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Discovery of a Mound Complex Within Warren County Armco Park

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Abstract

Armco Park Mound I and Armco Park Mound II are listed as sites of special historic significance in Warren County, Ohio. Further, these Adena mounds have been on the National Register of Historic Places since 1975. However, since that time, much of the surrounding area has been developed as residential subdivisions, golf courses, and a public park. With changes in land ownership, the existence of these mounds was sometimes noted in records, but their specific locations were not. Amateur exploration of the park to determine the state of these mounds revealed that Armco Park Mound II has been destroyed, while Armco Park Mound I represents just one of five mounds in close proximity, four being only now discovered and described here. These potentially represent well-preserved examples of Adena earthworks which have only narrowly avoided destruction in recent years.

Keywords: mound, earthwork, Adena, Hopewell

Introduction

The American Rolling Mill Company was incorporated in 1899, then re-incorporated over time and renamed Armco, with a headquarters in Middletown, Ohio (Grant 2007). In 1970, Armco purchased over 300 acres in Warren County, Ohio to develop as a park for use by their employees (Bauer 2007). This land was the former site of a large Shaker community, Union Village, which had dissolved in 1912 (Grimm Manufacturing Co. 1918). A Shaker cemetery remains at the southeastern end of the property. The park land included Shaker Run, which drained a swampy area located four miles outside of Lebanon, Ohio. Shaker Run had been problematic for the Warren County Canal project, which connected the city of Lebanon to the Miami and Erie Canal by 1840. In 1848, Shaker Run had flooded, depositing great amounts of sediment into the Warren County Canal, leading to its abandonment by the state in 1852 and its sale in 1854 (Bogan 2004). Armco completed a dam on Shaker Run in 1973 (Board of County Commissioners, Warren County, Ohio 2020), thereby creating a recreational lake within their new employees-only park.

The land that was to become the park and remain above water was graded in 1970. During this time, a Native American mound was mistakenly damaged by a bulldozer, leading to a visit by archaeologists from the Ohio Historical Society and the Dayton Society of Natural History. This mound may have first been recognized by W.C. Mills in 1914 (Mills 1914), although if the location indicated on Mills' 1914 map is indeed this mound, is off by over a kilometer. After the bulldozer damage, the mound and a second, smaller mound nearby were

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nominated to the National Register of Historic Places (NRHP) in 1975 as Armco Park Mound I (Genheimer 1974a) and Armco Park Mound II (Genheimer 1974b), respectively. Mound II sat approximately 800 meters southwest of Mound I on a separate promontory above the lake. Mounds I and II were described as Adena in origin, dating somewhere between 500 BC and AD 100 and described as "an excellent and well preserved example of prehistoric man's heritage in America" (Scheurer 1974a).

The park was purchased by Warren County, Turtlecreek Township, the Otterbein Community, and the Ohio Department of Natural Resources in 2008 (Nelson 2011) and was opened to the public. Over the 33 years between their addition to the NRHP and the public opening of Armco Park, the Warren County Park District was aware of Mounds I and II but not their exact locations (Matt Latham, personal communication 2024).

Rediscovery

In 2024, volunteer exploration based on the 1914 Mills map lead to further exploration of the Mound I coordinates originally recorded in the 1974 NRHP nomination form. The land currently sits at approximately 240 m elevation, putting it above Armco Park Lake and between two creeks that drain into the lake from the north. The land is prodigiously overgrown with trees and underbrush, largely honeysuckle, that impede exploration. Nevertheless, exploration of the area showed that the recorded NRHP coordinates were nearly accurate. Armco Park Mound I is currently covered in a large amount of fallen wood and choked with honeysuckles. Interestingly, while looking for Mound I and expecting the 1974 coordinates to be approximate, additional mounds were discovered. Proceeding northeast from Mound I, a second, third, and fourth mound (A, B, and C) lie in a straight line. Each is similar in size and shape to Mound I. A fifth earthen structure (Mound D) sits west of this line.

The peninsula of woodland on which Armco Park Mound I sits was at some point a "sugar camp" where maple sap was collected and processed to make sugar (Scheurer 1974a). Surprisingly, an "evaporator shack" still sits on the land north of the mounds in the heavily wooded area of the peninsula (Figure 1). This wooden structure follows the layout of such buildings constructed in the early 1900s. It is built around a Champion Evaporator, still present, manufactured by G.H. Grimm Co. in Hudson, Ohio between 1890 and 1943 (Thomas 2019). The presence of metal shingles and especially the remains of an electrical fuse box suggest the later end of this date range. Because of this history, the authors propose these mounds be called the "Sugar Camp Complex."

Measurements were taken at the ground and checked against LiDAR imagery elevation profiles to determine height and basal width of each mound (Table 1, Figure 5). The peninsula is divided by a modern path cut southwest to northeast through the woods. To the north lies the sugar camp remains and to the south is the Sugar Camp Complex (Figure 2). The earth structures are more apparent on LiDAR imagery (Figures 3 and 4), which penetrates the tree canopy. The southern face of Mound I may still show damage from the bulldozer intrusion of 1970; the whole mound seems to sag toward the lake (Table 1).

Figure 1. Remains of pre-1974 sugar camp. Photos taken April 10, 2024: A, the existing evaporator house; B, the structure follows the typical plan for 1900s evaporator houses (Grimm Manufacturing Co. 1918); C, the Champion Evaporator remains inside the structure; D, the approximate location of the structure within Armco Park.

Comparing the 1974 survey data for Mound I and the 2024 data, there is a loss of 0.4 m of height and a broadening of the mound. This is consistent with the "sag" of the southern face of the mound toward the lake. One likely scenario is erosion of Mound I over time following the 1970 bulldozer damage. According to a 1970 note, the "center" of Mound I was bulldozed by Armco workers, then "later, the mound was restored to its original condition"(Genheimer 1974a). The recorded coordinates of Mound I in 1974, lying just south of the mound today, may have even been the peak of the mound at that time, erosion leaving the northern portion as the highest part today. Interestingly, the 1974 survey places Armco Park Mound I as "approximately 150 meters NE of the lake." Today, the mound is situated entirely within the first 90 m of the edge of the lake, suggesting some of the peninsula has eroded into the lake. All these mounds were photographed, which shows their current overgrown state (Figure 6-10).

Armco Park Mound II

Armco Park Mound II was a second mound also placed on the NRHP in 1974 (Scheurer 1974b). Standing 1.7 m in height and 18.3 m in basal diameter, it was similar to the mounds of the Sugar Camp Complex, but sat on a bluff west of Mound I, above lake level. However, the shore of Armco Park Lake was sold for development to include a subdivision (Shaker Run subdivision) and golf course (Shaker Run Golf Course) which opened in 1979. Unfortunately, the coordinates of Mound II place it adjacent to hole No. 1 (Figure 12A-B). Inspection of the site in April 2024, showed that the mound had been demolished (Figure 12C). As Mound I (Figure 12C) was similarly "lost" to memory, this destruction was certainly done in ignorance. As recently as 2015, Warren County listed Armco Park Mound II in its list of "Historic and Special Considerations" (Board of County Commisioners, Warren County, Ohio 2015), indicating it was still assumed to be intact somewhere. It is worth noting that there seems to be confusion even in

the 1974 Ohio Archeological Inventory forms for mounds I and II, as they are indicated as being 400 m apart (Genheimer 1974a, 1974b), rather than the 800 m as indicated by the coordinates in Scheurer (1974a,b). The UTM coordinates indicated in Genheimer (1974a,b) are approximate, with Mound I indicated to be on the opposite shore of Armco Lake and Mound II well away from the lake.

Between Mounds A and B there is a depression less than a meter deep, which was flooded at the time it was visited in April 2024 (Figure 11). Interestingly, Hopewell sites also incorporate pits adjacent to the earthworks at Mound City, Hopewell Mound Group, Hopeton Earthworks, and Seip Earthworks, all near Chillicothe, Ohio (National Park Service 2024).

Figure 2. The Sugar Camp Complex. Satellite imagery shows the wooded promontory of land extending south into Armco Park Lake. "Mound I" is the actual site of Armco Park Mound I. The mounds newly described here are indicated by points A-D. The clear-cut area just north of C and D is the path of a gas line and walking trail.

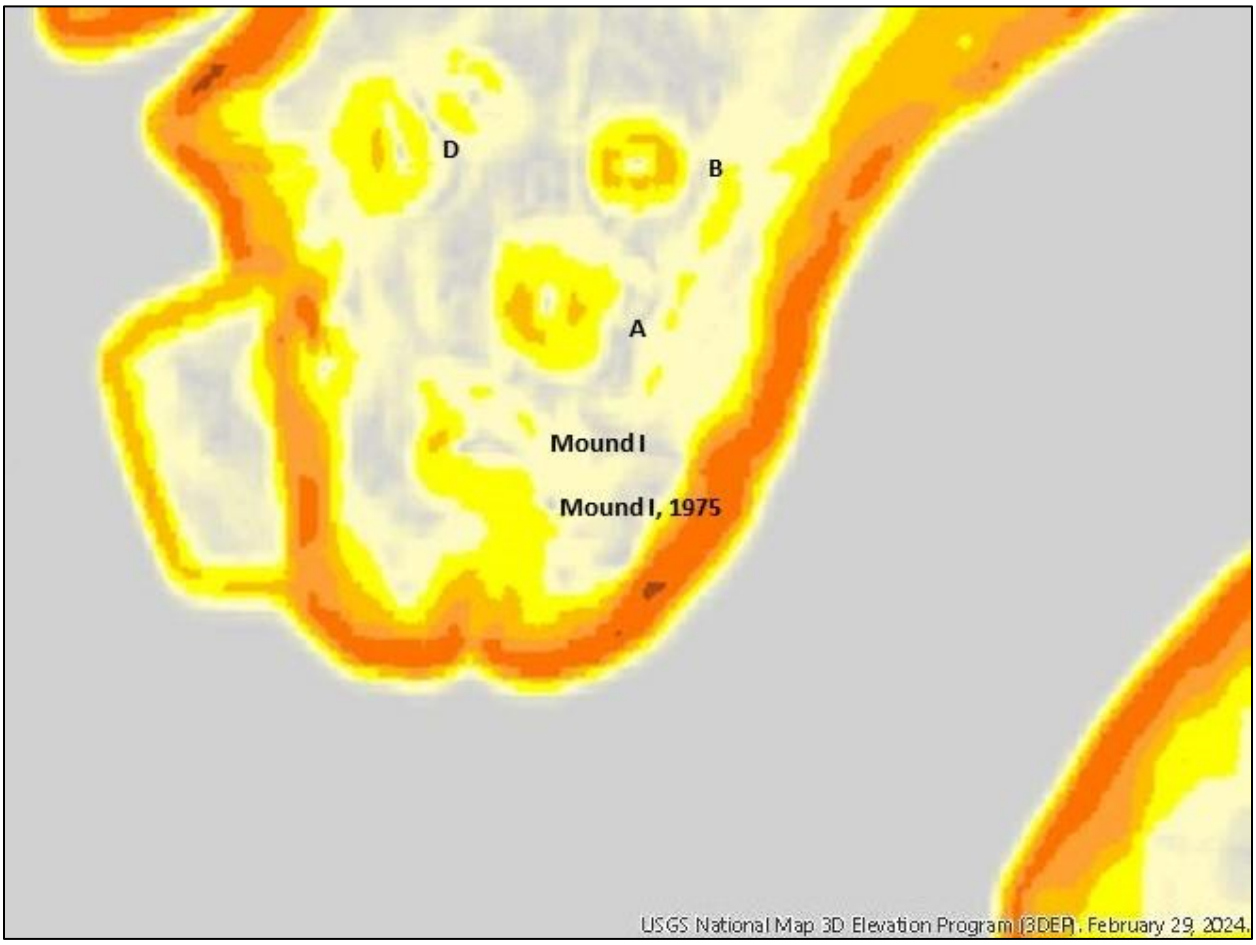

Figure 3. LiDAR imagery shows the wooded promontory of land extending south into Armco Park Lake. "Mound I, 1975" is the coordinate location recorded as the site of Mound I when it was entered into the NRHP record (Scheurer 1974a). Mound D may be two adjacent earthworks.

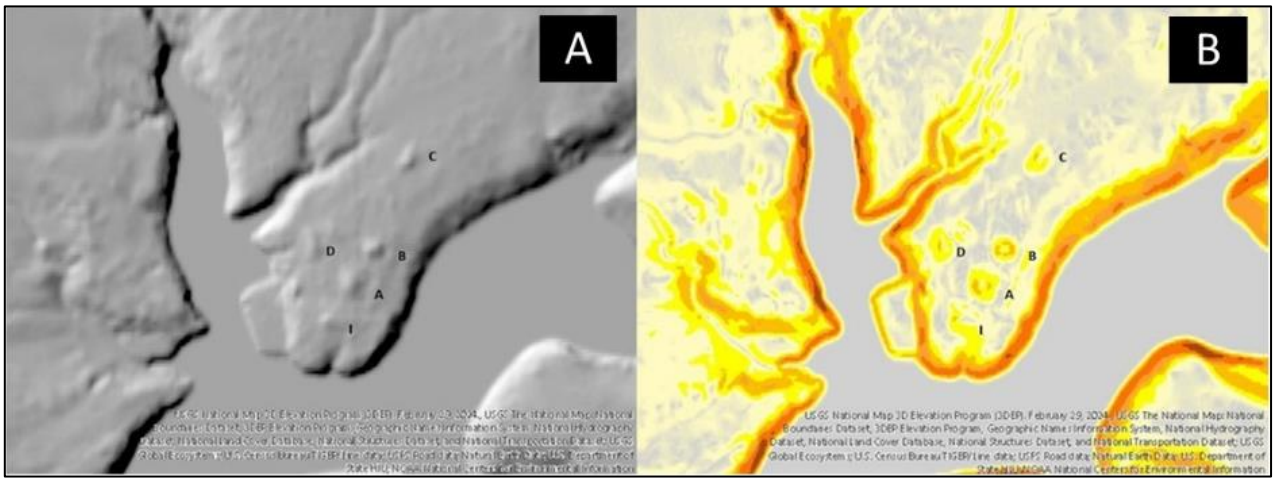

Figure 4. LiDAR imagery of the Sugar Camp Complex: A, Elevation-Hillside Stretched; B, Elevation-Slope.

Table 1. Mound height and diameter data recorded between 1974 and 2024.

Structure	Height (m)	Basal Diameter (m)
Armco Park Mound I	2.0	29.3
Markey A	2.0	26.8
Markey B	2.0	23.5
Markey C	2.0	20.4
Markey D	2.0	22.9
Armco Park Mound I 1974	2.4	22.9

Conclusions

Interestingly, four of the mounds (Mounds I, A, B, and C) are aligned nearly perfectly along a northeast-southwest axis. Nearby Adena or Hopewell sites in Ohio have long been recognized as being laid out along lines of astronomical significance, such as the Marietta Earthworks in Washington County, Ohio (Romain 2000), the Serpent Mound in Adams County, Ohio (Hardman and Hardman 1987) or Fort Ancient, which is also in Warren County and sits above the Little Miami River (Reilly and Garber 2007). Whether the line defined by this mound complex has astronomical significance remains to be determined. However, it does appear that a line drawn between Armco Park Mound I and Armco Park Mound II would have very closely indicated the sunrise of the winter solstice (Figure 13). It was hypothesized by archaeologist Elizabeth Scheurer in 1974 that another mound of "diminished size" lay between Mound I and Mound II, but was overlooked during grading operations and destroyed (Scheurer 1974a). It is unclear if this mound also fell on this line.

In size, the remaining Sugar Camp Complex resembles some of the smaller mounds of the Wolf Plains Group in Athens County, Ohio (Squier and Davis 1848; Abrams 1992). A nearby Adena site is the Rentschler Park Hilltop Enclosure (also known as Line Hill) in Butler County on the Great Miami River, which contains the remains of a mound "forty feet in diameter and five feet high" and another "three feet high" (Squier and Davis 1848:22). The Sugar Camp Complex would have sat above a large creek, rather than a river, geographically between Fort Ancient (on the Little Miami) and Rentschler (on the Great Miami). Intriguingly, the Sugar Camp Complex lies 17.6 km northwest of Fort Ancient, and 17.6 km northeast of Rentschler.

An unanswered question remains: why were Mounds A-D not described along with Armco Park Mound I during the original survey? Several situations are possible. First, Mounds A-D might not have existed. Perhaps they were created during grading for some unknown reason. This seems unlikely since there is not a road through this area or other reason to grade the whole peninsula, even less for modern mound construction. Professional archaeological examination or excavation could determine whether this is the case. Another argument against modern construction comes from the size of some trees growing on the mounds. It is worth noting that one of the larger trees growing from Mound B measures 170 cm in circumference, suggesting an age of nearly 100 years; Mound B must predate the tree. A second possibility is that the area was covered by trees at that time of earlier surveys. This might have been the case as the area was, or had been, used to produce maple sugar. The area could have been poorly accessible even then. Another possibility adds to this—the original grading during the 1970

construction of the lake was probably meant to flatten the areas around the lake for recreational use. As the mound closest to the lake, Mound I might have been an obvious "blemish" on the landscape. Beyond the edge of the lake was less important and remained wooded and less explored.

Thinking toward preservation, it is worth nothing that the 1974 survey gives a location for Armco Park Mound I as "150 meters NE of the lake" (Scheurer 1974a). None of these mounds fit that description today. From the southern tip of the peninsula to the far side of Mound C is approximately 240 meters. Even 140 meters would encompass all of Mound I, Mound A, and Mound B. Mound I is also noted as "approximately 475 meters south of Greentree Road" (Scheurer 1974a), and this is still the case. This would suggest the land has receded north since that time (that is, expanding the lake and subsuming the peninsula), bringing the whole complex closer to the edge of Armco Park Lake. At the same time, development has made its way into Armco Park, with houses now at the northern edge of this peninsula along portions of Black Bear Drive that appear to fall within the park boundary. Thus, preservation efforts are of some urgency.

In sad irony, the nondisclosure of the locations of Mounds I and II under the Archaeological Resources Protection Act of 1979 probably doomed Mound II. Mound I and the rest of the Sugar Camp Complex were only saved by inaccessibility and chance—a straight path was plowed through the forest for a gas line, and narrowly missing Mound C by a few meters (Figure 2). The fate of Mound II underlines the need for preservation of the remaining earthworks.

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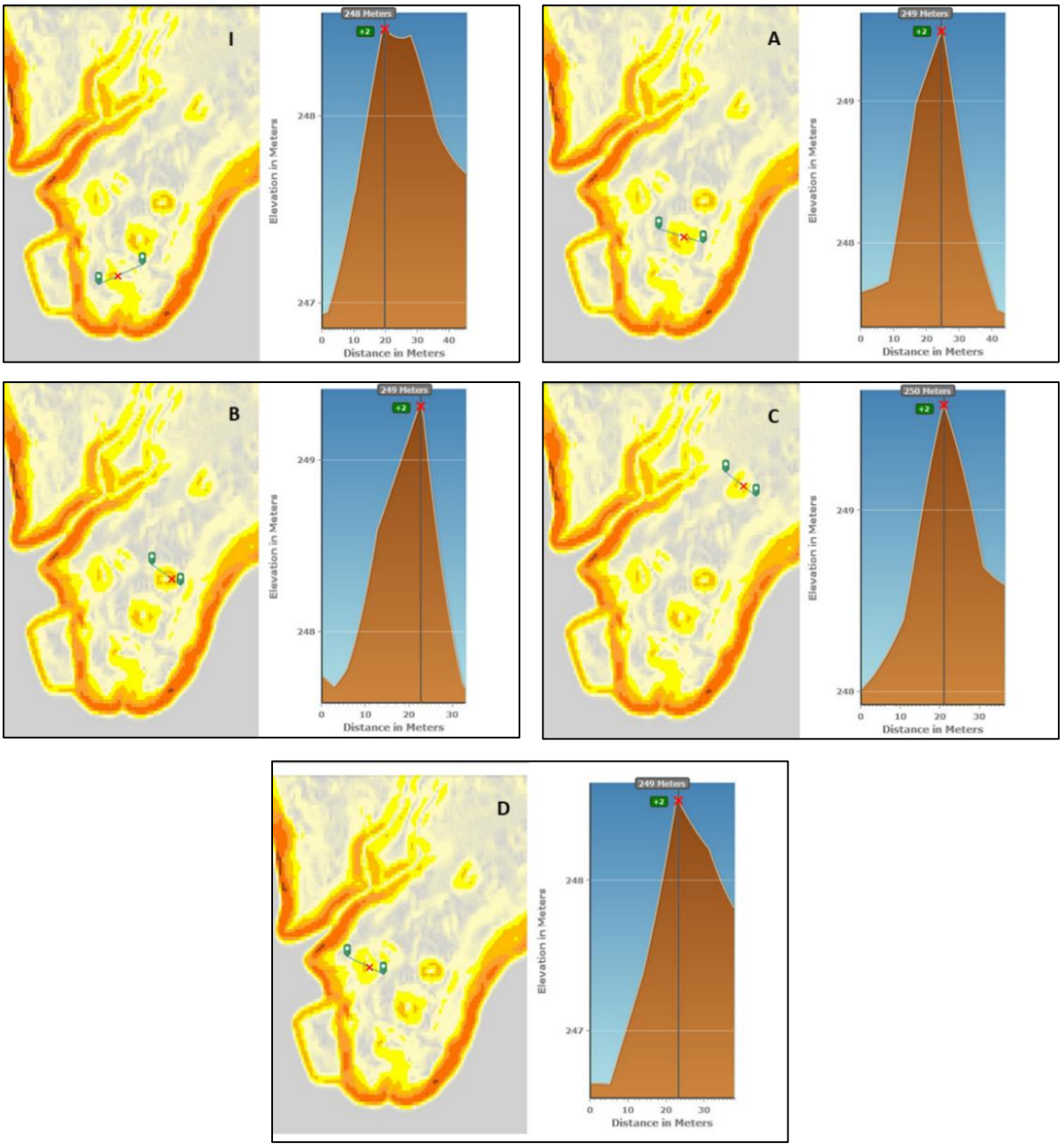

Figure 5. Mound slope profiles (right panels) across the paths indicated (left panels). "I" is Armco Park Mound I. Elevation on the y-axis is measured from sea level, with the highest points indicated with a red "x" on the imagery.

Figure 6. Armco Park Mound I (April 7, 2024).

Figure 7. Mound A (April 7, 2024).

Figure 8. Mound B (April 7, 2024).

Figure 9. Mound C. (April 7, 2024).

Figure 10. Mound D (April 7, 2024).

Figure 11. Water-filled depression between Mounds A and B, (April 7, 2024). Litter includes a blue pipe and a shattered porcelain toilet.

Figure 12. Site of Armco Park Mound II: A, Satellite imagery via Google Earth (September 23, 2021). The blue marker indicates the 1974 coordinates of Mound II (Scheurer 1974b); B, Late winter satellite image better illustrates current golf course and cart paths (March 4, 2018); C, Ground view of this site (April 13, 2024); D, Mound II looking southeast (October 31, 1974) (Genheimer 1974b).

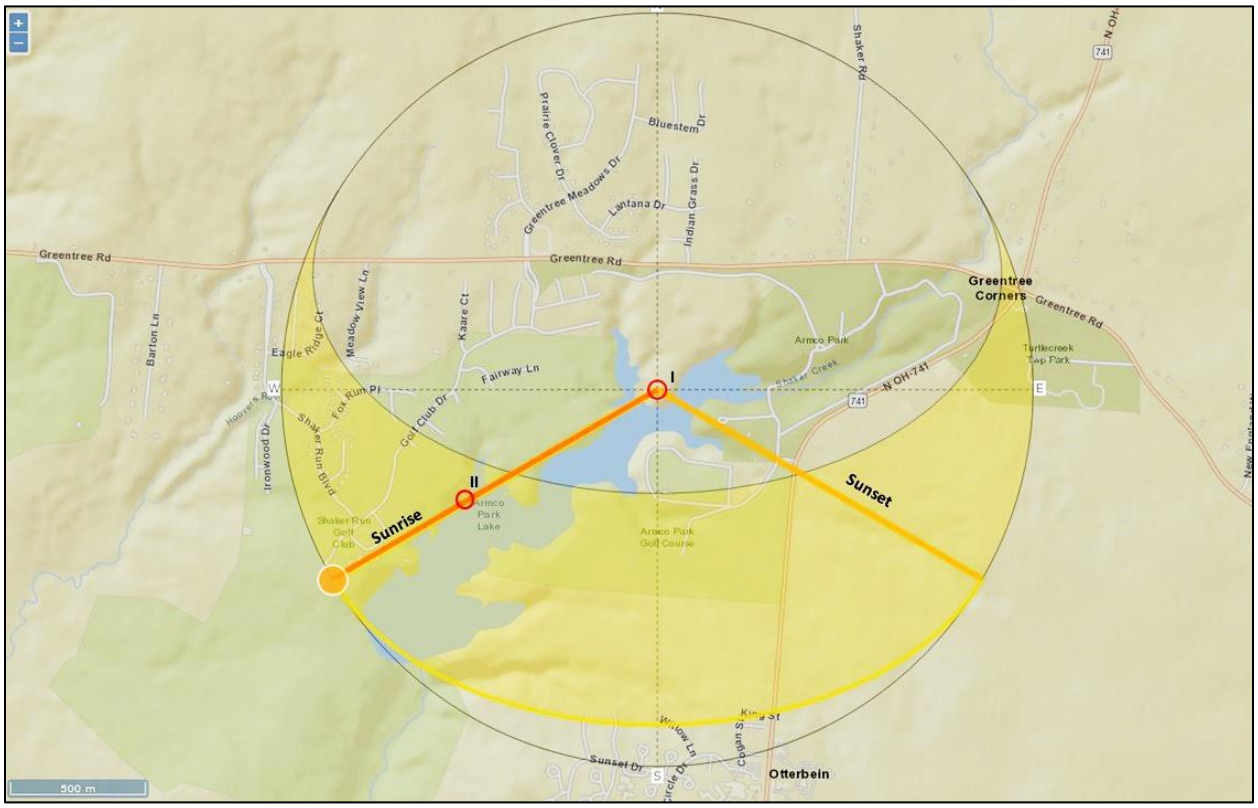

Figure 13. The path of the sun during the winter solstice. A line drawn between Armco Park Mound I and the approximate former location of Armco Park Mound II closely approximates the sunrise of the winter solstice. Data from https://www.suncalc.org.

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