IV

ARCHAEOLOGICAL INVESTIGATIONS

A. FIELD METHODS

Fieldwork focused on recovery of human burials from Site 7S-F-68 was completed during the period from November 30 through December 21, 1992. Excavation of the cemetery was carried out according to a work plan that consisted of three principal components: (1) excavation of the five known historic burial features, (2) complete excavation of the units that contained the burial features to recover underlying prehistoric deposits, and (3) stripping of topsoil and pavement from adjacent areas to identify additional burial features. Four additional human burials (Features 36, 38, 39, and 40) and two dog burials (Features 35 and 37) were exposed during the stripping of topsoil and pavement, and these features were excavated immediately after exposure. Figure 5 illustrates the distribution of the burial features and excavated areas within the site. Table 2 summarizes the historic features identified at the site; the prehistoric features and deposits are described in a separate report.

The field methodology followed the techniques used in the Phase III data recovery program, in order to facilitate integration of the results with the previous excavations. At the outset of fieldwork, the site grid and vertical datum were re-established and used as the primary spatial control systems. The units containing the original five burial features had been backfilled and stabilized at the conclusion of the Phase III fieldwork in April 1992. After removal of the overlying deposits, each grave location was hand troweled until the grave pit outline was clearly discernable. The plan view was then mapped and photographed in both black-and-white print and color slide film. Coffin outlines were apparent at the level of grave pit definition for Features 5, 9, 29, and 30, indicating that as a result of repeated plowing and subsequent soil erosion, the upper section of each grave pit and coffin for these four interments had been removed by the plow. The fill from within the coffin outline was then excavated using a variety of brushes and wooden picks until each skeleton was fully exposed. The interments penetrated well into the B-horizon which consists of loose sand. Consequently, use of a variety of brushes during excavation was often sufficient to remove the soil matrix from the skeletal remains with minimal damage. Exposure of the human remains proceeded from the skull to lower lumbar area, and from the mid-femoral area to the feet, leaving the pelvic area pedestaled and consequently protected. The innominate bones, which comprise the pelvis, although very fragile and may provide the physical anthropologist with significant information with which to more accurately assess the sex, as well as the age, of the individuals.

In three instances (Features 5, 9, and 36), water-soluble polyvinyl acetate (PVA) was used as a consolidant to stabilize the fragile innominate bones in situ. The PVA solution was applied with a small paintbrush over exposed areas of the innominates. Drying of the treated bones was facilitated by the use of a small space heater that directed a flow of warm air through a flexible duct. Two or three coats of the consolidant were sufficient to stabilize these skeletal elements for removal. This procedure worked exceptionally well, and the treated innominate bones were recovered without incident.

Human osteology manuals (i.e., Bass 1971; Brothwell 1981) were used in the field to aid in the identification and preliminary sexing and aging of skeletal remains. When fully exposed, each interment was drawn to scale and photographed in both black-and-white print and color slide film. Often, several close-up photos were taken to illustrate the location of artifacts, pathologies, or for additional documentation.

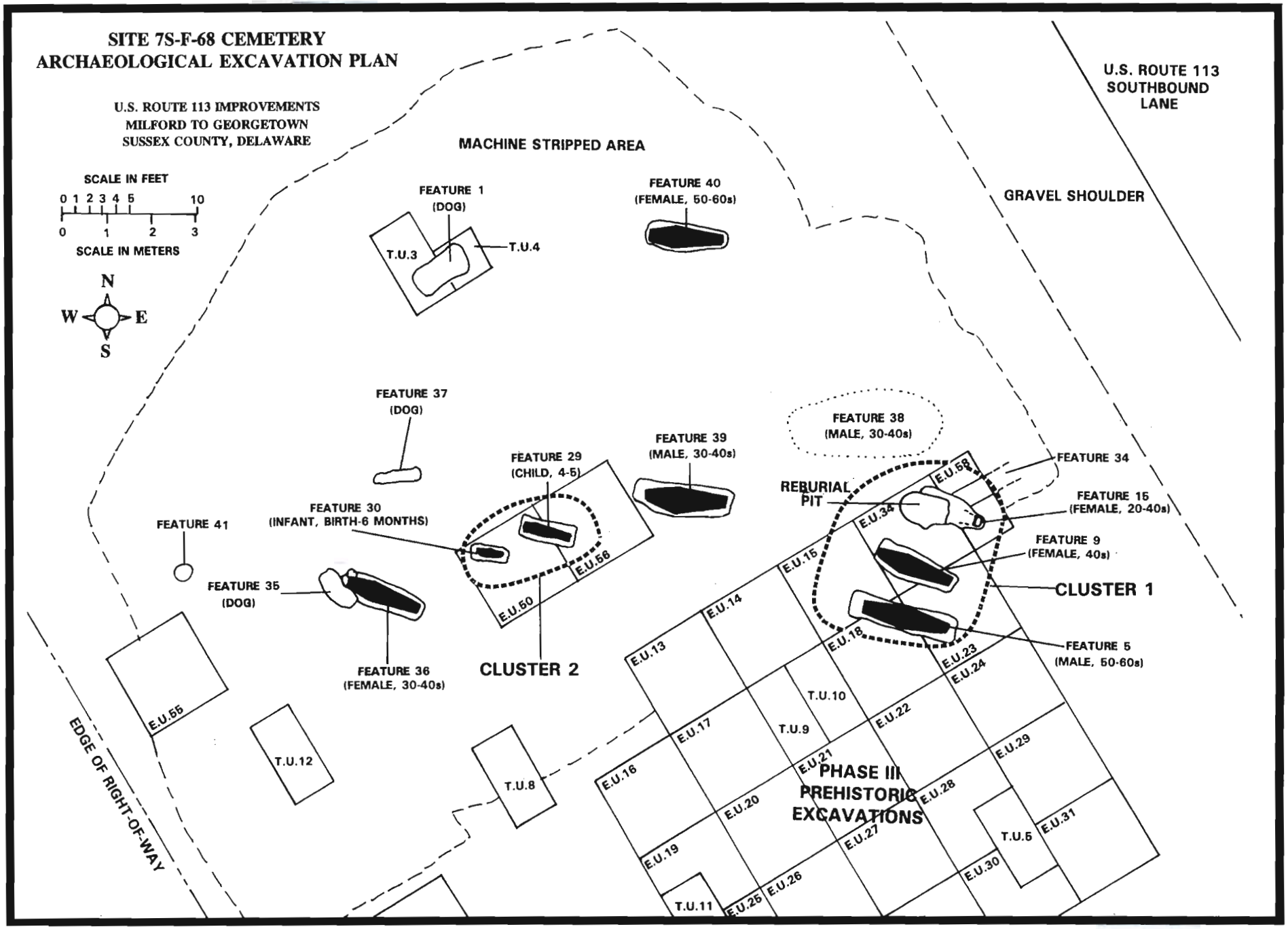

FIGURE 5: Plan of Excavation, Site 7S-F-68 Cemetery

TABLE 2

LIST OF HISTORIC FEATURES, SITE 7S-F-68

FEATURE	DESCRIPTION/COMMENTS
1	Dog burial; rectangular burial pit; 1.3 x 0.7 ft.; aligned N 57° E
4	Modern geotechnical boring
5	Human burial; male; aged 50-60s; rectangular coffin pit; 7.9 x 2.0 ft.; aligned N 75° W
7	Soil disturbance; looter's trench or automobile tire rut
9	Human burial; female; middle-aged (40s); oval/rectangular coffin pit; 6.5 x 2.2 ft.; aligned N 68° W
11	Posthole
15	Human burial; female; middle-aged (late 20s-40s); disturbed/looted; unknown burial pit size; aligned ca. N 75° W
16	Posthole/post mold
29	Human burial; indeterminate sex; aged 4-5 years; rectangular coffin pit; 4.0 x 1.5 ft.; aligned N 79° W
30	Human burial; rectangular coffin pit; 3.1 x 1.0 ft.; aligned N 83° W
34	Looter's trench or utility line trench leading to Feature 15
35	Dog burial; oval/irregular burial pit; 3.1 x 1.6 ft.; aligned N 40° W
36	Human burial; female; middle aged (30s-40s); oval/rectangular coffin pit; 6.5 x 1.8 ft.; aligned N 68° W
37	Dog burial; oval/irregular burial pit; 3.6 x 1.0 ft.; aligned N 82° E
38	Human burial; male; middle-aged (30s-40s); severely disturbed; unknown size and orientation
39	Human burial; male; middle-aged (30s-40s); rectangular/oval coffin pit; 7.0 x 2.2 ft.; aligned N 85° W
40	Human burial; female; elderly (50-60s); oval coffin pit; 5.9 x 2.0 ft.; aligned N 87° W
41	Posthole

Every effort was made to keep the skeletal remains moist and covered to prevent deterioration from exposure during excavation. The elements most affected by weathering were the ulnae and radii, where a certain degree of longitudinal splitting and warping of exposed surfaces occurred. During removal, the skeletal elements were carefully wrapped in aluminum foil, labeled, and placed in well-padded boxes. The skulls were removed with a pedestal of burial matrix and boxed individually.

In general, bone preservation in the historic burials was very good to excellent in the elevated portion of the site (Features 5, 9, 15, 29, 30, 38, and 39). The bone preservation was fair to poor in Feature 36 at the west end of the site, and in Feature 40 at the northeast end of the site. Except for a few remnant fragments in most burials, the coffin wood in all cases was completely deteriorated. The coffin wood left a characteristic soil stain, however, and that residue together with the pattern of coffin nails allowed reconstruction of the coffin shape in seven (Features 5, 9, 29, 30, 36, 39, and 40) of the nine historic burials. Feature 15 was severely disturbed by roadway construction and subsequent activities adjacent to Route 113; all information regarding coffin shape was destroyed, and had it not been for the presence of several coffin nails in situ at the remnant east end of the coffin bottom as well as within the reinterment, all evidence of an in-coffin burial for Feature 15 might have been lost. Feature 38 consisted only of an assortment of human bone fragments, coffin wood, and nails collected from a disturbed area at the intersection of the roadway and the driveway to the nearby auto repair shop. The coffin shape of Feature 40 was reconstructed from the well-preserved pattern of coffin nails, as no coffin wood stain was discernable in the soil.

B. FEATURE DESCRIPTIONS

1. *Human Burials*

a) *Feature 5*

Feature 5, the first burial identified during the Phase III excavations, was included in Excavation Units 15 and 18. The burial pit was rectangular in outline, and measured 7.9 feet in length, and 2.0 feet in maximum width. The grave was oriented 75 degrees west of north. The coffin outline measured 6.5 feet in length, 1.1 feet at the head (or west) end, 1.7 feet in maximum width, and 0.9 feet at the foot (or east) end. The burial was clearly defined at a depth of 1.2 feet below ground surface.

The bone preservation was very good to excellent. The skeletal remains appear to be those of a male Caucasian, with a conservative age estimate of 50+ years. The in situ measurement of stature was approximately 5' 7". The hands were folded over the stomach area (Plate 4). The feet seem to have been made to fit inside a very narrow coffin. The heels (calcanea) pointed medially, and the feet seem to have been bent to point forward toward the foot of the coffin (Plate 5). The skull was facing almost straight up, with a slight tilt to the right side.

Three shroud pins found on the skull left a characteristic green stain on the bone. A fourth shroud pin was found between the mandible and hyoid bone at the level of the seventh cervical vertebra. Three other shroud pins were recovered during excavation. A small metal ring on some indeterminate organic residue and a fifth shroud pin were located on the first thoracic vertebra. Eight buttons were recovered from the pelvic area. Two buttons were found between the pelvis and the coffin wall, on both the left and right sides. The other four buttons were located in the groin area where the hands were folded. These artifacts may represent buttons on the front of a man's double-breasted jacket and sleeves.

Other artifacts recovered from the burial pit fill include a fragment of unidentified glass, a brick fragment, and a fragmentary clay tobacco pipe stem, none of which are datable.

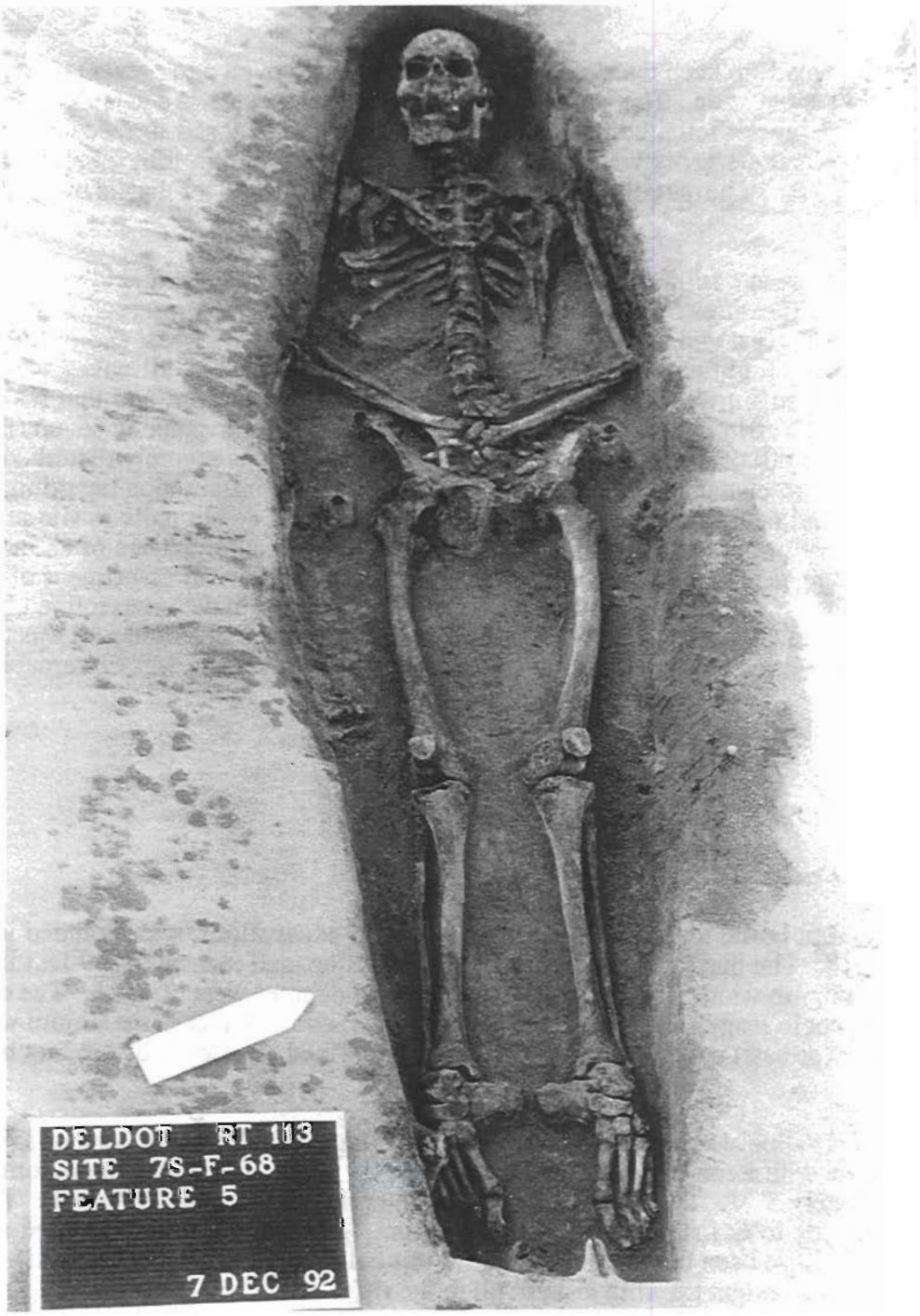

PLATE 4: Feature 5 Burial

PLATE 5: Feature 5 Burial, Showing Arrangement of the Feet

All of the lower molars had been lost and the alveolar bone completely resorbed, and somewhat flattened from use. Several of the thoracic vertebrae were fused and some of the ribs seemed to have fused to vertebrae. The left and right first rib were fused by ossified cartilage to the manubrium of the sternum (Plate 6). The sacrum was fused to the innominate bones. At least a small degree of lipping was observed on the periphery of most of the articular surfaces of the long bones. The right humerus exhibited more pronounced muscle/tendon attachment scars than did the left humerus, suggesting this individual was right-handed. All of the long bones were robust.

The shape of the coffin was hexagonal, with the widest point being at the level of the pelvis. The nails used in the coffin construction were all handwrought. There was a noteworthy pattern of four nails along the centerline of the coffin. Two nails were at the level of the thoracic/lumbar area, and two were situated at mid-tibia. This nail pattern may reflect a coffin lid with cross-supports at the midline.

b) *Feature 9*

Feature 9 was located between Features 5 and 15, and was included in Excavation Units 23 and 34. The burial pit was roughly rectangular to hexagonal in outline, and measured 6.5 feet in length, and 2.2 feet in maximum width. The grave was oriented 68 degrees west of north. The coffin outline measured 5.7 feet in length, 0.8 feet at the head (or west) end, 1.6 feet in maximum width, and 0.65 feet at the foot (or east) end. The burial was clearly defined at a depth of 0.5 feet below ground surface.

The bone preservation was very good to excellent. The individual appears to have been a female Caucasian, with a conservative age estimate of approximately 45+ years. The estimated stature as measured in situ is approximately 5' 3-1/2". The long bones appeared to be relatively gracile. The hands were folded over the stomach area, the right hand slightly higher up on the body than the left (Plate 7). The feet seem to have been made to fit inside a very narrow coffin. The calcanea pointed medially, and the feet seem to have been bent to point forward toward the foot of the coffin. There was a small amount of wood from the sides of the coffin pressed against each foot assemblage. The skull was rotated to the left approximately 45 degrees. Two shroud pins were located in Feature 9, both associated with the skull, one on the left temporal area and one on the right.

The shape of the coffin was hexagonal, with the widest point at the level of the elbows. The coffin nails were all handwrought or unidentifiable. There was a noteworthy pattern of eight vertical (point down) nails following the centerline of the coffin. This nail pattern may reflect a two-piece type of coffin lid, with nails binding the two lid planks at the midline and a transverse lid support at the level of the knee joint.

Two light bulb fragments, dated to post-1879, were recovered during excavation of the upper, disturbed portion of the coffin pit. These are believed to represent modern intrusions.

c) *Feature 15*

Feature 15 was located east of Features 5 and 9. It was originally identified in Excavation Unit 34, extending outside the North Excavation Block; Excavation Unit 58 was opened to remove the remainder of this burial. It was apparent that the original landscape surface in this area had been downcut to some extent as a result of grading for the Route 113 roadway and a driveway to the automobile repair shop located adjacent to the site. The burial pit had been destroyed by an intrusive activity represented by Feature 34, which appears to be a trench of some sort, oriented perpendicular to Route 113. Only the remnant foot end of the coffin could be located, and it was manifested by two opposing coffin nails within a dark patch of soil. The surviving coffin remnant was oriented approximately 75 degrees west of north. The skeletal remains had been disturbed by

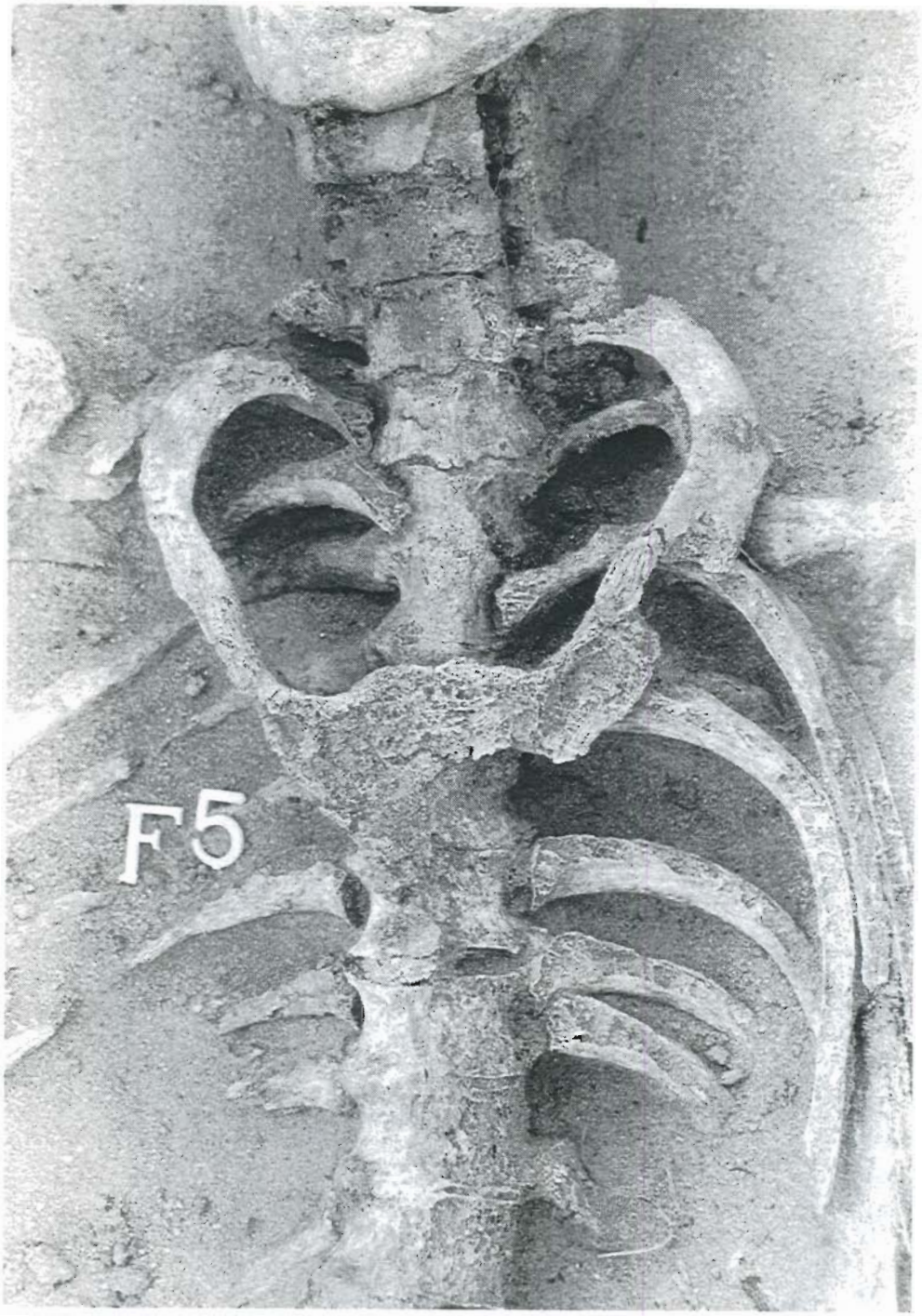

PLATE 6: Feature 5 Burial, Showing Fusion of the Vertebrae and Ribs

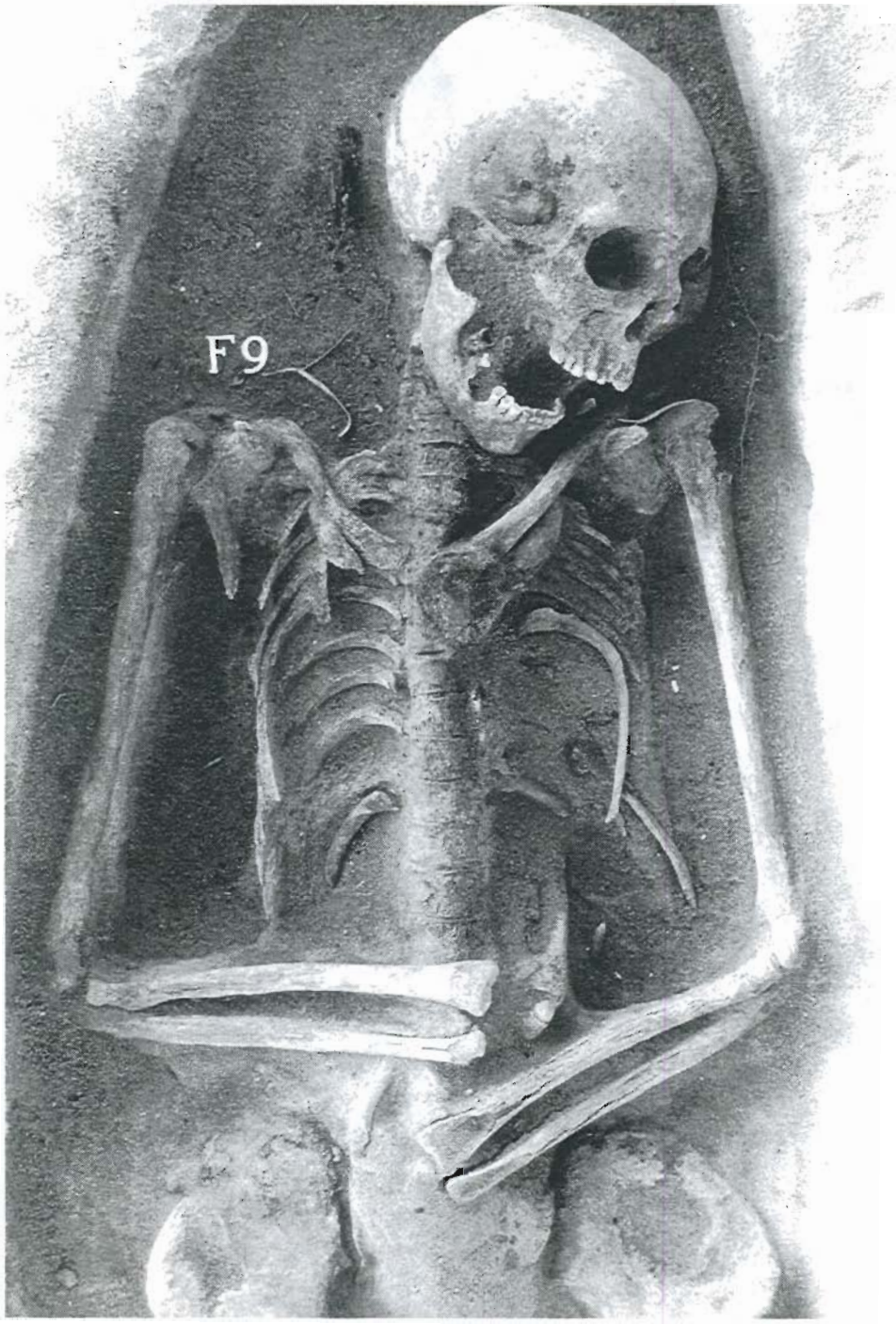

PLATE 7: Feature 9 Burial, Upper Body

the intrusive activity, and apparently, after it had been recognized as a human grave, a reburial pit was excavated adjacent to the original coffin location. The dimensions of the reburial pit were approximately 3.6 feet northwest-southeast by 2.2 feet southwest-northeast, and 0.72 feet deep from the level of definition. Most of the skeletal remains were recovered in a compact cluster at the bottom of the reburial pit.

The bone cluster contained most of the bones from the neck to the pelvis, including the bones from the arms and hands. All skeletal elements of the legs and feet were missing from the reinterment, suggesting that the intrusive disturbance (Feature 34) may have destroyed this area of the burial. The skull was not found in the reinterment pit and may have been retained as a trophy by those responsible for the intrusion. The bone preservation in Feature 15 was excellent. The individual represented here appears to have been an adult female of as yet indeterminate age. One shroud pin was recovered from the fill near the top of the reburial pit. Handwrought coffin nails were also recovered from the bone cluster within the reburial pit. A small amount of unidentified wood, unidentified metal, and a small clothing hook were also recovered from the burial feature.

d) *Feature 29*

Feature 29 was located adjacent to Feature 30, and was included in Excavation Units 50 and 56. The grave was oriented 79 degrees west of north. The burial pit was rectangular in outline, and measured 4.0 feet in length and 1.5 feet in width. The coffin was hexagonal in outline, measuring 3.5 feet in length, 0.65 feet at the head (or west) end, 1.0 feet in maximum width, and 0.53 feet at the foot (or east) end. The burial pit was clearly defined at a depth of 0.7 feet below ground surface. The widest point of the coffin was slightly distal to mid-humerus. The nails used in coffin construction were all handwrought.

The bone preservation was very good to excellent. The individual represented here appears to have been a Caucasian 6-8 years of age, whose sex could not be determined in the field. The estimated stature as measured in situ is approximately 3' 1". The hands were folded over the stomach area, the right hand slightly higher up on the body than the left (Plate 8). The calcaneus of the left foot pointed medially, and the foot seems to have been bent to point forward toward the foot of the coffin. The treatment of the right foot could not be determined, although it appears that the heels were touching. The skull was rotated to the left. Two shroud pins were located in Feature 29, both associated with the thoracic area, which suggests that the entire body had been wrapped in a burial shroud, pinned at the chest.

e) *Feature 30*

Feature 30 was located southwest of Feature 29, and was contained within Excavation Unit 50. Feature 30 was encountered just below the plow zone (0.9 feet below ground surface), and the top of the coffin had been removed by the plow. The burial pit was roughly rectangular in outline, and measured 2.68 feet in length and 1.04 feet in maximum width. The grave was oriented 83 degrees west of north. The coffin outline measured 2.05 feet in length, 0.44 feet at the head (or west) end, 0.65 feet in maximum width, and 0.35 feet at the foot (or east) end. The widest point of the coffin was slightly distal to the elbows. One early machine-cut coffin nail was recovered with a date range of 1790-1805; the remainder of the coffin nails were handwrought.

The bone preservation was very good. The individual appears to have been an infant less than six months of age (Plate 9). The race and sex of the infant could not be determined in the field. The lower leg bones seem to have been disturbed, as they were not in correct anatomical position. Nine brass shroud pins were collected from Feature 30 -- four from around the skull, four from the thoracic area, and one from between the lower leg bones. This pattern suggests that the infant had been completely wrapped in a burial shroud. A small amount of unidentified wood was also recovered from the coffin area.

PLATE 8: Feature 29 Burial

PLATE 9: Feature 30 Burial

f) *Feature 36*

Feature 36 was located during the mechanical stripping of the topsoil northwest of the main cemetery. The location of this burial defines the northwest edge of the cemetery. The burial pit had been penetrated by a dog burial (Feature 35) at the northwest corner as well as by a row of postholes (Plate 10). The burial pit was roughly rectangular in outline, and measured 6.5 feet in length and 1.0 feet in maximum width. The grave was oriented approximately 68 degrees west of north. The coffin outline measured 5.5 feet in length, 1.6 feet in maximum width, and 0.7 feet at the foot (or east) end. The width of the west end of the coffin could not be determined due to an intrusive posthole which also removed part of the skull, but it was projected to be 0.9 feet. A second posthole penetrated the lower left lumbar area, removing the lumbar vertebrae and part of the elbow joint. The shape of the coffin was hexagonal, with the widest point being near the elbows. The nails used in the coffin's construction were all handwrought.

An ironstone sherd was also recovered during excavation of the coffin pit. The ironstone sherd has a manufacturing date range of 1880 to 1950, but its presence in the burial pit fill is believed to be a modern intrusion, possibly associated with the adjacent dog burial (Feature 35) or posthole features.

The bone preservation was fair. The individual appears to have been a female Caucasian of approximately 35+ years of age. The estimated stature as measured in situ is approximately 5' 2-1/2". The long bones appeared to be relatively gracile. The right hand was extended, palm down, along the right side of the individual. The left arm was extended along the left side of the individual, either palm up or on the ulnar side. The left foot was angled over the right foot, both pointing toward the right side of the coffin. The skull was rotated almost 90 degrees to the left. The tooth enamel was very thin and white. The upper incisors were noticeably large. There were no shroud pins associated with Feature 36.

g) *Feature 38*

Feature 38 was located in a disturbed area during mechanical stripping of the topsoil near Route 113, immediately north of Excavation Units 35 and 58. The original context of this burial had been destroyed, apparently by construction and use of a driveway to the nearby automobile repair shop. Within the feature and in the adjacent area, numerous tire ruts had cut into the subsoil. The material associated with the feature was recovered by troweling and shoveling in disturbed contexts, and there was no evidence of a grave pit or coffin (Plate 11). Feature 38 consists of a partial skeleton, coffin nails, and fragments of coffin wood. The bone preservation in this location was very good to excellent. The fragmentary skeletal remains collected from this area seem to be those of a single individual, possibly an adult male. Based on the recovery of handwrought nails and the few scraps of remnant coffin wood, this interment was apparently contemporaneous with the other burials in the cemetery.

h) *Feature 39*

Feature 39 was located during mechanical stripping of the topsoil near Excavation Units 50 and 56, which contained Features 29 and 30. The burial pit was roughly rectangular in outline, measuring 7.3 feet in length and 2.3 feet in maximum width. The grave was oriented 85 degrees west of north. The coffin outline measured 6.2 feet in length, 1.1 feet at the head (or west) end, 2.2 feet in maximum width, and 1.0 feet at the foot (or east) end. The shape of the coffin was hexagonal, with the widest point being just distal to the elbows. The nails used were all handwrought or cut nails.

PLATE 10: Features 35 and 36

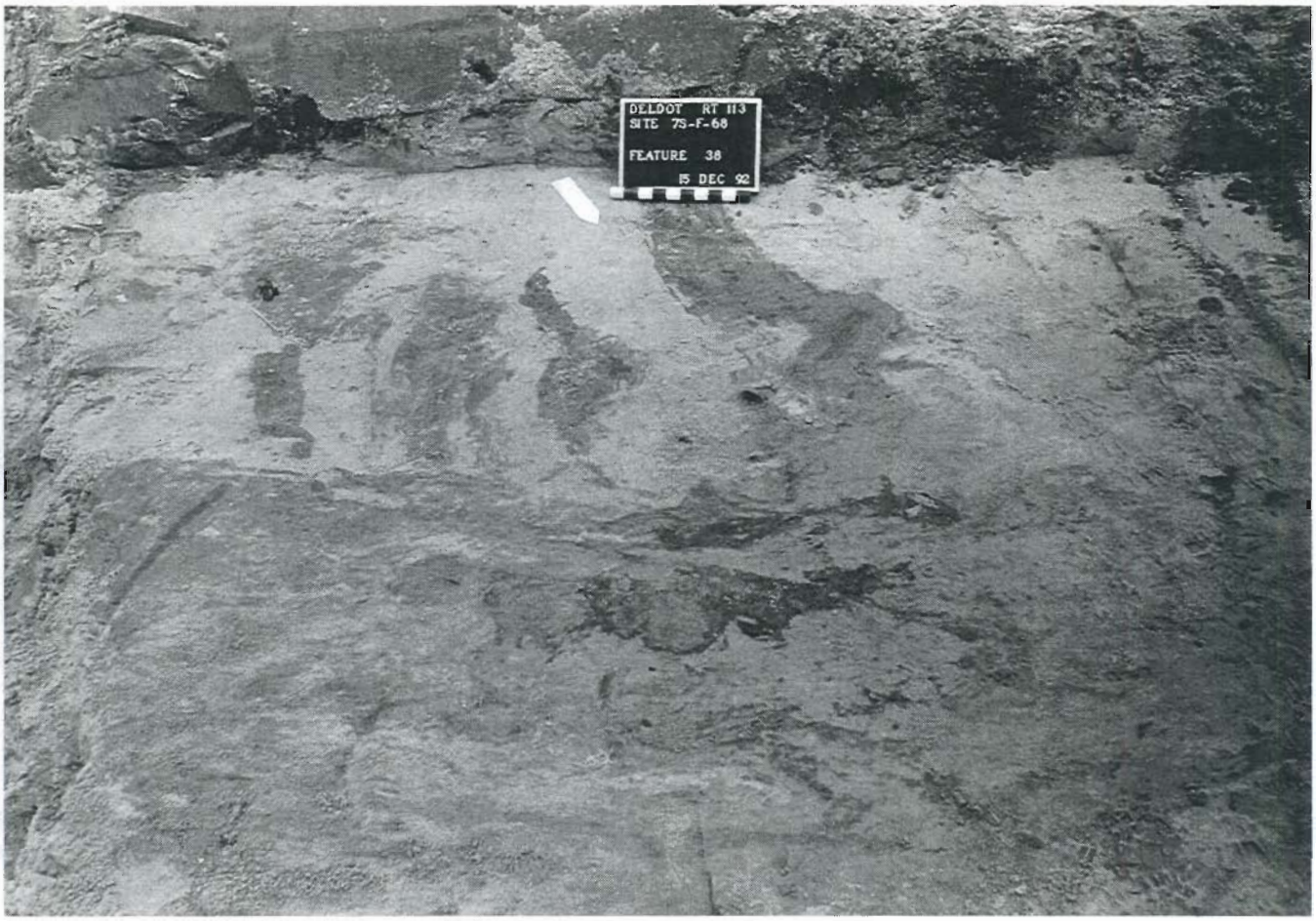

PLATE 11: Feature 38

The bone preservation was very good to excellent. The individual appears to have been an adult male Caucasian. The estimated stature as measured in situ is approximately 5'1". The hands were apparently placed on the hips. The wide placement of the arms and the width of the coffin suggest that this was a sizeable individual (Plate 12). The calcaneus of the right foot was directed medially, with the toes pointing toward the foot end of the coffin. The skull was rotated to the left. No shroud pins or other clothing items were associated with Feature 39.

i) *Feature 40*

Feature 40 was located under the asphalt driveway to the neighboring auto repair shop, and it was discovered during the mechanical stripping of this area. The location of Feature 40 defines the northern extent of the cemetery. The burial pit was a roughly rounded rectangle in outline, measuring 5.9 feet in length and 1.8 feet in width. The grave was oriented 87 degrees west of north. The coffin outline measured 5.5 feet in length, 0.95 feet and the head (or west) end, 1.6 feet in maximum width, and 0.75 feet at the foot (or east) end. The shape of the coffin was hexagonal with the widest point midway between the elbow and the pelvis.

The bone preservation was fair to poor. Construction and use of the asphalt driveway had had obvious, severe consequences on the skeletal remains. The entire skeleton had been compressed, with some degree of crushing evident on most of the skeletal elements, especially the skull and pelvis (Plate 13). There was no detectable coffin wood stain in the burial pit matrix, but a well-defined pattern of coffin nails was recorded. There was a noteworthy pattern of nails along the centerline of the coffin. Two vertical nails (point down) were observed at the level of the skull: one at the top of the cranium and one at the level of the mandible. One vertical nail (point down) was located at the level of mid-tibia. Several additional horizontal nails were also encountered near the level of feature definition. The nails used in coffin construction were all handwrought.

The individual appears to have been a female of as yet indeterminate age or race. The estimated stature as measured in situ is approximately 4' 9". The long bones appeared to be relatively gracile. The arms were extended along the sides of the body. The positioning of the feet indicates no unusual treatment. The skull seems to have been facing forward. There was a green stain from a shroud pin on the top of the frontal bone of the skull, but the pin was not recovered.

2. *Dog Burials*

a) *Feature 1*

Feature 1, a dog burial, was initially identified by the recovery of mammalian long bone from a shovel test, and it was fully excavated within Test Units 3 and 4 during the Phase II study (LeeDecker et al. 1992). The Feature 1 burial had been placed in a shallow rectangular shaft that measured approximately 2.0-2.3 x 3.9 feet in plan, with the long axis perpendicular to Route 113. The burial pit was exposed immediately beneath the shell and gravel paving deposits associated with the automobile repair shop driveway, at a depth of 0.25 feet below surface. Aside from the skeleton, the burial pit fill was culturally sterile except for a quartz bifurcate-based projectile point dating to the Early Archaic period, together with a mixture of the shell and gravel driveway deposits. Although the projectile point suggests a prehistoric origin for this feature, the condition of the bone and the presence of modern paving material throughout the burial fill indicate that the feature was modern.

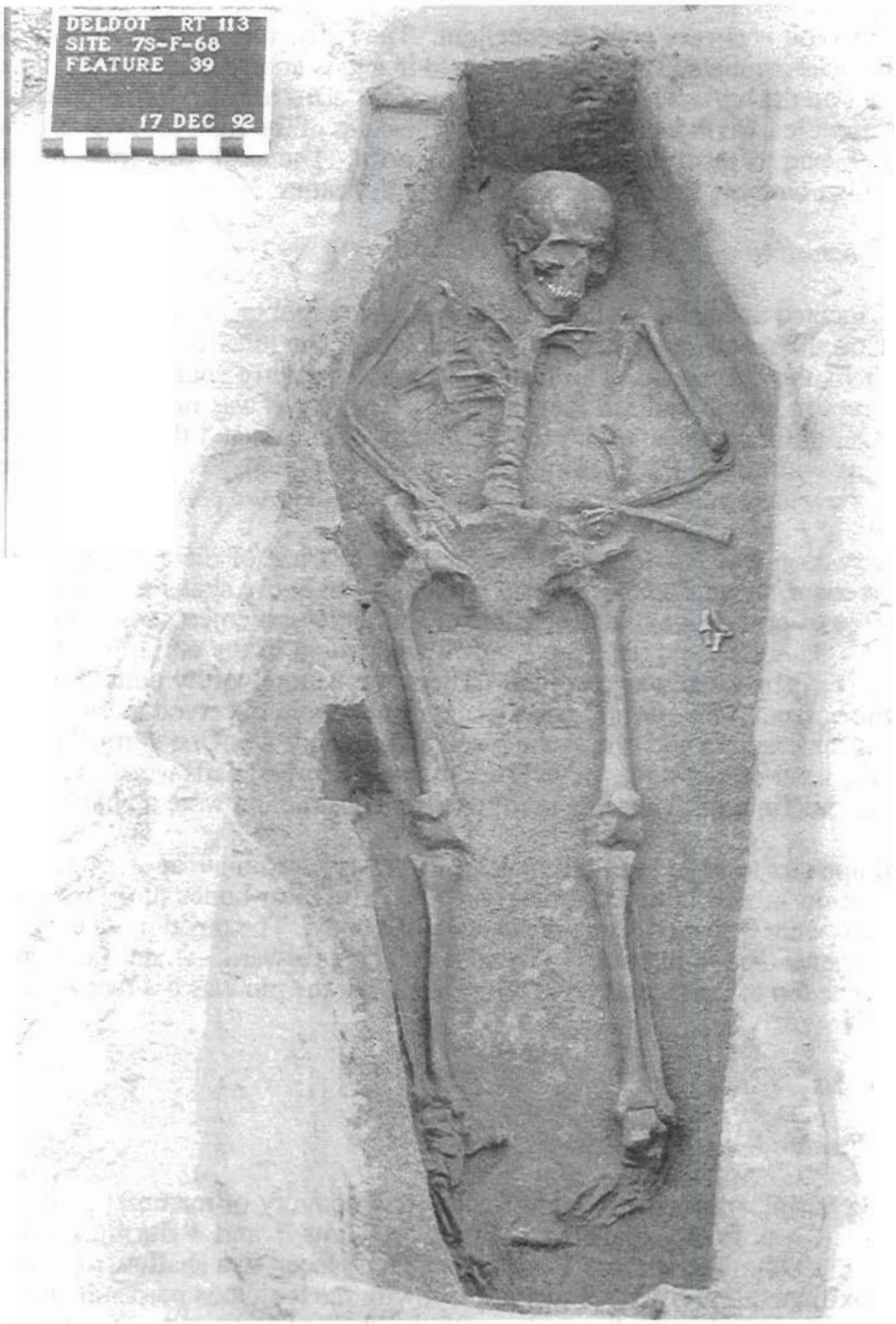

PLATE 12: Feature 39 Burial

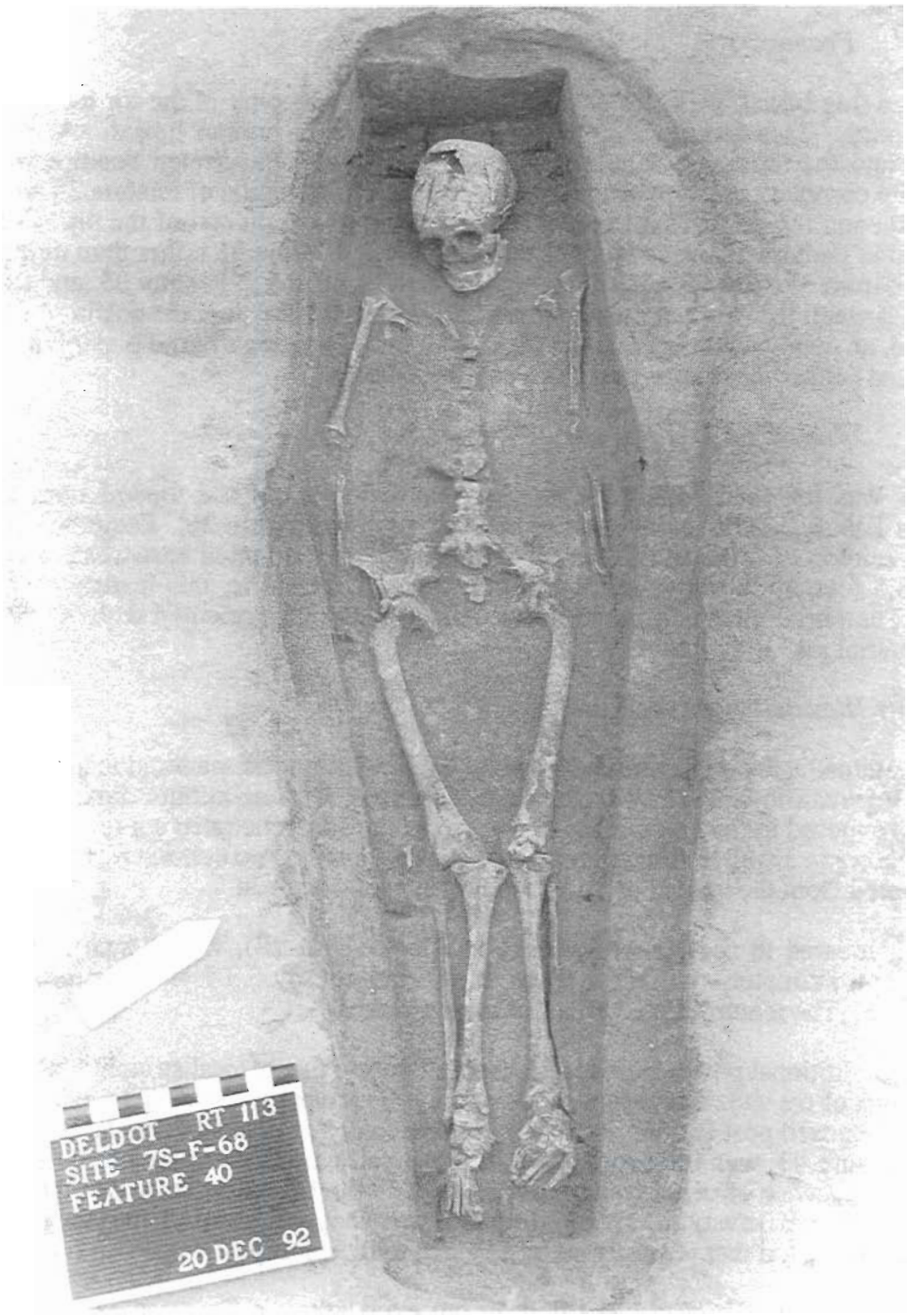

PLATE 13: Feature 40 Burial

b) *Feature 35*

Feature 35, a dog burial, was discovered by mechanical stripping of the topsoil northwest of the main cemetery. This feature intrudes into Feature 36, a human burial. A recent posthole penetrated into the northeast corner of Feature 35 and also penetrated Feature 36. Feature 35 contained the complete skeleton of a domestic dog. The orientation of Feature 35 was 150 degrees east of north, and the dog was interred with its head at the south end of the pit. Coffin nails and coffin wood in Feature 35 are most likely attributable to Feature 36 rather than indicating a coffin burial for Feature 35. Two distinct fill matrices were identified in Feature 35, and their placement suggests that when the original burial pit was excavated for the dog, the coffin in Feature 36 was encountered, an event which occasioned the movement of the dog's burial pit slightly to the west in order to avoid further damage to the coffin and its contents.

c) *Feature 37*

Feature 37 was exposed during the mechanical stripping of the topsoil north of the North Excavation Block, and was situated several feet east of Feature 36. Feature 37 contained the complete skeleton of a domestic dog. The burial pit was oriented east-west, with a maximum length of 3.5 feet and a maximum width of 1.0 feet. In outline, this feature was elongate and irregular. The burial pit was quite shallow. The skeleton was oriented with the skull at the east end of the burial pit.

3. *Other Historic/Modern Features*

The site contained a few historic/modern post features located at scattered locations. Feature 11, located in Excavation Unit 35, was irregular in outline, with maximum dimensions of 1.4 x 2.2 feet. It was exposed immediately beneath the plowzone and penetrated approximately 1.3 feet into subsoil, tapering to a well-defined point. The feature contained no cultural material; however; nails were recovered from the immediately overlying plowzone horizon.

Feature 16, located in the North Excavation Block (Unit 28), was a small, circular posthole measuring approximately 0.5-feet in plan. It penetrated only 0.3-feet into subsoil, with a basin-shaped profile. The feature contained no cultural material.

A number of additional post features were exposed during mechanical stripping of the topsoil in the northwest area of the site. Because this operation was focused specifically to identify human burial features, all exposed post features were not systematically excavated. One large, isolated, circular posthole, Feature 41, was fully excavated in this area; it was determined to be of modern origin based on the presence of metal fragments and shell in the fill. It is likely that the shell originated from the adjacent driveway to the automobile repair shop. Feature 41 may be associated with a sign or small billboard that formerly stood adjacent to the car repair shop.

A row of three postholes was identified during excavation of Features 35 (dog burial) and 36 (human burial). The three features were roughly circular in plan and measured 0.7 feet to 1.0 feet in diameter; they were spaced approximately 2.0 feet apart. It is believed that these post features supported a small roadside sign associated with the automobile repair shop.

Four modern disturbances or intrusions were identified as features. Feature 4, located in Excavation Unit 13, was a large, roughly circular intrusion that contained both historic and prehistoric artifacts. Based on the artifacts recovered as well as the feature's general location, size, and depth, this feature was identified as a geotechnical test boring. Feature 32 was likewise identified as a circular area of mixed fills, but this was ultimately determined to be a shovel test from the Phase I fieldwork.

Feature 7 was located at the roadside edge of the North Excavation Block, where the ground had been downcut toward the road shoulder. It was roughly rectangular in plan and penetrated only slightly into the subsoil. This feature, which contained both prehistoric and historic artifacts, may represent tire ruts from an errant automobile or an abandoned looter's trench.

Feature 34 was a trench at the northeast corner of the North Excavation Block, extending from the Route 113 shoulder into the site area. Stratigraphically, this feature penetrated Feature 15, a human burial that apparently had been looted and subsequently reburied. The trench represented by Feature 15 may originally have been dug to install a utility line, then abandoned after the exposure of human skeletal material.