

These four rings, in an unusual diamond formation, are 50 yards from a 1916 U.S. Land Survey marker establishing the common corner of four square-mile sections. The survey stake is the dark vertical object visible behind the center of the mound.



by
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Several of the 28 "ceremonial cairns" recorded by archeologist Malcolm Rogers 50 years ago. The ringed mounds follow a basically north-south course across a mesa several miles south of Shoshone, Calif.

Amargosa Mystery Rings

AN INTRIGUING
DESERT MYSTERY WHERE
AN ARCHEOLOGICAL DETECTIVE
GOES AROUND IN CIRCLES
IN SEARCH FOR
A RING OF TRUTH

THE AMARGOSA VALLEY of eastern California is a maze of low, barren mesas set among broad, sandy washes. Sparse clumps of sage and desert holly bleach in the alkaline glare of the desert sun. Wind-swept sands whisper over signs carved upon the parched ground by a hidden past while underneath the bitter waters of the Amargosa River seep like an object of ancient myth. An occasional snarl of mesquite suggests the terms of survival. Its location just to the east is only one of the reasons the Amargosa Valley is known among its few, hardy inhabitants as Near Death Valley. An air of mystery pervades such country, and legends abound of ancient ones who passed and whose spirits perhaps yet remain.

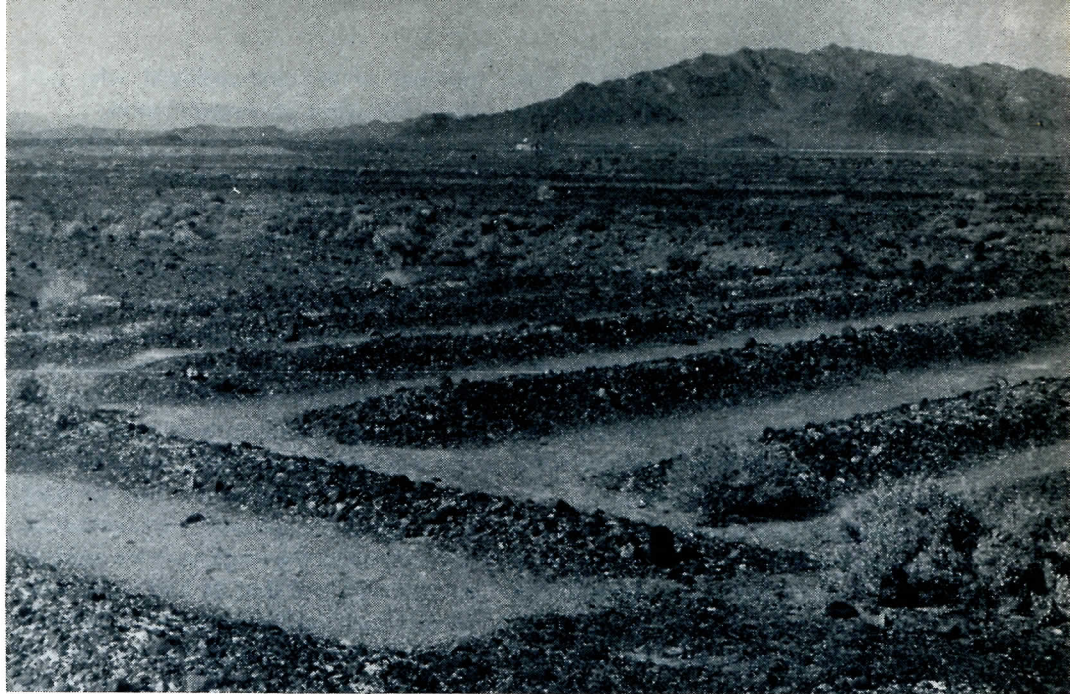
Two years ago a report reached the Eastern California Museum in Independence that a series of strange "circles" had been discovered atop a mesa near Shoshone, an isolated oasis town in the Amargosa Valley. As a researcher for the museum I went to investigate. Most locals were either ignorant of the circles or vague about their exact location. Finally I met Jerry Culbertson, a resident of Tecopa Hot Springs and a dabbler in desert lore, who was willing to guide me to the mesa site.

We located a series of 28 ringed mounds spaced at various distances

along a basically straight, north-south line extending about 300 yards across the mesa top. Each mound form is comprised of a foot-wide circular path or ring about six feet in diameter worn an inch or two into the desert pavement. Within each ring gravel has been heaped into a gentle mound whose center rises about a foot above the level of the surrounding path. Culbertson also located a 29th, less defined mound atop a small hill about 150 yards due west of the northern end of the line of 28 rings.

My subsequent research turned up a reference to the mesa-top site in *Ancient Hunters of the Far West*, a posthumous collection of the work of archeologist Malcolm Rogers published by the San Diego Museum of Man in 1966. Rogers visited the Amargosa Valley about 50 years ago seeking evidence for his theory that the area had been on the migration route followed by prehistoric man. Rogers conjectured that beginning over 10,000 years ago several waves of humanity passed through Arizona, Nevada, and eastern California on their way to Central and South America. *Ancient Hunters of the Far West* tells of the presence of early man in the Amargosa Valley. Rogers called the first people to pass through the area the San Dieguitoans. They were followed by a group named the Amargosans because of their occupation of the valley's gravel mesas around the year 5,000 B.C. In this period, known as the Little Pluvial, the Amargosa River is thought to have had a heavier flow of fresher water than today.

In support of his theory, Rogers found stone artifacts, "cultural debris," and sleeping circles which he related to similar discoveries made elsewhere. Sleeping circles are areas cleared of the more uncomfortable pieces of gravel, where small groups are thought to have huddled, sharing their body heat through the chill of the desert night. Such smoothed areas are still visible along the narrow footpaths worn across the mesa terraces before the white man came. Perhaps the most remarkable of the Amargosa Valley discoveries mentioned in *Ancient Hunters of the Far West*, though, is the "ceremonial mesa, with its strange series of circular cairns" which Rogers found south of Shoshone. "He concluded," the caption to a full-page photograph of the site Culbertson and I visited adds, "that this very large



One of several groups of elongated mounds which occur in conjunction with the ringed mounds at various locations. At this site there are 15 elongated mounds [not all visible in this picture], some running north-south, others east-west.

gravel pictograph, a series of 28 cairns, was of Amargosa I age (ca. 5,000 B.C.) because the enclosed worked flakes were too fresh to be of the San Dieguito period." The site is unique, for Rogers discovered nothing like it anywhere else in the large area of the Southwest he studied.

Backed by such eminent authority I added my efforts to those of a few others who knew of the site and wanted it protected. The Inyo County Board of Supervisors adopted a resolution urging the Bureau of Land Management to take protective measures. The B.L.M. earmarked funds to have a fence constructed around the rings, which were already showing signs of vandalism. Then, Jerry Culbertson excitedly informed me that he had found more rings — hundreds of them!

While Rogers' was perhaps the most authoritative explanation of their origin, not everyone who knew of the rings was going for the ancient hunter theory. Some, primed by such fantasies as Erich von Daniken's *Chariots of the Gods*, developed their own ancient astronaut theories to account for the mysterious rings. Culbertson was no stranger to such musings, which may have led him to suspect that there were more rings in the area. Exploring the washes directly south of the mesa, he came upon over a dozen circular mounds which appeared to be a continuation of the original 28. He

spent months hiking the southern end of the Amargosa Valley and turned up several hundred additional rings, rock piles, and elongated mound formations which seemed to relate to the original mesa-top site.

Armed with topographical maps, camera, and compass, I trekked out into the desert to examine Culbertson's new discoveries. What I found cast doubt on Rogers' ancient hunter theory for several reasons. Many of the newly discovered rings occur in washes or other low-lying areas where the ground is softer and looser than that of the mesa top. For this reason, while they are clearly of the same construction, these rings show more erosion and are less distinct than those on the mesa. While the rings found in firm, high ground could conceivably have withstood centuries of weather, the more recent finds could hardly be a century old, let alone the more than five millennia posited by Rogers.

Deke Lowe, a veteran of the Tonopah and Tidewater Railroad that once served the Amargosa Valley, is a long-time resident of the area and well-versed in its history. He has known about the mesa site for over 10 years and has never subscribed to the notion that the rings are prehistoric. He was not impressed when I told him of Rogers' theory about the rings. "You don't know exactly why," he said, "but when you've been around this country all your life, you have a kind

of intuition about these things." Culbertson's discoveries strengthened Lowe's conviction that the rings date back no further than the 1880's, when the area was subject to wide-spread borax mining activity. A miner once told Lowe that the mounds reminded him of borax prospects. Lowe, no stranger to mining, admitted that it was difficult to understand why anyone would prospect every few feet along a straight line for distances ranging from a few hundred yards to over a mile, the length of some of the newly discovered rows.

The pattern that emerged as I plotted the positions of the mounds on the map finally convinced me of the impossibility of their ancient origin (see map). Their sheer numbers and diverse locations argued against any but the most cosmic of ceremonial functions — and I wasn't going for the ancient astronauts. But the crucial discovery was that every row of rings, including the original 28, coincides almost perfectly with surveyed section or quarter-section boundaries. (The north-south rows are off-set about 100 feet to the west of the survey lines, but this error is consistent.) Even more remarkable is the fact that, starting with the most south-easterly series, the rows proceed a half-mile north then turn and continue a half-mile east, then turn again to run north exactly one-half mile, then east another half-mile to end up directly south of the original 28 rings. At each of the turns one encounters either a group of elongated mounds or "windrow mazes," or a special configuration of rings or rock piles. Clearly, the rows had once served as some sort of boundary marker. This suspicion was further confirmed by our discovery of narrow wooden stakes — some bearing a single, square-headed nail — in several of the mounds and piles. Now the question remained: Who would go to the trouble of constructing such an odd and elaborate system to mark out a boundary across such a vast and desolate territory?

Shortly after my mapping venture I learned that an amateur archaeologist had been in the area investigating the rings. The word of Culbertson's discoveries was out. I had been in contact with Ken Hodges, associate curator of the San Diego Museum of Man, to learn more about Rogers' work on the rings. Hodges supplied me with Rogers' field notes on the rings as well as the phone

number of the archaeologist who had been following up Rogers' work.

Curious to find out what conclusions he had reached, I contacted the archaeologist who had been looking into Culbertson's discoveries. At first he was reluctant to discuss the rings with me; but after establishing his credentials as a licensed, avocational archaeologist, he admitted that he, too, had mapped the rings. When I mentioned the coincidence of the rings' locations with quarter-section boundaries, he brushed aside my question. "The surveyors had to start someplace," he quipped. He said that he was convinced the rings were the work of ancient man and that he had found artifacts to back up his convictions. When I pressed for more details, he told me he would be publishing the results of his findings and I could see them then. The mystery compounded.

My next step — my last hope in solving the mystery — was to visit the Inyo County offices in Independence. I wanted to accomplish two things: I had to find out all I could about surveying, and I wanted to see any maps the county had of the area. First I talked with A.R. Brierly, who had once done some surveying in the Amargosa Valley. He had never seen or heard of the rings; and when I showed him some pictures of them, he didn't know what to make of them. Next I visited Roger Glidden, the county engineer, who could shed little light on the mystery either. However, he did give me a crash course in the history of surveying, from which I ascertained that the rings and the wooden stakes with their square-headed nails had not been the work of government surveyors. And, no, surveyors never worked from local landmarks but laid out their section lines from standard meridians.

Next I visited the county assessor's office, and things began to fall into place. The plat maps revealed that the United States Borax and Chemical Company own a patented mining claim, the Amargosa Borax Claim, whose boundaries coincide almost perfectly with the rows of rings, rock piles, etc. (see map).

I dashed over to the county recorder's office to examine the records of patent. There, listed under Amargosa Borate Claim, I found what I had been looking for: letters of patent issued in 1887 showing that "The Henry Clay Mining Co. did on the 24th day of April, A.D.

1885, duly enter and pay for that certain Placer mining claim" whose description fit the assessor's map.

The next day I called the B.L.M. to tell them to save their fence, unless they wanted to fence off over five miles of rings, most of which were on privately owned land. A few days later a meeting of federal and county officials was held at Tecopa Hot Springs to examine my findings, and the B.L.M. decided not to fence the "ceremonial mesa."

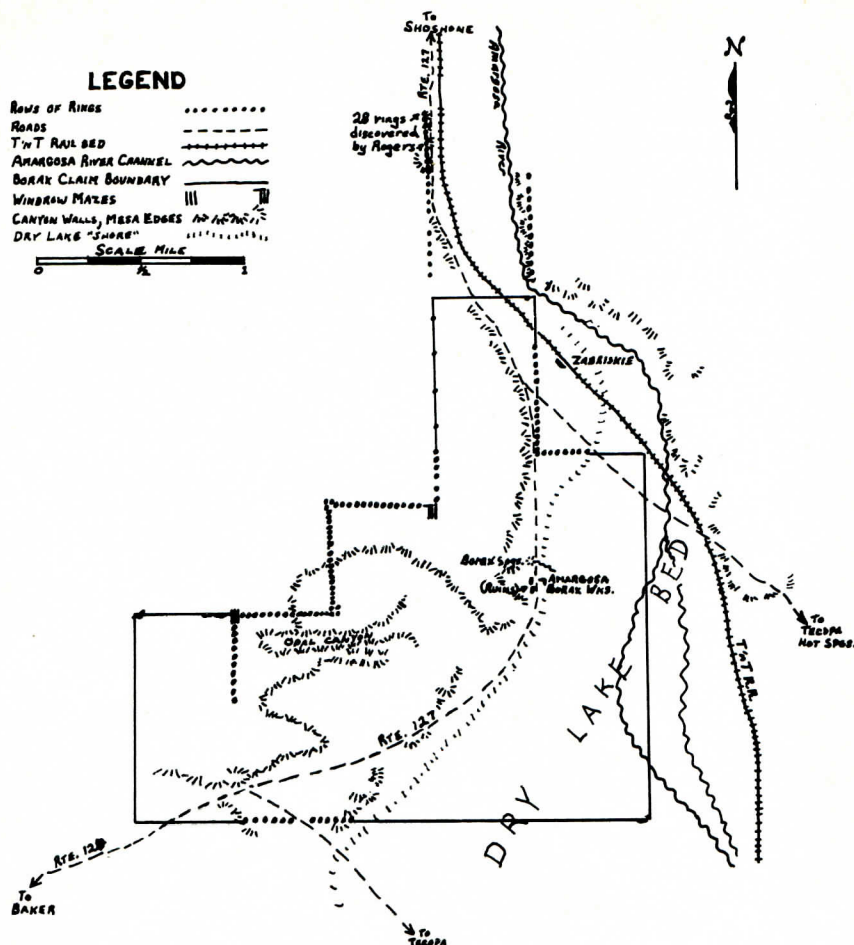
Having associated the rows with the boundaries of the Amargosa claim, I was still left with a few questions: Why were there hundreds of rings when a few rock-pile monuments would have sufficed as foundary markers? What function did the elongated mound complexes serve? What about the many rings that do not coincide with the claim boundaries? I queried U.S. Borax for any information they might have about the claims. Unfortunately, the records of their 19th-century operations were destroyed in the San Francisco earthquake of 1906. A check of the field notes of the government survey of the area showed no mention of the rings. Apparently there was nothing outstanding about the rings to the 19th- and early 20th-century surveyors, or they would have made note of them. The surveyors would have paid no attention to the rings, I reasoned, only if they were a common occurrence. Since saltmarsh borax operations were phased out in the early 1890's, a bit of historical research was necessary to confirm this hunch. I had to know exactly what went on in the area in the 1880's.

Located near the center of the claim was the Amargosa Borax Works, the adobe ruins of which can still be seen west of Tecopa Hot Springs along highway 127 (see map). The Amargosa works had been operated in the summer in conjunction with William T. Coleman's Harmony Borax Works near Furnace Creek when Death Valley was too hot for borax to crystalize. In the early days the process of borax extraction was actually more of a farming than a mining operation. In the salt flats of both the Death and Amargosa Valleys borax is leached from the soil by water seepage to form a crust of fluffy, white "cottonball" crystals on the surface. This is a natural process in low-lying areas where the soil is damp just below the surface much of the year. If the cottonball is picked or

LEGEND

ROWS OF RINGS
 ROADS - - - - -
 T.N.T. RAIL BED - - - - -
 AMARGOSA RIVER CHANNEL ~~~~~~
 BORAX CLAIM BOUNDARY [dashed line]
 WINDROW MAZES [hatched area]
 CANYON WALLS, MESA EDGES [solid line]
 DRY LAKE "SHORE" [dotted line]

SCALE MILE
 0 1/2 1



north of the patented Amargosa Borax Claim (see map). The most northwesterly set of these rings, the 28 "ceremonial cairns" discovered by Malcolm Rogers, weren't even good borax prospects.

There is a wealth of mystery awaiting the adventuresome desert lover in the Amargosa Valley. But please, *be careful*. Before anyone knew for sure what they were, many of the Amargosan Rings had been dug into by the curious and tracked over by the careless. Venture into the desert with respect. After all, you never know what ancient spirits, or even cosmic watchers, might be visiting the areas you explore. □

scraped away, it will "grow" back within a year or two. This is how the "white gold of the desert" was "harvested" initially.

However, it did not take long for the enterprising borax men to discover that they could significantly increase the yield of their "crop" by helping nature along with a little irrigation. By flooding the borax-rich soil a new crop of cottonball could be produced every few months. By furrowing the soil into elongated mounds or windrows, water could be held in place long enough to seep into the ground to produce cottonball even on high ground where natural rainfall dampened the soil for a few days at the most.

This line of reasoning explains the presence of the elongated mounds or windrow mazes located on high ground at several points on the boundary of the Amargosa claim. This assumption proved correct when I found similar furrowed and mounded areas near both the Harmony and Eagle Borax Works in Death Valley. But what about the rings?

Deke Lowe's hunch was correct. Before furrowing and flooding miles of

desert, it would be a good idea to know which areas were richest in borax. By digging a small, circular ditch and filling it with water one would know in a few weeks whether or not an area contained enough borax to work it profitably. Coolie labor was used extensively in the early borax mining operations of the Death and Amargosa Valleys. These men worked with machine-like precision. On the salt flats near the Harmony works one can still see regularly spaced rows of identical circular mounds of cottonball which were methodically piled up by coolie labor in the 1880's.

Undoubtedly the same laborers were assigned the task of creating the rows of rings in the Amargosa Valley during the summers when Death Valley became so hot the borax refused to crystalize. Where the flooded rings produced a good crust of white crystal, the land which they bounded was patented. This crust can still be observed in some of the rings today. Where the rings were only marginally productive, the claim was abandoned — thus explaining the presence of the two parallel rows of rings, a half-mile apart, which extend