According to most experts the dawn of Western civilization occurred in the fourth millennium B.C., with the sudden flowering of Sumer in southern Iraq and Pharaonic Egypt soon after. This is the mainstream view that was taught when I was a college student. Increasingly, however, it is under assault. Recent discoveries are challenging almost everything we thought we knew about human history. In 1973 a team of archaeologists made such a discovery while traveling through a remote region in southern Egypt. They were navigating by compass through a trackless waste known as the Nabta Playa and had halted for a water break, when they noticed potsherds at their feet. Fragments of old pottery frequently are an indicator of archaeological potential, and the team returned later to investigate. After several seasons of digging they eventually realized that Nabta Playa was not just another neolithic site. The breakthrough came when they discovered that what had looked like rock outcroppings were in fact standing megalithic stones.

They also found a circle of smaller stones, which in photos look like derelict rocks. Nearby, the arrangement of larger megaliths sprawls over a broad area. The wind-swept site is desolate beyond belief. But thousands of years ago this forbidding waste was a well-watered grassland and seasonally, at least, well peopled.

Today we know that the great megaliths of Nabta Playa are anything but random stones. Long ago, someone relocated them from a still unknown quarry—but for what purpose? Subsequent excavations led by Fred Wendorf, one of the discoverers and a much traveled archaeologist, turned up an abundance of cultural artifacts, which were radiocarbon dated. The ages ranged from 10,000 B.C. to 3,000 B.C., with most of the dates clustered around 6,000 B.C., when the climate was much wetter than now. The Nabta Playa is a basin and during this epoch it...
filled with seasonal lakes. Excavations through the 8—12 feet of sediments laid down during this period showed that some of the megaliths had been buried intentionally. The team also found strange carvings in the bedrock under the sediments— evidence of great antiquity.

The archaeologists mapped the area and used global positioning technology (GPS) to plot the locations of 25 individual megaliths. Many others remain to be plotted. Fortunately, the site's remoteness protected it from most human disturbance. Though the mapping data hinted at astronomical significance, Wendorf's team searched in vain for the key to unlock the site. In 2001 they presented their research in a book edited by Wendorf, Holocene Settlement of the Egyptian Sahara. The two-volume study makes for interesting reading. But its authors had few answers.

However, even as Wendorf's book was in press, a former NASA physicist named Thomas Brophy was quietly pursuing his own astronomical study of Nabta Playa. Brophy had already reviewed the sparse data published in Nature in 1998, and after Wendorf's more extensive data became available his nascent theories fell into place. In 2002 Brophy presented his findings in The Origin Map. Because the available astronomy software was inadequate Brophy had to custom-engineer his own. Thus armed, he was able to track star movements at Nabta Playa over thousands of years, and succeeded in decoding the stone circle and nearby megaliths. The Calendar Circle has a built-in meridian-line and a sight-line— both conspicuous— which indicated to Brophy that the circle was a user-friendly star-viewing platform. Its design was so simple that even a novice could have used it. A night viewer between 6400— 4900 B.C. stood at the north end of the meridian axis and allowed himself to be guided by three stones at his feet to the constellation Orion overhead. The correspondence between ground and sky would have been self-evident: The three stones within the outer circle are laid out in the precise pattern of the stars of Orion's famous belt, before summer solstice as indicated by the Calendar Circle itself. Once the pattern becomes familiar it is unmistakable.

In another section of his book Brophy concluded that Robert Bauval and Adrian Gilbert were at least partly correct in their 1992 study, The Orion Mystery, in which they claimed that the pyramids of Giza had a similar planned structure. Bauval and Gilbert argued that the pyramids of Giza were constructed to mirror heaven, laid out on the ground to represent these same three stars of Orion's belt.

Here, then, at Nabta Playa, was evidence of a common astronomical tradition of astonishing longevity. Just to give you some idea, modern astronomy is about 500 years old, yet, the astronomy common to both Giza and Nabta Playa survived for at least 6,000— 7,000 years, possibly longer. The shared astronomy also suggests a shared cultural tradition. In fact, Wendorf's team amassed considerable evidence of overlap between the neolithic Nabta culture and the much later Old Kingdom of Pharaonic Egypt, when pyramid building reached its zenith. It is interesting that more than a century ago Flinders Petrie, one of the founders of Egyptology, arrived at a similar conclusion. Petrie found evidence that the enigmatic Sphinx was not an Egyptian sculptural form at all, but had originated in Ethiopia.

Brophy's findings also support the work of geologist Robert Schoch, who recently found telltale evidence of water erosion on the
Cadman went on to explain, “I am situated on some land that has a creek in a remote location. I needed to transfer water from it to a garden area about 300 feet away. There isn’t electricity available at the pump site so I needed a water pump that was fully automatic and didn’t utilize electricity. That is precisely what Kunkel had suggested for the subterranean pump.”

Cadman’s pump, once started, requires only one valve at a time and can run indefinitely. He describes it as a “pump and hydraulic engine” and notes that it is capable of generating seismic shock waves. “When I first started, I thought it was merely a pump,” he explained. “After extensive study of the overall layout, it became evident that the water pump aspect was a by-product. The primary function is to send seismic shock waves upwards towards the King’s and Queen’s chambers. Although I say that’s the primary function, it also pumps water very well.”

To make his point, Cadman offered an analogy, “If someone had never been exposed to an automobile engine, an initial observation might be that it was a gas-fired heater. After all, engines put out lots of heat. But the heat is the by-product. The primary function is the creation of directed force. That’s also the function of the Great Pyramid’s subterranean section. It causes the King’s chamber to resonate.”

Such a theory, of course, suggests the work of engineer Chris Dunn, who has argued in his book, The Giza Power Plant, that the Great Pyramid is a machine created by ancient engineers to produce power. Cadman agrees and adds that “Basically, the subterranean chamber assembly was the motor for the power plant.”

Cadman also believes “There’s the possibility that the resonance of the pyramid energized the pyramid shape. According to Joe Parr’s research, the resonating of the shape causes a ‘mass particle’ to form where the Queen’s chamber is located. Joe Parr has extensive research in this area. His work is similar to Dr. William A. Tiller’s work.”

We wanted to know how does the pump operate if it doesn’t use an external power source?

“The pump,” he offered, “requires a difference in heights of the water source and the pump assembly. For my pump model, there is a 3-1/2 foot drop from the water supply to the pump assembly. Water is fed from the source down through a pipe into the pump. The basic design utilizes the force of falling water to elevate part of the water. Water flows down the drive pipe into the compression chamber. Water escapes from the waste valve until the water’s velocity forces the valve shut. When the valve shuts, the water stops flowing instantaneously and causes the water to compress, resulting in a compression wave, or shock wave, which emanates from the valve area. In the driveway, the water reverses direction until the shock wave reaches air and returns down the pipe. In the output line, a high-pressure surge passes through the check valve. This surge is at least fifty times (3,360 psi at Giza) the static water pressure of the compression chamber.

When the compression wave leaves the compression chamber, a low-pressure situation exists. The low pressure is equal and opposite to the compression wave. This immediately re-opens the waste valve, and the cycle begins again.

If a larger pump were built, would it be capable of lifting the heaviest stones used in the construction of the Great Pyramid? “Yes,” said Cadman.

Gigantic Megalith X-1 is the largest at Nabta Playa. When whole, its longest dimension was over 12 feet. Like many megaliths at Nabta, it was broken or cut apart, possibly intentionally, in ancient times. Directly behind X-1 is a partner megalith more than 7 feet long. These megaliths set atop a knoll which appears to be shaped as a mound inside a spiral pattern. (Thomas Brophy)

worked Calendar Circle stone (about 2 feet) toppled out of its place. It appears to be extremely hard like flint and little weathered over the ages. (T. Brophy)

The other end of the same Calendar Circle stone shown above. (T. Brophy)

A very finely worked Calendar Circle stone (about 2 feet) toppled out of its place. It appears to be extremely hard like flint and little weathered over the ages. (T. Brophy)

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of Jupiter-sized giants have already been detected and resolving power continues to improve. Soon we may know if Brophy's staggering idea is correct.

A Galaxy Map?

Nabta Playa held other surprises. The location of the star map's central point initially drew the attention of Wendorf's team because a correctly inducted position of the图纸 had been placed there. One large stone stood squarely at the central point, surrounded by others. Numerous other stone complexes had also been placed in the vicinity. These appeared to be burial mounds and when the archaeologists excavated two of them the team expected to uncover mortuary remains. Instead, they dug through 12 feet of Holocene sediments to bedrock, and found bizarre carved sculptures, which they never did explain. Later, Brophy examined these in light of the deciphered star map and was blown away again. He realized that whoever created Nabta Playa might have been in possession of advanced knowledge about our Milky Way galaxy. The bedrock sculpture appears to be a made-to-scale map of the Milky Way as viewed from the outside, i.e., from the perspective of the north galactic pole. The map is not only accurate but also represents the spiral arms, the galactic center, even the associated Sagittarius dwarf galaxy that was only discovered in 1994. Although Wendorf's excavation had dissected the stone complex on the surface in the process of exhuming the underlying sculpture, Brophy was able to determine from Wendorf's accurate diagrams/maps that the central point was directly above two of the proposed markers and the correct position of our sun on the galaxy map. Brophy then made another key discovery: One of the megalithic sight lines stood in relation to the galactic center. Its alignment marked the galactic center's vernal heliacal rising circa 17,700 B.C. Brophy precessed the sky 1,000 years into the future and discovered another layer of complexity. He found that the ground mirrored heaven on two dates: in 11,772 B.C. and again in 9,420 B.C. Brophy concluded that the construction was never intended to designate Orion's southern culmination, as Baual argued, but rather to bracket the epoch in which this occurred. The two dates also bracket another important event, the northern culmination of the galactic center at around 11,000 B.C. In other words, Giza was constructed as a zodiacal clock, set in stone to the grand precessional cycle. This supports the view that the site's astronomy long predated the actual pyramid construction.

Fully cognizant of the revolutionary nature of his analysis, Brophy wisely makes no final pronouncements in his book. He merely presents his findings as a working hypothesis and invites others to investigate further. Fortunately, many of his ideas are testable. So far, only 25 Nabta stones have been plotted and excavated, and only two of at least thirty stone complexes have been excavated. Time will surely tell...

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