

# CHAPTER 4: THE SPADE UNCOVERS BETHEL ACADEMY

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For one hundred and forty-five years, the foundations of Bethel Academy lay largely covered with the debris of its razing in 1820. A few stones had been removed from its partially exposed south side, and a few stones from its north-east corner had been fashioned into a monument in the mid 1930s. Otherwise, neither the dimensions nor the configuration of its foundation was accurately known, not even by Bishop Asbury who held annual conferences in it several times.

In the late fall of 1964, Dr. Howard Shipps, at that time the professor of Church History at Asbury Theological Seminary, Wilmore, Kentucky, mentioned to me his interest in Bethel Academy. We agreed to take shovels to the site so we could dig in the debris, searching for hidden foundation walls. We hoped to establish the true dimensions of the foundation.

After obtaining permission from the owners of the land on which the site is located on the Jessamine County side of the Kentucky River, we went to the site and began digging. I knew from experience gained from helping at an excavation of Ramat Rahel, Israel, in 1959 that one should start a narrow trench at the low edge of a mound of debris and work toward the higher elevation of a mound. The debris at Bethel Academy rose only a few feet above the surrounding land, so we figured it would take but a short time to dig the trench.

We started at the east end of the south side and dug the trench toward the north. Basically, we found broken brick and plaster in the debris, which could be removed quite easily and tossed aside. We had dug the eighteen-inch wide trench only four feet when we found the well laid stones of a wall thirty-two inches wide. We then went to the north side and started a trench. We had the same result; a wall thirty-two inches wide. Stretching a tape from the outer edge of the north wall to the outer edge of the south wall, we had a measurement of thirty-five feet.

We next moved to the east side and began a trench toward the west. A wall twenty-four inches wide soon came to light. The same was true of our efforts at the west end of the mound of debris. Our tape revealed a length of eighty-six feet. Why someone at an earlier time had failed to do the simple task of digging four small trenches and making an accurate measurement of the foundation is puzzling.

Discussing what to do next, Dr. Shippo and I decided I should propose an excavation project to my class, "Archaeology of Palestine," which was scheduled for the spring quarter of 1965. The lectures and readings of the class agenda could be paired with weekend sessions at Bethel Academy. Several goals seemed achievable: 1) An application of the methods of archaeology to a nearby site of historic interest; 2) Gaining factual knowledge about the history of Bethel Academy from the walls and artifacts; 3) Correlating these facts with written documents related to the school.

When the class of ten students heard of the project, they were enthused. Soon a procedure of operation was worked out, with some working at the site and some working at a simple laboratory in a room provided by the Seminary.

#### WHERE ARE THE REMAINS OF BETHEL ACADEMY LOCATED?

From Wilmore, Kentucky, one must take State Road 29 south almost two miles to a junction with Handys Bend Road. One must turn left onto this narrow, winding road and follow it for about a mile and a half. Here on the right is a row of mobile and permanently built homes, on the left is a cluster of farm buildings. Just past a fence extending to the right is a narrow two track road. This road follows the fence about 500 feet. At the far end of the road is a shallow, wooded drainage depression which is dry, except after heavy rains. One must pass through another farm gate and at the other side of the drainage depression, enter an open pasture for cattle. To the right of the two track road, and up a gentle slope is a cluster of trees and brush. In the midst of these trees and brush are the ruins of Bethel Academy. The ruins are located at almost exactly 900 feet above sea level. The exact position is longitude 37 degrees, 44' 22"; latitude 84 degrees, 40', 10".

Visitors to the site should always get permission from the owners of the land. This permission was always generously granted to our classes, whenever they met there for excavation of the site. In 1993 the land was sold, and though the new owner is willing to grant permission to visit the site, brush, brambles and high grass make access difficult.

#### WHAT QUALIFICATIONS DID I BRING TO THIS NEW PROJECT?

For a long time I had read extensively in archaeological books and journals as background to my courses in Old Testament at Asbury Theological Seminary, since I joined its faculty in 1953. Also, while serving as the first director of the Institute of Holy Land Studies in Jerusalem, Israel, in 1959, I had the privilege of working under the guidance of Dr. Johanan Aharoni at his excavation of Ramat Rahel three miles south of Jerusalem. This archaeologist later became one of the most famous Israeli experts in his field.

Learning Dr. Aharoni's methods was exciting, and helping to uncover a significant

royal palace, stirred in my system the thrill of discovery by digging. At the time, the Israeli excavators focused on structures, and determined dates by a careful analysis of pottery found at a site. In that first season at Bethel Academy, I followed the same methodology.

Members of my class began digging April 10, 1965. The goals of the project were to uncover the tops of as many of the main walls as possible, and to save, clean, and identify all the cultural artifacts that came to light.

The class members were divided into two-person teams and assigned to remove weeds, vines, and brush with hand sickles and swinging scythes. The teams then removed soil from the top of the northern wall, which was labeled Wall A. At the same time, it was decided to tag the east wall as Wall B, the south wall as Wall C, and the west wall as Wall D. Hopefully, cross walls would be found and given tag letters later. Carefully plying shovels, hoes, trowels and whiskbrooms, portions of all the main walls and six interior walls were brought to light, carefully cleaned, and photographed.

We gave the letters: E, F, G, H, I, and J to the interior walls, moving from west to east. (See Figure 1 on page 80).

Each wall was built of blocks of unmortared stones, roughly dressed, the larger ones on the sides and the smaller stones on the inside of the wall. At the northeast corner, where Walls A and B joined, a number of stones had been removed. Presumably, these were used to erect the monument nearby. The portion of Wall A between Walls F and G was ascertained to be at its original height. The same was true of some of the west end of Wall C, and parts of Walls D, F, and I.

A variety of hand-made nails, thin broken glass (probably window pane), pieces of broken pottery and chinaware, whole and broken brick and broken plaster were collected in paper bags and labeled as to the place of discovery. Some class members chose to work at the sink in the laboratory, cleaning these artifacts, writing up identifying tags, and placing them according to kind in plastic bags. A recording book was used to list each artifact, giving each a serial number, starting with 01, stating where on the site it was found and a description of the artifact.

Each day I filled out a sheet, giving date, name of site, the areas assigned for excavation, the names of the diggers and a summary of what was accomplished. At the end of the working day, which was usually from eight a.m. till noon, each student made out a report about the task assigned. The site was named, what was done and what was found.

The class agreed the project was an exciting way to learn archaeology the hard way. This work brought to life what was done by experts in Palestine.

The class in the spring quarter of 1966 responded with the same enthusiasm to the excavation project at Bethel Academy. One team moved north along interior crosswall labeled G and at the half way mark the foundation of a fireplace was found. On the east side of this wall, two unmortared, stone walls extended out three feet. A mixture of ash and lime filled the space between these two walls. At the front of these two short walls and the ash/lime fill, were three parallel rows of unmortared brick six courses high. Directly opposite on the west side of Wall H was a matching fireplace,

but lacking the brick facing.

A foundation of sorts was found extending out from the north face of Wall A for eleven feet, six inches, and was labeled K. It was made of two parallel rows of half-bricks, four inches high and spaced four inches apart. A cap of full bricks, eight inches long, had been laid across the parallel rows of half-bricks. Dirt filled the space between the rows, but no mortar was used in its construction. This structure touched Wall A eighteen inches west of the center of Wall A, and its top was eight inches below the top of that wall. No other structure matching this one has been found along the north side of Wall A. The function of Wall K is unclear.

A portion of mortared brick wall was found on top of the north end of Wall F. It was a double row of brick laid end to end three courses high and three feet long. Presumably, this structure was part of the wall that surmounted stone Wall F.

A turning point in my archaeological experience came in the summer of 1966. I took advantage of an opportunity to join Dr. Joseph Callaway's expedition to Et-Tell, commonly known as Ai, on the West Bank, which at that time belonged to the Kingdom of Jordan. The excavation began early in June and lasted for eight weeks. Because I already had some archaeological experience, Dr. Callaway briefed me concerning his method of digging and assigned me to supervise the excavation of Area G. I also worked with him during the summer of 1968 at the same site, supervising the excavation of areas H and K.

Dr. Callaway had worked with Dr. Kathleen Kenyon at Jericho and with Dr. G. Earnest Wright at Shechem. He then earned his doctorate at the Institute of Archaeology, University of London, in England. He was an expert in the Wheeler-Kenyon procedures of excavating a mound of debris. He taught me how to lay out a grid of squares, how to remove soil a layer at a time in one meter wide strips, how to recognize and tag each layer preserved in a balk, how to find and place in tagged containers the artifacts discovered, how to find a stone wall in a pile of stones, how to make drawings of every structure brought to light, how to sketch on graph paper the layers preserved in the balks, how to clean structures for photography, how to clean and identify artifacts, then register them properly in a record book, how to glue pottery sherds, in order to restore the original clay objects as completely as possible.

In the spring quarter of 1967, I told my class of nine students about my experiences at Et-Tell the previous summer, and how I would follow this newly learned procedure at Bethel Academy.

On paper, I had already drawn a map of the foundations of Bethel Academy and had superimposed on the map a proposed grid. To achieve my goal of having every wall overlapped by a three-foot wide balk (also known as a catwalk), I laid out six rows of three "squares" each. I squeezed some of the "squares" into rectangles thirteen by sixteen feet, whereas the true squares were sixteen feet on each side. Each square was labeled with a Roman numeral, starting with I for the square at the northeast corner and moving south along Wall B. The next row to the left, facing south, began with Square IV, and so forth.

On site, careful measurements located the lines of each balk, and at the corners of each square, forty penny nails, each of which pierced a used Coke bottle cap and a

three inch square of red plastic, were hammered into the ground. These nails remained in place year after year. At the square where digging was planned, a strong cord was tied to the nails, outlining the area to be dug, and removed at the end of each day of excavation.

Because the area of a square was too large to excavate in one season, I subdivided a square into smaller units called loci. A locus (sing. form) could vary in size and a square could be subdivided into several loci, each was given an Arabic number to identify it. These loci were also outlined with nails and cords to control the area of digging. As digging progressed, the edges of the hole were repeatedly trimmed with a small pick and trowel to keep each side perpendicular to the string.

The top layer, usually only a few inches thick, was removed over the entire locus, and the soil was put through a sieve. The artifacts found in the sieve were placed in a paper bag, with a label identifying the locus and layer. The same was true of the next two layers. Occasionally, close to the walls, a fourth layer was found. The average depth to undisturbed soil ranged from twelve to twenty-four inches.

At the end of each day's work, reports were made out, drawings were made of structures, photographs were taken, and the hole backfilled enough so cattle grazing in the pasture would not be injured, should they wander through the site area.

Because some of the walls had been robbed of stones, and the level of the debris varied, there was a need for an elevation reference marker whenever drawings were made of the sides of walls, sides of structures, or the side of locus holes. This reference marker was provided by using a ten-foot length of clear plastic tubing. When needed, the tubing was nearly filled with water tinted with vegetable dye. One of the students would hold one end of the tube so that the water level in the tube matched the top edge of a wall that had not been robbed. Another student would hold his end of the tube beside a stake placed at the corner of the item to be drawn. When the water level matched the top of the unrobbed wall, the stake was marked. A stake at another part of the item to be drawn was marked at the same level and a string stretched from stake mark to stake mark. This string was called a data or elevation line and was an integral feature of all drawings made. All perpendicular and horizontal measurements were related to this string. This data line and measurements were transferred to grid paper, so that the drawing was made according to a chosen scale, usually one foot reduced to one inch. Thus all drawings had the same datum line and could easily be compared.

For several years the main goal was to dig in scattered squares, in small locus areas, to find evidence of cellars for storage of food raised in gardens near the school. No cellar was brought to light in any of the rooms of the building.

Uniformly, there were at least three strata (layers) at each locus. The first (top) stratum was black humus of two to four inches in thickness. The second stratum was the debris resulting from the razing of the building in 1820, and was made up of broken or whole bricks, mixed with broken plaster. It ranged from six to twenty-four inches in thickness. Neither stratum yielded many artifacts. The third stratum was dubbed the "gold strip," because, though only a few inches thick, it yielded a number of artifacts from the time the school was functioning. Near the walls there was the

fourth stratum of loose dirt mixed with limestone chips, but no artifacts. This dirt had probably been thrown from a foundation trench.

Since the Bethel Academy building was a somewhat reduced replica of Cokesbury College, a search was made for pictures and drawings of the building in which it was housed. Pictures of this building showed a feature that was of interest to us; its roof line had four chimneys. At Bethel we had already located the foundations of two central fireplaces. Could there be two more fireplaces? The main goal for several years was to locate and bring them to light. A working assumption was that one should be close to the east end and one near the west end of the Academy building.

If this assumption were correct, the eastern fireplace should be connected to Wall J. In 1970, we determined to dig inside Wall B in Square II, and if necessary, remove the balk between II and V. In the middle section of Wall J, a double fireplace was found, one on each side of the wall. As we suspected, we had to remove a portion of the balk between Squares II and V, to bring it fully to view. Mortar still remained on top of the fireplace, providing a "footprint" of the structure above the fireplace foundation. A check at the west end of the building assured us that Wall E had at its center a matching double fireplace. Several years were devoted to excavating around these fireplaces, and a number of artifacts were found adjacent to each of them.

The years 1973 through 1980 were spent working outside Wall D and Wall C. Our goal was to find possible remains of limestone bases or post holes which would indicate where a platform and step structure had been built. We hoped to find several of them. We assumed such structures would reveal where exterior doors were located. No evidence came to light in the loci dug outside Wall D and only limited evidence along Wall C. Near the center of this wall, there was one flat stone that might have supported part of a log platform, and one four-inch diameter post hole. There were no duplicates of these items.

Along Wall D some broken window glass and some handmade square nails were found, but both appeared in abundance along the outer side of Wall C. Sherds of chinaware and earthen jars that showed up here also, suggest they may have been thrown out of doors or windows.

One puzzle remained unsolved. Where was the food cooked for the principal's family and the boys? A study of practices at the end of the eighteenth century and the beginning of the nineteenth century revealed that large dwellings normally had separate buildings for kitchens to reduce a fire hazard. The trees and brush extended east of the school building farther than on the other sides, so we surmised that area was worthy of investigation.

In the fall of 1980, our class cleared this area of brush and measured ten-foot squares separated by balks two-feet wide. Nails and stout string were used to visualize these squares on the ground. A majestic maple tree dominated the central part of this grid.

We decided to begin digging in the two central squares along the north side and succeeded in clearing them by the end of the season. The depth of the debris varied from four to eight inches.

A number of chunks of limestone came to light but none joined to form a pattern

indicating a foundation, except at the south edge of one square. It appeared to be a corner, but was found nearly at the end of the last day of digging. Further exploration had to wait till the 1981 season of work.

During the fall of 1981, the students worked in squares to the south of those finished in 1980. By the end of the first day, stone foundations came to light, however, they were different than those found in the main building. There were four parallel stone walls and oriented, not north to south, but northwest to southeast. The structure has been identified as the kiln in which brick were fired and limestone reduced to lime for plaster. A description of this kiln will be found in the next section of this article.

During the fall of 1985, activity was centered in the southeast room of the main building. The goal was to determine whether this room might be the dining room for those who lived at the school. The abundance of chinaware sherds and cutlery in stratum three, the "gold strip" seemed to affirm this assumption. The artifacts possibly slipped through the spaces between the floor planks as they dried and shrank.

The last session of excavation was the fall of 1990. I had been called from retirement by the Academic Dean to teach the archaeology course again. I set as my goal a search for more substantial evidence of stone bases or foundations for a porch in front of a main entrance at the center point of Wall A. The choice of location of the excavation trenches was limited by the number of medium-sized trees just north of Wall A, but a three-foot wide trench was laid out in Square VII and a similar one in Square X. The results of the work were disappointing, for no stone bases or foundations were found among the debris. Not all of that area has been dug, so some future excavation may find evidence of a front porch along Wall A.

#### THE STRUCTURES OF THE AUTHENTIC BETHEL ACADEMY

There are three known structures associated with the original Bethel Academy by the cliffs of the Kentucky River. These structures were the main building, the kiln and the monument on the original site. Portions of each structure still exist. This discussion will center on the basic shapes and measurements of each structure.

The foundations of the main building are thirty-five by eighty-six feet outside measurements. Walls A and C are each thirty-two inches wide. East of the center of Wall A some of the top stones are missing. West of the center of Wall A the entire wall is intact. Just west of the center of Wall A and extending to Wall G, a notch is evident on the inside top corner; it is four inches deep and five inches wide, possibly for thick joists. Wall C, between G and H, has so many top stones missing that this feature is not present, nor is it found on the inside top corner of any of the other walls.

Walls B and D are each twenty-four inches wide. Wall B is at full height only adjacent to Wall J, whereas Wall D is at full height at the portion uncovered, which is its south half. Since the ground slopes from the northwest corner to the southeast corner, the measurement of the walls from top to bottom varies from twelve inches at the northwest end of the building to fifty-two inches at the southeast end.

Walls F, G, H, and I are fourteen inches thick, except where portions of G and H form the backs of fireplaces. Here each wall is eighteen inches thick. Walls E and J are

twelve inches thick, except at the location of the double-hearth fireplaces where they become twenty-four inches thick. These foundation walls have roughly dressed blocks of limestone without mortar. Presumably, they were taken from a shallow quarry about two hundred feet west of the building.

These walls form seven interior rooms on the first floor and, presumably, the same on the two floors above, giving a possible total of twenty-one rooms. In terms of the foundation configuration, the first floor rooms consist of two medium-sized rooms at each end, two hall/stairways and a large, central assembly room. The four end rooms are the same size, measuring fifteen feet, six inches east to west, and fourteen feet, four inches the other way, inside the foundation walls. The hallways containing the stairs are eight feet between foundation walls. The central assembly room is thirty by twenty-nine feet.

In our records, the northeast room is labeled AA, the southeast room is BB. The eastern hall/stairway is CC, the central assembly room is DD, the western hall/stairway is room EE. The northwest room is GG and the southwest room is FF.

The two single-hearth fireplaces in the central assembly room matched each other in size and construction. Like the walls they were built of roughly dressed blocks of limestone, except the west one on Wall G had three lines of unmortared brick six courses high. The "arms" of the fireplaces were two feet wide and extended out three feet from the wall to which each was attached. The firepit was thirty inches square and filled with limestone topped with ash. In the records, the single-hearth fireplace on the east side, on Wall H is labeled 750, and west one on Wall G is labeled 1010.

The two double-hearth fireplaces matched each other and the measurements of each half matched the single-hearth fireplaces. The double-hearth fireplace between rooms AA and BB is labeled 170 and the one between rooms GG and FF is numbered 1350.

Scattered among the brick in the debris were broken, sometimes whole, brick covered with a blue/green glaze. Most of these items were near the fireplaces. The glaze was probably produced by the prolonged heat of the fires in the fireplaces, which melted the silicon in the clay and changed it to the glaze.

Near the center of Wall D three courses of three rows of mortared brick were found in place. The bottom course was set back from the outer edge of Wall D one inch. The end of each brick on the second course was molded with a gentle "s" curve, which set the brick of the third course back another three inches. A broken brick with the same kind of molded end was found at the east end of the building. Presumably, this construction was true of the brick of the second course of all four outer walls. All whole bricks found in place and in the rubble measured, with slight variations, four inches wide, eight and one half inches long and two and one half inches thick. Examples of brick covered with some plaster were taken from the debris on the inside of all exterior walls. This plaster averaged a three-eighth inch sand coat and a three-sixteenth inch finish coat. The finish coat was covered with whitewash.

The double row of mortared brick found at the north end of Wall F serves as an example of how the interior walls were constructed at least to the top of the wooden joists. An abundance of pieces of plaster near the interior walls had impressions of



wooden lathe on the back side, indicating that the interior walls were constructed of wood. The plaster averaged one half inch thick for the sand coat and one eighth inch thick for the finish coat. For the most part the finish coat was covered with white-wash.

An abundance of handwrought nails, ranging in size from two penny (one half inch) to ten penny (three inches), were found in all the debris. Innumerable pieces of one-sixteenth inch thick glass, with a greenish tint, were recovered, mostly from debris outside the building.

The discovery of the kiln was a surprise. It was oriented northwest to southeast and consists of four parallel, stone foundations. In the records, these are labeled, facing north and moving from left to right, K-A, K-B, K-C, and K-D. The unmortared, limestone blocks were roughly dressed.

The width of Wall K-A and K-D is eighteen inches, Wall K-B is twenty-four inches and Wall K-C is thirty-two inches. Each is seventeen feet long and at the southeast end two rows of unmortared brick, mostly two courses, and at one place three courses high, extended across the ends of Wall K-B, K-C, and K-D.

There is an eighteen-inch space between each wall, each with several inches of wood ash along its entire length. The northwest end of each space also had two to three inches of lime on top of the ash. This lime had been found to the north of the kiln as far as ten feet away.

Evidently all brick for the main building were fired in this kiln and a number of limestone blocks were reduced to lime by the intense heat of wood fires in the eighteen-inch wide trenches between the walls. Along the west side of Wall K-A there still are several low stacks of arranged, fired bricks.

In the process of construction, the workers would have cut down trees for timber components in the main building. These components would be joists, wall studs, plank floors, rafters and roofing, as well as lumber for doors and windows. Branches could have fueled the fires in the kiln.

Quality clay was just beneath the soil and beneath the clay are layers of limestone. Water could be obtained from a nearby spring, but where could they find good sand in the vicinity? Perhaps sand had accumulated by the Kentucky River, washed down from the sandstone cliffs in the western foothills of the Appalachian mountains. If sand was not plentiful by the river, perhaps it would have been transported downstream by boat or raft. In either case, men would have had to haul the sand up a three hundred foot incline from the river to the school.

Window glass could have been brought to the building site from the East by raft or boat via the Ohio and Kentucky Rivers.

Rev. Francis Poythress deserves praise and credit for promoting the project, organizing the work crews, and for persevering four years until the building was closed in and at least the first floor finished. Yet, in retrospect, one must say the building was poorly located and oversized. It would have been wiser to have located Bethel Academy in Lexington, Kentucky, and start operations with a much smaller building.

When the original building was razed about 1820, materials were hauled to Nicholasville, so a new building could be constructed to house a school. This building

was destroyed by fire in 1857 but rebuilt soon afterward. It was then either reconstructed or modernized in 1878. The five-acre campus, school building and a dwelling were sold to the town of Nicholasville in 1893 and put in use as a public school. When these two buildings were razed is unknown, but the Nicholasville Elementary School is presently located on Bethel Academy's site.

There is a mortared, limestone monument still standing on the original Bethel Academy site by the Kentucky River. It is situated directly over Wall I, just north of its center, and was erected by the Kentucky Methodist Episcopal South Conference in 1933. The stone was taken from the northeast corner Wall A and B.

The monument is on a four-by-five foot concrete slab and is four feet high, two feet thick and three feet, two inches, wide. The bronze plaque attached to its north face was eighteen by twenty inches. As mentioned previously in the article, "The Bethel Academy Story," this plaque was stolen in 1983 and never recovered.

#### ARTIFACTS FROM THE DIRT

The register of the artifacts found at the original Bethel Academy site contains almost three thousand entries. In many instances, more than one item of the same kind are grouped under one entry. These artifacts may be summarized under several categories: 1) Materials used in the construction of the Academy building; 2) Tools used to construct the building; 3) Items associated with the instruction given at the school; 4) Items associated with the school's furnishings; 5) The cutlery used by the occupants; 6) The ceramics and glass used in food preparation and service; 7) Items that throw light on food eaten by the occupants; 8) Personal items belonging to the occupants.

#### CONSTRUCTION MATERIALS

In the previous subsection, several of the materials used in the construction of Bethel Academy have been mentioned; limestone blocks, bricks, lime and sand for mortar and plaster, lumber, window glass and nails. Details of these items need not be repeated. Below is a description of the other artifacts related to the construction of the building.

Eleven wood screws were flatheaded and slotted. Seven were size #6, i.e., one and one half inches long. Three screws were found in the holes of half a door hinge. Three screws were broken. A badly rusted door lock was found, as well as three window and door latches, one brass door knob, one drawer pull and two portions of a stone window sill. One portion had a depression, perhaps for a pin hinge belonging to a window shutter.

As one would expect, horses were used by the construction workers. The artifact related to horses is a broken horseshoe of a size that suggests the horse was small.

#### CONSTRUCTION TOOLS

A few items were portions of tools utilized in one way or another in construction work. One was an iron hammer head with curved claws, another was the broken, seven-and-a-half inch long blade of a hand sickle. There are also six badly rusted jack

knives. An interesting item is the broken tip of an auger bit two inches long and one inch in diameter. Nearby lay a three-eighth inch thick iron rod seven inches long. At the center of the rod is evidence of attachment of another rod at a ninety degree angle. Could this rod serve as the handle of the auger? Five fairly flat black stones could have been whetstones. Each had evidence of wear and each could easily fit the palm of a worker's hand.

#### SCHOOL ARTIFACTS

The artifacts that were related to school activities include one rusted pair of scissors. It was among the first artifacts found at Bethel Academy and the first to be entered in the artifact register. Four fragments of flat slate provide evidence of school assignments. Four broken pieces of slate pencil go well with the remnants of slate writing surfaces. Apparently these artifacts, after they were broken, slipped through the cracks between the floor planks.

#### SCHOOL FURNISHINGS

One item that fits this category is a crushed brass candle snuffer. The ferrule into which a handle was inserted is two inches long and one half inch in diameter. The snuffer cap is one and three-fourths inches deep and one inch in diameter.

There are a number of artifacts which are metal fragments of utensils used in the kitchen, which may have been Room AA in the northeast corner. These fragments are too small, and often too rusted, to identify specific vessels. Some fragments are thin, which may indicate pans or other containers. Other fragments are from one-eighth to three-sixteenths inch thick, which hint they belonged to heavier pots or kettles or frying pans. In each case the fragments are too small to provide positive identification.

Other types of vessels were made of earthenware. One kind is yellowware, i.e., the baked clay is yellowish and often the glaze is yellow. Some potsherds (broken pieces) were glazed on either the outer or inner side, and some were glazed on both sides. Another kind is redware which means the baked clay is reddish. Some sherds are unglazed, but the majority are glazed on one side or the other and some on both sides with glazes which ranged from a light brown to a dark brown, from a dark gray to black. Some sherds have a salt glaze, and some have a lead glaze. On either ware, two kinds of handles were found. One is a ledge-like protrusion on the side or on the curved shoulder of the vessel. The other is a strap handle, usually from two to three inches long and one inch wide. No potsherd qualified as part of a ceramic cover for a crock or a jug.

#### KITCHEN CUTLERY

Artifacts witness to a variety of kitchen cutlery. Items made of iron are seriously rusted and often broken. Knife blades, averaging six to seven inches in length, are present, most with the haft, but not the handle, still intact. Spoons tend to be made of pewter but are usually broken, leaving either the bowl or the flat, smooth handle separated. One pewter spoon five inches long with a bent handle is the exception. No large forks are present, but table forks, often broken, are of iron with two tines. In

some cases, bone is still attached on one side only, the other side lost. In other instances the bone handle is intact. No fork was complete.

#### CERAMIC AND GLASS ARTIFACTS

The greater number of the potsherds are from table ware, which are of three types: creamware, pearlware, and porcelain. All were made in British potteries and are of the cheapest varieties. Creamware and pearlware were the products of the ingenuity of Josiah Wedgwood, who sought to mix a clay that would, when fired at a high temperature, be like porcelain. About 1762, he found that by adding ground quartz and feldspar to clay of low iron content he could produce a cream colored ware that was harder than ware previously made in England. He covered the ware with a tin (white) glaze with a yellowish tinge. It was not porcelain but people liked it.

Wedgwood kept experimenting and in 1779 found he could whiten the clay with ground flint. He also found that by adding cobalt to the tin glaze he could change its yellowish tinge to a bluish tinge. This ware became known as pearlware and soon was more popular than creamware. Sherds of each of these wares have a clear distinction between the clay body and the glaze.

British potters did not learn to make porcelain vessels until the middle of the eighteenth century. The porcelain sherds are harder and thinner and has no clear distinction between the clay body and the glaze.

The ruins of Bethel Academy have provided hundred of sherds of these tablewares, porcelain sherds being the least plentiful. None of the sherds bear potter's marks or labels. Only a small piece of one cup handle has survived, and no sherd has marks indicating spots where handles were attached to the body of cups or bowls. Many of the creamware sherds bear portions of decorative patterns painted on the vessel before the glaze was applied and the final firing done. One type is annular ware with bands or stripes of brown, yellow, dark blue, black, dark or light green encircling the vessel. Other sherds had floral patterns in light brown, yellow, green, and blue. The sherds are small, so are difficult to match, thus, preventing recovery of a full pattern. Some sherds have patterns in brown, yellow, black and light purple, which suggest geometric designs.

Sherds preserving rims and bases were also small and few could be matched. A number of such sherds have enough curvature so diameters could be determined. Rim diameters are four, five, nine and ten inches. Base diameters are one and a half, two, three, three and a half, four, and six inches. Base heights are either one-sixteenth, one-eighth, or one-fourth inches. These measurements suggest that cups, saucers, and plates are represented by the sherds. Pearlware sherds are more plentiful than creamware sherds at Bethel Academy. Most sherds were small, however, as much as six inches of rim, and in a few instances rims and bases have been joined. A distinctive rim decoration on the pearlware is called shelledge and this type in either a medium green or a dark blue is plentiful. This type of rim is always scalloped and seems to be limited to plates, soup bowls, and platters. Soup bowls are one inch deep and the sherds of platters are thicker than the others.

Rim diameters and base diameters of pearlware sherds matched those of the

creamware sherds and suggest the same kinds of vessels.

Many pearlware sherds preserve indications of decoration. Annular decoration was evident by the presence of bands of red, orange, brown, yellow, blue, black, and green. These bands of color were either on or near the rim or just above the base. Almost all the bands seemed to be on the outside of the vessel.

The bits of floral design appear much like designs on the creamware with the same colors. The same is true of geometric designs. Some sherds had a medium blue design, some were large enough to show portions of the well-known "willow" pattern. Some sherds had portions of Chinese-like buildings.

The porcelain ware that preserve portions of bases indicate diameters of one-and-a-half, two, two-and-a-half, three, three-and-a-half, and four inches. The height of the bases range from one-sixteenth, one-eighth, three-sixteenths to one-fourth inches.

Many of the rim sherds are so small that it is impossible to ascertain diameters. Sherds that are large enough, an inch or more of rim length, provide diameters of three, four, five, six, and seven inches. A large proportion of the rims are slightly scalloped and wave a bit in and out, in coordination with each scallop. A smaller number of rims are straight, with no "wobble" of the body of the vessel.

These diameters suggest cups, saucers, bowls, and small plates. Only one portion of a handle one half an inch long is among the porcelain sherds. Its cross section is oval shaped, measuring three-sixteenths by five-sixteenths inches. No body sherd or rim sherd has evidence of places where handles were attached to a vessel. The English preferred to use porcelain vessels as tea service.

All rim sherds bear decorative designs, some on the outside only, some on the inside only and some on both sides. Body sherds that have decoration follow the same placement of designs, inside and out. Some of the base sherds are large enough to show designs on the inside only. There are no potter marks or symbols on the sherds.

Colored bands, stripes, dots, dashes, pendants, and circles are usually combined in a variety of geometric designs. The designs are often painted on the outside of the vessel, whether cup or bowl, just below the rim. The colors are of various combinations of gray, brown, red, yellow, orange, or blue. Some designs show signs of fading and wear. On these sherds the paint seems to have been applied after the final glazing and firing. On other sherds the colors are bright and show no wear. Under magnification, the paint appears to have been applied before the final glazing and firing.

Other porcelain sherds, broken parts of the body of the vessel, have some geometric designs, but mostly vines, leaves and flowers. The flowers are either red or yellow, the leaves are either green or outlined with black lines. The vine pattern without flowers often encircles the vessel just below the rim on the outside and varies between yellow, light brown or red. These vines appear to be below the glaze.

Very few of the china ware sherds fit together, so a grasp of the full motif of patterns is not possible. Bits of creamware, pearlware and porcelain were recovered from all rooms in which excavation took place and around the foundations of the kiln.

Apart from the shards of window pane, there are a limited number of shards of glass vessels found at the ruins of Bethel Academy; many are small. Besides shards that appeared to come from the body of vessels, there are a few that represent the lip,

neck, and sometimes a portion of the shoulder of a bottle. A few shards represent portions of the base. No complete glass vessel was recovered from the ruins.

The colors of the glass range from clear, several shades of green, a light blue to a medium brown. Reconstruction of the full shape of a vessel is not possible, but the shards available suggest bottles that could be held in one hand. No drinking vessel is clearly present in the collection of shards.

#### FOOD EATEN

Among the items that provide information about food the inhabitants of Bethel Academy ate are mussel shells. These mussels may have been found in or along the Kentucky River. Chicken bones and bits of eggshell are present. An interesting find is an almost intact eggshell found beneath a layer of broken brick and plaster. One piece of brick had touched the egg enough to make a hole about three-eighths inch in diameter. The shell was empty, so it was carefully transported to the laboratory and filled with wax. It has been the most popular artifact to visitors, especially children. Beside the egg were crushed egg shells and the chicken bones.

Other bones came from cattle and wild animals. Some of the latter were possibly trapped or shot and eaten. No fish bones have been identified as yet. No artifact throws light on the kinds of vegetables eaten by the occupants of Bethel Academy.

#### PERSONAL ITEMS

A limited number of personal artifacts in the collection can be identified. One artifact seems to be the badly rusted remains of a watch, but that evaluation is not certain. The heavy base of a pressing iron, three finger thimbles, several small pins, a copper tackhead, two marbles, a portion of a probable toy, a portion of a doll and three buckles are among the treasures.

A number of damaged buttons are in the hoard. Most are made of pewter, many with the loop on the back missing. One pewter button appears to have been misshaped when cast. The mold evidently became loose and slightly moved apart, leaving an unusable button. Seven buttons were made from bone with one hole in the center. Two others were fashioned from wood. A few buttons are brass and one is a composite of iron, silver, and glass with a loop missing on the rusty back; the silver is crimped around the circumference. The center of this button is clear glass one-fourth inch thick and has a six-pointed star, with a group of dots at its center, impressed on the back of the glass. The glass is chipped on one edge.

No coins or jewelry have been found.

In general, the artifacts unearthed at Bethel Academy correlate well with what is known of the life style and financial level of the people who migrated into Kentucky in the latter half of the eighteenth century. For the most part, the materials for construction were locally abundant and were processed with skill, within the limits of tools available. Only a few of those tools are represented in the artifact collection, and they are mostly broken. The hammerhead is complete and possibly was lost on the job.

The pieces of slate and slate pencils are typical of school equipment in frontier

days, and witness to the elementary level of instruction offered at Bethel Academy. The candle snuffer and the fireplace foundations represent the limits of lighting and heating capabilities of that time. The scraps of sheet metal and cast metal provide limited clues to kinds of kitchen equipment for preparing food, as do the odds and ends of cutlery and earthen ware.

The tableware was imported from England and is of the cheapest varieties, except for the porcelain, which may represent a higher financial level for the leaders, who for the most part came from well-to-do families in Virginia. These leaders would be Francis Poythress, John Metcalf and his wife, the wife of Valentine Cook and the Nathaniel Harris family, all of whom lived at Bethel Academy for short periods of time. Still, none of the artifacts, even personal items, were of high enough quality to indicate their owners were wealthy.

An interesting feature of the excavation of Bethel Academy is that there was little need to search for a place where throwaway articles were discarded. The artifacts were found under the floors of all rooms in which digging was done. They were found all around the building, and round about the kiln.

Life was primitive on the Kentucky frontier and people were not very careful in disposing of their junk.