

PRELIMINARY DRAFT

AN INTENSIVE ARCHAEOLOGICAL SURVEY
OF
ALIGNMENT 1 CORRIDOR, U.S. ROUTE 15
FROM
PUTMAN ROAD TO MARYLAND ROUTE 77
IN
FREDERICK COUNTY, MARYLAND

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ACKNOWLEDGEMENTS

I would like to acknowledge the help and guidance of Tyler Bastian, State Archaeologist, Maryland Geological Survey in conceptualizing the goals and scope of the survey.

I am grateful to the Maryland State Highway Administration for providing the excavating crew for the survey from the Frederick Shop Maintenance Organization, Raymond Clark, Resident Maintenance Engineer, and Richard Keeney, Assistant Resident Engineer. During the course of the survey the following took part in the archaeological work: Jeremiah Clingan, foreman; Raymond Sigler, Bruce Gordon, Russell Fisher, Melvin Gladhill, Sherman Sewell, Conrad Baher, and Ed Engle. The cooperation of the Bureau of Soils and Foundations, William B. Greene, Chief, and the geological help of David Martin and Tom Brackindorf, Soils Engineers was appreciated.

The kindness of S.L. Helwig, SHA U.S. Route 15 dualization project manager in providing SHA maps of the alignment was indispensable. Ms. Margaret Ballard of the Bureau of Project Planning, Eugene T. Camponeschi, Chief, coordinated the efforts of the survey.

Dr. John Fauth, Professor of Geology, State University of New York at Cortland, contributed his expert knowledge of the geology of the Catoctin area as the geological consultant of the survey. He conducted basic fieldwork on the relationship between the Catoctin miners culture and the geological strata with which they worked.

Dr. Edward Heite, Chief of the Bureau of Archives and records, Delaware state, and specialist on early American iron-making culture, visited the site during the survey and undertook to review the findings.

I am especially grateful to the people of the Catoctin Furnace area for their generosity in sharing their understandings of the history of the furnaces with me. The fine cooperation of William G. Renner, long time historical authority on Catoctin Furnace may be singled out since much of the survey was guided by his seasoned knowledge of the site. Other local authorities are mentioned with gratitude in the section on References.

Finally, I would like to remember the kindness and excellent assistance generously given, as always, by Charles Sandy, Superintendent of the Cunningham Falls State Park, within which confines much of the survey took place.

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by David Martin, Bureau of Soils and Foundations
Maryland State Highway Administration (Pages 1-6)

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INTRODUCTION

Objectives

The investigators were requested by the Maryland State Highway Administration (SHA) to conduct an intensive archaeological survey of the proposed dualization route for the existing U.S. Route 15 between Putman Road and Md. 77 at Thurmont. The main problem to the SHA in this stretch of 6 miles or so was the presence of the Catoctin Furnace, a nationally registered historic site. Maryland state law requires a clearance from preservation organizations to assure that if archaeological resources are encountered everything possible is done to mitigate the effect of the impact. The intensive survey was to determine for the impact area the number, extent and importance of potentially affected archaeological resources, and the cost and time factor involved in preserving or otherwise mitigating possible adverse impact on them (Society for American Archaeology, 1974, p.22).

We therefore considered these directives as our basic objectives. The fieldwork was carried out in a 40 day period between April 28 and June 24, 1977.

Concepts and Methods

It was understood that impact by Alignment 1 on the historical resources of Catoctin Furnace was not necessarily adverse. For example, Alignment 1 will "impact" the iron-working site Feature 2 of Check 3, an important site, by running squarely over it. This site has had two previous highways and an entrance road run over its archaeological resources which are all the better for it. In each case the impact consisted of spreading an overlay of fill over the site sealing it in. The last impact, from existing U.S. route 15, added a second type of impact which incised a "V"-shaped drainage ditch through the artifact-bearing strata. This was definitely adverse since it removed the archaeological resources affected permanently. Overlay impacts put sites in cold storage, as it were, for future use.

We used the excellent SHA road construction maps including the cross-section maps which give a vertical profile of the site location and the alignment corridor. This made it clear as to what kind of impact would take place.

Another basic concept came out of a realization of the close relationship between the archaeological resources and the local community. The "folklore" which had survived in the old timers' memories was recognized as basic information for locating and interpreting the sites.

A third basic concept was that a good workman could become a good excavator under the supervision of an archaeologist. I had gotten this idea from W.P.A. days in the 1930's when my excavators were a gang of river-bottom "Okies" at the Spiro Mounds, Oklahoma. The SHA provided a 4-man team and a backhoe. They did first-rate reconnaissance excavating.

The methodology of the survey was simple: (1) seeking the exact relationship of road and archaeological feature in each instance, (2) listening to the old timers and following their clues, and (3) working closely with the SHA excavators.

Previous Efforts

There is something about Catoctin Furnace which invites investigations. One wonders about the mysteries of the site and is soon addicted to their study. National Heritage Corporation, 1975, and Contract Archaeology, 1971, review the historical contributors. The first excavation described by Mentzer, c. 1972, was a W.P.A. dig (1935) centering largely around Stack 2 in the furnace area. Glen Little and Stephen Issacs carried out an intensive survey of the Catoctin Furnace area in 1971 (Contract Archaeology, 1971). Charles Sandy, the superintendent of the Cunningham Falls State Park, partially drained the Big Ore Bank pond located just southwest of the furnaces in 1969. These contributions have added over the years to the growing interest in Catoctin Furnace and have generated the controversies of interpretation which swirl around the site.

Controversies

The Historical Importance of the Furnace. The question of the contribution of the furnace to the American Revolution and other wars is still being pondered.

The Location of the Original Furnace. Some devotees swear by the present site, others claim the Auburn area, 3/4th miles to the south.

Interpretation of Features. The location and function of the ore pits is a basic question. Did the miners get both limestone (for flux) and iron ore out of the same pits?

The Road vs. the Site. Is U.S. Route 15, and particularly its proposed dualization destroying Catoctin Furnace? or at least compromising the "site integrity". Will all the ore pits be covered up?

These and other controversial problems are discussed in the light of the current archaeological evidence.

CHECK 1-2
STATIONS 534-538

PREHISTORIC

Background

Two sites, 18FR41 (Check 2, west of highway) and USFR42 (Check 1 east of highway and Md. 806) were discovered by Conrad and Geasey in their preliminary survey of Alignment 1 (Conrad 1975, p.3). The sites situated between Stations 534 and 538 were located on the south slope overlooking a swampy gully cut by a spring branch. The west site is marked by a small amount of material widely scattered over an area of about an acre. Here a rhyolite project point and three rhyolite flakes were collected. "The point resembles Clagett points from Accokeek Creek (Stephenson et al., 1963, Plate XXIV W-D), suggesting a Late Archaic or Early Woodland date (ca. 2000-300 B.C.) for 18FR141." (*Idem*). 18FR42 is a "cultivated field whose surface bears a small amount of rhyolite and white quartz chipping debris, (and) appear to be another workshop or temporary campsite. The exact nature and extent of the site could not be determined because of poor survey conditions (site harrowed and no rain)" (*Idem*). The question is raised as to whether the two localities may be extremities of a single site whose center was destroyed by the construction of existing U.S. 15 and the balance threatened by Alignment 1 construction. (Fig.

Intensive Survey

Check 1. Surface Survey. The locale of 18FR42 is at the base of a roughly pear-shaped field (with base to the south), 800 feet N-S, by 500 feet E-W (across the base) and 250 feet E-W (across the top of the pear.) The "bulbous" base of the pear-shaped field was littered with stone debris and virtually sparkled with the white chips and chunks of milky quartz. The other stone with chunks up to 8 inches in diameter and roughly rounded were a sandy limestone. In looking for workshop debris I picked up 28 chips and cores of quartz, 9 quartz chips with apparently use-retouched edges (giving a tiny "knife" up to an inch long), 1 darker siliceous stone (Rhyolite?) chip, and 3 small green glass slag pieces (1½ inches long). (Bag #90)

Check 2. Surface Survey. 300 feet west of Sta. 533 I investigated another recently plowed field at the apparent location of 18FR41. The mixture of stones in red-brown soil was similar to that of Check 1. The difference lay in the fact that Check 2 field had a paucity of large quartz cores and chips. A surface search yielded 3 quartz cores, 2 chips, and 1 "spokeshave"-shaped artifact with retouched edge on lower crescent-shaped arc (about 2 inches long). (Bag #89).

Subsurface Data. The plan location of soil borings on the south bound lane of U.S. 15 revealed "soft rock" from .07' to 5' at Sta. 531, and a Rock" strata from 4' to 7' at Sta. 533. (Maryland State

Roads Commission, Plan and Profile U.S. Route 15, Prospect Church to Thurmont Thruway, "As Built" Map 1967). The outcrop undoubtedly strikes across the Check 1 field, as suggested in an aerial photograph showing a white band 100 feet long at about Sta. 533 location, striking north-south across the middle of the Check 1 field. Rock outcrops in this area are habitually limestone often containing quartz veins. These data provide a source of the milky quartz in Check 1 field as well as other stones present. The stone could have been loosened, broken and scattered by farm implements (plow, harrow). Such quartz, however, were "chunky" with non-purposeful fractures easily distinguishable from the finished Amerindian artifact, which is characterized by relatively small flaking, purposefully made. Euroamerican distribution of chipped stone through agricultural implements indicates a problem of estimating the size and distribution of a workshop site from surface indications.

77 Check 1, Test 1. $2\frac{1}{2} \times 2\frac{1}{2} \times 2$ feet deep. The plowed zone (0-8") contained the lithic materials. This zone was a loosened and slightly darker part of the basic subsoil which was a red silty-clay hardpan. Twenty-one milky quartz chips were recovered, 3 of which had apparent use-retouched flaking on the edge (flake blades). (Fig. 2, a).

Check 1, Test 2. Same dimensions and stratigraphy as Test 1. The lithic materials included 8 milky quartz chips and 1 possible backed-blade of a slate rock, about 3 inches long.

Check 1, Test 3. $2\frac{1}{2} \times 12 \times 5\frac{1}{2}$ feet deep, back-hoe test. A heavy black swamp-humus stratum (1-1 $\frac{1}{2}$ feet thick) overlay a red sandy clay resting on a light gray clay at water level 5 feet below the surface. There were no cultural materials or occupational zones. (Fig. 2, b).

99 Check 1, Test 4. $2\frac{1}{2} \times 6 \times 5\frac{1}{2}$ feet deep, back-hoe test. A 2 foot thick yellow-sand fill overlay a red silty-clay zone 2-2 $\frac{1}{2}$ feet thick, the top 8 inches of which was slightly darker. The base was a dark-gray clay shale. No cultural material or occupational zones were seen. The darker red-clay soil zone is interpreted as a plow zone, and the top strata is believed to be fill from the construction of U.S. 15 in 1960 (check comparable zone in Check 3). (Fig. 2, c).

Check 1, Test 5. $2\frac{1}{2} \times 6 \times 3$ to $4\frac{1}{2}$ feet deep, back-hoe test. This test explored a low mound 2 feet high, 5 feet across at the base, and in the form of a rectangular structure forming a right angle 50 by 75 feet. The east end terminated in a low and disorganized stone wall. Within the mound rampart, sunken a foot, was a thin black muck zone 6 inches thick resting on yellow sandy soil. According to Interviewee A, a man of 50 who had engaged in fish ponds, this was an old gold-fish pond, put in by the McPherson family (who lived in Auburn House). Goldfish raising started in the 1920's and the area was soon known as the "Goldfish Capital of the World". Many such ponds are still in operation. The feature is not considered of historical importance. (Fig. 2, d).

Analysis

1. The two sites, 18FR41-42, do not appear to be connected across the U.S. 15 corridor since no cultural materials or occupational zones were noted in the connecting area.

2. 18FR42 (Check 1) yielded a small amount of possible artifact material. Most of the lithic debris, however, could be accounted for as the result of agricultural implements (tractor plow and harrow) operating across a rock outcrop and scattering the chips and chunks over a wide area of the Check 1 field. The size of the Amerindian site could not be judged by the surface material. It was probably small (judging from 18FR41 distribution) as well as isolated.

3. The cultural material found at 18FR42 occurred only in the plowed zone (0-8 inches) and no occupational zones were noted. This material was not in situ and appeared to be haphazardly distributed, in part by agricultural machines.

4. Conclusions: The Amerindian remains tested at Check 1 appear to be small, isolated and scattered (not in situ) with a random distribution. No Amerindian occupational zones or artifacts were noted in the U.S. 15 corridor.

Recommendations

Since the U.S. 15 Alignment 1 corridor does not appear to impact on archaeological resources in the Check 1 18FR42 area a consideration of mitigating efforts is not necessary.

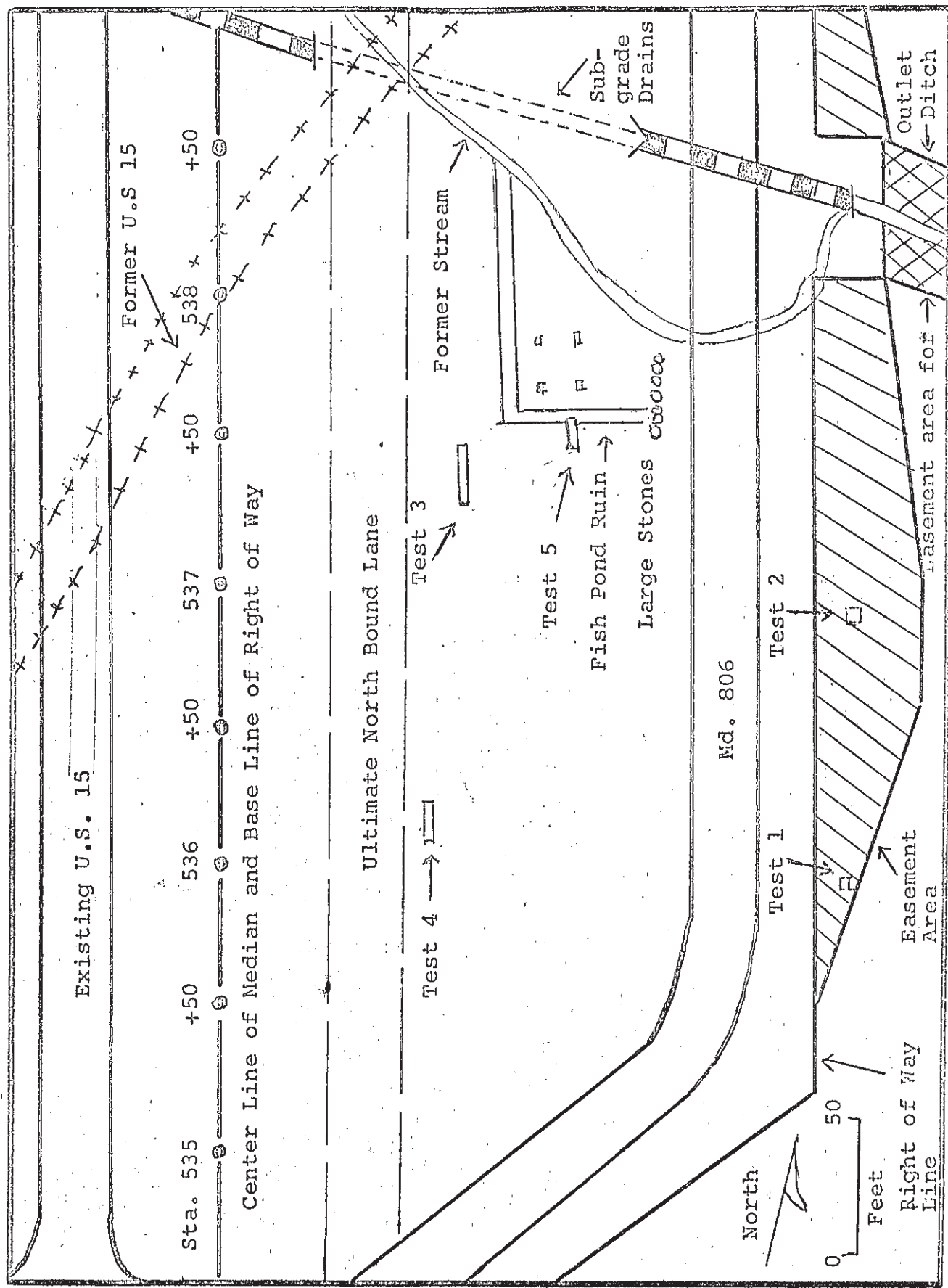


Fig. 1. Ground Plan of Check 1

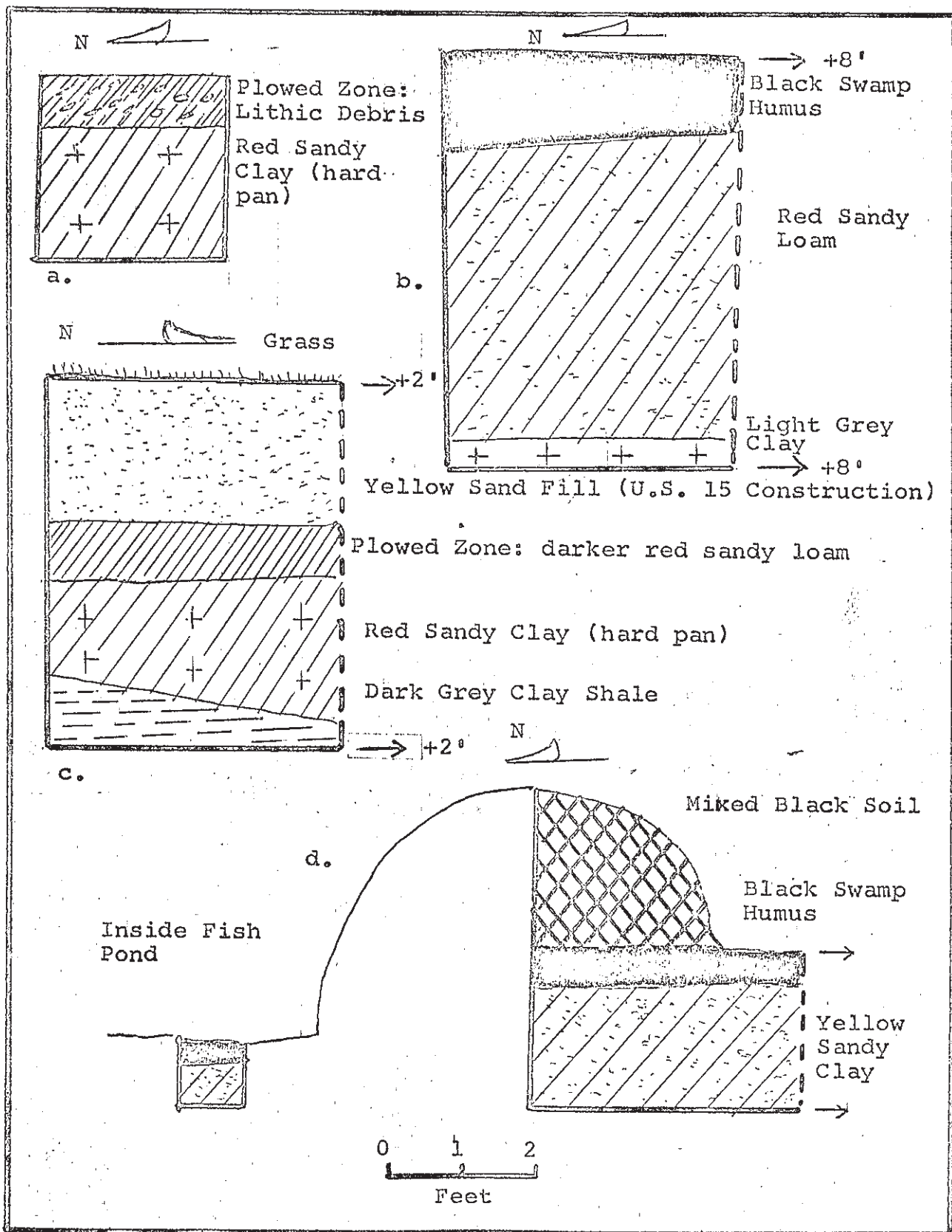


Fig. 2, Check 1, Tests Profiles. a. Test 1 and 2; plowed field; b. Test 3, swampy gully. c. grassy slope; d. Fish Pond Mound in swampy gully.

CHECK 3
STATIONS 539-542

Background

Attention was drawn to the Check 3 area by the Renner Sketch Map (1975) showing a dam (Auburn Pond or Lake) with a wheel pit and a rectangular "forge" labeled "1760s". According to Renner's map the present Maryland Route 806 ("the old Susquehanna Trail relocated 1912") covered the Old Forge site. Ethnohistorical interviews supported the Sketch Map interpretation.

Interviewee B, a man in his eighties, remembers his mother saying she used to play in the Old Forge house which was standing without its roof. Interviewee C, a man in his seventies, "used to go boating on Auburn Lake; below it in a ravine was the forge". His wife played in the forge also. Interviewee D, a man in his late sixties and son and grandson of miners at Catocin Furnace, said the area was known throughout the community as the "Old Forge field". When he was young horses were put in the field to graze. He had seen the Old Forge house in the locale indicated above. It was "a pretty good size".

A picture of Auburn Pond is given in Contract Archaeology, Inc. 1971 (Plate 8a). As indicated there a substantial part of the pond was destroyed with the construction of U.S. Route 15. Interviewee F says the pond wasn't there. However, the stone-faced, earth embankment of the dam continues to the present as an imposing and enduring ruin. (Fig. 3)

Intensive Survey

The plan of the survey was to investigate the dam and the conjectured forge area. In addition, the area around the two stone entrance pillars to the Auburn House former road came under investigation when Interviewee E, a woman resident of the area, indicated that an amateur digger had recovered some "old iron tools" near the surface there. ? L.G.

Feature 3, the Auburn Dam. The dam is marked by a right-angle formed by its embankments, the southeast of which measures about 150 feet and the southwest about 100 feet. The embankment is made of earth standing some 7 feet above base soil on the outside and faced with stone wall 5 feet high constructed of fieldstone without mortar. The present floor of the dam area is flat and covered with small, thin trees but no undergrowth to speak of. Test 5b, a 2½ foot square hole revealed a foot thick layer of humus over 2 feet of dark brown loam. At 3 feet a light brown sand was encountered which continued for an unknown depth. The sand probably marks the bottom of the Auburn pond. The side of a basin excavated into the red clay subsoil under the dam (Feature 3a) was revealed in Test 10, profile of the outer dam wall (Fig. 4). This basin extended for a depth of 2½ feet under the dam stone wall and might well be the original basin

of the dam. It yielded a rock spaul such as would be struck off from the fieldstones comprising the outer wall. The fill of the basin was not the same as in Test 5a but was a brown soil containing chunks of burnt clay and charcoal - a fill. The data suggests that for some reason this portion of the basin was filled-in; such as might happen if the basin were dug first to provide earth for the embankment walls (a logical procedure), and through error this part had to be filled-in again as it stood under the embankment. At any rate the dam appears to have been at least 10 feet deep. The sand bottom promises a wealth of artifacts accumulated during the undoubtedly long period the dam was used. Test 5b put in the top of the dam yielded 4 small fragments of slag at a depth of 3 feet, suggesting that iron was being smelted in the vicinity at the time of the construction of the dam (note also small slag found on surface of site 18FR42 located across Maryland Route 806).

A prime function of the dam was to provide water to run a water wheel the inset niche for which is seen in the southeast wall. The wheel niche measures about 15 feet at its entrance and is set back into the dam about 12 feet. It was built by the separate construction of two side walls some 3 feet thick at right angles to the same back wall. The side walls are 2 feet lower than the back wall and the north one contains evidence of an old beam and iron axle of unknown use. In the ball wall we find a niche "box" made of stone and measuring 4 by 3 by 3. Again the box is of unknown use, but similar to one noted in the water wheel niche just west of Stack 2 at the Catoctin Furnace site. (Fig. 3, 14)

The Conjectured Forge Site.* The wheel niche according to the folklore of the area was an overshot wheel designed to power an iron-working hammer in the forge which was located in a ravine below the dam (see above). Test 1, made to a depth of 8 feet, and length of 15 feet with a backhoe was made about 15 feet in front of the water niche and parallel to it. The purpose of the test was to reach the conjectured forge. The north third of the test encountered red clay subsoil under a thin humus layer. It then dropped vertically into a slag filled zone. At 8 feet below the surface the slag was in evidence and the base of the depression had not been reached. The face of the red clay subsoil appeared to have been cut by non-natural means such as would be required by a water wheel feature at this point. (Fig. 3).

Test 2, directly south of Test one, measured 10 feet in length and 5 feet in depth and encountered the identical slag fill described for Test 1. This slag is large, in contrast to the small slag pieces encountered in Test 5a above. Such large slag average 8 inches in diameter (to the 2 inches in diameter for the small slag), and some pieces are as large as one foot. They are predominantly furnace glass, and it is believed are characteristic of the large, later furnaces, such as Stack 2 "Isobella" and especially Stack 3, "Deborah". The slag at this point is thought to be associated with the construction of old U.S. 15. (Fig. 3).

* Addendum. Bastian, 1973 (p.11) notes that the Bond map (1858) shows an "Old Forge" across the road to the east of McPhearsons (Auburn House).

The pit revealed by Test 1 is Feature 1, a prepared depression under the water niche which is as yet unexplained. It is believed to be part of the hypothetical forge complex which remains to be identified.

Test 3 located 25 feet southwest of test 2 measured 10 by 2½ feet by 8 feet 4 inches deep. The stratigraphy showed the slag strata identified in Tests 1 and 2 resting on the red clay subsoil at 8 feet. The strata, 5½ feet thick at this point, was superimposed by 3 feet of stratified sand which undoubtedly came from subsequent road building activities, including the U.S. 15 construction of 1960.

Feature 2, Iron-working Activity Area. Tests were now placed in the area of the two stone entrance posts* encouraged by reports of artifacts having been found there. Immediately, artifact bearing strata were uncovered in a series of tests (Test 4a-d, 4e(1-6), 4F, and Test 6). The tests revealed that an area measuring some 80 feet north-south and 100 feet east-west appeared to share a common artifact-bearing strata which was identified as Feature 2. The strata of Feature 2 occupied a bottom position overlying the red-yellow clay subsoil of the area (see Check 1) and was in turn overlain by a fill, a thick humus, and by one or several blanket fills resulting from earlier impacts with roads built in the vicinity (Fig. 5).

Also shared in common by the bottom strata of the tests in the Feature 2 area charcoal zone(s), were horizontal layers of porous iron nuggets, usually coated with a thin layer of red clay, and iron artifacts. The finds from the tests included: (feature 2 layer)

- 18 sprues or gates, the iron waste at the entrance of molds, in the shape of wedges, large tacks, bars with flanges.
- 215 "nuggets" of porous, "sponge iron" (1-2" mostly but some 6 inches in length.)
- 6 small fragments of glass slag
- 2 fragments white furnace brick, 1 with letters "Bell--" over "Prey--"
- 2 metal plates ½ inch thick (one measured 6½-3 1/4).
- 1 squared bar with sharp tip (wrought iron).
- 21 fragments burnt wood
- 2 iron nails (probably square cross-section, badly corroded)
- 1 spigot of shiny metal, uncorroded (pewter?)
- 1 right angled wrought iron bar (unfinished, 12x17x½" thick and 3" wide.

* These pillars which were erected in the 1920's are listed along with other out-features of Auburn House, F-1267, of the Catoclin Furnace Historic District (National Register of Historic Places, Feb. 11, 1972). They are designated Feature 4 here.

The profiles of Test 4f are particularly interesting (Fig. 5). The bottom layer (Feature 2) included a stratum of large (3 inches diameter) stream-rounded pebbles fitted closely together so as to make a "floor". Below the pebble layer was a foot-thick zone of red clay the top 6 inches of which was flecked with charcoal. On top of the red clay zone and directly beneath the pebbles was a layer of red clay covered "sponge iron". Other data from Test 4f follows:

A few glass artifacts gave some idea of chronology. On top of the charcoal layer associated with Feature 2 was a piece of flat glass which was clear window glass. Feature 2 is capped by a thick humus indicating a considerable period of inactivity at the site. On top of the humus is a thin gravel zone probably associated with the early U.S. 15 road. In the gravel was found an auburn-colored, curved body piece of glass. Another small fragment of auburn-colored glass, this time flat (as a base) with an impressed matted-textured side. Another tiny green glass fragment came from the charcoal zone. In the sandy road-fill above the humus line - probably associated with the 1960 construction of U.S. 15 - was found a glass sherd of a 7-up bottle.

Analysis of Feature 2. The working of iron was undoubtedly taking place at Feature 2 area, but what kind of activity was involved? Dr. Edward Heite who reviewed the sites uncovered in the intensive survey as a consulting archaeologist and specialist on furnace sites, believes the site to be a foundry; "My reasoning for the foundry is this: 1. The casting waste, in the form of vents and sprues, was abundant. 2. There was no glassy slag in the matrix to indicate the presence of primary refining (mine: very little). 3. The frothy mass of iron waste is a foam that forms in foundry sites, but is almost totally absent in a blast furnace." (Heite to Orr 6/17/77)

Concerning iron castings at Catoctin furnace J. Frank Mentzer, a former superintendent of Catoctin Mountain Park (1968) and a basic scholar of Catoctin Furnace research, wrote this: "Cast iron cook ware, pots and stoves were known to have been made at Catoctin Furnace and the items probably were cast much in the manner as the sketch, published first about 1763 illustrates (from a Diderot pictorial Encyclopedia, Dover Publications, Inc.). The men are tapping the furnace and carrying the molten iron in small ladles to sand molds in boxes and in the shop floor itself to fashion the small cast iron items." (Mentzer, 1972). The illustration shows a furnace considerably smaller than a blast furnace which produces pig iron from ore. However, the furnace is shown with an open small door out of which the molten iron is being ladled. Next to the iron puddle is a waste heap running out of the furnace and depositing the waste, presumably the "sponge iron" we found in such quantities in Feature 2. This is equivalent to the "cinder notch" out of which slag flowed in a blast furnace. It is easy to see how this waste product could cover the casting area and present a problem of disposal. There is sand on the floor also and a mold (like the pig iron mold in blast furnaces but much smaller) is being prepared in the picture to receive a cast.

Not all clues are answered by our present understanding of the Feature 2 site however; for example, the omnipresent profusion of charcoal strata; and the large pebbles floor. So, considerable research is needed, with, of course, the expectation of getting evidence of a structure (post molds, stone wall foundations, and the like. The thick iron waste zones in Test 6 could be interpreted as a midden caused by throwing the sponge iron out of the foundry and downhill.

The Frederick Tresselt Site. The property directly north of the Dam site Feature 1 belongs to Frederick Tresselt who bought it in 1923. Mr. Tresselt, who is in his seventies, remembers when an overflow ditch, over 10 feet deep and 15 feet wide, connected the retaining wall of the dam to the fish hatchery. This ditch carried off the overflow water which no longer went over the water-wheel niche (road below constructed in 1912). The ditch was used for trash and was surrounded by a barbed wire fence. When the Tresselt's present house was built in 1947-48 the dirt from the cellar excavation filled up the ditch completely. The garden grounds have objects on the surface related to iron-making including an "iron hook for hanging up hammered iron", slag, as well as "quantities of pottery". In addition, the raceway carrying water to the dam ran behind their house (see Check 4).

Interpretation

Check 3 area contains archaeological resources representing iron working activities including a conjectured forge, a conjectured foundry, and a dam to provide water power. The site has been protected for the most part by fills associated with earlier road-building phases. It contains an abundance of iron-working artifacts, products, and cultural materials. The copious presence of charcoal indicates an early 19th century or earlier date. The site was probably occupied for a considerable time period. This area is of particular importance in contributing knowledge and visual materials to an understanding of the Catoctin Furnace story since their data have not been included in earlier historical analyses (e.g. Contract Archaeology, Inc. 1971, Mentzer, 1974).

Impact of Alignment 1 Corridor on Check 3 Archaeological Features (Fig. 6)

The west side of Feature 1 has already been cut by a 2 foot drainage ditch on the east slope of the existing U.S. 15 right of way. The same construction clearing has also cut off and destroyed an unknown amount of the southwest wall of Feature 3, the dam. The rest of the site, as indicated in testing, has been sealed-off by road-building fills including the 1912 construction of an earlier U.S. 15 and the 1960-61 construction of the existing U.S. 15.

The Alignment 1 cross-section plan of Station 539+50 shows the ultimate north-bound lane going directly over Feature 2 but clearing the surface of the site by 8 vertical feet. (A) This imposes a sizeable fill seal on the existing 1½ to 6 feet of road fills over the artifact-bearing strata. A 3½ foot ditch cuts the surface of the site at Sta. 539+50, east 140 feet. However at this point an earlier

fill 8-10 feet thick covers the Feature 2- Conjectured Forge levels, and the cut impact of the ditch doesn't reach the archaeological resources in this area.

The road construction cross-section at Sta. 540+50 shows the North Bound Lane removing the 2 or 3 feet of the Feature 3, dam wall, covering the dam floor and removing the greater part of the southeast dam embankment including the water wheel niche.

Recommendations

1. A portion of the Feature 1 site should be excavated, sufficient to determine the nature of the feature associated with the dam and to recover sufficient cultural material to represent its functions and the characteristics of the time period represented (the conjectured "Old Forge"). The site should then be resealed and its location and contents recorded as an archaeological resource for future reference and research.

2. A portion of Feature 2 (Foundry) site should be excavated sufficient to further identify the nature of the feature or features and their associated cultural materials. A substantial portion of the site should then be resealed and its identify and location made known as an important archaeological resource for future investigations.

3. Feature 3, Dam Site.

a. The Southwest Wall. An examination through cross-section tests should be made of the wall construction prior to the destruction of the top 2-3 feet of the embankment by the incising impact of the Northbound Lane construction; then resealed.

b. The Dam Floor. An excavation should be carried out to the base of the original dam basin (3 feet plus) to collect the record of the stratified cultural remains and spore remains deposited during its period of use. The site area should then be resealed and identified for future use.

c. The Southeast Wall. This embankment, measuring over 150 feet includes the water-wheel niche. It should be spared from any impact in the construction activity. This portion of the dam is located between the right of ways of both U.S. 15 and its feeder road Md. 806, and road construction does not appear to require its removal or modification. The site should be stabilized and maintained as an integral part of the Catoctin Furnace Historical Area.

4. Time/Cost Estimate. All phases of archaeological work on these sites will require 21 calendar days at a total cost of \$8025. for an archaeologist, assistant, 4 excavators and a backhoe.

5. Included in the above cost is the movement of Feature 4, entrance posts of Auburn House, to a nearby locality.

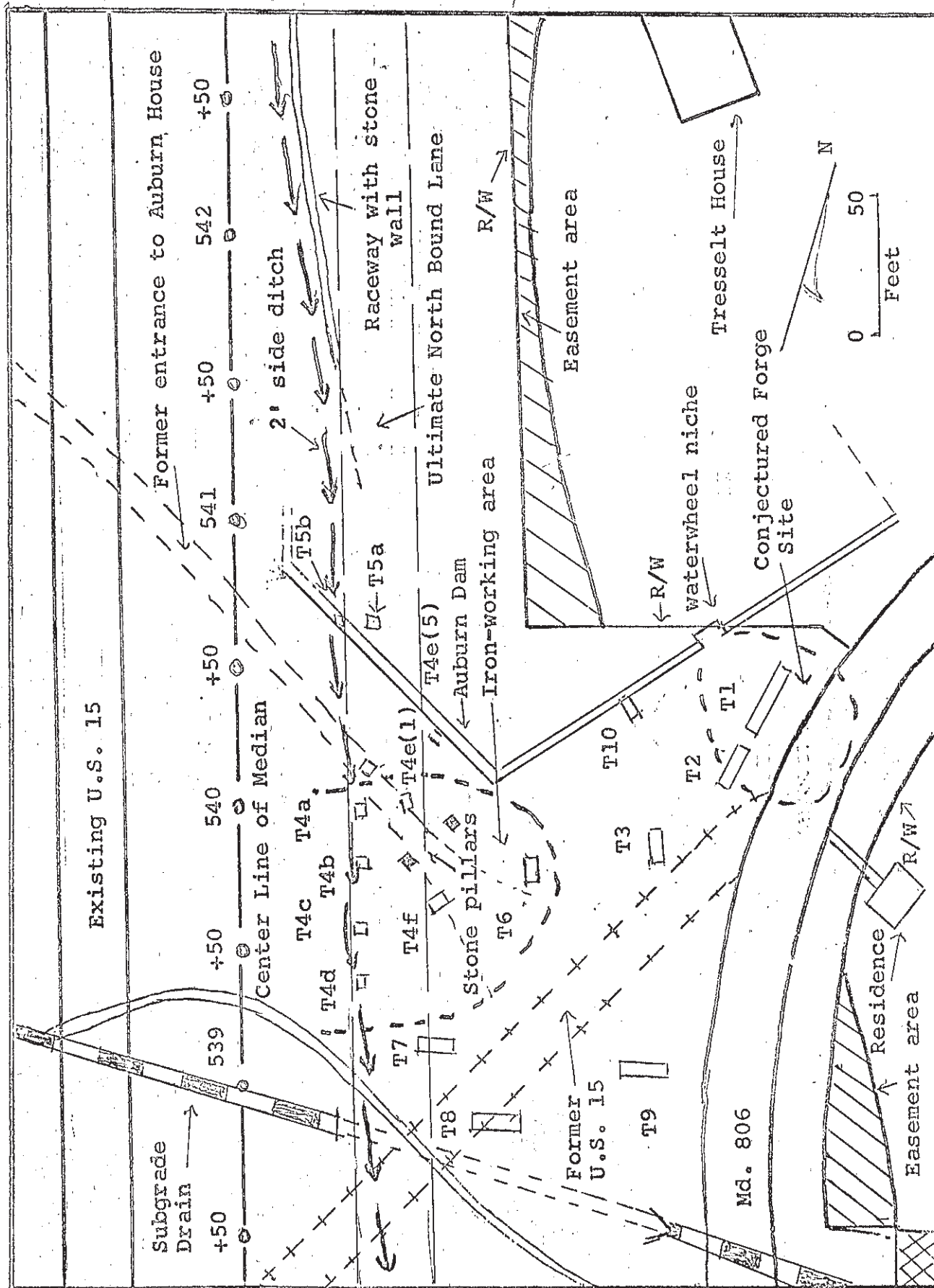
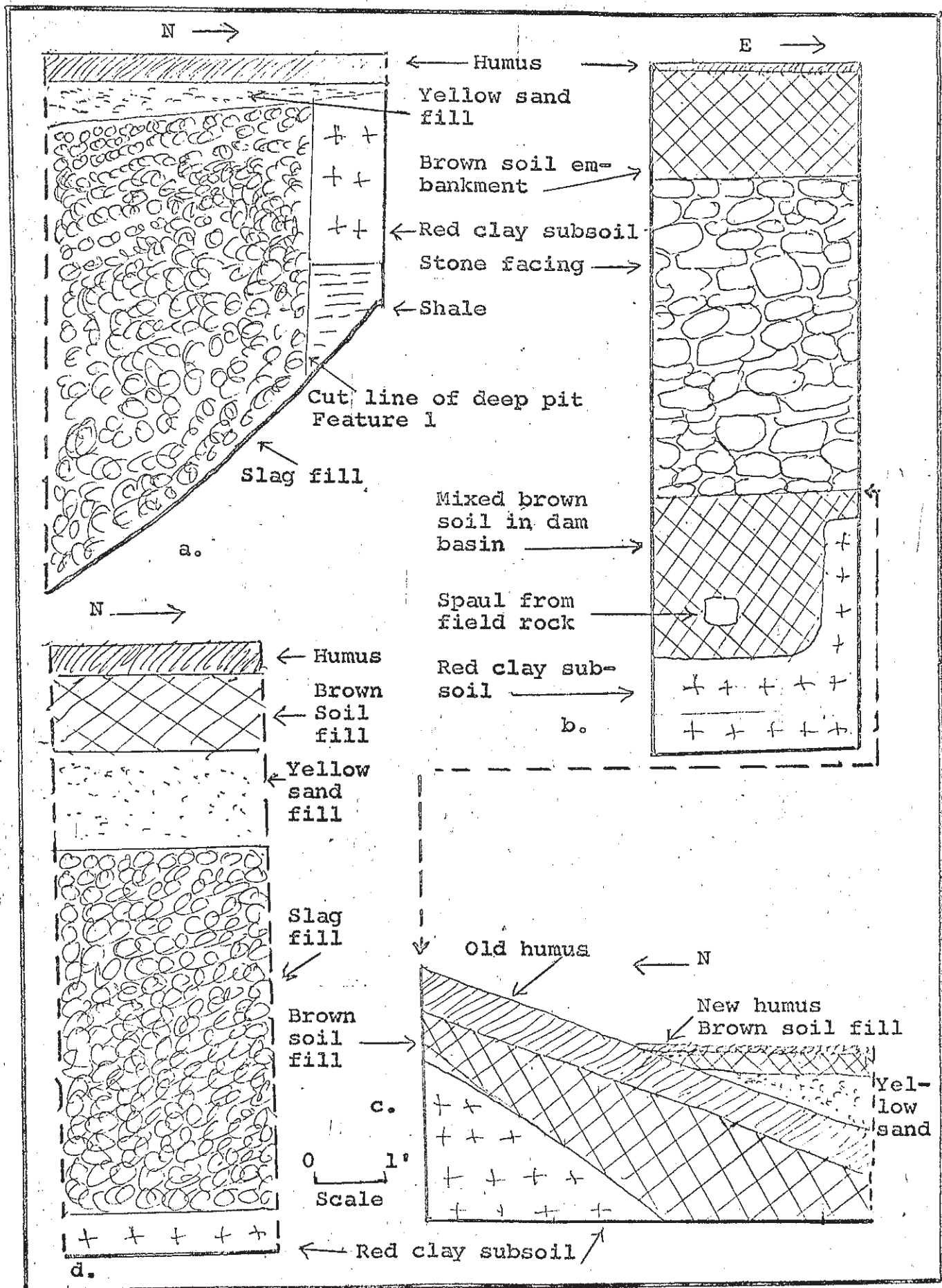


Fig. 3. Ground Plan of Check 3



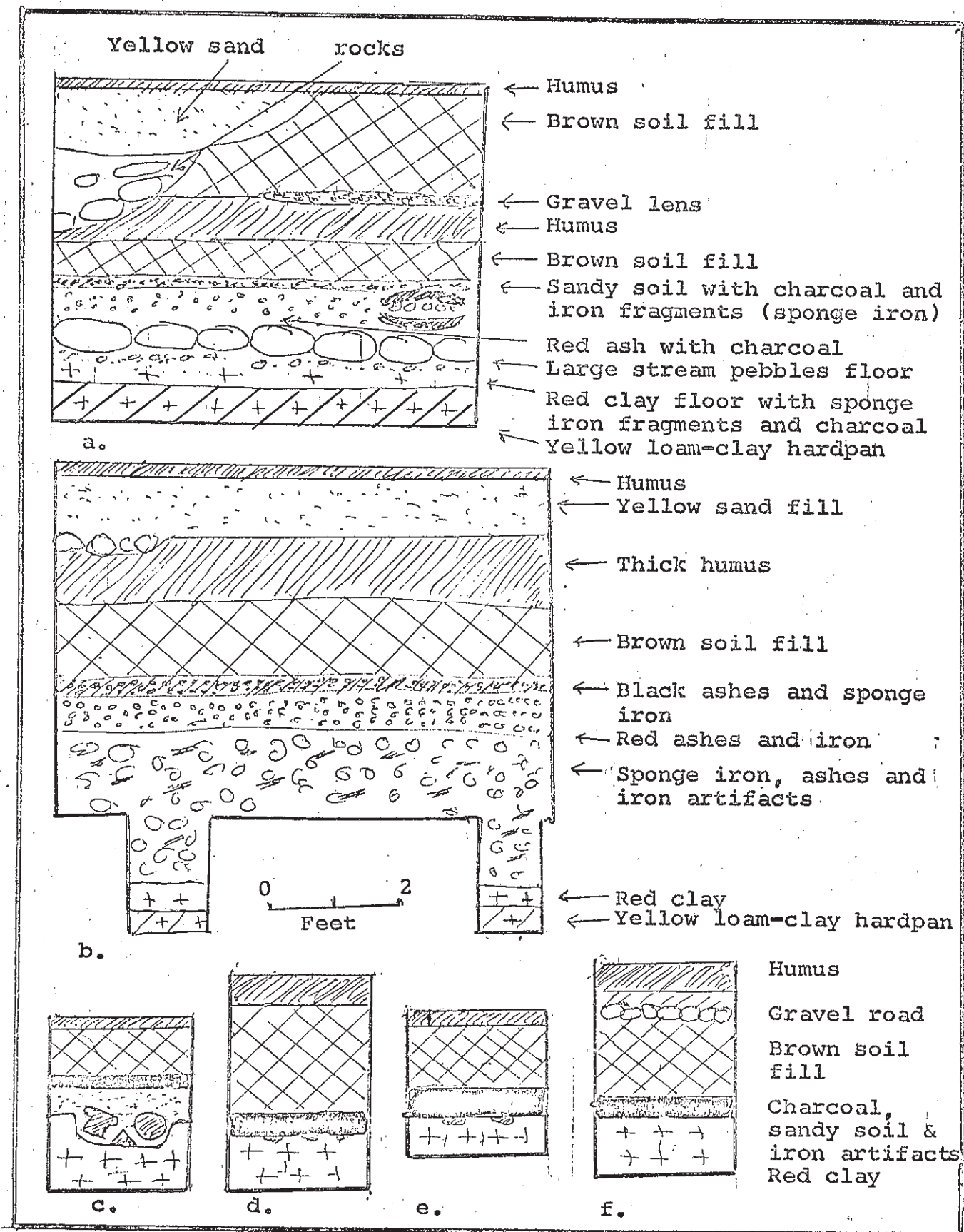


Fig. 5. Check 3 tests profiles. a. Test 4f. b. Test 6. c. Test 4a, d. Test 4b. e. Test 4c. f. Test 4e(1)

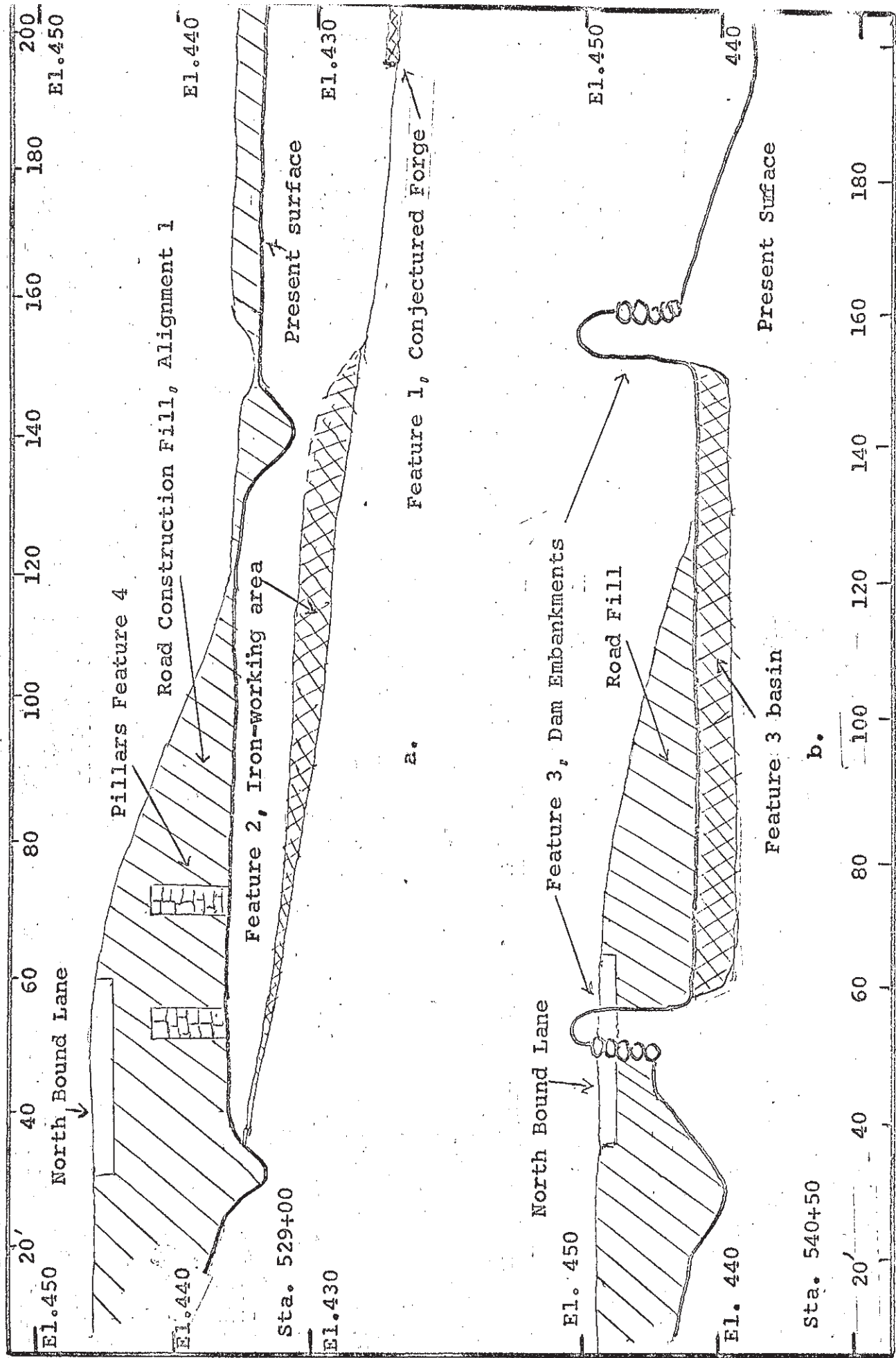


Fig. 6. Check 3, Impact Profiles. a. Station 529+00. b. Station 40+50

CHECK 4
STATION 544-544+50

Background

Three features comprise the archaeological resources of the Check 4 area. Feature 1 is the "Bathhouse", sometimes referred to as "Springhouse and Bathhouse". Feature 2 is the spring which is in operation today in providing water for the Tresselt fishpond. Feature 3 is the retaining wall and raceway, the latter providing water for the Auburn Pond 400 feet to the west. (Fig. 7)

A picture, said to be that of Feature 1, "Bathhouse", comes from a pamphlet of the McPherson Family, occupants of the Auburn for the greater part of the 19th Century, and to the present time. (Contract Archaeology, Inc., 1971, Plate 8B). It shows a small (12 feet square) house covered with plaster with a gabled and shingled roof. Several interviewees identified the walls as made of stone and covered with a whitewashed clay plaster. Interviewee B thought the house had been demolished in the building the existing U.S. 15, but Interviewee A said 3 or 4 feet of stone wall were standing in 1947 when the surface stones were removed to form the driveway of the Tresselt house directly adjacent. Interviewee F agrees; B also knew that the stones ended up in the driveway 200 feet to the southwest.

Community folklore about Feature 1, "Bathhouse", was retold by Interviewee B. He remembered Jess Wolf, an old timer, saying that slave women heated water secured at the spring and placed the water in a large container within the bathhouse. Women from the old Iron Master's house, a stone cottage 800' south of the Auburn House, used the bathhouse in the 18th century, and later the females of the Auburn House used it also for their periodic baths. In fact it was known as the "lady's bathhouse". Among the first to use the bathhouse was the family of William and Sarah Bright, iron master for the Johnson Brothers about 1772.

Interviewee G who was knowledgeable about the use of the raceway (Feature 3) to provide water for the Auburn Pond (along with B and F) also believed that water for the Bathhouse was provided by a 6 inch pipe leading back to the raceway. He recalled that a British coin of the 18th century was found in the area around the Bathhouse.

The Intensive Survey

After the area had been cleared of bush by the SHA excavating crew observations were made on the spring and retaining wall, and tests placed in and around Feature 1, "Bathhouse".

Feature 1, the "Bathhouse". The Bathhouse was covered with debris of the walls but the outline of the house could be readily seen. It was about 12 feet square with walls approximately $1\frac{1}{2}$ ' wide. The construction was dry, mortarless fitting of roughly rectangular fieldstones. At the downhill side (north) were 6 courses of stone, each measuring 6-9". Test 1a, a two foot square test at the northwest corner of the house, revealed the 6 courses to a depth of 3'3" below the surface. About $1\frac{1}{2}$ ' of the profile consisted of fill and rubble from the walls in loosely packed earth. The bottom-half, however, was a dark hard-pack clay soil, the subsoil of the area, into which the foundation of the house had been placed. At the base of Test 1a, 36-42" below the surface, a dark green-black glass sherd was found. The piece was similar to bottle glass of the 18th century found at the 99 Main St. site in Annapolis (Orr, 1974). From 30" to 36" several red earthenware sherds were found with a red glaze. A blue-leaf, painted grey ware sherd was also found. A clear glass sherd with airbubbles (wine glass) also came from this level. During the course of the excavation, which was carried out by Ron Orr, Mrs. Tresselt showed him a coin with an English queen figure dated 1771 or 1773 which had been found in a grove behind the Tresselt house and just to the east of the Bathhouse.

Test 2 was a 2 foot square put down inside the walls of the feature. The test cut through loose clay soil, and fieldstone rock and fragments to a depth of 18 inches below the rubble surface. Here three smooth flagstones, horizontally placed and fitting together, were encountered. The test was not extended due to the heavy burden of wall stones. However, it seemed clear that the floor of the Bathhouse had been found.

The Spring, Feature 2. The spring was a clear pool, inhabited by a small black frog, confined within a cement square 4 by 5' and $1\frac{1}{2}$ ' deep. Sand filled the bottom of the cement box and quantities of objects, including a broken green glass bottle, littered the bottom. The water came from bedrock layers going back into the slope of the ground and outlined in a rough square of hewn bedrock about 8 feet square within which the cement box spring was situated. A plywood board covered the cement box frame and had a small hole some 2' square cut in it for present day dipping purposes. The spring cement box overflowed constantly and other water trickled from underneath to produce a stream which was channeled into a pipe for use in the fishpond located to the east.

Feature 3, the Retaining Wall and the Raceway. Behind the Spring was a wall extending within our sight to a distance of about 12' on each side of the spring. At its top in an addition 2 feet of soil was a channel, a trough about $2\frac{1}{2}$ ' wide and $1\frac{1}{2}$ ' deep. The trough could be seen extending for at least 50 feet running parallel to the wall.

Interpretation

The archaeological and folklore data of this check area support

the hypothesis that Feature 1 is a historically significant structure, and that Feature 3 is a portion of a raceway which supplied water to the Auburn Pond dam. It follows that the spring is of considerable antiquity also. The whole complex could well have been started in the late 1770's and continued in use for the greater part of the Catoctin Furnace occupation.

Impact of Alignment 1 Corridor on Check 4 Features

Alignment 1 construction exerts an overlap impact on Check 4 features. A mantle of soil and construction features will mantle the site to a depth of from 5 to 10 feet effectively sealing it off. The greater part of the site will be directly under the concrete strip of the north bound lane. (Fig. 8)

Recommendations

In view of the sealing of this site in the event of dualization the following recommendations are made:

1. Cross-sections of the retaining wall and raceway should be excavated to provide data on the manner of construction and possible artifacts in association for dating purposes.

2. Features 2, the Spring, should be excavated to recover artifacts which had over time fallen into the spring, as a means of dating it and also providing a complex of objects associated with its use. A pile of stones directly to the north of the spring may be from the excavation within the spring to put in the concrete frame, or may relate to a "spring house". Between the spring and the retaining wall are the remains of a wooden cover which should be examined. It appears to have served the function of the present plywood board. At any rate the pile of stones should be trenched to test these hypotheses.

3. Feature 1, Bathhouse, should be completely excavated to provide details on its construction and artifacts in association. These data should be comprehensive enough to allow a model reconstruction of the house along with the use of the existing photograph. The stone foundation and floor slates should be salvaged on the possibility that eventually the entire bathhouse may be reconstructed as an exhibit in another location and using the wall stones now in the Treffelt's driveway.

4. Time/Cost Estimates. All phases of archaeological work on these sites will require 10 days at a cost of \$3510 for an archaeologist, assistant, and 4 excavators.

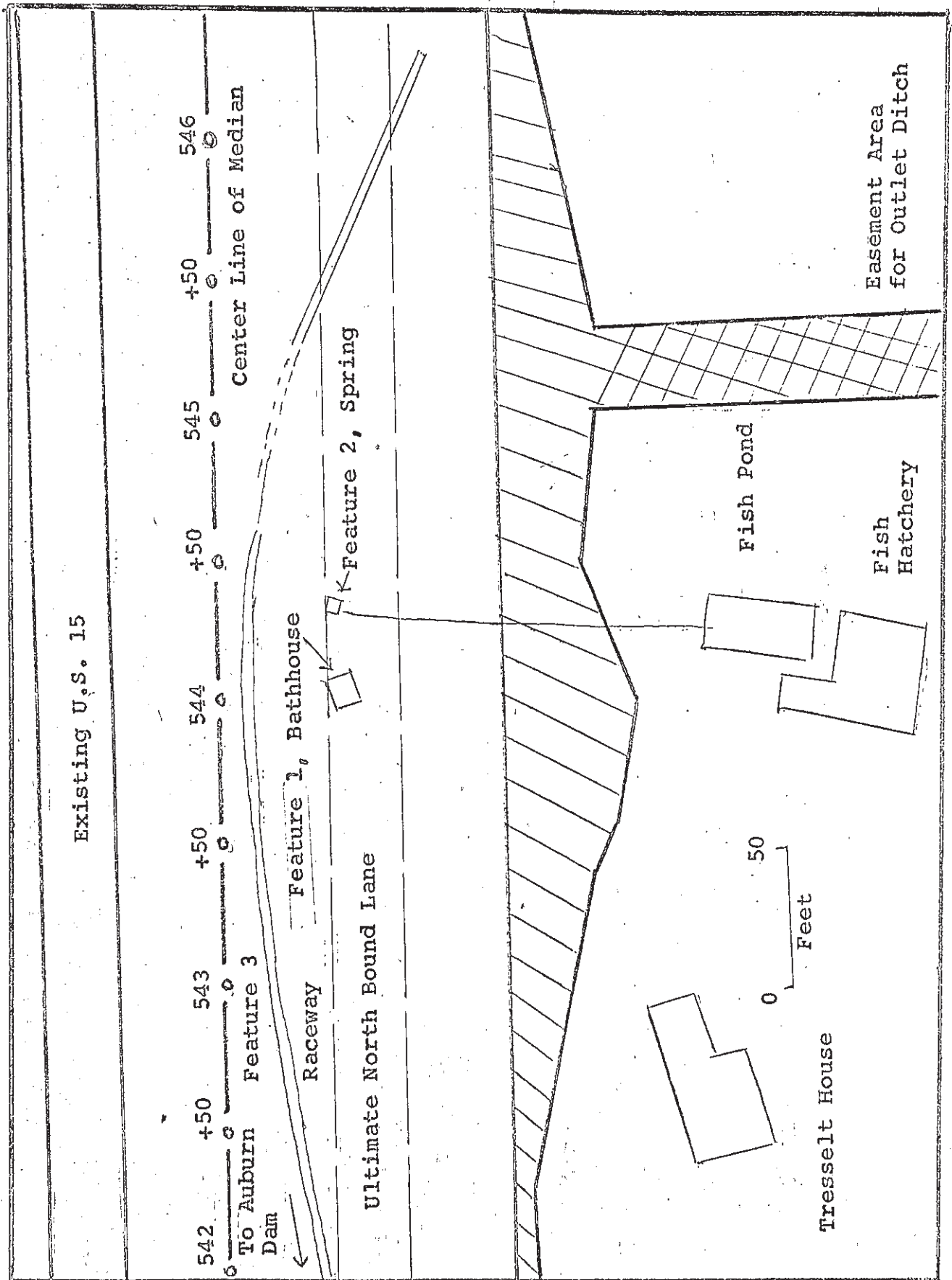


Fig. 7. Ground Plan of Check 4

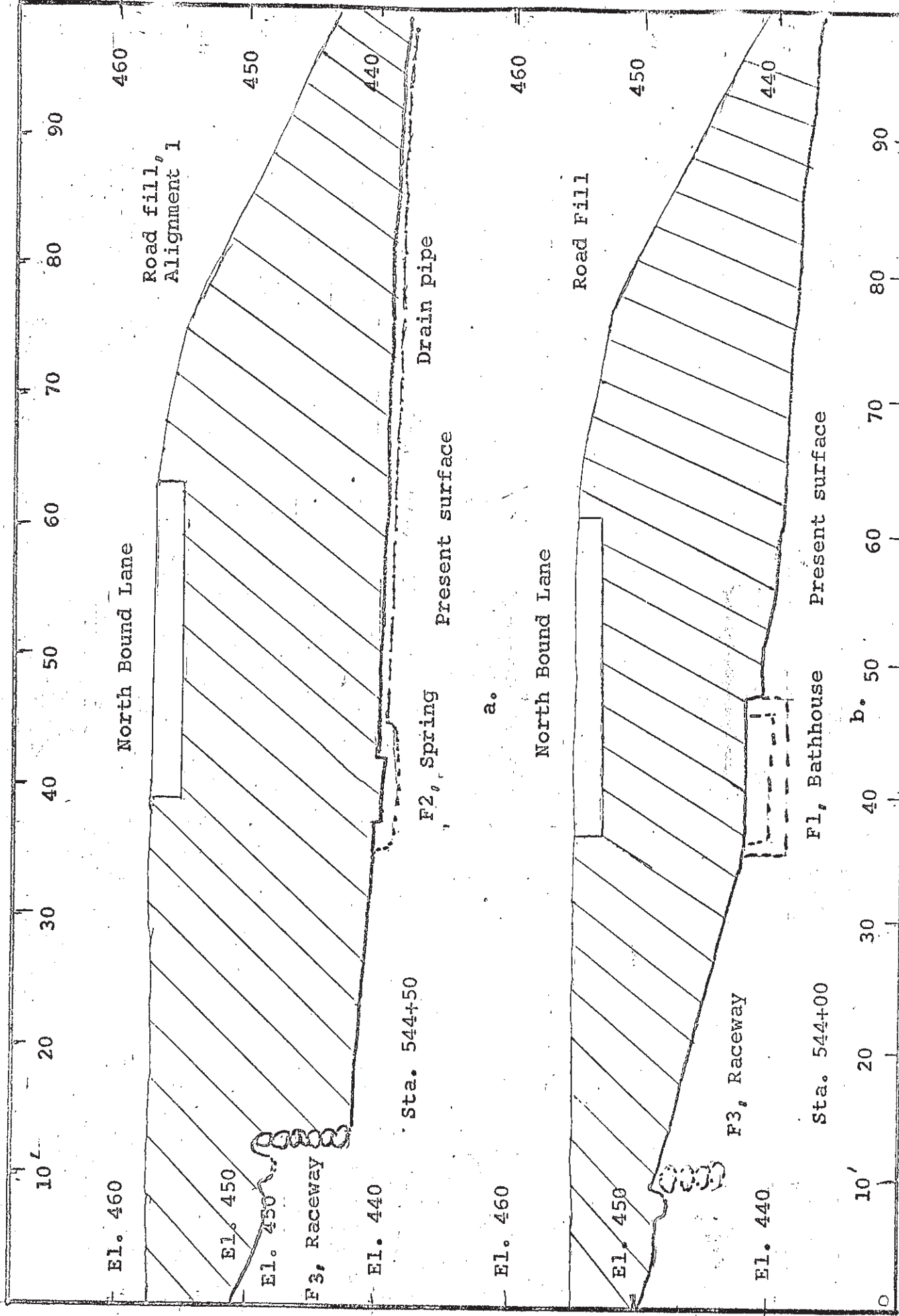


Fig. 8. Check 4, Impact Profiles. a. Station 544+50. b. Station 544+00

CHECK 5
STA. 553-555+75

Background

William Renner reported finding 10 projectile points over a period of 39 years on his property. Most came from his vegetable garden, and some from his garage cellar when it was being constructed. The area from which the finds were reported are on a slope overlooking a creek. The northern part of the area is adjacent to Check 8, mine shaft, and Check 9, limestone quarry. In addition, a stone (largely milky quartz) outcrop occurs at the southern part of the explored area (Fig. 11). The points are of the large variety associated with the Archaic and Early Woodland periods. A time span of several thousand years is suggested (Fig. 9).

The Intensive Survey

Eleven test pits 2½ feet square and extending 3 feet into the relatively soft brown soil were dug in the area to the west and south of the vegetable garden, one pit was dug at the site of the rock outcrop at Station 553. Limestone and quartz rock fragments were plentiful in the area near the mine shaft (Check 8) and the rock outcrop to the south. In these areas a total of 4 milky quartz chopper tools were found (Fig. 10). The finds came from a depth of 12 to 15 inches below the surface. These artifacts consisted of thin veins of milky quartz with a cutting edge chipped and blunted by use. The backs of these choppers had been blunted by two blows to produce a low gabled effect. In addition one backed blade of milky quartz (Fig. 10) was also found. Associated with Test 1K at a depth of 12-15 inches were found a light scattering of charcoal flakes. This test also produced a quartz vein chopper. The 0-6 inch level of this test consisted of fill from Check 8, mine shaft, with mixed soil and stone chips; 6-12 inch level was a dark brown "chestnut soil" zone interpreted as an old plow zone. The milky quartz artifacts and charcoal flakes came from a lighter brown soil layer 12-15" - just below the plow zone. A few quartz flake blades also came from the test pits.

Interpretation

The data suggests the presence of a temporary camp and/or workshop which were attracted by the rock outcrops and the water supply. Such sites are thousands of years old and have undergone extensive erosion especially during the Euroamerican period. At this site, however, there seem to be evidence that an occupational zone may still have survived (in Test 1K). If this is true then the bases of hearths, pits, post molds, and other depressed features might be found. Since finds of this Amerindian time period are rare, any information which may be gathered is of considerable archaeological value.

Impact of Alignment 1
on Check 5 Potential Occupational Zone

SHA cross-sections show Alignment 1 will effect an overlay impact on the potential occupational zone of this Check. The site will be covered with a mantle of soil and construction features ranging from a few feet to 8 feet in depth. The area of Test 1K and the vegetable garden will be virtually untouched.

Recommendations

Because of the potential value of in situ finds at an Amerindian site of the type represented here it is recommended that the area of Test 1K and the vegetable garden within the right of way of Alignment 1 be excavated in search of features and artifacts in the 12-15' level.

Time/Cost Estimate. All phases of archaeological work on this site will require 4 days at a cost of \$1515 for archaeologist, assistant, 4 excavators, and a backhoe.

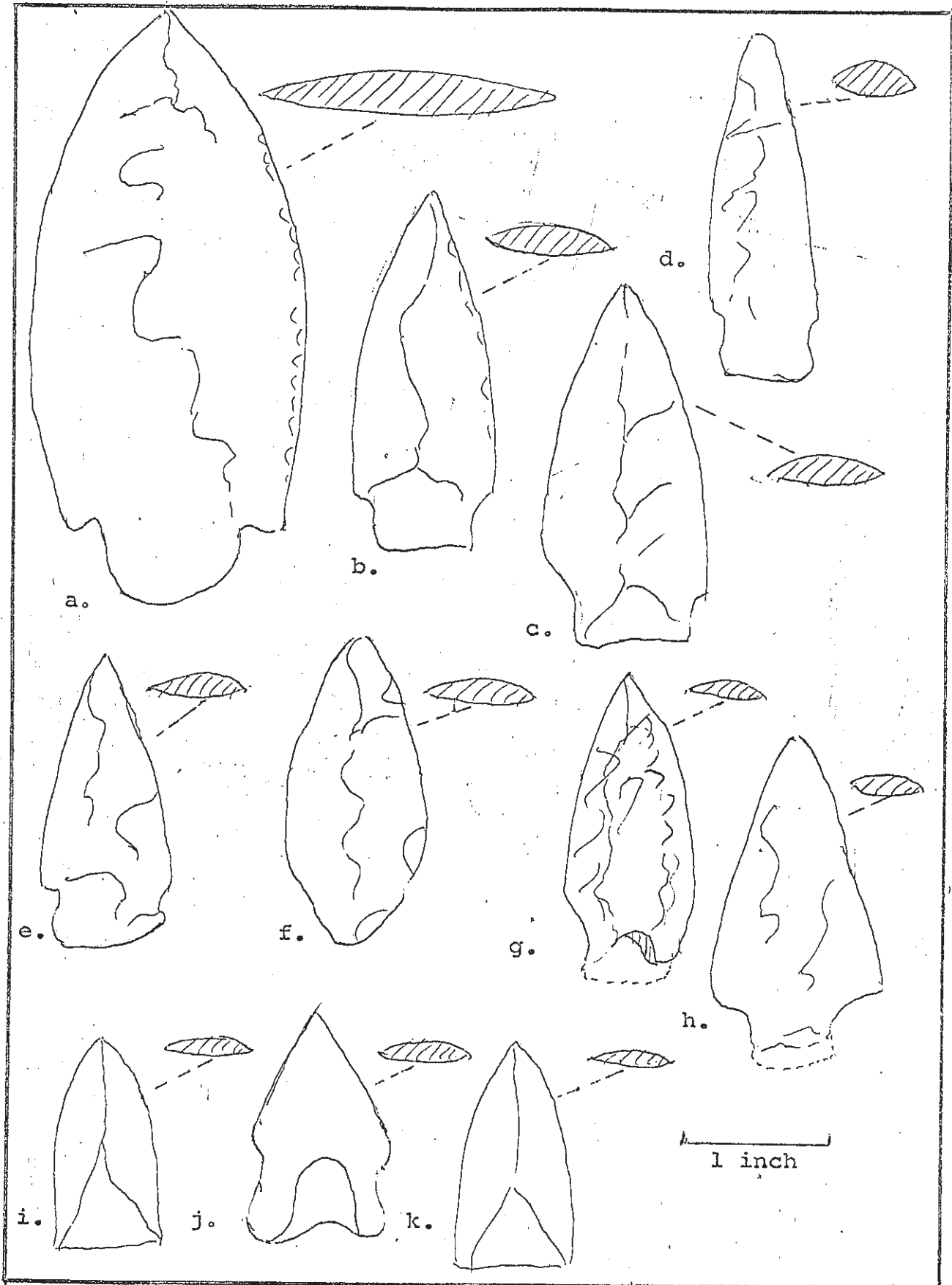


Fig. 9 Check 5 Projectile Points of light colored Slate Stone. (Renner Collection)

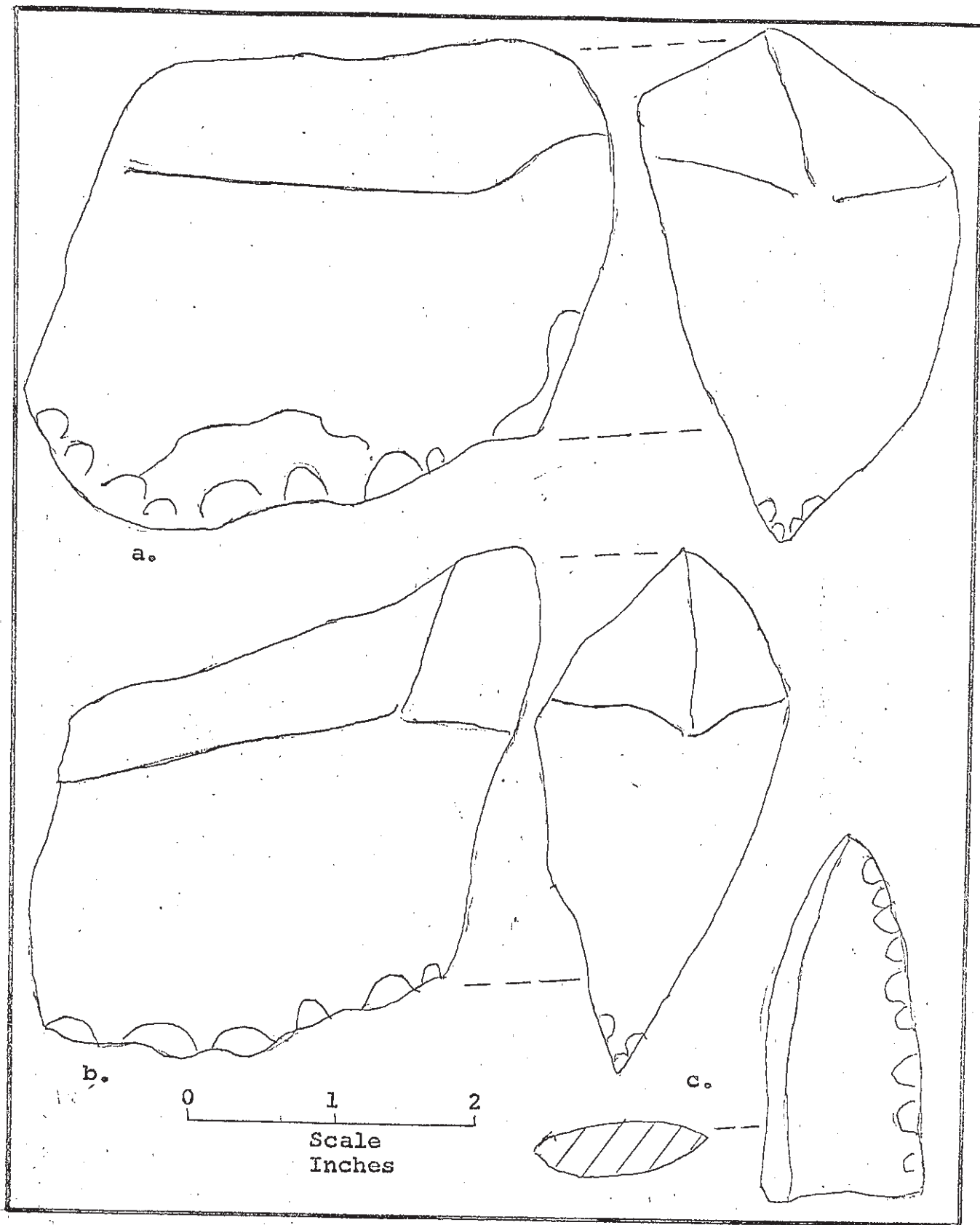


Fig. 10. Milky Quartz artifact types found in Check 5 tests. a,b. Quartz Vein Choppers. c. Backed blade.

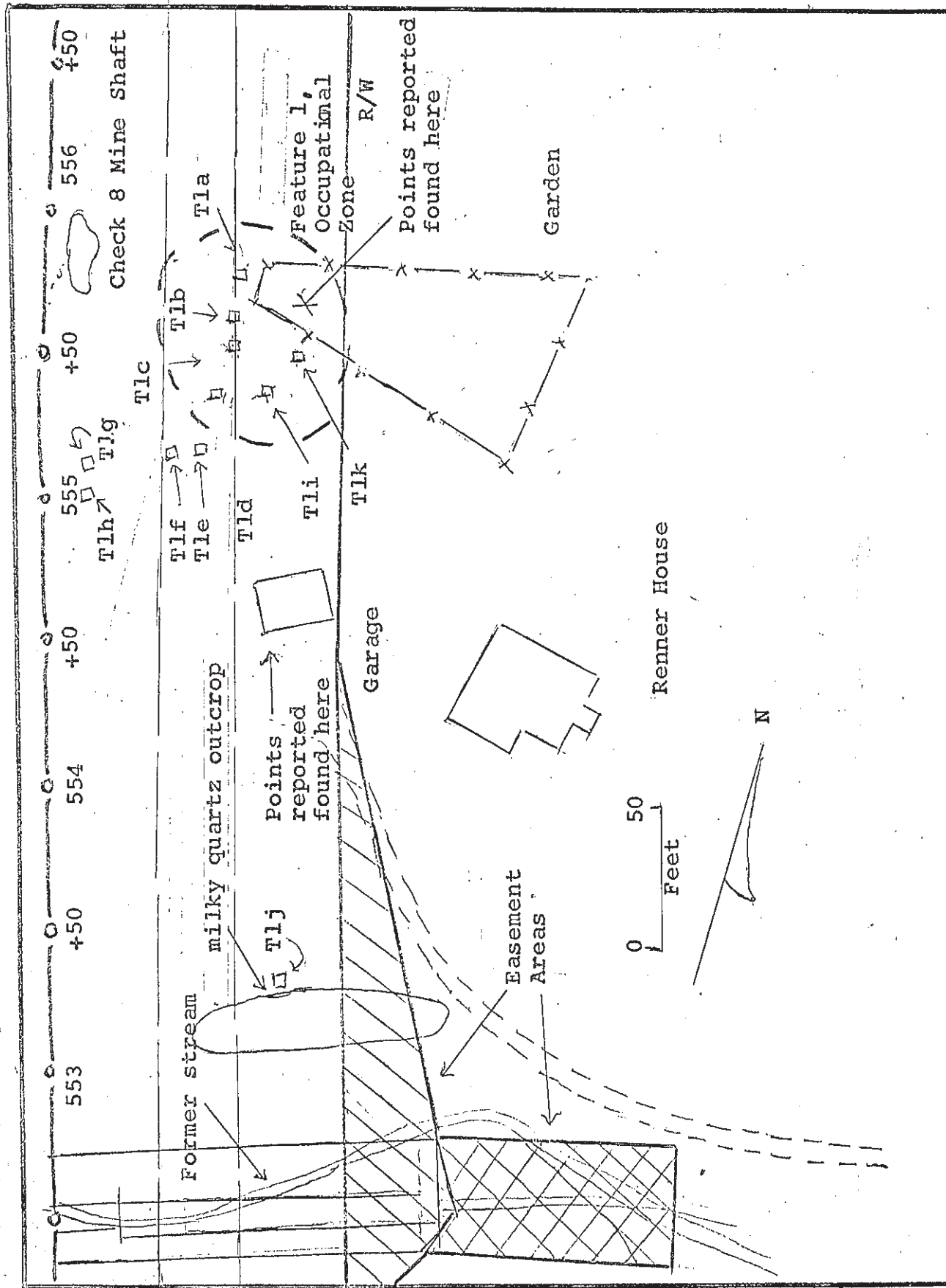


Fig. 11. Ground Plan of Check 5

CHECK 6
Sta. 557+30-558+20

Background

According to William Renner Check 6, the "Slave Graveyard", which is on his property, was never seen in operation by the old timers with one exception. They tell the story of a mulatto who died of smallpox on the mountain. After a regrettable delay his remains were brought down in an iron coffin and buried in the graveyard. The coffin was a product of Catoctin Furnace and was often used at that time (late 19th, early 20th century?). The place had the reputation of accommodating of victims of plagues and pestulences including typhoid fever. Other informants stressed the idea of it being used by Indians as well as Negroes - not improbable since families of indian descent were known to live in the mountains. As children the interviewees avoided the place for supernatural reasons also.

One morning about 30 years ago Renner hurried over to the graveyard, which is a hundred yards or so north of his house, with a shovel in hand. During the night a polecat had seized one of his chickens and he intended to recover it. While digging in the animal's burrow he came on the legs of an interred skeleton at a depth of about 3½ feet. He got his chicken and hastily covered up the femurs, tibia, fibulae, and assorted metacarpals he had unwittingly exposed. Later he drove off some boys who dug a shallow trench under a headstone in search of skeletons.

The headstones of this graveyard were unusual in being elongated rounded boulders about 2 feet long and 6 inches in diameter. A spaul was removed from most of the stones near one end, giving a flat surface some 6-8 inches in length, but there was no writing to be seen. Renner noted that the headstones, which protruded above the surface some 8 inches, were roughly arranged in rows about 6 feet apart. On his 1975 map of Catoctin Furnace he has the graveyard (#25) depicted as a rectangular area with five rows of headstones extending in the north-south direction each row having 5 headstones. (Fig. 12)

The Intensive Survey

Test 1. We began excavating at the point the boy vandals had left off some years ago. The digging was very easy in a brown "chestnut soil" to a depth of 3 feet where we encountered a yellow loam (hardpan) into which the grave base had been dug (and re-filled with the chestnut soil). Tiny human bones were encountered at 3½ feet. The bones were in a poor state of preservation but could be identified as those of a very young child. Fragmentary skull bones showed the milk teeth largely in with the exception of the

first molar which was seen still in the upper right alveolar ridge. The long bones were exceptionally small, none over 6 inches in length. The child was judged to be between 2 and 3 years of age. Several small square nails, about 1½ inches in length, were found in association with the bones. These were presumably associated with a wooden casket which had since decomposed entirely.

The stratigraphy of the burial indicated that the grave diggers had dug through the soft chestnut soil to a depth of 3 feet then put a small basin measuring 5½ feet by 2 feet into the hardpan soil. This subsoil consisted of stratified layers of soil: under the yellow loam hardpan which contained fragments of rock was a gray clay zone, followed by another yellow loam strata and finally (of unknown depth) a layer of brown sand. These bands varied from 2 to 10 inches.

After examining the remains of the grave they were put in a plastic and paper bag and reinterred to the grave with a silent prayer for the dead. (Fig. 13)

Test 2. Located 50'6" west of Test 1 this is a soft area of loose soil 5" square with several large rocks. A small 2' test pit into this area revealed charred material including leather, found to a depth of several feet. The testing was sufficient to reveal that a feature of unknown use, and probably connected with the graveyard, was represented.

Test 3. Located 20' northwest of Test 2 this was also a soft area (10 by 8") which contained a series of five large flat stones arranged in a semi-circle. Part of the area was occupied by the burrow of a woodchuck. A test was put in this area sufficient to disclose the continuation of loose soil to an unknown depth. The feature, of unknown use, is probably associated with the graveyard.

Test 4. A small trench 4 by 2 feet was dug into the area which Mr. Renner indicated as that of his skeleton-discovering adventure 30 years ago. The test taken to a depth of 3 feet did not reveal either skeletal material or cultural remains.

Test 5. It was (pointed) out by Mr. Renner that a mantle overlay the west portion of the graveyard as a result of fill from Check 9, limestone quarry located directly to the south. It was necessary to test this hypothesis since, if true (as it turned out) many graves were hidden under the mantle. A small trench 2 feet wide and 7 feet long was dug to the south, 5 feet south of Test 3. Two gravestones were found lying on their sides (and) inclining in the north direction as if disturbed by a force from the direction of the quarry. The stones buried 6 inches below the surface were in a mantle of soil thickly studded with spalls and fragments of limestone. The soil was the usual "chestnut soil" top-strata of the area. A test was sunk just east of the northmost headstone and a grave was discovered at a depth of 3 feet below the base of the mantle. The grave contained the remains of a very small child, younger than that found in Test 1. It was in a similar state of preservation. After examining and photographing the remains they were reburied in a sack.

The chance exhuming of two small children in the two graves discovered to date suggests that a high infant mortality rate existed at the time period of the graveyard. (Fig. 13)

Interpretation

Check 6 is a graveyard containing the bodies of an unknown number of persons, most of whom were interred in an earlier period of Catoctin Furnace history. Some 15-20 potential headstones were noted - mostly in the half of the site to the east of the right of way of Alignment 1 corridor. It is estimated that counting the gravestones concealed under a mantle of earth from the nearby limestone quarry (Check 9) over 100 internments may be present. Portions of the Maryland Law pertaining to archaeology and the disturbance of graveyards are as follows: Art. 66C, Sec. 110 B-L; Art. 16, Sec. 119; Art. 23, Sec. 162; Art. 25, Sec. 144; Art. 27, Sec. 265-7 and supplement. The graves to be disturbed by the impact of the road alignment will have to be relocated. The State Attorney's office is concerned with such problems. The State Archaeologist pointed out that this graveyard with its crude headstones was reminiscent of 18th century graveyards found elsewhere in Maryland.

Impact of Alignment 1 Corridor on the Check 5 Area

The Alignment 1 construction effort will place an overlay impact of several feet of fill on the surface of the site. The right of way extends for a distance of 100 feet east of the median base line. The graveyard continues for an additional 120 feet to the east.

Recommendations

1. The graves within the right of way of Alignment 1 corridor must be removed and reburied as required by state law.
2. Since less than half of the total area of the graveyard is affected, the impacted burials could be reburied on the surviving section of the graveyard. In this way the historical location of the site could be preserved as part of the Catoctin Furnace complex.
3. The burials under the quarry fill should be identified and mapped prior to excavation and removal to the new site. The entire graveyard should be mapped before and after reburial has been completed.
4. Tests 2 and 3 and other non-burial features as yet undiscovered should be excavated sufficient to identify their significance and the remainder resealed under Alignment 1 corridor.
5. The reburial of the graves impacted by Alignment 1 offers an unusual opportunity to science to get vital statistics and other data on the Catoctin Furnace periods represented. It should be undertaken by or in close conjunction with a physical anthropologist to glean the data.

6. Time/Cost Estimates. All phases of work on this burial ground including archaeological and reburial will require 29 days at the cost of \$11,686 for archaeologist, assistant, physical anthropologist consultant, and 4 excavators.

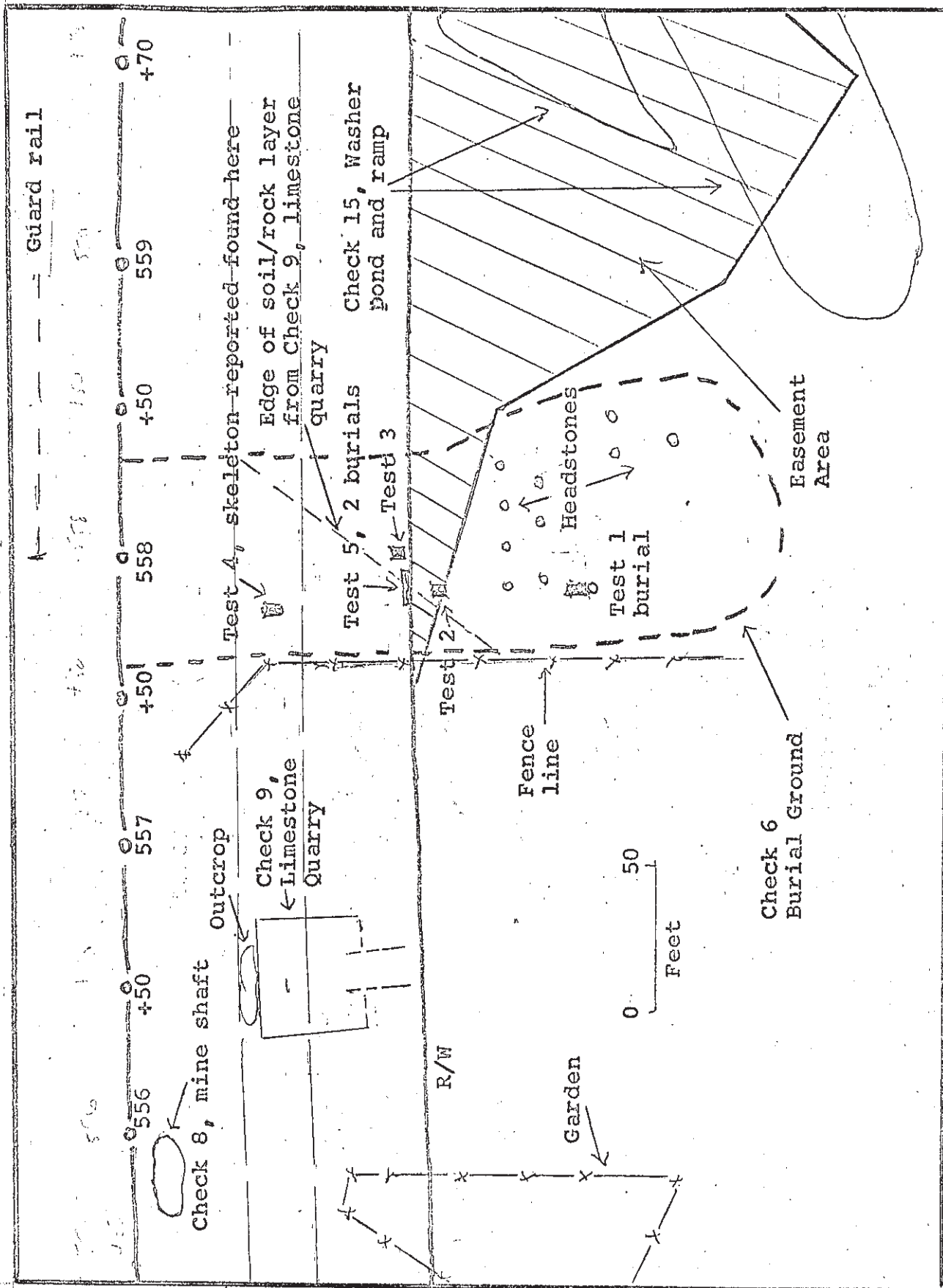


Fig. 12. Ground Plan of Check 6

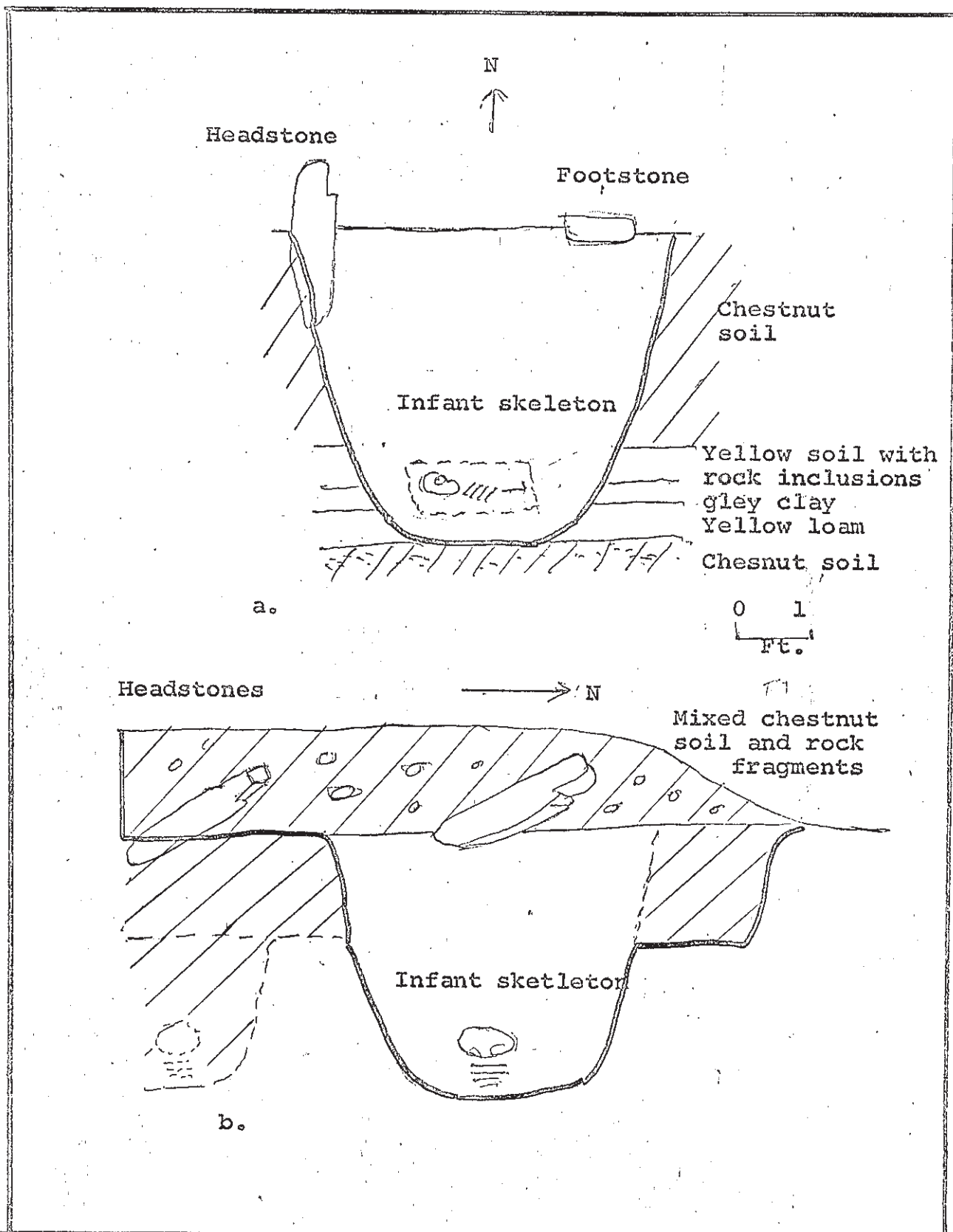


Fig. 13. Check 6, burial profiles. a. Test 1.
b. Test 5.

CHECK 7
STA. 568

Background

The stone foundation of Check 7 is identified on the Contract Archaeology, Inc. 1971 map as "stone foundation conjectured as late 19th C" and on the Mentzer, 1974 (p.5) map as "stone foundation & cellar". The Renner map, 1975, identifies the ruin as a "dwelling house". Mr. Renner and most of the interviewees with whom I worked knew the house as "Earl Carty's house". According to Interviewee H, a man in his seventies, Earl Carty worked in the Big Ore Bank located directly south of his house. His son and daughter-in-law lived in the house, a typical log cabin, well into the 1920's. Her father operated a blacksmith shop in the twenties a few hundred feet to the north. When Interviewee H was a boy he helped to transport a "laboratory shed" from the Furnace area to the Carty house. It was placed on the west side of the house as an additional part of the house (leaned up against it). (Fig. 14)

The Intensive Survey

The area was cleared of bush revealing a square made of fieldstone walls approximately 21 feet on a side. The walls barely protruded over the surface; however at the south side of the house a stonewall held by mortar occurred with an entrance passage in it (3 feet wide). A sunken area indicated that a cellar occurred at the south end.

Test 1. This was a 2½ foot square placed in the center of the cellar depression. It extended a foot through dark soil filled with stones and cultural debris to a yellow hardpan subsoil. This test was extended to the south and the north walls in a trench 2 feet wide revealing the profile of a cellar with an incline plane and ledge occupying three-fourths of the house plan (Fig. 15). The SHA excavators, who lived in the area, identified this as a "root cellar". The following artifacts came from Test 1:

1 large rim, and 1 body sherd of a grey ware crockery with a brown glaze interior

Several fragments of mortar

1 red brick, 8½ by 3 7/8 by 2¼ inches.

Several fragments of glass slag and iron slag

3 sherds of white ware with deep blue incised pattern on the rim (saucer)

2 fragments of animal bones

1 thin, metal bottle cap (?) with impressed coat of arms reading "Excelsuss" and stars.

4 fragments of tin cans, including: 3 tops 1½" diameter with the raised letters "company" on one, and "ons" on another, and 2 curved body fragments.

Test 2. This test was located at the southwest corner of the house (outside). Artifacts were seen on the surface here, and a test 2½ feet square and a foot and a half deep revealed others, including:

1 3/8th of an inch thick stoneware sherd with black glaze on the interior, and light brown glaze on the outside

2 white clay fragments, one a bowl edge, and one a stem with the base of the same bowl attached. The bowl had raised ridges somewhat resembling the stump of a log.

1 flat, greenish, transparent pane of window glass, 1/16th inch thick

1 flat, clear glass window pane fragment, 1/8th inch thick.

1 ivory-colored button with 4 holes, 7/16th inch thick.

The profusion of material here suggested the presence of a midden of unknown extent.

Test 3. This was a 2" square test placed at the northeast corner of the house (outside). It yielded some slag, a small sherd of white ware, and a small fragment of clear window glass. The yellow subsoil occurred under a thin humus (4 inches).

Test 4. A 2" square test pit was dug next to the southeast corner of the house. A thick humus 8 to 10" in extent covered the yellow hardpan subsoil. The subsoil here and elsewhere in this area contained "nuggets" of what appeared to be iron ore.

Test 4a. The test was a small trench a foot wide placed next to the outside wall at the northwest corner of the house in an effort to explore the depth of the stone wall. The wall showed only two courses and extended some 8 inches below the surface. An extension of the test revealed a brick walk paralleling the west side of the house to a distance of at least 5 feet.

Test 5. A 2½ foot wide test square was dug at the foot of the 8-10 foot bank located 100 feet north of the house foundation. It revealed a glass slag zone overlying the yellow subsoil identified elsewhere. The slag cap behind the retaining wall is also identified in auger borings which show slag to a depth of 20 feet (Balter, 1974). Slag may also be distinguished visually on the plateau behind the retaining wall at the southeast corner of the juncture of U.S. 15 with Catoctin Hollow road. Mentzer's Map (1974) shows the slag cap

surrounding the Carty house in a right angle, at a distance of 100 feet. It was obviously constructed with a view of avoiding the house and its yard. This suggests that the house preceded the construction of the retaining wall and the build-up of the slag plateau behind it.

Test 6. A standard 2½" square pit was put down showing charred wood and charcoal fragments just below the humus line (6 inches). This supports the contention that the area surrounding the house contains outbuildings and other features.

Interpretation

The thin window glass, clay pipe fragments, and blue, crinkley-edged stoneware indicate that an artifact complex of the earlier part of the 19th century is to be found at the Check 7 ruin. This means a long occupation with resultant archaeological deposits of value in reconstructing the life of the Catoctin Furnace iron workers.

Impact of Alignment 1 Corridor on The Check 7 Area

The house feature is located on the edge of the right of way in the easement area. However, a sizeable portion of the site is within the right of way (that to the west of the house site). The road level is located at a height of nineteen feet above the surface of the ground. In the event that the easement would be used for road construction both it and the right of way area would be imposing an overlay impact on the site.

Recommendations

1. A detailed study should be made of the house foundation and cellar with the view of its possible use in an eventual reconstruction of the site.
2. The midden identified at Test 2 should be trenched to recover artifacts showing the nature of an iron worker's life during the time period represented.
3. Other tests and excavations should be placed in the surrounding yard of the Carty House to recover other possible features including an outhouse, outbuildings garden, fence posts, barn, and the like.
4. The house underside, including the cellar, should be further explored by excavations. It is recommended that at least half of the archaeological strata be left intact for future reference and possibly for display in the event of a reconstruction of the worker's house.
5. A detailed map of the house and grounds should be made.

6. Time/Cost Estimate. All archaeological work at this site will require 10 days at a cost of \$3500 for archaeologist, assistant, and 4 excavators.

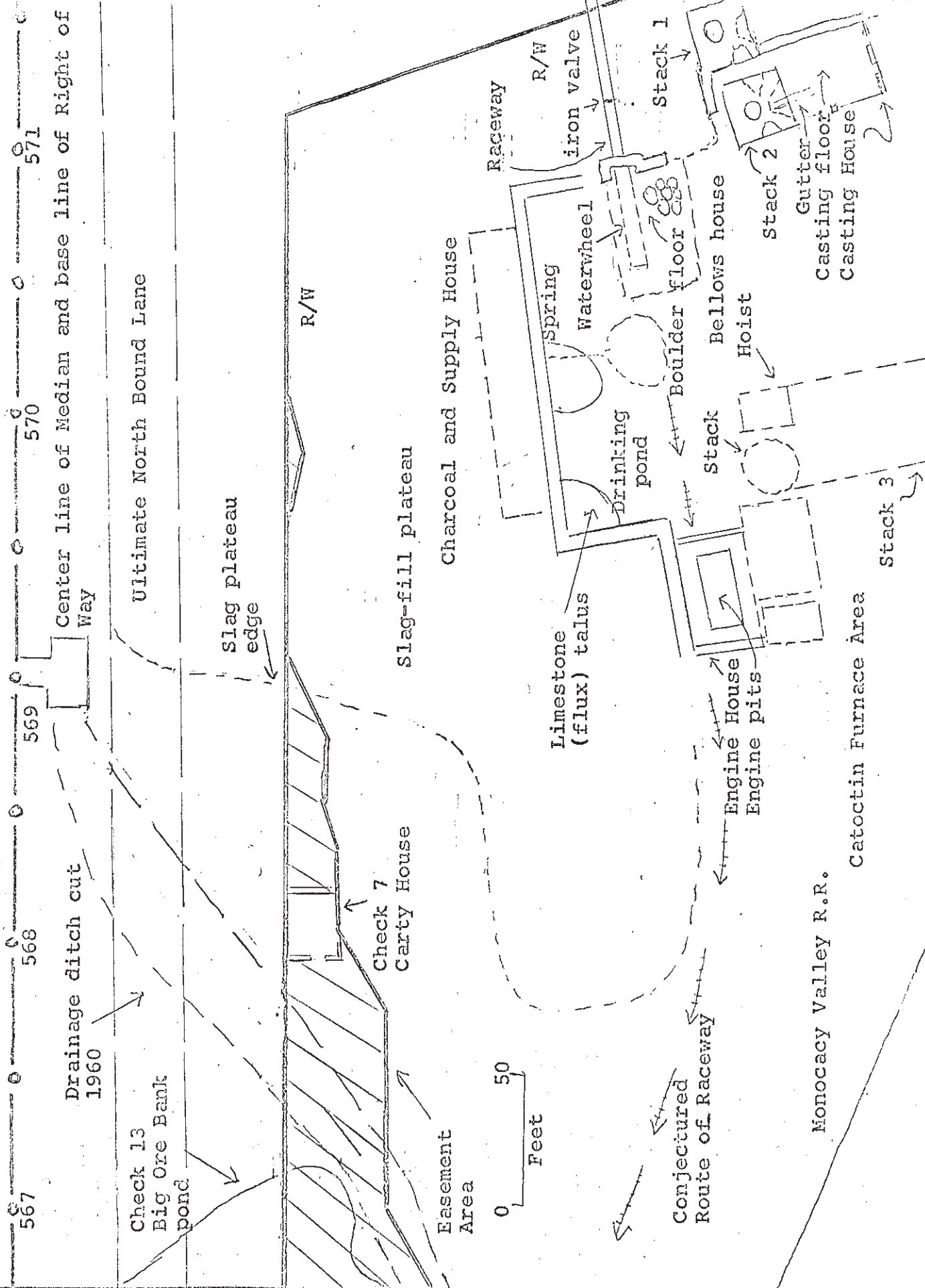


Fig. 14. Ground Plan of Check 7

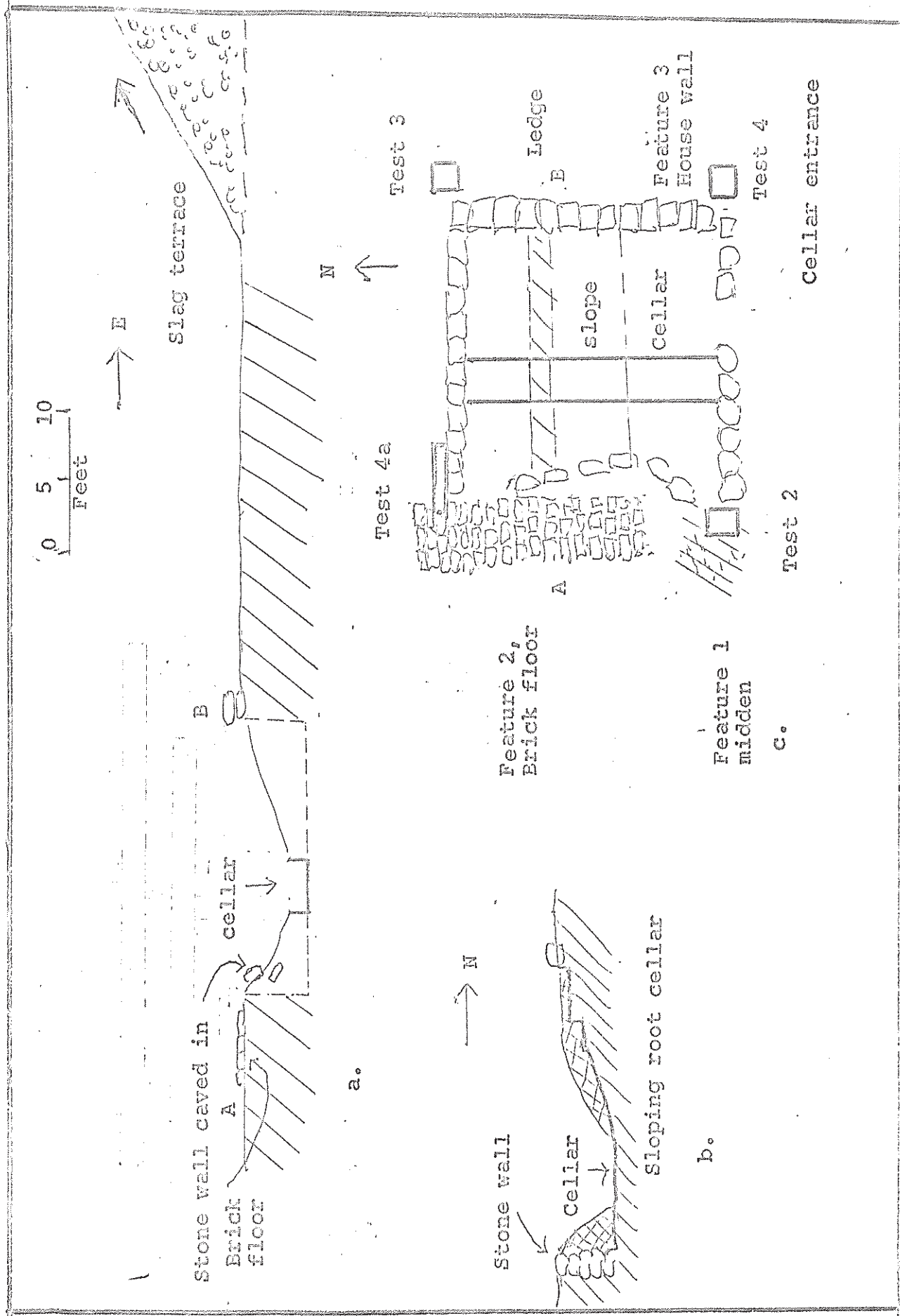


Fig. 15. Check 7, Carty House, plan and profiles.

Background

All maps depicting U.S. 15 at Station 556+ show a "mine shaft". This is Check 8, a 22 foot in diameter hole filled with hardware junk. Neither the maps nor the research published on the area show Check 9 which is a small limestone quarry measuring 40 by 50 feet with a 10 foot face and a small road extending to the east. The reason for this oversight is that Check 9 was until recently concealed in the bush of the woods in this area. Our research indicated that the two features are both involved in the same limestone strata and that they are an integral part of the Catoctin Furnace mining history - a rather amusing part of that story. (Fig. 12)

The Silver Mine. No one disagrees with the identification of the feature of Check 8 as a "mine shaft". The controversy starts when someone claims it is a silver mine shaft. Interviewee B, an old timer in his early eighties, is one of the strongest advocates of the silver mine theory. He claims he got the true story of the mine shaft from the man who operated the silver mine. Silver Joe we will call him, in case some of his descendant's are still around and might take umbrage at some of the things attributed to him. Silver Joe told B that he operated the mine from about 1867, for a period of 15 or 20 years. He worked a windlass drum which raised the silver ore and lowered miners into the shaft. Mules did the job and there was a stable of mules a hundred feet or so east of the limestone quarry road.

The shaft extended for a dozen feet or so and then fanned out "like a funnel" to a depth of 65 feet, where a circular base-big enough to drive two teams of horses around-was the locale of the ore containing the silver vein, half-an-inch thick. The mine prospered over the years, so Silver Joe says (as reported by Interviewee B), until one day when the mine owner fired the mining engineer and tried to run the mine himself. This proved to be unfortunate since the silver vein was lost in the process. The story goes that rocks bearing the silver vein were brought to the surface and the silver extracted on the spot, and sent to the mint in Philadelphia. The ground was littered with spauls of the rock, and for years farmers would come and haul away the limestone (for that's what is was) free for their personal use around the farm.

Jonathen Hager's Silver Mine. A second "silver mine" story is curiously interwoven with the first one. Information on this was supplied by SHA geologists who were asked to investigate the silver mine rumor (Martin and Bittendorf, 1977). They turned up a newspaper account datelined Hagerstown, Md., Sept. 29 (1927?) which

reported that the secret silver mine of Jonathan Hager's, supposedly operated by him with (blindfolded) slaves from 1750 to 1776, had been found on Catoctin Mountain. The story was put out by the owner of "6,500 acres including a large part of Catoctin Mountain". Jacques allegedly claimed that one of his workers had stumbled on a mine which contained "nearly pure silver" in rocks at its entrance. The worker was part of a mineralogical surveying team looking for iron ore at the request of a New York mining company. There was no follow up on the newspaper story. The worker who allegedly reported the silver mine find was Interviewee B.

Interviewee H. This son and grandson of miners, in his early 70's, had heard about the silver mine and felt that there was something found in the mine shaft because of the reported activity there. But "it didn't amount to anything". He remembered a curious story told about the shaft. It seems that one Catoctin Furnace resident got made at his neighbor's pigs for eating his corn. The owner of the pigs appeared indifferent to his plight. One day the aggravated one lured his neighbor's pig herd to the shaft and unceremoniously booted them in one by one, until the whole herd was at the bottom of the shaft. For years the disappearance of the pig herd was a mystery. Then the culprit whose conscience had been bothered all of the time by the impetuous pig burial confessed his deed, and then left the community after paying for the pigs.

Interviewee D. This gentleman in his late 60's, who came from a long line of miners smiled knowingly when I mentioned the silver mine story. He believed that indeed "they had found something there, and then pulled out. But no one seen that silver". He was also well acquainted with the pig burial story. He chuckled and remarked that "the Devil helped get the pigs in" (into the shaft).

On the subject of Silver Joe he said, "he wasn't noted for his honesty and on this occasion (in talking of the silver mine story) he may have been stretching a little bit. Joe is remembered by D then a small boy as a nare-do-well who would drive around in his mule drawn wagon followed by boys chanting an indecent rhyme about Joe's digestive system, which doesn't bear repeating (since it involves Joe's real name). He would take such teasing in a good natured way. "He was a great talker with a good sense of humor and he loved a joke - he was always talking", said D.

Interviewee I. This source of information was equally authentic as the son of a miner who actually dug such shafts. Indeed, shafts of the kind represented by Check 8 are, according to Interviewee I, commonly found on the mountain today. His father worked in the Kunkel ore bank. "My daddy used to do a lot of exploring for iron ore. He would dig a hole 6 feet or so around and went down 50 feet or so in search of the ore. The shaft was shorn up with chestnut wood cribbing which was very strong. But the soil was sandy and wet and the sides of the shaft would give-in (sump) forming a big fan. When removed at the depth of 50 feet the area at the base was big enough to drive a team around" said Interviewee I. He knew about

the supposed silver mine at Check 8 but said it was "an invention of some people (landowners whom he named) to keep the road from going through". He appeared both amused and disgusted at this chicanery.

The Intensive Survey

The SHA Investigation. Following a request to investigate the existence of a silver mine at Catoctin Furnace SHA geologists evaluated the newspaper account of the Jonathan Hager's secret silver mine and found it wanting. Hager's biography made no mention of silver and there seemed to be no follow-up on the promising newspaper article (Martin and Dettendorf, 1971). In addition, they put down a core drilling machine and secured a core from the area at the edge of the mine shaft to a distance of 40 feet below the surface. Limestone was encountered from 2 to 7 feet, below this was typical stratigraphy of the area with no suggestion of a funnel. They concluded that "the existence of the silver mine is largely mythical" (idem).

At my request the SHA investigators took samples from the rock outcrop of Check 9, limestone quarry, and compared it with the earlier core secured in the testing of the mine shaft. The limestone of the two samples was identical. The rock was silaceous limestone considered unfit for use as a flux in iron furnaces due to its impurities.

Archaeological Test in the Mine Shaft. The mine shaft was excavated to a depth of 10 feet with a backhoe. The objects exposed in this excavation included quantities of parts from modern household equipment, tin cans, bottles, fence wire in rolls, and the like. The style of most of the objects indicated they represented discarded debris of the past 25 or so years. The mound to the south of the pit was bisected to reveal a two-foot lens of limestone chips and spalls intermixed with soil and distributed over an area about 30 feet in diameter.

Test at Check 9. A two foot wide trench measuring 10 feet in length was dug on the north slope of the quarry exposing a top 3 feet of chesnut soil liberally mixed with limestone fragments and spalls. This zone, obviously from the excavation of the quarry, was spread to the north over Check 6, graveyard, as already described.

Interpretation

The data indicates that Check 8 and 9 were concerned with the same limestone strata. It seems probable that the mine shaft preceded the limestone quarry, and that both were concerned with problems of mining in connection with the Catoctin Furnace activities. The shaft was also looking for iron ore since it went deep below the limestone strata to an unknown depth. The spalls of limestone at the mouth of the shaft could well have been the refuse encountered in going through the five feet of limestone. The small limestone

quarry seems to have been a further exploration of the limestone quarry in search of limestone pure enough to use as flux. Much of the rejected limestone litters the mantle covering Check 6, graveyard. It is assumed from the small amount dug in this quarry that the venture was unsuccessful. We are informed that 800 pounds of limestone is required for every 1 ton of iron (Singewald, 1911) and the capacity of the Catoctin Furnace must have required great quantities of limestone. We therefore interpret Check 8 as a typical exploratory mine shaft found in abundance throughout the mountain, and Check 9 as an abortive attempt to secure limestone close to the furnaces (this subject is further explored below).

Impact of Alignment 1 Corridor on the Check 8-9 Area

The road construction will cover the area with an overlay impact to the depth of from 2 to 3 feet.

Recommendations

1. The inside of the small limestone quarry, Check 9 should be excavated to the base of the pit (an estimated few feet) to see if workers debris such as bottle fragments, crockery, personal items, tools and the like might be found.
2. The two features should be mapped along with a photographic record of limestone strata face to determine and illustrate the methods of mining which may be delineated on its surface.
3. Since the sites will be sealed off they represent an archaeological resource for the future. They should be identified in a permanent record as an integral part of the Catoctin Furnce mining story.
4. Time/Cost Estimate. All archaeological work at these sites will require 4 days and a cost of \$1515 for an archaeologist, assistant, 4 laborers, and a backhoe.

CHECK 10
STA. 483

SHA maps of U.S. 15 Alignment 1 (right of way map and as built map) show "an old graveyard, only stone 1787" at Station 483 directly in line with the ultimate north bound lane. This potential site area was investigated but no gravestone was seen. There were several gravelike depressions in the approximately 50 foot-wide area now covered with bush. On inquiry from Mrs. Leatherman, owner of the property, it was learned that the cemetery contained approximately nine bodies which were removed at the time U.S. 15 was constructed here in 1960. The bodies were reburied in the graveyard of the "Old Church" at Lewistown a few miles to the south. No further action or recommendations are necessary in this area.

Background

This survey is concerned with the small pond with the check area and its associated features. The pond is the remnant of Locust Pond, two-thirds of which was covered by the construction of the existing U.S. 15. Interviewee H remembers when Locust Pond was the ice pond of the community - a service probably performed from earliest times. He also recalls when the pond was part of a recreation project set up by Lancelot Jacques. H said that Franklin D. Roosevelt used it as part of his "Shangri La" hideaway when he was president. "You could always tell when President Roosevelt was coming from the presence of the marines and their pinscher dogs. They would drain the pond dry to remove its goldfish inhabitants, fill it with trout from a nearby government hatchery, and then build a platform for FDR to be wheeled out on and fish" Interviewee H said. He also recalls in the final period of the use of the pond when a ram pump provided water to the Catoctin Furnace manor from this pond. Interviewee I remembers ore washing equipment being removed from the pond edge. (Fig. 16)

The original purpose of Locust Pond was that of providing water power to run the forge hammers, grist and saw mills and, most importantly, the water wheels used to produce the air (through bellows) used in smelting the ore in the blast furnaces. A raceway trough, a few feet wide and deep, leads from the outlet of the pond to the Catoctin Furnaces and thence southward to the Auburn dam.

The story of this water power system has been roughly outlined in the archaeological references produced on the area to date (Contract Archaeology, Inc., 1971, Mentzer, 1974, Renner Map 1975, Orr and Orr, 1975); however, much more work is needed on this vital subject.

The Intensive Survey

The main effort of the survey was in a surface survey, a perusal of the literature, and a consultation with interviewees.

The Original Pond. The original pond was open and largely intact until the U.S. 15 construction strata covered about 2/3rds of it (Mentzer, 1974, p. 3) under a mantle of soil 8-10" thick. A map of the feature was made on the SHA right of way map (Fig. 16). The straight sides of the mapped feature suggests that the original pond was not a haphazard iron-ore pit, but was deliberately constructed as a race pond. According to Renner who knew the area well and lived close by, the water supply was primarily from strong springs and not directly from the adjacent stream.

Features in the Vicinity of the Race Pond. These features included a dam, with associated iron pipe and valve intake, an intake channel leading to the pond, an overflow ditch leading from the pond to the stream, and ore banks directly to the west and south as well as across the road to the east.

Dam and Iron pipe and valve intake. Interviewee B says these features were part of Jacques (pronounced "Jakes") recreation project attempted in the 1920's. Jacques set up another lake in an ore mine across the existing U.S. 15 highway by damming off a second probable ore mine area and interrupting the raceway. The water intake into the race pond was to provide the water for the extra pond. This area was equipped also with a deer farm, and picnic tables, and during this time, Interviewee H recalled that the western slope on the edge of the pond was a well-kept lawn. It was the consensus of opinion that the project, however attractive, failed as a financial venture.

The Goldfish pond. In the late 20's and 30's the pond was rented by George English to raise goldfish, according to Interviewee D. English came from the outside and succeeded in interesting a number of landowners in goldfish raising. This was so successful that at one time the area from Catoctin Mountain to Lewistown was known as "the Goldfish Capital of the World". At Check 11 English cut a drainage ditch from the pond to the stream. The reason for this was that he raised the fish in the summer, and emptied the pond in the fall to collect the fish. A 20 foot fieldstone retaining wall, some 6 feet high, was found at the west point of exit of the ditch. It is interpreted as placed there by English to protect the ditch from stream erosion, which it seems to have done quite well.

The ore banks surrounding the pond are discussed in detail in Check 12. They are believed to have postdated the original building and use of the pond. The presence of ore-washing equipment, as reported by Interviewee I, suggests that the pond was used for washing the ore found in the vicinity.

Interpretation

The pond in Check 11 is the remnant of the original race pond which provided Catoctin Furnace with water power to produce and work iron. It is an important archaeological resource.

Impact of Alignment 1 Corridor on on the Check 11 Area

An overlay impact of construction strata which already covers 2/3rds of the pond will nearly completely cover the feature, except for a tip 20 feet in width (Fig. 17).

Recommendations

1. The base profile of the race pond should be located by means of augerings.
2. Samples of the muck of the pond should be taken and studies of the spore content made to determine (along with other similar studies of Catoctin Furnace ponds) the biological environment during the Euroamerican occupation.
3. The location of the race pond and its importance should be kept as a permanent record of this important archaeological resource which may be excavated in the future.
4. Time/Cost Estimate. All archaeological and biological work on this site will require 5 days at a cost of \$2435 for archaeologist, assistant, augering team, and spore analysis.

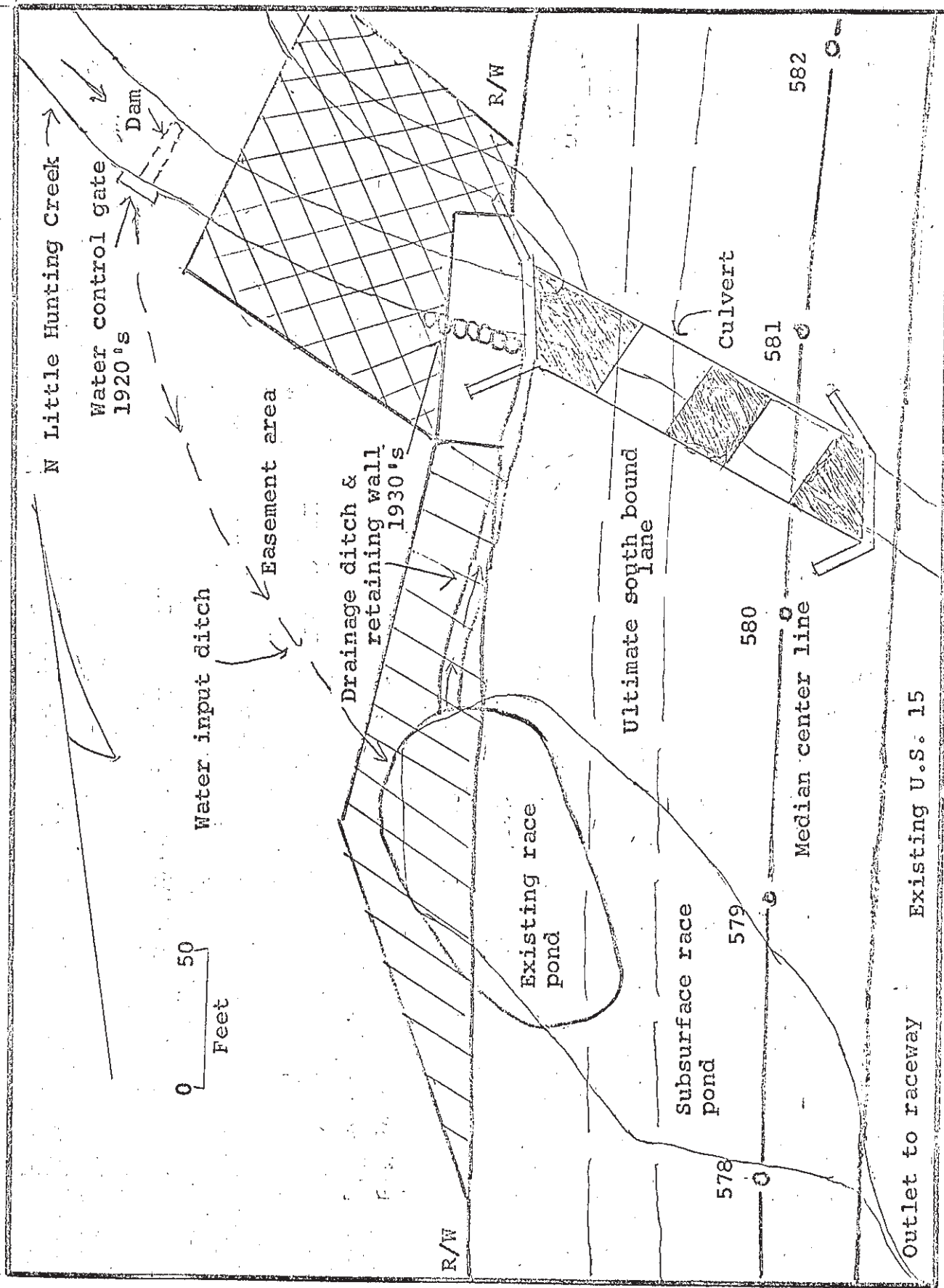


Fig. 16. Ground Plan of Check 11

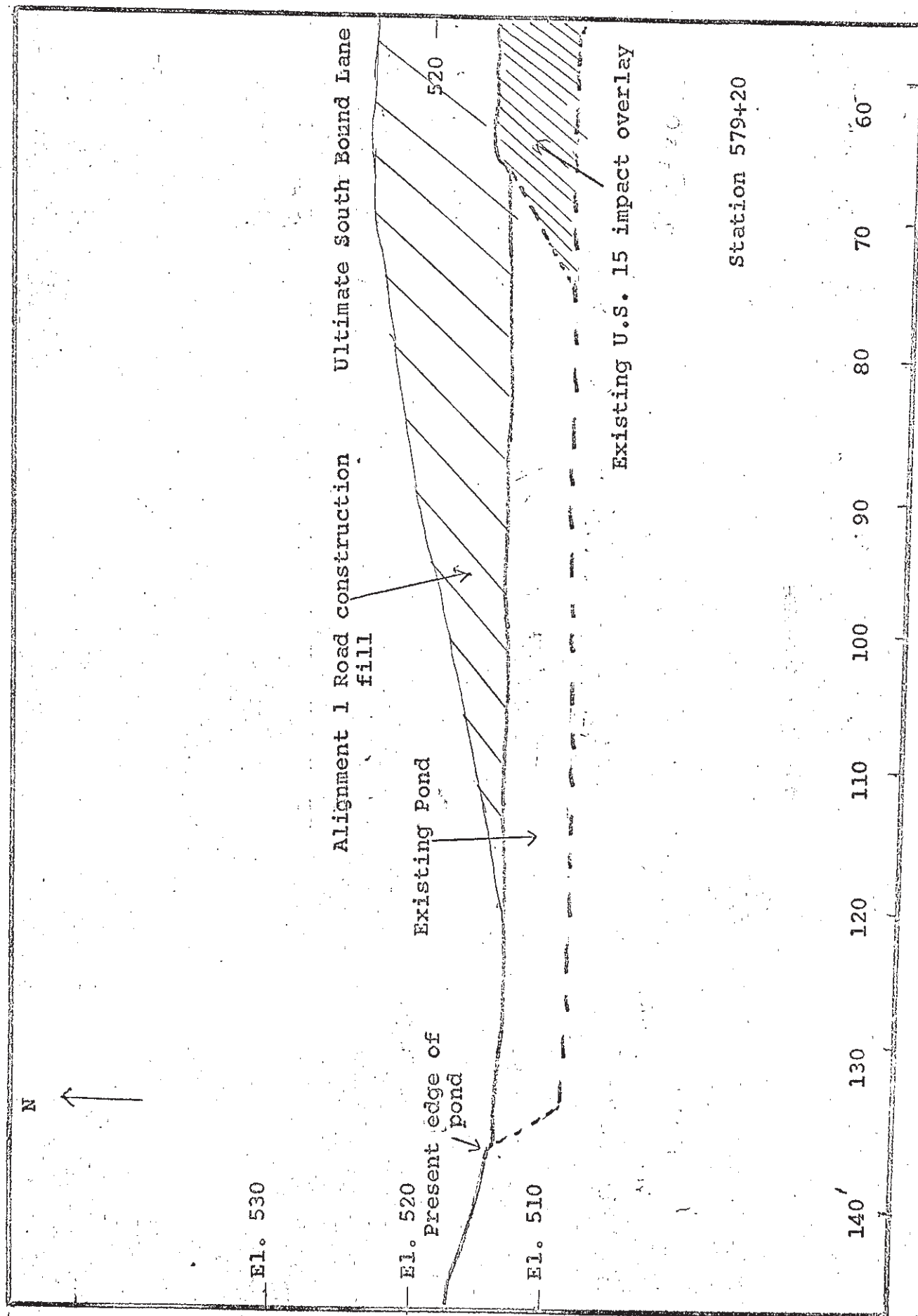


Fig. 17. Check 11, impact profile, station 579+20.

CHECK 12
STA. 568-579

Background

Four depressed areas located west and northwest of the furnaces and a section of the raceway comprise the features examined within the Check 12 area. In addition the Charcoal Road site is reexamined.

The old timers, including Renner, knew that the area to the west and northwest of the furnaces was a regular rabbit warren of ore pits and banks. Somehow or other these understandings didn't enter the main stream of archaeological analyses. The reason seems to have been a misinterpretation of Singewald's information about his visit to the Catoctin Furnace in 1911 (Singewald, 1911, p. 199). The result was a belief that when Alignment 1 was put through the ore banks near the furnaces would be covered up, and none would be available for demonstration to the public in close conjunction with the furnace area. The results of the intensive survey bear directly on this important problem. (Fig. 18)

The Intensive Survey

Feature 1, Sta. 575-577. This is a depression some 6 feet below the existing road level and measuring about 150 feet in diameter. The banks are about 12 feet high on the east and rise to some 30 feet high on the west. It is entered at a narrow passageway at Sta. 576+45. (Fig. 18, 21)

A right angle test measuring 20 feet up the bank in the N-S direction, and 15 feet in the E-W direction was placed in the narrow entrance. Both were the width of a back-hoe (about 2 feet) but the N-W leg was later widened to 4 feet to better expose the strata for study. The profiles from this test are shown in Fig. 19.

The stratigraphy of the test (Test 1) was examined for its geological data by Dr. John Fauth, geologist consultant. Iron ore in the form of brown hematite and red and yellow limonites was found in layers of decomposed Harpers Phyllite, some of which were interspersed with a gray (or blue) clay-shale, and others with a brown sandstone gravel. The process of the formation of iron at Catoctin Furnace is complex but vital for understanding the relationship between man, technology and natural resources at Catoctin Furnace. Dr. Fauth's analysis of Test 1 samples is given in the text for Fig. 19.

The archaeological aspects of the stratigraphy of Test 1 indicated that the ore-bearing strata had been cut in a U-shaped pattern to the depth of the E-W leg of the test. Here, at a depth of 7 feet below the present surface massive iron nuggets (1' diam.) were encountered at the water table. The suggestion was that