

BEALE CIPHER 1 AND CIPHER 3: NUMBERS WITH NO MESSAGES

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ABSTRACT This paper's purpose is to give a new method of analyzing Cipher 1 and Cipher 3 and show that there is no key which will decipher them into sentences.

Previous research has largely used statistical methods to either decipher them or prove they have no solution. Some of these methods show that there is a high probability, but not certainty that they are unsolvable. Both ciphers remain unsolved.

The methods used in this paper are not statistical. The evidence given here shows there is a high correlation between locations of certain numbers in the ciphers with locations in the written text that was given with these ciphers in the 1885 pamphlet called "**The Beale Papers**".

Evidence is correlated with a long monotonically increasing Gillogly string in Cipher 1, when translated with the Declaration of Independence given in the pamphlet. The Beale Papers writer was anonymous. and words in the 3 written letters in the 1885 pamphlet are compared with locations of numbers in the ciphers to show who the writer was. Emphasis is on numbers which are controllable by the encipher. Letter location sums are used when they are the most plausible ones found.

Many Declaration of Independence books 1776-1884 were used for comparison in order to show a causal connection.

Evidence supports the statement that cipher 1 and cipher 3 are unintelligible.

It also supports the statement that they were designed to have no intelligible sentences because they are part of a complex game made by the anonymous writer of The Beale Papers.

INTRODUCTION This paper will analyze the 2 unsolved ciphers which first appeared in 1885 in a pamphlet called "The Beale Papers" Three ciphers were in the Pamphlet.

Cipher Two (C2) 762 numbers/locations. No title given

Cipher One (C1) 520 numbers/locations. Entitled "The Locality of the Vault"

Cipher Three (C3) 618 numbers/locations. Entitled "Names and Residences"

The pamphlet also includes 3 written letters. Based on their dates these are:

Letter 1 dated January 4th, 1822. It has 2153 words. It is signed T.J.B.

Letter 2 dated January 5th, 1822 It has 102 words. It is not signed.

Letter 3 dated May 9th, 1822 It has 469 words. It is signed T.J.B.

The "Encyclopedia of Cryptology" defines "Cipher Alphabet" as "The combination of: letters, numbers and/or other figures used to encipher a plaintext message".

Literal alphabets contain only letters. Numerical alphabets contain only numbers. Mixed alphabets contain different kinds of symbols.

A word is made up of symbols. Based on this, January 4th, 1822 is 3 words.

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I used these definitions to count passages that included numbers.

“A Compendious Dictionary of the English Language” Copyright 1806 by

Noah Webster, defines “Cipher” as follows:

- 1 to write obscurely
- 2 The figure or mark (0) in numbers
- 3 The initial letters of a person’s name interwoven

Based on definition 3, the letters T.J.B.in letter 1 and 3 qualifies as a cipher.

The Beale Papers(TBP) uses the name **Thomas J.Beale** on page 8, where the writer quotes innkeeper Robert Morriss on his meeting with Beale. The full name is not used in the TJB Letters or anywhere else. The name “Beale” is not in the letters either.

I used a copy of the original “The Beale Papers” not a modern version.

Since I use exact words, letters, locations, numbers and lines, it is important that a copy of the original version is used.(see references: Matyas or Viemeister)

The anonymous writer says he deciphered Cipher 2 using initial(first) letters of the Declaration of Independence(DOI) as a key. By extension of the definition of cipher, the letters (DOI) could be thought of as a cipher. Letter 3, paragraphs 2 and 3 have consecutive letters (do,i)

TBP contains a full copy of the DOI he used. This DOI is only numbered up to word (816). It is numbered mostly by every 10 words.For example (20) connected them with another and to assume among the powers (30). These are words 21-30.

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There are 5 counting errors:

- 1 (240) to (250) has 11 words
- 2 (470) to (480) **used 2 times**
- 3 (500) to (510) has 9 words
- 4 (630) to (640) has 11 words
- 5 (670) to (680) has 11 words

The net result is 12 words are not counted. If we count from the last word(816) to the end we get a count of **1312 words**. The true count is **1324 words**.

I will call these counts 1312DOI and 1324DOI.

EVIDENCE THAT THE DOI WAS INTENTIONALLY MISCOUNTED

The only words counted in TBP are the words of the DOI. I counted every word in TBP including Cipher 2. It has 160 words.(See Appendix for C2 numbering)

DOI word 147 is "alter"
C2 word 147 is "Locality"

Locality is an important word because TBP reader is searching for the treasure locality.

Both of these numbers are considered not controllable by the encipherer.

They are the result of writing style and message. However, this does not preclude the encipherer from using this correlation by choice.

Letter 3, words **154,155,156,157,158** are "you will find in **addition**"

I numbered every location in all 3 ciphers. If we compare the above word numbers with corresponding locations in Cipher 3 :(Line 9) we get this:

Locations **154,155,156,157,158** are numbers 54,109,128,49,77 **The sum is 417.**

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C3 has never been shown to have a message. There are no blank spaces in C2, Every location is part of an intelligent message. C1 and C3 have never been shown to be filled completely with a message. Provided it is not completely filled with a message, there could be enough blank spaces for clues such as the above.

C2 word 54 is "Gold". The **first 3 numbers in C3 are 317,8,92**. The sum is **417**.

C2 words 154,155,156,157,158 are "Difficulty Will Be Had in" (these are not controllable once a message is written.

Letter 3 word **417 is "game"**. Letter 3 paragraph 3, words :102,103,104,105,106,107,108,109,110,111,112,113,114,115 are "the **game** is worth the candle and we will play it to the **end**". The first word of C2 is "I" made by number **115**. This number is completely controllable by the encipherer.

The modern game of Scrabble gives each letter a number value. The sum of the letter numbers is a player's score for a word, The difference is that in Scrabble, each letter has only one number value. In the DOI each Letter has many number values.

All games must have some type order and the above suggests a type of order even if it is a primitive one.

Changing the word count of the DOI needs an explanation.

The last deposit of silver is **1288** pounds.

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C2 word 87 is Twelve
C2 word 88 is Hundred
C2 word 89 is And
C2 word 90 is Eighty
C2 word 91 is Eight

The sum of the words is 445.
1312DOI word 445 is Depository
1324DOI word 446 is Depository

The first error in word count of the DOI is between (240) and (250) as I mentioned.

This change makes "Depository" word 445 not 446.

C2 never uses the word "Depository". TJB Letter 1 uses "Depository" 2 times,
but none of the letters use the word "Vault". Only C2 uses "Vault" and it does 3 times.

Adding all the words "Vault" and all the words "Gold", "Silver" and "Jewels" gives this:

VAULT word	18
VAULT word	123
VAULT word	150
GOLD word	54
SILVER word	63
GOLD word	85
SILVER word	93
JEWELS word	95

The sum is **681** and 1312DOI word **681** is "**Pretended**".

The encipherer has no control over this sum but once found, the 1324DOI could then

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be miscounted to match 1312 DOI word "**Pretended**".

The 1312DOI is only counted to word (**816**) but C2 uses number 1005 for "X".

Number 1005 is used 4 times in C2.

C2 word 16 Excavation

C2 word 19 Six

C2 word 101 Exchange

C2 word 146 Exact

These are the only words in C2 that contain an "X"

In 1312DOI and 1324DOI word 1005 is "Have" The word "**Have**" has no "X".

Several researchers have tried various word shifts to explain this anomaly.

A reason can be given that does not require "hit and miss" number shifts.

C2 **word 123, VAULT** uses numbers 807,150,409,400,50 (C2 Line 31)

The sum of these numbers is 1816. In C2, **all "Y" letters are made by 1312DOI**

word 811, "Fundamentally". The last letter of a word is used because no DOI word

begins with "Y". A simple equation gives the following:

$$X + Y = 1816$$

$$X + 811 = 1816$$

$$X = 1816 - 811$$

$$X = 1005$$

This is contrived, but it does follow algebraic laws.

EVIDENCE THAT THE DOI IS THE KEY TO ALL 3 CIPHERS

The most universally associated numbers with the DOI are: July 4, 1776 and number 56. 1776 does not occur in TBP. The DOI had 56 signers. The 1312 DOI begins on paragraph **56** of TBP. This is very controllable by the writer.

The writer on pages 8 and 9 **quotes** Innkeeper Robert Morriss (MQ) This has 866 words. Words 363, 364, 365 are "**Thomas J. Beale**".

Letter 3 Paragraph 3 words 56, 57, 58 are "**delegate** your authority"

There were **56 delegates** at the first continental Congress in 1776

Non-leap years have 365 days in a year. The number $1776/4 = 444$ with (0) as a remainder. Recall one of the definitions of cipher is number(0). Therefore, 1776

was a leap year and had 366 days. Beale is word 365 and this is so close to 366

that it could be easily noticed and associated. The Revolutionary war began in

Lexington, Massachusetts in 1775, which was not a leap year and had 365 days.

In C1, number **365** occurs at location **249**. C2 word 52 is "Pounds" DOI word **56**

is "**opinions**" The "o" in pounds is at location **249** and the number is **56**.

Putting number 56 at location 366 in either C1 or C3 would be very obvious.

Instead the sum of locations shows this:.

C1 locations 121 122 123 are numbers 184 360 780 (Line 7)

The locations total **366**. The numbers total **1324**, which is the true **DOI** word count.

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C1 word 366 is number **122**. TBP DOI occupies **122** lines which is not very controllable but the location of **122** in C1 is controllable.

C1 has 520 numbers and therefore 520 locations. C3 has 618 numbers and 618 locations. These values will be considered “controllable” unless evidence suggests they are not. **The sum of all the locations of number 56** in C1 plus C3 is **1592**

C1 number **56** is at location 385.(**Line 22**) In C3 number **56** is at locations 73,236,324,574.(Lines 4,13,17,31) **TJB Letter 1 word 1592 is “Treasure”**

C1 **Line 22** has number 1817. This is a unitless number not a year but it is the only number in the 3 ciphers that is also a Year in TBP. TJB Letter 1 Page 14 says that TJB left Virginia early in 1817. I will mention C3 **Line 22** later.

The 3 ciphers occupy a total of **102 lines**.

Letter 2 has 102 words. It is not signed. If signed T.J.B. like letter 1 and 3, it would have 105 words.

C2 has 39 lines

C1 has 29 lines

C3 has 34 lines

Total is **102 lines**

DOI word **102** is “**Liberty**” and **Bedford** City was called **Liberty** until 1890.

C2 says the **Treasure** was buried in the County of **Bedford**.

C2 is mostly not controllable. C1 and/ or C3 could be controllable if not completely

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filled with messages.

Using the 1312DOI or 1324DOI the same way as was done for C2 produces mostly **“random” letters and no sentences.**

The following suggests there are no messages in sentence form:

TJB Letter 3 paragraph 2 word 170 is **“unintelligible”**

C1 has 520 numbers

C3 has 618 numbers

1312DOI word 1308 is **“fortunes”** 1312DOI word 618 is “people”

TBP DOI **does not use the word “Treasure”**

1324DOI word 520 is “Meantime”

Unintelligible(170) + Meantime(520) + People(618) = Fortunes(1308)

MQ page Page 8 says Beale first met Innkeeper Robert Morriss in 1820

1819 First Gold Deposit

1820 **Meantime** between 1819 and 1821 deposits

1821 Second Gold Deposit

TJB Letter 3 first paragraph has 92 words

TJB Letter 3 second paragraph has 222 words

TJB Letter 3 third paragraph **103** words to the word **“game”**

Total **417** words to the word **“game”**.

Game(103) + Game (417) = 520 words. **C1 has 520 numbers.**

The most credible explanation for the above correlation:170+520+618= 1308 is:

word 170 is not controllable. Number 520 is fixed by words 417 and 103.

C3 number 618 was chosen because it helped make the correlation with “fortunes”.

EVIDENCE THAT THE DATE OF TJB LETTER 3 WAS CONTRIVED

DOI word **129** is “**When**”(any form of government).

I compared over 200 DOI’s **1776-1884** including Jefferson’s first rough draft.

Although this is not a full sample, none of these DOI’s use the word “when”

as above. **All use “whenever”** “When” is a more specific time than whenever.

The year $1822/4 = 455$ with a remainder of 2. Therefore 1822 was not a leap year.

The date of the letter is May 9th, 1822

31 days in January

28 days in February

31 days in March

30 days in April

9 days until May, 9th, 1822

129 days total until May 9th, 1822

DOI word **129** is “**when**”

TJB Letter 3, words **314,315** are “**do I**” first letters of Declaration of Independence.

C1 locations 313,314,315 are numbers 10,6,66.

TBP last paragraph ends with 2 short lines.

“Thus ends the pamphlet” (words 1,2,3,4 of the copyright notice)

“Copyright 1885 by J. B. **Ward** “(words 5,6,7,8,9,10) “**Ward**” is number 10

DOI word 6 is “**human**”

C3 **line 22** deciphers to: J B W made by numbers 120,134,**66**.

Combining gives **6(human) 66 (W in JBW)** These are the **initials of J B Ward**.

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DOI words before word 66 are:1,19,23,40

TJB Letter 1, Page 15, first paragraph words 64,65,**66**,67 are:

Gold And Much Excitement” The first letters are **G.A.M.E.**

This “Game” doesn’t use the letters as a contest but does involve **gold**.

The W in JBW, number **66** is “M” in **G.A.M.E.**

MONOTONICALLY INCREASING GILLOGLY STRING IN C1 verses LTR 3

DOI Words 64,65,**66**,67 are words “ the causes which **impel**. The first 3 letters of impel are “ **IMP**” C1 locations **188** - 207 make this using 1312DOI:

A B C D E F G H I I J K L M M N O H P P Numbers respectively used are:

147,436,195,**320**,37,122,113,6,140,8,120,305,42,58,461,44,106,301,13,408

These are in C1 Lines 11 and 12 The string contains double letters **IIMMPP**

1324DOI does not decipher some of the same letters in this pattern.

TJB Letter 1 Page 15 first paragraph **word 188** is “**Systematize**”

This string begins at C1 **Location 188** and the number is **147**.

C2 word **147** is “**locality**” If we line up C1 locations with the corresponding words

In TJB letter 3 paragraph 2 we have the following:

(A)hands **(B)** of **(C)** a **(D)** friend **(E)** in **(F)** this **(G)** place **(H)** sealed

(I) addressed **(I)** to **(J)** yourself **(K)** and **(L)** endorsed **(M)** not **(M)** to **(N)** be

(O) delivered **(H)** until **(P)** June **(P)** 1832

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Letter "D" is made by word "**Friend**" "D" is made by number **320**

C2 is a book cipher because it uses a numbered DOI to decipher it.

Book ciphers often use line numbers and location of words on a line to find them.

TJB Letter 3 from St. Louis Mo. has 38 lines. **Line 22** has these words:

"Without the aid of a **key** to assist you. Such a **key** I have left in the hands of a"

C3(Names and Residences) has this on **line 22** 120 134 66
J B W

These are the **initials of J.B. Ward** and the numbers total is **320**

From the above string letter D(**friend**) is number **320**

TJB Letter 1 Page 15 first Paragraph, word **320** is "**Thus**"

Substituting **J.B.W.**(320) for "Thus" in the last 2 lines of TBP gives:

J.B.W. ends the pamphlet
Copyright 1885 by J.B. Ward.

T.J.B.and J.B.WARD CORRELATED:C1 and C3 HAVE NO SOLUTION

C3 Locations 411 412 413 **Line 22**

J B W

C2 Locations 413 414 415 416

G O L D Numbers **113,31,102,406** Lines 21,22

C3 Locations 172 173 174

T J B Numbers **32,120,18** Lines 9 and 10

C2 Locations 172,173,174

A R E (Names are Given) Lines 10

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TJB Letter 3 has **469 words**. Words 467,468,469 are T.J.B.

The last paragraph of TBP words 132,133,134 are J.B. Ward

467,468,469,132,133,134 The sum of the words is **1803**.

T J B J B Ward.

TJB Letter 1 word 1803 is “unintelligible” This is on TBP Page 16 Paragraph 3

“unintelligible” is paragraph 3 **word 7**,. **Key is word 10**

MQ Page 8, last Paragraph words **5,6,7** are **“Thomas J Beale”** (See Appendix)

On the last 2 lines (the Copyright notice on the last page of TBP) **word 10 is “Ward”**

The best explanation is the correlation of the sum = **1803** was found early and used

from that point on. It was not predetermined or controlled.

- CONCLUSIONS**
- (1) Cipher 1 and 3 Have no messages.
 - (2) (C1 and C3 are mostly “random numbers”.
 - (3) The 3 Beale Ciphers are part of a complex game by the writer, J. B.Ward.
 - (4) The long Gillogly string numbers, letters and locations were correlated with other words,numbers and locations in the 1885 pamphlet where the ciphers first occurred. The length of the string is connected to the DOI and this is related to the first letters of “gold and much excitement” (game) in TJB Letter 1.
 - (5) Intentional correlations were made by the encipherer by making a connection between lines,numbers,words and letters and C2 numbers when they could be controlled. The 1324DOI was Intentionally miscounted. It was not accidental.

APPENDIX CIPHER 2 Words

I have deposited In the county of Bedford about four(10) **43**
miles from Bufords in an excavation or vault six feet (20) **47**

below the surface of the ground the following articles belonging (30) **142**
 jointly to the parties whose names are given in number (40) **187**
 three herewith. The first deposit consisted of ten hundred and (50) **239**
 fourteen pounds of gold and thirty eight hundred and twelve (60) **289**
 pounds of silver deposited Nov eighteen nineteen. The second was (70) **343**
 made Dec eighteen twenty one and consisted of nineteen hundred (80) **396**
 and seven pounds of gold and twelve hundred and eighty (90) **441**
 eight of silver. Also jewels obtained in St Louis in (100) **483**
 exchange to save transportation and valued at thirteen thousand dollars (110) **545**
 The above is securely packed **in iron** pots with iron (120) **586**
 covers. The vault is roughly lined with stone and the (130) **629**
 vessels rest on solid stone and are covered with others. (140) **675**
 Paper number one describes the exact locality of the vault (150) **724**
 so that no difficulty will be had in finding it (160) **762**

Note: The numbers in () indicate the word number. The bold numbers next to them indicate the locations of the last letter of the word number in ()..
 The bold numbers are based on the 762 numbers that were published
 In The Beale Papers. The original numbers decipher to “ **it ron**” not “**in iron**”
 Number 108 there must be replaced with 10 and 8 to decipher correctly.
 This adds 1 number or a total of 763 numbers. This change is well known
 to Beale researchers..

LETTER 1 Words by Paragraph: 191,61,175,88,165,47,62,172,573,61,114,87,
 Paragraph 13 word 7 is “**unintelligible**”
 Word Total is **1803** Word 10 is “Key”
 Paragraph 10 word 58 is “**treasure**” **word 1592**

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