# Pablo's Armchair Treasure Hunt 2021 - Solution 

Alcoholus Lubricatum

## Theme and Treasure Location

The main theme of the Hunt is the traditional carol, "The Twelve Days of Christmas". A secondary theme is "cold". The combination of the two clues the village where the treasure is hidden, Cold Christmas in Hertfordshire.

Other themes are prime meridians - the treasure site being very close to the Greenwich Meridian - and the number 36, this being the 36th ATH.

The exact location of the treasure is described in a number of concealed messages which must be taken in sequence to give a complete description of the route to the treasure.

The order of the concatenation is given in a string encrypted with the ADFGVX cipher on page 2 of the Hunt : FINAL ORDER PHOTO TRAIL CARDS PAGE 13 P 12 P 6

The clue from the photo trail on page 14 is EAST FROM CCL PM OAK (CCL = Cold Christmas Lane; PM = Prime Meridian).

The clue from the Christmas cards, on several pages, is HEDGE BY BOX
The clue from page 13 is THIRTEEN STEPS
The clue from page 12 is PATH SOUTH OR TAKE TRACK
The clue from page 6 is SECOND TREE
The map below shows the route to the treasure:


1 - Oak tree at Prime Meridian on Cold Christmas Lane - EAST FROM CCL PM OAK
2 - Post box - HEDGE BY BOX
3-13 wooden steps up - THIRTEEN STEPS
4 - Path south across ploughed field - PATH SOUTH...
5 - Easier route along track - ...OR TAKE TRACK
6 - First isolated tree along track
7 - Second isolated tree - location of treasure - SECOND TREE

## Poster

The poster features the following:
The title "James' Advent Calendar", a reference to James Medhurst, to whom this year's Hunt is dedicated.

A series of pictures depicting historical events which occurred during the month of December. If the date in December on which each occurred is taken as a letter using A=1 etc, the message HAPPY HUNTING is revealed.

In order from left to right and top to bottom, the images are:

| Image | Date | Letter |
| :---: | :---: | :---: |
| False colour mosaic of the moon, composited from images taken on a flyby by the Galileo spacecraft. | 8 December 1993 | H |
| Rosa Parks refuses to give up her seat on a bus during segregation - Vinette Robinson in the Doctor Who episode 'Rosa'. | 1 December 1955 | A |
| Oliver Cromwell sworn in as Lord Protector, from a French chocolate card. | 16 December 1653 | P |
| The Boston Tea Party, from a lithograph by Currier \& Ives in the Library of Congress. | 16 December 1773 | P |
| The coronation of William the Conqueror, from the Bayeux Tapestry. | 25 December 1066 | Y |
| Antarctica photographed on a flyby by the Galileo spacecraft. | 8 December 1990 | H |
| Publication of the first crossword in The New York World. | 21 December 1913 | U |
| Roald Amundsen reaches the South Pole. | 14 December 1911 | N |
| Colin Powell briefing reporters at the White House about the removal of General Noriega from Panama. | 20 December 1989 | T |
| Broadcast of the first episode of 'Coronation Street'. | 9 December 1960 | 1 |
| Women first vote in a UK election, from an illustration in LIFE magazine by Fortunino Matania | 14 December 1918 | N |
| The Galileo spacecraft reaches Jupiter. | 7 December 1995 | G |

The image at the bottom of the page is a still from the 1983 film "A Christmas Story".
In the scene depicted, Mrs Parker has just asked Mr Parker, "Is that another one of your silly puzzles?", a possible reference to the Hunt and likely conversations about it...

The quotation "Santa Claus, what's that? Who's he?" is from the song 'It's the Hard Knock Life', from the musical 'Annie'. "It is me who has the key" refers to the Radio Orphan Annie's Secret Society decoder pin which Ralphie (shown speaking in code in the picture) has in the film.

The calendar in the image has the year 1935 superimposed on it, which indicates that the decoder ring from 1935 should be used, shown below.


This can be used with the number 1 set to the letter $N$ to decode Ralphie's coded message, giving "DUE FOR MY NIGHTCAP?", possibly a reference to when Ralphie decodes the secret message in the film and he is disappointed to find it is "Be sure to drink your Ovaltine", a suitable "nightcap" for someone of his age.

It is interesting to note that the message uses 16 unique letters with no repeats, making it largely impossible to break with cryptanalytic techniques.

## Advent Calendar

Day 1 has pictures of :

- a still from a children's video in the series First Look Memory Verse Motions for "We have the Lord our God to help us", from 2 Chronicles 32:8
- the cricket umpire Simon Taufel giving the signal for "out"
- the actor Laurence Fishburne touching his ear
- the Spitting Image puppet of footballer Paul Gascoigne (Gazza) crying

This is a game of charades (traditional at Christmas parties); the pictures clue, in turn "book", "one word", "sounds like" and "Gazza tear"

This clues gazetteer, an alphabetical index of place names. This reflects that the answers to the following days are place names related to Christmas, in alphabetical order.

Day 2 is a picture of "Swampy, the largest gator ever built" at Jungle Adventures in Christmas, Florida.

Day 3 is a picture of The Fox and Hounds public house, at Christmas Common, Watlington, Oxfordshire. This was the starting point for the directions to the treasure in the 2005 ATH (we thought it looked familiar!).

Day 4 is a map of Normandy, an inverted still from the film "Daddy's Home 2" (set at Christmas) depicting a Ford Flex SUV, and a Google Maps marker symbol. This is a reference to the village of Christmas Pie in Normandy, Surrey, which is contiguous with another village called Flexford, ("Ford Flex", inverted).

Day 5 is a picture of the group Steps, and a picture of a Solitaire game called Bristol. This is a reference to the Christmas Steps, a street in the town of Bristol.

Day 6 is the sentence "We heard down on the farm you will find rhea (not beagles or tortoises as you might have expected)". This is a reference to Christmas Tree Farm in the village of Downe, Kent. Downe (which sounds like "down" - hence "heard down") was the home of Charles Darwin, who travelled on HMS Beagle and discovered the tortoises of the Galapagos. Christmas Tree Farm is a petting zoo, whose stock includes rheas.

Day 7 is the equation for Newton's law of cooling, leading to "itor HBTM". "Itor" means "cold" in a language devised by Newton to record his results, hence "cooling leads to cold". The initials HBTM are used on the Internet to stand for "Happy Birthday To Me". Isaac Newton was born on Christmas Day 1642 (according to the Julian calendar, which was in use at the time). Hence this clues the village of Cold Christmas in Hertfordshire, which is where the treasure was hidden.

Day 8 is a string of letters and numbers which can be broken down into a set of Internet TLDs and football scores - Mexico 1 - Cameroon 0; Ghana 1 - USA 2; Japan 0 - Greece 0; Italy 0 - Uruguay 1. These are the scores of the matches in the 2014 World Cup which took place at the Arena das Dunas in Natal, Brazil - Natal is the Portuguese for Christmas.

Day 9 is the message "Every single day, my sweetheart causes my tetrahedron to expand", followed by a Christmas message in the font Harlow Solid. This is a reference to the traditional carol "The Twelve Days of Christmas", in which gifts are given such that each day, the total number of gifts received is equal to the tetrahedral number for that day. This is a hint to the importance of "The Twelve Days of Christmas" in the Hunt.

Day 10 is a signpost with some chemical element symbols and a tombstone. If the number 5 on the signpost is read as the atomic number for boron (B), and the symbols are interpreted as their atomic number, this converts to the designations of two B roads, B2135 and B2116, which intersect in Partridge Green (green being the colour of the signpost) in Sussex. The tombstone is a reference to Richard Parker ("RP"), who in 1884 was killed and eaten by his
shipmates after a shipwreck - the subsequent court case was Regina vs Dudley and Stephens ("R v D \& S"). Parker is buried in Peartree Church in the village of Woolston near Southampton - this clue is therefore a reference to the "partridge in a pear tree" in "The Twelve Days of Christmas", and another hint to the importance of "The Twelve Days of Christmas" in the Hunt. The Greek letter pi on the tombstone refers to Yann Martel's book "Life of Pi ", in which a boy is shipwrecked with a tiger, also named Richard Parker.

Day 24 is a boarding pass for a flight from San Nicolas Island, California to Stocking Island, Bahamas, a reference to the festive journey of Santa Claus (St Nicholas) who delivers presents to stockings on Christmas Eve. The other parts of the boarding pass hint at how to solve the airport code on page 12 and prime number code on page 13 - the seat number $44 R$ suggests that $R$ is encoded by 44 in the differences in longitude (taking the mod base 26 of 44 gives 18 , and $R$ is the 18th letter), and the flight number $A B C 235$ suggests that $A$ $=2, B=3$ and $C=5$, indicating a prime number code.

## Festive Poem

All that is cold is not coldest, Not all cards that are shown have a twin; The primes, Ptolemy's was the oldest, Answers can be found from within.

From the themes an idea shall be woken, And words from the puzzles shall spring; Renewed shall be spirits that were broken, A letter may look like a ring.

The poem is based on 'The Riddle of Strider' in The Fellowship of the Ring which starts 'All that is gold does not glitter'.

The first line refers to the game where you say 'cold', 'warm', 'hot' when searching for a treasure - the treasure location is cold (i.e. Cold Christmas) but is not 'coldest' in the sense of that game.

The second line talks about the lyrical Christmas cards not all having a twin on the Christmas Card Designs page.

The third line refers to prime meridians (Ptolemy's in his Geographia being the oldest such).

The final line refers to the Five Gold Rings puzzle, in which the letter Os in the hex crossword are the gold rings.

## Page 1

The 12 pictures at the top of the page are each associated with one of the Twelve Days of Christmas, and hence clue the overall theme. The ordering of the images is as a flattened clock, with the top row corresponding to days 10,11 and 12 , followed by 1,2 and 3 , and the bottom being days $9,8,7,6,5$ and 4 .

Top Row :
Day 10 (January 3) - John III Sobieski, King of Poland, known as Jan III
Day 11 (January 4) - swearing in of Nancy Pelosi as Speaker of the House, 4/1/2007
Day 12 (January 5) - construction of Golden Gate Bridge begins, 5/1/1933
Day 1 (December 25) - birth of Humphrey Bogart, 25/12/1899
Day 2 (December 26) - stamp showing Good King Wenceslas on the Feast of Stephen, December 26

Day 3 - (December 27) - splashdown of Apollo 8, 27/12/1968

## Bottom Row :

Day 9 (January 2) - surrender of Grenada, 2/1/1492
Day 8 (January 1) - UK joins the EEC, 1/1/1973
Day 7 (December 31) - Bluebird K7 sets water speed record, 31/12/1974
Day 6 (December 30) - ROYGBIV by They Might Be Giants; Richard of York Gave Battle In Vain; Battle of Wakefield, 30/12/1460

Day 5 (December 29) - death of Thomas Becket 29/12/1170, from Solihull Parish Church https://www.flickr.com/photos/amthomson/5707621270

Day 4 (December 28) - Els Enfarinats festival, December 28
Humphrey Bogart is depicted in a red and white striped hat sucking a red and white straw this is a reference to a marketing campaign by Unigate Dairies in the early 70's with the slogan "Watch out - there's a Humphrey about", which also featured red and white straws.

There are various other Humphreys in the Hunt, which are noted when they appear.
The word search at the bottom of the page clues "a partridge in a pear tree", the gift on the first Day of Christmas.

The overall theme of the word search is the programme ideas suggested to the BBC's chief commissioning editor by Steve Coogan's character Alan Partridge in the episode "A Room with an Alan" of the TV series "I'm Alan Partridge". Several of these are found as strings in the grid:

KNOWING M.E. KNOWING YOU
ALAN ATTACK
SWALLOW
A PARTRIDGE AMONG THE PIGEONS
INNER CITY SUMO
ARM WRESTLING WITH CHAS AND DAVE

YOUTH HOSTELLING WITH CHRIS EUBANK is represented by the names of various youth hostels with Ss replaced with THs, to represent Eubank's lisp: LOCH OTHIAN (Loch Ossian), PEN Y PATH (Pen-y-pas), THLAIDBURN (Slaidburn), BLACK THAIL (Black Sail)

COOKING IN PRISON is depicted in the bottom right corner of the grid, where a number of names of types of cuisine are enclosed by the names of the prisons FORD, SING SING and SLADE: MOLECULAR, GASTRONOMY, NOUVELLE CUISINE, CORDON BLEU, VEGAN

Unused squares in this area spell the message WHERE WAS CLUE TWO?
There are a number of monkeys in the grid, along with the elements which make up brass: CU 29 ZN 30 (symbols and atomic numbers of copper and zinc), MANDRILL, TALAPOIN, LANGUR, CAPUCHIN, TAMARIN, MANGABEY, UAKARI, GUENON, GELADA, HOWLER, LESULA, GRIVET, SURILI, VERVET, DOUC

These clue the expression "brass monkeys", meaning "cold".
There are also a number of terms associated with Christmas itself: STOCKING, JUMPER, TINSEL, LAPLAND, ICE SKATING, CANDLE, MERRY XMAS, ANGEL, BAUBLE, CHILLY, PINE, WIZZARD

Combined with the brass monkeys, these give "Cold Christmas", the treasure location.

The word DAN appears 15 times, a reference to the episode "Brave Alan" of "I'm Alan Partridge", in which he shouts the name of his new friend across a car park a corresponding 15 times.

The message PLAY PONG is found towards the bottom left of the grid - this denotes that a message can be found by following a zig-zag path which changes direction whenever it hits the name of a monkey; an implementation of MONKEY TENNIS, the final programme idea. At the top of the grid, this leads to GAME MARMOSET AND MATCH, a literal description of "monkey tennis".

At the left side of the grid, a similar path results in THIS YEAR'S QUEST TAKES BECKY BETTS...

This is the first half of a message; the second half is found by taking a zig-zag path in double squares between the youth hostel names, to give ...FROM FRETTENHAM TO FAKENHAM.

The letters coloured in red serve as a guide to finding this message. We could say that Fakenham is a "fake" treasure location for this hunt.

The complete message is a reference to the BBC Radio Norwich (home of Alan Partridge) programme "Treasure Quest"; in the specified episode (27 May 2012), clue two (as per the message in the types of cuisine) was located in a pear tree. Hence the puzzle clues "A(lan) Partridge in a pear tree", and the year 2012.

The unused squares spell out a final message:

KNOWING ME AND KNOWING YOU
AHA YOU HAVE FOUND A CLUE
BUT ALAS YOUR HOPES WE DASH
IT WON'T HELP YOU FIND THE CACHE

YOU'VE BEEN CLEVER SO WE WANT TO GIVE YOU A BONUS POINT

AFTER YOU HAVE FOUND THE TREASURE
ON THE WALK BACK AT YOUR LEISURE
MAKE A NOTE OF WHAT YOU'VE SEEN
OUTSIDE OF NUMBER SIXTEEN

This refers to the garden of 16 Cold Christmas Lane, in which there is a monkey puzzle tree; the brass monkeys in the word search mean it too is a "monkey puzzle".

## Page 2

The Christmas cards at the top of the page (in the same style as the one in the Advent Calendar) are clues to songs which were in the UK singles chart in the week of Christmas in previous years. The wording on the card hints at the lyrics of the song, and the date is the date on which the Christmas chart was published in the year in question.

The two cards on this page clue the following songs:

21 December - "Dear Dad..." - "A Boy Named Sue" by Johnny Cash, \#36 in 1969
"There at a table sat the dirty, mangy dog that named me Sue... I'll name him Bill or George or Frank"

19 December - "Dear MM..." - "Maggie May" by Rod Stewart, \#36 in 1976
"I got something to say to you, it's late September..." This song was initially released as a B-side in 1971, hence the PS.

Both of these are songs which were \#36 in the Christmas chart, fitting in with the theme of this page being the number 36 .

There are further Christmas cards in the same style later in the document, listed here for convenience

## Page 4

22 December - "To Jack and Selena..." - "Jenny From the Block" by Jennifer Lopez, \#24 in 2002

Lopez appeared in the films "Jack" and "Selena", and in the TV series "In Living Colour" with Jim Carrey. The PS "It's Noel" is a hint to matching the relevant picture on page 11 - one of the pictures shows a box of Jell-o, which if it is rendered with "no el" becomes J-Lo, Lopez' nickname.

21 December - "Logs are burning..." - "It's Gonna be a Cold Cold Christmas" by Dana, \#4 in 1975
"The log fire's burning bright, oh darling, if only you were here to make it right". The PS "It's here!" is a reference to the location of the treasure in Cold Christmas. The PPS "Somebody found me a match but he is not worthy" is a reference to Dana Carvey's character Garth in "Wayne's World", with the catchphrase "we're not worthy".

24 December - "Dear Clyde..." - "Stan" by Eminem, \#3 in 2000
"Dear Slim, I wrote you but still ain't callin'। left my cell, my pager and my home phone at the bottom". The PS - "It is my girlfriend's birthday tomorrow" - refers to Dido, the English singer who plays the part of Stan's girlfriend in the video, and whose birthday is December 25.

## 21 December - "Hey, Clementine..." - "Stop the Cavalry" by Jona Lewie, \#3 in 1980

"Hey Mr Churchill..." - Churchill's wife was named Clementine. John Lewis is Jona Lewie's real name. The reference to John $L$ is to John Lennon, who had three singles in the top 10 that week due to his recent murder.

24 December - "Mrs Bone..." - "Disco 2000" by Pulp, \#15 in 1995
Deborah Bone was the inspiration for the song - "...and your house was very small..." Björk's "It's Oh So Quiet" was at \#4 this week.

22 December - "Hello, hello, hello..." - "Smells Like Teen Spirit" by Nirvana, \#25 in 1991
"Hello, hello, hello...Here we are now, entertain us..."
Page 9
22 December - "We took a..." - "Walking in the Air" by Aled Jones, \#5 in 1985

The video is taken from the film of The Snowman, and shows a small boy being taken for a flight by the Snowman on Christmas Eve over the sea, and seeing a whale - "Rousing up a mighty monster from its sleep". A satsuma was used for the nose of the Snowman. The backwards letter R is a reference to Raymond Briggs, the author of The Snowman.

22 December - Cyrillic script - "Wombling Merry Christmas" by the Wombles, \#5 in 1974
Letters say "Merry Christmas from Bulgaria" - Uncle Bulgaria was the leader of the Wombles.
23 December - "Riding my Mustang..." - "Ice Ice Baby" by Vanilla Ice, \#2 in 1990
"Rollin' in my 5.0 with my ragtop down so my hair can blow" - he referred to his hair as "the beak". The PS refers to the fact that the single had been at \#1 the previous week.

## Page 12

24 December - "It is not enough..." - "I Lost my Heart to a Starship Trooper" by Sarah Brightman, \#7 in 1978
"Encounters one and two are not enough for me, what my body needs is close encounter three" - a close encounter of the first kind is seeing a UFO; a close encounter of the third kind is contact with an alien being.

25 December - "I will let myself..." - "All I Want for Christmas is You" by Mariah Carey, \#2 in 1994
"I won't even stay awake to hear those magic reindeer click"
20 December - "My horse won..." - "A Fairytale of New York" by The Pogues and Kirsty MacColl, \#2 in 1987
"Got on a lucky one, came in 18 to 1" - Shane McGowan's birthday is December 25.

## Page 13

25 December - "Ooey ooey..." - "The Good, the Bad and the Ugly" by Hugo Montenegro, \#8 in 1968

Phonetic representation of the tune. The PS indicates that each card clues a letter, and that they should be taken in chronological order.

23 December - "I will take on..." - "The Power of Love" by Frankie Goes to Hollywood, \#6 in 1984
"I'll protect you from the Hooded Claw, keep the vampires from your door". The Ant Hill Mob protected Penelope Pitstop in "Wacky Races"; Harmony and Spike were vampires in "Buffy the Vampire Slayer".

The Christmas cards need to be sorted into chronological order, as implied by the PS on "The Good, the Bad and the Ugly". They then need to be cross-referenced against the pictures on page 11, and cards which do not have a matching picture ignored. The chart positions of the songs which have a matching picture can then be decoded using A=1 to spell the message HEDGE BY BOX, a direction to the location of the treasure, referring to the post box on Cold Christmas Lane.

| Card | Song | Artist | Year | Position | Letter |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Ooey ooey oo wa wa <br> wa / | The Good, the Bad and <br> the Ugly | Hugo Montenegro | 1968 | 8 | H |
| Dear Dad (you dirty <br> dog) ... | A Boy Named Sue | Johnny Cash | 1969 | 36 | - |
| Cyrillic letters | Wombling Merry <br> Christmas | The Wombles | 1974 | 5 | E |
| Logs are burning <br> It's Gonna Be a Cold Cold <br> Christmas | Dana | 1975 | 4 | D |  |
| Dear MM ... | Maggie May | Rod Stewart | 1976 | 36 | - |
| It is not enough for <br> me | I Lost My Heart to a <br> Starship Trooper | Sarah Brightman | 1978 | 7 | G |
| Hey, Clementine's <br> other half, | Stop the Cavalry | Jona Lewie | 1980 | 3 | C |
| I will take on the role <br> of the Ant Hill Mob | The Power of Love | Frankie Goes to <br> Hollywood | 1984 | 6 | F |
| We took a last <br> second flight | Walking in the Air | Aled Jones | 1985 | 5 | E |
| My horse won the <br> race | Fairytale of New York | The Pogues | 1987 | 2 | B |
| Riding my Mustang... | Ice Ice Baby | Vanilla Ice | 1990 | 2 | B |
| Hello, hello, hello ... | Smells Like Teen Spirit | Nirvana | 1991 | 25 | Y |
| I will let myself sleep <br> in | All I Want for Christmas is <br> You | Mariah Carey | 1994 | 2 | B |
| Mrs Bone... | Disco 2000 | Pulp | 1995 | 15 | O |
| Dear Clyde, | Stan | 2000 | 3 | C |  |
| To Jack and Selena, <br> $\ldots$ | Jenny from the Block | Jennifer Lopez | 2002 | 24 | X |

The $6 \times 6$ table consists of items associated with the number 36, as clued by the chart positions of the two Christmas cards on the page. The grid is as follows:

| Z(36) German destroyer | $P$ (atriot) Tom Brady, quarterback for New England Patriots in 36th Superbowl | 3 <br> Triangular <br> factor of 36 | 0 <br> 36 Zeros - <br> Rachel Walters' <br> shop <br> Undecillion meaning 10^36 | V(iews) 36 Views of Fuji by Hokusai | 9 Square factor of 36 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Y(ard) <br> Three feet - 36 <br> inches | L(36) <br> Postcode of St <br> Michael's <br> Church, Huyton | G(uangwu) of Han, became Emperor in AD 36 | N(evada) 36th state | T(welve) 36 permutations | I(nfantry) 36th British / Indian division |
| $\begin{aligned} & 6 \\ & \text { Square root of } \\ & 36 \end{aligned}$ | $\begin{aligned} & 7 \\ & \text { Factor of 36-1 } \end{aligned}$ | A(delaide) Football team the 36ers | $\begin{array}{\|l\|} \hline 2 \\ \text { Factor of } 36 \end{array}$ | F(orest Hill) Boris Karloff plaque at \#36 | $\begin{aligned} & 5 \\ & \text { Factor of } 36-1 \end{aligned}$ |
| E(ighteen) <br> Factor of 36 | U(Ister) 36th Ulster division | 8 <br> Triangular root of 36 | W(u-tang) 36 Chambers | K(rypton) <br> Atomic number $36$ | H(ungary) <br> Dialling code $36$ |
| J(ohnson) 36th president | S(obers) Scored 36 in an over | C(razyfists) <br> Film - The 36 <br> Crazyfists | Q(uestions) 36 questions that lead to love | (36)D <br> Video for song by The Beautiful South | 1 <br> Triangular factor of 36 |
| X(36) <br> Experimental aircraft | $R$ (oulette) 36 numbers on wheel | 4 <br> Square factor of 36 | M(afia) <br> Three 6 Mafia | B(arrel) <br> 36 gallons | O(gilvy) <br> Born 25/12/36 |

The first ciphertext on the page appears next to a picture of the Playfair Cricket Annual, which clues that a Playfair code using the $6 \times 6$ grid as the key should be used to decrypt it, resulting in the message USE A 36 CHARACTER VIGENERE FOR 2ND TEXT.

The second ciphertext is encoded using a base-36 Vigenère cipher with keyword VISQUARED (as in 6 squared $=6 \times 6=36$ ). The length of the key is hinted at by the picture of the Ophel Treasure, 36 coins in a 9 by 4 arrangement. The plaintext is WELCOME TO THE 36TH ATH USE SAME GRID AND KEY.

Using the keyword VISQUARED on the ADFGVX ciphertext in the bottom left, using the Polybius square above, gives 2ND KEY 1ST GATECRASHER PLUS COLLEAGUE NO 9.

Using the keyword VIXENRUDOLPH (Rudolph being the 9th colleague of the other reindeer) on the ADFGVX ciphertext in the bottom right, with the same Polybius square, gives FINAL ORDER PHOTO TRAIL CARDS PAGE 13 P 12 P 6

This indicates the order in which the various fragments of instruction leading to the treasure should be used.

The numbers at the bottom of the page are in base 36 cipher, and decode to 36K FOR EQUAL PAY HEROINES. We don't know the significance of this message, although it is possible 36 K could be interpreted as krypton.

## Page 3

This page clues "five gold rings", the fifth Day of Christmas, and is also a tribute to James Medhurst.

The five photographs at the top are five Olympic gold medallists, all called James:
James Guy, 2 gold medals in swimming at Tokyo 2020
James Cracknell, gold medals in rowing at Sydney 2000 and Athens 2004
James Hartung, gold medal in gymnastics at LA 1984
James DeGale, gold medal in boxing at Beijing 2008
Kirani James, gold medal in athletics at London 2012
In the crossword, the first half of the clues are normal cryptic clues; the second half have single letter misprints which need to be corrected before solving. The misprinted letters in clue order give the message ROTATE AROUND TOP RINGS.

| - Nobleman mostly ahead of schedule (4) | EARL |  |  |
| :---: | :---: | :---: | :---: |
| - Seafood is line caught (3) | ROE |  |  |
| - The last portion of Pernod oddly ditched (3) | END |  |  |
| - One repeatedly has trapped gas (4) | NEON |  |  |
| - Three feet of animal's home lying around (4) | YARD |  |  |
| - Regard entrance of mine (3) | EYE |  |  |
| - Lengthen boring weekend (3) | EKE |  |  |
| - Cut away or remove borders of incline (3) | LOP |  |  |
| - Overturned English teacher's pay increase (4) | RISE |  |  |
| - One who facilitates destruction from the south-east by the French rector (7) | ENABLER |  |  |
| - Caught familiar chill (4) | COLD |  |  |
| - Mixing claret wine ultimately leads to unbearable sentimentality (7) | TREACLE |  |  |
| - Provokes one to fly in London and Accra, possibly (7) | INCITES |  |  |
| - Rees-Mogg and pals' work unit (3) | ERG |  |  |
| - Fry battered testes (6) | TSETSE | FRY->FLY | R |
| - Charming creature tours lake in Quito (6) | FAIRLY | QUITO->QUITE | 0 |


| - Secure 2012 mascot with stent (6) | ENLOCK | STENT->SPENT | T |
| :---: | :---: | :---: | :---: |
| - Cast liberated without resistance (3) | FEE | CAST->COST | A |
| - Summary: someone who talks slowly is backwards (5) | RECAP | TALKS->WALKS | T |
| - Tern in stream shortly before noon (5) | RIVEN | TERN->TORN | E |
| - Fanatical Scotsman beginning to interpret death (5) | RABID | DEATH->DEPTH | A |
| - Steal from bouquet rack for singer and activist (7) | ROBESON | RACK -> BACK | R |
| - Collected waste left out in wet broad (3) | SOP | BREAD | 0 |
| - American female following dons born in Uist years ago (6) | NEAFFE | UIST->FIST | U |
| - Last 25\% of nice dish discarded - it steadies the ship (6) | KEDGER | NICE->RICE | N |
| - Dress? Me neither, on reflection (4) | IRON | DRESS->PRESS | D |
| - Time to block trite illustrations (4) | TEIL | TIME->LIME | T |
| - Come into the possession of a shop's workers, reportedly (6) | ACCRUE | SHOP->SHIP | 0 |
| - Carpenter perhaps providing tripe in Myanmar (5) | KAREN | TRIPE->TRIBE | P |
| - Therefore, Grant returns (4) | ERGO | GRANT->GIANT | R |
| - A revolutionary hit crocodile, perhaps (7) | REPTILE | HIT->HAT | 1 |
| - Lorry banter (5) | TRUCK | BANTER->BARTE R | N |
| - Trump's GP found in enclosure next to church (5) | PENCE | GP->VP | G |
| - Plant with lily-like flowers and unusual inner ears (6) | NERINE | EARS->EARL | S |

When entered into the grid correctly, the five gold rings appear as the letter O in all the yellow hexes.


If the letters surrounding the three gold-coloured hexes containing Os at the top are rotated correctly, the message REST IN PEACE can be read along the third row, a tribute to James Medhurst.

## Page 4

In addition to the Christmas cards already described, this page clues "eight maids a-milking", the eighth Day of Christmas.

The bells, shells and gravestones are a reference to the nursery rhyme "Mary Mary Quite Contrary", which includes the line "silver bells and cockle shells and pretty maids all in a row". The bells contain the symbol (Ag) and atomic number (47) of silver.

This song is thought to be a reference to the four maids of Mary, Queen of Scots, known as the four Marys. These were Mary Seton, Mary Fleming, Mary Beaton and Mary Livingston, whose dates of death are recorded on the gravestones.

The first three playing cards represent the "three little maids from school" from Gilbert \& Sullivan's "The Mikado". The first is a picture of a yum-yum doughnut, surrounded by the text MMM MMM (another way of saying "yum yum") and clues Yum-Yum. The second is an inverted picture of Bo-Peep from the "Toy Story" films, and clues Peep-Bo. (The word "mikado" can be read from the letters around the edge if read in the direction of the arrows.) The third is a picture of a blue TIT with the letters SIP and GIN, an anagram of Pitti-Sing, the third maid.

The final playing card is a Queen of Spades, hinting at the card game Old Maid. So in total, eight maids are represented here.

The ciphertext is encoded with the cipher used as part of the Babington plot, another reference to Mary, Queen of Scots. The message reads PART OF THIS GIFT HAS GONE ASTRAY FIND THE CULPRITS IF YOU MAY.

It is not clear what has gone astray, as we appear to have eight maids - this might relate to one of Mary's maids who are the 'gifts' going astray. Mary Hamilton certainly went astray in the ballad and Mary Fleming played in the twelfth day of Christmas pageant in January 1564. The three maids in The Mikado could also be said to have gone astray.

## Page 5

The puzzle at the top of the page clues the four calling birds which were given on the fourth Day of Christmas.

Four of the photos depict "birds" with a connection to telephones, hence "calling birds"; the other two depict items which are not calling birds, but which have a connection to that line in the song, explained by the accompanying text in the pig-pen cipher.

| Goldie Hawn and Mel Gibson in the film | Big AI, an allosaurus from "Walking with |
| :--- | :--- |


| "Bird on a Wire". | Dinosaurs", making a mating call. <br> Pigpen decodes to TOO EARLY - this is a <br> reference to the allosaur being an ancestor of <br> today's birds, so while this is calling, it is not yet a <br> bird. |
| :--- | :--- |
| The logo of Ningbo Bird, a mobile phone <br> manufacturer. | Snooker player Neal Foulds, known as "Buzby", <br> the name of the yellow bird which was British <br> Telecom's mascot. |
| Tina Humphrey with her dancing border <br> collie Chandi. <br> Pigpen decodes to OLD LINE - this is a <br> reference to the fourth Day of Christmas in <br> an older version of the song, which was "4 <br> collie dogs". <br> Another Humphrey reference. | Gertie the Goose pictured in a phone box in <br> Sandon. |

What looks like pig-pen cipher accompanying the other four "birds" is actually no such thing, as explained below.

The next section on the page is a game of "Six Degrees of Kevin Bacon", clued by the thermometer indicating a temperature of six degrees with the text "Made in Philadelphia" Kevin Bacon is from Philadelphia.

The steps are:

1. The Peanuts Movie - Pig-Pen is played by AJ Tecce; Fifi is played by Kristin Chenoweth
2. Deck the Halls - Tia Hall is played by Kristen Chenoweth; Buddy Hall is played by Danny DeVito
3. L.A. Confidential - Sid Hudgens is played by Danny DeVito; Jack Vincennes is played by Kevin Spacey
4. Fred Claus - Clyde Archibald Northutt is played by Kevin Spacey; Willie the Elf is played by John Michael Higgins
5. Pitch Perfect 3 - John Smith is played by John Michael Higgins; Fergus Hobart is played by John Lithgow
6. Footloose - Rev. Shaw Moor is played by John Lithgow; Ren McCormack is played by Kevin Bacon

This is hinting at a transformation from Pig-pen to Bacon - the pig-pen symbols hide a Baconian cipher. Writing 'a' for symbols without dots and 'b' for symbols with dots, and following the first pattern here https://en.wikipedia.org/wiki/Bacon\'s cipher, the four calling bird pigpen words encode NO DOTS.

If the dots are ignored, as suggested by this message, then the 9 squares in the grid can be interpreted as buttons on a telephone keypad, and T-9 predictive text decoding produces the message PEARS BECOME ACORNS AT ZERO DEGREES. This is a reference to the oak tree on the Meridian at Cold Christmas Lane. PEARS is a reference to the single pear tree
associated with the first Day of Christmas; ACORNS a reference to the single oak tree which was planted on the Meridian where it crosses the lane. ZERO DEGREES is both a reference to the Meridian, and to "cold".

The turkey legs puzzle clues "twelve drummers drumming", the twelfth Day of Christmas.
A turkey leg is associated with Christmas and is known as a drumstick. The 14 statements clue 12 drummers and 2 non-drummers. ("Turkey legs for all but two".)

## 1. Not known

2. Neil Peart of Rush - "in a hurry" suggests Rush; Rolling Stone magazine, named after the band whose drummer is Charlie Watts, placed him fourth in their list of best drummers of all time
3. Carl Palmer of ELP - they filmed a live performance of "Pictures at an Exhibition" ("putting on a show") at the Lyceum Ballroom in December 1970 ("Christmas dance") into which were added characters from Marvel Comics including Dr Strange ("strange relatives")
4. Ringo Starr of The Beatles - he provided voice-over for the animated series "Thomas the Tank Engine", suggested by "voice training".
5. Bill Berry of REM - he now farms hay. REM refers to rapid eye movement sleep which occurs while dreaming. The plant bilberry is in the family Ericaceae.
6. Possibly Frank Beard of ZZ Top - he was the only member of ZZ Top without a beard, and appeared in the film "Back to the Future 3" with Michael J. Fox as Marty McFly, but this gives an awkward letter in the acrostic.
7. Roger Taylor of Duran Duran - he shares his name with the drummer in Queen, who has children called Tiger Lily and Rufus Tiger.
8. Animal of the Muppets - he has red hair, and is in the band Doctor Teeth (hence "dentist") and the Electric Mayhem, along with Janice, a flower child whose mother is a Daisy.
9. Will Champion of Coldplay - he once worked as a doorman and Ricky Gervais, who played David Brent, was his boss.
10. Tony McCarroll of Oasis - his biography is called "Oasis: The Truth"; an oasis is a watering hole.
11. Rick Allen of Def Leppard - known as the Thunder God, and has no left arm, thus is "fully dextrous", with "dextrous" meaning right-handed.
12. Don Henley of the Eagles - he was involved with Stevie Nicks, who was previously involved with Mick Fleetwood, whose co-presentation of the Brit Awards with Sam Fox was a legendary fiasco. Crystal Palace FC are known as "the eagles".
13. Jim Keltner of the Travelling Wilburys - he played for the Travelling Wilburys under the name Buster Sidebury, and liner notes in albums by George Harrison and Ringo Starr mentioned a fake fan club for him. Jasper Carrott, real name Robert Davis, once said that Starr was "not even the best drummer in The Beatles".
14. Trent Reznor of Nine Inch Nails (not a drummer) - Nine Inch Nails suggests having long fingernails. He composed the soundtrack for the Disney Pixar film "Soul".

The initials of the bands of which each drummer is a member form an acrostic giving the message A RETRO DECODE T9, which is a hint to the use of T-9 predictive text to decode the pig-pen messages on the page.

## Page 6

This is a table of UK Christmas number one singles (clued by the figure 1), and people awarded the Pipe-smoker of the Year (clued by a pipe and a picture of a rose, hinting at Billie Piper who played Rose in the TV series "Doctor Who").

The entries can be filled by looking up e.g.
https://en.wikipedia.org/wiki/List of UK Singles Chart Christmas number ones and https://en.wikipedia.org/wiki/Pipe_Smoker_of_the_Year

The first row of the table being 1968, entries in the table correspond to clues as follows.

## Number one singles

1969 - "Two Little Boys" by Rolf Harris - 57.91 N 6.83 W is the Isle of Harris
1975 - "Bohemian Rhapsody" by Queen - Queen Elizabeth I's coronation portrait
1987 - "Always on my Mind" by Pet Shop Boys - Nigel Hawthorne once purchased a house from Chris Lowe of the Pet Shop Boys

1991 - "Bohemian Rhapsody" by Queen - Queen Elizabeth I's coronation portrait
1992 - "I Will Always Love You" by Whitney Houston-29.76 N 95.38 W is the city of Houston
2000 - "Can We Fix It?" by Bob The Builder - picture of Robert Adam, architect, a "Bob" who did building

2006 - "A Moment Like This" by Leona Lewis - 58.20 N 6.60W is the Isle of Lewis
2009 - "Killing in the Name" by Rage Against The Machine - picture of Rage Against The Machine

## Pipe-smokers of the Year

1970 - Eric Morecambe - 54.07 N 2.87 W is the town of Morecambe
1974 - Fred Trueman - logo of Yorkshire County Cricket Club for whom he played
1976 - Harold Wilson - picture of Cold Wilson from the TV programme Tweenies
1981 - James Galway-53.27 N 9.05 W is the town of Galway
1993 - Rod Hull - 53.74 N 0.33 W is the city of Hull
1995 - Jethro - picture of Jethro Tull

2000 - picture of Joss Ackland - appeared in the video for the Pet Shop Boys version of "Always on my Mind"

2006 - SI 3368 is the Smoke-Free (Premises and Enforcement) Regulations which came into force that year.

The Pipe-smoker of the Year award was discontinued in 2004, hence the greying of the lower boxes in that column.

There are three references to singles by Billie Piper in the pipe-smoker column. These clue three winners of the award who are used in the Christmas Party puzzle:

1975 - (honey -> bee) - "Honey 2 The Bee" - Campbell Adamson
1984 - (we want to) - "Because We Want To" - Henry Cooper
2000-(some deep thing) - "Something Deep Inside" - Joss Ackland
Around the perimeter of the table are 9 clues which refer to particular years during the period covered by the table. Some of these are prefixed with a 1 , and clue the artist with the Christmas \#1 single in that year; the rest are prefixed with a $\bullet$, and clue the Pipe-smoker of the Year. These questions all refer to items found elsewhere in the Hunt.

| Clue | Explanation | Year | Name | Letter |
| :--- | :--- | :--- | :--- | :--- |
| $\bullet$ - Man who sounds cold started <br> chattering | Michael Parkinson, known as <br> "Parky", slang for 'cold', appears <br> in the pictures on page 13. His <br> TV chat show started in 1971. | 1971 | Lord <br> Shinwell | S |
| 1. Band gave spellbinding <br> performance at Christmas party | ELP's performance of "Pictures <br> at an Exhibition" referred to in <br> the drummer puzzle was at the <br> Lyceum Ballroom in December <br> 1970. | 1970 | Dave <br> Edmunds | E |
| - Frank, James and William returned | lhe return to earth of the Apollo <br> home | 1968 | Peter <br> Cushing <br> Borman, James Lovell and <br> William Anders, shown in the <br> picture clues on page 1. | C |
| 1. James (Black) born | James Cracknell was born in <br> 1972. He is the James who <br> appears in the position of the <br> black Olympic ring in the five <br> rings puzzle. | 1972 | Jimmy <br> Osmond | O |
| •400th anniversary of the death of four | Mary, Queen of Scots is the <br> maids' mistress | 1987 | Barry <br> Norman <br> featured in the eight maids <br> puzzle. | N |


| - P in S opened | From the letter code in the set <br> theory puzzle, P in S is the <br> Baltic Gallery in Gateshead, <br> which first opened in this year. | 2002 | Richard <br> Dunhill | D |
| :--- | :--- | :--- | :--- | :--- |
| - Famous victory in Brighton, recalling <br> famous victory in the Netherlands | ABBA, who appear in the <br> Christmas card pictures, won <br> the Eurovision Song Contest, <br> held in Brighton, with "Waterloo". | 1974 | Fred <br> Trueman | T |
| 1. Partygoer stood in the same place <br> twice | Lord Sutch, featured in the <br> Christmas Party puzzle, stood <br> for election in Bootle twice in <br> this year. | 1990 | Cliff <br> Richard | R |
| 1. First time GOD Ordered to take a <br> Bath | Gus O’Donnell (GOD), featured in <br> the cracker puzzle, received the <br> Order of the Bath for the first <br> time this year. | 1994 | East 17 | E |
| 1. Song featuring T8 was track T4 on <br> \#T1 xmas album | T refers to triangular numbers - <br> in 1994, the \#1 Christmas album <br> was "Carry On Up The Charts" by <br> The Beautiful South, on which <br> track 10 is "36D". A still from the <br> video appears in the 6x6 grid on <br> page 2. | 1994 | East 17 | E |

The first letters of the surnames of the individuals thus identified spell SECOND TREE, a direction to the location of the treasure.

## Page 7 \& 8

These two pages should be taken together as a single puzzle. They clue the six geese a-laying, the nine ladies dancing, the ten lords a-leaping, and the eleven pipers piping from the Twelve Days of Christmas, along with various other aspects of the Hunt.

The first task is to identify the 48 pictures. In addition to identifying the subjects of the pictures, the way they are displayed hints at what category they are a part of:

- Square at 45 degrees - lady (dancing)
- Square at 90 degrees - goose (laying)
- Square raised above baseline - lord (leaping)
- Square depicts a pipe - piper

Some squares need to be substituted with items from other puzzles in the Hunt. These substitutions (and the number of each) are clued by the symbols on the invitation card:

- Three crackers - cryptographers who need to be substituted with names from the cracker puzzle
- Three chickens - French hens which need to be substituted with chickens from the chicken puzzle
- Five maps - map-makers who need to be substituted with names from the oilfield maps
- Three roses - people named Rose who need to be substituted with "pipers" from the Pipe-smoker of the Year table

Once all pictures have been identified and relevant substitutions made, acrostics can be made from the initials of the pictures in each group.

The pipers are moved to the smoking room after the puzzle is solved; this provides a festive message.

Some of the lords, ladies, pipers and geese are not real members of the category; these are the "uninvited guests" used in a later part of the puzzle.

| Original picture | Category | Swapped with | Letter |
| :---: | :---: | :---: | :---: |
| Number of layers (3) - SIX |  |  |  |
| Coriolanus SNOW | Goose |  | S |
| Jeremy IRONS | ??? |  | I |
| The Divorce of Lady X | Lady |  | X |
| Answer : SIX |  |  |  |
| Happening (5) |  |  |  |
| King EDWARD III | Piper |  | E |
| Vincent VAN GOGH | Piper |  | V |
| Lady Natalie EVANS | Lady |  | E |
| Captain Flint | Lord (map-maker) | Lord NELSON | N |
| Lady Campanula TOTTINGTON | Lady |  | T |
| Answer : EVENT |  |  |  |
| What Surrey is but a Christmas tree is not (8) |  |  |  |
| C S LEWIS | Piper |  | L |
| Lady ELLIOT Island | Lady |  | E |
| ANSER ("incomplete answer") | Goose |  | A |
| Cyril FLETCHER | Lady (fake) |  | F |
| Lord INFAMOUS | Lord (fake) |  | I |
| Albert EINSTEIN | Piper |  | E |
| Lady Maeve SHERLOCK | Lady |  | S |
| Lord TRIESMAN | Lord |  | T |
| Answer : LEAFIEST |  |  |  |


| Something you might ask for at Christmas (7,3) |  |  |  |
| :---: | :---: | :---: | :---: |
| Ruby Rose, actor | Rose (actor) | Joss ACKLAND | A |
| NENE Park Stadium | Goose |  | N |
| Baton Rouge Chicken Shack | French Hen | ORPINGTON | O |
| Lord TREES | Lord |  | T |
| Alexander HAMILTON | Lady |  | H |
| Walk like an EGYPTIAN | Goose (fake) |  | E |
| Lord ROSSENDALE (from "Sharpe" obligatory Sean Bean reference) | Lord |  | R |
| Lord RODLEY | Lord (fake) |  | R |
| UMBER CHICKEN | French Hen (fake) |  | U |
| Rene MAGRITTE | Piper (fake) |  | M |
| Answer : ANOTHER RUM |  |  |  |
| Garland production (5,4) |  |  |  |
| Dame Floella BENJAMIN | Lady |  | B |
| EMPEROR Penguin | Goose |  | E |
| Chicken Cordon Bleu | French Hen | AUSTRALORP | A |
| Brian Rose, boxer | Rose (boxer) | Henry COOPER | C |
| Hugh HEFNER | Piper |  | H |
| General William Roy | Goose (map-maker) | BRENT | B |
| Geraldus Mercator | $\begin{aligned} & \text { ??? } \\ & \text { (map-maker) } \end{aligned}$ | Piper OILFIELD | O |
| ORINOCO Womble | Goose (fake) |  | O |
| John Wallis | Lord (code-breaker) | Lord KINNOCK | K |
| Answer : BEACH BOOK |  |  |  |
| Second-rate country like Turkey (5) |  |  |  |
| Yul BRYNNER | Piper |  | B |
| Ada LOVELACE | Piper (fake) |  | L |
| Sieve of Eratosthenes | Lord (map-maker) | ABERDEEN | A |
| Le Coq Sportif | French Hen | NAKED NECK | N |
| Lord DUBS | Lord |  | D |
| Answer : BLAND |  |  |  |
| Dead letters (6) |  |  |  |
| Margaret THATCHER | Lady |  | T |
| Sandford Fleming | Lord | HUTTON | H |


|  | (map-maker) |  |  |
| :--- | :--- | :--- | :--- |
| ONNA JOSHU sake ("Lady of the <br> Castle") | Lady |  | O |
| Alan Turing | Goose <br> (code-breaker) | ROSS Geller | R |
| Lord NORTH | Lord |  | N |
| Screaming Lord SUTCH | Lord (fake) |  | S |
| Answer : THORNS |  |  |  |

Once all the pictures are identified, two further "rooms" can be filled by relocating people.
One is filled with the "pipers" who are smoking; note that all "roses" come from the Pipe-smoker of the Year table and hence are also "pipers":

| Original picture | Category | Swapped with | Letter |
| :--- | :--- | :--- | :--- |
| Smoking area | Piper |  | H |
| Hugh HEFNER | Rose <br> (industrialist) | Campbell ADAMSON | A |
| Cindy Rose, Microsoft CEO | Piper |  | V |
| Vincent VAN GOGH | Piper |  | E |
| King EDWARD III | Rose (actor) | Joss ACKLAND | A |
| Ruby Rose, actor | Rose (boxer) | Henry COOPER | C |
| Brian Rose, boxer | ??? (map-maker) | Piper OILFIELD | O |
| Geraldus Mercator | Lord <br> (code-breaker) | Lord O'DONNELL | O |
| Charles Babbage | Piper |  | L |
| C S LEWIS | Piper |  | YUL |
| YUL Brynner | Piper |  |  |
| Albert EINSTEIN | Answer : HAVE A COOL YULE |  |  |

COOL YULE is an additional clue to Cold Christmas.
The other room is filled with the uninvited guests; the people (and geese) who are not true members of their category:

| Original picture | Category | Letter |
| :--- | :--- | :--- |
|  |  |  |
| Uninvited guests | Goose (fake) | O |
| ORINOCO Womble | Lady (fake) | F |
| Cyril FLETCHER | Piper (fake) | M |
| Rene MAGRITTE |  |  |


| Lord INFAMOUS | Lord (fake) | I |
| :--- | :--- | :--- |
| Screaming Lord SUTCH | Lord (fake) | S |
| Lord RODLEY | Lord (fake) | R |
| UMBER CHICKEN | French Hen (fake) | U |
| Ada LOVELACE | Piper (fake) | L |
| Walk like an EGYPTIAN | Goose (fake) | E |
| Answer : OF MISRULE |  |  |

Joining the answer to this group with the thematic lords associated with this puzzle gives the Lord of Misrule, who presided over the festivities, sometimes known as the Feast of Fools, during the Twelve Days of Christmas.

These relocations give eleven "pipers" in the smoking area, and six geese, nine ladies and ten lords in the remaining rooms, thus clueing the correct number of each gift for the sixth, ninth, tenth and eleventh days of Christmas.

| 6 Geese | 9 Ladies | 10 Lords | 11 Pipers |
| :--- | :--- | :--- | :--- |
| Coriolanus SNOW | The Divorce of Lady <br> X | Lord NELSON | Hugh HEFNER |
| ANSER ("incomplete <br> answer") | Lady Natalie EVANS | Lord TRIESMAN | Campbell ADAMSON |
| NENE Park Stadium | Lady Campanula <br> TOTTINGTON | Lord TREES | Vincent VAN GOGH |
| EMPEROR Penguin | Lady ELLIOT Island | Lord ROSSENDALE | King EDWARD III |
| BRENT | Lady Maeve <br> SHERLOCK | Lord KINNOCK | Joss ACKLAND |
| ROSS Geller | The Musical <br> HAMILTON | Lord ABERDEEN | Henry COOPER |
|  | Dame Floella |  |  |
| BENJAMIN | Largaret THATCHER | Lord NORTH | OILFIELD (Piper <br> Swapped for <br> Mercator) |
|  | ONNA JOSHU | Lord O'DONNELL | C S LEWIS |
|  |  | Lord HUTTON | Yul BRYNNER |

Note - there is a possible error in the setting of this particular puzzle. When the codebreakers Turing and Wallis are swapped, the replacement "crackers" (Kinnock and O'Donnell) are lords. Kinnock becomes the K of BEACH BOOK, swapping for Wallis, and O'Donnell becomes the second O of COOL YULE, swapping for Babbage, in order to make sensible phrases from the acrostics. However, there is ample evidence that Kinnock was a pipe-smoker - there are numerous pictures of him doing so - but we can find no evidence that O'Donnell smoked. So we believe that this part of the puzzle is inconsistent with the
rest, in that the smoking lord (Kinnock) swaps into a place outside the smoking area, and the non-smoking lord (O'Donnell) swaps into the smoking area.

One of the two "gatecrashers" is VIXEN, which can be made by taking letters from SIX and EVENT. We are not sure who or what the other is - perhaps Jeremy Irons, whose picture does not fit into any category?

The door symbols around the rooms may indicate that these are chicken coops - hence the presence of French hens, and a vixen as a gatecrasher - the proverbial "fox among the chickens".

We are not sure of the significance of "mingling" versus "seated - we did wonder if mingled letters needed to be anagrammed to give alternative answers, but were unable to make this work.

## Page 9

In addition to three of the lyrical Christmas cards previously described, this page contains two subsidiary puzzles which supply swaps for the Christmas party puzzle on the preceding pages.

The Christmas cracker puzzle clues three people who swap with code-breakers (hence "crackers") in the party puzzle.
"His domestic career ended..." - Lord Neil Kinnock, under whose leadership the Labour Party lost several elections. He then worked under Jaques Santer (sounds like Santa) at the EU, which also employed his wife.
"In his guise as a holiday animal..." - Ross Geller from the TV series "Friends", who appeared in one episode as "the Holiday Armadillo" and who kept a capuchin monkey called Marcel as a pet. He slept with someone else while "on a break" from his relationship with Rachel Greene.
"Named after a saint..." - Lord Gus O'Donnell, named for Saint Augustine but referred to by the initials GOD. He was the head of the Civil Service, but on his retirement in 2011, his role was split between three people; now in the House of Lords.

The chicken puzzle clues three replacement chickens for the French hens in the party puzzle. The French text can be split into three equal width "stripes", each associated with the colour of the chicken picture at top and the word "poule", to give a representation of the French tricolour. This suggests "French hens", but as the text explains when translated, these are not French but English, Australian and Romanian breeds:
"No, one egg is not enough - this chicken broke all the records 100 years ago" - the Blue Australorp, which broke many egg-laying records in the 1920s; also pun on "un œuf" / "enough".
"It would be best to cover oneself to avoid bites in the region of origin of this chicken" - the Naked Neck from Transylvania, hence the reference to bites (as in vampires biting naked necks).
"A Eurostar trip passes through the region of origin of this chicken" - the Red Orpington, from Kent.

So while these are indeed not "French hens", they swap with three French hens from the party puzzle - Le Coq Sportif, Chicken Cordon Bleu, and the Chicken Shack in Baton Rouge.

## Page 10

This page includes several puzzles around the general theme of "cold".
The questions mostly clue a number of events from the Cold War which took place at or near Christmas, cluing Cold Christmas again. However two of them (those coloured red rather than blue) clue events from an alternate history series called "The Hot War" written by Harry Turtledove, and hence clue "two turtle doves", the gift from the second Day of Christmas.

| Question | Answer | Notes |
| :--- | :--- | :--- |
| 1. This operation was organised <br> by a nut; it was a miracle it <br> worked | $15-24 / 12 / 50$ | The Hungnam evacuation, organised by General <br> Almond, known as the Miracle of Christmas. |
| 2. But what if there was no <br> miracle? | Turtledove | "The Hot War" diverges from reality at Hungnam. |
| 3. A capital city was destroyed, as <br> was a small town visited by <br> treasure hunter | In "The Hot War", Washington DC is destroyed by a <br> nuclear strike, as is Fakenham, which was visited by the <br> treasure hunter mentioned in the word search on page <br> 1. |  |
| 4. This British Bikini had a <br> particularly devastating effect. | Christmas <br> Island | Kiritimati (Christmas Island) was used for British nuclear <br> tests, the equivalent of Bikini Atoll. |
| 5. A test concerning particle <br> physics marked F for the last <br> time, before having to move <br> underground | The final aboveground Soviet nuclear test - subsequent <br> tests were all underground. In the set theory puzzle on <br> this page, F is Novaya Zemlya, which was the location <br> of the test. |  |
| 6. 51 years after an England v <br> Germany football match, the <br> President tried to play fair but it <br> didn't last long. | $25 / 12 / 62$ | 51 years after the Christmas truce during the First World <br> War, President Lyndon B. Johnson ordered a halt to <br> bombing operations in North Vietnam, hoping to spur <br> peace talks. |
| 7. They chose a target with three <br> consecutive letters, so others <br> refused to join in with their <br> games. | $25 / 12 / 65$ | $24 / 12 / 79$ | | USA (and others) boycotted the 1980 Olympic Games in |
| :--- |
| Moscow due to the Soviet invasion of Afghanistan. |


| 8. Octavian was one of three who <br> dispensed with a chemist and her <br> husband. | Nikolai Ceaușescu and his wife Elena, a chemist, were <br> executed by three soldiers: Captain lonel Boeru, <br> Sergeant-Major Georghin Octavian and Dorin-Marian <br> Cirllan. |  |
| :--- | :--- | :--- |
| 9. Boris led the country into a new <br> era as it left the Union. | $25 / 12 / 89$ | The dissolution of the USSR under Boris Yeltsin. |

The numbers at the bottom of the page are a message pertaining to this puzzle, encoded by converting the text using $A=1$ and then subtracting 4 , taking the $\bmod 26$ of the result if negative. This decodes to FIND THE THEMATIC LINKS IN THE QUESTIONS SIX DATES ONE PLACE TWO BIRDS. The answers to the questions are hence the six dates (all on or about Christmas), Christmas Island (the place) and the two Turtledoves (the birds).

The markers on the map of Britain are on locations with names involving the theme of "cold". From North to South:

- A'Chill village
- Snowhope Hill
- Sleights
- Snowdon
- Cooling

The scarf being worn by the UK indicates the overall theme of "cold", and is in the colours of a Humphrey.

The wind symbol on the map in south Wales indicates that the code on the map segments uses the Beaufort cipher, and decodes to FIND THE FIVE INVITED GUESTS. The map segments clue the names of oilfields, which are the names which are substituted in for map-makers in the Christmas Party puzzle, as suggested by the message:

- Piper - the O denotes OILFIELD; this is the word used to substitute in the party puzzle for this entry
- Brent
- Hutton
- Nelson
- Aberdeen (tagged with pm as a reference to the Prime Minister Lord Aberdeen) - a terminal rather than an oilfield

The letters in the set theory puzzle correspond to the following:

| A | Bear |
| :--- | :--- |
| B | Island |
| C | Sea |
| D | Bewick |
| E | Barents |
| F | Novaya Zemlya |
| G | Swimming |


| H | Svalbard |
| :--- | :--- |
| I | Spitsbergen |
| J | Archipelago |
| K | Seven |
| L | Norway |
| M | East |
| N | Christmas |
| P | Baltic |
| Q | Sweden |
| R | Turnblad |
| S | Gateshead |
| T | Swan |
| U | Sven |
| V | Jane Eyre |
| W | Siberia |
| X | Cold Christmas |
| Y | Seven Swans a-Swimming |
| Z | Cold |

The requested answers are X - Cold Christmas, and Y - Seven Swans a-Swimming, which hence clues the treasure location and the gifts for the seventh Day of Christmas.

The images at the bottom serve as additional confirmation of some of the letters, spelling the word TUNDRA, a feature of Arctic landscapes:

T - Swan - Bohun Swan on seal of Humphrey VIII de Bohun
U - Sven - scorer on "I'm Sorry I Haven't a Clue"
N - Christmas - Jason Statham as Lee Christmas in "The Expendables"
D - Bewick - "Bear and the Beehives" from Aesop's Fables by Thomas Bewick
R - Turnblad - John Travolta as Edna Turnblad in "Hairspray"
A - Bear - as D above
Two of these include Humphreys - the first includes Humphrey de Bohun; the second includes Humphrey Lyttleton, the presenter of "ISIHAC".

## Page 11

Pictures on this page are linked to artists who have had singles in the UK charts at Christmas. The title refers to the 70 years for which the charts have been published.

These pictures are used to identify which of the lyrical Christmas cards are used in the treasure location message, as described under page 2.

Each picture either corresponds to an artist with a song in the lyrical Christmas cards, or an artist who has had a song in the Christmas chart (possibly in the same year as one of the unpaired cards).
Images are ( L to $\mathrm{R}, \mathrm{T}$ to B ):

- A kylie boomerang (Kylie Minogue)
- Dana Carvey as Garth in "Wayne's World" (Dana)
- The protest group the Wombles (Wombles)
- A box of Jell-o (Jennifer Lopez - J-Lo - "no el" on the associated card produces J-Lo from Jell-o)
- A pulp fiction novel (Pulp)
- Roy Lichtenstein's picture "Whaam!" (Wham! - 1984, "Last Christmas")
- Denise Richards as Christmas Jones in "The World Is Not Enough" (Aled Jones)
- Kotor in Montenegro (Hugo Montenegro)
- Verse in ABBA form mentioning Swedes (ABBA - 1976, "Money Money Money")
- Mariah FPU (Mariah Carey)
- Justine Chase from X-Factor - her mother was called Destiny (Destiny's Child - 2000, "Independent Women")
- Astronaut Bill Pogue and wife (The Pogues)
- Bright Man from Mega Man 4 (Sarah Brightman)
- Oxford second women's boat crew called Blondie (Blondie-1980, "The Tide is High")
- Painting of the Death of the Historical Buddha - Buddha presumably reaching nirvana on his death (Nirvana)
- Judi Dench and Kenneth Branagh in "The Winter’s Tale" at The Garrick Theatre (possibly a reference to "A Winter's Tale" by David Essex)


## Page 12

In addition to some more lyrical Christmas cards, this page contains two additional puzzles.
The pie chart is a red herring; comparing the percentages to the Cornell University letter frequencies in English, the relevant letters read HUNT ELSEWHERE.

The Christmas departures table encodes numerous messages.
If the initial letters of the country from which each flight departs are taken, they spell LAMBDA DELTA IN DECIMAL.

This is a clue to take the difference between the departure and arrival longitude (lambda) for each flight. If the integer part of these are taken mod 26 and converted using $A=1$, they spell INCLUDE DEPARTURE HOUR.

Adding the hours of the time of departure and again taking mod 26 and converting to letters results in the message FINALLY DEDUCT MINUTES.

Subtracting the minutes of the time of departure and again taking mod 26 and converting to letters results in the message PATH SOUTH OR TAKE TRACK, a direction to the location of the treasure.

## Page 13

This page contains some more lyrical Christmas cards.

AC's Weather Briefs for 1741 - AC is Anders Celsius. He invented the Celsius scale in 1742 so the hint is that these are from just before that. The list of temperatures from Anders Celsius need to be converted from his inverted temperature scale, in which 0 degrees is the boiling point of water and 100 degrees is the freezing point, into conventional Celsius and then encoded to letters using the German Short Weather Code. This produces the message AC FIRST USED HIS HOT AND COLD SCALE ON CHRISTMAS DAY, which clues the year 1742, when Celsius first used the scale.

Celsius advocated the measurement of an arc of meridian in Lapland and participated in an expedition there, used in establishing the Paris Meridian. Santa's Workshop mentioned on the page is in Lapland. One the other hand Celsius may just be a 'zero degrees' clue, cluing the prime meridian and 'cold'.

The first set of pictures are an acrostic, and each has a "cold" connection:

- Michael PARKINSON - "Parky" = cold
- RIHANNA's nose piercing - piercing = cold
- Luis Suarez biting Branislav IVANOVIC - biting = cold
- "MY Propellor" by The Arctic Monkeys - Arctic = cold
- ELSA from Disney's "Frozen" - Frozen = cold
- (gap)
- De Ranke XXX Bitter - Bitter = cold

The first letters clue the phrase PRIME XXX. This may be a clue to the significance of prime numbers in the codes below.

The message about Santa's Workshop includes the word ELF in a section of German text and the word ONCE in a section of Spanish text - both mean ELEVEN in the respective languages.

Taking every eleventh letter from the text below produces the message MY TRUE LOVE COUNTS THE TOP ROW ITEMS BASED ON THE VERSIONS BELOW.

Images:
Three bins, Parrot, Two grated cheese / bowls, Two studded belts, Christmas jumper / snowman / skier, 5 nose goblins + Stimpy, Five beer bottles (Budweiser)

Humphrey the muppet (another Humphrey), Sydney (Opera House / Harbour Bridge), Candelabrum?, Valak the Demon Nun, Articulated lorry / cab, Redneck Island (CMT TV channel/production company)

The numbers at the bottom of the images are a prime number code, as hinted at by the string ABC235 on the 24th December Advent Calendar boarding pass. If the prime factorisation of each is taken, the power of each factor gives its position, and the factor itself gives the letter at that position, based on $\mathrm{A}=2, \mathrm{~B}=3, \mathrm{C}=5$ and so on with letters corresponding to primes. Thus decrypted, the numbers spell out GLACIAL, another clue to the significance of "cold" in the treasure location.

The thermometer bears the text "Made in Durham" and shows a temperature of -18.3 degrees C. This is the lowest temperature ever recorded on a Christmas Day in the UK, in Durham in 1878 - another "cold Christmas".

If -18.3 is added to the numbers to the right of the thermometer, and the results decoded according to the same prime factorisation scheme, the plaintext is THI RTE EN STE PS (THIRTEEN STEPS), a direction to the location of the treasure.

## Page 14

This page shows a number of pictures of locations on the (Greenwich / Reference) Prime Meridian.

If the text between images is arranged into a paragraph, the names of several countries through which the Prime Meridian passes span the lines:

OFF RAN...
...CEDRIC THE IDEAL...
...GERIATRIC TO...
...GO \& PLOUGH...
...AN ACRE BUT HIS...
...PAIN AND ASTHMA...
...LIMITED HIM

FRANCE
ALGERIA
TOGO
GHANA
SPAIN
MALI

Each of the listed number of degrees corresponds to a named (historic prime) meridian on the Earth. If these are ordered according to the location of the relevant picture running South to North, the names of the meridians form an acrostic:

| Degrees longitude | Meridian |  | Latitude | Description of location |
| :--- | :--- | :--- | :--- | :--- |
| -18 | El Hierro | E | 50.789694 | Peacehaven Promenade |
| 29 | Alexandria | A | 50.98309 | Stone monument in Chailey |
| 30 | St Petersburg | S | 50.995549 | The Bluebell line, Sheffield <br> Park Station |
| -16 | Tenerife | T | 51.075792 | Redwood tree |
| 11 | Florence | F | 51.257401 | Metal plaque in Oxted |
| -43 | Rio de Janeiro | R | 51.334291 | Sundial in Addington High <br> School |


| 10 | Oslo | O | 51.421092 | Bromley |
| :--- | :--- | :--- | :--- | :--- |
| 39 | Mecca | M | 51.452467 | Mosaic at Hither Green <br> station |
| -6 | Cadiz | C | 51.476853 | Castle that was later turned <br> into Royal Observatory |
| 12 | Lisbon | L | 51.529 | Abbey Mill on Channelsea <br> Island |
| -9 | Pyramid | P | 51.57 | Bulwer Road bus stop, and <br> faded compass rose by it |
| 31 | Oslo | O | C | 51.50305 |
| -3 | Antwerp / | A | 51.80391 | Tree |
| 10 | Amsterdam | Kyoto | K | 51.834701 | | Prime Meridian oak on Cold |
| :--- |
| Christmas Lane |

The acrostic spells EAST FROM CCL PM OAK, a direction to the location of the treasure, where CCL PM OAK is the oak tree planted on Cold Christmas Lane to mark the site of the Prime Meridian, shown in the last picture.

## Trip reports

## First site visit 29th December 2021 am (MJS)

At this point the instructions referenced by the ADFGVX decode read as follows:
East from CCL PM Oak
[something from the Xmas postcards]
[something from page 13]
Path south or take track
Second tree

We could see various numbered footpaths and bridleways to the south of Cold Christmas Lane, and a promising sounding James's Wood in a plausible location.

After parking in Thundridge I started walking east towards the meridian tree.


Getting warmer...
I observed the meridian oak tree and the meridian post, seasonally decorated.


I tried walking south from the first pathway east of the oak tree, towards James's Wood.


The wood itself was almost entirely fenced off and didn't contain suitable hiding places, but I found a suitable pair of trees, arguably between a path and a track (between the wood and a field). The second tree had plenty of fine hiding places for treasure, which the setters unfortunately neglected to utilise.


At the point of taking this picture, the actual treasure site was about 50 m behind me , but I decided to take a closer look at the paths around James's wood. A while later, after trying out some of the other paths from CCL east of the oak tree, it was time to head back.

## Second site visit 29th December 2021 pm (SPL)

A second expedition was made on the afternoon of 29 December after the phrase THIRTEEN STEPS had been decrypted and the steps in question identified on Google Maps, thus fixing the correct southbound path. Looking at the map and overhead imagery, the western end of the small copse directly to the south of the steps seemed to be the most likely location for the necessary two trees.

It rapidly became clear that the footpath across the field was impassable due to having been hploughed, so I used the track to the east to access the copse.


The western end of the copse, while containing several trees with possible hiding places, turned out to be completely under water and was quickly eliminated. I then investigated the eastern end of the copse, but there were no obvious "first" or "second" trees, and the trees there lacked any suitable hiding places.

Finally, I checked the trees and bushes near the top of the steps in case the treasure had been hidden much closer to the steps than expected, but again, there were no obvious hiding places and no trees which could be regarded as "first" or "second", and by this time the light was fading fast, so I called it a day.

## Third site visit 30th December 2021 pm (MO)

After these two unsuccessful trips the team pored again over the maps and aerial images of the area. Eventually we narrowed down the likely possibilities to just a small number of trees, all more or less on the path that runs towards Cold Christmas from the north end of Musley Hill in Ware.

It'd be a breezy 30 or 40 minutes' stroll over lush rolling pasture, I estimated... but I hadn't reckoned with the mud! As each step sank deeper into the ground it looked like it would be more like two hours of squelching, which would have brought us close to dusk. We were on the point of giving up; a fine drizzle started to fall from the increasingly leaden sky and trickle down our increasingly damp necks.


But just at that moment, far in the distance, we caught sight of the celebrated 'White Stag of Stevenage' (celebrated by the Daily Mail at any rate). As Robert Baden-Powell said:

The White Stag has a message for you... [it leads you] in the joy of the chase to new and fresh adventures, and so to capture happiness

That seemed something worth having, so we decided to carry on.

At our current state of decoding the messages we had '..C.ND TREE' from page 6 of the hunt. Although this was clearly 'SECOND TREE', one of our team had helpfully pointed out that it could read 'ASCEND TREE'. I certainly wasn't planning on any ascents of any trees whatsoever until I had exhausted all other possibilities, although some of the trees did offer tempting hiding places only accessible by climbing them.

After a little rootling in and around a couple of wrong trees, we eventually spotted the box not visible from the track, but fairly conspicuous once you are on the correct side of the tree, trespassing in the adjacent field.


We thought that we had made a slow start on the hunt, many of the team having other commitments this year that they felt they should prioritise, such as recovering from certain infectious diseases. We were therefore both delighted and surprised to find that no-one seemed to have got there before us.
[Note from another team member: I'm not sure the two team members with covid would describe it as 'commitments this year that they felt they should prioritise' :-) ]


So another hunting year passes and yet more swag gets crammed into the already overflowing Alcoholus Lubricatum trophy cabinet. Our thanks to the Urban Marsupial Orchestra for a most entertaining and very Christmassy hunt, and a fine tribute to James Medhurst.


