Constantine Rafinesque and the Canton Site, a Mississippian Town in Trigg County, Kentucky

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Abstract. The Canton site, a Mississippian town in Trigg County, Kentucky, was first described in 1833 by the naturalist Constantine Samuel Rafinesque. A translation of his article, which was published in a French geography journal, is included here. Although largely unknown to American archaeologists, this early description is important not only because of Rafinesque’s place in the history of science, but because it contains one of the first published plan maps of a Mississippian town. Recent field work at Canton has verified the accuracy of most of Rafinesque’s description and his map of the site.

Constantine, why should such fame
Be Audubon’s, and yours a shadowy name?
Why do you journey to oblivion?
[Whaler 1931:4]

Our objective is to bring to the attention of researchers the translation of a long unnoticed early nineteenth-century description of a Mississippian town site. The description is important because it contains one of the first published plan maps of a Mississippi period town, the little known site of Canton on the Cumberland River in Trigg County, Kentucky. The author of this description, Constantine Samuel Rafinesque (Figure 1), is also of considerable historical interest. Rafinesque was one of several foreign-born and educated naturalists of the early 1800s, among them Thomas Nuttall and Charles Alexandre LéSueur, who contributed significantly to the development of American natural history in the early 1800s (Porter 1986:3).

Rafinesque and Midsouth Archaeology

Rafinesque was born in Turkey in 1783 of French and German parents and was raised in southern France and Italy. He settled in the United States in 1815 and soon drifted to Kentucky, where he lived between 1819 and 1825. Lexington was Rafinesque’s home base for trips across the Midsouth to “herborize” and “botanize” (Rafinesque 1836). Characteristically, he found time during his Kentucky years to publish works on archaeology, Ohio River fishes, meteorological observations, fossil and modern mollusks, and linguistics (Call 1895:163–178). He died a brilliant, enthusiastic, unstable pauper in Philadelphia in 1840.

During his life, Rafinesque and his scientific achievements were often controversial, and remarkably enough, they remain so even today, more than 150 years after his death (e.g., Boewe 1958:590; Boewe et al. 1987; Robbins 1985; Sterling 1978; Williams 1991:98–115). Whatever he did, Rafinesque seemed to attract controversy.

Examples of his odd nature abound. He was, for example, John James Audubon’s (1831:455–460) “Eccentric Naturalist,” who, while his house guest in Henderson, Kentucky, used Audubon’s favorite violin as a club to kill bats and smashed it to bits (Call 1895:24–29). Audubon, to his discredit, retaliated by feeding Rafinesque a line of tall tales about Ohio Valley fishes thinly disguised as scientific observations. Rafinesque took the bait and published them in his study of Ohio Valley fishes.

Justin Winsor, the nineteenth-century American historian, summed up Rafinesque’s quirks best. He describes him as “a man sorely harassed, as others see him, with eccentricities and unstableness of head . . . who had nevertheless a certain tendency to acute observation, which prevents his books from becoming wholly worthless” (Winsor 1889:424). Windsor’s description captures the essence of Rafinesque—he was apparently, hands down, the most bizarre nineteenth-century American naturalist, but, when he wanted to do so, he could produce work of lasting consequence.
During his Kentucky years, archaeology was one of Rafinesque’s lesser interests, a “lesser interest” in his case being manifested in only a few articles and one slim book. The book, ambitiously entitled Ancient History, or Annals of Kentucky; with a Survey of the Ancient Monuments of North America and a Tabular View of the Principal Languages and Primitive Nations of the Whole Earth was published first in 1824 as part of Marshall’s (1824) History of Kentucky. The following year, Rafinesque issued it as a separate book in Frankfort.

The narrative portion of Ancient History, or Annals of Kentucky, which treats world prehistory and early history in only 39 pages, is more posturing than scholarly description—a point even Rafinesque (1836:71) concedes. Call (1895:118), one of Rafinesque’s biographers, writes of the book, “it would be hard to find a more valueless and unscientific treatment of ethnologic questions than that in his Ancient Annals of Kentucky.” Nevertheless, it cannot be dismissed out of hand since in an appendix he also describes the first published approximate locations and dimensions of Kentucky archaeological sites. One of the more detailed descriptions in this list is of the Canton site (15TR1), a Mississippi period town that still exists within the limits of the modern town of Canton in Trigg County:

Trigg, a walled Town, 7500 feet in circumference, at Canton, on the Cumberland, inclosing several large mounds and a square Teocalli: 150 feet long, 90 wide, 22 high. Many mounds on Cumberland, Little river, Cadiz, &c [Rafinesque 1824:34].

Viewed by modern professional standards, this site description is grossly inadequate. Nevertheless, when one considers the time, place, and cultural context within which Rafinesque worked, it assumes far greater significance. All archaeological research was rudimentary in the 1820s and wild speculation as to
the origin and nature of archaeological things was more the norm than the exception. Many people found it easy, if not necessary, to believe that indigenous Americans—the "Indians"—did not build the mounds dotting the landscape, that there once existed a "Mound Builder" race that had been killed or driven away by the Indians, and that the Mound Builders or the Indians were possibly Welsh, the Lost Tribes of Israel, survivors of the lost Atlantean continent, and so on. Rafinesque and his wild ideas were not out of place among the preposterous notions that often marked attempts to explain the past during this period of American archaeology.

The appendix in Ancient Annals of Kentucky was drawn apparently from archaeological notes and site maps that Rafinesque amassed during his Kentucky years. These data were part of a larger collection that in 1833 he offered for sale: 3,000 illustrations and notes, including "300 plans and views of ancient monuments, ruins, implements, &c." all for $1,000 (Rafinesque 1946:iii). No one appears to have bought it. It was left to Ephraim G. Squier and E. H. Davis to realize the value of some of his unpublished archaeological notebooks. In their 1848 publication, The Ancient Monuments of the Mississippi Valley, virtually all of the Kentucky site data, as well as data from several other important sites, were culled from Rafinesque's notebooks and site plans (Call 1895:116-117; Stoltman 1973:119). It was Rafinesque's major contribution to American archaeology.

The notebooks used by Squier and Davis and some of Rafinesque's other data, including his transcript of the Delaware migration legend, the Walam Olum (see Williams 1991:98-115 for an excellent discussion of this document, which is yet another controversy spawned by Rafinesque) are preserved in the University Museum at the University of Pennsylvania (Weer 1954). Fragments of other Rafinesque archaeological maps and notes also are preserved in several archives (e.g., Clay 1985, 1987). This is apparently all that remains of his archaeological collections and notes; if there was more, it was discarded or destroyed after Rafinesque's death.

The Last Rafinesque Article

After leaving Kentucky in 1825, Rafinesque published only one more article on Midsouth archaeology. This paper (Rafinesque 1833), entitled "Description d'une Ville Ancienne du Kentucky Occidental sur la Rivière Cumberland (Fragment des Voyages du Professeur Rafinesque, de 1815-1833)," was published in France in the Bulletin de la Societé de Geographie. In it he describes the Canton site in detail, and provides brief comparative data and sketch maps of two other important Kentucky sites, both of which are discussed below.

Rafinesque's Canton site article has gone unnoticed by American archaeologists for more than 150 years. The following sections provide a translation and archaeological assessment of this article. The results show that Rafinesque was indeed capable of producing work of lasting consequence.

Description of an Ancient Town in Western Kentucky on the Cumberland River (Part of the Voyages of Professor Rafinesque, of 1815-1833)

On the night of 23 June 1823, I arrived at the village of Canton on the Cumberland River, about 50 miles east of the mouth of the Ohio. Before arriving here, one must descend the limestone bluff 400 feet above the river, which is the way from the Ramsay Creek Valley and to the floodplains [Figure 2]. Canton is situated in Trigg County, on the bank of the Cumberland, and the village rises 170 feet above that on its north side, but very little to the south. The floodplain is 50 feet above the river bed when the waters are low, but it is flooded in high waters; a terrace edge and sand without stones form on the [Cumberland] bank and in the Ramsay Valley.

The soil of the bank has 2 feet of rich earth, then 12 feet of clay, 8 feet of limestone, then comes a bed of black flint, beyond which has not been penetrated.

Canton is not yet on the maps because there has only been a produce market here for five years, although Boyd's landing can be seen in its place. It is a hamlet of only eight houses. The location is very choice, on the site of an ancient town of indigenous primitives occupying 35 acres of land; the modern village covers only the northwest corner; but the flies swarm there, a sad sign of the [burial] places of the victims of the autumn fevers.

The old village is still quite visible in its entirety. All of the trees that hampered this view have been cut, and all of the fertile soil that covers the town has been plowed; however, the large monuments have been maintained. The next day, 24 June, I drew up the plan and sketched a picture [Figure 2]; the contours were still visible everywhere, but the plow will make them vanish here one day as elsewhere.

The village shape is nearly square, but a little irregular
and elongated. It is placed back to back with a low mound to the north; they together have a circumference of 3,800 English feet and are surrounded by a low defensive wall, except to the west, where the bluff edge runs perpendicular. A remnant of an ancient wall of earth and wood forms an enclosing wall 3 to 5 feet tall and 15 to 20 feet wide, with a 10 to 20 foot wide exterior moat filled by rain, time, and the plow. On the small mound to the north, there are four small circular mounds; and many small mounds along the remains of the defensive wall.

This is therefore a fortified town, because the moat is not inside as in the temples. The monuments of this town are numerous, but all lower than those of older towns without walls and moats. They are:

No. 1. Is a square platform, 22 feet in height, the circumference of the base is 600 feet and the summit 360, every side from 150 to 90 feet.

No. 2. Circular platform, twelve feet in height, 360 feet in circumference, flat summit, 180 feet in circumference.

No. 3. Square platform, 8 feet in height, 300 feet in circumference at the base, 200 feet at the summit.

No. 4. Square platform, 3 feet in height, 70 feet long, 40 feet wide and 220 feet around, made out of a pile of small stones, of larger stones and broken shell, whereas all of the others are of compacted clay.

No. 5. Two platforms, the one on the west is circular and 200 feet in circumference; it rises 20 feet, but slopes only 10 feet to the west; it bears on the east another elliptical platform, 8 feet in height.

No. 6. Square platform to the south, 10 feet in height, 400 feet in circumference at the base and 240 feet around at the summit.

No. 7. Is a southern entrance with a nearby small mound.

No. 8. Is a nearly obliterated platform, 4 feet in height, on two sides 60 to 70 feet.

No. 9. An entrance to the east with a large circular basin close to half full, once an amphitheater.

No. 10. The tall, square mound to the north with small mounds is an ancient tomb.

This small town, fortified with ancient altars in a single stage, provides an example of towns and monuments of some Middle Age of the primitive peoples of America. To better understand this idea, I give below plans of two other monuments, one older and the other more recent, for comparison. [Figure 3] is a view of this same town looking from the side of No. 1.

The first [Figure 4] is a large amphitheater or solar temple (No. 1) near Mud Creek in central Kentucky, nearly obliterated by the centuries and the plow. It is 180 feet in diameter and approximately 600 feet in circumference, the exterior wall is no more than 5 feet tall and 20 feet wide; the moat, nearly filled in, is 30 feet wide. It has a circular platform 150 feet at the center, a grand entrance on the west side toward the river, and two pathways on the east side, separated by a small mound. Very near, to the east, there is an elliptical altar (No. 2), 220 feet in circumference, 8 feet in height, with a flat summit; and farther still, to the east, a little circular altar (No. 3), 100 feet in circumference and 4 feet in height, joined by a causeway or a raised road. Still farther, to the south, there is a large rectangular platform (No. 4), 120 feet long, 60 feet wide, and 360 feet around, and 8 feet tall; the flat summit occupies only half of this space. All this is a clay mass covered by 3 feet of fertile earth. One cannot see walls, nor vestiges of houses.

[Figure 5] represents the plan of a fortified village on the Barren River (which flows into the Green River), a mile from the town of Bowling Green, in western Kentucky. It is an irregular octagon, 1,385 feet in circumference, enclosed by a nearly obliterated parapet, 2 to 3 feet in height and 6 to 8 feet wide, without a moat, and with small mounds at the angles. There are neither altars nor monuments, but all of it is wooded and has never been plowed, and one can still see there, just as in the other towns of this kind, the impression of houses it contained, forming small ridges. Seven of these were easily visible in 1823 (Nos. 1 to 7), at the time of my visit. The largest or the place of the chief (No. 1), is 100 feet long and 50 feet wide. No. 2 is nearly 60 feet long and 40 feet wide. No. 3 is 40 by 25 feet, the others are smaller. All of these are covered by a thick bed of very fertile ground.

I presume that the amphitheaters, temples, and the other
similar monuments that one finds by hundreds in Kentucky and Ohio, are the most ancient monuments of the civilized peoples that once lived here, and that, since their remains have been covered by a thick compost and the third or fourth generation of forest of 500 years, they date to at least 2,000 years, or were progressively abandoned [until 2,000 years ago], because they could have been built 1,000 or 2,000 years earlier. The people had no enemies, because the monuments are not defended, one does not see either exterior wall or trenches (the interior pits were in effect only for religious use), and it happens that they are placed on the mounds that completely dominate [the town].

The ruins of the second age, abandoned for about 1,000 years, are of a people less civilized, that had enemies, fortified their towns with walls and trenches, had a different religion of sun worship, and often had square or hexagonal or octagonal altars; but no longer the large circular temple. The town of Cumberland gives a sufficiently exact idea. One can no longer see the remnants of the houses, which only start to show it in the third series of the more modern monuments.

The age of their abandonment [i.e., the “third stage” sites] dates to 500 years ago (or 400 to 600 years), although they could have earlier origins. They were built by today’s race of our Indians, uncivilized people without knowledge of geometry, nor of raising temples or altars, but in necessity of defending themselves against their enemies, because these towns are all enclosed by walls, remnants of their palisades without moats. I saw many of the houses, the small mounds, and a sunken elliptical plaza in the earth no doubt for their games.

The first French maps of Canada place the Chaouanons in western Kentucky, which are our Shawanis; but this name designates in general the southern small tribes of the Lenni nation. One map of 1680 gives them 40 towns, and the Cumberland River is named the river of the Chaouanons and Shawanis in the first French and English maps. Nevertheless, the rest of Kentucky has been abandoned for a long time and remains deserted; this was the field of battle of the Iroquois, Miamis, and Hurons of the north with the Shawanis, Cherokees and Catabas of the south. The towns of the Shawanis were without monuments or defense, with wooden dwellings. They had in Canton, without doubt, a good location; but they occupied this ancient town as the Americans occupy it today. All the same, they did not leave the smallest trace of their existence; they were chased by the Chicasas, their enemies, who had burned their houses; their remains are missing.

**Canton Revisited**

One-hundred-and-fifty years after Rafinesque’s visit, Canton overlooks Lake Barkley, the flooded valley of the Cumberland River. The lake and other obvious recent activities have substantially changed this Mississippian town and its vicinity; nevertheless, Rafinesque’s description of Canton is largely substantiated by the features that remain intact here.

A recent mapping and test excavation project at the Canton site located some of the mounds Rafinesque described in his narrative; it also identified many portions of the site that have been greatly altered or destroyed by modern buildings, drives, parking lots, and gardens (Figure 6). The next few paragraphs draw from the recent report by Stout et al. (1994).

As Rafinesque predicted, the site is gradually becoming less visible. The fortification contours have disappeared and some of the mounds have been obliterated. Although Rafinesque’s Mound 1 is still visible, it is no longer the rectangular platform he reported nor is it as tall. Modern landscaping to remove pot hunter’s holes and to smooth the mound remnant’s contours also changed its shape. The now rounded mound is the largest of those remaining at the site,
SOUTHEASTERN ARCHAEOLOGY 14(1) Summer 1995

standing just over 4 m tall, 20 m long east-west, and 15 m wide north-south.

A broad, shallow dome marks the place of the deflated or removed circular platform (Mound 2) that, according to Rafinesque, once sat just north of Mound 1. The east wing of a church sits atop Rafinesque's Mound No. 3, the center of which was excavated for the church's stone foundation. A slightly elevated area may mark the location of Mound 4, but no rectangular mound contours can be seen. The remnants of Mound 5 are clearly visible despite the efforts of one or more pot hunters to gut its center. Mound 6 corresponds to the location of a Victorian house, but nothing of the mound appears to remain.

Other features identified by Rafinesque have become problematic over the past 150 years. The small conical mound (No. 7) and the fortification line south of Mound 6, both shown in Rafinesque's map, are no longer discernible on the surface. Mound 8, which even at the time of Rafinesque's visit had been partly destroyed, is hardly recognizable as a mound, and may be impacted beneath a church's asphalt parking lot or two church buildings. The depression labeled No. 9 was flooded and overgrown when the University of Illinois crew visited the site, so we can say little about its modern condition relative to Rafinesque's observations. Rafinesque's description of the mounds on the north side of the site are even more difficult to interpret. He refers to a "tall, square mound to the north (Mound 10) with small mounds," but the part of his map labeled "10" is between two small conical mounds on a large natural ridge and lying along a fortification line. In Rafinesque's map, a rectangular feature is drawn on the western third of the ridge and within the fortification line. Therefore, he interpreted either the rectangular feature or the ridge on which it was situated as a mound and the location of a large aboriginal tomb. If Rafinesque intended his drawing of the rectangular feature to represent a mound, then it probably lies beneath a ranch style house built in the second half of this century. If, on the other hand, he intended to identify the entire ridge, then much of this portion of the site has been lost. The rest of Rafinesque's site description cannot be confirmed, but informants indicate that in the 1950s burials were bulldozed out of the western end of the ridge (the current house site) and along much of the ridge top where Rafinesque drew the small circular mounds. No remnants of the small mounds have been found.

Surface collections and excavations of 50 x 50-cm and 1 x 1-m test units yielded limited stratigraphic data because of the site's variable integrity. Mississippi Plain and Mulberry Creek Cordmarked were the most common ceramic types. Although most historic debris tended to be present near the surface of the test units, most levels contained both historic and prehistoric material, indicating considerable mixing of the deposits. On the basis of the recovered pottery, Stout et al. (1994) place the Canton town in the Jonathan Creek phase of the Lower Tennessee-Cumberland region. Clay (1979) estimates that the Jonathan Creek phase began around A.D. 1045 and parallels the Black Bottom's Angelly phase, as described by Riordan (1975) between A.D. 1100-1300. Butler (1991: 266-267) takes issue with Clay and Riordan's dating of these phases and limits Jonathan Creek to about A.D. 1000-1100 and Angelly to A.D. 1200-1300. Jonathan Creek phase ceramics are characterized by Baytown Plain, Bell Plain, Mississippi Plain, Mulberry Creek Cordmarked, McKee Island Cordmarked, Kimmswick Fabric Impressed, and Old Town Red types (Clay 1979). The most common Jonathan Creek vessel forms were globular jars with loop handles or bifurcated lugs, salt pans, and hooded bottles (Clay 1979).

Despite Rafinesque's otherwise clear and accurate site observations, some problems do exist in his description of Canton's physical setting. First, it is unclear whether he places the site location at 50 miles east of the Cumberland's mouth at the Ohio River or 50 miles east of the Ohio's mouth at the Mississippi River. By stream channel, Canton is about 100 km (60 mi) upstream from the point where the Cumberland empties into the Ohio River; as the crow flies, it is approximately 90 km (55 mi) east of the confluence of the Ohio and Mississippi rivers. Second, although the limestone bluff to which Rafinesque refers does form the western edge of the site, it ranges only between 5 and 15 m above the floodplain, which is much less topographic relief than he describes. Elevations within 5 km of Canton do not vary more than 50 m (164 ft), including the land north of the small stream channel Rafinesque refers to as Ramsay Creek. Elevations within the site vary no more than 30 m (98 ft). Thus, Rafinesque's 400-ft descent down a limestone bluff is puzzling. The topography of the floodplain relative to the Cumberland's stream channel is also less than indicated in the Rafinesque article; the rise from the original river bank to the highest point of the Canton site is 37 m (120 ft), not the 170 ft reported.

Other Sites Described in Description d'une Ville Ancienne

Rafinesque's "Middle Age of the primitive peoples of America" and his choice of sites to bracket the Canton site in time reveal his understanding and scientific approach to the problem of the indigenous population as descendants of the abandoned earthworks predating the sixteenth century.

The "large amphitheater or solar temple . . . near Mud Creek" (Figure 4) is similar to several Adena
“sun circle” complexes recorded in Kentucky. Of those depicted in Squire and Davis (1848), this plan is most similar to the site at Mt. Sterling (Squire and Davis 1848: Plate XXXII).

The fortified Mississippian town near Bowling Green, 15WA354, is likely to be the other site (Figure 5) to which Rafinesque refers in his article. Rather than being situated two miles from Bowling Green, as Rafinesque describes it, this Mississippian site is 3.2 km (2 mi) from the Green River paddle boat landing at which Rafinesque would have disembarked (Jack Schock, personal communication 1989).

Rafinesque’s dating of the Adena circle complexes (“the amphitheaters, temples, and the other similar monuments”) at over 2,000 years and of the fortified villages at 1,000 years, based on the thickness of overburden and forest maturity, is in remarkable accord with current dating, considering the numerous methods for determining site age that have developed in the past 150 years. His interpretation of the culture associated with the Adena circles as more “civilized” than those who constructed the more recent fortified sites seems quaintly ironic, knowing now what we do about Mississippian culture and civilizations generally.

Conclusions

Rafinesque’s 1833 article gives us a new glimpse at a Mississippian town site and two other Kentucky sites before decades of farming and other land use obliterated their surface features. It also offers a fresh example of the detail and quality of Rafinesque’s archaeological research, work that was decades ahead of his contemporaries. Taken together, his archaeological publications, although of uneven quality, greatly increased the scientific and public awareness of the archaeology of Kentucky and the Ohio Valley region.

Rafinesque was not an archaeologist in the modern sense of the term. He did not excavate any of the sites that he reported, nor did he devote a significant portion of his time to the investigation of the sites that he discovered. He did, however, systematically compile and publish invaluable information about many sites during an era when just traveling to distant parts of the Midsouth was a major undertaking.

His eccentricities color his legacy and overshadow his genuine contributions. Nevertheless, while he may have taken naturally to the role of “Le Fou,” his 1833 article is evidence that Constantine Rafinesque ranks among the first archaeologists in the Midsouth worthy of the name.

Notes

Acknowledgments. Thanks to Kit Wesley, Stephen Williams, and an anonymous reviewer for their comments on the draft manuscript. Williams has been on Rafinesque’s trail longer than we have, and his insights were particularly helpful to us when we prepared the final draft. Jack Schock provided crucial information about the probable identity of Rafinesque’s site near Bowling Green. Translation of Rafinesque’s article provided by the senior author.

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