National Museum of Natural History, Smithsonian Institution Washington D.C. 20560 Tel. 202-357-2181

Mr. David D. Duvall 12504 Croom Rd. Upper Marlboro, Maryland 20870 Feb. 9, 1987

Dear Mr. Duvall:

At this time I have completed my analysis of the human remains submitted. The skeleton is generally complete, although poorly preserved. Bones missing include the left fibula of the lower leg, the gladiolus of the sternum, one cervical vertebra and many of the small bones of the hands and feet. The nasal area of the face shows planar flattening frequently described as "coffin wear" and was probably produced by long term contact with some planar surface. The teeth exhibit a green stain, probably indicating long term contact with copper.

Large femoral head diameters, a flat auricular area of the pelvis, large supraorbital ridges, large mastoid processes, a large external occipital protuberance and general robusticity suggest male sex.

The skull exhibits closure and obliteration of most internal vault sutures and the basilar synchondrosis. About 50% of the cranial vault sutures are closed ectocranially. Nearly all of the anterior teeth show considerable wear with dentin exposure on 100% of the occlusal surface. Only moderate dentin exposure can be found on the posterior teeth. Both of the maxillary (upper) first and second molars have been lost long before death. The alveolus in that area is completely remodeled with considerable anterior movement of the third molars. The mandibular second premolars also are missing with considerable alveolar remodelling. The third mandibular molars also are missing but with little evidence of remodelling, suggesting that they may have been congenitally absent or lost early in life.

Many of the long bone joint surfaces and vertebral bodies are severely eroded, but show little evidence of arthritic change. All of this evidence normally would suggest an age at death between 50 and 70 years, however an age at death in the 90's cannot be ruled out. There is surprisingly little arthritic change in this skeleton considering the suggested age for Mr. Duvall, but this could have been influenced by the non-physical nature of his lifestyle.

Measurements of the femur and tibia suggest a living stature of about 173 cm (5 feet 8 inches), using Trotter and Gleser's formulae for White males. Note this estimate includes a reduction of about 3.60 cm (over one inch) to allow for the stature reduction of old age.

Details of the face, especially the narrow mose, pointed chin, and receding chookbones strongly suggest a Caucasian racial affinity.

Note that the mandibules right first moles has a gold filling in the occlusal surface. The left mendibular first

molar shows a large carious lesion (cavity) covering most of the distal half of the crown with an associated apical alveolar abscess. The lesion and the abscess show no evidence of treatment.

Most features of the face compare favorably with the images submitted. The images suggest a slightly higher head and forehead than apparent in the skull, but this could reflect hairstyle or artistic interpretation. The chin and facial features seem to match very well.

In short, the remains you submitted appear to represent those of an elderly man about 5 feet 8 inches tall who could be Gabriel Duvall, based on the material you provided me about him. The only discrepancy appears to be the slightly more youthful skeleton and the upper head height being slightly lower than expected.

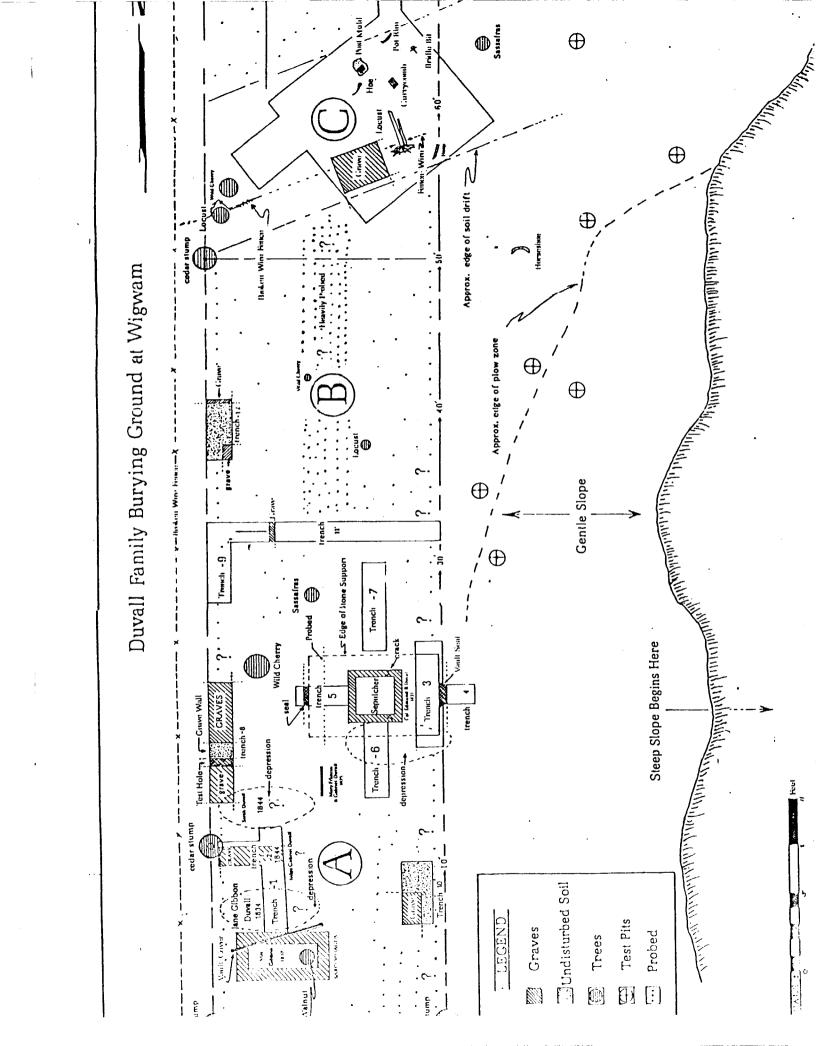
Radiographs revealed no evidence of fractures in the bones of the upper arms, however the extensive post-mortem changes in the bones could have masked the evidence if it existed. The information provided gave no indication of the severity of the fracture and the twenty year interval between the accident and Mr. Duvall's death allows ample time for extensive remodelling of the bone surface which would obliterate the evidence of the fracture.

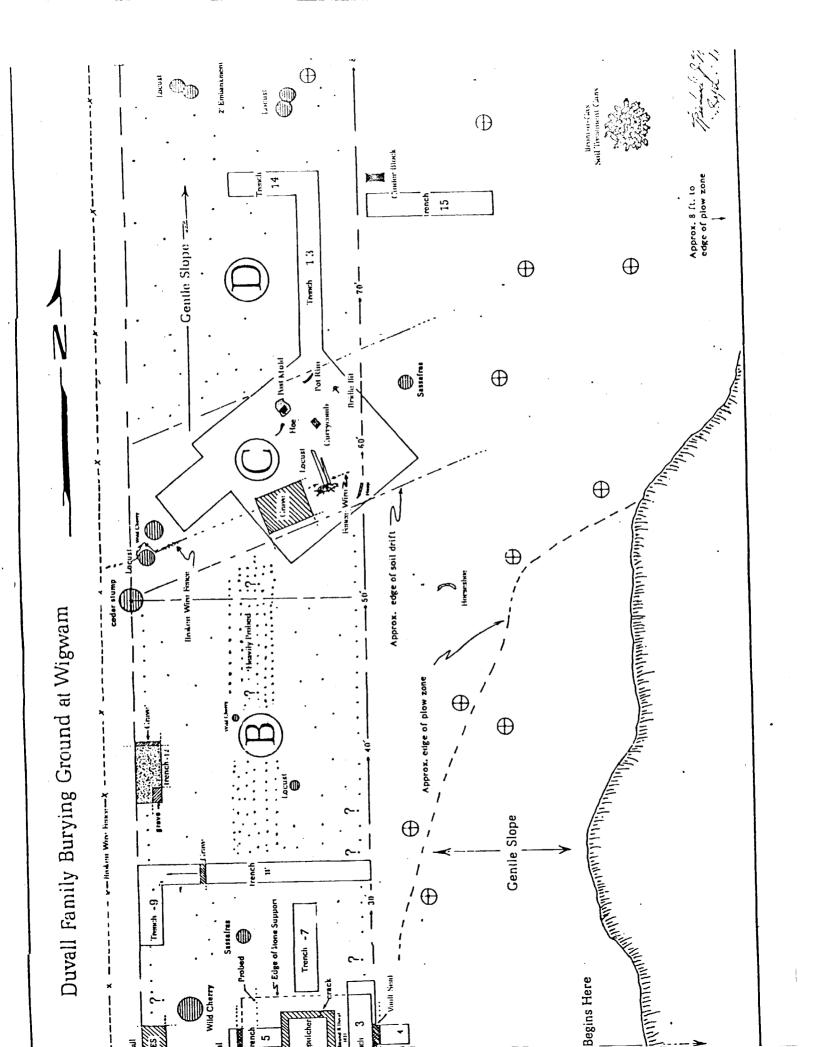
I hope that this information is useful to you. Please let me know if I can be of further assistance.

Sincerely,

D. H. Ubelaker

Curator







## The Society of Mareen Duvall Descendants

(Mareen Duvall, emigrant from Laval, Normandy, France, in 1650; settled first in Anne Arundel County, Maryland)

FEBRUARY 1987

## Clues Narrow in Search for Ancestor's Grave

The remains of Judge Gabriel Duvall had lain in an unmarked grave for 142 years, too long for anyone to remember just exactly where he had been buried.

Dick Muzzrole eagerly sank his shovel into the cool, moist ground he knew so well. Flying down from Boston the day before, he wanted to get an early start that crisp November morning at the old family cemetery they called "Wigwam". Encouraged by the enthusiasm of his good friend Bill Thompson and history buff Guy Barron, Muzzrole and his men started to work. He had marked the spot months before on the low ridge not far from the handsome brick home where the old Judge had died in 1844.

Fortunately, the archeologist was both a persistent and patient man. He had waited more than two years for legal permission to begin digging in the overgrown cemetery beside the new four-lane boulevard. But Muzzrole had not waited nearly as long as some others for this day to come. The Society of Mareen Duvall Descendants had discussed plans for more than 40 years to find the mysterious resting place of one of its family heroes.

Muzzrole had spent countless hours digging test trenches, scraping away layers of soil, taking measurements and marking the tell-tale signs on his neat charts. Now he would test his theory that the Judge was buried as near as possible to his wife Jenny, but not beside her; earlier adjacent graves had left no room for him. Now Muzzrole hoped to uncover enough clues to identify the remains of the patriot son of Prince George's County who had once been an Associate Justice of the Supreme Court and had served his county well in the early years of the Republic. If the remains from the ignoble grave proved to be his, Gabriel Duvall would be given a fitting reburial beneath a grove of walnut trees on the lawn of his home he had named "Marietta". There he would have a proper stone to recall his good deeds and mark his grave at last. (continued)

## (Continued from page 1)

Working tediously with shovels, trowels and brushes, the three men dug down to the darkened earth to the decayed remnants of an outer box which had once held a fine mahogany coffin, complete with a glass window for viewing the deceased. The glass had broken through when the coffin caved in years ago. The fancy metal handles, ornate knobs, now corroded with age, and even defiant bits of green velvet survived to suggest that a man of importance had once been buried there. But not much else was left to see. The inner coffin was nearly gone and so were much of its human remains. Only the larger bones, spine and skull of a man's skeleton had endured the years. A tiny gold filling in a tooth added a touch of individuality to the otherwise anonymous bones. Three milk glass buttons were all that Time had left of the corpse's burial shroud.

But what about the broken arm that Gabriel had sustained in a carriage accident in 1824? The crack in one of his arm bones was to have been a vital clue in the positive identification of his remains. If the Judge ever broke his right arm, we may never know. Much of the right side of the skeleton had taken the way we all must go in returning to the earth.

At the end of his week's work, Muzzrole carefully tagged the pieces he had found and placed them in boxes. At the little building at Marietta that had once been the Judge's Law Office, the remains were cleaned, reassembled on a makeshift table, and left to dry. Had Gabriel returned to his office after an absence of nearly a century and a half?

In early January I carried the remains to the Museum of Natural History at the Smithsonian Institution in Washington, D. C. In his preliminary findings, the curator, Dr. Douglas Ubelaker, a physical anthropologist, reported that his results were supportive, yet inconclusive. The initial examination had revealed no evidence of a break in the left arm bones; much of the right arm was missing, But the remodeling of a broken bone after 20 years could have hidden the break, Ubelaker explained. Facial restructuring of the skull, however, when compared to several artist's likenesses of the Judge were found positively compatible. On the other hand, Ubeleker added that the bones could have been those of a somewhat younger man. Yet there is no record of a younger man's burial at Wigwam during that time period. The usual signs of some arthritis in the spine of a 91 year old man were inconspicuous. The fact that the teeth were in good condition was questionable, yet, according to Ubelaker, not that unusual. Many old people have good teeth.

Although the meager physical evidence may allow that the bones belong to Gabriel, we can't be sure. The funeral trappings and chronology of burials at Wigwam Cemetery seem to offer the best evidence to substantiate his identity at this point. It seems apparent for now that more clues must be found before it is determined in just which grave these bones will take their final rest beneath the walnut grove at Marietta.



David D. Duvall