



Courtesy Church Archives

FIG. 1. Men in search of artifacts, ca. 1911. Daniel E. Soper led groups of interested persons on digs around Michigan. From left to right: Edward Harrigan, James Savage, Reverend Laurentuis, Daniel E. Soper, Charles Allen, and Dennis B. Hays.

Tools Leave Marks

Material Analysis of the Scotford-Soper-Savage Michigan Relics

Richard B. Stamps

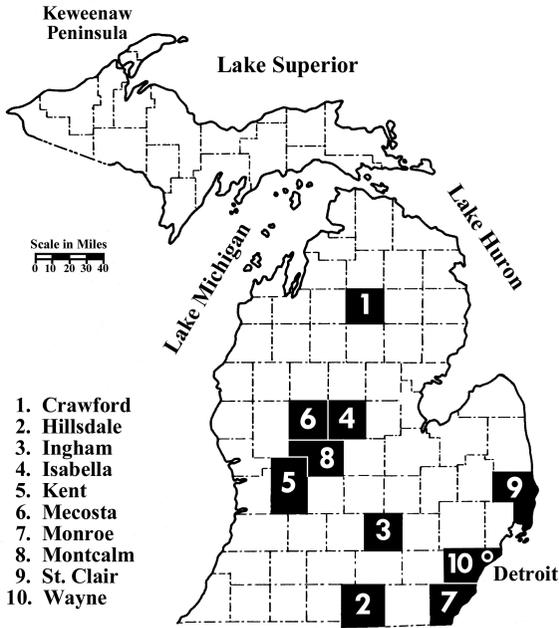
Extensive collections of supposedly prehistoric artifacts known as the Michigan Relics or the Scotford-Soper-Savage collection—possibly as many as 3,000 pieces¹—exist across the country. I have personally examined more than 1,000 from four different collections.² What is so special about this collection of artifacts? Why does it merit further study? Although numerous previous studies have suggested that the materials were not made by ancient people but are of modern origin,³ there is ongoing interest in the collections. Dr. John Halsey, the state archaeologist of Michigan, says that his office gets more requests to see these materials than any other single collection.⁴ The Michigan State Archives was responding to queries as this piece was being written in 2000.

Local antiquarians and other interested persons recovered the pieces from approximately 1890 to 1920 (fig. 1). At that time, field techniques and the importance of careful field notes, maps, photos, and documentation had not been firmly established in archaeology. Documentation of any kind, most particularly field notes associated with these finds, is actively being sought, but none has been located. Investigations at eight institutions have failed to provide important information relating to the context of the finds.

People interested in the finds wonder where the sites were located. What does material analysis of the artifacts reveal about their origin? To what time period do the artifacts date? Who were their makers? The purpose of the research reported in this article is an attempt to answer these questions.

MICHIGAN RELIC SITES

The first reported discoveries were made near the villages of Wyman and Edmore in Montcalm County, Michigan, in 1890. While digging postholes for a fence, James Scotford recovered an artifact that Kinnaman and Savage characterized as a “large earthen casket;”⁵ Kelsey calls it “a small cup of clay.”⁶ Additional finds followed, and by 1920, artifacts had been dug up in sixteen counties in the lower peninsula of Michigan (see map).⁷ John A. Russell,



Probable Counties Where Scotford-Soper-Savage
Artifacts Were Unearthed
(Counties are listed in alphabetical order)

who carefully studied the digging and artifacts at the time, reported on the area around Detroit. He states, “In this 40-acre woodlot there appeared to be upward of 1200 mounds, of which something more than 400 have been opened.” He mentions other locations around Detroit and notes that 170 of them had been opened. He clarifies that not all mounds produced artifacts—perhaps one in ten. Finally, he states that the mounds varied in size and orientation.⁸

Dr. James E. Talmage, director of the Deseret Museum in Salt Lake City, Utah, participated in diggings in Detroit on November 15, 1909. He recorded in his diary that the mounds were small: “Generally their length is not more than four or five feet, with an average width of two to three feet.”⁹ Only a few were more than two or three feet high. Russell describes the construction of the mounds thusly:

The original soil being slightly hollowed out; . . . a wood fire was burned thereupon, whether for the purpose of incinerating the dead or not, being open to question; that upon the ashes and unconsumed charcoals of these

fires, when cooled, were placed the objects which are now being recovered, and that the earth surrounding the mounds . . . was piled thereupon to produce the tumulus.¹⁰

The mounds were ellipsoidal in form and usually on an east-west axis, although north-south examples were recorded. Kelsey and Talmage have suggested that the mounds are in reality naturally occurring hummocks or little knolls—which Michigan lumbermen refer to as “turnouts,” or elevations produced by overturning trees.¹¹ Given Michigan’s extensive forests, this seems like a viable alternative to the theory that the mounds are human made.

Typically, James Scotford and his assistants would dig until they located an artifact, and then the dignitaries who sponsored the work were invited to remove the artifact. On several occasions, the dignitaries signed affidavits stating that the artifacts are genuine because they recovered the artifacts themselves.¹² The majority of the finds seem to have come from the top two feet of the mounds.

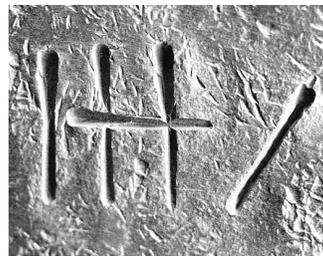
MATERIAL EXAMINATION OF THE MICHIGAN RELICS

Given the absence of field notes or documentation concerning the origins of the Michigan Relics, we are constrained to learn as much as we can from the collections themselves. The collections tend to be grouped because of their shared attributes. Although the materials from which they are manufactured differ, they were dug up during a certain period and they have common decorations, design elements, manufacturing techniques, and in most cases an identifying symbol: “IH/” (fig. 2).

Four Major Artifact Groups

Artifacts in the Michigan Relic collections are clay, copper, slate, or other stone. This study will not examine the “other stone” category because they are rather nondescript rocks. They exhibit the “IH/” mark but have few other traits that could answer any of the questions we are posing about origin and authenticity. Although the Michigan Relics share several stylistic and design similarities, the unifying attribute is the “IH/” symbol that appears on almost all pieces.

This defining symbol has been variously referred to as “a tribal mark;”¹³ “the



Courtesy Richard B. Stamps

FIG. 2. The “identification” symbol. Virtually all the Scotford-Soper-Savage pieces have been marked with this “IH/” symbol. No one knows precisely what it stands for, although hypotheses range from “a Mystic Symbol” to a forger’s sign.



Courtesy Richard B. Stamps

FIG. 3. An assemblage of Scotford-Soper-Savage artifacts. This photograph of artifacts in the University of Michigan collection indicates the range of size and shape found in the collection. The central item is a box topped by a sixteen-inch figure holding a large tablet. Courtesy Cranbrook Institute of Science.

‘signature’ of the race or the civilization of which the objects are the historical remains;”¹⁴ “a Mystic Symbol;”¹⁵ I.H.S. (meaning Jehovah);¹⁶ a “brand;”¹⁷ Scotford’s “trademark;”¹⁸ or, as Kelsey suggests, a “sign manual . . . of the forger.”¹⁹ Whatever it is called, the mark appears on almost all of the pieces.

Clay. Clay was used to produce a wide variety of artifacts, including bowls, lids, pipes, cylinders, pendants, grease lamps, figurines, tablets, and boxes (sometimes called caskets or altars, although none is more than two feet long). They range in size from a small $1\frac{3}{4} \times 1\frac{1}{2} \times 1\frac{1}{2}$ inch artifact to a large $13 \times 8 \times 4\frac{3}{4}$ inch box topped with a 16-inch-tall figure holding a $7\frac{1}{2} \times 10\frac{1}{4} \times 1$ inch tablet (fig. 3).

The texture of the clay varies from a fine grain with no temper to a coarse paste with sand and large pebbled temper.²⁰ The artifacts were mainly created with slab or modeling techniques, not with a potter’s wheel. Some pieces were sunbaked while others were fired at a low temperature. There is no evidence of glaze, though some pieces seem to have been treated with a slip or wash that included gray and black pigments. The firing temperature was low, and numerous firing clouds of red, orange, and black suggest that the firing temperature was not closely controlled. The manufacturers probably did not use a kiln.

Decorative techniques on the clay artifacts include incising, appliqué, raking, and—most popular—the imprinting of various symbols by small sandstone stamps. Three different sets of stamps have been found: one in the University of Michigan collection and two in the collection held by The Church of Jesus Christ of Latter-day Saints. Some of the stamps were used

to create repetitive patterns; some have been interpreted as words in an ancient script.

Copper. Numerous copper artifacts are also found in the collections. Copper has been used in the Great Lakes area since the time of prehistoric cultures dating back to the Late Paleo-Indian and Archaic Period some 7,000 years ago.²¹ Nuggets of relatively pure copper had been brought to the region as flow copper by glaciers. Copper was mined in the upper Lake Superior region and has been the source of the majority of the copper found in the North American archaeological record, although other sources are known to exist.²²

Aboriginal copper artifacts include arrowheads, spearpoints, axheads, knives, chisels, punches, celts, spuds, adzes, wedges, gouges, pikes, drills, awls, needles, harpoons, fishhooks, beads, bangles, bracelets, rings, gorgets, pendants, hair ornaments, and earspools. In comparison, the Michigan Relic collections exhibit a wide variety of copper artifact types, including arrowheads, spearpoints, axheads, knives, chisels, swords, punches, a sickle, a trefoil, a saw, a file, a hammerhead, boxes, a can, shoes, bowls, crowns, chains, chain necklaces, amulets, a toy boat, disks, coins, and tablets. There are a few unidentifiable copper pieces as well.

Studies by professional archaeologists over the past one hundred years lead to the conclusion that

of one thing we are certain: no native copper was deliberately smelted. Metallographic analysis of numerous copper specimens from eastern North America has not found the telltale changes in their internal crystalline structure that would have occurred if metals were heated to their liquid state to remove their impurities. Nor have we anywhere seen signs of the furnaces or crucibles needed to melt native copper or of the sulphide copper ores of the Keweenaw [in Northern Michigan].²³

Clark and Purdy conclusively state, "There is no evidence of melting and casting in the artifacts that we examined. This technology apparently did not emerge in North America until the seventeenth century."²⁴

Traditional Michigan prehistoric copper manufacturing techniques include hot and cold hammering, annealing (heating to soften the copper to make it more malleable), grinding, cutting, perforating, polishing and burnishing, molding (sheets pushed or hammered into or around prepared forms), calding (putting thin copper sheets over wood, shell, or clay), riveting, and embossing. Some pieces were likely swadged. To swadage an artifact, one carves out a shape in a stone to form a mold, then pounds a piece of copper into the indentation until the copper assumes the shape of the mold. When analyzing Michigan's prehistoric copper artifacts, McPherron asked, "Why did most of the artifacts look as if they had been made up of several pieces?" and then answered his own question by noting

that the manufacturers folded the material over on itself at least once, creating a laminated appearance in these Native American pieces.²⁵

Slate. The third common raw material found in the Michigan Relic collections is slate. Due to its distinctive cleavage pattern, slate produces relatively thin, flat slabs, and it frequently is found as a raw material in the archaeological record. Slate is a soft stone that can be easily worked and shaped. Most notably, it is used for making pipes, banner stones, bird stones, pendants, effigies, weights, crescents, gorgets, axes, and discoidals.

In laboratory tests conducted for this study, I was able to inscribe lines on a slate sample with soft copper wire (nipped to a sharp edge), hardened copper wire (hammered to produce a cutting edge), a chert stone flake, and a steel blade. Other, harder stone is usually made into functional tools like arrowheads, spearpoints, and knives. In the Michigan Relic collections, almost a third of the pieces I examined were made of slate. Items included effigies, pipes, points, knives, batons, but, most notably, inscribed tablets. The tablets are a variety of different shapes and sizes and are mostly black or dark gray.²⁶

Prehistoric artifacts are made from naturally occurring slate fragments and outcroppings. In the historic period, slate was a commonly used and readily available material. It was used mainly as a roofing material, but it was also used for “sidewalks, hitching posts, steps, foundations, billiard tables, mantels, headstones and electrical switchboards.”²⁷ It was also used to construct windowsills, fireplace hearths, countertops, blackboards, and small student writing slates.

Stone. A wide variety of other Michigan Relics are made of stone. One of the smallest measures 1 x 1½ x ¼ inch. Several small sandstone pieces were carved into stamps for decorating clay. Igneous rocks were ground and polished into pendants and other shaped stones.

Specific Artifacts

A detailed description of several of these artifacts yields the following particular results.

Clay. The ceramic pieces in the Michigan Relic collections are interesting because they are so unlike the materials recovered before 1890 or after 1920 by farmers, local collectors, and amateur or professional archaeologists. Michigan Relics are clearly distinct from traditionally excavated materials in type, shape, size, manufacturing technique, and design elements. Additionally, Michigan Relics exhibit a range of very fine grain clay paste with no temper to very coarse, heavy sand paste with a large-pebble temper that goes well beyond what is usually found in Michigan.

One example is a clay box (U of M #21482) whose walls contain rounded pebbles up to one inch in diameter. Most local temper is angular

and gritty—even on the surface. The Michigan Relic samples are too smooth on the surface to be prehistoric.²⁸ The layered cross-section of the pottery sherds is not typical. The slab technique for manufacturing boxes produced very thick pieces (U of M #21492 and LDS #60-5603), thicker than anything found outside the Michigan Relic context. Additionally, these slabs are too even and flat to be authentic.

Kelsey reports that, in 1891, Alfred Emerson observed the marks of machine-sawed boards imprinted on the bottom of a box.²⁹ Spooner reported the imprint on a clay slab of a board cut by a modern saw.³⁰ I observed saw cut marks from a wooden plank imprinted on a clay lid (U of M, tray 5), a clay box lid (LDS #60-5634), a clay box (LDS #60-5636), a clay oval container (LDS #60-4893), and a clay slab with a figurine (LDS #60-5663) (fig. 4). In addition to the wood impressions, some show the “line of cut” saw marks from rough-cut lumber. LDS #60-5634 shows the marks of a planer from a surfaced or finished piece of wood. Because modern tools leave modern marks, it is logical, with these additional examples, to agree with Kelsey and Spooner that the clay artifacts having the “IH” symbol on one side and historic period woodprints on the other date to the historic period.

Kelsey asserts that the early clay Michigan Relics dissolved in water.³¹ I repeated this test with clay objects I created myself from local Michigan clay deposits as well as commercially available clay. Three objects, a bowl, a figure, and a 3 x 5 x ¼" slab, were shaped and then allowed to air dry. In forty-eight hours, they were hard to the touch and durable. When placed in water, however, they returned to lumps of mud. Sherd samples measuring less than ½" in diameter from the LDS collection (#5093, #5349, #5634, #5637, and #5663) were placed in water with the same results—they dissolved into heaps of mud (fig. 5).

Relics that dissolve in water could not survive in the Michigan ground with its rainy springs, humid summers, and cold, snowy winters. The winter frost action, combined with the day thaw–night freeze sequence in early spring destroys low-fired prehistoric ceramics from the Woodland period. Water penetrates the porous pottery and, when the temperature drops low enough, it freezes, forming crystals that split the pottery. Many of the unfired Michigan Relic clay pieces have survived for more than one hundred years only because they have been stored in museums or collectors’



Courtesy Richard B. Stamps

FIG. 4. Marks of a modern tool. Imprinted on this clay slab are the marks of a saw-cut board, evidence that this and similarly marked clay objects are not prehistoric.

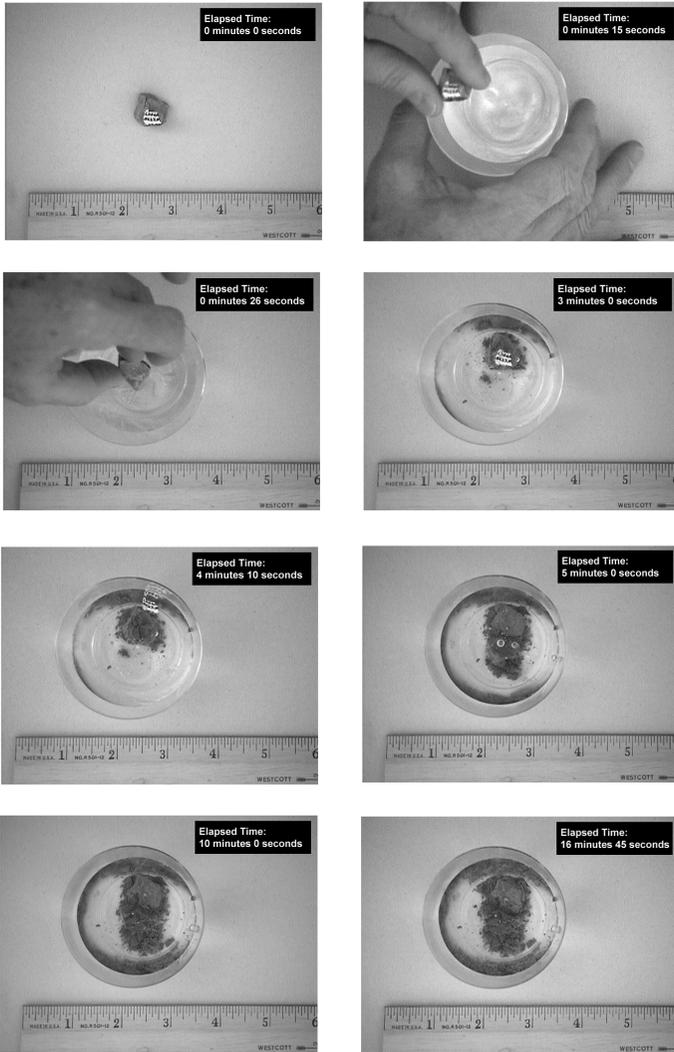
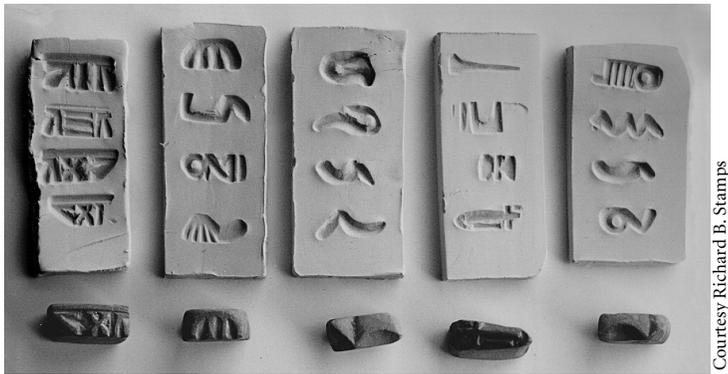


FIG. 5. Time-lapse photograph. In an experiment documented on video with time-lapse photography, a sherd from the Scotford-Soper-Savage collection dissolves into mud within seventeen minutes after exposure to water. Given the nature of Michigan weather, these results show that the unfired clay artifacts could not have survived even ten years of exposure in the ground. Courtesy Richard B. Stamps.



Courtesy Richard B. Stamps

FIG. 6. Typical stamped designs. Many clay Michigan Relics feature designs stamped into the clay before it hardens. Shown here are some of the designs and five of the actual small sandstone stamps used to create them. Stamped designs of this type have never been found on prehistoric pottery in Michigan.

cabinets, protected from the harsh Michigan weather. If placed in the ground, they would not survive ten let alone hundreds of years.

Many pieces in the collections exhibit characteristics of low-temperature firing such as firing clouds and a layered cross-section of the sherds. The firing clouds suggest that developed kilns were not being used.³² Kelsey suggests that the manufacturers were improving their techniques in response to contemporaneous (1890s) criticism.³³ Accordingly, one would expect later examples to have been fired.

Decorations on the pottery include crude cross-hatching and dentate punctures that are similar to local prehistoric Woodland examples. However, the Michigan Relic pieces lack the finesse and attention to detail usually seen.³⁴ The most notable elements are designs created with small sandstone stamps pressed on the shaped but not yet hardened clay. Many of the pieces are decorated in this manner. In addition to the “IH/” symbol, there are circles, semicircles, wedge shapes, straight lines, wavy lines, teardrops, and inscriptions imprinted on the clay (fig. 6). A search of the traditional literature, museums, files, and personal experience locates no stamps used to decorate the outside of prehistoric Michigan pottery.³⁵

The clay figurines, usually found on box lids or smoking pipes, portray both human and animal motifs. The humans appear to be European or Middle Eastern, with hats and dress unlike any North American or Midwestern designs. One clay figurine looks like a lamb and a lion lying down together as in the Bible. Another, a human head with headdress (LDS #60-5623), has a ¼" hole inside the solid piece. The head rests upon a collar-like disk which also has the same ¼" hole. Because a portion of the headdress

was loose, it was removed in the laboratory in order to examine the underside. The previously unexposed section revealed a light-buff-colored paste that looked quite fresh and clean. The piece appears to have been “painted” with a thin gray to black wash or slip to make it appear to be old. Other pieces exhibit this antiquing technique, including a clay container (LDS #60-4893) and a clay slab lid (LDS #60-5663).

Copper. The copper pieces in the Michigan Relic collections provide an interesting study of raw material and manufacturing technique. Michigan has a long, well-documented history of the use of copper for making artifacts. Prehistoric copper artifacts were created from naturally occurring nuggets or mined pieces of pure copper that were then shaped by successive cold hammering (which hardens the copper) and annealing (which returns it to a soft, workable state) until the desired shape was obtained. Our challenge here was to determine if the Michigan Relic copper artifacts were produced from cold-hammered, naturally occurring copper or from smelted stock produced with historic-period technology.

To smelt copper, one needs a furnace using coal, forced air, crucibles, and molds, because a temperature of 2,200°F is necessary. Burning coal produces a waste product commonly referred to as clinkers, but none have been documented in the archaeological literature. This evidence supports John Halsey’s assertion concerning aboriginal artifacts: “Of one thing we are certain: no native copper was deliberately smelted.”³⁶

Talmage submitted a copper sample for testing.³⁷ The results were detailed in a letter to him from F. W. Hodge, ethnologist-in-charge, Bureau of American Ethnology, at the Smithsonian Institution. The report, by Dr. Arthur L. Day of the Carnegie Institution of Washington, concluded, “As you perceive, the tests indicate that the sample submitted is a poor quality of smelted copper and not native metal.”³⁸

I analyzed artifact LDS #60-5428, which is shaped like a short sword (fig. 7), because it is representative of many pieces. In the laboratory, a ¼" section was removed from the end of the handle and mounted in a plastic cylinder. The exposed surface was polished with 1200 grit paper and then treated with 6 micron diamond spray abrasive to create an almost mirror surface. To bring up the grain structure, I etched the piece with nitric acid. Microstructural evaluation revealed that in general, the grain structure is uniform in size and shape with no inclusions (fig. 8). This condition is created only when copper is smelted.³⁹ In cross-section, I observed that the temperature difference on the surface differs slightly from the temperature at the center. This difference is another evidence that the piece was made from smelted ingots that had been hot-rolled. Additionally, the piece I studied was too flat to have been built up by the cold-hammer, folding, laminating process that we see in Native American artifacts. This piece

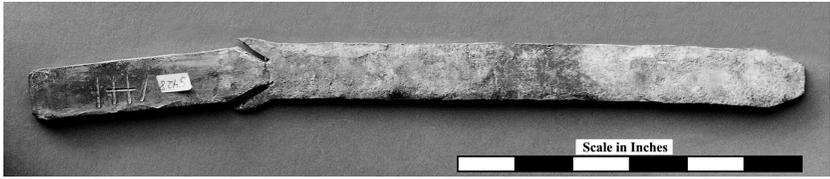


FIG. 7. A representative copper artifact (LDS #60-5428). This sword-shaped artifact was apparently made from commercially produced rolled stock. For a detailed description, see the main text. Courtesy Richard B. Stamps.

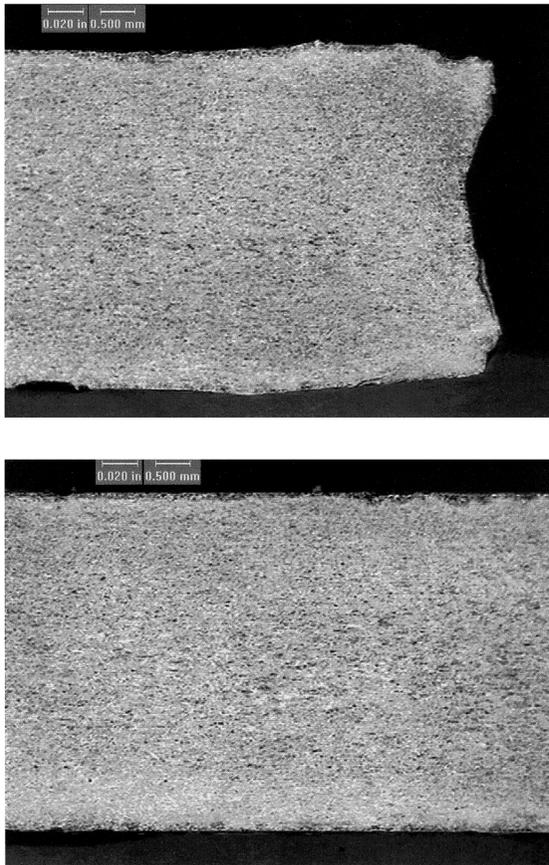


FIG. 8. The grain structure of LDS #60-5428. Generally uniform and containing no inclusions, this grain structure is produced only by smelting the copper. Smelting was not used by prehistoric natives, who shaped copper nuggets or pieces of pure copper they had mined. Courtesy Richard B. Stamps.

clearly has no folds or forging laps. It is also extremely regular in thickness, with a range of .187 to .192 inches. A measurement of .1875 equals $\frac{3}{16}$ of an inch—a Standard English unit of measurement and common thickness for commercially produced rolled stock. Even though the edges have been peaned (hammered to remove the straight edges), the sides are parallel, and the corners are right angles. The cross-section is rectangular, whereas most traditional pieces are diamond shaped with a strong ridge running down the center of the blade or point. The blank piece of copper from which this artifact was made appears to have been cut from a larger piece with a guillotine-style table shear or a bench shear.

Regarding the techniques used to shape and finish the artifact, the hilt appears to have been cut open with a cold chisel. (Cold-chisel marks show up clearly on another sword, LDS #60-5464 shown in fig. 9, which was cut, not with a shear, but by successive cuts from a cold chisel.) The edges on piece LDS #60-5428 were slightly peaned. The “IH/” mark was imprinted, and then the piece was treated to produce the green patina to which Talmage refers.⁴⁰ Green patina can be achieved by repeated heating and cooling, acid baths, or the application of a coating of colored materials. Most of the “knives” and “swords” do not have sharp edges; they are too dull for cutting. Additionally, there are no signs of wear or use-polish, as is seen on functional tools.

A projectile point (Lansing, Michigan A89 1-9) is very thin, and the basal notches show the cut was made from top to bottom with a chisel or cutters. The copper coin in that collection (A89 1-8) has a series of small decorative holes that were produced with a harder-than-copper punch. The knife blade (A89 1-11) exhibits chisel cut marks as well as file marks where the manufacturer attempted to sharpen the blade.

File marks also appear on a copper tablet (LDS #60-5320), a copper chisel (LDS #60-5697), and the battle-ax unearthed by Talmage.⁴¹ He notes, “The equi-distant and regular marks of a modern file are revealed by the lenses.” The heavy-gauge wirelike rings in a chain (LDS #60-5374) show wire-cutter shear marks, as do the copper pieces holding together a slate box (LDS #60-5306). Edges of a copper bowl (LDS #60-5412) seem to have been cut with metal snippers.

Drill holes appear on a hammerhead (LDS #60-5698) and a knife (LDS #60-5428). Surface treatment of the copper plates shows the manufacturer’s dependence on the use of a straightedge, probably a metal ruler, and a very sharp, fine, hand tool to scribe lines upon which to “write.” The width of the cut of the scribe line on one tablet (LDS #60-5320) is $.010 \pm .003$ of an inch. In order to make such fine lines, one needs iron or steel tools. This tablet also provides evidence of the use of chisel-like chasing tools that cut out windows in the small building depicted in the lower left corner.

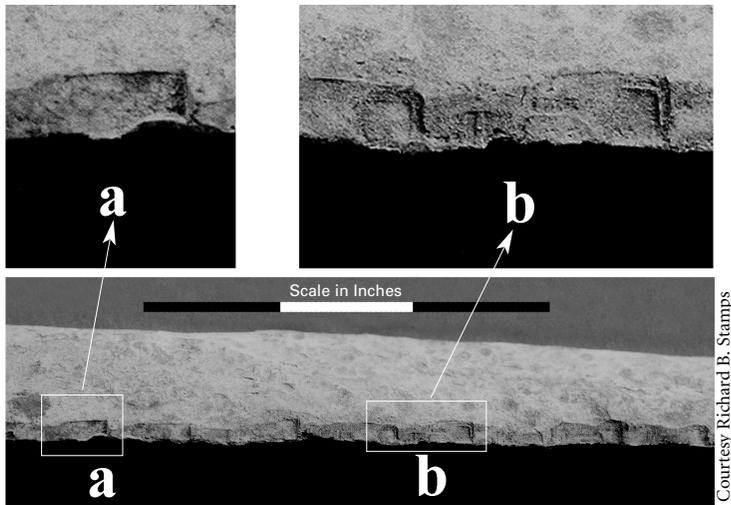


FIG. 9. Marks from a modern chisel. The edge of this sword (LDS #5464) was created by successive cuts with a modern cold chisel. The top images are close-ups of two areas of the edge. The knives and swords in the collection are too dull for cutting and lack signs of use.

This chasing tool cut rectangular holes that are $\frac{1}{16}$ inch wide, are flat on the bottom, and have vertical sides and a curved lip where the waste filing was cut off. This feat could not have been accomplished with anything less hard than an iron or steel tool. Williams observes that the graphics on the copper “show a dependence on the straightedge and compass, and the inscriptions are punched into the metal, not engraved.”⁴²

The Michigan Relics were produced from commercial copper-stock pieces by hammering, cutting, filing and indenting. This method differs noticeably from Native copper artifacts, which are enlarged by folding over, laminating, and building up. Traditional pieces have protrusions, while Michigan Relics have indentations. Reducing large blanks to finished artifacts requires an anvil or hard metal surface and a smooth-faced steel hammer. Hammer stones used by Native Americans did not produce the smooth surfaces seen on Michigan Relic copper artifacts (for example, LDS #60-5689). These smooth surfaces have been treated to make them look ancient. Treatments included hammering with a tool that left reoccurring dents and patterns (LDS #60-5316, 5317, 5319, 5416, 5482, 5518, and 5330; Lansing, Michigan A89 1-11) and treating the new copper with chemicals to create the typical green patina of aged copper.

Of special interest is artifact LDS #60-5689 (fig. 10). This copper piece is in the outline shape of a flat hand file; the sides are roughly parallel, one end

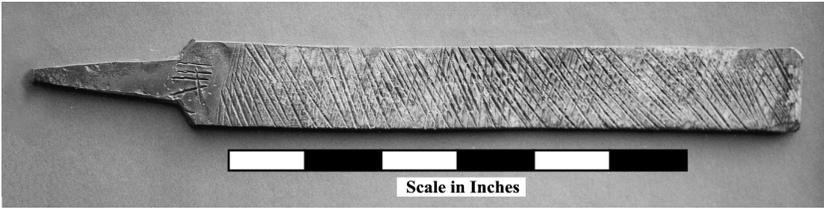


FIG. 10. A purported copper file (LDS #60-5689). Courtesy Richard B. Stamps.

is square, and the other end steps into a pointed tang handle at the heel. The back-side is smooth, with the “IH/” mark at the junction of the blade and the handle. The working surface has the immediately recognizable cross-hatching cut of a file. Close examination reveals, however, that the cuts are vertical, creating a series of repetitive V-shaped cuts along the smooth surface. The cuts are quite irregular in spacing, depth, and angle (fig. 11). The result is something that looks like a file but has no cutting capability.



FIG. 11. The file's cross-hatching. The cross-hatching departs significantly from a functional design. The cuts merely spread the metal rather than creating the curled-up pieces of metal composing the cutting edges. Also note the irregularities in spacing, depth, and angle.

Traditional steel files are made from a blank, into which cuts are made with a cold chisel. The blows of the cold chisel are cut, not vertically (at a 90-degree angle to the surface), but from a 45-degree angle, which produces a sharp, curled-up piece of metal—a cutting edge. The tool used to cut this artifact was V shaped and merely spread the blank. This Michigan Relic file is interesting to look at but is totally nonfunctional.

The extreme contrast between the smooth, bright, copper color of the tang and the bright green patina of the blade is noteworthy. The green patina is created by the uneven application of a thick mixture of green chemicals. In several locations, it stretches from ridge to ridge; it is clear that this is not a chemical growth from the inside but rather an application from the outside.

Also of interest are the cold-chisel-shaped copper artifacts (fig. 12) (LDS #60-5692, 5693, 5696, and 5697). They are sturdy and are shaped like modern tools. The top end mushrooms out, as one would see on a well-used chisel. The cutting edge, however, shows no sign of use or wear. There is no use-polish, nor are there scratch marks. LDS #60-5696 has a cutting

end that was folded together while the blade was flattened by hammering. Hammering would harden the copper but not create a sharp cutting edge. The inconsistency here is puzzling. For what purpose would the tool be used? The mushroomed-out end demonstrates that great force was applied, probably with a hammer or stone, but to what end or purpose? What was to be cut? Not ceramics, not slate. Perhaps the “tool” was used as a wedge—but there is no use-wear on the ends. The top end must have been mushroomed before the cutting edge was fashioned. A square tipped punch with a round hole in the middle (LDS #60-5694) likewise has a mushroomed-out end, showing that it was hammered as were the chisels.

Also problematic is the placement of the “IH/” symbol. If this were a religious symbol, one would expect to see it on ceremonial items like crowns, swords, and ornaments, or perhaps on items of personal jewelry to express one’s faith or request divine protection. The symbol’s presence on tools to make tools, however, seems inappropriate. If, however, the mark reflects a national or ethnic origin like the “Made in Japan” label on U.S. imports, who required the makers to put it on? What function did the mark fulfill?



Courtesy Richard B. Stamps

FIG. 12. Nonfunctional “cold chisels.” Although the edges of these tools are dull and lack signs of use, the top ends incongruously mushroom out as if the tools had been well used. This inconsistency is probably not explained by symbolic functions, as prehistoric tools for making other tools were rarely used symbolically.

Finally, it has been suggested that clearly nonfunctional tools could have been used in rites, rituals, or ceremonies. There are numerous examples of status or power symbols in the ethnographic record. The use, however, of tools whose function is to make other tools (such as a file) being used symbolically is rare.

Sometime before 1911, Daniel E. Soper submitted for analysis a copper spearhead (with the "IH/" mark) to Herbert E. Sargent, director of the Kent Scientific Museum in Grand Rapids, Michigan. Sargent's results confirm the use of a file in the manufacture of the piece, as well as the artificial oxidation process. He notes file marks in two different locations:

The [spearhead] bears evidence, to my mind, of being a recent manufacture for the following reasons. At point 1 on the diagram, especially, and at numerous other points there is distinct evidence of the use of a 64th inch file having been used in its make, the minute scratches being uniform and of this gauge. Experiment on metal reveals that in the hands of a careless (intentional or otherwise) workman, the file produces the regular appearance of these notches. The flanging appearance of the edges of the notches is also reproduced by the use of the file on metal. This evidence is to me conclusive of the use of a machine-made file, which of course was not available at the time of the supposed manufacture of this point.

The oxidation by comparison with our specimens revealed the following facts. It differs materially in color from any of ours, being more of a blue-green. The oxidation on this specimen is remarkably thin and uniform while ours is in many cases very thick and irregular. Of the two, the more antique should be the more oxidized, other conditions being equal. This specimen does, however, have a heavier deposit in places in the notches, irregularly subjected to such an acid solution would naturally accumulate fluid and hence oxidize deposits.

Upon point 2 in the diagram there is a distinctly unoxidized impression of what bears good evidence of having been produced by the body of a fly. Query: When the oxidation was taking place, did the fly fall upon its back on the specimen and prevent the natural oxidation. There is a distinct etching of what was probably the veins of the fly's wings. There is also some evidence of the entangling in the oxide in the notches of fibrous material coated with the oxide. This would hardly have occurred in the earth.⁴³

Slate. The slate artifacts in the Michigan Relic collections merit study in three areas: raw material, manufacturing technique, and design elements. Slate was transformed into effigies, pipes, points, knives, batons, and inscribed tablets. The tablets are most unique. They are made from very sophisticated blanks or pieces of raw material. They exhibit exact right angles, parallel sides, and smooth surfaces. Talmage observed the marks of a modern saw on an artifact: "On one long edge, the equidistant, double-line marks of a saw, almost surely a machine-made saw, are plainly seen."⁴⁴ Fredrick Starr also notes that "one of the finest tablets . . . has the lower edge still plainly cut by a slate saw."⁴⁵



Courtesy Richard B. Stamps

FIG. 13. Marks made by a saw. The equidistant marks on this slate artifact (LDS #60-4983) indicate it was cut by a modern saw.

I confirmed saw cut marks (fig. 13) on several artifacts (LDS #60-4983, 5011, and 5576). Most of the pieces also display a high degree of smoothness. LDS #60-4889 shows the telltale marks of having been milled. Welch and Izatt note the exact rectangular shapes; highly polished edges on all sides; uniform thickness; six-inch saw-blade marks visible on LDS #60-5035 and 5332, and an 8½ inch saw blade on LDS #60-5585; file marks on LDS #60-5576 and 5597; drill holes that were perpendicular and uniform; extremely sharp right angles and perfectly smooth edges on LDS #60-5591; and one piece that was a perfect square with 12-inch sides. Welch and Izatt also note the reoccurrence of the English measuring system in feet and inches.⁴⁶ Although there are many exceptions, English measurements occur repeatedly.

The wide variety of shapes, widths, lengths, and thicknesses suggests that the slate came from a large mill or factory's rejects and scraps. Detroit was a booming town at the turn of the twentieth century, when Scotford, the successful relic finder, was living there and had ready access to raw material from slate companies. Slate artifacts appear in the Michigan Relic collections in the later period (referred to by Spooner as the third phase, which started around 1908).⁴⁷ LDS #60-5576 is a piece of cut and milled slate, probably rejected by the factory, which was picked up and engraved by the maker. The timing of the engraving is clearly indicated by engraved lines that go off the milled surface into the fractured portion of the slab. Had the scribed lines been made before the fracture, they would have been on the fragment, not the core piece from which the flake was removed (fig. 14).

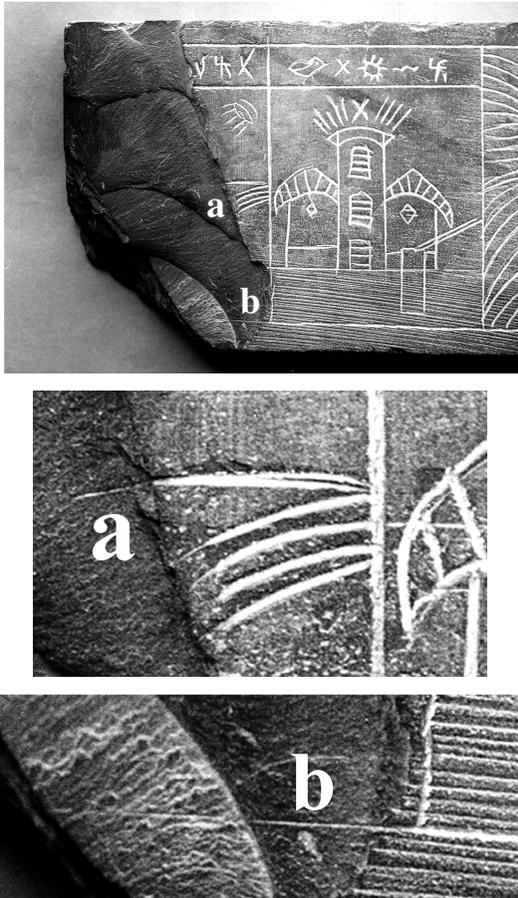


FIG. 14. Artifact made from a rejected piece of commercially cut and milled slate. The piece displays the smooth surface achieved by milling. Another evidence of the item's modern construction is the engraved lines that extend from the milled surface onto the fractured surface. The lines would stop at the fracture's edge if the artifact had been broken after it was created. Courtesy Richard B. Stamps.

The raw material must have been shipped into the area, because there are no Michigan slate quarries. Archaeological excavations at Jamestown, Virginia, have unearthed roofing slate in the strata dating from 1625 to 1670. Slate roof examples show up in Boston (1654) and Philadelphia (1699). Early slate was imported from North Wales, but by 1785 the first quarry was opened in Pennsylvania. Slate production increased dramatically following the Civil War, and new quarries were opened in Maine, New York, Vermont, and Virginia. "The U.S. roofing slate industry reached its

highest point between 1897 and 1914⁴⁸—in 1899, there were over two hundred slate quarries operating in thirteen states. Pennsylvania was the largest producer of all. Replaced by substitute materials such as asphalt, slate roofing became less popular but was being used for other architectural purposes such as window sills and flooring as well as in switchboards, panels, and other electrical insulators. Bowles notes that slate is “easily cut and drilled.”⁴⁹ Thus by the turn of the twentieth century, an easily worked stone material was readily available for the production of artifacts in southeastern Michigan.

The raw material shows up in the Michigan Relic collections in the form of both roofing slate (which is split with chisels and wedges and shaped by percussion trimming) and finished pieces (which are saw cut and milled). The University of Michigan collection has nine large slate artifacts (points, knives, and an axhead, collection #21492). Five are marked with the “IH/” symbol. The LDS collection has numerous slate tablets.

The slate Michigan Relics were produced by splitting, trimming, sawing, milling, filing, and polishing. After the artifact was shaped, the inscriptions, designs, or drawings were created. One question arises: what tools were used? Talmage notes that the engraved lines were very fresh and clean: “The lines made by the graving tools, when examined microscopically, show fresh fractures, practically indistinguishable from others made in the course of experiment at the time of the examination.”⁵⁰

As I sought to replicate Talmage’s evaluation, I found I could not mark the slate with my thumbnail, but I could cut lines with a chert blade tool, hardened copper, and even the sharp edge of a piece of copper wire cut with wire-cutting pliers. The copper cuts, however, left a copper-colored residue along the inside of the cut. The steel blade of an exacto knife produced the clearest, sharpest lines. I agree with Starr, Kinnaman, and Talmage that the “incisions on the slate . . . were made with edged tools of steel.”⁵¹ As with the copper tablets, it appears that the designs were cut with a steel tool and a straight edge ruler.

Additionally, the shape and character of a piece of milled slate often determined the design. Specimen LDS #60-5597 is a prime example. The profiled head’s headdress is expanded to fill the available space. The holes on this piece are not used with the profile and only one is used on the reverse side. Why expend tremendous energy to drill the holes if they have no function? These drilled holes, which are parallel sided and more precise than usually found on prehistoric pieces, also appear on other Scotford-Soper-Savage artifacts.

Though a thorough analysis of the iconography that appears on the slate, copper, and clay artifacts is beyond the scope of this article, it is noteworthy that, in general, the character of the images is unlike anything

found in the Midwest. The physical characteristics of the people (LDS #60-5119, 5325, and 5558), their apparel (LDS #60-5116, 5119, and 5322), palm trees (LDS #60-5324 and 5602), chariots (LDS #60-5325 and 5602), as well as other details (LDS #60-5106, 5112, 5114, 5242, 5292, 5325, and 5557) have no local parallels.

Byzantine domes, pyramids, buildings, doors with windows on the sides, and double-hung, framed windows suggest Masonic Hall architecture. The use of perspective in drawings is a concept that did not appear in Europe until the fifteenth century—much too late to have come to Michigan with the lost ten tribes or even the fifth-century Coptic Christians—two of the theories concerning the artifacts' origins. There is also a question about the graphic depicting the image of deity.

The model for the script used on the Relics comes from at least three different languages.⁵² James E. Homans in a letter to James E. Talmage on March 28, 1916, writes:

I have studied them attentively, and am confident that they mean nothing at all. For example, the "plate" numbered 16 in your pamphlet is evidently an imitation of Egyptian work, both in the drawing and in the "inscription." The latter contains a number of real Egyptian signs, showing that the author had carefully studied hieroglyphic inscriptions somewhere or other. I find on careful study, however, that these characters closely resembling Egyptian hieroglyphics spell nothing at all, or, at least nothing that is decipherable. They are also mixed up with a lot of feather-shaped figures suggesting Irish "oghams" rather than "runes", which are quite foreign to any Egyptian inscriptions. The most suspicious thing about this particular plate is that the animal figures, mostly of correct shape, face to the left, instead of to the right, as in hieroglyphic inscriptions. They are made to face the left in grammars and reading books intended for instruction in the language. The author of this plate must have seen some such book, and was ignorant of the fact that all figures face in the direction from which the reading begins. As Egyptian, like Hebrew and Arabic, reads from right to left, all figures should face to the right in ordinary inscriptions. The only exception is where an inscription is twice repeated from a common center. . . . On the Scotford "relics", however, I consider that this "error" shows conclusively that the man who traced the "inscription" had no knowledge of Egyptian.⁵³

SUMMARY AND DISCUSSION

Many times in the archaeological record, we have a hole, a missing piece of the puzzle. In the case of the Michigan Relic collections, it seems that we are not missing anything but instead have extra pieces that do not fit into the puzzle. After a careful review of the pertinent literature, correspondence, interviews, reports, and the artifacts themselves, I find that the Scotford-Soper-Savage Michigan Relics reveal themselves as modern artifacts.

Evidences of Fraud

1. The finds were reported to have come from the top one to two feet from the surface. If this were the case, numerous finds would have been documented by local nineteenth-century farmers, who, walking behind their horse-drawn plows, carefully observed and collected thousands of arrowheads now in museums and collections across the state. Thirty years of personal fieldwork and museum and private collection studies in Michigan has located nothing that fits the criteria of the Michigan Relics.

2. Early believers of the Relics' authenticity said they came from burial mounds: "A great cemetery stretched from Jackson County through Washtenaw and into Wayne. Thousands of burial mounds have already been definitely located and will eventually be explored."⁵⁴ The area was said to be a "great necropolis." But as Talmage notes, "Not even a single tooth has been found."⁵⁵ Although many burials have been located, none contain Michigan Relics.⁵⁶ The photograph of the University of Michigan collection contains bones, but there is no evidence to prove that they came from the diggings that produced the Relics. Even cremations leave behind evidence that a trained eye can detect. I agree with Kelsey and Talmage that these so-called mounds were naturally occurring turnouts or elevations.⁵⁷

3. If these are the burial grounds of a great civilization that produced metal and cut and polished the slate that has been examined, where are the evidences of their buildings, homes, villages, towns, farming and manufacturing centers, furnaces, and religious and civic structures? These simply do not exist. There are larger mounds, earthworks and effigies to the south in Ohio, but none of them have produced Michigan Relics.

4. The clay tablets, boxes, figurines, and other items are very fragile and break easily. They could survive only in a sedentary place like a temple, church, museum, or a collector's cabinet. Nomadic people would not have carried such heavy, fragile items as they moved around. A sedentary people must have produced them. Where are the settlements?

5. The finds appeared only when Scotford or Soper were on the scene. Gillman, who worked extensively in southeastern Michigan, reports that none were found before 1890.⁵⁸ From 1890 to 1920, they were found only by Scotford, Soper, or family and associates. The Michigan Relic phenomenon follows Scotford in time and space. After Scotford's death and Soper's retirement to Chattanooga, Tennessee, no new examples were dug up. Al Spooner, long-time member of the Michigan Archaeological society who as a youth dug with Soper; John O'Shay of the Anthropology Museum at the University of Michigan; and John Halsey, state archaeologist of Michigan, all concur that no new finds have been reported since the 1920s. Halsey's office has documented some ten thousand prehistoric sites in Michigan. None of them have produced Michigan Relics.

6. In North America, prehistoric communities were linked in multiple ways with their neighbors. Martin notes, "Without a doubt there existed, across prehistoric northeastern North America, a continuous stream of human interactions, belief, behavior, and trade that is visible in archaeological deposits."⁵⁹ Why do Scotford-Soper-Savage collections with their unique art style, glyphs, symbols, and artifacts not show up as trade goods or trophies in the surrounding sites?⁶⁰ I suggest that Scotford-Soper-Savage materials are absent because they were not created until modern times, the late nineteenth and early twentieth century.

7. The copper artifacts are made from ordinary, commercial smelted copper that has been hot rolled.

8. Several of the slate pieces are made from blanks that have been cut and polished with modern tools and technology. Many of the pieces are cut at exact right angles.

9. The clay specimens vary widely, but the first-found pieces dissolve in water, which would make it impossible for them to survive in Michigan's harsh climate.

10. Modern tools leave modern marks. The appearance of saw cuts on the slate and saw-cut imprints on the clay are evidence of saws. Planer marks on finished wood show up on clay artifacts. Files are evidenced by their marks on copper and slate pieces. Cut marks on copper artifacts were made with cold chisels. Iron graving tools, a compass, and a ruler left their mark on copper and slate tablets.

11. Talmage observed the freshness of the cuts on the slate.

12. Close examination reveals a poor attempt to antique or age the pieces. The copper was hammered to remove the smooth surface, then corroded by a rapid chemical process, by heating and cooling, and/or by the application of chemicals. Fresh-looking, new clay pieces were treated with a gray wash to "age" them.

13. The collection contains several "nonfunctional" tools. Nonfunctional tools are the ones that have the shape of a modern tool, but the material from which they are made is inconsistent with the function of the tool. Copper, even when hardened, is too soft to be used as a file, saw, cold chisel, or knife.

14. On the copper artifacts, no wood remains show up in handles of tools, nor copper oxidized wood fragments show up in handles as we see among the Mound Builder Adena and Hopewell peoples.

15. The use of feet and inch measurements suggests connections with the historic English system used in tools and measurements in late nineteenth-century and early-twentieth-century Michigan.

16. The designs, images, scenes, and inscriptions are totally out of context for Michigan.

17. The simplistic drawings on the slate tablets are incongruent with the highly precise machining of the tablets.

18. The use of the “IH/” symbol on everything (even the soles of copper sandals) defies a logical explanation.

Motives and Means

Any successful venture requires a motive, means, and opportunity. According to Scotford's son Percy, Scotford “got about a hundred dollars' worth the last time he dug, up at Crystal Lake.”⁶¹ The *Detroit News* reported that collectors paid “a good, stiff price” for the relics.⁶² Scotford declared in a 1907 interview with the *Detroit News*, “I haven't a relic left; I sold them all to Father Savage.”⁶³ Martin notes, “There were also roving entrepreneurs who sometimes paid good money for their acquisitions.”⁶⁴ “Articles were sold on the railroads in Michigan and innocent persons were made victims.”⁶⁵

Talmage notes, “James O. Scotford was named to me as the most desirable man to hire as a digger. . . . I decided to engage Scotford.”⁶⁶ When Scotford claimed ownership of a Michigan Relic found while he labored for Talmage in Michigan, Talmage stated that the piece was rightfully his, “as the piece was unearthed by a digger [Scotford] in my employ, whose services were engaged and paid for by me.”⁶⁷ Scotford made money locating digging sites that were productive. He also sold pieces to collectors. In addition to money for himself and family members, Scotford developed a certain fame and reputation. Kelsey notes, “He manifested a skill in finding relics that made him the envy of the region.”⁶⁸ As Kelsey, Jastrow, Emerson, and others declared the first-found artifacts to be fakes,⁶⁹ Scotford may have had in mind confounding the experts. Cumming also speculates that Scotford may have been trying to provide “amusement as well as a spirited argument.”⁷⁰ All of these are possible motives.

The opportunity was ripe. There was much discussion concerning the origin of the mound builders to the south, the origins of the American Indians and the location of the lost ten tribes of Israel. Journal articles such as these in the 1890s demonstrate the interest in the extraordinary: “The Sphinxes of Michigan”⁷¹; “Pre-Columbian Discovery of America”⁷²; “Was There Contact with Asiatic Countries?”⁷³; and “Ancient Assyrians in Michigan.”⁷⁴ Many mounds, earthworks, and enclosures were being explored. People were interested in any new finds. Drawings of artifacts, designs, and ancient scripts were in dictionaries, journals, and encyclopedias of the day.⁷⁵

As far as means to carry out his activity, Scotford at first had ready access to local clay to create ceramic artifacts while he lived in rural Michigan. His later move to Detroit brought him close to a supply of copper that was used in early machine shops as well as rejects and scraps from the slate

yards. Detroit was a booming town with lots of construction. Scotford had it all: a motive—money; an opportunity—an inquiring public; and the means—the raw materials, the tools, and the models necessary to create all of the pieces found and now included in the Michigan Relics collections.

The motivation for Daniel Soper may have begun as a genuine interest in collecting artifacts; however, in the end I believe he was involved in the scam. He probably provided the diversion while Scotford planted the finds.

The case of Father Dean Savage is a more sorry one. He seems to have been drawn in to believing the relics to be genuine out of his sincere desire to prove and promote his belief in the Bible and the lost ten tribes. People get so caught up in trying to interpret the religious elements of the pictures that they turn their attention “away from consideration of the material and the crass incongruities in design and technique.”⁷⁶ It is unfortunate that Savage’s name is often now connected with this extensive collection of fraudulent artifacts.

In quantity of pieces and the length of its thirty-year span, this fraud was probably the largest perpetrated on the American people in history. Interest in the collection lingers on. However, it is now time to recognize the collection for what it is and display it in the proper “fakes and frauds” sections of our museums.

Richard B. Stamps (stamps@oakland.edu) is Associate Professor of Anthropology at Oakland University, Rochester, Michigan. He earned a B.A. and an M.A. in archaeology at Brigham Young University and a Ph.D. in anthropology at Michigan State University. He has participated in and conducted archaeological excavations in central California; central and southern Utah; the Yucatan Peninsula of Mexico; southeast Michigan; Nauvoo, Illinois; and Taiwan. His published works include articles on the Chinese Neolithic Period and on his excavations in Michigan. He directed the research at Thomas Edison’s boyhood home in Port Huron, Michigan, and has been principal investigator for thirty-six environmental impact study reports for the state of Michigan. He currently heads the Archeology Concentration in the Department of Anthropology and Sociology at Oakland University.

The author wishes to thank T. Michael Smith, archaeologist at the Museum of Church History and Art, Salt Lake City; John Halsey, state archaeologist, Lansing, Michigan; John O’Shay, Anthropology Museum, University of Michigan; Carol DeFord, curator of collections, Cranbrook Institute of Science, Bloomfield Hills, Michigan; Leon Stodulski and Karen Trentelman, Conservation Services Laboratory, The Detroit Institute of Arts; Ronald Barney, Church Archives, The Church of Jesus Christ of Latter-day Saints, Salt Lake City; and Lisa Stamps Jones, research assistant.

1. “Last Big Dig Was Soper Fraud,” *Detroit Free Press*, December 27, 1977, pages 3A and 12A.

2. The four collections are the LDS collection, Museum of Church History and Art, Salt Lake City; University of Michigan; Michigan Historical Museum, Lansing, Michigan; and Cranbrook Institute of Science, Bloomfield Hills, Michigan.

3. See Francis W. Kelsey, "Archaeological Forgeries at Wyman, Michigan," *The Nation* 54 (January 1892): 71; Francis W. Kelsey, "Some Archeological Forgeries from Michigan," *American Anthropologist* 10, no. 8 (1908): 48–59; Francis W. Kelsey, "A Persistent Forgery," *The Nation* 90 (May 1910): 603–4; Francis W. Kelsey, "A Persistent Forgery," *The American Antiquarian and Oriental Journal* 33, no. 1 (1911): 26–31; Stephen D. Peet, "A 'Stamp' Tablet and Coin Found in a Michigan Mount," *The American Antiquarian and Oriental Journal* 16 (September 1894): 313; Frederick Starr, J. O. Kinnaman, and James E. Talmage, "The Michigan Archaeological Question Settled," *The American Antiquarian and Oriental Journal* 33, no. 3 (1911): 160–64; John Cumming, "Humbugs of the First Water: The Soper Frauds," *Michigan History Magazine* 63 (March/April 1979): 31–43; Stephen Williams, *Fantastic Archaeology: The Wild Side of North American Prehistory* (Philadelphia: University of Pennsylvania Press, 1991), 180–85.

4. John R. Halsey, personal communication with author, October 23, 2000.

5. J. O. Kinnaman and James Savage, "Michigan: The Storm Center of American Archaeology," *The American Antiquarian and Oriental Journal* 33, no. 1 (January-February-March 1911): 21; James Savage, "Dactylic Alphabet," 28, Soper and Savage Artifact Collection, Church Archives, The Church of Jesus Christ of Latter-day Saints, Salt Lake City.

6. Kelsey, "Some Archaeological Forgeries," 49.

7. Kinnaman and Savage, "Storm Center of American Archaeology," 24.

8. John A. Russell, "Notes on Prehistoric Discoveries in Wayne County, Michigan," *The American Antiquarian and Oriental Journal* 33, no. 3 (1911): 135–43; quote on 138.

9. As quoted in James E. Talmage, "'The Michigan Relics': A Story of Forgery and Deception," *Deseret Museum Bulletin* n.s., 2 (September 1911): 10.

10. Russell, "Notes on Prehistoric Discoveries," 139.

11. Kelsey, "Some Archaeological Forgeries," 50; and Talmage, "Story of Forgery and Deception," 10.

12. Kelsey, "Some Archaeological Forgeries," 54.

13. Williams, *Fantastic Archaeology*, 182.

14. Russell, "Notes on Prehistoric Discoveries," 182.

15. Henriette Mertz, *The Mystic Symbol: Mark of the Michigan Mound Builders* (Gaithersburg, Md.: Global Books, 1986).

16. Savage, "Dactylic Alphabet."

17. Notation in the register of the Museum of Church History and Art, Salt Lake City.

18. Williams, *Fantastic Archaeology*, 182.

19. Kelsey, "Some Archaeological Forgeries," 57.

20. Temper or grog refers to other substances added to clay used to make ceramics. These materials make the clay less sticky and easier to work. The temper also opens the texture of the clay to allow for even drying before firing.

21. Susan R. Martin, *Wonderful Power: The Story of Ancient Copper Working in the Lake Superior Basin* (Detroit: Wayne State University Press, 1999), 151–52.

22. George Rapp Jr., Eiler Hendrickson, and James Allert, "Native Copper Sources of Artifact Copper in Pre-Columbian North America," *Archaeological Geography of North America*, ed. Norman P. Lasca and Jack Donahue, Centennial Special vol. 4 (Boulder, Colo.: The Geological Society of America, 1990), 479; and Mary Ann Levine, "Native Copper in the Northeast: An Overview of Potential Sources Available to Indigenous Peoples," in *The Archaeological Northeast*, ed. Mary Ann Levine, Kenneth E. Sassaman, and Michael S. Nassaney (Westport, Conn.: Bergan and Garvey, 2000), 183.

23. John R. Halsey, "Miskwabik—Red Metal: The Roles Played by Michigan's Copper in Prehistory North America," *Michigan History Magazine* 67, no. 5 (1983), 35.
24. David E. Clark and Barbara A. Purdy, "Early Metallurgy in North America," in *Early Pyrotechnology: The Evolution of the First Fire-Using Industries*, Theodore A. Wertime and Steven F. Wertime, eds. (Washington, D.C.: Smithsonian Institution Press, 1982), 56.
25. Allen McPherron, *The Juntunen Site and the Late Woodland Prehistory of the Upper Great Lakes Area* (Ann Arbor: University of Michigan Press, 1967), 166.
26. John W. Welch and Jason Izatt, "A Recent Physical Examination of the Michigan Relics in the LDS Collection," unpublished notes from 1994, in author's possession.
27. Clare O'Brien, "Members Survey," *Slate Valley Museum Newsletter*, vol. 6 (Granville, N.Y.: 1998), 8.
28. Richard Zurel, personal communication with the author, October 25, 2000.
29. Kelsey, "Some Archeological Forgeries," 50.
30. A. L. Spooner, personal communication with the author, October 1977.
31. Kelsey, "Archeological Forgeries," 71.
32. Richard Zurel, personal communication, October 25, 2000.
33. Kelsey, "Archeological Forgeries," 55.
34. Richard Zurel, personal communication, December 9, 2000; James E. Fitting, *The Archaeology of Michigan: A Guide to the Prehistory of the Great Lakes Region* (Garden City, N.Y.: Natural History Press, 1910), 103, 124, 138, 159; Robert G. Kingsley, David S. Brose, and Michael J. Hambacher, "The Middle Woodland Period: A Golden Age of Mound Builders and Fishermen," in *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, ed. John R. Halsey and Michael D. Stafford (Bloomfield Hills, Mich.: Cranbrook Institute of Science, 1999), 164.
35. Richard Zurel, personal communication, December 9, 2000.
36. Halsey, "Miskwabik—Red Metal," 35.
37. Talmage, "Story of Forgery and Deception," figure 2, 4.
38. Arthur L. Day, untitled report, in Hodge to Talmage, May 24, 1910, Soper and Savage Artifact Collection, Church Archives.
39. William W. Vernon, "New Archeometallurgical Perspectives on the Old Copper Industry of North America," in *Archeological Geography of North America*, ed. Norman P. Lasca, Jack Donahue, Centennial Special vol. 4 (Boulder, Colo.: The Geological Society of America, 1990), 504–5.
40. Talmage, "Story of Forgery and Deception," 24.
41. Talmage, "Story of Forgery and Deception," 25.
42. Williams, *Fantastic Archaeology*, 180.
43. Herbert E. Sargent to Talmage, July 10, 1911, Soper and Savage Artifact Collection, Church Archives.
44. Talmage, "Story of Forgery and Deception," 2.
45. Starr, Kinnaman, and Talmage, "Michigan Archaeological Question Settled," 160.
46. Welch and Izatt, "A Recent Physical Examination of the Michigan Relics in the LDS Collection."
47. A. L. Spooner, "Michigan's Controversial Finds" (paper presented at the annual meeting of the Michigan Archaeological Society, Detroit, Michigan, April 8, 1953), 2.
48. See "The Repair, Replacement, and Maintenance of Historic Slate Roofs: History of Slate Use in the United States," <http://www.oldhouseweb.com/oldhouse/content/howto/roofing/slate/1.shtml>, accessed on August 9, 2000. See also Bowles, *The Stone Industries* (1934) cited on the Internet page "1 Monson, Maine" located at <http://gamma.rwu.edu/users/pcm/pub/slate/maine.html>, accessed on August 9, 2000.

49. Oliver Bowles, *The Stone Industries*, 2d ed. (New York: MacGraw-Hill, 1939), 240.
50. Talmage, "Story of Forgery and Deception," 24.
51. Starr, Kinnaman, and Talmage, "Michigan Archaeological Question Settled," 162.
52. "Prehistoric Relics Found Here Branded by Starr as Fakes," *Detroit News*, July 28, 1911, 2.
53. Homans to Talmage, March 28, 1916, Soper and Savage Collection, Church Archives.
54. "Still Finding Relics," *Detroit Journal*, August, 26, 1911.
55. Talmage, "Story of Forgery and Deception," 24.
56. Richard B. Stamps, "Accountability in Archaeology: Who Owns the Bones?" (paper presented at the annual meeting of the Society for American Archaeology, Philadelphia, Pennsylvania, May 1–3, 1980).
57. Kelsey, "Some Archaeological Forgeries," 50; Talmage, "Story of Forgery and Deception," 10.
58. "Prof. Henry Gillman First to Refute the Prehistoric Race Claims," *Detroit News*, August 28, 1911, 2.
59. Martin, *Wonderful Power*, 191.
60. Even the small number of French who entered the Great Lakes region left a trail of glass beads, copper pots, steel axheads, and silver jewelry in seventeenth- and eighteenth-century Native American sites. The Scotford-Soper-Savage materials do not show up in other sites.
Some interpretations of the Scotford-Soper-Savage tablets suggest that this group of Caucasians was overrun and defeated by groups whose descendants would later be called the American Indians. If this were the case, one would expect to see Scotford-Soper-Savage materials or design elements showing up in the sites of conquerors. They are not there.
61. "Mrs. Robson under a Hypnotic Spell, Say Scotford Boys: Story of Their Confession of Relic Frauds Hallucination, They Assert: Aged Woman Was Often under Influence of Percy, It is Claimed," *Detroit News*, September 7, 1911, 1–2.
62. "Daniel E. Soper in a Fake Relic Business," *Detroit News*, November 14, 1907, 1–2.
63. Scotford, interview, "Relics Branded Fakes Unloaded on Dean Savage," *Detroit News*, December 15, 1907, 1.
64. Martin, *Wonderful Power*, 156.
65. Stephen D. Peet, "Editorial: Ancient Assyrians in Michigan," *The American Antiquarian and Oriental Journal* 14 (January 1892), 51.
66. Talmage, "Story of Forgery and Deception," 8.
67. Talmage, "Story of Forgery and Deception," 26.
68. Kelsey, "Some Archaeological Forgeries," 58.
69. Kelsey, "Some Archaeological Forgeries," 71; Morris Jastrow Jr., "Archaeological Forgeries at Wyman Michigan," *The Nation* 54 (1892): 71–72; Cumming, "Humbugs of the First Water," 37.
70. Cumming, "Humbugs of the First Water," 42.
71. Stephen D. Peet, "Editorial: The Sphinxes of Michigan," *The American Antiquarian and Oriental Journal* 13 (July 1891): 239.
72. T. J. McLean, "Pre-Columbian Discovery of America," *American Antiquarian and Oriental Journal* 14 (January 1892): 33–40; J. P. MacLean, "Pre-Columbian Discovery of America: Second Paper—The Sagas," *The American Antiquarian and Oriental Journal* 14 (March 1892), 87–94; J. P. MacLean, "Pre-Columbian Discovery of America: V.—Odds and Ends," *The American Antiquarian and Oriental Journal* 14 (November 1892), 316–23.

73. T. J. McLean, "Editorial: Was There Contact with Asiatic Countries?" *The American Antiquarian and Oriental Journal* 16 (May 1894): 175–79.

74. Peet, "Ancient Assyrians in Michigan," 51.

75. See, for example, *The American Antiquarian and Oriental Journal* from the 1890s through the turn of the twentieth century.

76. Kelsey, "Some Archaeological Forgeries," 59.