



# ALL ROADS LEAD TO CHACO

Located amid one of New Mexico's starkest landscapes, this ancient Anasazi site reveals a fascinating cosmology.

BY RENA DISTASIO | PHOTOS BY BILL CURRY AND ROBERT RECK



It is impossible to know exactly when ancient humans began to ponder the workings of the heavens, but even the most focused of our hunter-gatherer ancestors likely paused on occasion to look up and utter a contemplative “hmm.” What did they think as they watched the comings and goings of the sun, the moon, the stars, the planets?

By the time we settled into agrarian-based communities, we had ritualized looking up. Societies as diverse as those in ancient Britain, Babylonia, Egypt, and Mesoamerica left behind towering ziggurats and pyramids, massive stone edifices, and imposing temples decorated with murals and hieroglyphics from which they observed the movements of the sun, moon, and planets. From their observations arose not only calendars governing day-to-day activities but also complex cosmologies of the origins of the universe and humankind’s place within it.

We have a similar construct here in New Mexico—a massive complex comprised of more than a dozen stone “great houses” situated among five square miles inside a remote section of the San Juan Basin in northwestern New Mexico. Built by the Anasazi (likely the ancestors of today’s Hopi, Navajo, and Puebloan peoples) between ~850 and 1150 A.D., Chaco Canyon has fascinated archaeologists since its discovery in the early 1800s.

Theories about Chaco’s establishment abound. Was it a population center and, if so, were some of the meticulously engineered roads that radiate outward vehicles of trade in the quest to feed the estimated 2,000 people living in the stark, infertile canyon? Or was Chaco instead a ceremonial center, occupied only intermittently but built to exacting architectural standards in order to observe the movements of the sun and moon? And did those observations serve a spiritual as well as practical purpose?

The latter theory was sparked by a pivotal discovery in late June 1977 by Anna Sofaer, a young artist who climbed a remote butte at the northwestern edge of the canyon during a trip to record Chaco petroglyphs. Once there, she spotted three sandstone slabs perched against a cliff face into which two spiral symbols are carved. Upon her return around noon the next day, she peered between the slabs to discover that the sun shone through such that it cast a slim, vertical “dagger” of light through the center of the largest spiral—what her knowledge of ancient astronomy led her to believe was a marking of the summer solstice.

No doubt, the Chacoans were sun- and moon-watchers. They also regarded the cardinal directions as sacred, as revealed by Sofaer’s later discoveries with the Solstice Project, the collaborative research organization she founded that continues to bring us fascinating insights into Chacoan cosmology.

The Chacoans are not the only culture whose genius still mystifies us, and Chaco Canyon is not the only profound spot on earth. As with Stonehenge, Chichen Itza, and the Varanasi sun temples, we sense Chaco’s grander purpose, one not based solely on what the Chacoans built and investigated, but what those investigations meant to their relationship with the Earth, its rhythms, and ultimately with each other. It’s why people continue to go to Chaco, searching for answers to something bigger than themselves.

Summitting the 400-foot-high Fajada Butte where Anna Sofaer made her discovery is a challenge for even the most experienced hikers. And reaching the Sun Dagger’s location, on a steep ledge near the summit, is an even hairier prospect. The danger of the climb, coupled with visitors’ degradation of the site, prompted its closure to the public in the mid-1980s. In 2006 the Solstice Project completed an interactive computer graphics model of the Sun Dagger, which is available for public viewing at the New Mexico Museum of Natural History and Science in Albuquerque.

PHOTO BY BILL CURRY





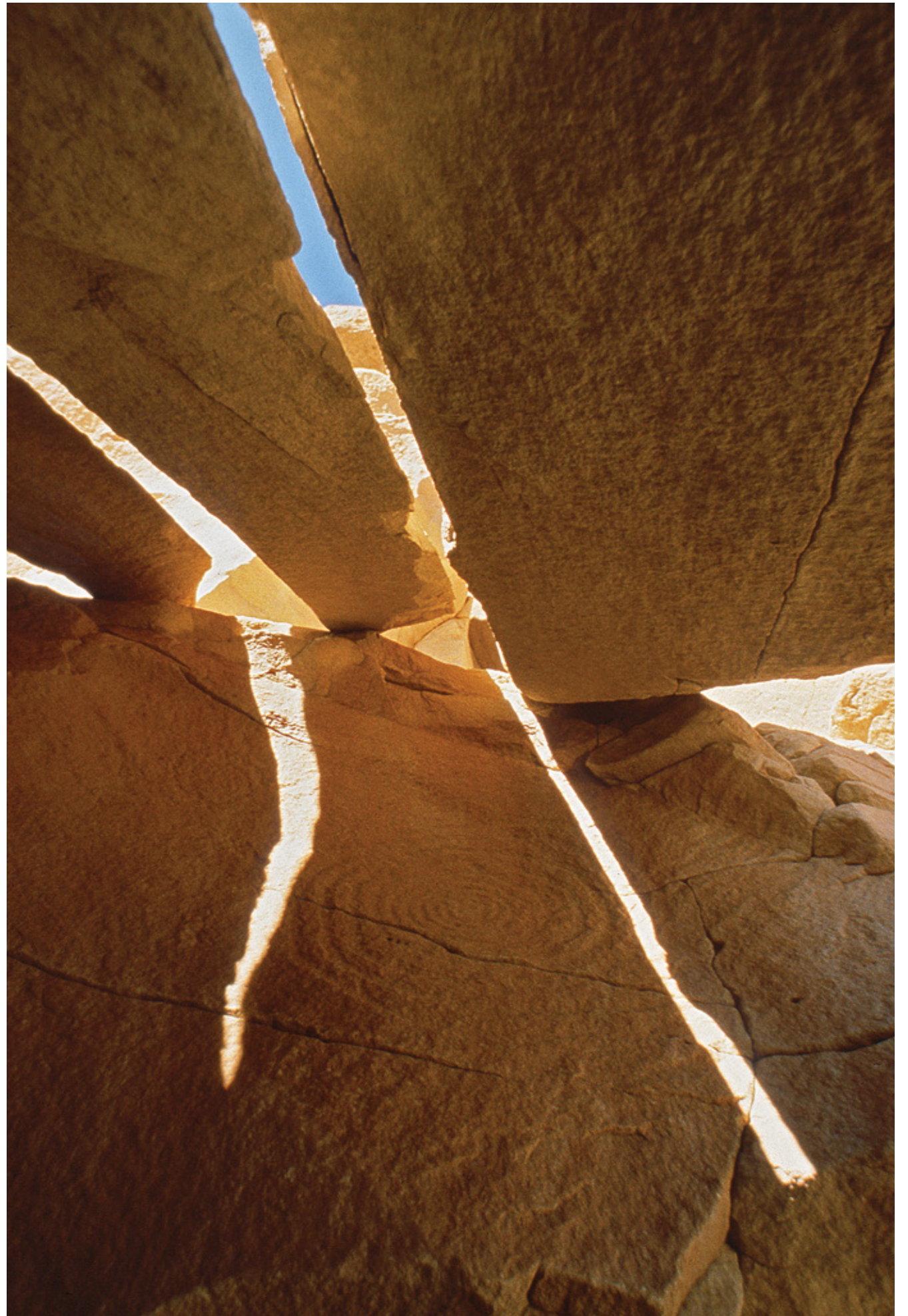
Unlike similar ancient “calendars” that mark the passage of time by noting the sun’s risings and settings, the Sun Dagger tracks solar declinations, the position of the sun north or south of the Earth’s equator as the Earth orbits the sun, with the sun’s highest and lowest points relative to the equator defining the solstices and equinoxes.

Bottom: During the summer solstice, a single dagger of light strikes the middle of the largest of the two spirals at the site. Opposite: At the winter solstice, two daggers appear, one at each end of the spiral. A marking found throughout ancient sites around the globe, the spiral is thought to represent the cycle of life. These observations were no doubt critical for accurately timed plantings and harvestings—as well as to mark other ceremonial events. If the Chacoans were the ancestors of today’s Hopi, Navajo, and Pueblo peoples, this knowledge was certainly passed down. The Zuni Shalako ceremony, for instance, depends on accurate timing of the winter solstice, and similar sun “observation” sites have been found in several New Mexico pueblos, including Zuni and Cochiti.



KARL KERBERGER / © SOLSTICE PROJECT (2)

VOLKER ZINSER / © SOLSTICE PROJECT







The ruins of Chaco's three main great houses hint at the site's former vastness. Pueblo Bonito sprawled over nearly two-and-a-half acres, rose more than five stories high, and featured 800+ rooms built with millions of meticulously stacked pieces of sandstone. Like nearby great houses Casa Rinconada and Chetro Ketl, it was also built to align with the cardinal directions, which could only have been achieved through accurate, ongoing observations of the movements of the sky.

PHOTO BY ROBERT RECK





Chaco builders were masterful architects and highly adept at utilizing native stone—the first record of its use by local natives. While many doorways and windows were situated to mark the passage of the sun, it seems the Chacoans also tracked the movements of the moon. The smaller spiral at the Sun Dagger site records major moon movements, and some buildings are aligned with the 18.6-year cycle of minimum and maximum moonrise and moonset. If nothing else, Chaco reveals a fascinating and complex fusion of the practical and the spiritual: a way of living life as well as divining its purpose.

ROBERT RECK



Right: Chaco petroglyphs number in the thousands, featuring anthropomorphic and zoomorphic figures, abstract spirits, and spiral symbols. Top: An aerial view of Pueblo Bonito reveals its distinctive D-shape. Part housing and part storage, it also seems to have served as a ceremonial repository. Excavations have unearthed a wealth of ritual objects; many, like copper bells, shells, and parrot feathers, may have been acquired far from home, perhaps as far as Mesoamerica. But the complex engineering of Chaco's roadways reveals a purpose beyond that of mere footpaths. Solstice Project research indicates that the so-called Great North Road that runs 35 miles due north from Chaco's center seems not to have served any purpose other than to align to that sacred direction. The organization is currently researching the extensive road systems that radiate outward from the complex and posing the question: if they don't make sense as trade routes, where *do* they lead?

BILL CURRY (2)





The great kiva at Chetro Ketl symbolizes the portal out of which humankind first emerged from the lower into the upper world, its four support beams, again positioned in the cardinal directions, representing the trees planted to aid in the climb. Dozens of kivas once dotted the Chaco complex. So what happened to cause this once-thriving civilization of masterful architects and sun-watchers to abruptly disappear after 300 years? Internal strife, famine brought on by drought, or simple disbursement? We may never know. Still, if no one has yet fully cracked Chaco's code, those compelled to return again and again to the site contribute to an important ongoing series of investigations into the fascinating sky lore of the American Southwest's Native people. ✿

PHOTO BY ROBERT RECK

