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Beale. The Beale Papers: containing authentic statements regarding the treasure buried in 1819 and 1821, near Buford's, in Bedford County, Virginia, and which has never been recovered. Lynchburg, Virginia: Virginian Book & Job Print, 1885. --

This file contains the raw material for a story which was first published in 1885 and is of recurring interest. W.F.F. believes it to be a complete but fascinating hoax. The story involves three cryptograms, the solution to one of which is set forth in the document. The cryptographic system used in the one message for which the solution is given in the story (and which presumably underlies the other two cryptograms) is of diabolical ingenuity specifically designed to lure the unwary reader to devote much time and labor in perfectly fruitless research, or, rather, in searching for a key book. Even a brief summary of the story behind this item would occupy much more space than can be devoted to it in this bibliography.

(Item 518)

Armenia

424 N. George Mason Drive
Arlington, Virginia
15 August 1949

Mr. Alfred Percy
Elon Road
Madison Heights, Virginia

Dear Mr. Percy:

I must hasten to acknowledge receipt of your most interesting letter of 5 August and to indicate my sincere appreciation of your taking the trouble to write me in such detail.

At the moment I am much engrossed with other matters and have found it necessary to put off dealing with The Beale Papers. However, I do not intend by any means to drop the study which I initiated on them sometime ago. Should I have soon an opportunity to make a visit in your neighborhood, I hope that it will include the making of your personal acquaintance and discussing the matter over a dinner table at which I trust that you would be sufficiently gracious to be my guest.

Thanking you again for your courtesy, I am

Sincerely yours,

WILLIAM F. FRIEDMAN

424 N. George Mason Drive
Arlington, Virginia
15 June 1949

Mrs. Martha Rivers Adams
c/o The News
Lynchburg, Virginia

Dear Mrs. Adams:

I sent a letter addressed to Mr. Alfred Percy, Jr., at Elon, N.C., and then on its return by the post office I sent it to Elon, Va. The latter has also been returned and I, therefore, am writing to ask you if you cannot give me a more complete address so that I might reach Mr. Percy and ask him a few questions.

I am enclosing a self-addressed stamped envelope for your convenience in replying.

With cordial greetings, I am

Sincerely yours,

WILLIAM F. FRIEDMAN

Incl

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THE BEALE CIPHER AS A BAMBOOZLEMENT PART II

Louis Kruh

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ABSTRACT: Based on inconsistencies in the J. B. Ward pamphlet, *The Beale Paper*, statistical stylistic comparisons of the writings of Ward and T. J. Beale, and other analyses, the author concludes that the story of a Beale treasure is a hoax.

KEYWORDS: Beale cipher, Beale Papers, Thomas Jefferson Beale, Robert Morrise, James B. Ward, statistical stylistic comparison.

In 1885, James B. Ward published a pamphlet, *The Beale Papers*, which provided all the information Ward knew about the Beale treasure. Briefly, this was that in 1819 and 1821, Thomas Jefferson Beale, who headed a party of 30 hunters, buried 2,921 pounds of gold, 5,100 pounds of silver, and jewels worth \$13,000 in Buford VA (now Montvale.) In the spring of 1822, Beale left a locked iron box with Robert Morrise which contained two letters to Morrise and three papers with numerical ciphers. Other than receiving a letter from Beale dated 9 May 1822, Morrise never heard from or saw Beale again. In 1862, Morrise gave all the papers to James Ward, who subsequently solved what is known as cipher number 2. It described the treasure, said that it belonged to the people named in cipher number 3, and that its exact location is given in cipher number 1.

In the more than 100 years since Ward recounted these events, there probably have been thousands of amateur and professional cryptanalysts who have tried to solve the two ciphers and who have thoroughly dissected and investigated every detail of the story in an effort to find the treasure. But, despite the massive amount of work, nothing substantial has been added to Ward's story and the two ciphers are still unsolved. It is also strange that the original Beale letters and papers containing the ciphers have disappeared and were never seen by anyone except Ward. This has led to speculation that the Beale treasure is a hoax, possibly concocted by Ward. In an earlier article [2], I described inconsistencies in Ward's account which support that view. These include the following points.

After Ward received the ciphers from Morrise he "arranged the papers in the order of their length and numbered them." But the ciphers identified by Ward as numbers 1, 2, and 3 contain 520, 763, and 618 elements, respectively. Obviously, they are not numbered in the order of their length. But, if order of length does not determine the numbering of the ciphers, how did Ward know which of the two unsolved ciphers was numbered 1 and which was numbered 3? And, how did Beale, who supposedly wrote the cipher message found in number 2, know that

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The Beale Cipher as a Bamboozlement - Part II

it would be deciphered first? If it was not solved first his references to the other ciphers would not make sense. And, if he was confident it would be solved first, why did he not refer to the other ciphers as number 2 and number 3 which would have been the normal and logical thing to do?

	WARD	BEALE
Readability Grades:		
Kincaid	13.3	13.7
Auto	14.5	14.6
Coleman-Liau	10.4	9.7
Flesch	12.0	* 13.1
Sentence Information:	168 Sent., 4,756 Words	96 Sent., 2,837 Words
Average sentence length	28.30	29.60
Average word length	4.62	4.50
Number content words	49.4%	47.4%
Average length	6.36	6.23
Sentence type:		
Simple	15.0%	16.0%
Complex	37.0%	32.0%
Compound	18.0%	20.0%
Compound-complex	30.0%	} 48%* } 52%* 32.0%
Word usages:		
Verb types as % of total verbs		
To be	36%	37%
Aux.	21%	25%
Inf.	15%	20%
Type as % of total:		
Prepositions	12.8%	13.1%
Conjunctions	5.1%	5.2%
Adverbs	5.0% **	4.4% **
Nouns	22.3%	21.1%
Adjectives	12.8% **	11.9% **
Pronouns	9.4%	10.6%
Nominalizations	2.0%	2.0%
Frequency of selected words:		
I	8.9%	8.7%
The	5.4%	5.4%
And	3.6% ***	3.7% ***
Of	3.1%	3.3%
We	1.2%	1.9%
His	2.0%	1.1%
With	1.3%	1.1%

Figure 1.

- * Most good documents of this type have a combined compounded percentage between 6% and 35%.
- ** Adjectives and adverbs are the "only two classes of words likely to repay investigation." [3, p. 101]
- *** "The conjunction AND makes up around 5% of most English text." Morton. [3, p. 37].

Legend for Figure 1.

Also, as others have pointed out [1] why did Beale end cipher number 2 by writing that "paper number one describes the exact location of the vault so that no difficulty will be had in finding it" when that would have been obvious after it was deciphered? The suggestion is that whoever devised the cipher wanted to sell the idea that paper number 1 was worth reading.

A minor issue involves cipher number 3 which is supposed to contain the names and addresses of the 30 members of the Beale party plus the names and addresses of their relatives. For those roughly 60 names and addresses, cipher number 3 has only 618 numbers which appear insufficient to provide the information described.

In my previous paper [2] I also noted that Solomon Kullback, a colleague of William F. Friedman in the Signal Intelligence Service, had written about their work on the Beale ciphers. Their conclusion, based on a statistical stylistic comparison of the writing of Ward with the writing of Beale, was "that the writers of the two texts were the same person and thus that the whole affair was a hoax."

According to books on disputed authorship [3, 5], the most important stylistic comparisons are the average number of words used in a sentence, occurrences of certain words such as AND, use of adjectives and adverbs, and various other uses of words and grammatical structures.

Because these kinds of analyses are best done on a computer, I ended my paper with a request for computer literate Beale buffs to undertake the necessary work. Not surprisingly, there were no volunteers (who wants to debunk the possibility of finding \$30,000,000), but eventually I was able to enlist the help of a friend who works with computers and has access to a software program which analyzes document writing for the purpose of improving readability. He ran the writing of Ward and Beale through the program. For Beale he used his letters of 4 and 5 January and 8 May 1822 to Robert Morris plus the deciphered message of cipher number 2. For Ward he used his pamphlet minus the above noted Beale items and the Declaration of Independence.

Figure 1 displays the comparative data for both Ward and Beale. Note the very close readability grades for both texts according to four different formulae.

Next is average sentence length and not only is there a close resemblance, but the computer report emphasizes that "a good average would be 20 to 25 words" and that both texts show a "very high" average. In other words, both texts deviate from the norm in the same direction.

Also, in two other distinct areas, use of compound sentences and use of the conjunction AND, both texts again are rather close, while deviating from the average.

In the use of adjectives and adverbs, another important measure, the Ward and Beale writings show a close match.

Another analysis deals with word length. The frequency of words with 1-12 letters were counted, normalized, and then plotted on a graph. Figure 2 illustrates the marked similarity between the Beale and Ward texts.

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Normalized Word Length Frequencies – Beale and Ward.

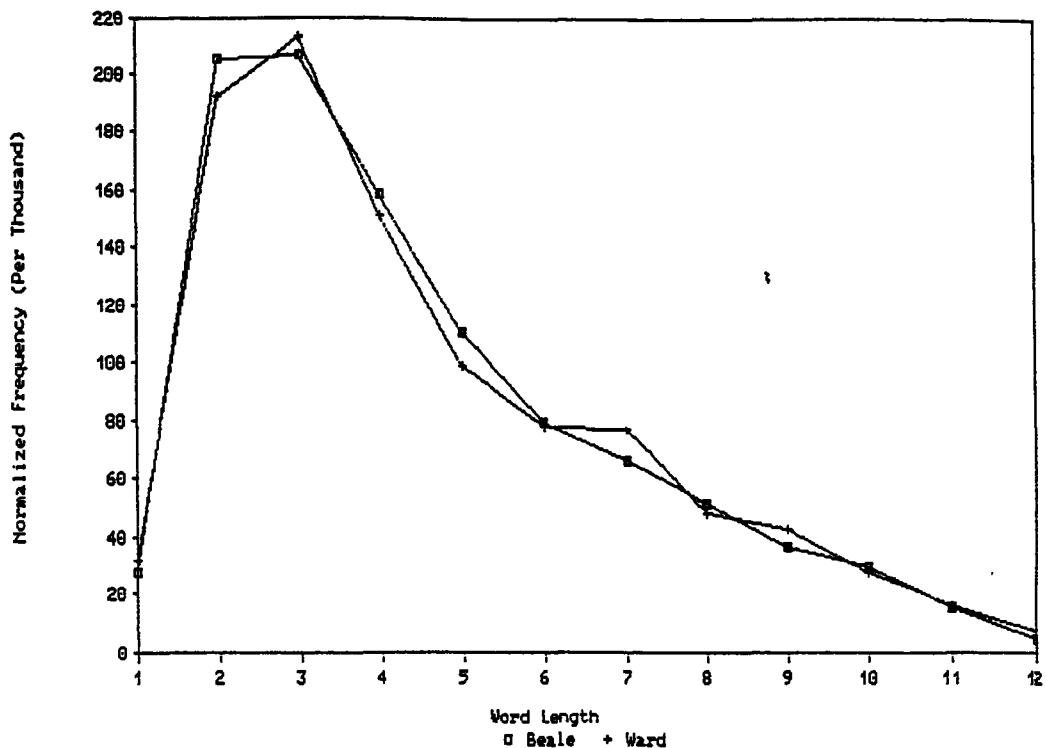


Figure 2.

Presentation of these results was going to be the end of this paper, but while it was being edited I found an article on the Beale treasure in a local historical journal written about the same time as my original paper.[4] And, coincidentally, the author not only expressed similar views, but he also arranged for statistical stylistic comparisons.

Nickell, [4] an investigative writer and an English professor at the University of Kentucky, points out some other inconsistencies in Ward's pamphlet. For example, Morriss says, "It was in the month of January, 1820, while keeping the Washington Hotel, that I first saw and became acquainted with Beale." Nickell asks how that could be, when Morriss was not associated with the Washington Hotel until 1823, and he cites a notice in the *Lynchburg Virginian*, dated 2 December 1823, announcing that Morriss is opening the Washington Inn.

Nickell also questions the use of the words STAMPEDING and IMPROVISED in Beale's 4 January 1822 letter to Morriss, because the earliest known printed source for the former is 1883 and 1837 for the latter. Of course, the words may have been used in speech earlier than their first printed use, but he strongly doubts that the word STAMPEDING would have been in use in that form in 1822. Therefore, the suspicion again is that Ward was the real author in the mid-1830's.

	the	of	and
Beale	6.80	0.00	0.00
Ward	6.12	0.00	0.00
Marshall	8.93	2.86	0.00
Randolph	10.34	0.00	1.82
Tucker	2.90	1.73	1.54

Figure 3. Percentage of Occurrences of Common Words as First Word of a Sentence.

	commas	semicolons
Beale	2.60	0.06
Ward	2.40	0.06
Marshall	0.32	0.02
Randolph	1.60	0.16
Tucker	2.96	0.18

Figure 4. Average Number per Sentence.

	Negatives	Negative Passives	Infinitives	Relative Clauses
Beale	24	6	44	30
Ward	36	7	40	39
Marshall	15	0	21	8
Randolph	* 29	0	18	9
Tucker	14	0	16	34

* Ten of the negatives occur in one letter, in which Randolph tries to justify his participation in a duel.

Figure 5.

A valuable contribution is Nickell's stylistic comparisons which include control samples. These are writings of three other 19th century Virginians, John Marshall and John Randolph for comparison with Beale and John Randolph Tucker, a Ward contemporary, for another comparison.

The occurrences of common words in certain preferred positions, such as the first word of a sentence, is another criterion. Figure 3 shows that while the Beale and Ward writings are similar, they contrast with the three control samples.

Another analysis measured the frequency of use of commas and semicolons and Figure 4 shows how the Beale and Ward texts closely match each other, but differ from the controls.

Nickell provides many other examples, some of which duplicate the analyses I arranged, but with the added advantage of the control samples. All of them indicate that the Beale and Ward writings are the work of the same person.

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Finally, Nickell also had a colleague at the University of Kentucky, Professor Jean G. Pival, who is a specialist in English linguistics and rhetoric, examine the texts. She conducted a study and tabulation of the syntactical features in the Beale, Ward, and control writings and her analysis is summarized in Figure 5. Professor Pival's view is that, "Although two writers might share one idiosyncratic characteristic, the sharing of several extraordinary features constitutes, I think, conclusive evidence that the same hand wrote both documents."

Readers are urged to consult Nickell's excellent article which is available from the Virginia Historical Society, Richmond VA.

To sum up, I believe that a review of all the evidence – the inconsistencies in the Ward pamphlet and the comparative stylistic data – should lead an objective viewer to the conclusion that the Beale treasure is a very clever hoax, likely perpetrated by James B. Ward.

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BIOGRAPHICAL SKETCH

Louis Kruh is an indefatigable researcher and collector of cryptologic memorabilia, particularly cipher devices. His interest in cryptology spans more than 40 years and he responds knowledgeably and promptly to all queries regarding literature and equipment. He has BBA, MBA, and JD degrees and is co-author with Dr. C. A. Deavours, of *Machine Cryptography and Modern Cryptanalysis*, (Artech House, Inc. 1985). Currently he is Director of Advertising for New York Telephone.

Seeking the Key That Unlocks a Buried Treasure

*Mysterious Cache
From Early 1800s
Preoccupies Hunters*

By Deb Riechmann
Associated Press

HAGERSTOWN, Md. — Eleven years ago, Elwood Chaney's landlord handed him a tabloid clipping about modern-day treasure hunters looking for a cache of money and jewels supposedly buried in the 1820s.

Chaney and his wife chuckled about the clipping, and it landed in the trash. But, within hours, the unemployed machine operator was rooting through the garbage trying to find the scrap of paper that has changed his life.

For more than a decade, Chaney has been obsessed with hunting for the mysterious Beale treasure, which some say doesn't exist. To say this friend's and relatives' are skeptical of his endeavor is an understatement.

"They laugh like everybody else and say, 'I'm foolish. Only time will tell,'" said Chaney, 44, who believes the treasure is hidden above ground in Hagerstown.

The treasure was named after Thomas J. Beale, who left Virginia in 1817 to travel with a hunting party, according to accounts written about his trip. The group found gold and silver on the way and decided to take it back to the East Coast for safekeeping.

Beale befriended Lynchburg hotel owner Robert Morrissey, gave him a locked iron box and then wrote to him in May 1822. The letter said the box contained papers describing the hunting group's travels and the location of their fortune.

The letter said the box contained coded messages that would be unintelligible without the aid of a key. The key for breaking the codes was to be delivered in 10 years, but it never arrived; Beale and his party were never heard from again.

Morrissey opened the box in 1843 and found two other letters from Beale and three sheets of paper covered with numbers according to the legend.

Beale's letters explained that one of the ciphers, or coded messages, described the exact location of the treasure. Another described the treasure, and the third gave the names and addresses of people who were meant to share the fortune if the hunters never returned.

Morrissey was unsuccessful in de-



ASSOCIATED PRESS

Elwood Chaney, 44, in his Hagerstown study, has been researching the Beale treasure for 11 years.

ciphering the messages. However, a friend, James B. Ward, supposedly discovered that each number in one of the ciphers corresponded with the first letter of words in the Declaration of Independence.

The message that was obtained revealed that the treasure consisted of 2,921 pounds of gold, 5,100 pounds of silver and jewels . . . Chaney said.

Ward never deciphered the two other coded messages, but hundreds of Beale treasure hunters nationwide, and even a few from Europe, still work today to solve the mystery.

"It's held my fancy for 30 years," said Robert Caldwell, president of the Beale Cipher Association, a group based in Beaver Falls, Pa., that has 112 members nationwide.

"I want to solve those codes so bad I can taste it."

Caldwell, who is scheduled to speak about the Beale treasure at the American Cryptogram Association meeting this weekend in Roanoke, said every treasure seeker has a theory about where it is located.

Caldwell is convinced the treasure was, but no longer remains, in a cemetery in Lynchburg. One woman used the biblical Book of Revelation in an effort to solve the mystery, and others have dug in and around Montvale, Va., northwest of Roanoke.

One of the most famous Beale treasure seekers was Mel Fisher of Key West, Fla., who gained fame and millions of dollars in gold, silver and jewels in 1985 when he found the 1733 wreck of a Spanish galleon three miles offshore in the Florida Keys National Marine Sanctuary.

Fisher dug up portions of Goose Creek near Montvale in the fall of 1989 looking for the Beale treasure, but came up with little more than mud.

Goldie and Barry Lynn, of Bethlehem, Pa., have made several trips to dig for the treasure in the Jefferson National Forest. Goldie Lynn is writing a book, which she claims will reveal what happened to the cache of jewels.

"The treasure is long gone and I know who it went to," she said.

While other treasure hunters focus on trying to decode the messages, Chaney spends his time looking for clues in the Beale correspondence.

Chaney believes the "hunting party" actually referred to a group of Quakers who traveled to Africa in the mid-1800s in an effort to help liberate slaves and return them to their native homeland. He thinks they found the riches in Africa and used it to help the slaves.

Chaney said he believes the Quakers also used the money for

themselves and left it hidden to ensure the prosperity of future generations. The group asked George Alfred Townsend, a local Civil War reporter and author, to write a fictitious story about the treasure that would confuse all others except those who lived in the area, he said.

Chaney has spent years reading Townsend's books and other literary works by authors Lewis Carroll and Mark Twain.

Carroll, a noted cryptographer, and Twain were Townsend's friends, and Chaney believes they also had a hand in writing what he believes is a "fake" story about Beale and his hunting party.

"They are responsible for creating this thing. The whole thing is a setup," Chaney said. "There was never a Thomas J. Beale, believe me."

Chaney has combed the Beale letters, the one decoded cipher and the three authors' books looking for clues that he believes indicate the treasure is in the Hagerstown area. He said only a local man would be able to spot the clues.

He admits that he has no definite proof that the treasure is in Hagerstown. Until he does, he said he will not divulge where he thinks it is located.

"I'm far ahead of the rest," he said. "If they want to go down and dig up Roanoke, let 'em dig."