

**Brief Observations
On the Condition and Probable Uses**

of

**GUANA ISLAND SUGAR FACTORY
BRITISH VIRGIN ISLANDS**

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In late March Mr. Howard R. Watson, R.I.B.A./A.I.A. phoned me to inquire if I would be able to assist in the identification of the former use of a historic structure on Guana Island. Mr. Watson was informed of my interest and agreed to send available material on the structure which I received in early April. It consisted of a plan and an isometric sketch, both in 1/8"=1'0" scale, a conceptual perspective of its original appearance and four photographs. The material was informative, but also subject to misinterpretation.

I found the plan of the masonry ruin puzzling. Its layout did not conform to those of the more common types of eighteenth century sugar factories of these islands, although it did have features associated with early and primitive factory layouts. It appeared to lack, however, ancillary structures essential to a sugar producing factory site such as animal mill, still, bagasse shed, etc. As the drawings did show characteristics normally occurring at a rendering plant, my tentative conclusions were that this was the intended use of the building. Mr. Watson was informed of my opinion.

Sites that have been abandoned for years, exposed to natural deterioration, vandalism and as a quarry for building material often lose most if not all their identifying features. A firm determination of their original purpose should consequently not be made until definite clues supporting the identification are uncovered.

I therefore welcomed Mr. Watson's suggestion that I visit Guana Island and personally review the site.

On the morning of August 4, 1995, Mr. Watson and I jointly inspected the ruins and the adjoining areas. Particular attention was given to the boiling bench at the north end of the ruin. In this section of the structure the walls stand only to a fraction of their original height and on the exterior have lost a substantial amount of their facing masonry. On the interior the boiling bench is fragmented but still shows that it supported three "coppers." In spite of the deteriorated condition of the walls and the boiling bench, they and their immediate surroundings present enough traces of their original design to determine that the building was constructed for the purpose of manufacturing sugar and the large room was the boiling house.

The clues observed that support this identification are as follows:

1. All exterior walls against the boiling bench have an interior continuous lining of brick half a stone wide.
2. The exterior face of the north wall has three discernible openings, two large flanking a smaller one leading in under the boiling bench through the masonry. (See Photo No. 1)
The large opening near the west corner has the remains of a finished curved cover approximately two feet above the crown of the opening. It is an indication of the horizontal flue that once connected to a chimney outside the building.

Both the above features are characteristic of a sugar factory where a constant and greater heat is needed than in a rendering plant.

3. There is a built-in slit through the east wall above the boiling bench. It is broad enough to accommodate the wide gutter for the cane juice that once flowed from the cane crusher to the receiving copper of the boiling bench. (See Photo No. 2)
4. The channel for the cane juice gutter led to our discovery of the animal mill round on the east side of the ruin in an area of a dense growth of bush. Only badly deteriorated fragments of its former retaining wall indicate its limits, but enough has been preserved to provide a fairly accurate estimate of its diameter. (See Photo No. 3)

These findings made it easy to identify the former use of the smaller room on the western side of the structure as the "curing house" of the factory. Along both long walls of the room there are remains of a pavement area three feet six inches wide raised above the center area. In its pristine condition the entire floor area would have been finished in a hard plaster with the raised sections sloped toward the center area and the center area sloped to a low pit somewhere within the room. (See Photo No. 4)

During the curing, that was essentially a drying out process the casks containing raw sugar were placed on plinths or racks on the raised sections. The casks were not tightened and allowed the residual molasses to drain from the sugar. After a period of three to four weeks the casks were removed from the racks, tightened by jamming the hoops in place and brought to a storage area. On Guana Island it was probably the more substantial warehouse behind the beach of White Bay.

The drippings from the raw sugar collected in the pit of the center floor area and were scooped into a container or cistern where it was combined with the waste from the boiling bench and the crystallization pans. Water was added and the sweetened liquid allowed to ferment. This would have been the procedure if the factory had a still and that is likely, if not certain.

The masonry remains extending west from the northwest corner of the boiling house consist of a low eight-foot square structure. On its exposed top surface it has the traces of a circular brick lipping for some type of vessel and against its west side the fragments of what appears to have been a small uncovered cistern. These indications are not inconsistent with a still, but may also have had other functions related to a rendering plant.

An archaeological search in this general area can establish the identity of these masonry remains and may also locate the foundations of the former chimney.

Similarly the two deep oval vats within the boiling house are singularly different from the usual crystallization pans and more akin to the vats in a rendering plant.

Sugar production on Guana Island was probably never more than marginally profitable considering the island's relative aridity and the modest acreage suitable for cultivating sugar cane on the Park family holdings. The owners most likely at one time sought more reliable means of securing an income from their property. Animal husbandry was adopted by several Virgin Islands estates where similar conditions prevailed, and could have been the choice of the Park family.

These suppositions might be confirmed through research in documentary sources.

A more speculative explanation of the vats includes the possibility that the builders of this structure were testing their own design ideas of a crystallization pan, and in the process they produced a unique oddity adaptable to several uses.

The present condition of the ruins is due to the deterioration caused by exposure to the elements and the destructive woody growth in and around the structure. There is also evidence that the factory was exposed to quarrying activity once abandoned.

In the north end of the boiling house a few fragments have been observed of a red clay paving tile. The south and east walls stand only a few feet out of grade. Their remains are of the same material as the standing west walls. They have no traces of post holes and were in all probability of a similar construction as the west walls. The surroundings of these sections of the structure exhibit only a modest amount of masonry debris. It indicates the salvage and removal of pavements and building materials. On the north side of the factory there is a substantial amount of masonry debris, but here as well it is not enough to account for the collapsed walls and the missing chimney.

The Guana Island sugar factory presents many more questions than those listed above. Some may be answered through archaeological and documentary research and some through a more thorough study of its remains than the brief visit of August 4th allowed. There will undoubtedly be some where the answer will be an assumption based on early building practices and comparative studies of similar sites in the West Indies. A review of the contemporary structural remains on the Lake family's holdings may also provide information with bearing on the sugar factory site.

SUMMARY:

The ruins on the western side of Guana Island's Salt Pond are the remains of a small, early and atypical sugar factory of considerable interest. At some time in the past it was probably used as a rendering plant.

Once dismantled and abandoned it became a source of building materials, that with wear and tear of natural forces over the years reduced the building to its present state.



Photo No. 1: Exterior face of north wall with firing gate at left, the vent for draft control in center and the exit of the horizontal flue to the right. Note its finished cover.



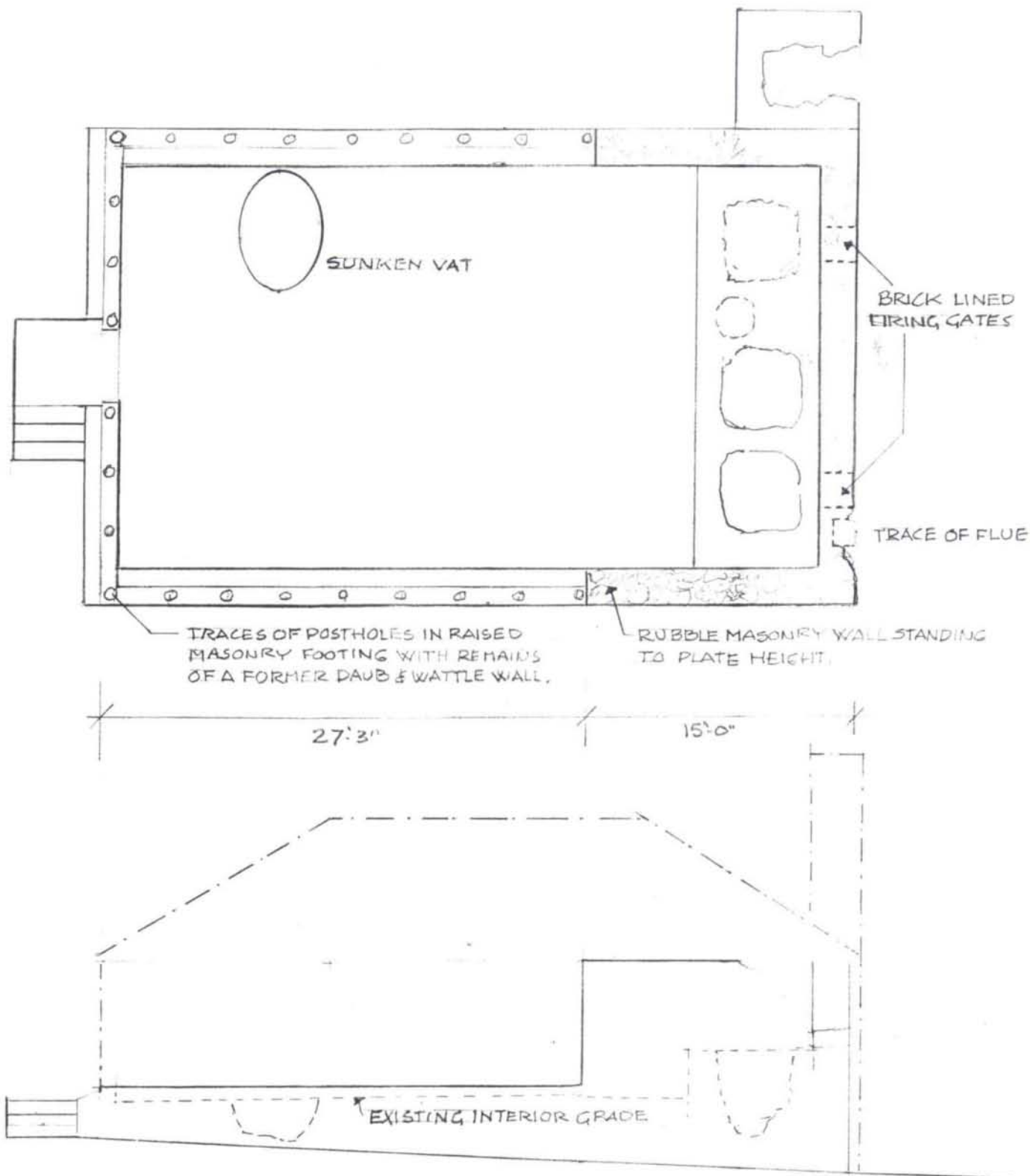
Photo No. 2: Apperture for
cane juice gutter
in east wall.



Photo No. 3:
A preserved section of the animal mill round's
retaining wall.



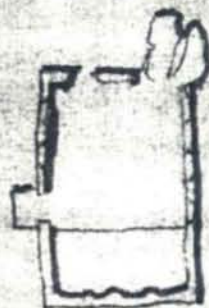
Photo No. 4: Interior of curing house looking north.
The remains of the stepped up pavement can be seen
against the wall to the right.



RENDERING PLANT, VIRGIN GORDA, B.V.I.
 PLAN & ASSUMED ELEVATION SCALE 1/8" = 1'-0"



SHORE LINE



RENDERING PLANT

LAT 18° 21' 15"

PATH TO BROWN BAY TRAIL

WELL & I

DISTRICT BOUNDARY
40' CONTOUR

LONG 64°42'06"



WELL & DRINKING
TROUGH NO. 2

LAT 18° 21' 15"

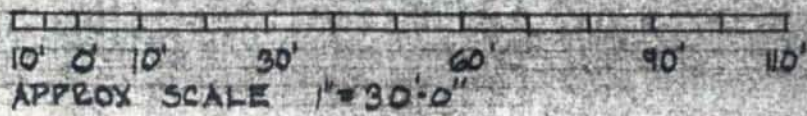


WELL & DRINKING
TROUGH NO. 1



LIEVER MARCHES BAY H-35

MAHO BAY QUARTER
ST. JOHN, VIRGIN ISLANDS



LONG 64°42'06"