Theories – What Type of Underground Works were Constructed?

1. Historical mining activities typically involve rectangular shafts. It is exceptional that the initial excavation of the Money Pit was circular in shape.

2. Much research has been done to find historical construction similar to the filter bed and flood system at Oak Island. Although no similar system has been found, three sites have been identified as having some resemblance to the Oak Island works.

3. All of the three sites are associated with Pirate "Banks" and are:
   Kavanach Hill, Haiti
   Port Royal, Jamaica
   Sainte Marie Island, Madagascar

Summary of Flood Tunnel Evidence at Shafts 4 and 5 (1850) and Holes 1 to 5 (1897)

Source	Author(s)	Description
The Nova Scotian Aug 20, 1861	Unknown	Two shafts struck flood tunnel No depth reported
Liverpool Transcript Oct 16, 1862	J. B. McCully Manager of Operations Truro Company 1845-50	Shaft struck water, piles driven No depth reported Flow at Money Pit reduced
Letter 1863	James McNutt Oak Island Association	Shaft struck drain at 75 feet, spiles driven Flow at Money Pit reduced
The Colonist Jan 2 and 7, 1864	A Member of the Oak Island Association	Shaft struck drain at 74 feet, piles driven Flow at Money Pit reduced
Prospectus of the Oak Island Treasure Company 1893/95	Frederick Blair and Adams A. Tupper (at OI Summers 1850-51-63)	Shaft 4 to 75 feet, no water Shaft 5 to 35 feet, struck water after prying up a large boulder
Prospectus of Oak Island Treasure Company, 1900	Frederick Blair and others	First shaft no water, no depth reported Second shaft water at 80 feet after prying up large boulder, no ref to 5 holes (see Note)
History of Oak Island Booklet, 1926	Frederick Blair and others	No ref to Shafts 4 and 5 Detailed results given for 5 holes in 1897 and flood tunnel at 80 feet (see Note)

Note: In 1897 the Oak Island Treasure Company drilled 5 holes of 5 inch diameter to depths of 80 to 95 feet across the alignment of the flood tunnel at a location 50 feet from the high water line. No water in Holes 1, 2, 4, and 5, set off 50 to 75 pounds of dynamite in each hole. Hole 3 in the middle found salt water and boulders at 80 feet, set off 160 pounds of dynamite.

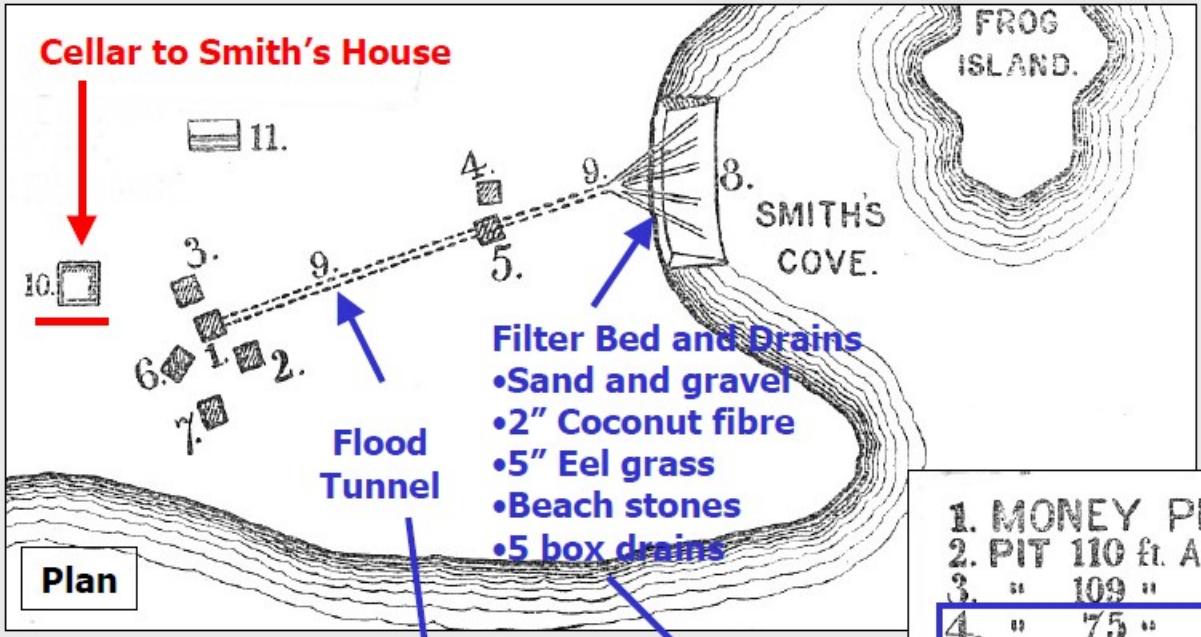
Possible Interpretations of Salt Water in Hole 3 in 1897

Two possible interpretations of how Hole 3 in 1897 encountered salt water and boulders at 80 feet depth

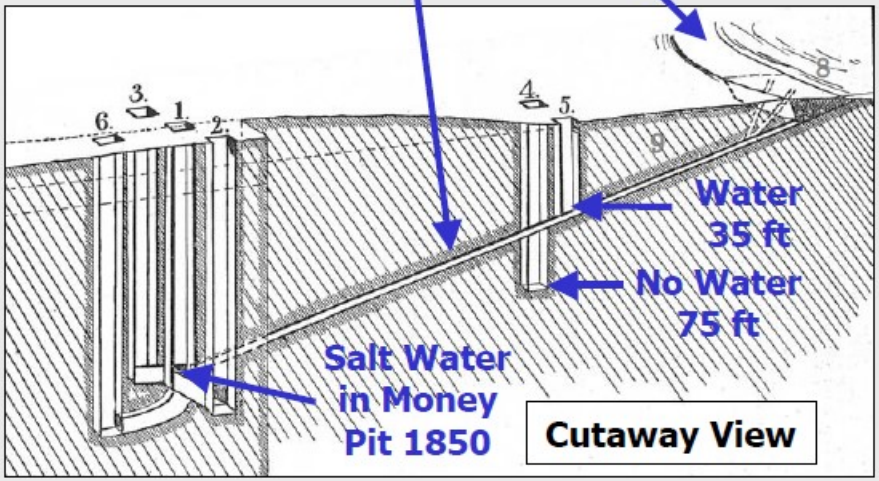
1. **Hole 3 was close to the flood tunnel and, when the hole was at 80 feet (say on boulders in the till), the salt water broke in from the flood tunnel which projects to a depth of about 30 feet at Hole 3.**

2. **The extensive blasting in Holes 1, 2, 4 and 5 disturbed the till (and possibly bedrock) at 80 to 95 feet depth making a highly pervious zone which yielded salt water in Hole 3 at 80 feet. Based on the Ghyben-Hertzberg relationship salt water would be expected at this location.**

Drawing of Flood Tunnel and Filter Bed Published in 1893/95 Based on Work in 1850

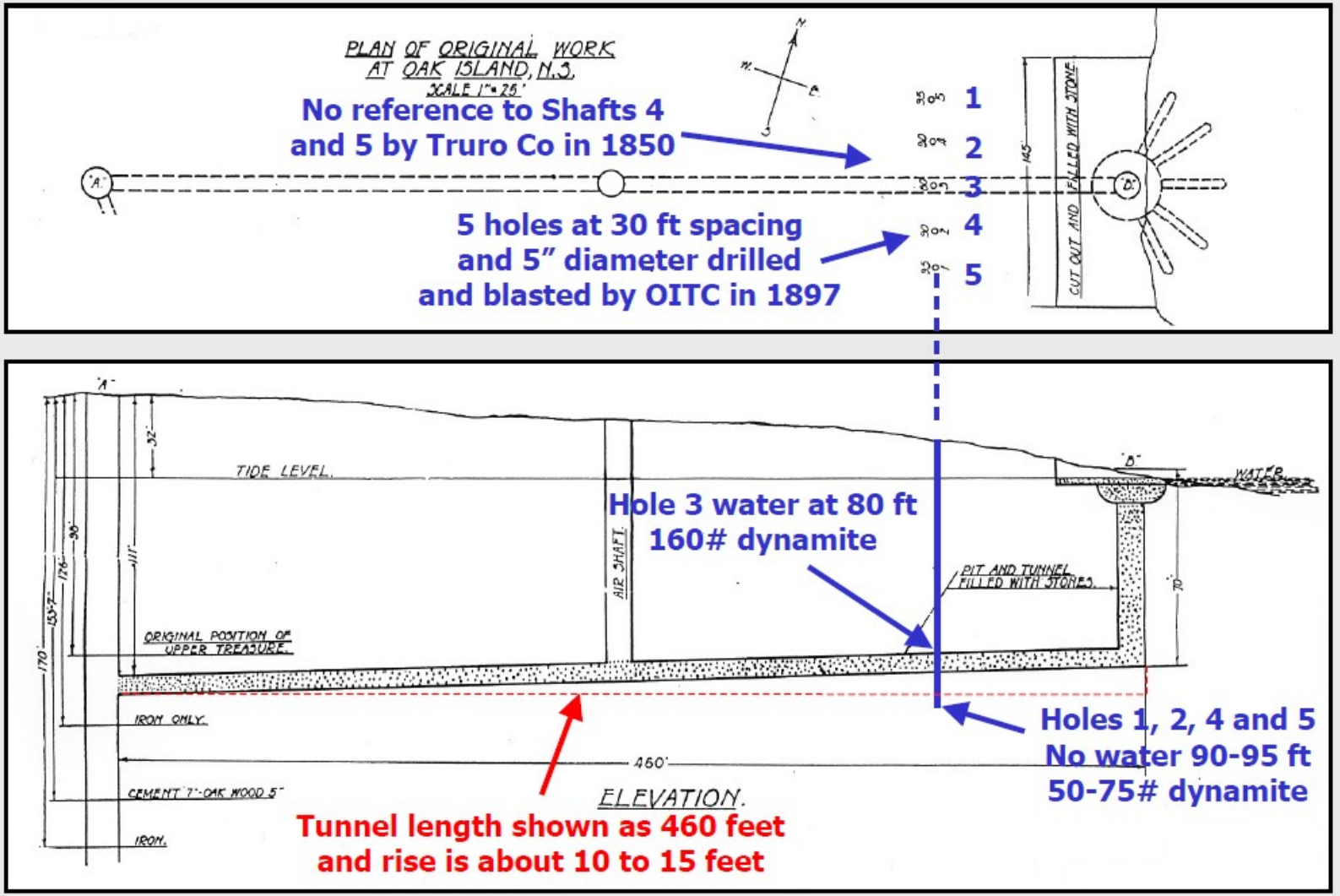


Ref: Booklet – The Story of Oak Island 1895



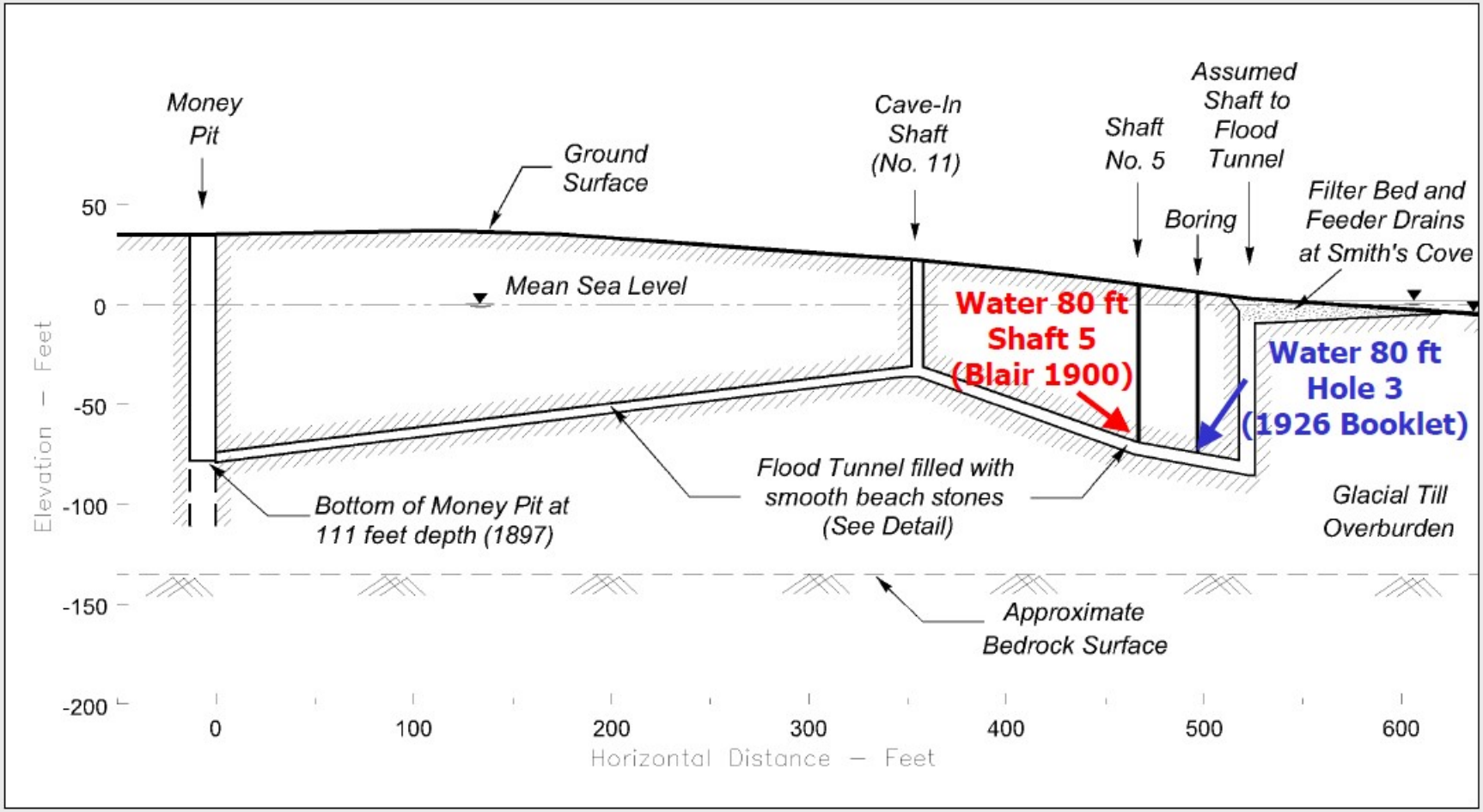
1. MONEY PIT
2. PIT 110 ft. ABOUT 100 yrs. OLD.
3. " 109 " " 43 " "
4. " 75 " " " " " NO WATER.
5. " 35 " " " " " WATER.
6. " 118 " " 40 " "
7. " —— " 30 " "
8. EXCAVATION ON THE SHORE FILLED WITH STONES. A RESERVOIR.
9. SUPPOSED TUNNEL FROM SHORE TO MONEY PIT.
10. CELLAR TO SMITH'S HOUSE.
11. BARN.

Drawing of Flood Tunnel and Filter Bed Published in 1926 Based on Work in 1850 and 1897

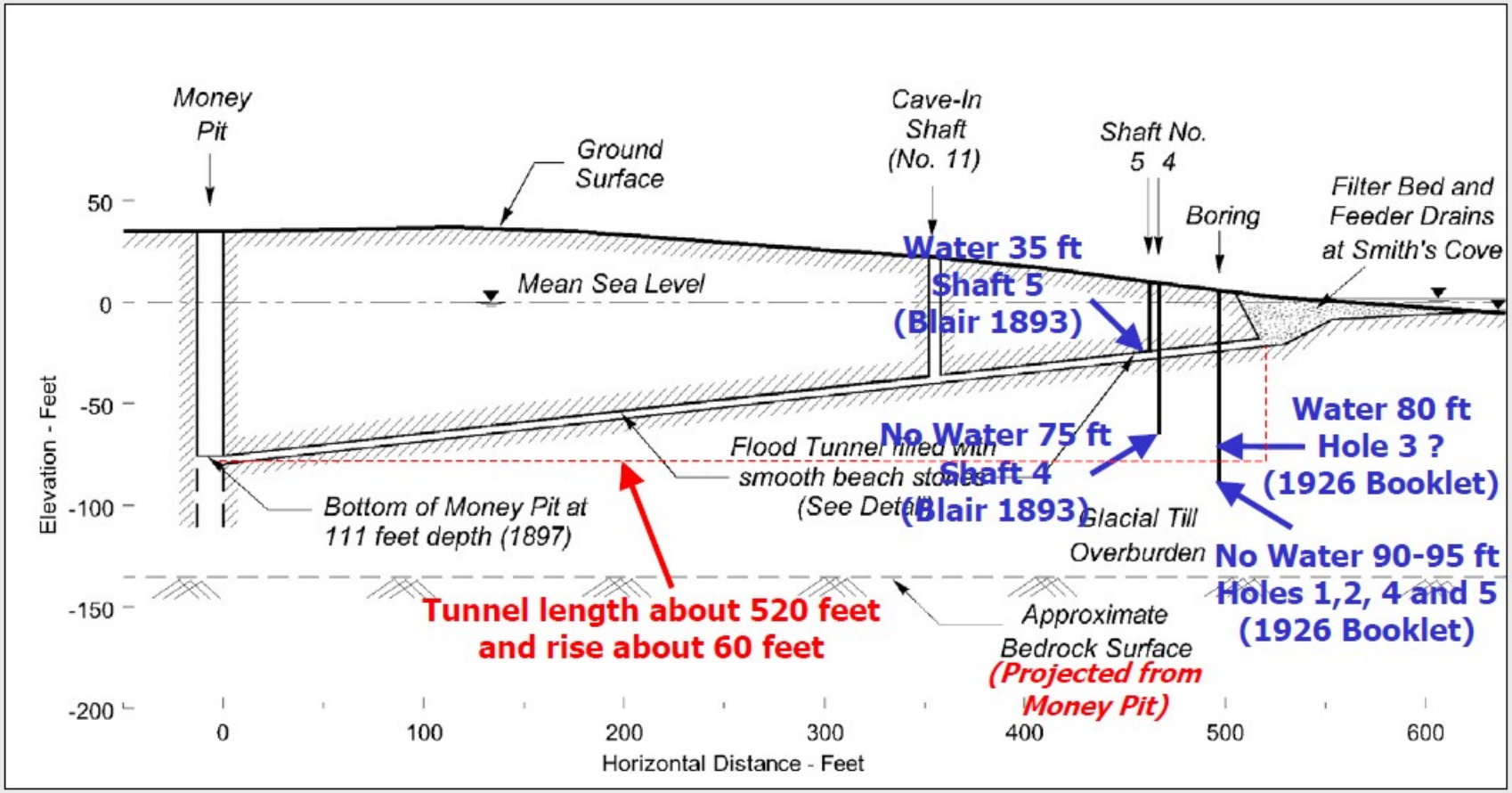


Ref: Booklet – History of Oak Island, Nova Scotia, and of the Work Done There at Different Times to Recover Buried Treasure 1926

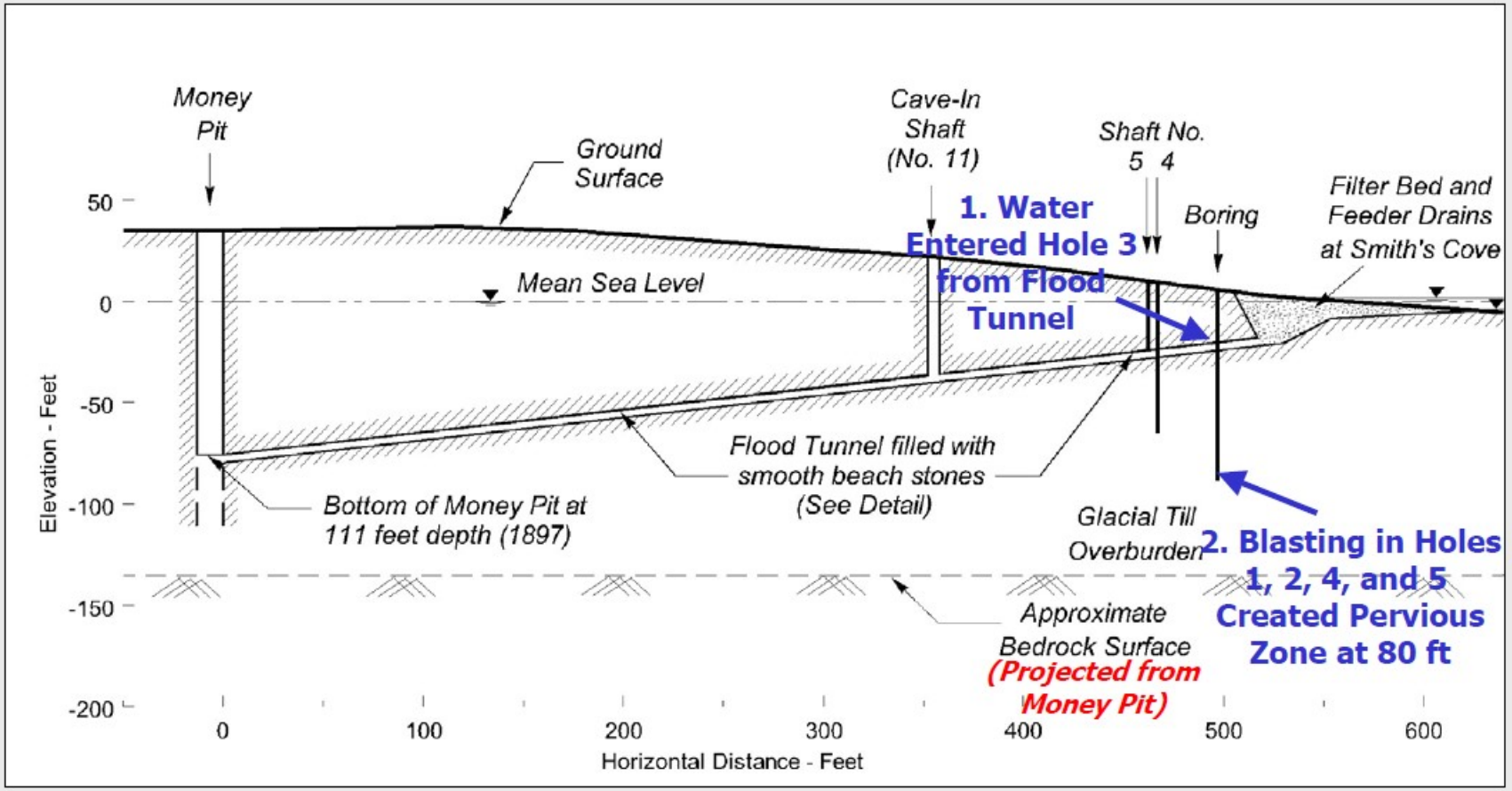
Flood Tunnel and Filter Bed Profile
Original Interpretation by Harris and MacPhie



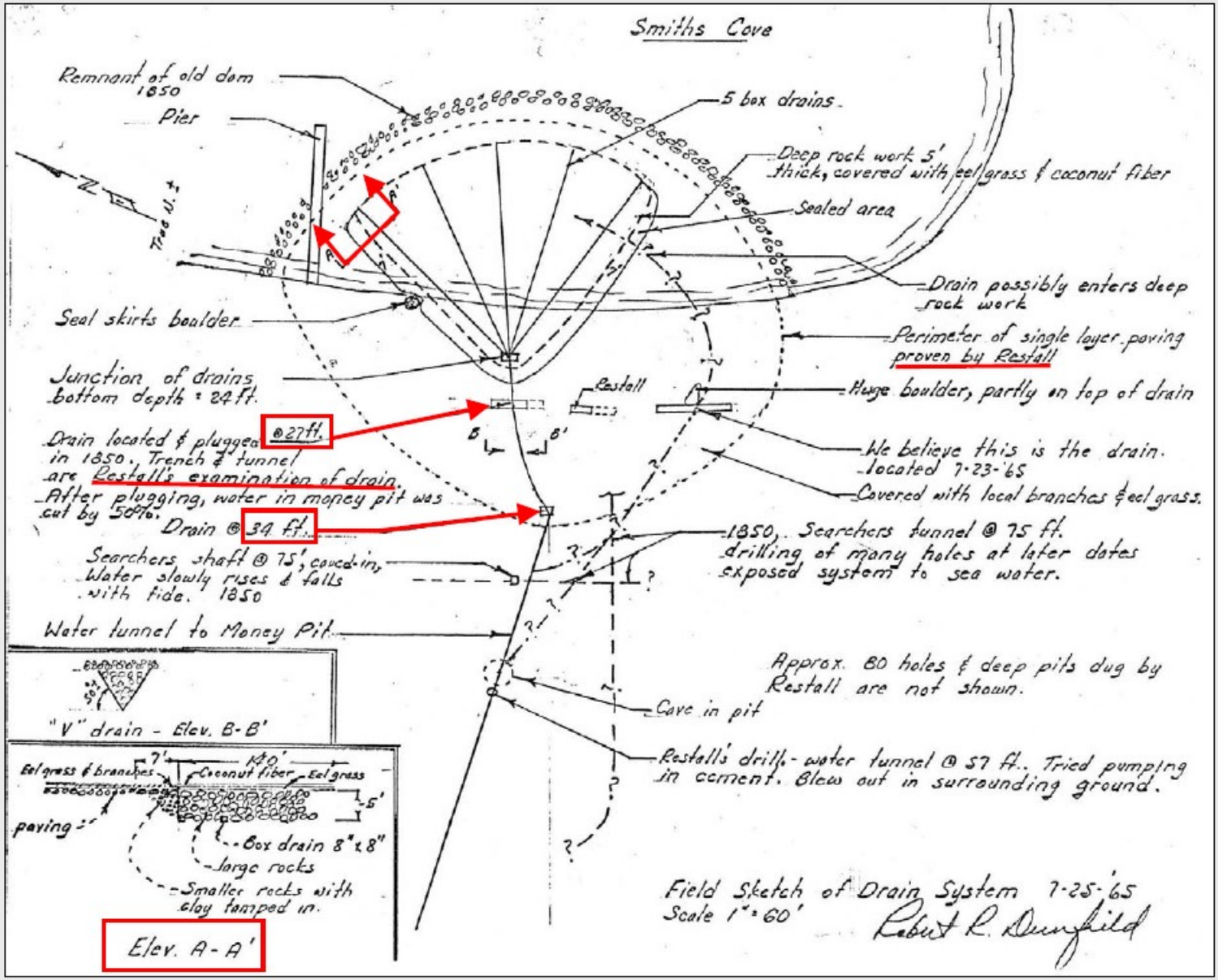
Flood Tunnel and Filter Bed Profile
New Interpretation of Evidence



Flood Tunnel and Filter Bed Profile
Possible Interpretations of Water in Hole 3



Sketch of Drain System by Dunfield 1965

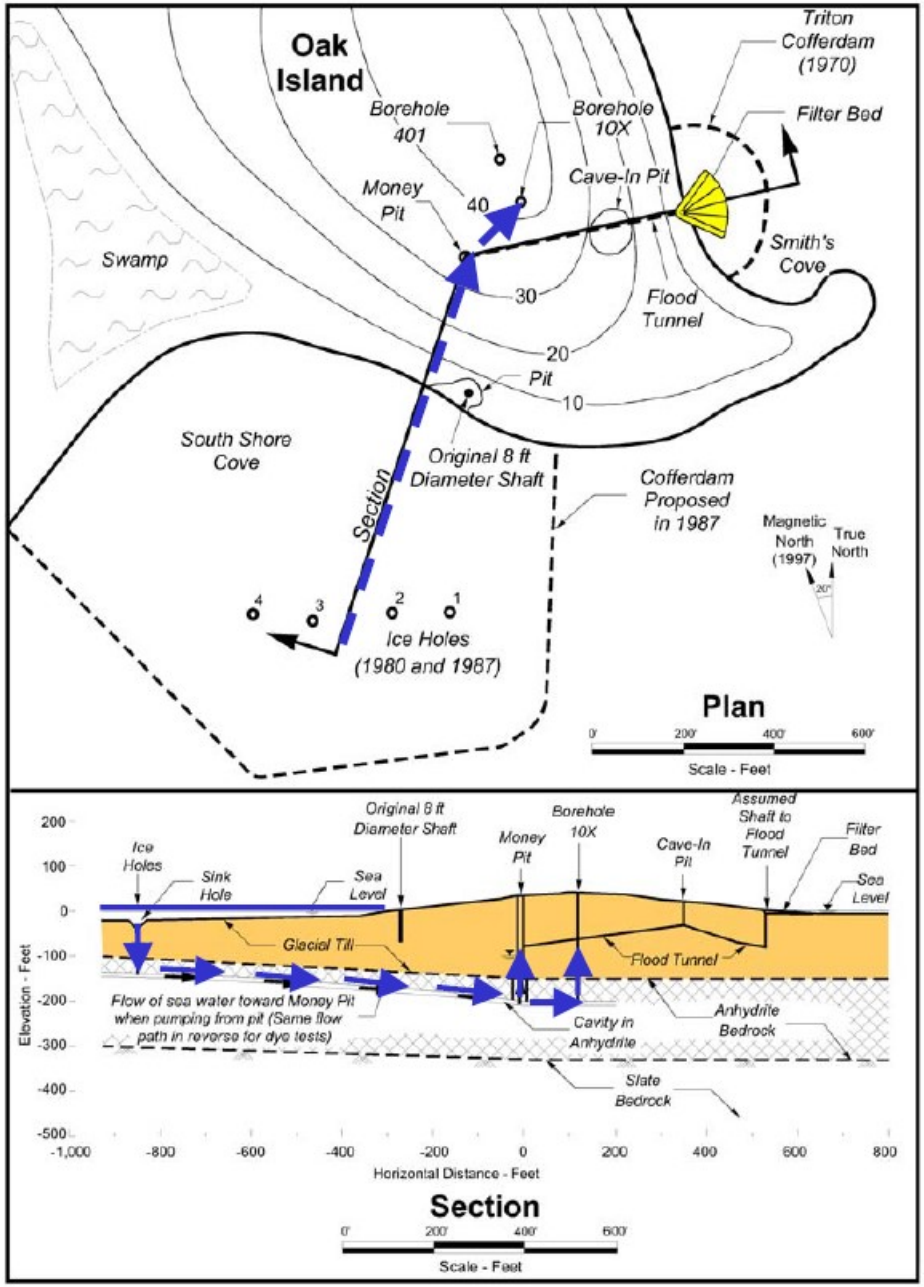


Example Flow System through Anhydrite from Mahone Bay to Money Pit and 10X

The flow system through anhydrite is activated by pumping at the Money Pit or 10X.

When there is no pumping the groundwater in the anhydrite is subject to flow reversals in phase with tidal variations.

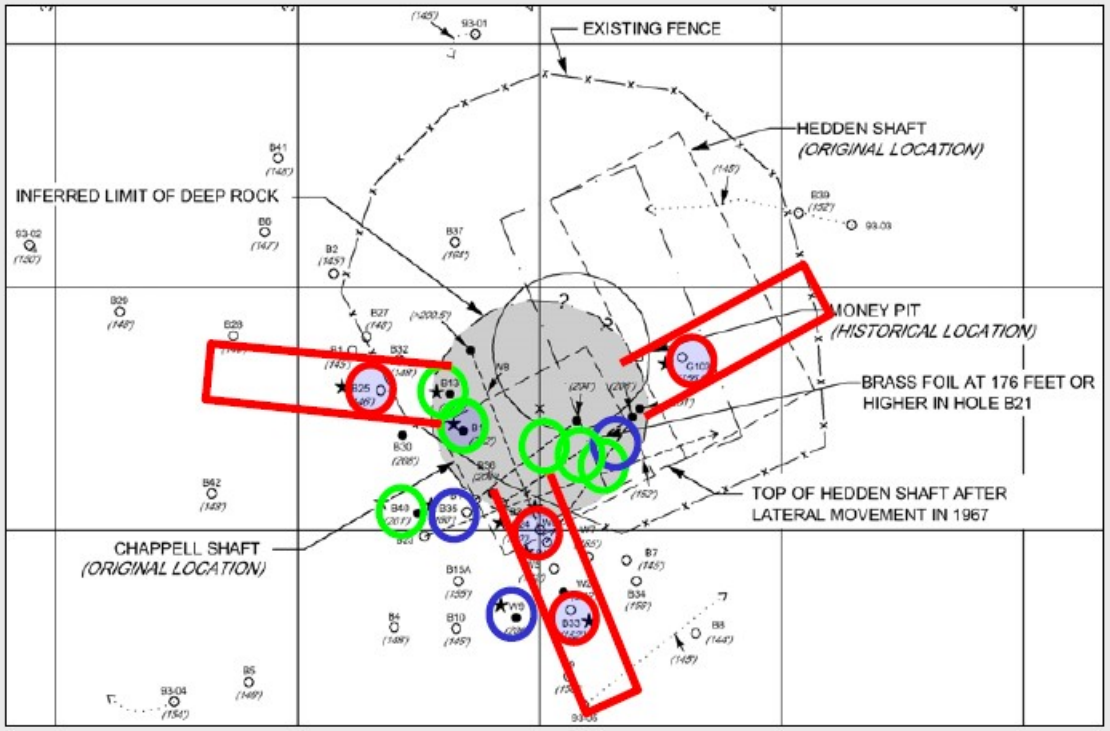
Both of these water movement systems result in dissolution of anhydrite and increasing permeability with time.



Summary of Flood Tunnel Evidence at Cave-in Pit

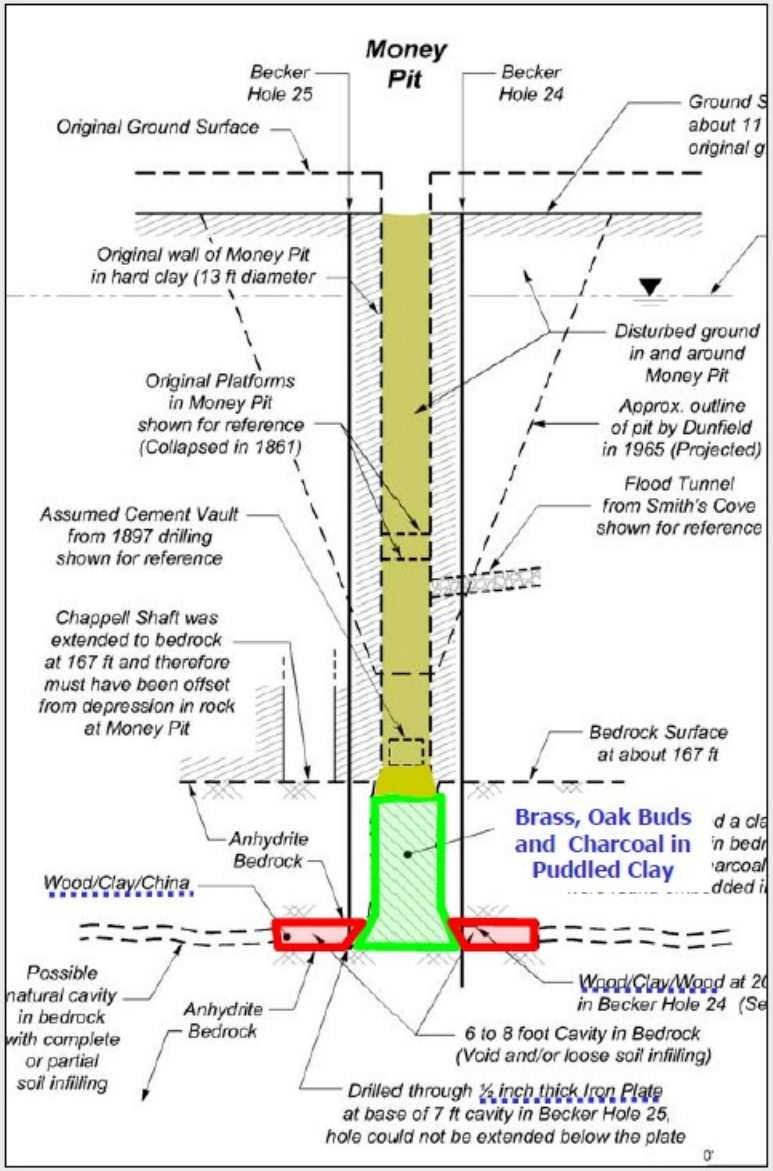
Source	Author(s)	Description
Various	Various	Sophia Sellars oxen fell into Cave-in Pit in 1878
Prospectus of Oak Island Treasure Company, 1900	Frederick Blair and others	Excavated to 52 feet in 1894 in previously dug circular hole 6 to 8 feet diameter. Drilled to 16 feet below bottom of pit, next day salt water in pit.
History of Oak Island Booklet, 1926	Frederick Blair and others	The workers of the Oak Island Treasure Company opened the Cave-in Pit to 55 feet, found salt water at that depth and quit.

Summary of Archaeological Features at Money Pit



★HOLES WITH ARCHAEOLOGICAL FEATURES

HOLE	FEATURES	DEPTH
B11	PUDDLED CLAY, OAK BUDS	184-200
B13/14	PUDDLED CLAY	184-200
B17	PUDDLED CLAY	176-198
B21	BRASS FOIL, PUDDLED CLAY, STAGNANT WATER	176-205
B24	INFERRED CHAMBER, CHINA FRAGMENT, WOOD	192-199
B25	INFERRED CHAMBER, IRON PLATE	191-198
B33	INFERRED CHAMBER, WOOD, LIME MORTAR	190-198
B35	WOOD, CHARCOAL, CLINKER	178-190
B40	PUDDLED CLAY	175-195
W9	WOOD, STAGNANT WATER	192-206
G103	REWORKED RECENT SOIL (INFERRED CHAMBER)	191-198



8. Conclusions on Flood System, Timber Structure and Time Frame of Smith's Cove Workings

1. **The flood tunnel exists and is man made. The filter bed and flood tunnel are original work.**

2. **The most likely alignment of the flood tunnel is a uniform upward slope from 114 feet depth at the Money Pit to about 25 feet depth near the shore (length about 520 feet, vertical rise about 60 feet allowing for 29 feet difference in ground elevation, slope about 11.5% or 6.6 degrees or 8.7H:1V).**

3. **The artifacts found at Smith's Cove cannot be specifically related to Searchers' work or original work and thus cannot be used to select a reasonable time frame for the original filter bed and flood tunnel work.**

4. **The north arm of the timber structure is Searchers' work. The east side and south arm of the timber structure are likely Searchers' work. Therefore the evidence from the timber structure cannot be used to select a time frame for the original filter bed and flood tunnel work.**

5. **The time frame of the original filter bed and flood tunnel work is best estimated considering information from other areas of Oak Island and the historical context. The time frame of the original work is judged from all evidence to be about 1650 to 1750.**

Shore End of Tunnel Discovered.

The result of a few minutes' shoveling on the beach proved beyond a doubt that the place looked for had been found. After removing the sand and gravel covering the beach, the workmen came to a covering or layer of brown fibrous plant,—the fibre very much resembling the husk of the cocoanut, and when compared with the plant that was bored out of the "Money Pit" no difference in the two could be detected. This layer, about two inches in thickness, covered a surface extending 145 feet along the shore line and from a little above low water to high water mark. About four or five inches of eel grass covering the same area was found underlying the fibrous plant, and under this was a compact mass of beach rocks free from sand or gravel.

It was impracticable to remove these rocks and make a further search unless the tide was kept back. Accordingly a coffer dam was built along this part of the cove, including the boundaries just described.

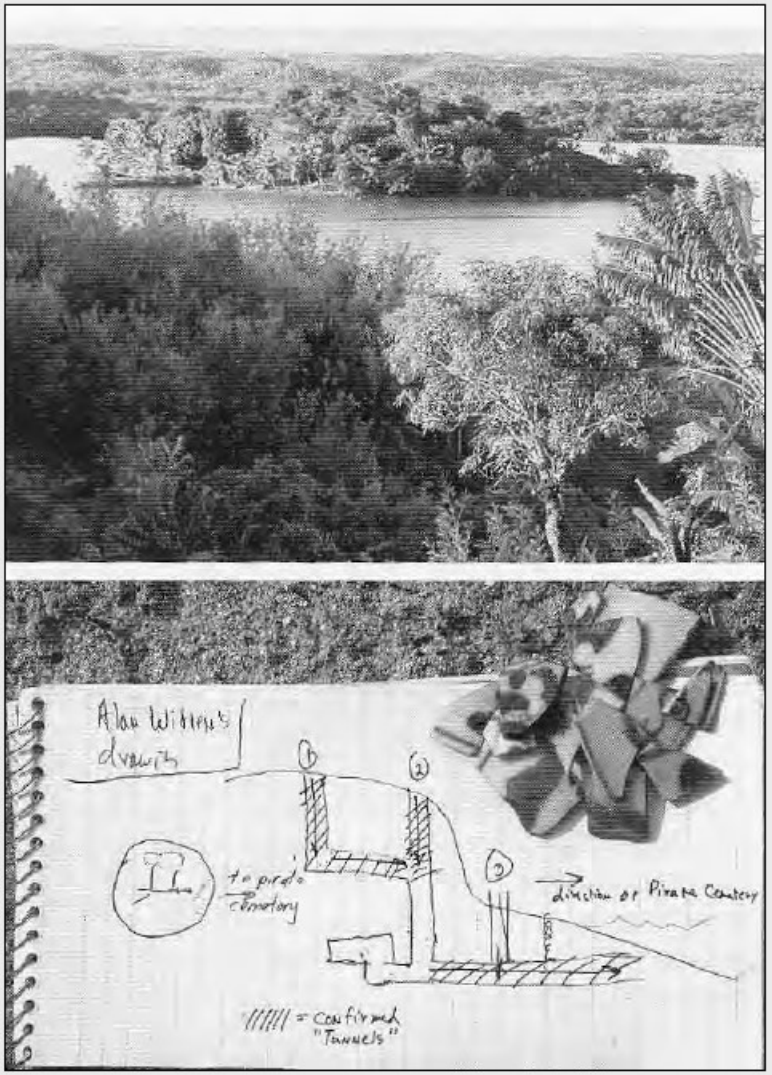
After removing the rocks nearest low water, it was found that the clay (which with the sand and gravel originally formed the beach) had been dug out and removed and replaced by beach rocks. Resting on this excavation were five well constructed drains formed by laying parallel lines of rocks about eight inches apart and covering the same with flat stones. These drains commenced at different points a considerable distance apart, but converged towards a common centre at the inner side of the excavation. With the exception of these drains, the other rocks had evidently been thrown in promiscuously.

Work went on until half of the rocks had been removed where the clay banks at the sides showed a depth of five feet at which depth a partially burned piece of oak wood was found.

About this time an unusually high tide overflowed the top of the dam, and as it had not been constructed to resist pressure from the inside, when the tide receded, it was carried away. To rebuild it would cost a lot of money, and as there still remained a large amount of rocks to be removed and as there could be no reasonable doubt that the place described was the outwork of and starting point of a tunnel by which the water was conveyed to the bottom of the "Money Pit" it was decided to abandon the work on the shore.

Another shaft was sunk on the south side of the "Money Pit" and to a depth of 118 feet; this made the fourth one (including the "Money

Pirate Theory – Search for Underwater Tunnels
Sainte Marie Island, Madagascar



Pirate Tunnels at Sainte Marie Island, Madagascar - Ref: Clifford 2003

Slav Domurat
Sainte Marie Island, Madagascar

Conclusions on Filter Bed and Flood Tunnel

1. **The filter bed (with coconut fibre and eel grass) and box drain system in the tidal zone at Smith's Cove is original work.**

2. **A flood tunnel from Smith's Cove to the Money Pit was part of the original work although there is some uncertainty in the configuration of the tunnel profile.**