

An Oak Island Inventory - or - Our Story Thus Far

Some rusty stuff dated by one Carmen Legge
A Portuguese cannonball - size of an egg

A cross made of lead with a square necklace hole
Some shards from a platter and some from a bowl

Various hinges which might be from chests
And metal with traces of government crests

A bit of some stuff that resembles concrete
Nails used to fasten ox shoes to ox feet

Some wood penetrated by one iron peg
A rusty old hoop that surrounded a keg

Splinters from tunnels by searchers of yore
Who sometimes would drop bits of tools on the floor

A piece of a shovel, a fragment of pick
And part of a pipestem that really pleased Rick

A brooch that was found at the base of a stump
An old plank of wood that they pulled from the swamp

Some metal from deep underground in some goo
That possibly could have been mined in Peru

Some buttons from coats and some nails that were bent
A recently minted Canadian cent

A torn piece of parchment embossed with a "v"
Or it could be an "r" and it could be a "t"

A road made of stone that was laid in a way
Reminiscent of Roman roads back in the day

A hook that could possibly lift heavy freight
Like chests full of jewels and pieces of eight

Some bone from a possible guy from Bombay
According to clues from the bone's DNA

continued...

Some parts of a musket, a hinge from a door
And part of a boot maybe Roosevelt wore

A cross made from rocks that were placed on the ground
Some blue clay that shouldn't be where it was found

Some evidence someone was processing pine
Like charcoal and faint whiffs of old turpentine

And down by the shore someone dug a small well
Did they hide treasure there? It is too soon to tell!

And most of us acorns still take it for granted:
That first Spanish coin found was probably planted

Joe Urbanski

Authors Note: Joe Urbanski's poetry above is the epitome of this next chapter. There we discuss how the coconut coir fiber, the only piece of evidence proving mans' underground constructs on Oak Island and a critical lead to who and when those happenings started – did not get mentioned at all in his poem. Not part of the inventory or just not thought important? Perhaps as the Fellowship investigates further back in time, the funky fiber will find itself filling a stanza in Joe's future florid effusions.

Want some more Oak Island forensic research?

Vol. I

Oak Island Mystery Trees and
other Forensic Answers

Vol. II

Oak Island Mystery Trees and
other Forensic Answers - Compendium

Vol. III

Oak Island Mystery Trees
and other Forensic Answers – Fibrosity

Scientist Survey I

Oak Island Mystery Fibers

**Oak Island Mystery
Trees...**

and
other
Forensic

Answers.

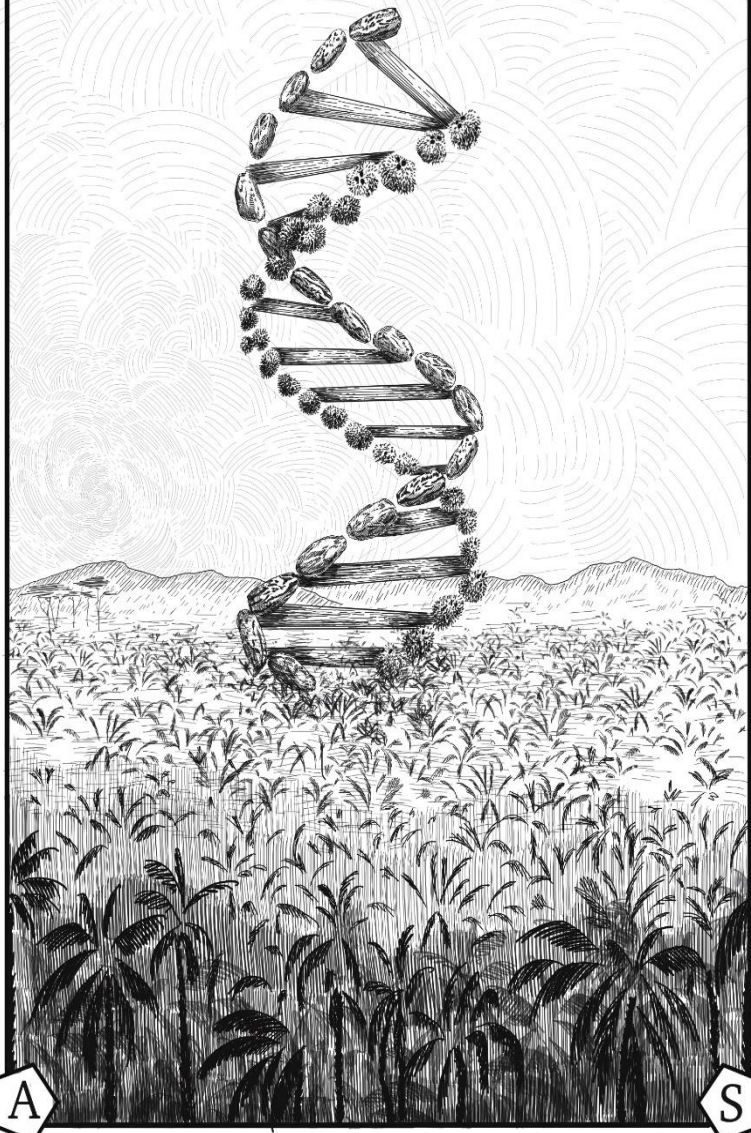


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Tendit in ardua virtus



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S

Chapter Five

TOO OLD FOR DATING

Mindlessly, humans as a species love to predict the outcome of things. We operate from the position our hunches, guesses, and estimates are accurate and completely acceptable determinations without any further applied scientific protocols or examinations. We are not warm to further review, even though it could validate such musings. If it looks familiar, it smells familiar, and it tastes familiar... then amazingly we were right – *its scat!*

With such acumen, it's a wonder we need science at all.

But what if someone had followed up with that splat of scat? What if those droppings were scientifically investigated and we could learn the kind of animal which once did the doing. Could our analysis tell us how big that animal was and if dangerous? Or, had that splat once been a digger unaware of his surroundings? Would we alter our plans at all if we knew of this, or would we continue to shovel away at our own peril?

This is an analogy for what has been going on with the Oak Island Treasure saga. Sure, find old stuff, and put it aside and dig me another hole. **Dig! Dig! Dig!** What happens when they reach China? Do they simply turn around and dig back the way they came? Dig! Dig! Dig! Unfortunately, this is similar to the pattern for the multitude of searchers who traipsed all over the island looking for a spot to dig, dig, dig. Why have they not found what they were looking for? Do they even know what they are looking for? After all of this digging, one would not be surprised if the island simply imploded.

Have you noticed where all the interesting puzzle piece artifacts have come from? Small holes. Slow holes getting slowly bigger - one trowel and dustpan at a time. Those puzzling artifacts come from the archeologists shovel because those diggers meticulously plan their digging. And when a jigsaw piece is found, it is analyzed for how it fits into the incomplete picture of what happened on Oak Island.

Readers are all well aware of the lengthy historical list of lost artifacts found in search excavations. These missing puzzle pieces will no longer tell their part of the story. It is imperative each jigsaw piece that has been found is fully examined and not be lost nor forgotten in a glass display case. Yes, digging is the way to get to the treasure. But without properly researching and studying those puzzle pieces already found, someone may spend hundreds of years still looking for what, exactly? If one finds something shiny, are they sure that shiny thing was what is being sought? Perhaps there are more shiny objects they may have missed. What if all those lost or forgotten puzzle pieces could have told you what to look for, and helped you locate the true treasure and not just the first shiny object you do find.

There is an old adage which says...

“to a carpenter, every solution to a problem looks like a hammer” ...and for miners, *it’s another shaft.*

This Chapter is about just one such puzzle piece. This one puzzle piece is the only true forensic evidence proving of underground manmade structures that were once built on Oak Island. This is also the largest puzzle piece so far found.

Searchers actually have multiple pieces of this puzzle and need not guess where they went or where they were. Most importantly, they know through multiple radiocarbon testing, how old these puzzle pieces are with a 95% certainty – AD 1185-1330. This reference is to the boatload of long-forgotten palm fiber found in both the Money Pit and the Filtration System on Oak Island.

The only reason why this puzzle piece seems to have been abandoned, is because the searchers did not perform their due diligence. Instead, they relied on a fallacy to skip digging into research books, so they could continue to dig yet another empty hole. Dig! Dig! Dig! This research will do that due diligence for them; and in so doing, it will show how it is possible to identify the Who, What, When and Why of the Oak Island mystery. This in turn, may also help the searchers learn the best place – ***to dig, dig, dig!***

Fiber Fallacy - First

On February 1, 1926, searcher Frederick L. Blair published a 2nd version of a prospectus for the Oak Island Treasure Company seeking investors to help fund searcher operations. Though it had multiple sections totaling 49 pages, in Exhibit A, on page 5, Mr. Blair authors this excerpt..

“After removing the sand and gravel covering the beach, they came to a covering or bed of a brown, fibrous plant, the fibre very much resembling the husk of a coconut, and when compared with the plant that was bored out of the “Money Pit” already mentioned, no difference in the two could be detected. However later it was subsequently proved to be a tropical plant, in former times used as “dunnage” in stowing ship’s cargo.”¹

The last sentence, “However later it was subsequently proved to be a tropical plant, in former times used as “dunnage” in stowing ship’s cargo,” is the kernel of misinformation which has hobbled treasure searchers ever since. This is the first published reference to ‘dunnage’ as a reason for the plant material being found throughout Oak Island. Unfortunately, this single sentence has erroneously stuck to the Oak Island Treasure lore through to today.

To complicate the forensic investigation of his comment, it is not known if he was talking about eelgrass (*Zoetia marina*), manila grass (*Zoysia matrella*), manila hemp (*Musa textilis*) or coconut husk fiber (*Cocos nucifera*). It can be assumed he may not have been referring to eelgrass. Though it was used to wrap and protect porcelain figurines in packaging, eelgrass grows worldwide and is not specifically a tropical plant. All of the others he mentioned have been used as a packing material within shipped packages, all are tropical plants, but none were ever used as dunnage on any vessel at any time. Refer to Volume One, Chapter Ten, *“Cracking the Nut,”* for further forensic examination of those plant fiber sources.²

There is no telling where Mr. Blair came up with this tidbit of wisdom, but research has found no evidence of truth to that statement. Furthermore, Mr. Blair knew or should have known, his statement was untrue. Several events he was privy to previous to his publication, argued against such a descriptive statement.

On September 23, 1905, Josephine Fredea published the first half of a 7,380-word article titled, "*The Lure of the Pirate Gold*" in *Collier's Weekly Magazine*.³ The follow-up was published in *Collier's* in 1906. One of the most comprehensive articles about the Oak Island treasure saga, Fredea had a working relationship with Captain John W. Welling who was involved in the Oak Island search from 1896 through 1900.⁴ She also had a reputation of enhancing any aspect of the story she thought would spur readership. Yet her lengthy reportage had no such enhancement regarding the mysterious plant fiber or its historical usage. In fact, the article identifies the fiber found in Smith's Cove and in the Money Pit as indeed, coconut fiber.

In 1916, the Smithsonian Institute reportedly received five plant fiber specimens found on Oak Island, from Reginald V. Harris.⁵ The Textiles Department of the Smithsonian, determined at that time...

"The specimens of fibre submitted is undoubtedly from the fibrous husk surrounding a coconut. This fibre is especially resistant to the effects of sea water and under the conditions under which it was found may have been there for several hundred years."

The Smithsonian Institute again issued a report in 1931, by Dr. Frederick L. Newton, Director of Textiles,⁶ where he said they...

"...analyzed a fibrous material found under the sand of Smith's Cove on Oak Island, and declare it to be coconut fiber, probably Caribbean in origin."

The very first reference to the unknown plant material found throughout Oak Island searcher operations, was all the way back to January, 2, 1864. In an article published in *The Colonist*, and titled “*History of the Oak Island Enterprise, Chapter 1.*”⁷

The anonymous author was Mr. George Cooke, Treasurer of the Oak Island Association, a searcher venture, and his article was submitted on December 20, 1863. In his published document, he wrote...

“After reaching the wooden obstruction in which their auger was crippled they withdrew the ball-sludge auger to apply the chisel, and, in doing so, brought to the surface a small bunch of what was afterwards supposed by persons likely to know, to be a grass peculiar to the Spanish Main. For a while, until they had received this information, one or two were foolish enough to wonder whether they had not exhumed a portion of the scalp of the black man of whom they had been informed by those who derided their undertaking. But fortunately for the “Oak Island” treasure-seekers, pieces of this grass were preserved by those who first handled it so if nothing more valuable is found to gladden their hearts and rebut the ridicule and contumely lavishly heaped upon them in many quarters, it, as well as the wonderful discoveries previously and subsequently made, will remain to denote their belief in its being the resting place of Kidd’s Treasure, with, to say the least, a mysterious significance.”

So after these known facts, Mr. Blair’s chimerical prose seems he wanted to distance coconut fiber from the narrative to his investor audience. Why? By now, coconut fiber had been found throughout the searcher history since 1804. One would think coconut fiber fed into a Caribbean pirate literary genre, popular at that time. Linking pirates to Spanish or French booty would seem obviously tangled in a wad of coconut fiber found awash from those treasure-laden shores.

But then again, perhaps Mr. Blair felt it was too coincidental for most serious investors to rationalize coconut fiber happened to find itself on the island. Was he worried they may think the prospectus was populated with exotic endowments bordering on being cheesy? Perhaps that gimmicky grammar was to be toned

down. His paragraph with the wider definition of *tropical plant fiber*, would however, allow the investor class to contemplate in their fantasies those historical profits amassed during the silk trade, and then the spice trade, and finally the slave trade; all had their genesis in the tropics of the old world. And all passed by Nova Scotia on their way to fund European monarchies. Therefore, all had the opportunity to find their way into the depths of Oak Island. Perhaps Blair thought this plant verbiage encapsulated all plunder imaginary without the carnival barker use of peg-leg pirates?

So with that back-handed excuse for its presence, coconut fiber found on Oak Island became the *souvenir du jour* and was gobbled up by the bushel for gardens of the fair people of Mahone Bay. Worst still, after the official identity by several reputable sources that the fibers were indeed from the coconut husk, Blair's misstatement and the coconut fiber identity, amalgamated into a fully false fable; that indeed, coconut coir fiber was used by sailing ships as dunnage. It would languish as a lost artifact until searchers kept finding it in their diggings, post-radiocarbon dating technology genesis of the 1950's.

Little did Frederick L. Blair know science would someday be able not only determine exactly what biological matter his "grass" was, but how old it was. Today, science is soon to determine from where it came!



Image Courtesy:
National Research
Council of Canada.

Scientific Shocks - Second

Eventually, several searchers inquired about the frequently found fiber. With radiocarbon dating now bringing new light to archeological investigations, the first use of the new forensic examination of Oak Island artifacts was performed by Geochron Laboratories for searcher, David Tobias, in June of 1969.⁸ Though the specimen tested was wood, the results shocked searchers on Oak Island, and opened up the expensive testing for other items. The letter from Geochron Laboratories stated...

“We have now completed the radiocarbon age determination on a sample of wood which you described in your letter of 25 April, 1969 and which we discussed later via telephone... We have determined an age of 375 ± 85 ybp [Years Before Present] which correspond approximately to a Christian calendar date of AD 1575.”

With new enthusiasm and the deeper pockets of David Tobias, Geochron Laboratories was asked to test additional wood specimens found deeper in Smith’s Cove. The results of the radiocarbon testing really sent the searchers into a craze as the specimens dated to AD 860 and AD 1135!⁹ Yet the radiocarbon dating of wood was and is, very problematic. The searchers were warned that further dendrochronological determinations should be made and may alter those ancient dates.

Old wood became old news over the next twenty four years. Various searchers concentrated on new shafts and implemented new technologies and methodologies as limited resources were spent. The next wave of clamor on radiocarbon dating came when examining wooden structures, along with coconut fiber found in the Smith’s Cove beach area.

In 1993, BETA Labs in Florida became the radiocarbon lab of choice, after they tested two coconut fiber specimens and came up with spectacular dates. One sample had been submitted by David Tobias and had been in the Oak Island Museum for almost 20 years.

It's radiocarbon dating came back as 820 years old and dated to AD 1130. After "calibration" by the lab its date was fixed to AD 1229. The second specimen had been gathered by Dan Henske and its dating came back as 770 years old and dated to AD 1180. Final calibrated date for this second specimen was fixed to AD 1278. Both specimens came from Smith's Cove.¹⁰

But what to make of those dates. Not a single coconut ever saw the Atlantic until Vasco de Gama brought them to the Cape Verde Islands off the west coast of Africa, in AD 1500.¹¹ From there, Coconut Palm Trees grew after nuts were introduced to Puerto Rico in 1549,¹² Sao Tome, Africa in 1550,¹³ and to Brazil in 1553.¹⁴ Those introductions were not to generate plantations, but as garbage tossed from slave ships as uneaten foodstocks.¹⁵ Still, it would take a lucky planted seed ten years to mature to produce as many as 100 coconut seeds a year. For the Oak Island volume of fiber to be produced, it would take as many as 200 palms at 100 nuts a year. Yet, as a perennial species, *Cocos nucifera* may need 20-25 years from planting to evaluate a successful seed performance.¹⁶ Once the slave trade kicked into full operation off the coast of west Africa between AD 1518-1526,¹⁷ coconut palms were destined to start springing up on many littoral zones of South and Central America. Unfortunately for the mythical narrative by Blair, the coconut husk retting process for fiber, like those on Oak Island, would be unknown to populations of these regions, until taught in 2013.^{18, 19}

Furthermore, at this time the searchers were convinced the booty buried underground or in the swamp was Spanish in origin, and so, potential pieces of ship predominated as fiber fell back to irrelevance.

In an attempt to apply the most sophisticated, science-based approach to answering an array of island anomalies, searchers requested and permitted a number of outside experts to analyze the island. One of the more prestigious was Woods Hole Oceanographic Institute (WHOI), located in Massachusetts. In 1995, WHOI experts spent most of two months on the island. Unfortunately, they seemed more bent on finding mitigations to

any bewilderments related to the buried treasure enigma. In my opinion, WHOI revealed a biased analysis in their draft report released in 1996, titled "*Oak Island Hydrogeology, Hydrography and Nearshore Morphology, July-August 1995 Field Observations.*"²⁰ Everything seemed couched to assuage any anomalous findings or datings. Part of their lengthy report dealt with the topic of radiocarbon dating of palm fiber specimens taken by them, and those from previous laboratories. Of the two specimens tested by WHOI, the first dated to be 1140 years old, or from AD 810. It was later changed to AD 855. The second specimen was dated to be 765 years old, or from AD 1185. It too was changed to AD 1230. I wonder if the changes were due to improper application of the 'ybp 1995,' instead of proper use of 'ybp 1950.' [years before present] In their report, WHOI summarizes the only possible way coconut fiber would be found on Oak Island is through one of four specific pathways.²¹ Their exact words are pasted below...

- i) "Planted" on the island by previous searchers
 - ii) Natural transport by Gulf Stream and inshore currents
 - iii) Dunnage discharged at Oak Island by a previous ship
 - iv) Brought and used by ancient voyagers for flood tunnel purposes
- No evidence at present allows us to discount pathway i) above, other than Triton associates claim of finding the fibre; we cannot discount previous searchers or others "planting" the material.

We are unfamiliar with other instances where the Gulf Stream has transported a significant amount of coconut fibre intact to a single location. We are currently researching this factor, with help from Natalie Uhl and her colleagues

We cannot discount the potential use of fibre as dunnage (iii), from a ship previously using Oak Island. For instance, a ship involved in the wood (oak) trade might have come to the island with this dunnage. Why the fibre would be so old is another matter.

Finally, we cannot discount the final pathway: use by ancient voyagers. Perhaps the only way to determine whether this was an appropriate pathway or not is to discount the other three pathways. We are examining pathway ii) at present; clarification of other pathways is certain to be more difficult.

Without now revisiting the validity of the four pathways mentioned above, I simply suggest a review of the extensive forensic investigation and analysis provided in Volume One, "*Foreign Fibers Found.*" Volume Two houses more than 120 pages of factual information regarding coconut coir fiber. Since WHOI experts never followed up with their investigation, our "*Oak Island Mystery Trees and other Forensic Answers*" books, do just that.²²

The attitude emanating from the heretofore unfinished WHOI 1996 Draft Report muffled the shocking realization very ancient coconut fiber was frequently found and dated on Oak Island. Furthermore, it is the largest artifact found and the only true artifact proving the existence of very early underground manmade constructs.

The arrival of new searchers with a bent for scientific analysis brought much to the stale hunt for treasure on Oak Island. In the Season One, Episode Two, of History Channel's brand new show "Curse of Oak Island," and produced by Prometheus Productions, palm fiber was again extracted from the shores of Smith's Cove.²³ BETA Labs radiocarbon tested the new specimen and it was dated to be 620 years old, or from AD 1260 - 1400 (1330), with 95% confidence.²⁴



Screenshots, Courtesy:
© Prometheus Productions &
© History Channel

Timeline Trumps - Third

Yet still the foreign fiber falls flat in gaining the preeminence it deserves with a full forensic investigation. One wonders if the false imagery of floating fibers up the Gulf Stream are drowning out the fascination of the fiber. Perhaps it was that comment by Mr. Blair almost one hundred years earlier, which continue to dog this drupe and its definitive role in this drama. Most likely, since the fibers are not entangled with a popular theory, they continue to be left to the side. Remarkably, they are the only artifact on the entire island that is real, tangible, and can be held in a researcher's hand. Today's science can even use the specimens' DNA and find from where the Coconut Palm Tree grew that dropped that drupe! Instead, the fibers have become the 600 lbs. gorilla in the room.

As preposterous as the Chinese cash coin found on the island, the coconut coir fiber seems considered too old to be an artifact of value. Its preponderance was corrupted with those past dismissive statements and false beliefs. It was too old to be a player in telling the tale which had long haunted this lone island, as it must have floated to it during the Jurassic period one seems to assume.

Yes, it was too old indeed to fit snugly with theories of pirates, Spanish ships, or Shakespearean folios which have been proclaimed as obvious favorites for true scientific consideration. Writers and researchers have busily worked to string together historical players who may have had timing, temperament, or transportation to pull off whatever could be associated with the island's past. Yet as they explain with intricate weavings of their theories web, they *ALL* leave out the one true artifact which proves man's underground construction on Oak Island - *palm fiber!*

Why? How do they explain it? Are those theorists afraid to find "oneself hoist'd with one's own petard?" Shame on them for leaving the 600 lbs. gorilla ignored in the room or to the Fellowship for fawning over ox shoes, instead of the fiber already found.

Yet now, searchers have come across quite a few finds which date as old as those drupes. The thinking within the War Room should now shift and realize the first diggers, our ancient voyagers, are most likely depositors from the 14th, 13th, 12th or even the 10th century. In concert with our palm fiber specimens, here are those dated artifacts found on Oak Island which are very old indeed.

- COOI SE08/EP21, Ships railing in swamp = **AD 715**, (660-770)
- WHOI #10167, coconut fibers = **AD 855**, (825-885)
- Geochron #1692, oak peg from timber structure = **AD 860**, (720-1000)
- COOI SE10/EP13, Lot 26 old well twig = **AD 1100**, (1028-1172)
- Geochron #1691, inclined beam from timber structure = **AD 1135**, (1025-1245)
- Swamp core sample with twig = **AD 1200**
- Nolan's Boulder Cross via archaeoastronomer = **AD 1200**
- COOI SE07/EP09, Dr. Spooner stick found under paved wharf = **AD 1220**
- BETA Labs #66584, coconut fibers = **AD 1229**, (1159-1299)
- WHOI #10168, coconut fibers = **AD 1230**, (1195-1265)
- COOI SE11/EP16, Stone Piles Star Alignment = **AD 1250**
- BETA Labs #39897, coconut fibers = **AD 1278**, (1218-1338)
- COOI SE05/EP10, lead cross dated to = **AD 1280**
- COOI SE01/EP02, coconut fibers = **AD 1330**, (1260-1400)
- COOI SE08/EP09, Serpent Mound piece of carbon w/nail = **AD 1380**, (1320-1440)
- COOI SE11/EP15, Axe-cut swamp stump = (1296-1396) 96.1%
- COOI SE10/EP25, Lot 26 rock wall charcoal = **AD 1464**, (1474-1638)
- COOI SE02/EP09, stump in swamp = **AD 1545**, (1450-1640)
- Fred Nolan, wood survey marker log = **AD 1550**
- COOI SE09/EP06, Tree root under stone wharf in swamp = **AD 1556**, (1474-1638)
- COOI SE03/EP11, eelgrass fibers = **AD 1560**, (1470-1650)
- D2 Boring wood & metal w/gold samples = **AD 1570**, (1488-1650)
- Brock University #?, Inclined timber = **AD 1570**, (1420-1720)
- Geochron #1584, wood chips = **AD 1575**, (1490-1660)
- COOI SE9/EP11, 2'x6"x2" swamp plank = **AD 1595**, (1516-1674)
- Brock University #?, log 1970 = **AD 1645**, (1530-1760)
- COOI SE07/EP13, eye of swamp wood piece = **AD 1653**, (1626-1680)
- COOI SE04/EP03, 18 ft board in swamp = **AD 1707**, (1680-1735)
- COOI SE09/EP12, trapezoidal wood bulkhead = **AD 1710**, (1683-1735)

In Season 10, Episode 22, "*Starry Knights*", Curse of Oak Island cast traveled to Italy to see caverns chiseled underground by Knights Templar. During the trip they met with an Italian archaeoastronomer who, based on the shape, number of boulders and their orientation, determined timeframe Nolan's Cross was erected. The date he gave of AD 1200 was definitely an "Aha" moment, which now spotlights the radiocarbon dating of the mystery fiber.

Our final fiber-dated range is AD 1185-1330. Awfully close!

Fiber Options - Fourth

This investigation into the island mystery fiber had initially believed it was from the coconut palm tree, as experts had already made such an identification. This determination became suspect and an examination of the evidence has revealed the original decision was flawed. Therefore, further assessment of potential plant fiber candidates has been performed and the mesh/sheath trunk fiber from the date palm tree (*Phoenix dactylifera*) was identified as the what the fiber found on Oak Island, truly is.

Understandably, others are not so sure and wonder if such a selection as to the island fiber, was not being promulgated by twisting the fiber to fit into a popular theory. Such 'twisting' had been done by others in effort to make the coconut fiber match themes of pirate treasure from the Caribbean Sea or mythically misidentified as high seas dunnage. Answering this concern is important as the research attempts to contribute a verifiable botanical answer toward solving part of this treasure story. Credibility is essential and determining what the fiber *is not*, is as critical a component of validating what the fiber truly is. This process of elimination, like exploring all rabbit holes of an hypothesis, fulfills the Forensic Scientific Method modality, See Appendix A.

Natural fibers fall into three categories; plant, mineral and animal sources.²⁵ Yet the categorization of natural fibers can also be identified by their make-up as from either protein or from cellulose. Protein fibers are from animal sources such as silk, wool and hair. Cellulosic fibers are from plants, such as coir, cotton, date palm, jute, etc. (Hakeem et al. 2014). To complicate this further, cellulosic fibers can be classified based on which part of the plant they were extracted. These include different fiber types from seed, fruit, stock, leaf, bast or grass. And because it is applicable in this review, yet another distinction of cellulosic natural fiber identifies three major organic constituents: lignin, hemicellulose and cellulose.²⁶ Lignin acts as a natural glue, and it binds the cellulose fibers together. The hemicellulose acts as a bridge between cellulose microfibrils and lignin. Cellulose is a chemically stable material unlike lignin or

hemicellulose (Stokke et al. 2013). One of the interesting facts about cellulose is that it can't be dissolved by alkaline solutions and it has high resistance to dissolution by acids with an exception of strong acids at high concentrations.²⁷ In addition, natural fibers have a hollow (pipe-like) structure due to the presence of what is called lumen. Lumen helps in water absorption and locking water inside the fibers; hence, causing fiber swelling (Hakeem et al. 2014).²⁸ This is not the same as a lacuna.

No, we are not going back to botany class.

These mechanical and physiochemical profiles help to explain exclusion of much of the plant fiber sources when compared to what is known of the Oak Island fiber. Much of this discussion has already been evaluated in the previous volumes of this research, as well as examined in Chapter One of this volume. The parameters for sorting potential plant fiber options have already been identified during our examination of the husk fiber from the coconut palm (*Cocos nucifera*). However, a review of those will help set the stage for understanding how the vast potential of plant fiber sources was reduced down to two plant species.

Plant Parameters

The parameters for considering a plant fiber source is both simple and complicated, based on the profile of the individual plant fiber being analyzed. For example, the Judean Date Palm produces a date fruit having genomes from *Phoenix dactylifera* and the Cretan Palm (*Phoenix theophrasti*), which is a wild date palm found in Crete and Turkey. It is believed the genome mixing happened in the very distant past, but still shows a trace today (Gros-Balthazard and Purugganan, 2021).²⁹ Both are “palms” and both are in the genus of *Phoenix*, and thus, would be considered a top contender. Though morphologically very close in its mechanical physiochemical profile as well as geographically co-located, we are not interested in this second palm as there is no historical record of it being farmed to generate the volume of fiber found on the island. The linkage with a Judean Date Palm is much more likely an ancient attempt to pollenate female plantation palms with a different wild male palm.

You may recall in Chapter One, Dr. Dennis Johnson a Biogeographer and an expert in palms,³⁰ promoted the idea that perhaps, if for ship-related cordage, the Mediterranean Dwarf Palm (*Chamaerops humilis*) should be considered.

As one of only two native palm species in continental Europe (*P. theophrasti* being the other), the Mediterranean Dwarf Palm did not usually grow north of the Mediterranean basin; however, human distribution now finds it growing as far north as the United Kingdom as a popular ornamental plant.



Image: Courtesy Wikipedia

Dr. Johnson suggested this readily available plant as a potential source for leaf-based palm fiber, which could be used as coconut coir would have been - without all the hassle of traveling to India to obtain it. Also known as *Crin vegetal* (French for palm fiber), it has a history of its plant material harvested for upholstery, in France. Its fiber source are the remains of the dead leaves (fronds) found around the trunk(s) of the low level, multi-headed palm at the end of each growing season. They are categorized as being a hard, leaf fiber with poor spinning characteristics.³¹ Several plant profile characteristics make the *Chamaerops humilis* fiber a problematic selection for our ancient voyagers. This includes propagation issues with a weevil,³² lack of native distribution in the eastern Mediterranean area,³³ stringent retting requirements to use the fiber,³⁴ and the scarcity of plants known to grow in isolated topographical locations at that time.³⁵ Though these issues are not insurmountable to become a viable candidate as the fiber host, the fact so many better fiber options (flax, cotton, papyrus, date palm) were readily available, questions why those ancient voyagers would have selected this plant fiber. As for what can be said about the *Chamaerops humilis*, parts of the plant have long been known for its medicinal value, whereas the fruit is reported

to be somewhat bitter and high in tannin. The husk, known in southern Spain as “higa,” is edible only before it becomes too tough to eat as it matures.³⁶

There is no evidence found as of yet, indicating the mystery fiber on Oak Island was used for caulking, cordage or as any other byproduct. Nor has a logical applicable function or use where it was found, been identified. See *Chapter Six* regarding functional uses topic. Only a considerable amount of bulk fiber has been unearthed so far.

Those plant parameters which to consider include things like the three major organic constituents of lignin, hemicellulose and cellulose; as they would determine the speed with which plant fibers could disintegrate. As documented, the Oak Island fiber is extremely old and has unusually higher levels of lignin and cellulose in comparison to most plant fiber. Few organic materials from palm trees are equipped to be found buried in the earth for more than 694 years, and not look like a glob of rotting mush.

Our ancient voyagers had to have had the motive, means and opportunity to acquire so much palm fiber as well as transport that bulk volume all the way to Nova Scotia. Just looking at who could have performed such an operation, in and of itself, limits the geographical possibilities of where those voyagers came from; and therefore, limits the native palm species which were under plantation-size farming operations, back then. Furthermore, the distribution of today's 2600 palm species in no way reflects the quantity and location of palm species found between AD 1185-1330. Most palm species, like other vascular plants, had been dispersed and cultivated by man *after* the radiocarbon dating period of those Oak Island mystery fibers.

The availability to acquire the volume of coconut coir fiber, retted from the husk of the seed of the *Cocos nucifera*, is one of two drivers which proved the Oak Island fiber was not coir. As you reviewed in *Chapters Two* and *Three*, back in that time, the volume of coir fiber could only have been acquired from the Coastal South West region of India, known as Malabar - *Kerala today*.

Even with ancient trade routes between the Fertile Crescent region and the eastern Indian Ocean, the historical and archaeobotanical record finds no such access to, trading of, nor growing of plantation-level agriculture coconut coir fiber; which could generate that volume of coconuts. Nor is there any ethnobotanical history of groups, cultures, tribes or kingdoms prior to Vasco de Gama's adventure into the Indian Ocean, which knew how to ret the coconut husk fiber into coir. The second driver which proved coir fiber was not the fiber on the island, were the non-matching SEM imagery of two different samples of palm fiber submitted for examination. In neither case did the island's fiber sample exhibit a Lacuna.

A coir fiber is composed of many unicellular tube fibers packed in parallel, and the lumens in tube fibers are disconnected. All the tube fibers are packed together with the cell membrane complex. In the center of the coir fiber, there is usually a large lacuna, seen by SEM images of the cross section of a coir fiber. It is obvious that the coir fiber is composed of many tube fibers with a large hollow (Lacuna) that is aligned in parallel. Each tube fiber is a plant cell so that a coir fiber is a multicellular fiber."³⁷

The German philosopher Immanuel Kant (1724 to 1804) wrote: *"Things which we see are not by themselves what we see... It remains completely unknown to us what the objects may be by themselves and apart from the receptivity of our senses. We know nothing but our manner of perceiving them."*³⁸

As we continue reading the evidence pointing to *Phoenix dactylifera*, and the Judean Date Palm in particular - as the Oak Island fiber, becomes even more evident with the circumstance borne out of the prosopography of the Knights Templar. Perhaps this botanical study does follow Kant's philosophy. Yet if the answer is forensically factual, then let's celebrate this research to that end.

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