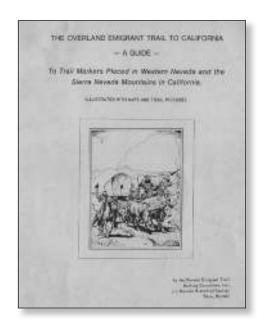
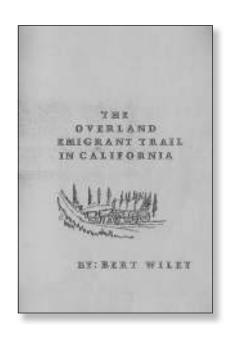
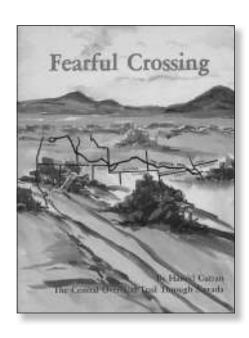
Development of Emigrant Trail Research in the Truckee–Donner Pass Region

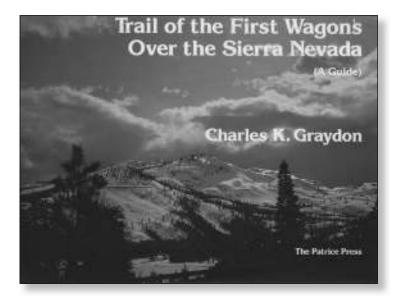






in the Post-Weddell Era of California

BY DONALD E. BUCK



beginning in the early 1920s, trail historians have been conducting research on and searching for the earliest emigrant trail routes leading to and over the Sierra Nevada in the Truckee-Donner Pass region of California. In the Fall 2016 issue of the *Overland Journal*, Marshall Fey ably explained in some detail the "First Marking of the Donner Trail," begun in 1921 by Peter M. Weddell, with the assistance of C. F. McGlashan. Weddell's unflagging trail research, marking, and mapping continued until his death in 1952, eventually covering the trail on both sides of the Sierra summit. In 1935 Weddell had gained the support of Bert Olson, who became "his ardent disciple." Later, Earl Rhoads joined the effort to preserve Weddell's wooden trailmarking signs with his distinctive white blazes painted on tree trunks in a pattern that resembled a triangular buffalo head.¹

The next venture to mark the emigrant trail for posterity came in 1967 with the formation of the Nevada Emigrant Trail Marking Committee (henceforth NETMC). Until the NETMC formally disbanded in 1973, the group led by its trail authority, Walt Mulcahy, installed nine distinctive T-shaped steel-rail markers. They were placed mostly on the Weddell-Olson-Rhoadsmarked route from Verdi, in Nevada near the state boundary, to the Sierra summit at what would become known as Coldstream Pass. In 1975, as their last intended effort, the NETMC published a driving guide to all of the steel-rail markers they had placed along the emigrant trails in western Nevada and eastern California.²

After a half-century of trail research and marking of the Truckee Trail route in California to the Sierra Nevada crest,

LEFT TO RIGHT NETMC, The Overland Emigrant Trail to California: A Guide (Reno, Nevada, 1975). Bert Wiley, The Overland Emigrant Trail in California (1979). Harold Curran, Fearful Crossing: The Central Overland Trail through Nevada (Las Vegas: Nevada Publications, 1982; first rev. ed., 1987). Charles K. Graydon, Trail of the First Wagons over the Sierra Nevada (Gerald, Mo.: The Patrice Press, 1986).

See Marshall Fey, "Peter M. Weddell and the First Marking of the Donner Trail: Saving the Route before Evidence is Lost," Overland Journal 34, no. 3 (Fall 2016): 101–120.

See Nevada Emigrant Trail Marking Committee, Inc., The Overland Emigrant Trail to California: A Guide to Trail Markers Placed in Western Nevada and the Sierra Nevada Mountains in California (Reno: Nevada Historical Society, 1975). Also see the latest update in Marshall Fey, Emigrant Trails, the Long Road to California. A History and Guide To the Emigrant Routes from Central Nevada to the Crossing of the Sierra, edited by Stanley W. Paher (Reno, Nev.: Western Trails Research Association, 2008).

it appeared that this much of the emigrant trail had been definitively mapped and marked with wooden signs, tree blazes, and T rail markers. However, as the focus of this article will show, trail research and mapping of the Truckee Trail from Verdi to the Sierra crest did not end by the early 1970s with the work of Peter Weddell and the NETMC. Seemingly, trail research has a life of its own that keeps refining and redefining trail locations, sometimes with very revealing results. As we'll see, various efforts to increase our trail knowledge over the last half-century have led to new techniques and procedures in determining and verifying emigrant trail locations.³

Trail exploration continued with Bert Wiley, who had been a major contributor to an "Investigation" by the California State Division of Beaches and Parks in 1949. Its purpose was establishing a State Historical Monument in the State Park System celebrating the centennial of the California Gold Rush. Wiley furnished excerpts from ten emigrant diaries and reminiscences, and referenced interviews with Peter Weddell and Irene Paden.⁴

Wiley's interest in the Truckee emigrant trail within California continued into the 1970s with his privately published booklet in 1979, *The Overland Emigrant Trail in California*. Wiley's fifty-three-page booklet included twenty-eight pages describing the trail route, with excerpts from ten overland emigrant accounts, and nine small hand-drawn maps showing the trail in very little detail. Only the first map covered the Truckee routes to the Sierra summit and followed the Weddell interpretation, including both passes south of Donner Peak, Coldstream Pass and Roller Pass. Overall, Wiley's account was more a short history of the Truckee route in California than a research document.⁵

However, Wiley went into some detail explaining his research emphasis in seeking more evidence in the form of overland emigrant diaries. He recounted his 1949 effort, which began with the California History Room of the California State Library in Sacramento, where he got "our first clues." Directed to the Bancroft Library at the University of California, Berkeley, Wiley spent days reading diaries "without finding so much as one who had entered by way of the road we were trying to relocate." There Wiley had "our first, and, as it turned out, our most important break," when the Bancroft librarian put him in contact with Irene Paden, who had "indexed hundreds of the old diaries by party, route, date and library."

After locating and reading diary accounts on the Truckee route into California, Wiley realized, "Finding the diaries was one thing, using them was another." He explained how "we took those passages that described a physical feature, and in context, reassembled them so as to identify many features of the road." With the "reassembled diaries in hand, we again made a reconnaissance on foot." As a result, Wiley maintained, "We were able to find and identify much of the old road on the east slope of the mountains. All three passes [Donner, Coldstream, and Roller] were found by this method and the Roller Pass was located and identified." Up to the Sierra summit, Wiley's use of diary descriptions had revealed nothing new and supported the existing interpretation of trail routes.⁸

A few years later, Harold Curran from Nevada entered the emigrant trail scene. Relying primarily on a wide variety of overland diary accounts in *Fearful Crossing*, which he published in 1982, Curran took his readers along the various routes in northern Nevada and into California on the Truckee and Carson river branches to the Sierra summit. Curran relied primarily on existing trail route interpretations, especially Walt Mulcahy's NETMC Truckee River Route. As he stated in the preface, "Quotations taken from the emigrants' diaries are used to ... give reality to the subject, so that the story of the crossing is told largely in the words of the emigrants." For the Truckee route in California, west to the summit, Curran used about fifteen emigrant accounts and two very general map pages.

Author's note: Don Buck is both an observer of and participant in what will be discussed in this article. Joining Trails West, Inc. (Trails West) in 1980 and the Oregon-California Trails Association (OCTA) in 1982 as a Charter Member, I quickly involved myself in emigrant trail research. In this pursuit, I came to know and learn from several trail researchers covered in this review, namely Walt Mulcahy, Chuck Graydon, Don Wiggins, and recently, Chris Wray. Also, over the years, I have corresponded with the latter three trail researchers and have been in the field with them. Furthermore, I extend my appreciation to Jo Johnston for her copyediting of the first version of this article and to Marlene Smith-Baranzini, the Overland Journal editor, for her suggestions and copyediting of the final article. I am also grateful to Chris Wray for providing the photographs of trail locations and to Jon Nowlin for creating the four trail maps.

⁴ Department of Natural Resources, Division of Beaches and Parks, Report of Investigation on Location, Cost of Acquisition and Development of Overland Emigrant Trail, December 1949. Due to the projected expenses involved in acquiring access through private property to emigrant trail segments and access upkeep, nothing became of this project.

⁵ See Bert Wiley, *The Overland Emigrant Trail in California* (privately published in a 53-page coil-bound booklet in 1979).

⁶ Ibid., 2. This statement is puzzling. The Bancroft Library at U.C. Berkeley has the largest collection of emigrant diaries in the nation.

⁷ Ibid., 3.

Ibid., 4. Wiley referenced only nine emigrant accounts in support of his trail interpretations. His use of diaries "to find and identify much of the old road on the east slope of the mountains" will be discussed later in this article. Wiley had come upon what would become the center piece of emigrant trail research—diaries—but apparently had not found a disciplined method of utilizing them.

His primary intent was to convey a story rather than advance an interpretation of where a trail traversed.⁹

WHILE CURRAN WAS "DOING RESEARCH IN LIBRARIES and in the field" that would lead to *Fearful Crossing*, a retired U.S. Army colonel, Charles K. Graydon, was cross-country skiing up on Mount Judah at the Sierra crest, at age seventy, when he came upon a Weddell sign, which caught his attention. In short order, Chuck Graydon was hooked by the lure of finding out where these emigrants had come from and where they were going. Graydon's inquiry led to his report for the U.S. Forest Service on the Truckee Route through the Tahoe National Forest. In turn, this resulted in the publication in 1986 of his *Trail of the First Wagons over the Sierra Nevada*. 10

In this first edition, Graydon relied on the previous interpretation of Weddell, his signs, and Rhoads's tree blazes. The innovative part of Graydon's book was the use of USGS 7.5 minute topographic maps that had replaced the larger scale 15 minute topographic maps. Graydon included ten double-page maps (of 8½×11–inch size) of the newer scale that allowed him to depict the trail route from Verdi west to historic Mule Spring on Lowell Hill Ridge. This was the first published recording of the Truckee route on the now standard Geological Survey 7.5 Minute Series maps.¹¹

Trail of the First Wagons over the Sierra Nevada went through two more editions. By the third and last edition of 1994, Graydon had extended coverage to the end of the Truckee route at the Johnson Ranch site (two miles east of Wheatland, north of Sacramento). Also he included the 1850 Nevada City Road from Bear Valley, all in eighteen maps. Other than the trail extensions, the only significant difference in the third edition was Graydon's conviction that Weddell's trail route via the Alder-Trout Creek roundabout, through the modern Tahoe Donner Subdivision, was a later wagon road never used by emigrants.

Graydon wrote that "Every trail historian I have talked to questions the likelihood of wagon trains having taken the out-of-the-way, roundabout detour to the lake." He had traced the origins for this roundabout route and found "no first-hand historical evidence of this route being used by emigrants." Graydon was convinced that the trail route took a direct southwest direction into what became the town of Truckee. With that trail modification, Graydon's final edition summed up the published trail knowledge, as of the early 1990s, from Verdi to the Sierra summit, and beyond.

In June 1991, the California state legislature again tasked the Department of Parks and Recreation with conducting a study of the Truckee Trail route (called "Donner Party Trail"). The purpose was to determine the feasibility of preserving the trail "from the Nevada State Line to Johnson's Rancho," 128 miles in length. This was intended to be a "multi-agency" effort. Like the 1949 effort, nothing became of the feasibility study, which concluded that the "magnitude of the task of acquiring and managing the entire trail is beyond the scope of this department's resources." It was "recommended that responsibility for preservation of all or portions of the remainder of the trail be assumed by the affected federal and local agencies." In short, the state withdrew from preserving emigrant trails, beyond its plans for extending the Donner Memorial State Park at Truckee. 13

However, of interest for trail mapping was an inclusion in the state feasibility study of OCTA's newly developed "Trail Classification System," consisting of the five trail classes that would become widely used in mapping emigrant trails. For the first time, a public agency utilized this trail-classification scheme by authorizing its application to the study's concluding seven trail maps.¹⁴

⁹ See Harold Curran, Fearful Crossing: The Central Overland Trail through Nevada (Las Vegas: Nevada Publications, 1982; first rev. ed., 1987.)

¹⁰ See Charles K. Graydon, Trail of the First Wagons over the Sierra Nevada (Gerald, Mo.: The Patrice Press, 1986).

Graydon's red-lined trails on the USGS 7.5 minute series topographic maps did not distinguish the condition of the trail segments, whether they were in original condition, used by modern vehicles, now destroyed, or known only approximately. In another five years, that kind of trail classification would come into use as a means of determining the desirable level of trail preservation.

¹² Graydon, Trail of the First Wagons, 35. Author's note: I received a letter in November of 1990 from Chuck Graydon that contained "a draft for a possible OJ article," titled "Location of the Last Donner Family Campsite and the Emigrant Trail Nearby." In this draft, Graydon advanced the arguments against the Alder-Trout creeks' dogleg that would appear in his third edition. Graydon attributed the visible remains of this dogleg trail to later logging activities.

¹³ See the Feasibility Study: Truckee Route (Donner Party Trail). A Portion of the California Emigrant Trail. Prepared by State Park System Planning Section, Department of Parks and Recreation, Sacramento, June 1991.

The trail classification scheme was an integral part of OCTA's Mapping Emigrant Trails Manual (MET Manual) that was introduced in a Preliminary Edition of 1991. The MET Manual also established research principles, methods, and guidelines for locating and verifying emigrant wagon trails. It would go through four more revised editions until a complete expansion in the current Fifth Edition of 2014. Author's note: For the 1991 state feasibility study, acting on behalf of OCTA, I provided the trail classifications and trail mapping (see pages 3–4 in the study), which at that time was based on Chuck Graydon's mapping.

emigrant trail classification categories

CLASS 1 UNALTERED TRAIL The trail segment retains the essence of its original character and shows no evidence of having been substantially altered by motor vehicles or by modern road improvements. There is visible evidence of the original trail in the form of depressions, ruts, swales, tracks, scarring, vegetative differences, rock alignments along the trailside, and eroded trail features.

CLASS 2 USED TRAIL The trail retains the essence of its original character but shows past or present use by motor vehicles, typically as a two-track road overlaying the original wagon trail. There is little or no evidence of having been altered permanently by modern road improvements, such as widening, blading, grading, crowning, or graveling.

CLASS 3 VERIFIED TRAIL The trail route is accurately located and verified from written, cartographic, artifact, geomorphic, and/or wagon wheel impact evidence (as rust, grooved, or polished rocks). But due to subsequent weathering, vegetative succession, rodent surface digging, or logging, trail traces will not be visible on the surface.

CLASS 4 ALTERED TRAIL The trail location is verified but elements of its original condition have been permanently altered, primarily by road construction, such as widening, blading, grading, crowning, graveling, or paving. In some cases, the original trail has been permanently altered by underground cables and pipelines.

CLASS 5 APPROXIMATE TRAIL The trail is either so obliterated or unverifiable that its location is known only approximately. In many cases, trail segments have been destroyed entirely by development, such as highways, structures, agriculture, utility corridors or inundated beneath reservoirs. In other cases, natural causes have removed any remains of a trail.



See OCTA, *Mapping Emigrant Trails Manual*, 5th ed., June 2014, Part A, 18–21.

At the time Chuck Graydon was working on Trail of the First Wagons over the Sierra Nevada, a retired aerospace electrical engineer from southern California, Don Wiggins, relocated to Reno, Nevada, in 1985. He soon joined the Nevada Historical Society and became a docent. Leading tours for the historical society, he enlivened them with emigrant diary accounts of what was thought to be the Truckee Trail in the Reno-Sparks area. Wiggins began noticing incongruities between what he was reading and seeing, which led him into trail research. It was during this period that he joined the Oregon California Trail Association in 1989, at the urging of well-known historian John Townley at the Nevada Historical Society.

Living in northwestern Reno, Wiggins took morning hikes in the nearby foothills where he could see Dog Valley, about five to six miles distant, just inside California. Reading emigrant diary accounts covering this area, and surveying the terrain, he began questioning conventional thinking that emigrants in wagons made it all the way up the steep-sided canyon of South Branch Creek to reach the descent into Dog Valley. Also, in reading these diaries, Wiggins saw that emigrant parties made their last crossing of the Truckee River farther along the river than accepted thinking maintained. Diary descriptions, according to Wiggins, indicated they "made a sharp turn to the right, or northward" in the vicinity of present Crystal Peak Park, rather than continuing westward before turning toward the South Branch Creek.

Wiggins's thinking was running counter to well-regarded trail sources. The Nevada Emigrant Trail Marking Committee Guide of 1975, The Overland Emigrant Trail to California, page 15, held that the trail to the First Summit "lies generally parallel to or under the present Dog Valley dirt road." About one and one-half miles up the South Branch Canyon, the NETMC had placed a T rail marker at a now closed, small Forest Service campground where a spring is located. The NETMC guide further elaborated that "The campground was a natural resting place for the emigrants in their struggle to the first summit just above Dog Valley." However, there is no known description of any emigrant stopping at this location for resting or water. The only emigrant account quoted in the NETMC guide for this campground location is a brief, unnamed, one: "Climbed a mountain side and descended into a beautiful oval valley." In his Trail of the First Wagons over the Sierra Nevada of 1986, page 23, Graydon stated that "the original trail kept on or closer to the dry creek bed to avoid the steep side slope." Graydon further elaborated, "Fill from the road grading has made the creek bed much narrower than it originally was and several floods have completely altered it." He provided no emigrant accounts for this route to the First Summit.

¹⁶ From Wiggins's initial research on the Truckee Trail where it entered California, he continued to Roller Pass and Stephens Pass at the summit of the Sierra Nevada, and beyond. In the wake of his trail research, Wiggins left a series of notes, reports, and investigations, from 1996 to 1999, totaling sixty-eight pages and four maps, that laid out the results of his research and the methods

Wiggins continued his search for remains of the emigrant route heading to the First Summit above Dog Valley. For him, emigrant diary accounts kept indicating the trail didn't follow all the way up the often steep-walled canyon of the South Branch Creek. Then the devastating Crystal Peak Fire in 1994 revealed on-the-ground evidence of trail remains. These Wiggins regarded as confirming his interpretation of diary descriptions on the ascending route along the South Branch Canyon to the First Summit, where the trail descended into Dog Valley. As Wiggins later wrote:

Most have assumed that the trail continued directly up the canyon until reaching First Summit. . . . This canyon is relatively straight, narrow, and rocky, with a gradual ascent and some nearly V-shaped sections to pass through. Passages in the diaries do not match this description of the trail leading to First Summit. The trail is described [in diaries] as being on ridges, winding, rocky, with ascending and descending elevations, passing through a thick forest, and also very steep in places.¹⁷

By this time in his trail investigations, Wiggins had created a research tool that would lead him to question most of the conventional thinking on the routes of the Truckee Trail inside California. He began by gathering together as many emigrant diary accounts as possible that described in any way the trail segment being investigated. Descriptions, for example, could include references to springs, rock formations, creek crossings, rocky trail segments, ridges, ravines, and any distances or directions recorded in diaries. Then he would look for similarities and discrepancies among the various descriptions, arranging them—really, as clues—in some kind of sequential order that would reveal the course, direction, and location of the trail segment under investigation. Taking these eyewitness clues

used to reach his conclusions. Although never published or made available, Wiggins's research papers have been compiled by Don Buck in a coil-bound booklet as *Notes, Reports, and Investigations on the Truckee Trail in California, from the Last Crossing of the Truckee River to Roller Pass and Stephens Pass* (1996 to 1999). They form the basis of the narrative that follows about Wiggins's role in Truckee Trail research. As his papers reveal, Wiggins would make good use of a general rule in the MET Manual: "the closer in time the evidence is in relation to the trail under investigation, the more reliable that evidence becomes." This established the primacy of emigrant diaries, those eyewitness accounts of trail location, over all other types of later trail evidence. On the last crossing of the Truckee River, see Wiggins, "Report on the Truckee Trail: Verdi to Second Summit" (Nov. 1999), 1. Trails West placed a T rail marker in Crystal Peak Park to identify where the trail turned north to Dog Valley. Wiggins, "Report on the Truckee Trail: Verdi to Second Summit," 2.

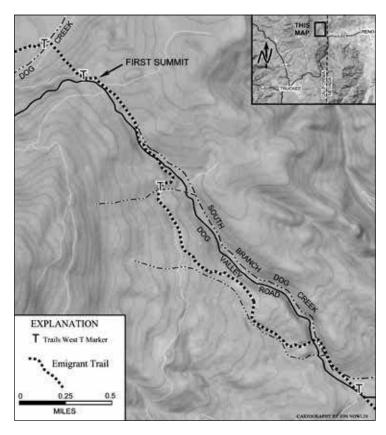
into the field showed Wiggins where to look for trail remains, topographic features, and route directions.¹⁸

Another important feature of this composite clue method was dealing with the bedeviling problem of distinguishing between an original emigrant trail segment and a later wagon road. Wiggins realized he faced a daunting task of separating the emigrant trail remains from the widespread later lumber and freight wagon roads on both sides of the South Creek Canyon. This trail verification process led him to coping with probabilities. In developing this more systematic verification method, he had a way to attain a higher degree of probability.¹⁹

Using the methods of trail verification he had developed, along with ten diagnostic emigrant accounts, Wiggins located a trail ascending to the First Summit by way of a short ravine or gully to the left, now quite eroded, about three-tenths mile up South Branch Canyon. At the base of this gully, in the dry creek bottom, is evidence of wagon-road building turning left, now mostly covered by the driving road and dense vegetation. As Wiggins worked it out, this gully took wagons to a ridge on the left where they stayed for one and one-half miles. On this ridge, emigrant diaries described physical features of the trail that are apparent today, such as inclining to one side (sideling) at one location on the ridge, winding, passing over elevations or tables, a small spring draining from the left across the trail, and then passing around to the east over an elevated level. The trail then descends gradually from this elevated level toward the upper end of the canyon, where it begins a half-mile gradual climb to the First Summit (on the right of the existing county Dog Valley Road).

¹⁸ Author's note: I provided Larry Schmidt, a retired Forest Service physical scientist and fellow member of Trails West and OCTA, with the Wiggins investigative report and my own related materials on the route to the First Summit. In a detailed e-mail response of May 14, 2017, Schmidt pointed out the weakness "in seizing on a few words in a narrative and implying more meaning than was intended by an author." For example, Schmidt found that the references to ascending to the First Summit through a "ravine" in the diary accounts of Bryant, Godfrey, and Wistar could refer to travel up the canyon of the South Branch paralleling the present Dog Valley road (the conventional thinking) just as well as accessing the side of the adjacent ridge to bypass the steep part of the canyon as Wiggins contended. For Schmidt, who had studied the area in the 1970s for a proposed watershed project, "The extraordinary level of logging, utility corridor, and transportation route activity in this area makes reaching a definitive conclusion [on the trail route] unlikely." Schmidt cautioned that "the hypothesis proffered by Wiggins still remains possible but unproven at this point."

Author's note: In post-Crystal Peak Fire correspondence with me, Wiggins discussed the difficulty of sorting out the emigrant trail from the numerous later wagon roads on both sides of South Creek Canyon that had resulted from the post-Virginia City logging and freighting activity, and possibly early automobile use.



MAP 1. BY JON NOWLIN.

At the First Summit, the trail made a steep descent into luxuriant Dog Valley and quickly turned southwest, where Wiggins found a quarter-mile segment of original trail still remaining.²⁰

After nooning or camping in Dog Valley, emigrants left the valley in an ascending wide draw for about two miles to what is known as the Second Summit. This summit became a transportation hub, where later roads merged—the Henness Pass Toll Road, Dutch Flat–Donner Lake Wagon Road (henceforth DF-DLWR), and the early automobile Lincoln Highway and Victory Highway. From the Second Summit, the emigrant trail descended another two miles southwest into Hoke Valley.²¹

From Hoke Valley to the Little Truckee River, Wiggins acknowledged that the original emigrant route was difficult to determine, largely due to the modern Stampede Reservoir blocking a complete survey. Graydon had the emigrant route from Hoke Valley going more southwest through the present reservoir bottom to its outlet, near where the Little Truckee River had turned east to south. Although admitting emigrant mileages recorded in their diaries "are subjective and sometimes imprecise," Wiggins concluded that "the sheer weight of the diary evidence points to a route other than Graydon's route based on mileage alone." For Wiggins, this meant a more direct southerly route, generally along the corridor of a pipeline, to the Little Truckee River just south of its outlet from the reservoir.²²

Wiggins next surveyed the trail route from the Little Truckee River, below the reservoir dam, to Russel Valley. Established thinking on this trail segment, based on Weddell's maps, Rhoads's tree blazes, and Graydon's mapping, held that upon reaching the Little Truckee River (now under the reservoir near the dam), the Truckee Trail continued below the dam two and one-half miles southward. As Graydon described the route, "an old trailbed is seen running south close along the east side of the river with an old railroad bed, abandoned in 1914, on its left." After paralleling the river southward, Graydon had the trail fording the Little Truckee, whereupon it "proceeded south-southwest up and over an eroded saddle" into the east end of Russel Valley (near where the valley now enters the northwestern end of Boca Reservoir). 23

Using sixteen emigrant diary accounts that had useful descriptions for this area, Wiggins determined that "emigrants did not follow the Little Truckee River [southward]. They crossed it and traveled over 'undulating country' about 4 or 5 miles to reach the next valley with water and grass" [i.e.,

²⁰ Wiggins, "Report on the Truckee Trail: Verdi to Second Summit," 2–5. Trails West has placed three T rail markers on Wiggins's designated trail route, from the beginning of South Creek Canyon to the descent into Dog Valley. For a published hiking guide to this trail route to the First Summit, with diary explanations and trail photos, see Charles H. Dodd and Don Wiggins, A Trail Sleuthing Experience on the South Branch Canyon Segment of the Truckee Trail. Finding the Trail Where the Emigrants Themselves Said It Was (Chilcoot, Calif.: 19th Century Publications, 2002).

²¹ At the Second Summit road hub, the NETMC placed a T rail marker. Also, Trails West has placed T rail markers where the emigrant trail enters the Second Summit and enters Hoke Valley, the latter near where the original 1852 Henness Pass Road branched westward. Wiggins found remains of the Henness Pass Road west of this marker.

²² Wiggins, "Notes on the Hoke Valley Route of the Truckee Trail from Second Summit to the Little Truckee River," 5.

²³ Graydon, Trail of the First Wagons over the Sierra Nevada, 28 and Map 2.



Russel Valley]. This illustrates a reoccurring problem a trail sleuth encounters: how to distinguish between an original emigrant trail and a later wagon road. In five pages of "Supporting Analysis," Wiggins arrived at his conclusion based on distances traveled, type of terrain crossed, descriptions of the valley arrived at, and the entrance to this valley. His diary evidence pointed to the trail crossing the Little Truckee River about a quarter-mile south from the river outlet of the Stampede Dam. Then the trail wound west and south for about four miles over some hilly country into the center of Russel Valley.²⁴

Dashed white line shows the trail route leaving the rocky South Branch ravine and turning left (west) onto a ridge, described by emigrants, for one and one-half miles, heading toward the First Summit. PHOTO BY CHRIS WRAY.

Leading southwest out of Russel Valley are several possible narrow draws through which emigrants could have traveled to continue their journey of four miles to Prosser Creek (now under a reservoir). Two of these draws, having old dirt roads heading southwest, are the best possible wagon outlets from Russel Valley. As Wiggins noted, emigrant diarists do not indicate which of these draws they used to exit the valley. The eastern most draw has a Rhoads tree blaze at its entrance, which would best fit a trail entering the valley from its eastern end, as Rhoads and Graydon showed it. The westernmost draw would best fit a trail entering the valley at its center, where emigrants would have turned to the right to exit the valley. Having the

²⁴ Wiggins, "Notes on the Little Truckee River to Russel Valley," 1–5. Author's note: In searching along this trail route, Wiggins and I found a three-tenthsmile trail segment leading south into Russel Valley, where the swale was cut off by the gas pipeline mentioned previously, heading to the Little Truckee River. Where Wiggins's trail route crossed the river below the dam, Trails West placed a Trail marker. In August 2017, about 250 yards west of this river crossing, an archeology team and Chris Wray located remains of old wagon ruts ascending southwest on the proposed Wiggins's route. To verify this find, further trail sleuthing is needed.



Looking south on the Graydon-Rhoads designated trail that parallels the Little Truckee River on the right, south of present Stampede Reservoir dam. PHOTO BY CHRIS WRAY.

trail entering the center of Russel Valley, Wiggins opted for the western draw exit which lined up with trail traces along the route to Prosser Creek. However, Wiggins admitted this draw "is the best guess as to the location of the emigrant road" leaving Russel Valley. Upon leaving the draw, the emigrant trail, now heading south, is evident for two and one-half miles until disappearing in the present Prosser Creek Reservoir.²⁵

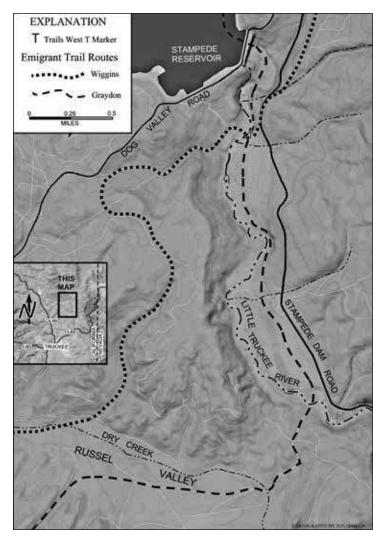
The next segment of the Truckee Trail that came under Don Wiggins's investigative eye was the route from Prosser Creek to

the Truckee River valley east of present Truckee town. At the time, the best thinking of the trail route in this area was shown in Chuck Graydon's 1994 (third) edition of *Trail of the First Wagons over the Sierra Nevada*. After crossing Prosser Creek, Graydon had the trail turning southwest directly toward the eastern end of present Truckee town, along the corridor of the old Dog Valley Road (now Prosser Dam Road), where it dropped into the Truckee River valley at the old cemetery. This was also the route of the later DF-DLWR.²⁶

However, Wiggins contended that "Little evidence is presented in the 1996 edition of Graydon's book to support the emigrant use of this route between Prosser Creek and the Truckee River." In the diary accounts for 1845 to 1850, Wiggins uncovered too many descriptions and mileages that didn't fit Graydon's trail route. This led to another detailed investigative

²⁵ Wiggins, "Notes on the Truckee Trail To and Leaving Russel Valley." Trails West placed a Trail marker at the beginning of the western-most draw. Both of the possible draws leaving Russel Valley rejoin in one and eight-tenths miles, where Trails West placed a Trail marker.

²⁶ See the hand-drawn map in Graydon, Trail of the First Wagons over the Sierra Nevada, 3rd ed., 34.



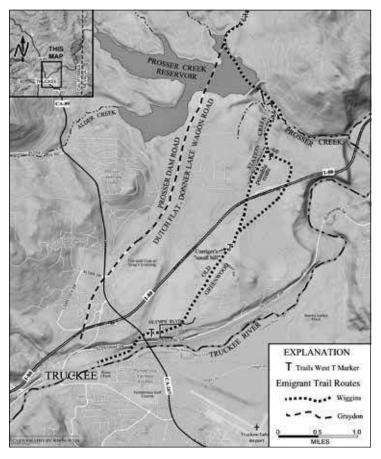
MAP 2. BY JON NOWLIN.

report, of eleven pages and two maps. In these Wiggins relied not only on emigrant diary evidence but also noted the use of the "Four Cardinal Rules" of trail verification (see sidebar) explained in OCTA'S MET manual.²⁷

First, Wiggins compiled mileages that emigrant diarists recorded after descending to the Truckee River valley and then turning right (west) to the crossing of Donner Creek. (From Donner Creek, the outlet of Donner Lake, emigrants turned southwest up Coldstream Valley toward the summit.) These emigrant mileages showed that they dropped into the Truckee

four cardinal rules (1) COHERENCE RULE specifies that trail segments under investigation have to link together (cohere) with those preceding and following it. (2) CORROBORATIVE RULE specifies these trail segments must have valid diary evidence that supports (corroborates) their authenticity. (3) COLLATERAL RULE specifies these trail segments must have some geomorphic or artifact evidence (collateral) that confirms their location. (4) CORRELATION RULE specifies there must be overall agreement between the evidence resulting from the first three cardinal rules (correlates). See OCTA, Mapping Emigrant Trails Manual, 5th ed., June 2014, Part A, 1-2.

²⁷ Wiggins, "An Investigation of Emigrant Trails in Section 1 (T 17 N-R 16 E): Old Greenwood Resort, east of Truckee, between I-80 and Truckee River," (June 1999), 4.



MAP 3. BY JON NOWLIN.

River valley east of present Truckee town rather than at the town as Graydon indicated. 28

Next, Wiggins noticed that a particularly descriptive diarist, August Burbank (1849), recorded crossing Prosser Creek, then going a half-mile where he "passed a fine Spring" on the left before "we ascended again" to reach the Truckee River valley. This description implied that after crossing Prosser Creek, Burbank was traveling in a ravine before "ascending again." Another diarist, Nicholas Carriger (1846), recorded succinctly "crossing a small hill" before reaching the Truckee River valley. Both of these accounts didn't fit Graydon's route which, as Wiggins noted, "was relatively level and did not cross a hill of any description." 29

An on-the-ground search revealed a narrow valley branching southerly off Prosser Creek (below the present reservoir dam), through which Station Creek drained northeast into Prosser Creek. In this Station Creek valley, Wiggins came upon "a dim, but unmistakable, short section of an old wagon road ... in pristine condition. It appeared to have been used only by wagon traffic and later by animals." Where this trail could have climbed southeast out of Station Creek in the east branch of the valley, "a fine spring was bubbling away, matching Burbank's description." Also, "an old wagon road was found leading away from the spring to the heights above." However, Wiggins cautioned, "Although in pristine condition, this section of road may have been used by other than emigrants." "30"

More field checking led Wiggins to the south side of Interstate 80 into a planned resort development, now named Old Greenwood, where there was a quarter-mile-long swale, heading southwest, to a small hill. For Wiggins, this conformed to the one Nicholas Carriger had recounted crossing in 1846. Wiggins described this hill as "actually a narrow, short ridge running in about a NW/SW direction and appears as a small hill when approached from the direction of Station Creek." Also, "a well defined wagon swale (or ruts) was found going over the hill."³¹

Continuing southwest one and one-quarter miles, through the Old Greenwood resort and a small housing development off Olympic Boulevard, led Wiggins to "a pristine, rock-lined trail, of wagon road width running east and west on a hill-side slope leading directly to the descent site" into the Truckee River valley (close to present SR 267). This descent was over three-quarters mile east of where Graydon had the trail descending into the valley.³²

For Wiggins, these three trail landmarks—the swale leading to and over the small hill in the resort, and the rock-lined trace descending to the Truckee River valley—"are all mutually supportive with no contradicting evidence. Therefore, it is concluded, to a high degree of probability, that this was the

²⁸ Ibid., 5.

²⁹ Ibid., 6.

³⁰ Ibid., 7. Trails West placed a T rail marker at the beginning of this pristine trail segment in the valley of Station Creek.

³¹ Ibid., 9. Trails West placed a Trail marker on the swale in the Old Greenwood resort. A recent field check found dense sagebrush growth in this swale, making it difficult to see and follow along a resort hiking path. The same growth condition applies to the ascent and descent of the small hill west of the marker, where the trail has been identified with a few low rock cairns. (The existing resort path onto this hill or ridge is not the trail.)

³² Ibid., 8–9. Trails West placed a Trail marker on this rock-lined trail dropping into the valley of the Truckee River east of Truckee town. A recent field check found dense sagebrush growth now covering much of the trail under the forest canopy.



exclusive route of the original emigrant trail from 1845 through at least 1849." $^{\rm 33}$

Looking south on the Wiggins designated trail in the narrow valley of Station Creek, south of present Prosser Reservoir dam. PHOTO BY CHRIS WRAY.

Don Wiggins next turned his investigation to where emigrants surmounted the Sierra Nevada crest south of Donner Pass. It had long been trail dogma that there were two passes emigrants used, one over "Coldstream Pass," between Donner Peak and Mount Judah, and the other one mile south over "Roller Pass," between Mount Judah and Mount Lincoln. Chuck Graydon provided the best exposition for these two passes in 1986.³⁴ True to form, Wiggins put this dual-hypoth-

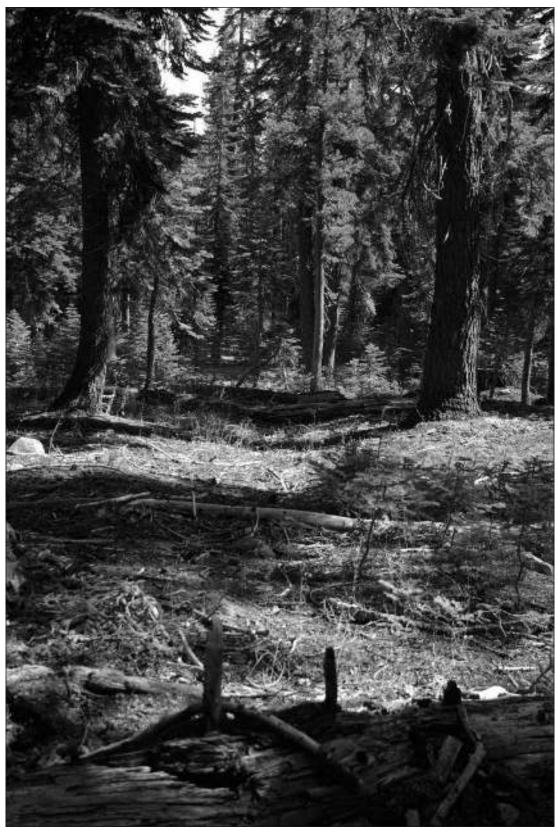
esis to the test. The outcome was another exhaustive investigation, first a detailed "Interim Report" completed in November 1996 and then a "Final Report" in February 1999.³⁵

Initially, Wiggins delved into the trail literature to find where the two-passes hypothesis over the summit south of Donner Pass had taken hold in publications. Peter Weddell, of

³³ Ibid., p.11. Wiggins noted on pages 10–11 that these "three supporting segments of the trail, described above, satisfy the Coherence Rule of the MET Manual."

³⁴ Graydon, Trail of the First Wagons over the Sierra Nevada, 42–47. Weddell had constructed a rock monument at Coldstream Pass and later the NETMC placed a T rail marker at this pass.

³⁵ Wiggins, "Investigation of Emigrant Trails Over Passes South of Donner Pass," which includes a fourteen-page "Interim Report," dated November 1996; a four-page "Coldstream Pass Vs. Roller Pass: A Final Report," dated February 1999, and "Excerpts From Primary Documents," of eight pages.



Trail beginning its steep ascent to Roller Pass. PHOTO BY CHRIS WRAY.

course, was the one who first championed "Coldstream Pass." Only near the end of his life did he acknowledge a "southern route," which he labeled on his last October 1951 map and which became known as "Roller Pass" (Weddell did not mark this route with his signs). Wiggins searched emigrant trail publications that had any detail on where the Truckee Trail passed over the Sierra summit. He came up with one by trail researcher and author Irene Paden (1949) and another by historian George Stewart (1962), both of whom only described one emigrant route south of Donner Pass, the one that became known as "Roller Pass." 36

So, where did the two-passes hypothesis first gain credence in any publication? Wiggins's search turned up a likely answer in an unlikely publication, Ruth Hermann's *The Paiutes of Pyramid Lake*, published in 1972. In chapter three, "Chief Truckee Guides Emigrants West," Hermann devoted nine pages to explaining how and when the first pass south of Donner Pass was opened in September of 1846, between Mount Judah and Mount Lincoln (i.e., Roller Pass). She quoted from emigrant participants Joseph Aram and Nicholas Carriger, and then quoted extensively from the excellent description of Forty-niner Elisha Douglas Perkins of how his party ascended Roller Pass.³⁷

Following this documented discussion, Hermann abruptly asserted, without any emigrant references or footnotes, that in the same month and year (September 1846 after the opening of Roller Pass) "other emigrants stamped out a new, easier trail to the northwest." She went on to identify this new pass as "a trail over the summit between the two peaks [Donner Peak and Mount Judah]." Hermann then stated that this new pass "provided another more favorable road for the forty-niners," and went on to describe it as "usually crammed with emigrants rushing West." The only verification she presented were two maps on following pages, one created by P. M. Weddell (corrected to 1951) and the other by Earl E. Rhoads made in 1958 but based on Weddell's map.³⁸

In a 1979 article by E.W. Harris in the *Nevada Historical Society Quarterly,* Wiggins provided an example of how Ruth Hermann's undocumented second-pass hypothesis came to be

accepted as fact. As Hermann had done, Harris first described in some detail, using 1846 emigrant accounts, how Roller Pass was opened. Then he went on to quote from Hermann's *The Paiutes of Pyramid Lake* on the establishment of the pass between Donner Peak and Mount Judah. Harris further elaborated: "This route over the pass was still easier for wagons and was most used by emigrants, including the Forty-Niners thereafter." The only other documentation or supporting evidence Harris used for the establishment of Coldstream Pass and its subsequent use was P.M. Weddell's map "reproduced" in Hermann's book.³⁹

TRACKING DOWN THE ORIGINS OF COLDSTREAM PASS, which lacked any verification other than Weddell's maps, brought Wiggins back to the earliest sources available, emigrant diaries and the General Land Office (GLO) cadastral survey plat of this area. Along the section lines surveyed in the GLO plat dated to 1865–66 (south of Donner Lake and Donner Pass), only one trail is shown and it is labeled "Old Emigrant Road." This emigrant road route goes right over what is now called "Roller Pass" (in the middle of Sec. 28). The surveyor found no wagon road north of this designated "Old Emigrant Road" that would even approximate the route to and over Coldstream Pass (in the eastern middle of Sec. 21). Therefore, up to 1866 the GLO surveyor could find no evidence of a wagon road to and over the pass between Donner Peak and Mount Judah. However, he was able to find evidence of an emigrant wagon road going all the way to and over the pass between Mount Judah and Mount Lincoln. 40 Furthermore, if the Coldstream Pass received the majority of emigrant wagon travel, as some proponents claimed, the physical features of this wagon

³⁶ Irene D. Paden, "Facts About the Blazing of the Gold Trail, Including a Few Never Before Published," in *Rushing for Gold*, ed. by John Walton Caughey (Berkeley and Los Angeles: Univ. of California Press, 1949), 3–12; and George R. Stewart, *The California Trail: An Epic with Many Heroes* (New York: McGraw Hill Book Company, Inc.,1962), 175–77 and 268.

³⁷ Ruth Hermann, The Paiutes of Pyramid Lake. A Narrative Concerning a Western Nevada Indian Tribe (San Jose, Calif.: Harlan-Young Press, 1972), 65–73.

³⁸ Ibid., 73–75 and maps on 76 and 77.

³⁹ E. W. Harris, "The Early Emigrant Pass Between Mt. Judah and Mt. Lincoln," Nevada Historical Society Quarterly 22, no. 1 (Spring 1979): 37. Harris was a University of Nevada–Reno professor and member of the NETMC.

⁴⁰ See the GLO plat for T-17-N/R-15-E, Mount Diablo Meridian, section lines surveyed by J. E. Freeman in 1866. The westward expansion of the United States, including the railroads, necessitated the government surveying and dividing the western lands in a coherent, uniform format. For this purpose, the government General Land Office (precursor to the Bureau of Land Management) surveyed western land boundaries in a grid system of townships, six-square-miles each, which were then subdivided into thirty-six sections of one-square-mile each. Each of these sections resulted in plats or maps drawn to scale by draftsmen, based on surveyor notebooks that recorded human and natural features along section-line boundaries. These GLO plats showed what the surveyor saw on the ground along section lines or nearby, including emigrant trails and wagon roads. On the California Trail and its branches in Nevada and California, a common phrase surveyors used to designate an original emigrant trail was "Old Emigrant Road."

road should have been more apparent to the GLO surveyor in 1866 than those of Roller Pass. But they weren't.

The perplexing issue Wiggins faced was the fact that Weddell had located and marked a well-developed wagon road ascending to and descending from Coldstream Pass. The GLO plat had shown no wagon road at Coldstream Pass up to 1866. Nonetheless, could it have been an emigrant wagon road as Weddell and others affirmed? To find an answer, Wiggins turned to those eye-witness accounts of travel: emigrant diaries, journals, and reminiscences.

Canvassing more than ninety emigrant accounts covering the years 1846 through 1855 for his "Final Report," Wiggins concluded that all emigrant descriptions that were at all diagnostic pointed to Roller Pass. These diagnostic characteristics were as follows: references to the 1846 windlass (or roller) that the first users had made to ascend straight up to the pass, a small meadow area at the foot of the pass, descriptions of the alternate switchback trail to the right of the original trail, reaching a ledge at the top, steepness of both routes requiring double-triple teaming (or more), and the overall steepness and difficulty of the ascent. Wiggins determined none of these characteristics were applicable to Coldstream Pass.⁴¹

Two more important characteristics of travel would have been diagnostic of an emigrant route over Coldstream Pass. Wiggins pointed out that if this pass existed as an emigrant route, diarists would have recorded passing Lake Mary upon descending to Summit Valley, and Weddell had marked his trail descending right to Lake Mary. However, Wiggins found "No post-1846 diary keeper ever recorded seeing a lake along the down hill road to Summit Valley."

For Wiggins, therefore, "Absolutely no primary evidence was found to indicate Coldstream Pass was ever used as an emigrant route. Any speculation that Coldstream Pass was an early emigrant route appears to be based entirely on P. M. Weddell's dedicated, but undocumented work."

Although Wiggins did not note this, had there been coexisting passes over the summit south of Donner Pass, some emigrant diarists, especially those writing detailed accounts, would have commented on the existence of two pass routes and having to make a decision about which one to take. Emigrants typically made such comments elsewhere when confronted with choices at forks in the trail. Other than describing the two connected routes ascending Roller Pass, no emigrants mentioned or described in their diary accounts any trail fork or a second pass option for the area between Donner Peak and Mount Lincoln.⁴⁴

WHILE WIGGINS WAS UNDERTAKING HIS TRUCKEE Trail research described above, Olive Newell of Auburn, California, was also collecting numerous emigrant diary accounts on the Truckee Trail. This resulted in the publication in 1997 of Tail of the Elephant: The Emigrant Experience on the Truckee Route of the California Trail, 1844–1854. Newell accumulated an impressive number of emigrant accounts to illustrate sections of the California Trail and especially the Truckee Trail in Nevada and California. For her brief maps and trail descriptions in California, Newell relied on Chuck Graydon, "whose published maps of the trail through Tahoe National Forest were invaluable." However, her purpose was not to use emigrant descriptions to verify where a trail segment existed, as Wiggins was doing. Newell wanted to bring alive, as her subtitle stated, "the emigrant experience." Nonetheless, her diary quotes are often cited in verifying sections of the Truckee Trail.⁴⁵

The majority of diary accounts Newell quoted in her book that related to the Sierra crest ascent described Roller Pass. However, when she came to supporting accounts that described Coldstream Pass, only a few were used and these were not convincing. For example, she misinterpreted the wordy Charles Darwin 1849 diary, leaving out an important part, by her insertion of a note that he was referring to Donner Peak, though admitting he had gone over Roller Pass. This interpretation is very confusing until one reads the complete account where Darwin describes climbing Mount Judah the evening before his party ascended Roller Pass. Newell followed his account with those of two diarists who were traveling together in 1849,

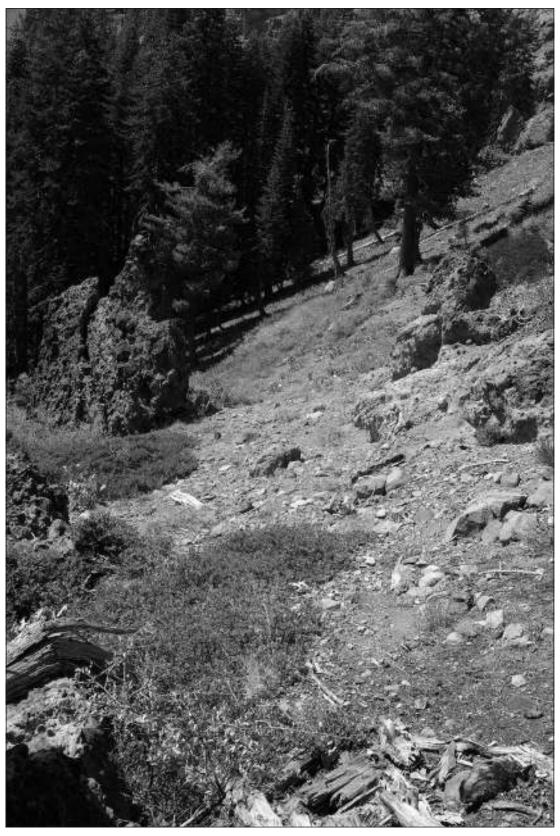
⁴¹ Wiggins, "Coldstream Pass Vs. Roller Pass: A Final Report" (February 1999), 1–2. In "Excerpts From Primary Documents, 1–8," Wiggins included thirty emigrant diagnostic accounts from 1846 to 1855 that describe in various ways the ascent to and over Roller Pass.

⁴² Ibid., 2.

⁴³ Ibid., 4.

⁴⁴ Author's note: After reviewing Don Wiggins's analysis of the two-passes hypothesis, I made this observation, based on his diary research and my mapping elsewhere. Such a trail fork would have been located in Emigrant Canyon about two miles west of Coldstream Valley. At this hypothetical fork, the Roller Pass branch would have extended westerly for three-quarters mile to the base of the pass and the Coldstream Pass branch would have extended northwesterly about one mile to the base of the pass.

⁴⁵ Olive Newell, Tail of the Elephant. The Emigrant Experience on the Truckee Route of the California Trail 1844–1852 (Nevada City, Calif.: Nevada County Historical Society, 1997), xiv. In her book, Newell used the earlier Weddell map that only showed the trail between Donner Peak and Mt. Judah (p. 166–67).



Looking downhill (southwest) on the Roller Pass switchback beginning its ascent to the summit at the south end of Mt. Judah. PHOTO BY CHRIS WRAY.



The Roller Pass switchback has reached a ledge on the summit at the south end of Mt. Judah, and turned left (southwest), gradually descending toward the pass in the upper left of the photo. PHOTO BY CHRIS WRAY.

John Elza Armstrong and John Edwin Banks. Newell stated, hesitatingly, that both "gave some evidence of taking the Coldstream route." Actually the Banks account is a good description of the tough ascent to Roller Pass (some of which Newell left out) and Armstrong's account even references both the original route and the adjacent one to the right, which also ascends Roller Pass. 46

Newell concluded her Sierra crossing with a long diary description by Eliza Ann McAuley, dated September 14, 1852,

who had described the ascent as "very steep and rough" where they had to double team, the common practice ascending Roller Pass. What attracted Newell to the McAuley account was the statement by McAuley that she and members of her family "climbed one of the highest peaks near the road, and were well repaid for our trouble by the splendid view." Newell interpreted this to mean they climbed Donner Peak a mile north of Roller Pass rather than Mount Judah just to the right (north) of Roller Pass. Accordingly, for Newell that meant the McAuley wagon party used Coldstream Pass. Actually, McAuley's account is a good description of Roller Pass.

⁴⁶ Ibid., 197–98. Author's note: This exposition of Newell's use of emigrant diary accounts is by Don Buck.

⁴⁷ Ibid., 200. Don Wiggins used the Armstrong-Banks and McAuley accounts in support of the Roller Pass route. Author's note: After reviewing Newell's attempts to find diary evidence for Coldstream Pass, it appeared that she struggled to fit diary accounts into a preconceived trail location rather than letting those past eyewitness accounts take one to where they actually were. Also, Bert Wiley, in *The Overland Emigrant Trail in California*, discussed

One of the perplexing questions about the two-passes hypothesis is the commonly held view that Coldstream Pass was a much easier pass to ascend than Roller Pass. This led to the subjective thinking that over time emigrants would have gravitated to using Coldstream Pass. For example, Harold Curran in his *Fearful Crossing* matter-of-factly wrote that the difficulty of ascending the last section of Roller Pass "soon led to the discovery of another pass to the north, by Donner Peak. This [Coldstream] pass was easier than the other two [Roller or Donner Pass], a gradual ascent to the summit without any particularly difficult sections."

Having hiked to and over both passes several times, this author can report that the actual ascent from the base of each pass differs considerably. Roller Pass is much steeper, requiring double teaming, while the Coldstream Pass ascent is more gradual, minimizing the need for double-teams. However, the route leading to the base of each pass also differs, but in the opposite way. The mile-long hike from Emigrant Canyon to the base of Coldstream Pass is much steeper and rugged than the shorter drive to the small meadow at the base of Roller Pass. Now, what does this lead to?

In his Summer 2017 Overland Journal article, Rob Davis explained how the most efficient movement corridors can be modeled between two geographic locations using elevation and hydrologic data from the USGS. In addition to overall distance between those two points, he modeled three costs associated with moving across terrain, (1) slope, (2) how rugged the terrain is, and (3) an emigrant's reluctance to venture too far from a water source, all prime factors in where emigrants laid down wagon trails. Davis's primary examples and research are with emigrant trails in Wyoming but he has an interest in the Truckee Trail. Applying the corridor modeling to the Donner Pass region, Davis modeled the cost of moving across terrain between a point where the trails split east of the passes, then to a point where they converged on the west side of the passes. Davis's model found "a least-cost corridor following Coldstream Canyon, Emigrant

Canyon, over Roller Pass, and then to Lake Van Norden" (i.e., Summit Valley). This means that the most topographically efficient route of travel was to and over Roller Pass. 49

Davis's modeling is supported by what is known about the discovery and opening of Roller Pass in September of 1846. The two accounts describing this event were both written afterwards, as the reminiscence of Joseph Aram and the memoir of Margaret Hecox. Both accounts describe members of their wagon party spending several days searching north and south of present Donner Pass for a better crossing of the summit. This search would have included both the pass between Donner Peak and Mount Judah, and the pass between Mount Judah and Mount Lincoln. Once these explorers decided where to cross with wagons, both accounts describe the hardships making it over what became known as Roller Pass. Presumably, they found the pass between Mount Judah and Mount Lincoln the best option, despite its steep ascent. This suggests the pass between Donner Peak and Mount Judah was, overall, a more difficult pass than Roller Pass.50

Although the evidence presented by Wiggins and the author questions the use of Coldstream Pass as an emigrant route, as discussed above, there are physical remains of an old wagon road leading to this pass and the descent to Lake Mary. This is the route Peter Weddell had found and signed. To date, there is no conclusive evidence about the origins of this later wagon road. Possibly it resulted from the extensive logging activity in this area during the 1870s and '80s. During this period, there was a logging operation at the western end of Coldstream Valley, near the Horseshoe Bend, which could account for the old wagon road, but that is speculative. 51

Another possibility offered is that the Coldstream Pass route was opened and used in 1867–68 by builders of the Central Pacific Railroad (CPR) to transport locomotive and railroad

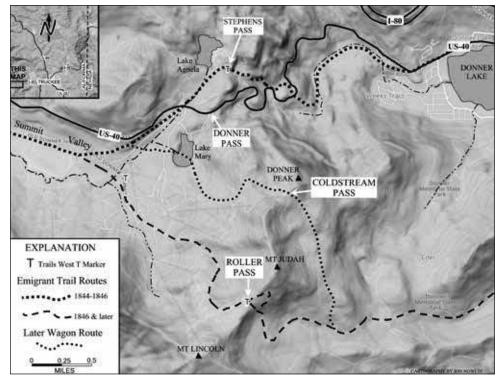
previously, wrote: "By 1849, hundreds of wagons were using the Roller Pass; so many that they had to wait their turn to cross the summit of the Sierras. So, another pass was opened. This was between Mount Judah and Donner Peak." The evidence Wiley presented for the opening and use of this other pass were the diaries of John Steele (1850) and Eliza Ann McAuley (1852), primarily because in both cases the diarists climbed adjacent peaks after reaching the summit, which, for Wiley, had to be Donner Peak. See pp. 24–26. The diary descriptions of both Steele and McAuley demonstrate their respective wagon parties used Roller Pass.

⁴⁸ Curran, Fearful Crossing, 173. A few years earlier, Bert Wiley stated much the same occurrence as noted in the previous footnote.

⁴⁹ Robert E. Davis, "Using Spatial Analysis of Emigrant Trails to Predict Likely Corridors Where Emigrants May Have Traveled," Overland Journal 35, no. 2 (Summer 2017): 53. Upon retirement from the Marine Corps, Davis obtained a graduate degree in Geographic Information Systems (GIS) from the University of Arizona, where he developed this spatial-analysis modeling of emigrant trails and the terrain they crossed.

⁵⁰ See "Reminiscences of Captain Joseph Aram," in Colonel James Tompkins Watson, Across the Continent in a Caravan: Recollections of a Journey from New York through the Western Wilderness and over the Rocky Mountains to the Pacific in 1846 (Fairfield, Wash.: Ye Galleon Press, n.d.), 16; and California Caravan: The 1846 Overland Trail Memoir of Margaret M. Hecox (San Jose, Calif.: Harlan-Young Press, 1966), 41.

⁵¹ See Dick Wilson, Sawdust Trails in the Truckee Basin: A History of Lumbering Operations 1856–1936 (Nevada City, Calif.: Nevada County Historical Society, 1992), 29–30 and Appendix A, no. 120, p. 80.



MAP 4. BY JON NOWLIN.

parts over the crest. This would have been to avoid the often traffic-clogged Dutch Flat-Donner Lake Wagon Road (DF-DLWR) which, ironically, had been constructed for that purpose. 52

THIS COVERAGE OF RECENT TRAIL RESEARCH CONcludes with an examination of what is known about the earliest emigrant summit crossing in the Donner Pass region, from 1844 to September 1846. George Stewart undertook the first serious search for the route that the first emigrants used in 1844 to cross the Sierra crest at Donner Pass. While Stewart provided a rich narrative of the event, he admitted in 1953 that after twenty years of scrambling up and down Donner Pass he was unable "to discover traces of the old road." There was too much disturbance of the terrain. As Stewart wrote, "The trouble is that the construction of the railroad and more recent roads, to say nothing of

pole lines, has changed the face of things." Stewart's fruitless search had been along the route of the DF-DLWR.⁵³

More than three decades later in 1986, Chuck Graydon wrote much the same. After all the construction of roads, pre- and post-automobile, and underground cables and pipelines, he concluded "there is little remaining physical evidence that can be positively identified as the original crossing." This lamentable condition led Graydon, like others, to believe "that the Dutch Flat-Donner Lake Wagon Road [of 1864] initially followed the old trail toward the pass." This assumption had trail searchers looking for evidence of the original trail on the south side of present U.S. Highway 40, heading to a V-shaped gap now blocked by the famous China Wall that supported the original CPR tracks just east of the summit.54

That was the situation in the mid-1990s, when Wiggins turned his investigative efforts to determining where the emigrants of 1844 to 1846 found a way over the Sierra crest in the Donner Pass area. It was well established that this early route went along the north shoreline of Donner Lake and then continued generally westward over a gradually rising, relatively flat forested area for a good mile. However, the next mile, ascending nearly 1,000 feet to the summit, had puzzled previous trail searchers. Wiggins noted that "no information has been found to suggest that anyone has been able, or even tried, to hypothesize a feasible route over that entire last mile to the summit, except the default route over the Dutch Flat Road." He went on, "This investigation attempts to do that." 55

Because of the short period this early route was used and the limited number of emigrants using it then, Wiggins found only

⁵² For this interpretation, see William Oudegeest, Walking Through Donner Summit History (Sacramento, Calif.: I Street Press, 2015), 94–96. Oudegeest admitted, however, "We don't know if that scenario is true." Also, Bert Wiley wrote on page 11 in his Overland Emigrant Trail in California, with no attestation, that Coldstream Pass, opened in 1849, "was used during the construction of the Central Pacific Railroad to move equipment from Van Norden on the west to Donner Lake on the east. At least a locomotive was taken over the pass by laying rails temporarily in front of it and moving the engine ahead. This operation left a scar that to this day can still be followed."

George R. Stewart, The Opening of the California Trail (Berkeley and Los Angeles: University of California Press, 1953), 102n, 36.

⁵⁴ Graydon, Trail of the First Wagons over the Sierra Nevada, 39–40. In 1868, Chinese workers on the CPR constructed a massive wall, fitted with debris stones and using no mortar, to fill the ravine near the summit. This "wall" provided support for the railroad bed. The China Wall stands today, much as it did 150 years ago.

Wiggins, "Investigation of the Emigrant Route over Donner Summit" (Jan. 1998), 1. Also, David E. Palmer, in *A Walking Tour of Donner Pass* (privately published, 2002), 10, utilized this "Investigation" paper of Wiggins.



Remains of the trail ascending to Stephens Pass. PHOTO BY CHRIS WRAY.

four firsthand accounts (diaries) and six later recorded accounts (recollections or later interviews) that described this route. Typical of these emigrant accounts were descriptions of near-vertical rock benches at numerous places in the ascent, interspersed with open spaces between. Wiggins characterized them "like some sort of a stepladder, or somewhat level for a ways, then a step upward." Emigrants described piling rocks along the base of these benches or cliffs to facilitate pulling wagons over them. It was a laborious effort, taking two or more days. ⁵⁶

Wiggins quoted from two accounts on the 1845 passage that provide a glimpse into how they made it to the top. David Hudson later described in some detail how they got over the tiered rock benches:

when we came to benches of rocks six and eight feet, straight up and down we would unyoke our oxen, drive them round to some low place, get them above the bench yoke up the oxen. In the mean time some of us would cut some long poles strong enough to bear up the wagons and lay them up on the rocks. Then take enough chains to reach back to the wagons, hitch

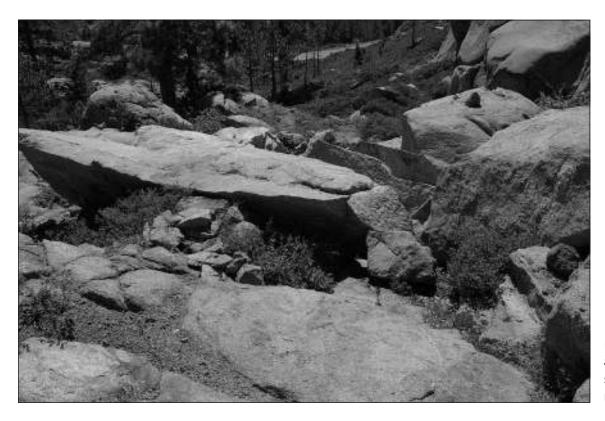
to the end of the tounge, and pull the wagon up, in this way we reached the top of the mountain.⁵⁷

William Ide's biographer recounted, in an interview four years after the event, how they managed to make it over that last mile to the summit, which took them two days:

Mr. Ide found on the line of the ascent several abrupt pitches, between which there were comparative level spaces, for several rods distance, where the team might stand to draw up at least an empty wagon. Accordingly he went to work . . . removing

⁵⁷ Ibid., 4. Quoted in Charles Kelly and Dale L. Morgan, Old Greenwood. The Story of Caleb Greenwood: Trapper, Pathfinder, and Early Pioneer (Georgetown, Calif.: The Talisman Press, rev. ed., 1965), 153. A similar description is in a letter of William L. Todd to his father, dated April 17, 1846, which describes his small company's travail in surmounting Stephens Pass in late September 1845: "it was one continued jumping from one rocky cliff to another. We would have to roll over this big rock, and then over that; ... then we had to lift our wagons by main force up to the top of a ledge of rocks that it was impossible for us to reduce, bridge or roll our wagons over, and in several places, we had to run our wagons round with handspikes, and heave them up to the top, where our cattle had previously been taken. Three days were passed in this vexatious way." Quoted in Kelly and Morgan, Old Greenwood, 176–77.

⁵⁶ Wiggins, "Investigation," 3.



Looking down the trail ascending to Stephens Pass, showing emigrant rock work.
PHOTO BY CHRIS WRAY.

rocks, trees, etc., and grading a path 6 or 7 feet wide, up the several steep pitches and levels to the summit.⁵⁸

Wiggins regarded these two emigrant accounts descriptive enough to characterize a unique terrain leading to the summit. He then examined the topography of the DF-DLWR in this area. In some detail, generalized here, Wiggins mentally reconstructed the DF-DLWR route prior to its construction and found a much different terrain than emigrants described. There was a box canyon fifteen feet deep with vertical sides and face that "road builders filled in building a rock wall," thereby allowing DF-DLWR traffic to drive over it. Also, there were several locations where road construction involved blasting and filling. Nearing the summit, emigrants of 1844-46 would have faced "climbing up an inclined granite slope for some hundreds of yards with wagons." For Wiggins, "Besides the obvious physical problems in bringing wagons along the route of the DFR before the road was constructed, this entire route doesn't fit emigrant descriptions."59

Those emigrant descriptions that Wiggins characterized showed the kind of terrain emigrants had to overcome to reach the summit, but they did not reveal the summit location. Wiggins came across a good clue in the well-known 1846 accounts of journalist Edwin Bryant, in What I Saw in California. Upon reaching the summit and briefly resting their mules, Bryant recorded, "A mile brought us to a small dimple on the top of the mountain, in the centre of which is a miniature lake, surrounded by green grass." This is a clear reference to the original Lake Mary (now enlarged). Backtracking one mile to the Sierra crest puts Bryant's party just southeast of Lake Angela (now enlarged), between recently named George R. Stewart Peak and Mount Stephens. The distance from Lake Mary to Donner Pass, where the old CPR and DF-DLWR crossed, is about four-tenths mile, which rules it out as the early emigrant route over the crest.60

This detailed research led Wiggins to two conclusions. First, that the route of the 1864 DF-DLWR, south of present historic U.S. 40, could not have been the route of the original emigrant ascent to the summit. Second, that the route emigrants used to reach the summit during 1844 through 1846 was on the north

Wiggins, "Investigation," 4. Quoted in A Biographical Sketch of the Life of William B. Ide (Glorieta, NM: The Rio Grande Press, Inc., 1967), reprint of original edition by Simeon Ide, 1880, 38.

⁵⁹ Ibid., 5-6.

⁶⁰ Ibid., 5.



Emigrant log ramp remains nearing the summit of Stephens Pass. PHOTO BY CHRIS WRAY.

side of present U.S. 40, and it reached the summit four-tenths mile north of Donner Pass, between Stewart Peak and Mount Stephens. Wiggins ended his investigation of the first emigrant route over the summit by writing, "It seems appropriate that George R. Stewart Peak and Mt. Stephens both look down on the emigrants' final ascent on the summit." 61

Despite not finding trail remains, Wiggins was convinced that the original emigrant route of 1844–46 went over what is now called Stephens Pass, north of U.S. 40. He concluded that "no physical trail evidence remains." Nonetheless, he felt assured that "all significant trail descriptions left by the emigrants that actually crossed here can be found along sections of this route."

THAT'S WHERE TRAIL KNOWLEDGE IN THE DONNER Pass area remained for more than a decade, until a new trail researcher, Chris Wray, became intrigued by where the early emigrants had crossed the Sierra summit in the Donner Pass area. 63 What caught Wray's eye was the state of knowledge

⁶¹ Ibid., 8. Trails West placed a T rail marker designating "Stephens Pass" at this location between Stewart Peak and Mount Stephens.

⁶² Ibid. Author's note: The GLO plat covering the Donner Pass area, referred to previously in footnote 40, was of no use to Wiggins and later to Chris Wray for identifying or authenticating this route to Stephens Pass. The surveyor only recorded the DF-DLWR along the southern end of Section 16. Because GLO surveyors were restricted to recording findings along sections lines, it's unlikely the surveyor would have recorded any trail north of the DF-DLWR, along the route to the summit that Wiggins had hypothesized and Wray had located later. This is because the identified segment of the Stephens Pass route leading to the summit goes through the center of Section 16, inside the north-south section lines, and therefore would not have been recorded by the surveyor. Also, two other factors worked against GLO surveyors

recording this Stephens Pass route. First, the GLO survey took place two decades after the Stephens Pass route, such as it was, had been abandoned. Second, it has been estimated that no more than seventy to seventy-five wagons were hauled over this route during its brief lifespan, thereby not leaving a conventional wagon imprint over such rocky terrain.

Chris Wray is a recognized local historian in San Diego County. His The Historic Backcountry: A Geographic Guide to the Historic Places of the San Diego County Mountains and the Colorado Desert (La Mesa, Calif.: Tierra Blanca Books, third ed., 2011) has a strong focus on the Southern Emigrant Trail to San Diego. Wray also has an interest in the Truckee Trail, which he acquired after buying in 1989 Chuck Graydon's Trail of the First Wagons over the Sierra Nevada. This led Wray to exploring the Truckee Trail that Graydon had laid out. After recording the Southern Emigrant Trail for the Anza-Borrego State Park, Wray returned to the Truckee Trail in the Truckee-Donner Pass area. Subsequently, under contract with the Truckee Ranger District, he began to update the inventory of the various emigrant trails within the Tahoe National Forest. Author's note: For this purpose, I passed on to Wray the $research\ papers\ of\ Don\ Wiggins, which\ proved\ helpful\ in\ Wray's\ investigance and the p$ tions of the emigrant routes in the Donner Pass area during the summers of 2011 and 2012. I accompanied Wray on two surveys during this period. These investigations led in 2013 to Wray's Emigrant Road Building Evidence on Donner Pass, an 86-page CD-ROM displaying vivid photos of trail remains with extensive annotations, all recorded with GPS coordinates.

about the Stephens Pass route. He realized that "Don Wiggins was on the right track with his research for the pass crossing." However, for Wray, "It became obvious that what the speculated Stephens Pass route needed was detailed field work to determine if any possible emigrant road features, especially the type described in the journals from 1845, still exist on the slope."

With that task in mind, "In the summers of 2011 and 2012 a detailed exploration of this north side was undertaken." But first Wray investigated the corridor of the DF-DLWR leading to the summit at Donner Pass and came to the same conclusion, for the same reasons, that Wiggins previously had. Emigrant accounts "describe climbing up rocks, going across levels of dirt, and then jumping up more rock levels. The main pass does not offer that type of terrain."

In a series of full-page color photographs, with detailed explanations and GPS coordinates, Wray charted a very plausible trail route leading up to and around the well-known landmark of a modern private cabin (where U.S. 40 bends from south to west heading to the summit). From this landmark, the trail ascends the stepladder-like terrain for three-quarters mile to Stephens Pass. Partway up this route, Wray saw evidence of rock clearing, some wagon wheel rock rust, visible worn passages, rocks set aside and filled in at the base of small ledges as ramps, rock-lined chutes, and an impressive log that remains placed as a ramp for wagon wheels to roll over. At the upper end of this log ramp are "carefully placed rocks used to create a small ramp so wagon wheels could be driven off the log." As Wray commented:

When the Ide Party of 1845 worked to improve the Stephens-Townsend route over the pass [of the previous year], their journals describe how the men cut trees and used the logs to create ramps where wagons could be driven either over rock pitches, or along a steep side slope to gain access to the areas above. The log seen here appears to be the remains of just such a type of log ramp.⁶⁶

Above this log ramp, where the Stephens Pass route crosses the present Pacific Crest Trail (PCT), Wray noted "the wagon route becomes more difficult to locate." He has identified the probable route beyond the PCT, heading northwest to the summit. It goes by a small, seasonal pond, just above the PCT, and then ascends a series of rock chutes to benches, winding to the top of the pass in open passageways, to where a Trails West T rail marker is located. Further field work is in progress to verify this last leg of the ascent to Stephens Pass. 69

CHRIS WRAY'S INVESTIGATIONS BRING TO A CLOSE the story of the last half-century of trail research and mapping in the Truckee-Donner Pass area. Surely, more will follow. By whom and when, and employing what kind of new technology, is the unknown. At this time, however, a clear outcome has emerged: The importance of a structured use of emigrant trail descriptions found in emigrant narratives and the application of this evidence to on-the-ground searches for trail remains. So far, these investigative principles and methods are the most effective way to verify when trail remains are actually emigrant in origins.

⁶⁴ Wray, Emigrant Road Building Evidence on Donner Pass, 5-6.

⁶⁵ Ibid., 12 and 9.

⁶⁶ Ibid., 58, with accompanying photos on pp. 58–63.

⁶⁷ Ibid., 67.

⁶⁸ Ibid., 68-74 and 76-82.

⁶⁹ During 2016–17, John Grebenkemper searched the Stephens Pass area with trained dogs, certified by the Institute for Canine Forensics, for human remains of "Starved Camp," associated with the Second Relief effort for the Donner Party survivors in early 1847. See the accompanying article "Starved Camp of the Donner Party." While preparing his article, Grebenkemper contacted the author to point out two emigrant accounts listed in Olive Newell's Tail of the Elephant that described a lake upon reaching the summit. William Todd (for 1845 on p. 173) in a letter, mentioned attaining the summit "at the lake on the top." And Daniel Rhoads (for 1846 on p. 179) recounting later, "On top of the mountain is a lake." Newell attributed both lake references to Lake Mary, which is on the western downside of the summit. As Grebenkemper pointed out, only Lake Angela is at the top of the summit close to Stephens Pass, thereby further supporting the Stephens Pass route worked out by Wiggins and Wray.

⁷⁰ Author's note: In emigrant trail research of the type discussed in this article, rarely will there be unequivocal proof arrived at or mutually agreed upon. As noted in the first page of OCTA's current MET manual, "All too often the exact location of an emigrant trail segment cannot be verified with absolute certainty." The goal, however, is to "strive for a higher degree of probability by utilizing all the available evidence and following accepted procedures," p. A-1.

⁷¹ This use of emigrant accounts and related field investigation techniques is best explained in the current (fifth) edition of OCTA'S MET manual.