

Armchair Treasure Hunt 2014

Solution compiled by BRUCE HINDSIGHT

Summary

The puzzle has five principal parts: a genetic code, a quiz, a picture quiz, four sets of boxes establishing locations ('bases'), and a jigsaw.

The genetic code explains what to do with the solutions to the quiz questions: each answer (apart from the missing Q42) provides a letter pair and a five-character sequence. The five-character sequences yield a message explaining how to find the treasure site by intersecting two lines joining pairs of the 'bases'. The letter pairs spell out acrostics confirming details of the four 'bases'. In combination with the chromosome diagram on p.12, they also yield the final steps to the treasure.

Pictures in circular vignettes, when identified, yield a one-one correspondence with the answers to the questions. Jigsaw pieces on the reverse of these vignettes can be assembled to discover a discouraging message ('this is not the correct solution'), with one piece missing. The jigsaw can be re-solved by putting the vignettes in order, *boustrophedon*-style, using the numbering of the corresponding questions. The missing piece (corresponding to the treasure) is now in the shape of an X in location 42. Four of the vignettes, which also relate to the four 'bases', now line up in the jigsaw, creating lines which intersect at the missing piece.

The puzzle is themed around deoxyribonucleic acid (DNA) and *The Hitchhiker's Guide to the Galaxy* by Douglas [Noel] Adams (whose initials are also DNA). The number 42 (the answer to "the Ultimate Question of Life, the Universe, and Everything") variously represents the centromere of a chromosome and the location of the treasure. There are a few **UREVATs**.

Full details of the solution follow.

Answers to the quiz and the picture quiz

1. The BBC television series *Grange Hill* was set at a mixed ('co-educational') comprehensive school. Its theme tune "Chicken Man" by Alan Hawksaw was shared with the ITV game show *Give Us a Clue*. **Denys Hawthorne** played the first head teacher, Mr 'Tweety Bird' Starling. The picture shows a sausage from *Grange Hill's* animated title sequence.
2. Marvin is the "paranoid android" in *The Hitchhiker's Guide to the Galaxy*. The animated music video for Radiohead's song 'Paranoid Android', directed by Magnus Carlsson, was censored by MTV to remove bare-breasted mermaids. **Ed O'Brien** played the cabasa (among other instruments) on the song. The picture shows Robin, the protagonist from the music video.
3. The *Scary Movie* series of five (to date) films was created by the Wayans brothers (Keenan, Shawn and Marlon). In the first film in the series, **Cheri Oteri** played reporter Gail Hailstorm (hence the pun on *weather* girl). The picture shows the mask worn by the character 'Ghostface' in the film.
4. After the battle of Asculum in 279 BC, King Pyrrhus of Epirus said (according to Plutarch), "ὄν ἔτι μίαν μάχην Ἰωμαίους νικήσωμεν, ἀπολούμεθα παντελῶς." In the Loeb Classical Library translation, that's 'If we are victorious in one more battle with the Romans, we shall be utterly ruined.' The picture shows two crescent moons, as might be seen from the two-mooned planet *Pyrrus* in Harry Harrison's *Deathworld* novels.
5. Bridgett Riley was a stunt double for the Yellow Ranger (played by Thuy Trang) in the TV series *Mighty Morphin Power Rangers*. The Blue Ranger was played by **David Yost**. The picture shows a *blue Ford Ranger* truck.
6. Reigning champions Spain were eliminated from the 2014 football World Cup after finishing third in group B, suffering a 5–1 defeat to the Netherlands at the Arena Fonte Nova in Salvador, and a 2–1 defeat to Chile at the Maracanã Stadium in Rio de Janeiro. 'Fonte Nova' means 'New Fountain' in Spanish, and 'Maracanã' means 'green bird' in Tupí–Guaraní. The IANA 2-letter country code for Spain is **ES**. The picture shows the FIFA World Cup trophy.
7. In the novel by Charles Dickens, **Oliver Twist** escaped from the workhouse and fled to the smoke ("a colloquial name for London"—*OED*) where he met the pickpocket or 'dipper' Jack Dawkins (alias 'The Artful Dodger') who shares a surname with notable atheist Richard Dawkins, friend of D[ouglas] N[oel] A[dams]. The picture is an illustration of Oliver Twist by George Cruikshank.
8. Architect **Frederick Olmstead** designed the gardens at Rough Point in Rhode Island, as well as Ocean Parkway in Brooklyn, which runs from Church Avenue at the north end to Surf Avenue at the south end. The picture shows part of the New York City Subway, with the Ocean Parkway stop on the Culver Line circled.



9. In the Tom Stoppard play *Arcadia*, the character **Bernard Nightingale** refers to mathematician Valentine Coverly as “Brideshead regurgitated”. The picture shows another *Arcadia*—a ship operated by P&O Cruises.
10. The title track on the 1976 album *Albedo 0.39* by Evangelos Odysseas Papathanassiou (better known by his professional name ‘Vangelis’) contains the lyrics ‘**Obliquity of the ecliptic**: 23 degrees 27 minutes 8.26 seconds’. The obliquity of the ecliptic is the angle between the Earth’s axis of rotation and the plane of the Earth’s orbit around the sun. The picture shows Vangelis at the premiere of the film *El Greco*. The footnote clues Vangelis’s real surname and the date of the album.
11. Fred Baur, the inventor of the packaging for the ‘Pringles’ brand of saddle-shaped crisps, obtained his Ph.D. at **Ohio State** University. Part of his cremated remains were interred in a Pringles can. The foil-lined cylindrical Pringles cans act as UHF resonators, and are sometimes used by hobbyists to make ‘Cantennas’. The picture shows a stack of Pringles.
12. A 1791 song by Robert Burns begins with the lines:

Ae fond kiss, and then we sever;
Ae fareweel, alas, for ever!
Deep in heart-wrung tears I'll pledge thee,
Warring sighs and groans I'll wage thee!

The song was recorded by **Karan Casey** on her album *Ships in the Forest*; conversely, a *forest in a ship* is to be found aboard the hull of the SS *Ayrfield* in Homebush Bay, Sydney. The picture shows a still from the 2004 film *Ae Fond Kiss ...* directed by Ken Loach.
13. The annual **Sydney to Hobart** Yacht Race is nicknamed the ‘Blue Water Classic’. It shares this name with the Bluewater shopping centre in Kent. The picture shows a bus on route 492, from Sidcup Station in southeast London to the Bluewater shopping centre.
14. In July 1990, soon after the fall of the Berlin Wall (the ‘political events’), **Bryan Adams** sang the Pink Floyd song ‘Young Lust’ at the concert *The Wall—Live in Berlin*. The picture shows another Ad[d]ams with a telephone: in this case, ‘Thing T. Thing’ from the 1960s *Addams Family* television series. The names tie in with the (Douglas) Adams theme.
15. Canadian jazz pianist **Oscar Peterson** (pictured) was nicknamed the ‘Maharaja of the keyboard’, and played piano on the album *Zoot Sims and the Gershwin Brothers* on which Zoot Sims played the saxophone (although a ‘woodwind’ instrument, Zoot’s saxophone was, typically, made of brass).
16. Georg Philipp Telemann’s 1728 opera *Miriways* sounds like (a racist caricature of) the Japanese pronunciation of Milliways (the ‘restaurant at the end of the universe’ in *The Hitchhiker’s Guide to the Galaxy*). In the opera, the rôle of the the Pashtun emir Miriways is sung by a baritone; he represents the historical Mir Wais Hotak (pictured), who founded the Hotaki Dynasty of Afghanistan in 1709. Some time after 1722 (the dynasty’s fourteenth year) his son



Mahmud went to war with Persia; this grew into a conflict with the **Ottoman Empire**. The year 1722 (and hence ‘fourteenth year’) is almost certainly wrong. It seems to be based on the Wikipedia article titled ‘Ottoman-Persian War (1722–1727)’. Nothing in that article suggests any hostilities were afoot in 1722. We consulted a number of specialist works on the fall of the Safavid dynasty and none of them suggested that any of the parties thought there was war between the Ottomans and the Hotakis until at least 1723. In particular the heir to the Safavid throne was petitioning the Ottomans to intervene until 1723—something he would not have done had they thought war existed.

17. A *meunière* in French is a miller’s wife, so her husband is a miller; the 1849 opera *Luisa Miller* is by composer Giuseppe Verdi, whose name might be translated into English as ‘Joe Green’. The opera is based on the 1784 play ***Kabale und Liebe*** (‘Intrigue and Love’) by Friedrich Schiller (pictured).
18. Rimini Protokoll’s ‘documentary theatre’ work *Call Cutta* used employees of a call centre in Calcutta to tell the story of Indian nationalist **Subhas Bose** (pictured).
19. Actor **Bernard Youens** was a regular on the ITV soap opera *Coronation Street*, where his character Stan Ogden was married to Hilda, played by Jean Alexander. William Roache’s autobiography says, ‘Another person who made his admiration of the *Street* known was Laurence Olivier, and he actually agreed to be in an episode. He was going to play a tramp outside a department store as Hilda Ogden tried to be first in the queue to buy a cheap colour television, but he then had to do some re-shoots for the film *Marathon Man* and wasn’t able to appear.’ The picture shows the Rovers Return Inn, the pub in *Coronation Street*.
20. **Ross Perot** (pictured) ran for President of the USA in 1992; he was mocked for his Texas accent and for his re-entrancy to the contest in October after having withdrawn from it in July.
21. At the second International Frédéric Chopin Piano Competition in 1932 there was a tie for first place. The winner, Alexander Uninsky, was decided by a coin toss, leaving **Imre Ungar** in second place. The picture shows a bust of Chopin.
22. E[lizabeth] L[ouisa] Moresby wrote under various pseudonyms: her 1927 novel *The Thunderer: A Romance of Napoleon and Josephine* appeared under the name **E. Barrington**. ‘The Thunderer’ is also a nickname for the *Times* newspaper. The picture shows Napoléon Bonaparte, from an 1812 portrait by Jacques-Louis David.
23. In the 2010 video game ***Fruit Ninja*** by Halfbrick Studios, gameplay involves slicing fruit in half. The picture shows a model from Kawasaki’s ‘Ninja’ series of sport motorbikes.



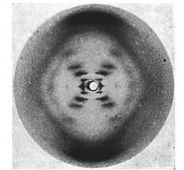
24. Negroni sbagliato (pictured) is a cocktail containing sparkling wine, vermouth, and Campari. A series of 1970s television adverts for Campari featured actress Lorraine Chase (*chase = hunt*). In one advert she is asked, 'Were you truly wafted here from paradise?' to which she replies in a strong Cockney accent, 'nah, **Luton Airport**'.
25. For the 1996 spoof celebrity cookbook *In the Kitchen with Miss Piggy*, actress Jodie Foster contributed a recipe for penne with broccoli rabe (pictured), General 'Stormin' Norman Schwarzkopf contributed a recipe for peach pie, and cellist **Yo-Yo Ma** contributed a recipe for barbecue spare ribs with beer and honey (somewhat tastelessly, given the titular chef).
26. **Kenneth Evans** attended Clare College, was ordained 76 years ago in 1938, and became Bishop of Dorking in 1968. The post of Bishop of Dorking is a 'suffragan' bishop (within the Diocese of Guildford), meaning it had no associated cathedral. The picture shows the back of Thirkill Court, Clare College, Cambridge.
27. *Sintel* (2010) is the third animated short film by the Dutch non-profit Blender Foundation. 'Large-Lucre Lapine' is a (facetious) translation of *Big Buck Bunny* (2008), their second film. Their first was *Elephants Dream* (2006). The picture shows the character Gamera from *Big Buck Bunny*.
28. In the 1991 *Addams Family* film, **Pugsley Addams** (Jimmy Workman) and his sister Wednesday (Christina Ricci) open a lemonade stand, serving a poisonous drink that causes the butler Lurch to spit flames when he tries it. The picture shows Carolyn Jones as Morticia Addams in the 1960s *Addams Family* television series. Cf. the Douglas Adams theme.
29. Each year the participants in the Armchair Treasure Hunt seek treasure; another group involved in this pursuit were the Bastable children from *The Story of the Treasure Seekers* by E. Nesbit, who lived in New Romney, Kent. The picture shows Keira Knightley as the Princess in the 1996 film *The Treasure Seekers*.
30. '*Helicobacter pylori* is highly susceptible to bismuth, a heavy metal with antimicrobial activity linked to its effect on bacterial iron uptake.' [Bland *et al.*, 2004.] This element (whose crystal is pictured) has symbol **Bi**.
31. Ian Dury was asked to write the libretto for the musical *Cats*, but refused on the basis that he could not stand Andrew Lloyd Webber's music. The album *Laughter* by Ian Dury and the Blockheads (whose cover is pictured) includes the song 'Yes and No (Paula)', which contains the lyrics 'Have you got a clarinet?' to which the answer is '**Yes and no**'.
32. The hymnary of the Lutheran Church (Missouri Synod) contains the hymn 'Earth and all stars' which features the lyrics:
 Classrooms and labs!
 Loud boiling **test tubes!**
 Sing to the Lord a new song!
- The picture shows lab equipment, including a rack of test tubes.



33. Dutch painter **Hendrik Verschuring** was a '[Jan] Both pupil', a contemporary of Aelbert Cuyp, 'often decorated his landscapes with soldiers on horseback', and guided Joan Huydecoper II, the son of the burgemeester of Maarsseveen, on a tour of Italy (*huid-koper* = *pelt-buyer*). The picture is *Italianate Landscape with Travellers on a Path* (1630–1652) by Jan Both.
34. The See or **Diocese of Ely** is an isolated area in the fens of Cambridgeshire; the name 'Ely' is thought to have originally meant 'district [or island] of eels'; eels belong to the genus *Anguilla*. The picture shows a dish of eels with mashed potatoes and parsley liquor.
35. The pop group **Scritti Politti** released the song 'Jacques Derrida', named after the French deconstructionist philosopher (pictured), on the Rough Trade record label. The name 'Scritti Politti' is a deliberate misspelling of the Italian *scritti politici* [political writings or works]; we think 'political opere' may be an analogous misspelling (*opera* = *works*). Alternatively it is simply the Italian form of the plural ('works'), and hence a near synonym of *scritti*. The picture is from a film clip "Jacques Derrida on American Attitude" in which Derrida's concluding *voilà* has been mistakenly (and amusingly) subtitled *viola*.
36. The Iron Bridge over the River Severn near Coalbrookdale in Shropshire, now a scheduled ancient monument, was built by Abraham Darby III from the (then) new material **cast iron**. The picture shows the rose cultivar 'Abraham Darby'.
37. **Hazel Scott** was a jazz and classical pianist and singer. She was featured in the 'From Bach to Boogie-Woogie' concerts organized by the Café Society nightclub in New York, and played herself in the 1945 film *Rhapsody in Blue*. The picture shows Fred MacMurray and Madeleine Carroll on the poster for the 1939 film *Café Society*.
38. Clothing retailer **Urban Outfitters** (*urban* = *oppidan*) was forced to withdraw the 'Jesus Dress Up' set of fridge magnets by organizations including onemillionmoms.com and onemilliondads.com. The product featured a magnet of Jesus on the cross and a collection of dress-up clothes including a red devil costume; the picture shows someone dressed as a red devil.
39. **Richard Daft's** (*daft* = *crackers*) contributions to the study of organizations includes a division of their life cycle into Entrepreneurial, Collectivity, Formalization and Elaboration stages [from his book *Organization Theory & Development*, p.326]. The picture shows a *cycle* path in Harlow, Essex, featured in Warrington Cycle Campaign's 'Facility of the Month' for September 2007.
40. **Chris Evans** was sacked from Virgin Radio in 2000 after a drinking binge that included (among other things) five bottles of Dom Perignon champagne. Evans had previously presented a show called 'Too Much Gravy' and described Radio 1 head Richard Bannister as the 'Fat Controller'. The picture shows a different Fat Controller, from the 'Railway' series of books by the Rev. W. V. Awdry.



41. **Henry Irving** played Hamlet in 108 performances opposite Ellen Terry as Ophelia (Hamlet tells Ophelia ‘Get thee to a nunnery ... Or if thou wilt needs marry, marry a fool’). They also played Shylock and Portia in *The Merchant of Venice*, and Benedick and Beatrice in *Much Ado About Nothing* (set in Messina, Sicily). The picture shows Anna Lee (Sister Margaretta), Portia Nelson (Sister Berthe), and Marni Nixon (Sister Sophia) in the 1965 film *The Sound of Music*. It seems doubtful that this was the nunnery that Hamlet had in mind.
42. ... is the answer given by Deep Thought to “the Ultimate Question of Life, the Universe, and Everything”, in Douglas N. Adams’s (DNA’s) *The Hitchhiker’s Guide to the Galaxy*. The Ultimate Question itself is, like Q42 of the quiz, never revealed, as the computer assigned (planet Earth) is destroyed before the computation is finished. The picture is ‘Photo 51’, an X-ray diffraction image of DNA taken by Raymond Gosling, under the supervision of Rosalind Franklin, in May 1952.
43. In the 2009 film *In the Loop*, spin doctor Malcolm Tucker, played by Peter Capaldi (pictured), hurries about Washington DC, looking for the ‘Future Planning Committee’ (actually a war committee) and the assistant secretary of state **Karen Clarke** (played by Mimi Kennedy).
44. Edward Holyoke (1689–1769) “had had the distinction, as an undergraduate, of having more fines and black marks recorded against his name for breaches of discipline than any student of his day” but became the ninth President of Harvard College and presided over the construction of **Hollis Hall**. The picture shows Harvard Stadium.
45. British writer on natural history Redmond O’Hanlon and Dutch journalist Lex Runderkamp co-presented the 2009–10 documentary series *Beagle: In Darwin’s wake*, which portrays a voyage on the clipper **Stad Amsterdam**. The picture shows part of the cover of *The Fetish Room* by O’Hanlon and Rudy Rotthier.
46. In *The Hitchhiker’s Guide to the Galaxy*, Ford Prefect says, ‘this is Zaphod Beeblebrox, not bloody Martin Smith of Croydon’. Croydon’s postcode area is **CR**. The picture shows Victoria Beckham (née Adams, cf. the Douglas Adams theme) modelling a hairstyle known colloquially as the ‘Croydon facelift’.
47. **Useless Loop** (= *recycling junk*) is a harbour in Shark Bay, Western Australia, originally named *Havre Inutile* by Henri-Louis de Freycinet. It was of course far from useless to the rat-kangaroos or ‘boodies’ (pictured) for whom it was home.
48. Cinematographer László Kovács worked with Robert Redford on the 1986 comedy **Legal Eagles**. Kovács also worked on *Easy Rider* with Burt Schneider (pictured).



49. **Pratap Singh** (pictured), Maharajah of Idar, chief minister of Jodhpur State during the reigns of four of his relatives, and a keen polo player, created the tight-fitting horse-riding trousers now known as 'jodhpurs' by improving a traditional Indian form of dress and then popularising the style on his visit to England in 1897.
50. The design of **The Joker**, a villain in the 'Batman' comic strip, was inspired by a photo of Conrad Veidt as Gwynplaine (a man whose face is disfigured into a permanent grin) in the 1928 film version of Victor Hugo's novel *The Man Who Laughs*. The picture shows a 'best bower' playing card, an extra card in the game of Euchre which developed into the modern 'joker'.
51. In *The Name of the Rose* by **Umberto Eco**, the Franciscan brother William ('Bill') of Baskerville says, 'on earth there does exist a hell, where lives the flock whose shepherds we no longer are'. The picture says 'Guglielmo da questo carattere' [William of this character] set in the Baskerville *font* ('carattere').
52. Poet and historian **Ross Nichols** was a Celtic neopaganist, and founded the Order of Bards, Ovates and Druids, whose symbol is pictured. He is also the originator of the idea that there is a 'an astrological axis connecting Avebury to Stonehenge'.
53. MS-DOS comes with the program **EDLIN.COM**. This is a line editor, so although the P command displays a 'full screen of text', the claim in the question that it 'allows full-screen modification' is highly misleading! There is an Edlin Properties Limited in Solihull. The picture shows an MS-DOS command prompt.
54. The Alaska Marine Highway is not a road, but a set of ferry routes that stretch for 3,500 miles between Bellingham in Washington State and Dutch Harbor in the Aleutian Islands. Alaska's state abbreviation is **AK**, and its state flower, the Alpine forget-me-not, is pictured.
55. **Telephone sanitisers** were among the professions dispatched in cryogenic suspension from the planet Golgafrincham on the B Ark in *The Hitchhiker's Guide to the Galaxy*. The picture shows bark (which is typographically, but not otherwise, similar to 'B Ark').
56. Screenwriter **Farad Safinia** co-wrote the 2006 film *Apocalypto* with Mel Gibson; all the dialogue for the film was translated into Mayan. The picture shows part of the cover of Alastair Campbell's 2010 novel *Maya*.



57. The 2003 Universal Pictures film **Intolerable Cruelty**, directed by the Coen Brothers, features Billy Bob Thornton as the fast-talking Howard D. Doyle. Thornton had previously played the laconic barber Ed Crane in *The Man Who Wasn't There* (2001). The picture shows the actor in a third rôle, as Willie T. Stokes in *Bad Santa* (2003).
58. Italian castrato **Valentino Urbani** sang Egeo (Aegeus) in the first performance of Handel's opera *Teseo* ('Theseus', 1713; it included flying dragons in its stage effects), and Silvio "who cares only for the hunt and gives no thought to love" in the first performance of Handel's opera *Il pastor fido* (1712). The picture shows the statue *Thésée (= Theseus) combattant le Minotaure* (1826) by Étienne-Jules Ramey, in the Jardins des Tuileries.
59. Microbiologist **Esther Lederberg** developed the replica plating technique, and discovered the λ bacteriophage and the bacterial fertility factor F. The picture shows a petri dish with bacterial colonies.
60. Spanish artist **Pablo Picasso** spent most of his later life at the Château of Vauvenargues, a fortified manor house in Provence. The picture is *Mont Sainte-Victoire and the Viaduct of the Arc River Valley* (1882–5) by Paul Cézanne, showing the landscape near Vauvenargues.
61. C[arl] M[ichael] Z[ihrer]'s opus 419 was the 1890 waltz *Wiener Bürger* (Vienna Citizens); it upstaged Johann Strauss's opus 438, the **Rathausball-Taenze**, from the same year. The picture shows the Rathaus in Vienna.
62. 'Ian Underwood Whips It Out (Live on stage in Copenhagen)' is one of the tracks on the album *Uncle Meat* by the Mothers of Invention featuring Frank Zappa. The picture shows a statue of Frank Zappa by Konstantinas Bogdanas in Vilnius.
63. In 'The Adventure of the **Musgrave Ritual**' (1893) by Arthur Conan Doyle, the detective Sherlock Holmes follows the cryptic instructions 'North by ten and by ten, east by five and by five, south by two and by two, west by one and by one, and so under' in search of treasure. The first twenty paces (ten with each foot) go alongside the wall of the house. The narrator of the frame story, Dr Watson, shares a name with James Watson, one of the discoverers of DNA. The picture shows figures illustrating the story at the Sherlock Holmes Museum in London.
64. **Emily Eavis** played 'Twinkle, Twinkle, Little Star' on violin at the 1985 Glastonbury Festival, aged five. She has co-organized the festival with her father Michael since 2000. The picture shows Glastonbury F.C. playing in a home match against Wells City Reserves in October 2014.



The four bases

There is a consistent association between four colours, four nucleotide bases, and the four locations used to find the treasure:

Colour	Nucleobase	Location
Green	Adenine (A)	Avebury Chapel Centre URC Church, in the centre of the stone circle at Avebury, opposite the Red Lion pub.
Blue	Cytosine (C)	Sculpture of DNA by Katy Hallett at the northern end of the 'DNA path' between Addenbrookes and Great Shelford.
Yellow	Guanine (G)	St Michael's Church tower, Glastonbury Tor.
Red	Thymine (T)	Sculpture of DNA by Charles Jencks in the grounds of Thirkill Court, Clare College, Cambridge.

The matching of colours to nucleobases is the same as that used in Katy Hallett's 'genome stripes' that run the length of the 'DNA path'. These matchings are seen in (i) molecule diagrams, (ii) location boxes, (iii) the chromosome diagram on p.12.

Molecule models

The molecule whose model appears on a yellow background on p.3 is guanine. Adenine appears on green on p.4; thymine on red on p.6; and cytosine on blue on p.12.

Location boxes

Green boxes: Avebury Chapel Centre

The three green boxes clue SWINDON, BARBER, and DEVIL'S SEAT. These are the names of three stones in the Avebury stone circle. The detail that we require the chapel centre comes from the letter-pair acrostic (see section on letter pairs below).

- SWINDON, p.1: XTC, a rock band formed in Swindon in 1976; David Hempleman, adventurer, born in Swindon, 1956; Mark Lamarr (né Jones), presenter, born in Swindon, 1967; Nick Hower, presenter, born in Swindon, 1944.
- BARBER, p.4: Brutus 'the barber' Beefcake, American wrestler; Samuel Barber's *Adagio for strings*; pseudo-code to solve the 'sleeping barber' problem; barber-surgeons at work in Franz Anton Maulbertsch's *The Quack*.
- DEVIL'S SEAT, p.12: The rock shown is at Collonges la Rouge, France and is known as *La chaise du diable*.

Yellow boxes: St Michael's Church Tower, Glastonbury Tor

The boxes clue AVALON, ST MICHAEL'S CHURCH TOWER, TOR, and BORON (or, possibly but unlikely, GREEN DRAGON). The location is St Michael's Church Tower at Glastonbury Tor (Avalon = Glastonbury). Details below.

- AVALON, p.2: The places shown in the maps all have names related to Douglas Adams' *Hitchhiker's* series:
 - ADAMS road, King Island, Tasmania; Douglas ADAMS, author.
 - Rue de VOGON, Rizaucourt-Buchey, France; the species of VOGONS.
 - ARTHUR's seat, Edinburgh; ARTHUR Dent, protagonist.
 - LAZLAR, Turkey; LAZLAR Lyricon, a minor character in *Mostly Harmless*. OGLA, Uttarakhand, India and (Albrecht von) ROON (who is pictured in the insert) gives OGLAROON, a planet.
 - NINGI in Bauchi, Nigeria. NINGI are a form of currency.

Taken as an acrostic, these spell out AVALON, an island or vale in Arthurian legend associated with Glastonbury.

- ST MICHAEL'S CHURCH TOWER, p.6: all the maps identify airports. They are as follows, with their IATA codes:
 - Toledo, Brazil (TOW)
 - Pukatja, South Australia (ERB)
 - Ravenna, Italy (RAN)
 - Jolly Grant, India (DED)
 - Astrakhan, Russia (ASF)
 - Chicago O'Hare (ORD); the shaded counties are *Douglas, Adams*
 - Stockholm–Vasteras (VST), Stockholm–Arlanda (ARN), Stockholm–Skavsta (NYO), and Stockholm–Bromma (BMA) together have code STO
 - Welkom, Lesotho (WEL)

Putting the IATA codes together gives **TOWER BRANDED AS FORD'S TOWEL**. In *The Hitchhiker's Guide to the Galaxy*, Ford Prefect carries in his satchel 'a largish bath towel from Marks and Spencer.' Goods from Marks and Spencer were formerly branded St Michael, so the clue identifies **St Michael's Church Tower**.

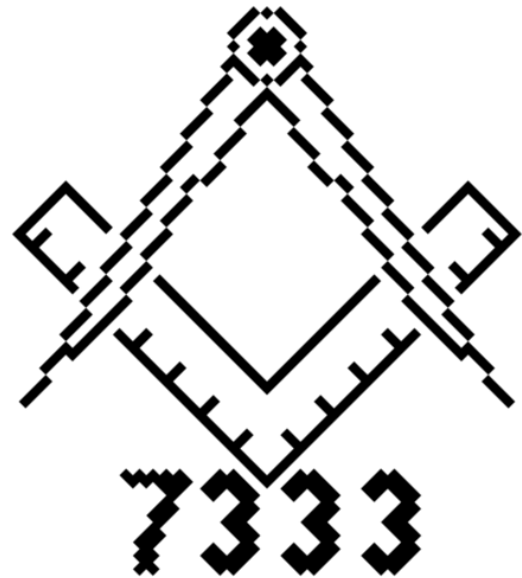
- TOR, p.9: the map shows Sloviansk, Ukraine, and is labelled 'до 1784 року' (before 1784), when the town was named **TOR**.
- BORON, p.11: The three images are stills from an online educational video about boron produced by a team at Nottingham University. The top picture shows Dr Debbie Kays explaining how much she likes boron; the middle picture shows a flame test being carried out on benzene boronic acid (phenylboronic acid), the colour of the flame being due to the presence of boron; and the bottom picture shows Professor Martyn Poliakoff explaining that the name "Persil" is a compound of "perborate" and "silicate". All three stills thus clue "boron", as does the subject of the whole film. "Boron" leads us to Robert de Boron (C12–13), who wrote Arthurian epic poems, of which one, *Joseph d'Armathie, ou le Roman de l'estoire dou Graal*, survives; it

mentions the *vaus d'Avaron*, which was equated with Avalon by later poets. Since Avalon has already been clued, however, Robert's relevance is difficult to explain. Though he does mention that Avaron is 'En la terre vers Occident, / Ki est sauvage durement' – that is to say, loosely speaking, that it is in the wild West – he does not mention Glastonbury itself (the link is first made by Gerald of Wales), nor is he the first to mention Avalon or link it to Arthurian legend, distinctions that belong to Geoffrey of Monmouth. Conceivably Robert may be the first to make Avalon / Avaron a vale rather than an island, but this seems a tenuous basis for his inclusion here.

Alternatively, one of the scientists in the video mentions that pentaborane (the substance she had wanted to flame test but had not done so because it was so dangerous) is known by the nickname 'Green Dragon', because of the colour of its flame and its dangerous nature. Some dubious New Age sources link a green dragon with Glastonbury (for example, *The Word: Welsh Witchcraft, the Grail of Immortality and the Sacred Keys* claims that the red and white dragon battled under Glastonbury Tor and gave birth to a green dragon).

Red boxes: DNA sculpture at Thirkill Court

- Game of Life, p.5. The diagram is a position in John H. Conway's cellular automaton 'Life' (a name that links with the DNA theme). Running it for one generation (as the +1 instruction suggests) yields a square and compasses (pictured right), and the number 7333. The square and compasses are the symbol of the Freemasons, and the Freemasons' lodge numbered 7333 is **Thirkill Lodge** in Cambridge, named for Sir Henry Thirkill (1887–1971).
- Dogg, p10: The text is in Dogg, the invented language from Tom Stoppard's plays *Dogg's Hamlet* and *Cahoot's Macbeth*. It translates to the numbers: 8, 5, 12, 9, 3, 1, 12, 3, 0, 12, 12, 5, 7, 5, 5, 4, 9, 6, 9, 3, 5. Using the code 1=A, 2=B, ... 12=L, 0=O, these numbers are read as **HELICAL COLLEGE EDIFICE**.



In conjunction with the Thirkill and Cambridge links and the DNA theme, this is clearly the DNA sculpture by Charles Jencks (pictured right) in the grounds of Thirkill Court, Clare College, Cambridge (also named for Sir Henry).



Blue boxes: DNA sculpture at north end of the 'DNA path'

The boxes clue a 53³/₄ railway mile marker, HALLETT, and CYCLEPATH. Artist Katy HALLETT designed the genome stripes and the DNA sculptures on the 'DNA path' (pictured right), a CYCLEPATH beside the railway between Addenbrookes in Cambridge and Great Shelford (part of National Cycle Route 11). These stripes use the following assignment of colours to nucleobases: "adenine (A) in green, cytosine (C) in blue, guanine (G) in yellow and thymine (T) in red": that is, the same as the present puzzle. The sculpture at the northern end of the path is within 50 metres or so of the 53³/₄-mile marker on the Liverpool Street–Cambridge railway line. Details below.



- 53³/₄-MILE MARKER, p.8: Marker 53³/₄, SD 5622 9566, Lancaster and Carlisle Railway, Docker Parish, (where the bridge on Docker Lane crosses the railway), Cumbria.
- HALLETT, p.9: Hallett Motor Racing Circuit, Jennings, Oklahoma.
- CYCLEPATH, p.10: On the Scrabble board shown, the highest-scoring play available with the given rack (which is deficient, having only 6 letters) is CYCLEPATH, scoring 42, the answer to the Ultimate Question. The words already on the board reference Arthur's attempt to find the Ultimate Question by divination using a Scrabble set ('What do you get if you multiply six by nine?'); Deep Thought (the computer that found the answer '42'); and the A[rmchair] T[reasure] H[unt]. Note that ATH is not normally a legal play in Scrabble (it does not appear in the *Chambers* dictionary or in the official Scrabble word lists), but illegal plays stand if unchallenged.

Sequencing

Genetic sequencing

The strands of genetic material depicted throughout the puzzle can be decoded in the following way: the colours correspond to nucleotides as described above. Three consecutive nucleotides code for an amino acid, and these have standard IUPAC one-letter abbreviations (thus for example ATG codes for methionine which is abbreviated M). As each strand has 15 nucleotides, each leads to a five-character fragment. For example, the strands on the first page give the following nucleotides:

```
ATG GCT AAT GAT TTT
AAT GAT TTT ATT AAT
CGT GGT ATT GTT GAA
ACT GCT CGT ACT TCT
```

These encode the following amino acids:

MANDF
NDFIN
RGIVE
TARTS

In all there are 31 such strings. They may be treated as fragments of a piece of DNA that is being sequenced by 'shotgun sequencing'. The DNA is cloned and broken into random short fragments, whose order is then determined by aligning them on the basis of their overlaps. Arranging the 31 five-character fragments according to overlaps, we arrive at an order for them that starts:

EACHA
HANSW
SWERG
RGIVE
VESAL

The 'sequenced' string of letters now spells out a message (spaces and punctuation added for readability):

EACH ANSWER GIVES A LETTER PAIR. ADD THEM AND FIND PLACE IN Q
WHERE FIVE-CHARACTER FRAGMENT STARTS.

Question fragments

The message above yields a process for obtaining five-letter fragments from the questions; the special offer signs on pages 2 and 3 confirm that, as expected, one should discount spaces and punctuation during this process. Thus for example, Q1 has the solution **Denys Hawthorne**, giving the letter pair **DH**. Using the natural encoding A=1, B=2 etc, $D+H = 4 + 8 = 12$. Taking the five-character fragment starting from character 12 of the question yields COEDC:

In the famous **CO-ED C** Comprehensive which shared

Repeating for all 64 questions give a new series of five-character fragments, which it is natural to try to sequence in the same way. This yields an order for the fragments which starts as follows (question numbers shown):

20 DRAWL
45 AWLIN
47 INETH

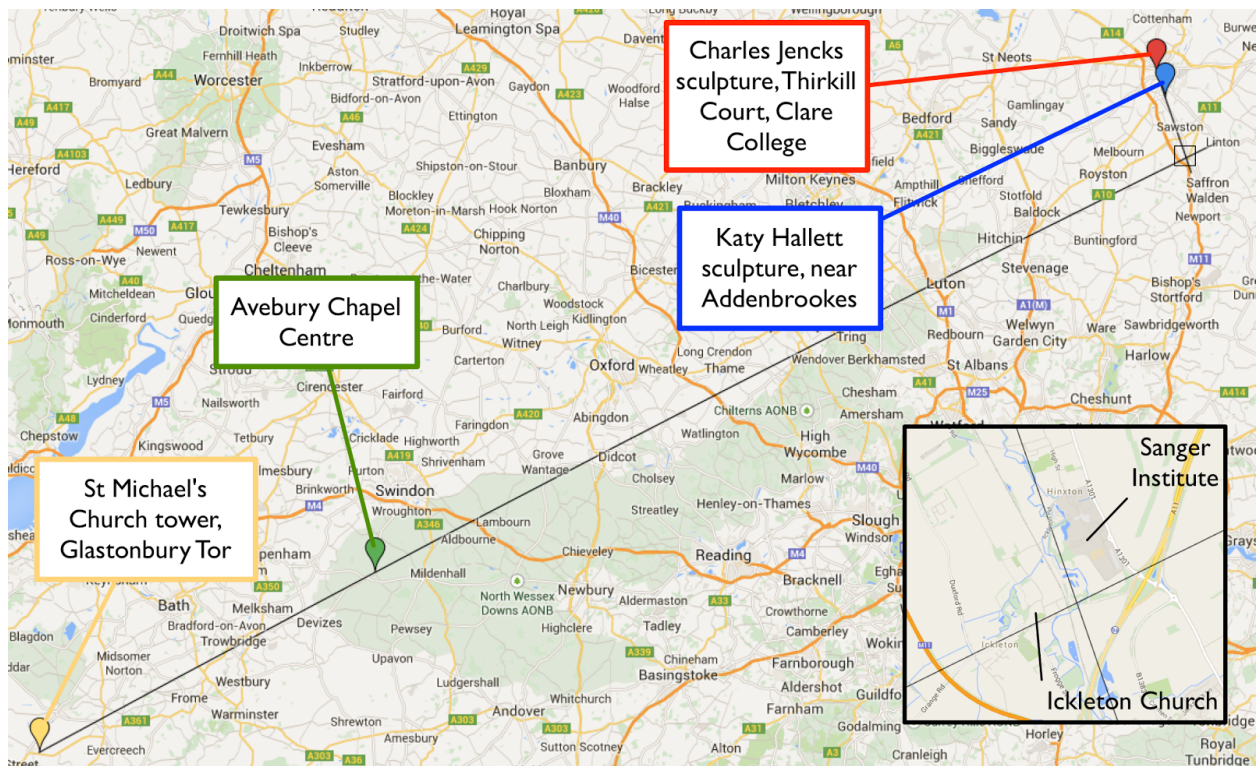
6 ETHRO
35 ROUGH

The message that appears reads:

DRAW LINE THROUGH PURINE HOLY PLACES. DO SAME USING PYRIMIDINE ARTWORKS. INTERSECTION IS BY A FOOTBRIDGE. TO REACH TREASURE FROM NEARBY VILLAGE WITH FRESCOED CHURCH, WALK OVER RAILWAY AND...

Map work

Adenine and guanine are purines; as described above, they correspond to two churches (hence 'holy places'): St Michael's Church tower, Glastonbury Tor, and the Avebury Chapel Centre URC. Cytosine and thymine are pyrimidines; they correspond to the two DNA sculptures by Hallett and Jencks. Drawing the lines described and taking the intersection, it is seen to be by a footbridge over the River Cam near Ickleton, a few miles south of Cambridge, by the Sanger Institute (a major centre for genetic research).



The remarkable 12th-century frescoes in the Norman church of St Mary Magdalene, Ickleton, which are among the finest surviving mediaeval wall art in England, were discovered during the clean-up operation after a fire in 1979.

From the village, the instructions lead one to Mill Lane, which runs to a path over the railway. The instructions then end in mid-sentence. As suggested in the rubric ('You should establish four bases before completing your final Meander'), the final part of the instructions are found in the chromosome code on p.12, marked with a meander (see next section).

Letter pairs and chromosome code

As described in the 'sequenced' instruction (see above), each clue yields a pair of letters. These spell out an acrostic. Superimposing the letters on the dots on the chromosome diagram (p12), with the first letter of each pair on the upper branch, shows that each part of the acrostic divides at site 42, yielding four messages, each associated with a different coloured section of the chromosome:

- (Yellow) DECADE OF BOOKS BOOKS BRIEFLY KEPT BY THIS CHURCH
- (Blue) K H SCULPTURE AT FIVE PRIME
- (Green) HOOPY STONES CHAPEL BY PUB NAMED AS IN TV EPISODE I
- (Red) CHARLES JENCKS SCULPTURE

These messages describe the four 'bases', with the appropriate colour matchings:

- DECADE OF BOOKS BOOKS BRIEFLY KEPT BY THIS CHURCH — in *Life, the Universe and Everything* by Douglas Adams, we learn that ten years' worth of the accounts ('books') of the Hitchhiker's Guide (the 'book') were "transferred to a magic hill just outside the city [Glastonbury] mere hours before the Vogons arrived." The 'magic hill' is Glastonbury Tor, site of St Michael's Church. As the Vogons destroyed the planet, the 'book's books' would have been kept there only briefly.
- K H SCULPTURE AT FIVE PRIME — 5' or 'five prime' is the 'upstream' end of DNA. The 'DNA path' on National Cycle Route 51 is laid out with coloured stripes encoding the BRCA2 gene, and one of the two Katy Hallett sculptures (the one near the 53¾ mile marker) is at the 5' end of the gene.
- HOOPY STONES CHAPEL BY PUB NAMED AS IN TV EPISODE I — the pub in Episode 1 of *The Hitchhiker's Guide to the Galaxy* is the Red Lion (pictured right). The Avebury Chapel Centre URC Church is the chapel nearest to (across the road from) the Red Lion pub, and also in the middle of the stone circle ('hoopy, in the sense that they go around in a circle') at Avebury. Ford Prefect is praised as 'hoopy' by Zaphod for knowing where his towel is.



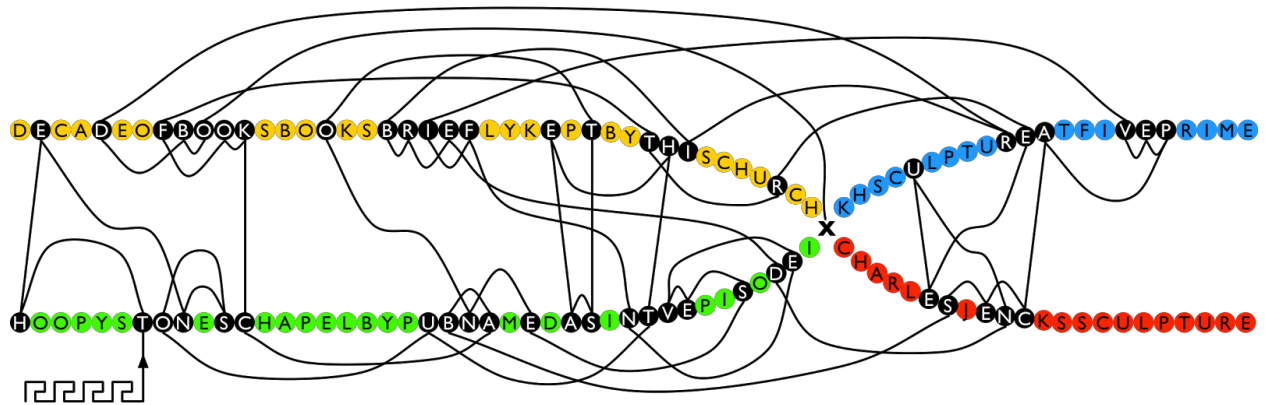
- CHARLES JENCKS SCULPTURE — Charles Jencks designed the double helix sculpture at Thirkill Court, Clare College, Cambridge.

Meander

Reading the letters shown by the 'meander' on the same diagram yields a different message, incidentally confirming the placement of the letters. The crossing shown at site 42 corresponds to the crossing lines on a map leading to the treasure site: it joins the appropriate location bases, and X marks the spot. The path shown on the diagram starts with a frieze pattern consisting of a space-filling line, known as a 'Greek key' or 'meander'. Reading off the letters along the path yields:

THEN SOUTH EAST ONE SEVEN FIVE PACES BACK OF TREE UNDER BIRD BOX

The path ends at the centromere (site 42), which must be interpreted as an X (as confirmed by its shape; and 'X marks the spot'). Following these directions after crossing the railway as in the 'sequenced' directions leads to the treasure site.



Jigsaw

There are 63 jigsaw pieces which, when assembled, leave a piece-shaped hole, and carry the message:

THIS IS NOT THE CORRECT
SOLUTION
W DOES NOT MARK THE
SPOT!

Red and blue dots in the background, in the style (but not colours) of a colour vision test, read:

PTO! OX ORDER



In Georges Perec's *La Vie mode d'emploi*, Bartlebooth (see the section 'Knight's tour', below) dies while attempting to complete a jigsaw; it is complete but for a W-shaped hole, but he holds an X-shaped piece (hence the "~~W marks the spot!~~" in the intro). In accordance with the instruction to make a 'resolution', therefore, we must 're-solve' the jigsaw to find the 'correct solution', in which the hole matches the (X-shaped) jigsaw piece available by a visit to the treasure site. It is X, as usual, which marks the spot.

The instruction PTO! (like the rubric to 'use both sides of the paper') suggests that the entire puzzle must be printed double-sided, if necessary using the '12 marks available for registration' (registration marks on each page). Each piece now has one of the circular vignettes on the reverse. Arranging these in order of the corresponding questions, in boustrophedon or 'ox order' (that is, as the ox draws the plough, in rows of alternate directions), yields a new successful solution of the jigsaw (shown on the next page). In this configuration, each picture is upright, the missing piece is at location 42, and it the hole matches the shape of the 'treasure' piece (shown right).

Four jigsaw pieces carry a symbol like a camera's film plane mark. They are:

- 26: Thirkill Court, Clare College
- 39: Cycle path in Harlow
- 52: Symbol of the Order of Bards, Ovates and Druids
- 64: Glastonbury FC



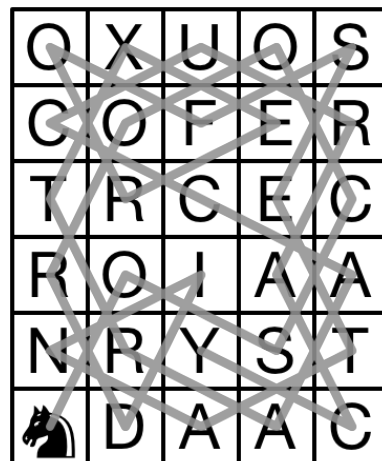
These four pictures correspond to the four 'base' locations. 26 represents the Jencks sculpture at Thirkill Court; 39 corresponds to the Hallett sculpture, which is also on a cycle path; 52 represents Avebury, about which the Order's founder published his eccentric theories; and 64 represents Glastonbury. As with the intersecting lines on the map, when the jigsaw is re-solved the special marks on the two 'purine' pieces (52 and 64) line up, as do those on the two 'pyrimidines'. The intersection of the two lines lies in the missing piece 42, where the treasure piece fits. The points and lines lie in a configuration roughly similar to those of the bases on a map (with north at the top as usual).

Incidentals

Knight's tour

(p.1) Number 11, rue Simon-Crubbellier, in the 17th *arrondissement*, is the apartment block where Georges Perec's novel *La Vie mode d'emploi* is set. The chapters are set in different apartments, and their sequence follows a knight's tour through the building. This, together with the knight symbol in the lower left corner, suggests using a knight's tour to decode the grid. There are just 4,542 knight's tours starting in the corner of a 6x5 board, so it was easy to brute-force a solution. The resulting message reads:

OS CO-ORDINATES FOR EXTRA ACCURACY



We think this message is a suggestion that the point of intersection of the two lines between the 'bases' should be determined using straight lines between Ordnance Survey co-ordinates on a planar map projection (rather than, say, great circles on a sphere). Eight-figure O.S. grid references for the 'bases' are as follows:

- Charles Jencks sculpture (red): TL 4435 5844
- Katy Hallett sculpture (blue): TL 4594 5418
- Avebury Chapel Centre (green): SU 1025 6995
- St Michael's Church, Glastonbury Tor (yellow): ST 5120 3863

These give an intersection at TL 4976 4395, within a few tens of metres of the location of the treasure.

The road sign also carries the word PORTMANTEAU. The protagonist of Perec's book, Bartlebooth, has a name which is a portmanteau of Bartleby (protagonist of Hermann Melville's 'Bartleby the Scrivener') and Barnabooth (of Valery Larbaud's 'The diary of A.O. Barnabooth'). The book concerns a series of extravagantly pointless attempts by Bartlebooth to create, solve and destroy jigsaw puzzles.

Noel

The carol notated on p.3 is *The First Nowell*. The direction 'Cantabile' is printed with 'no el'. This is both a pun, and a reference to Douglas Noel Adams's middle name. Contrary to our expectations, the traditional Logica L did nevertheless appear at the treasure site.

UREVAT

This word appears in red on p.4. Decoding UREVAT using ROT-13 substitution gives HERING. We therefore have a ROT HERING or, translating from German, another red

herring. The word is in Blackletter, a letterform associated with German. (As it's in red, this is a red red herring.)

Product of primes

A piece of text on p.7 reads: '18548518189147 is the product of two large primes. You will need to decompose it to decrypt the secret message.' We suggest the following decomposition:

18 5 4 8 5 18 18 9 14 7

Using the code A=1, B=2 etc, we can read RED HERRING. Additionally, *decompose* = *rot* (and as above, *rot* = *red*). The number is, as it happens, the product of 977317993 and 18979, a fact of no significance whatever.

Hymn numbers

The hymn board shown on p.7 is in the church at Ickleton, though the picture has been doctored. The flags of Denmark, Norway and Åland spell 'DNÅ' (DNA). The chromosome pictured looks similar to one stained with G-banding, but in fact carries an International Article Number, which decodes to 9780193533226. This is the ISBN for the *New Oxford Book of Carols*. Reading the carols numbered as on the board we get:

151: **G**od rest you merry, gentlemen
181: **O** Tannenbaum
108: **D**ing dong merrily on high
76: **J**oy to the world!
187: **U**n flambeau, Jeannette, Isabelle!
171: **L**ullay, thou tiny little child

Taken as an acrostic these spell **GOD JUL**, or 'Merry Christmas' in Danish, Norwegian and Swedish, matching the flags given (the Åland archipelago belongs to Finland, but is Swedish-speaking).

Greek dictionary

The entries printed in clear type (p.8) are βουστροφηδόν [*boustrophedon*], that is, the 'ox order' consisting of rows in alternate directions, and παζλ [*pazl*], that is, 'puzzle'. The jigsaw *pazl* is *re-solved* using *boustrophedon*.

The teaser poster

The teaser poster was available in advance of the main puzzle. Nothing in it needed to be solved in order to find the prize, but there were a few points that were helpful. In particular, the teaser poster revealed the DNA encoding. The poster consisted of the following parts:

Overview

1. The message 'MERRY CHRISTMAS' in the form of baubles, hanging from a festoon consisting of a double helix with coloured marks along one strand. This is a key to the DNA encoding used in the main puzzle and the most useful thing on the sheet.
2. In the lower left-hand corner, a long series of small photographs in two columns. These clue a journey from London to Haringrodestraat (Haringrode Street) in Antwerp. *A rode haring* in Flemish is a 'red herring'.
3. At the bottom is a box containing Braille musical notation for the first three bars of the introductory theme for the television show *Bruce Forsyth's Generation Game*—an oblique reference to DNA, the mechanism of *generation*.
4. In the middle is a voxel description of a 5×5×5 object whose projections along three orthogonal axes spell the letters D, N, and A.
5. In the top right hand corner is a box divided into four pictures (one of which is composite). These refer to the 4 people involved in the discovery of the structure of DNA: Crick, Franklin, Watson and Wilkins.
6. Splashed across the main diagonal are an excited whale, the message 'DON'T PANIC' in large, friendly letters, and a bowl of petunias. These (and their associated speech bubbles) reference an incident in *The Hitchhiker's Guide to the Galaxy*, where the Infinite Improbability Drive transforms two missiles fired by the planet Magrathea into a whale and a bowl of petunias.

Detail

DNA Christmas Message

The double helix may be DNA or RNA. Later clues indicate that DNA is the theme of this treasure hunt, but for the purposes of decoding the Christmas Message it is immaterial which nucleic acid is being referenced. The genetic code uses triplets, known as codons, formed of four bases, adenine (A), guanine (G), cytosine (C) and thymine (T). Each codon in a gene will usually code for an amino acid. There is a many to one relationship between codons and amino acids. The helix on the teaser poster uses 4 colours, collected into triplets on the same strand of the helix, suggesting that each colour corresponds to a base and that the triplets are to be interpreted according to the genetic code.

The IUPAC specifies a one-letter code for each amino acid. The first letter of the message 'Merry Christmas' would, under that coding, be the amino acid methionine (M), which has only one corresponding codon, ATG. The letter M hangs off a codon coloured green, red, yellow. That allows us to assign the colours:

- Green = Adenine (A)
- Red = Thymine (T)
- Yellow = Guanine (G)
- Blue = Cytosine (C)

This code checks as correct because the remaining helix decodes correctly as 'ERRY CHRISTMAS'.

Trip to Antwerp

The first column represents a trip from London to Antwerp Central Station. The pictures illustrate:

1. A view from York Way as it crosses the Regent's Canal in London. The building on the right is King's Wharf, which includes the offices of the *Guardian* newspaper, and the UK main office of CGI (formerly the Logica main office).
2. The statute 'Lovers' by Paul Day in St Pancras Station, from which a traveller may catch the Eurostar.
3. The 'censored' word is, presumably, the name of an EU country. In context it must be 'Belgium' because, in *The Hitchhiker's Guide to the Galaxy*, 'Belgium' is the most unspeakably rude word there is.
4. A view of the Arbre Viaduct over which a Eurostar travelling to Brussels would usually expect to pass. The picture is a Google Streetview picture with the car travelling from the village of Arbre approximately North-West along the Route d'Ath towards Ath. ATH are of course the initials of Armchair Treasure Hunt. The streetview figure is looking at a shrine of St Joseph, perhaps prefiguring the reference to Joseph of Arimathea, subject of de Boron's poem and linked with Glastonbury. The coloured dots (Green, Green, Red) decode to AAT using our DNA coding. "Aat" is the Dutch/Flemish name for the town of "Ath" towards which the Route d'Ath is heading. The question marks must then be "Ath" indicating that "Ath/Aat" are alternative names.
5. This is a class 373 Eurostar set waiting in Brussels-Midi station. Brussels-Midi is a plausible station at which to change from the Eurostar onto a train for Antwerp.
6. A Thalys high speed train that runs from Brussels-Midi to Antwerp.
7. The low level at Antwerp Central (with the rather distinctive bridge).
8. The main clock at Antwerp Central Station.

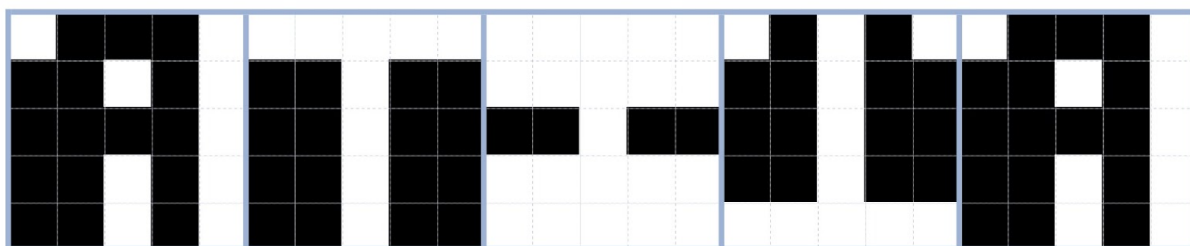
Having arrived in Antwerp the journey continues along the streets of Antwerp in column 2.

9. The Hyllit Hotel, De Keyserlei 28–30, Antwerp, on the SW corner of De Keyserlei and Appelmansstraat. The photographer appears to be standing on Appelmansstraat.
10. Quellinstraat (possibly looking at no. 54).
11. Quinten Matsijslei (looking south).

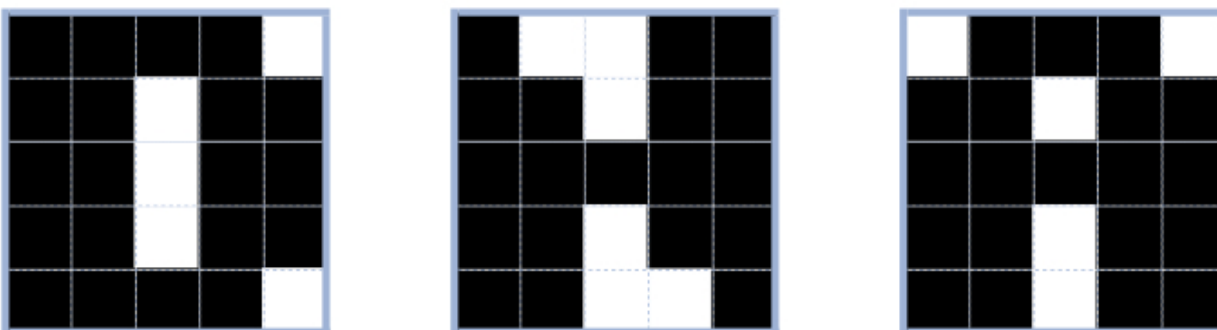
The tune is the start of the theme tune, composed by Ronnie Hazlehurst, to *Bruce Forsyth's Generation Game*—a game in which contestants came from more than one generation of the same family. Generation is also the function of DNA, and perhaps 'Generation Game' is intended as a title to this year's ATH. The music would then be an answer to the question posed by the whale, who hasn't found a better name for it.

Message Cube

There are 125 digits ("1" or "0"). There are two Necker Cubes surrounding the digit code projected from different angles. This suggests that the digits may be assembled into a 5x5x5 cube which should be projected from different angles. Before doing so, the solvers created five 5x5 sections through the possible cube. Using black for '1' and white for '0', they look like this:



This appears to spell "ATHTA", albeit with "A" black on white as opposed to white on black and "H" and "T" rotated successively through 90 degrees. The letters A, T and H hint at the Armchair Treasure Hunt. However, constructing a cube from these sections and projecting along its three axes indicates the real message.



2 x 2 Polyptych

Counting left to right and then top to bottom:

1. Jiminy Cricket, minus sign, and E.T. Cricket – ET = **Crick**.
2. Benjamin **Franklin**, as shown on a US \$100 note.
3. A logo associated with the IBM **Watson** supercomputer.
4. Two early Jim Henson creations for a long-running coffee advertisement, known as Wontkins (left) and **Wilkins**.

[Francis] Crick, [Rosalind] Franklin, [James] Watson and [Maurice] Wilkins are the four people credited with discovering the double helix structure of DNA.

Video teaser

The video reveals a text introducing the ATH while closely mirroring the opening two sentences of *The Hitchhiker's Guide to the Galaxy*. A digital watch is built up, using graphics stylistically similar to those used in the 1981 *Hitchhiker's Guide* TV series, displaying the date and time at which the puzzle opens. The video is 40 seconds long, which definitely feels 2 seconds too short.

Christmas message

'We send hunters our best wishes for the festive period [via the God Jul message], a time of re-solutions, of old puzzles [that is, finding another solution for the jigsaw], putting things in order (wise men follow the Plough!) ... [that is, arranging the pictures *boustrophedon*-style] and a time, we hope, to find an inner piece inspired by the sign of a cross [that is, not an inner peace but the X-shaped treasure piece that goes in position 42].'

Hunters' tales

Francis: I started out working on my own with the teaser poster, before the team was properly assembled. By the time the hunt was launched I had only three remaining questions: (1) what was the tune (Colin Bell recognised it from my transcription); (2) what did the 1/0 code mean (I had found the ATHTA message and constructed a Lego model from the code, but failed to spot the DNA projections—it took Michael Greene to do that); (3) what was the coloured dot and question mark code above the Route d'Ath?

I was particularly pleased with myself for having identified all the pictures on the Antwerp journey. Some of the pictures were hard to check (for example, the correct platform in Brussels Midi station), but the hardest had been finding the exact streetview for the Arbre Viaduct.

All sorts of more or less mad ideas were proposed (the maddest by me) for the code. For example, Green Green Red = AAT = Asparagine. Could the plants growing in the field be Asparagus? (No). I had dreams about it.

In the end it was the very last puzzle we solved.

Gareth: When we solved the green box on p.1 (clueing SWINDON), I jumped immediately to the theory that the four sets of coloured boxes would yield four places, which would then be joined by two lines meeting at the location of the treasure. It was a piece of good luck that I happen to be familiar with the 'DNA path'—I must have cycled along it a hundred times or more—so the solution to the blue boxes followed easily once we had found HALLETT. Then the chromosome diagram on p.12 strongly suggested that the lines would be YELLOW-RED and GREEN-BLUE, so it was disappointing when we got all the four locations and I discovered that these lines met in the Atlantic southwest of Cornwall.

So my next theory was that the lines would be YELLOW–BLUE and GREEN–RED [in line with the seeming theme of colour vision tests], meeting in Buckinghamshire somewhere west of Aylesbury. This was a pleasing theory, because the location was plausible, and because these lines are close to parallel, meaning that the exact point of intersection would be tricky to fix, no doubt requiring us to decode the hymn numbers or whatever to yield ‘O.S. co-ordinates for extra accuracy’. I never stopped to consider that four places yield *three* possible intersections. But late on Monday night (21 December) we solved the five-character fragments and I felt rather foolish as I drew the third pair of lines on the map.

When I used to blog at *Listen with Others*, it was a running theme among the bloggers that we often failed to spot an acrostic, even though we knew that this was a common oversight. And so it proved here. But even without any further instructions after WALK OVER RAILWAY AND... it seemed worth having a look, so Timothy, Colin and Mark were dispatched to Ickleton on Tuesday morning.

Timothy, Colin and Mark: Coming from London and Cambridge, the three of us met up at Ickleton. Colin arrived an hour ahead of the others, to take the opportunity to search for two local geocaches as well as scouting the area out. After an easy find on ‘Ickleton Plough’, he went looking in vain for ‘Ickleton Bridge’—which happened to be within feet of the treasure. Shortly after the crossing, he passed a walker with a slightly smug look on his face: we suspect this was the runner of the team who found the box first. After about 15 minutes’ fruitless search for the geocache, he gave up, and explored the left fork after the railway in the hope of seeing something unusual. There were good locations within sight of the Genome Campus, but no box.



Once the others arrived, we compared notes, looked around a bit and sat down at the corner of the field. Timothy was very pleased with himself for being the only frood among us who’d been hoopy enough to bring a towel. Colin was not up to speed on the latest developments so we filled him in. On seeing the Meander, whose profound mysteriousness we impressed on him, he had a brainwave which expressed itself in the form ‘Then it isn’t as simple as ...’. At this point we realised that there were limits to our hoopiness: none of us had thought to bring the quiz answers. Colin, with a dodgy smartphone connection and battery threatening to run out at any moment, read the letter pairs out in order. As Timothy transcribed them, parts of the other (‘decade of books’) message emerged.

The first part of the new directions ('south east one seven five paces') was clear with some interpolations, but the last segment was still garbled due to a number of missing or wrong answers. Something like BACKOFT.EEUNDERB.RDBO made no sense, but clearly we had some errors somehow and were supposed to look under the BRIDGE. A concrete ledge made this possible if one was prepared to wade through a few inches of water. With one accord, Colin and Mark looked at Tim, who was no longer looking so pleased with himself for having remembered his towel.

Fortunately, inspiration just in time helped us to see that what we were reading as BACK OF THE... was in fact BACK OF TREE, and complete enlightenment soon followed, as did treasure piece no. 2. As we returned over the bridge, Colin spotted the geocache peeping out of a completely different place from where he had been looking for it.

We returned via the church, admired the frescoes and spotted the hymn board. We tried to discover which hymn book the church used, thinking that would help with the hymn numbers. There was a copy of *Hymns ancient and modern (revised)* lying around, but the resulting titles were singularly unhelpful. Before leaving, we signed our name ('B. Hindsight, Cambridge') in the visitors' book.