# CRYPTANALYSIS WITH OSINT

LXUQIBX CC NWX VWMIXAM MWTLY



## Cryptanalysis methods

O1 Ciphertext-based attack

Attack based on selected plaintexts and corresponding ciphertexts

Attack based on matched plaintext (ciphertext option)

O4
Attack based on adaptively selected plaintext

O5
Attack based on selected ciphertext

O6
Attack based on selected key





CIPHERTEXT-ONLY ATTACK







KNOWN-PLAINTEXT ATTACK







CHOSEN-PLAINTEXT ATTACK







BASED ON ADAPTIVELY SELECTED PLAINTEXT







CHOSEN-CIPHERTEXT ATTACK







**CHOSEN-KEY ATTACK** 



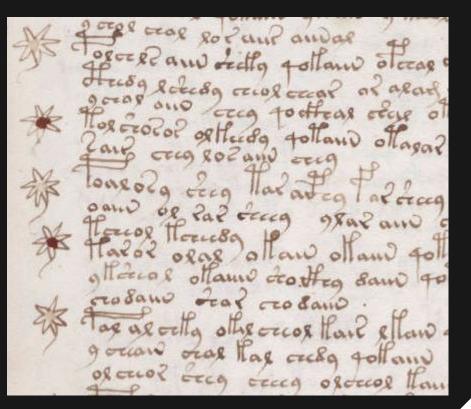
# Unsolved Ciphers



### **VOYNICH MANUSCRIPT**









### **BEALE CIPHERS**



THE BEALE PAPERS.

joint owners of the fund deposited, together with the names of the nearest relatives of each party, with their several places of residence.

#### NAMES AND RESIDENCES.

82 316 24.5 303 86 9.7 106 212 18 37 15 81 89 16 7.81 39 .06 14.43, 216 118 29 55 100 130 172 213 64 8 227 304 611 221 304 819 37 188 29 55 100 130 172 213 64 8 227 304 611 221 304 819 375 128 296 1 18 53 76 10 15 23 19 71 184 120 134 6, 73 8.0 90 200 48 77 26 101 127 936 218 439 178 171 61 226 313 215 103 18 167 262 114. 218. 66, 59. 48. 27. 19. 13. 82, 48. 162. 119. 34. 127. 130. 34. 128. 129. 74 83, 120, 11, 54, 61, 73, 92, 180, 66, 75, 101, 124, 265, 80, 96, 126, 274, 896, 917, 434, 461, 235, 890, 312, 413, 328, 381, 96, 105, 217, 66, 118, 22, 77, 64, 42, 12, 7. 55, 24, 83, 67, 97, 109, 121, 135, 181, 203, 219, 228, 256, 21, 34, 77, 819, 374, 382, 675, 684, 717, 864, 203, 4, 18, 93, 16, 63, 83, 22, 46, 55, 69, 74, 112, 134, 186, 175, 119, 213, 416, 312, 343, 204, 119, 186, 218, 343, 417, 346, 951, 124, 209, 49, 617, 350, 934, 103, 936, 72, 10, 23, 11, 35, 42, 40, 66, 85, 94, 112, 65, 82, 115, 119, 233, 244, 186, 172, 112, 85, 6, 56, 38, 44, 85, 72, 32, 47, 63, 96, 124, 217, 314, 319, 221, 644, 817, 821, 934, 922, 416, 975, 10, 23, 18, 46, 137, 181, 101, 39, 86, 103, 116, 138, 164, 212, 218, 296, 815, 380, 412, 460, 405, 675, 820,

The papers given above were all that were contained in the box, except two or three of an unimportant character, and having no connection whatever with the subject in hand. They were carefully copied, and as carefully compared with the originals, and no error is believed to exist.

Complete in themselves, they are respectfully submitted to the public, with the hope that all that is dark in them may receive light, and that the treasure, amounting to more than threequarters of a million, which has rested so long unproductive of good, in the hands of a proper person, may eventually accomplish its mission.

In conclusion it may not be inappropriate to say a few words regarding myself: In consequence of the time lost in the above

92, 73, 112, 89, 67, 318, 28, 96, 107, 41, 631, 78, 146, 397, 118, 98, 114, 48, 116, 74, 88, 12, 65, 32, 14, 81, 19, 76, 121, 216, 85, 33, 66, 15, 108, 68, 24, 122, 96, 117, 36, 211, 301, 15, 44, 11, 46, 89, 18, 136, 68, 317, 28, 90, 4, 71, 43, 221, 198, 176, 310, 319, 81, 99, 264, 380, 56, 37, 319, 2, 44, 53, 75, 98, 102, 37, 85, 107, 117, 64, 88, 136, 48, 154, 99, 175, 89, 315, 326, 214, 218, 311, 43, 89, 51, 90, 75, 128, 96, 33, 28, 103, 84, 65, 26, 41, 246, 0, 98, 116, 32, 59, 74, 66, 69, 240, 15, 8, 121, 20, 77, 89, 31, 11, 106, 81, 24, 328, 18, 75, 52, 82, 117, 201, 39, 23, 217, 27, 21, 84, 35, 54, 109, 128, 88. 1. 81. 217. 64. 55. 83. 116. 251. 269. 311. 96. 54. 32. 120. 18. 132. 102. 11, 84, 150, 219, 275, 312, 64, 10, 106, 87, 75, 47, 21, 29, 37, 81, 44, 18, 15, 132, 160, 181, 203, 76, 81, 299, 314, 337, 351, 96, 11, 28, 97, 318, 238, 4, 93, 3, 19, 17, 26, 60, 73, 88, 14, 126, 138, 234, 286, 297, 321, 365, 264, 84, 56, 107, 98, 123, 111, 214, 136, 7, 33, 45, 40, 13, 28, 46, 42, 107, 196, 44, 198, 203, 247, 116, 19, 8, 212, 230, 31, 6, 328, 65, 48, 52, 59, 41, 122, 7, 11, 18, 25, 71, 36, 45, 83, 76, 89, 92, 31, 65, 70, 83, 96, 27, 33, 44, 50, 61, 2, 136, 149, 176, 180, 194, 143, 171, 205, 296, 87, 12, 44, 51, 89, 98, 34, 41, 73, 66, 9, 35, 16, 95, 8, 113, 175, 90, 56, 203, 19, 177, 183, 206, 157, 200, 60, 291, 305, 618, 951, 320, 18, 124, 78, 65, 19, 32, 124, 48, 53, 57, 84, 96, 44, 66, 82, 119, 71, 11, 86, 77, 213, 54, 82, 316, 245, 303, 86, 97, 106, 212, 15, 81, 89, 16, 7, 81, 39, 96, 14, 43, 216, 118, 29, 55, 109, 136, 172, 213, 227, 304, 611, 221, 364, 819, 375, 128, 296, 1, 18, 53, 76, 10, 15, 23, 19, 71, 0. 134, 66, 73, 89, 96, 230, 48, 77, 26, 101, 127, 936, 218, 439, 178, 171, 61, 13, 215, 102, 18, 167, 262, 114, 218, 66, 59, 48, 27, 19, 13, 82, 48, 162, 119, 7, 139, 34, 128, 129, 74, 63, 120, 11, 54, 61, 73, 92, 180, 66, 75, 101, 124, 9, 96, 126, 274, 896, 917, 434, 461, 235, 890, 312, 413, 328, 381, 96, 105, 6, 118, 22, 77, 64, 42, 12, 7, 55, 24, 83, 67, 97, 109, 121, 135, 181, 203, 219, 56, 21, 34, 77, 319, 374, 382, 675, 684, 717, 864, 203, 4, 18, 92, 16, 63, 82, 55, 69, 74, 112, 134, 186, 175, 119, 213, 416, 312, 343, 264, 119, 186, 218, 17, 845, 951, 124, 209, 49, 617, 856, 924, 936, 72, 19, 28, 11, 35, 42, 40, 66, 112, 65, 82, 115, 119, 236, 244, 186, 172, 112, 85, 6, 56, 38, 44, 85, 72, 73, 96, 124, 217, 314, 319, 221, 644, 817, 821, 934, 922, 416, 975, 10, 22, 137, 181, 101, 39, 86, 103, 116, 138, 164, 212, 218, 296, 815, 380, 412, 95, 675, 820, 952.

THE

### BEALE PAPERS.

AUTHENTIC STATEMENTS

REGARDING THE

#### TREASURE BURIED

1819 AND 1821.

BUFORDS, IN BEDFORD COUNTY, VIRGINIA,

WHICH HAS NEVER BEEN RECOVERED

RICE FIFTY CENTS



## **ZODIAC**



This is the Zodiac speaking By the way have you cracked the last cipher I sent you? My name is -

A E N + 8 K & M & D N A M

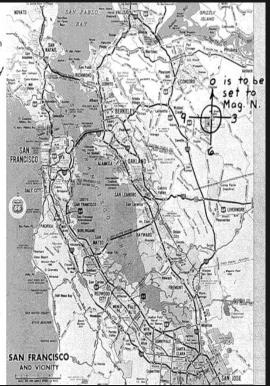


I am mildly cerous as to how much money you have on my head now. I hope you do not think that I was the one who wiped out that blue meannie with a bomb at the cop station. Even though I tolker about killing school children with one. It just wouldn't doo to move in on someone elses toritory. But there is more glory in killing a cop then a cid because a cop can shoot back. I have killed ten people to date. It would have been a lot more except that my bas bomb was a dad. I was swamped out by the roin we had a while back.

This is the Zodiac speaking I have become very upset with the people of San Fran Bay Area. They have <u>not</u> complied with my wishes for them to wear some nice & buttons. I promiced to punish them if they did not comply, by anilating a full School Bais. But now school is out for the sammer, so I fanished them in an another way. I shot a man sitting in a parked car with a .38. 12 SFPD-0

The Map coupled with this code will tell you whome the bemt is set. You have until next Fall to dig it up. +

O T R O Ω ▲ F M A L K O ■ I T Δ O XOFDV & BHCEL + PWA



## OSINT!

Personality influences all our decisions







### ZODIAC

The characteristic style of the letters made it possible to anticipate the encrypted words, and the personality of the Zodiac provided new vectors for deciphering



### **VOYNICH MANUSCRIPT**

Two versions are considered: the author was mentally healthy or mentally ill. If the author was healthy, then this manuscript was influenced by a large number of the author's personality traits. If the author was mentally ill (there was even a

If the author was mentally ill (there was even a theory that the author had glossolalia), it is argued that the author was strongly influenced by mental illness or mania



## VECTORS





**BIOGRAPHY** 



**HOBBIES** 



SEMANTIC AREA OF THE ENCRYPTED LETTER



**ENVIRONMENT** 



### **EXAMPLE**





1

There is a girl Eugenia



4

Eugenia has pages in many social networks



2

Eugenia loves cryptography



5

All pages have the same status



3

She is a member of the crypto club



6

"If you want to hide something, put it in the most prominent place."

## RICKY MCCORMICK'S ENCRYPTED NOTES P.1



(MND MUNE AR REC. J. SPANNARE)

PETRNE JOHNSEN RESERVER NORSE INC

PRESE MARSE OPREHLD UNLONGBE (TFXLETCXL NCBE)

ALPRPPTT XLY PPTY MUSE MEKSENIOROBRASE PRSE

WLORGBRUSE NT OSMENTISE COSTE CTTRSE WIDNESE

ALWUMCBETS MELLOSE RISENRGISME AS NWIDNOBE

(NO PESE NISRENCOSE) NTE GODMNSENCULEROBRAE

(TENE TERNE NCBE) NTE GODMNSENCULEROBRAE

(FIRSE PRSEONDE 7) N(BE)

(CONSE PRSEONDE 7) N(BE)

(PRTSE PRSEONREDE 75 NCBE)

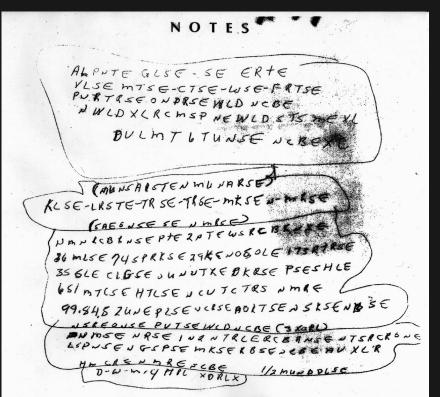
(TF NACMS PSOLEMBDE LUSE TO TE WIDNIBLDNOBE)

(194 WLDS N(BE) (TRFXL)





## RICKY MCCORMICK'S ENCRYPTED NOTES P.2



**L**:



TRUST NO ONE

