' daughter Barbara who did it in 1966. The oldest person to climb it seems to have been a gentleman of 90 who departed without leaving his name. Perhaps the most unusual ascent was made by Martha Huff in 1928. Unable to climb, she was carried to the top in a chair strapped to the back of her son, Jack.

Excluding lodge personnel, the record holder for the most climbs is Grace McNicol, affectionately known at the lodge as Gracie. Now 82, this retired registered nurse from Maryville, Tennessee, has climbed the mountain an astounding 162 times since 1954. When she fractured her back on her seventh run down the Colorado River rapids 12 years ago, she climbed Le Conte in a brace. Failing health has forced her to climb the mountain on horseback now, but she makes it a point to walk down.

Miss McNicol holds the record for the most trips up the mountain, but she has some close but gentlemanly competition from the Reverend A. Rufus Morgan. Father Morgan, a retired Episcopal priest from Franklin, North Carolina, has been hiking in the southern mountains for most of his 88 years. He has been climbing Le Conte longer than anyone at the lodge can remember and has logged 144 hikes to the top. This bests Miss McNicol by three trips if you discount her horseback trips. Father Morgan celebrates his birthday each October 15 with a hike to the top and a party at the lodge, complete with birthday cake, close friends and family.

Paul Adams would hike to Alum Cave bluff in the 1920s to watch the nesting peregrine falcons in the crags. Arthur Stupka, the first park naturalist, reports that the birds were still there around 1940. But as access to the bluff improved with new trails and a rebuilt transmountain highway, the reclusive birds abandoned the site. Other animals have been adversely affected by the mountain's popularity and easy access. Of the bears, panthers and wolves known to Buckley's guides in 1858, only the bear is still an acknowledged resident of the mountain. Biologists scoff at the few panther sightings since the 1920s. Adams saw a wolf as late as 1929 and thought it to be the last survivor of the pack that once roamed the mountain.

As the once-sleepy hamlet of Gat-

Le Conte Cirque?

While glaciers might have been present in the early mountain range of which Le Conte was the understory, accepted geological history holds that there have been no recent glaciers on Le Conte or anywhere else in the southern Appalachians. But the question was recently reopened when James Berkland and Loren Raymond published an account of the evidence for recent glaciers on Grandfather Mountain, only 80 miles east of Le Conte. They imply the possibility of recent glaciers on Le Conte and other high Great Smoky peaks.

Study of the evidence by outside experts has softened the argument, yet Berkland and Raymond still insist that there is mounting evidence for recent southern alpine glaciers. Any remains would necessarily be sparse because of the rapid erosion in the region.

In the face of a controversy of experts, the layman must wait for one side to concede before he can have the security of a single authoritative opinion. Currently, geologists do seem to agree that the top of Le Conte during the last ice age was above treeline and experienced an arctic climate.

linburg has learned about traffic control, so the Park Service has had to contend with crowd control on Le Conte. For example, on September 25, 1971, there were 132 campers at the 12-man backpacking shelter on the peak of Le Conte. The purity of the water supply was endangered. Unenlightened campers cut down live trees for firewood. The virgin forest was suffering under the load.

The Park Service, true to its preservation mandate, then introduced a shelter reservation system which limited the number of overnight campers on Le Conte to 12. Roger Miller, park staffer, is provisionally impressed with the new system: "By and large," he says, "it's been successful."

But the future of overnight stay on Mount Le Conte is uncertain. Both Le Conte Lodge and the backpacking shelter will be removed if Congress approves the Park Service wilderness proposal completed this fall. The major concern of the Park Service is

preservation of the wilderness. The thick virgin forests, profuse summer flowers and clear, pure streams are certainly deserving of whatever protection they require. For as long as they remain, Mount Le Conte will continue to be the premier peak of the South.

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