

# 2017-2018 Pablo's ATH Tweleve Pack Submission

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Accompanied by:

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## Introduction

Within this document we present Twelve Pack's attempt at a solution to the 2017-2018 Pablo's Armchair Treasure Hunt, the thirty-second ATH.

The main theme of the Hunt this year is “mess-y” things. There are five sub-themes having to do with Charles Messier, Olivier Messiaen, Lionel Messi, the Battle of Messines and other things starting with “mess” or meaning “mess,” including the treasure location in Messing, Colchester, Essex.

We figured out many things in the Hunt, but not everything. We hope you got some entertainment watching us beat our heads against the wall. Many thanks to the members of Bruce Hindsight for setting the Hunt, and Happy New Year!

— Molnar, Twelve Pack scribe

## The Hunt Poster

The poster introduces us to some of the “mess-y” sub-themes in this year's Hunt. We will break down the discussion into thematic topics.

### CHARLES MESSIER

The gentleman holding the telescope is a likeness of French astronomer [Charles Messier](#). He is best known for cataloging nebulae and star clusters which later became known as “Messier objects.” Messier was also an avid comet hunter, discovering 13 comets in his lifetime. The first comet Messier saw as a child, the [Great Comet of 1744](#), had six tails. That explains the telescope and the comet in the image.

The medal on Messier's chest is [Cross of the Legion of Honor](#), an order of merit awarded to Messier in 1806 by Napoléon Bonaparte.

Part of the architecture shown in the image is also related to Messier. The tower directly behind Messier with the pot of gold coins (including the part with the conical roof just to the left) are modeled after the tower of the [Hôtel de Cluny](#) in Paris. This entrance tower is shown in the image to the right. The pot of gold is situated where the Observatory of the Navy had been erected by Nicholas Delisle, the astronomer of the French Navy. Messier entered the employ of Delisle in 1751, where he was instructed on how to use the instruments and record observations.



### LIONEL MESSI



There is a small nod on the poster to [Lionel Messi](#), a professional soccer player who plays as a forward for Spanish club Barcelona. The cleats that Messier is wearing in the image are similar to ones associated with Messi. He debuted the [Adidas adiZero “Rainbow” F50 Messi cleats](#) in 2014.

## “MESS-Y” THINGS

The flying car that Messier is riding on the poster is a [Messerschmitt KR200](#) with wings. The wings were probably added to since Messerschmitt was a German aircraft manufacturer. After World War II ended, Messerschmitt was not allowed to manufacture aircraft for a period of time, so they manufactured microcars in the interim.



## OLIVIER MESSIAEN

The remainder of the poster has to do with French composer [Olivier Messiaen](#). Messiaen used themes of rainbows, stained-glass windows and stars (along with birdsong) throughout his works and these are shown on the poster. Often, such as in *Visions de l'Amen* and *Turangalila-Symphonie* the stars are in turbulent motion, dancing, swirling or leaping, as the white stars are in the poster. Messiaen has [described his music](#) as “Music which lulls to sleep and which sings, which is of new blood, speaking gestures. An unknown fragrance, an unsleeping bird; music of stained-glass church windows, a whirl of complementary colours, a theological rainbow.”

Messiaen described his interest in stained-glass windows in [Traité de rythme, de couleurs, et d'ornithologie](#): “At the tender age of 10, he marveled at the stained-glass windows at the Sainte-Chapelle in Paris – a somehow mystical experience which ‘marked him for life.’” The stained glass windows shown on the poster are representations of the windows of [Église de la Sainte-Trinité](#), the church where Messiaen was organist. On the first level of Sainte-Trinité, along the aisles, are colored stained glass windows with geometrical figures. [One of these](#) (left image below) is the window shown just to the right and behind Messier. The intertwined S and T are for Sainte-Trinité. The other two sets of windows are also in the fashion of the windows behind the altar, with a circular window flanked by two triangular windows above two vertical panels. Even the curved awning above the windows and the dome above the altar are shown on the poster (middle image below).



The mirrored circular windows show on the poster are one of the windows from the upper part of the Chapel of the Virgin (middle image), illustrating episodes from the life of the Virgin. The circular window from the rightmost set of windows is the one shown on the poster (right image above, with the angel playing a portable organ).

We also have a set of colored bands acting as panels for four of the stained-glass windows. These bands are the colors of the rainbow, and each color represents a different pitch. In interviews with Claude Samuel, Messiaen described how he related colors to musical chords: “I am affected by a sort of synaesthesia, of the mind rather than of the body, which allows me, when I hear a piece of music, and also when I read it, to see internally, through the mind’s eye colours which move with the music.” Of course, [Messiaen also said](#), “It is childish to assign a color to each note. It is not isolated tones which produce colors, but chords, or better, complexes of tones.” So we will be childish.

If we take the thinnest bar to be a beat, and assume a key of C Major, then the rainbow colors ROYGBIV represent the notes CDEFGAB (the darker purple is indigo and the lighter purple is violet).

The music is to the 3rd and 4th lines of [Deck the Halls](#). The text in the first orange band implies that we should be looking at lines 3-4 of verse 2. The plus sign in the green band of the 2nd column is signifying a sharp, which is true to the score. The other text implies changes to the lyrics associated with given notes. We soon learn that the modern lyrics don’t make sense here, we have to use the lyrics from the original, *Deck the Hall*. (We note that the musical score given does not match the original—the melody for the “Fa, la, la” part of the 3rd line is different, and the original only has 7 “la”s, whereas the modern version, used here has 8.)

Applying the changes to the text shown in the bars, we go from:

Follow me in merry measure, Fa, la, la, la, la, la, la, la, la!  
 While I sing of beauty’s treasure, Fa, la, la, la, la, la, la, la, la!  
 (merry -> messy; measure -> pleasure)  
 (beauty -> buried)

to

Follow me in messy pleasure, Fa, la, la, la, la, la, la, la, la!  
 While I sing of buried treasure, Fa, la, la, la, la, la, la, la, la!

And there it is! This hunt is about “mess-y” things.

## Seasonal Message

On December 24, a seasonal message was posted, accompanied by an image of some playing cards:

We hope solvers are enjoying the festivities, while not forgetting their hunting. As the poet said, 'Presume not too much Christmas cake to measure: The proper study of mankind is treasure.'

'Bruce Hindsight'

The poet referenced in the message is Alexander Pope, and the quote is a play on the opening of [\*An Essay on Man: Epistle II\*](#):

"Know then thyself, presume not God to scan  
The proper study of Mankind is Man."



Another one of Pope's works, *Messiah*, is the source for a book cipher on Page 4 of the Hunt document that will be discussed later in this document.

The playing cards form a cipher in which the combination of suit and value represent letters of the alphabet. The tableau used in the cipher is shown in the table below:

|   |   | A | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | J | Q | K |
|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|
| ♠ | ♦ | A | B | C | D | E | F | G | H | I | J  | K | L | M |
| ♣ | ♥ | N | O | P | Q | R | S | T | U | V | W  | X | Y | Z |

The playing cards decipher to: MESSY YULE.

## Hexagons

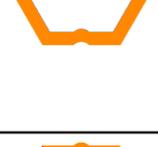
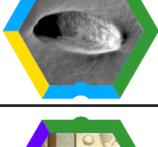
There are 65 hexagons spread throughout the Hunt document. These hexagons have an image in the center and have colored side borders. The seven colors used for the borders are the same as those used on the poster, implying that they will be used for a type of musical puzzle at some point.

These hexagons are used in several different global puzzles. Here we present identifications of the images in each hexagon, and the associated letter taken from the first letter of the word identifying the image. In the case of proper names, the first letter of the last name is used as the significant letter. We attempt to link the images to the five main sub-themes of the Hunt.

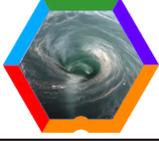
Also presented in the table are associated orderings for the Mr. Messy path and Messier objects. Discussions involving these puzzles are presented later in the document, but are shown here for compactness.

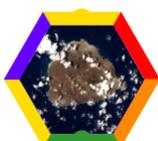
| Page | Hexagon   | Description  | Letter   | Mr. Messy Order | Messier Object |
|------|---|--|----------|-----------------|----------------|
| 1    |    | <a href="#">Lionel Messi</a> , forward (#10) playing for <a href="#">FC Barcelona</a> .<br>Sub-theme: Messi.   | <b>M</b> | 7               | M76            |
| 1    |    | Scene from the CBeebies show <a href="#">Messy Goes To Okido</a> , episode " <a href="#">What Is A Rainbow?</a> " (1:46 mark). This hexagon is connected to the musical score on Page 1 by a dashed gray line. That score deciphers to ARCS-EN-CIEL = French for "rainbows."<br>Sub-theme: Messiaen. | <b>R</b> | 23              | M34            |
| 1    |    | <a href="#">Sigmundskron Castle</a> , near Bolzano in South Tyrol, Italy. It houses the Messner Mountain Museum, established by <a href="#">Reinhold Messner</a> .<br>Sub-theme: "Mess" words.   | <b>S</b> | 36              | M110           |
| 1    |    | <a href="#">Vacuum cleaner</a> . <a href="#">Olivier Messiaen wrote</a> for "the Ondes Martenot, the electronic instrument that looks and sounds like a vacuum cleaner from outer space."<br>Sub-theme: Messiaen.  | <b>V</b> | 46              | M31            |
| 1    |   | <a href="#">Eurotamandua</a> is an extinct genus of mammal that lived some 47 million years ago. A single fossil is known, coming from the <a href="#">Messel Pit</a> in southwestern Germany.<br>Sub-theme: "Mess" words.   | <b>E</b> | 47              | M32            |
| 2    |  | <a href="#">Hornet</a> . The <a href="#">Messerschmitt Me 410</a> Hornisse ("Hornet") was used by the Germans in WWII.<br>Sub-theme: "Mess" words.   | <b>H</b> | 1               | M40            |
| 2    |  | Elephant from the Abraham van Linge <a href="#">painted window</a> at Lydiard House. Abraham van Linge also created an east window in the Messing Church of All Saints.<br>Sub-theme: Messiaen (indirectly, also "Mess" words).  | <b>E</b> | 26              | M108           |
| 2    |  | <a href="#">Antique knife rest</a> . Knife rest was the name for a type of <a href="#">barb wire defense</a> set up around the trenches in WWI, including at Messines.<br>Sub-theme: Messines.   | <b>K</b> | 40              | M101           |
| 2    |  | Sombrero. M104 is the <a href="#">Sombrero Galaxy</a> .<br>Sub-theme: Messier.   | <b>S</b> | 61              | M109           |
| 2    |  | <a href="#">Clover sprouts</a> . We admit this is a bit of a guess, as it is hard to identify. Clover leaves are typically trefoil, so this could be referencing the <a href="#">Trifid Nebula</a> .<br>Sub-theme: Messier.  | <b>C</b> | 39              | M97            |
| 2    |  | <a href="#">Omega</a> from <i>Doctor Who</i> . M17 is the <a href="#">Omega Nebula</a> .<br>Sub-theme: Messier.  | <b>O</b> | 45              | M51            |

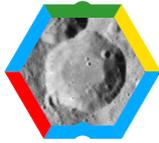
| Page | Hexagon   | Description  | Letter   | Mr. Messy Order | Messier Number |
|------|---|--|----------|-----------------|----------------|
| 2    |    | <a href="#">General Sir Herbert Charles Onslow Plumer</a> . He was the victorious <a href="#">British General</a> at the Battle of Messines.<br>Sub-theme: Messines.   | <b>P</b> | 4               | M106           |
| 3    |    | <a href="#">Olga García</a> , forward (#10) playing for <a href="#">FC Barcelona Femení</a> . In March 2017, <a href="#">Messi tweeted</a> "FCB Femeni player Olga Garcia is my new crush."<br>Sub-theme: Messi.   | <b>G</b> | 63              | M38            |
| 3    |    | <a href="#">Evil eye</a> symbol. M64 is known as the " <a href="#">Black Eye</a> " or "Evil Eye" galaxy.<br>Sub-theme: Messier.  | <b>E</b> | 15              | M36            |
| 3    |    | <a href="#">Andrés Iniesta</a> , midfielder (#8) playing for FC Barcelona. He is currently captain of the team and Messi is vice-captain.<br>Sub-theme: Messi.   | <b>I</b> | 28              | M37            |
| 3    |    | Australian troops march past the <a href="#">ruins of the Cathedral and Cloth Hall in Ypres</a> , 1917. Messines Ridge was located on the southern section of the Ypres Salient.<br>Sub-theme: Messines.   | <b>Y</b> | 5               | M35            |
| 3    |   | Bradford Dillman in the titular role in the film <a href="#">Francis of Assisi</a> (41:10 mark). Messiaen's opera <a href="#">Saint François d'Assise</a> , based on the life of Saint Francis of Assisi, was premièred by the Paris Opera at the Palais Garnier in 1983.<br>Sub-theme: Messiaen.  | <b>F</b> | 48              | M1             |
| 4    |  | The Nineveh part of the <a href="#">Jonah Surveying Nineveh window</a> in Christ Church Cathedral, Oxford. It was desgined by Abraham van Linge, the same person who created the east window in the Messing Church of All Saints.<br>Sub-theme: Messiaen (indirectly, also "Mess" words).  | <b>N</b> | 14              | M90            |
| 4    |  | Treasure chest. The 14th century dug out <a href="#">chest</a> in the Messing All Saints Church has been digitally altered to be full of gold coins. The chest is on display on the south side of the church near the transept. During the English Civil War, the villagers carefully removed the <a href="#">Abraham van Linge enamelled window</a> , placed it in the Church's great chest, together with other church treasures, and hid it in the church's vault, thus preserving it from destruction.<br>Sub-theme: "Mess" words. | <b>T</b> | 65              | M86            |
| 4    |  | <a href="#">Lia Halloran</a> , who reproduced the Messier objects as art in <a href="#">Deep Sky Companion</a> . Image is taken from <a href="#">this video</a> , around the 2:20 mark.<br>Sub-theme: Messier.   | <b>H</b> | 64              | M84            |

| Page | Hexagon   | Description   | Letter | Mr. Messy Order | Messier Number |
|------|---|---|--------|-----------------|----------------|
| 4    |    | Top portion of the Official Coat of Arms of the <a href="#">City of Rosario</a> , in the province of Santa Fe, Argentina. Rosario is the birthplace of Lionel Messi.<br>Sub-theme: Messi.   | R      | 49              | M89            |
| 4    |    | <a href="#">Undermine</a> from <a href="#">Transformers: Cybertron</a> anime series. Undermining was the big tactic for the British against the Germans at Messines Ridge.<br>Sub-theme: Messines.  | U      | 54              | M87            |
| 4    |    | <a href="#">Gold misshapen pearl and diamond ring</a> . M57 is the <a href="#">Ring Nebula</a> .<br>Sub-theme: Messier.   | R      | 20              | M60            |
| 4    |    | <a href="#">Yellowhammer</a> call. When Église de la Sainte-Trinité, where Messiaen was organist, celebrated the 100th anniversary, Messiaen used the yellowhammer call, <a href="#">seven repeated notes and a final sustained note</a> , to signal the end of improvisations between sermons. These improvisations were the basis for his work <i>Méditations sur le Mystère de la Sainte Trinité</i> .<br>Sub-theme: Messiaen. | Y      | 17              | M59            |
| 4    |    | Flag of the Principality of <a href="#">Salm-Salm</a> , a state of the Holy Roman Empire. The first capital of Salm-Salm was <a href="#">Badonviller</a> , the birthplace of Charles Messier.<br>Sub-theme: Messier.  | S      | 21              | M58            |
| 5    |   | Barn swallow. In <i>La Fauvette des Jardins</i> , Messiaen depicts the flight of the barn swallow. The <a href="#">Messerschmitt Me 262</a> , was nicknamed Schwalbe (German: "Swallow").<br>Sub-theme: "Mess" words & Messiaen.  | S      | 35              | M14            |
| 5    |  | <a href="#">Eclairs</a> . One of Messiaen's major works was titled Messiaen <a href="#">Éclairs sur l'au-delà...</a> (Lightning Over the Beyond).<br>Sub-theme: Messiaen.   | E      | 34              | M12            |
| 5    |  | Napoleon from <a href="#">Animal Farm</a> . Charles Messier self-published a booklet connecting the <a href="#">Great Comet of 1769</a> to the birth of Napoleon.<br>Sub-theme: Messier.  | N      | 31              | M10            |
| 5    |  | <a href="#">Messier crater</a> , young lunar impact crater named after Charles Messier.<br>Sub-theme: Messier.  | M      | 33              | M107           |
| 6    |  | <a href="#">Caroline Herschel</a> , astronomer and sister of astronomer Sir William Herschel. She was a comet hunter like Messier, and discovered M48 and M110.<br>Sub-theme: Messier.  | H      | 57              | M46            |

| Page | Hexagon   | Description  | Letter   | Mr. Messy Order | Messier Number |
|------|---|--|----------|-----------------|----------------|
| 6    |    | Wild bee hive in a tree. M44 is the <a href="#">Beehive Cluster</a> .<br>Sub-theme: Messier.   | <b>B</b> | 52              | M47            |
| 6    |    | Mr. Tidy from the <a href="#">Mr. Messy video</a> (3:19 mark).<br>Sub-theme: "Mess" words.   | <b>T</b> | 24              | M41            |
| 6    |    | <a href="#">Turanga Leela</a> , Captain of the Planet Express Ship in the animated series <i>Futurama</i> . Her full name is a reference to Olivier Messiaen's famous orchestral piece, the <a href="#">Turangali-la-Symphonie</a> .<br>Sub-theme: Messiaen.   | <b>L</b> | 37              | M93            |
| 7    |    | Dipstick. The German word for dipstick is " <a href="#">Messtab</a> ."<br>Sub-theme: "Mess" words.   | <b>D</b> | 60              | M29            |
| 7    |   | Gina Torres as <a href="#">Nebula</a> in the television series <i>Hercules: The Legendary Journeys</i> . This hexagon is connected to the back of the postcard on Page 7 by a dashed gray line and there is a TV icon next to it. This implies that postcard is Hercules-related.<br>Sub-theme: Messier. | <b>N</b> | 59              | M57            |
| 7    |  | <a href="#">Inworth village sign</a> . <a href="#">Inworth</a> is a small village in the civil parish of Messing-cum-Inworth, Essex. The other village in Messing-cum-Inworth is Messing, the location of the treasure.<br>Sub-theme: "Mess" words.  | <b>I</b> | 58              | M56            |
| 7    |  | Sheila White as <a href="#">Messalina</a> , wife of Claudius in the BBC television series <i>I, Claudius</i> .<br>Sub-theme: "Mess" words.   | <b>M</b> | 51              | M27            |
| 8    |  | <a href="#">Caterpillar CAT Track Loader</a> . The model number on the lift is blacked out, but the loader is similar to the 973D. One of the mine sites in the Battle of Messines was known as <a href="#">The Caterpillar</a> .<br>Sub-theme: Messines.  | <b>C</b> | 13              | M22            |
| 8    |  | <a href="#">Iceni Faction logo</a> from the video game <i>Total War: Rome II</i> . <a href="#">The Rampart</a> in Messing is believed by some to be the site of the final battle between Boudicca, Queen of the Iceni, and the might of the Roman Empire.<br>Sub-theme: "Mess" words.                    | <b>I</b> | 25              | M28            |
| 8    |  | <a href="#">Mating turtle (Allaeochelys crassesculpta) fossil</a> from Messel Pit in Germany.<br>Sub-theme: "Mess" words.  | <b>A</b> | 41              | M21            |

| Page | Hexagon   | Description   | Letter | Mr. Messy Order | Messier Number |
|------|---|---|--------|-----------------|----------------|
| 8    |    | <a href="#">Jeanne Lloriod</a> , Ondes Martenot player, and sister to Yvonne Lloriod, the second wife of Olivier Messiaen. Image taken from the <a href="#">video Master-class d'ondes Martenot de Jeanne Lloriod</a> at the 7:33 mark. At this point she is at the Musée de la Musique (Museum of Music) in Paris, near the <a href="#">Plateau du XXème siècle</a> (20th century exhibit). This hexagon is connected to the letter grid with the background trench map by a dashed gray line and a mine key logo is located nearby. This hints that this hexagon is involved in the trifold cipher.<br>Sub-theme: Messiaen. | L      | 44              | M20            |
| 8    |    | Panel from <a href="#">Benny Breakiron #2: Madame Adolphine</a> by <a href="#">Peyo</a> , where a robot version of Madame Adolphine is <a href="#">robbing a bank</a> . The <a href="#">Messerschmitt Me 261</a> was unofficially named Adolphine, in honor of Adolf Hitler. It was never put into service.<br>Sub-theme: "Mess" words.   | A      | 19              | M8             |
| 8    |   | Xylophone. Note that the rainbow colors are the same used in the Poster to represent notes. Messiaen used <a href="#">three types of xylophone</a> in the 6th movement of <i>Petites esquisses d'oiseaux</i> , "the Skylark," as a way of paying tribute to Bali, where metallophones were commonly used to introduce big events.<br>Sub-theme: Messiaen.   | X      | 29              | M54            |
| 8    |  | Whirlpool. M51 is the <a href="#">Whirlpool Galaxy</a> .<br>Sub-theme: Messier.   | W      | 16              | M70            |
| 8    |  | <a href="#">Ondes Martenot</a> , an electronic keyboard instrument invented by Maurice Martenot, designed to sound similar to a <a href="#">theramin</a> . Olivier Messiaen used the instrument in several of his compositions.<br>Sub-theme: Messiaen.   | O      | 22              | M69            |
| 9    |  | <a href="#">Roman Imperial gold coin</a> showing <a href="#">Emperor Claudius</a> (a.k.a. Claudius I). His wife was Messalina, who was notoriously unfaithful.<br>Sub-theme: "Mess" words.  | C      | 55              | M80            |
| 9    |  | <a href="#">Álex de la Iglesia</a> , director of the biopic <a href="#">Messi</a> . The release poster for the film can be seen in the background.<br>Sub-theme: Messi.   | I      | 12              | M4             |
| 9    |  | <a href="#">Peckham Rye station</a> . Peckham was the name of two of the mines at the Battle of Messines (only one was detonated).<br>Sub-theme: Messines.  | P      | 11              | M19            |

| Page | Hexagon   | Description   | Letter | Mr. Messy Order | Messier Number |
|------|---|---|--------|-----------------|----------------|
| 9    |    | <a href="#">Island of Ireland Peace Park</a> at Messines, a memorial dedicated to Irish soldiers lost during World War I. The image shows three pillars showing the total number of killed, wounded and missing members of three voluntary Irish Divisions.<br>Sub-theme: Messines.   | I      | 62              | M62            |
| 9    |    | Mr. Neat from the <i>Mr. Messy</i> <a href="#">video</a> (3:03 or 3:22 mark).<br>Sub-theme: "Mess" words.   | N      | 42              | M6             |
| 9    |    | British £1 Banknote from <a href="#">Dumbell's Banking Company</a> . M27 is the <a href="#">Dumbbell Nebula</a> .<br>Sub-theme: Messier.  | D      | 43              | M7             |
| 10   |    | Dabbling waterfowl of some sort. Given the brownish coloration of the feathers, it looks like a <a href="#">swan cygnet</a> . The <a href="#">Omega Nebula</a> used earlier is also known as the Swan Nebula.<br>Sub-theme: Messier.  | S      | 9               | M16            |
| 10   |   | <a href="#">15th century engraving</a> of the patron saint of goldsmiths, <a href="#">Saint Eligius</a> , in his workshop. St. Eloi is the location of one of the British mines of Messines Ridge. The village takes its name from Saint Eligius who worked for twenty years to convert the pagan population of Flanders to Christianity.<br>Sub-theme: Messines.         | E      | 56              | M17            |
| 10   |  | <a href="#">Iannis Xenakis</a> , a Greek-French composer who <a href="#">studied under Olivier Messiaen</a> . (There is a secondary connection to Messier; one of the compositions of Xenakis is <a href="#">Pléiades</a> , and the Pleiades cluster is M45. This is probably not intended as there is a direct link to the Pleiades on Page 11.)<br>Sub-theme: Messiaen. | X      | 6               | M18            |
| 10   |  | <a href="#">Essex County Fire &amp; Rescue Service logo</a> . This hexagon is connected to the musical score on the page, and Messiaen's musical alphabet is used to extract the phrase, ÉPÉES DE FEU, French for "swords of fire."<br>Sub-theme: Messiaen.   | E      | 10              | M24            |
| 10   |  | <a href="#">Ascension Island</a> , an isolated volcanic island in the South Atlantic Ocean. The island is named after the day on which it was discovered, <a href="#">Ascension Day</a> . One of Olivier Messiaen's orchestral compositions was titled <a href="#">L'ascension</a> .<br>Sub-theme: Messiaen.  | A      | 8               | M25            |
| 11   |  | Soccer goal. The image is a frame from <a href="#">this video</a> (0:09 mark), right before Messi scores a hat trick goal in a game between Barcelona and RCD Espanyol.<br>Sub-theme: Messi.  | G      | 32              | M66            |

| Page | Hexagon   | Description   | Letter | Mr. Messy Order | Messier Number |
|------|---|---|--------|-----------------|----------------|
| 11   |    | <a href="#">Azophi</a> , a lunar crater named after Persian astronomer <a href="#">Abd al Rahman al-Sufi</a> . Al-Sufi's <i>The Book of Fixed Stars</i> contains the first known report of the <a href="#">Andromeda Galaxy</a> , M31.<br>Sub-theme: Messier. | A      | 2               | M65            |
| 11   |    | <a href="#">Untidy</a> , from the <a href="#">Yo-kai Watch</a> role-playing video games. Untidy is a synonym for "messy."<br>Sub-theme: "Mess" words.   | U      | 38              | M105           |
| 11   |    | Ida, primate fossil of genus <a href="#">Darwinius</a> , discovered in 1983 at the at the Messel Pit in Germany.<br>Sub-theme: "Mess" words.  | I      | 30              | M96            |
| 11   |    | NASA supercomputer <a href="#">Pleiades</a> . M45 is the <a href="#">Pleiades Cluster</a> .<br>Sub-theme: Messier.  | P      | 3               | M95            |
| 12   |    | Portrait of <a href="#">Rupprecht, Crown Prince of Bavaria</a> . He was one of the German generals during the Battle of Messines.<br>Sub-theme: Messines.   | R      | 53              | M73            |
| 12   |  | Fingerprint, showing a prominent <a href="#">whorl</a> . A whorl is a spiral pattern, simaliar to that seen in many face-on spiral galaxies, such as M31, M33, M51, M58, M64, M74, M81 and M101.<br>Sub-theme: Messier.                                       | F      | 27              | M72            |
| 12   |  | <a href="#">Students in military drills at Eton College</a> during World War I. There is a traditional English dessert that is thought to have originated at Eton College, called <a href="#">Eton mess</a> .<br>Sub-theme: "Mess" words.                     | E      | 18              | M30            |
| 12   |  | Outline map of <a href="#">Ontario</a> , Canada. Ontario Farm was the locations of one of the mines detonated by the Allied forces during the Battle of Messines.<br>Sub-theme: Messines.   | O      | 50              | M75            |

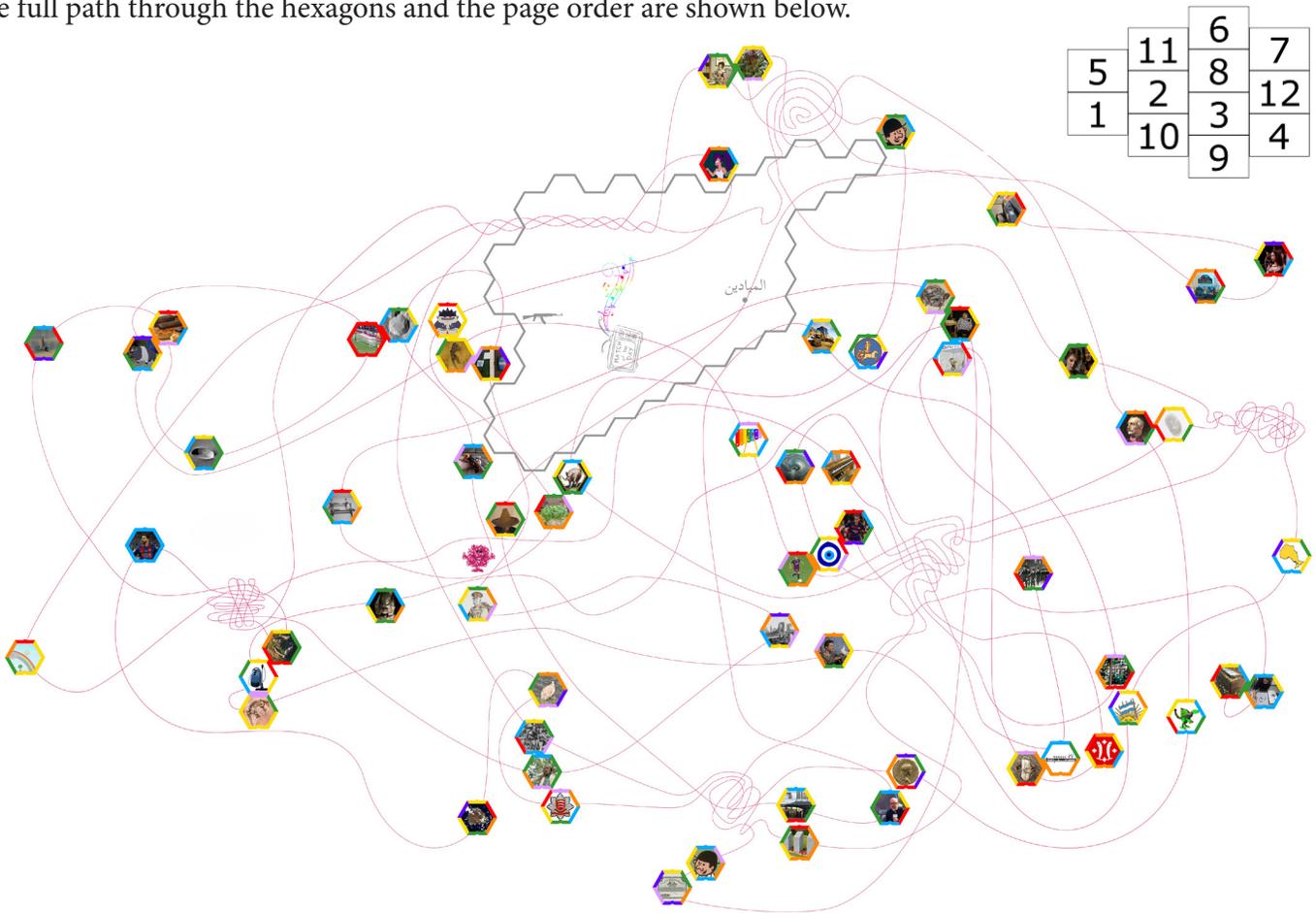
# Scribble Path

There is a crazy, swirling magenta path shown on each of the pages of the Hunt document. The pages can be assembled in such a way as to make a continuous path with starting and ending points. The starting point is an image on Page 2:



This is [Mr. Messy](#) of the *Mr. Men* book series by Roger Hargreaves. He is the de facto symbol of the sub-theme of words that start with "mess." The path is the same color as Mr. Messy, passing through each hexagon once, and ending on the hexagon with a treasure chest on Page 4. This implies we have a messy path to the treasure.

The full path through the hexagons and the page order are shown below.



The order of the hexagons on the path is shown in column 5 of the hexagons table. Using the letters associated with the hexagons, the path spells out the message, HAPPY XMAS, EPIC NEW YEAR SORTIE FIXING MESS, LUCK AND LOVE FROM BRUCE HINDSIGHT.

We also note that when the pages are put together to make the path, a gray hexagonal border is formed in the top central region. This is the Syria jigsaw puzzle that will be discussed in an upcoming section. But before we get to that, there is a helper puzzle we need to discuss first.

# Domino Cipher

Page 4 has a cipher that is clued in three parts. It was also hinted at in the Seasonal Message.

## PICTURE DOMINO

This image to the right is shaped like a domino, with different items on each half. The left side of the domino shows three popes: on the left is [Pope Paul VI](#), in the middle is an illustration of [Pope Nicholas IV](#), and on the right is a coin showing [Pope Eugene IV](#) ([coin image](#)). The right side of the domino shows some of the cast from the television show [Messiah](#) (from the [DVD cover](#) for Series 3 and 4). Taken together, they form the clue “Pope’s *Messiah*,” which leads to the poem [Messiah](#) by [Alexander Pope](#).



## MYSTERIOUS PHRASE



Next we have a series of boxes that look like they are supposed to contain text. It appears to indicate a proportional font, so certain letters are wider than others. When taken together with the letters that have ascenders and descenders the words can be worked out. When used with the clue from the picture domino, it is straightforward to see that this is the first line from Pope’s *Messiah*: “Ye Nymphs of Solyma begin the song.”

## DOMINO CHAIN

The final piece of the puzzle is the series of dominoes chained together, as if from a game of dominoes. However, a typical game of dominoes matches the number of pips between two dominoes, so this is something else. The first domino in the series having red pips (2-5), and the fifth letter of the second word of the mysterious phrase also being red is hinting that this is a book cipher using Pope’s *Messiah* as the source. The two sets of pips on each domino stand for the word and letter of successive line of the poem.

| Line | <i>Messiah</i> Text                                 | Domino | Letter |
|------|---|--------|--------|
| 1    | Ye Nymphs of Solyma! begin the song:                | 2-5    | H      |
| 2    | To heav’nly themes sublimer strains belong.         | 6-2    | E      |
| 3    | The mossy fountains, and the sylvan shades,         | 6-3    | L      |
| 4    | The dreams of Pindus and th’ Aonian maids,          | 4-1    | P      |
| 5    | Delight no more — O thou my voice inspire           | 1-3    | L      |
| 6    | Who touch’d Isaiah’s hallow’d lips with fire!       | 3-4    | I      |
| 7    | Rapt into future times, the bard begun:             | 2-4    | O      |
| 8    | A Virgin shall conceive, a Virgin bear a Son:       | 6-6    | N      |
| 9    | From Jesse’s root behold a Branch arise,            | 2-2    | E      |
| 10   | Whose sacred flower with fragrance fills the skies: | 6-4    | L      |
| 11   | Th’ Ethereal Spirit o’er its leaves shall move,     | 1-1    | T      |
| 12   | And on its top descends the mystic Dove.            | 4-2    | O      |

| Line | Messiah Text  | Domino | Letter |
|------|---|--------|--------|
| 13   | Ye Heav'ns! from high the dewy nectar pour,           | 3-2    | R      |
| 14   | And in soft silence shed the kindly show'r!           | 4-4    | E      |
| 15   | The sick and weak the healing plant shall aid,        | 3-1    | A      |
| 16   | From storms a shelter, and from heat a shade.         | 1-2    | R      |
| 17   | All crimes shall cease, and ancient fraud shall fail; | 2-4    | M      |
| 18   | Returning Justice lift aloft her scale;               | 5-3    | R      |
| 19   | Peace o'er the world her olive wand extend,           | 1-5    | E      |
| 20   | And white-robed Innocence from heav'n descend.        | 3-3    | B      |
| 21   | Swift fly the years, and rise the expected morn!      | 6-4    | E      |
| 22   | Oh spring to light, auspicious Babe! be born.         | 4-1    | L      |
| 23   | See, Nature hastes her earliest wreaths to bring,     | 3-6    | S      |

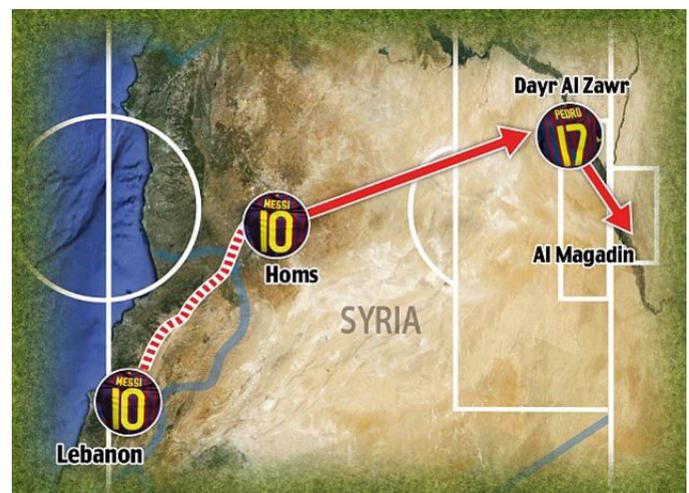
In general, the order of the domino pips proceeds along the direction of travel. The only ambiguity is when a vertical/horizontal domino connects to a horizontal/vertical domino at the mid-line. Here the rule seems to be to take the leftmost side of second domino first (with respect to the first domino's point of view).

The enciphered phrase "HELP LIONEL TO REARM REBELS" is a clue to help fit hexagons into the border of Syria. The Messi hexagon will go over the image of the rifle, and the goal hexagon will go over the city of Mayadin, presumably where the rebels are located.

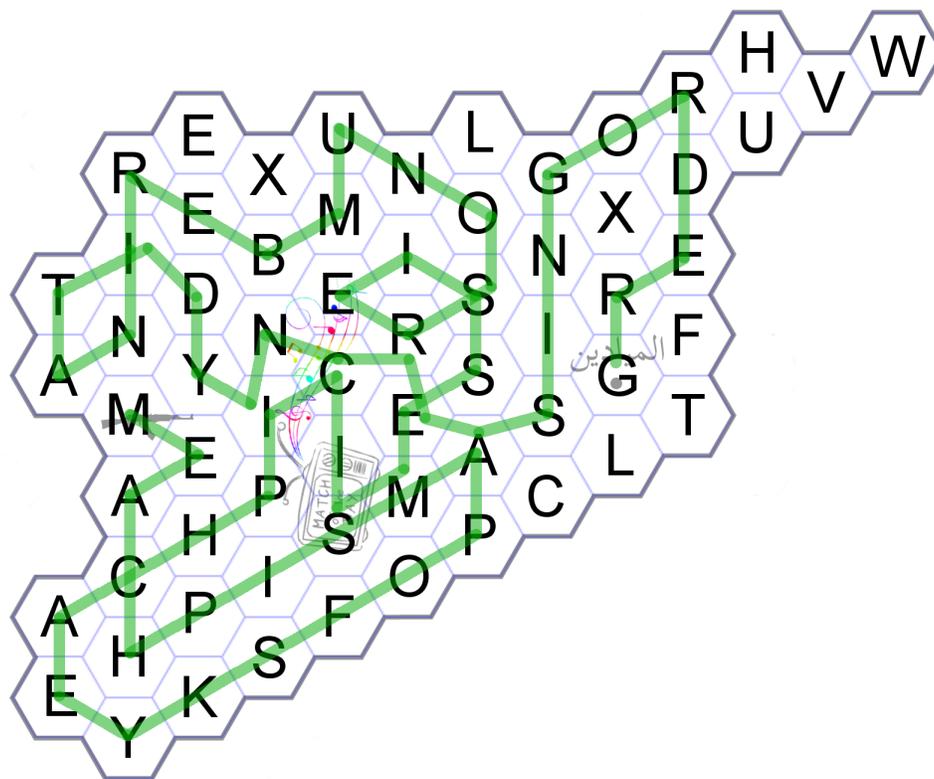
## Syria Jigsaw Puzzle

From the domino cipher, we know this puzzle is Messi-related. The border outline matches that of Syria, and has a rifle and some Arabic text above a dot. Since this appears to a map, it is reasonable to assume the Arabic is the name of a town or city. The Arabic translates to "[Al-Mayadin](#)" or more commonly, Mayadin. During the Syrian Civil War, Free Syrian Army captured the town in late August 2012. The town was captured by ISIL in July 2013, and remained in their control until October 2017, when the Syrian Army retook the town. The rifle appears to be over the location of [Homs](#).

[Messi is known](#) for funding the construction of classrooms in Syria through donations from the Messi Foundation through Unicef. He has been an ambassador for Unicef since 2010, and has previously called for an end to the war in Syria, calling it "heartbreaking." This puzzle seems to be predicated on a 2012 hoax that Messi and teammates were part of an [anti-Syria conspiracy](#). A fake news report Addounia TV [suggested](#) Lionel Messi, Andres Iniesta and Pedro were said to reveal the best way to smuggle arms into Syria during an El Clásico encounter against Real Madrid. The way they passed the ball around showed a weapons smuggling route from Lebanon into Homs and then to Dayr Al Zwar and finally Al Mayadin.







|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|
| Note   | C |   | F |   | A |   | C |   | A |   | A |   | A |   | A |   | A |   | A |   | B |   | C |   | A |   | G |   | A |   | B |   | C |  |   |
| Color  | B |   | R |   | Y |   | B |   | Y |   | Y |   | Y |   | Y |   | Y |   | Y |   | Y |   | G |   | B |   | Y |   | O |   | Y |   | G |  | B |
| Letter |   | E |   | A |   | C |   | H |   | P |   | I |   | S |   | M |   | A |   | P |   | O |   | F |   | S |   | K |   | Y |   | E |   |  |   |

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Note   | E |   | G |   | B |   | G |   | G |   | G |   | G |   | G |   | A |   | B |   | G |   | F |   | G |   | A |   | C |   | F |   |
| Color  | V |   | O |   | G |   | O |   | O |   | O |   | O |   | O |   | Y |   | G |   | O |   | R |   | O |   | Y |   | B |   | R |   |
| Letter |   | A |   | C |   | H |   | P |   | I |   | C |   | I |   | S |   | M |   | E |   | S |   | S |   | I |   | E |   | R |   | S |

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Note   | A |   | C |   | A |   | A |   | A |   | A |   | A |   | B |   | C |   | A |   | B |   | C |   | D |   | D |   | E |   | F |   |   |
| Color  | Y |   | B |   | Y |   | Y |   | Y |   | Y |   | Y |   | Y |   | G |   | B |   | Y |   | G |   | B |   | I |   | I |   | V |   | R |
| Letter |   | O |   | N |   | U |   | M |   | B |   | E |   | R |   | I |   | N |   | A |   | T |   | I |   | D |   | Y |   | I |   | N |   |

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Note   | F |   | E |   | E |   | D |   | F |   | C |   | C |   | D |   | C |   | B |   | A |   | A |   | G |   | F |
| Color  | R |   | V |   | V |   | I |   | R |   | B |   | B |   | I |   | B |   | G |   | Y |   | Y |   | O |   | R |
| Letter |   | C |   | R |   | E |   | A |   | S |   | I |   | N |   | G |   | O |   | R |   | D |   | E |   | R |   |

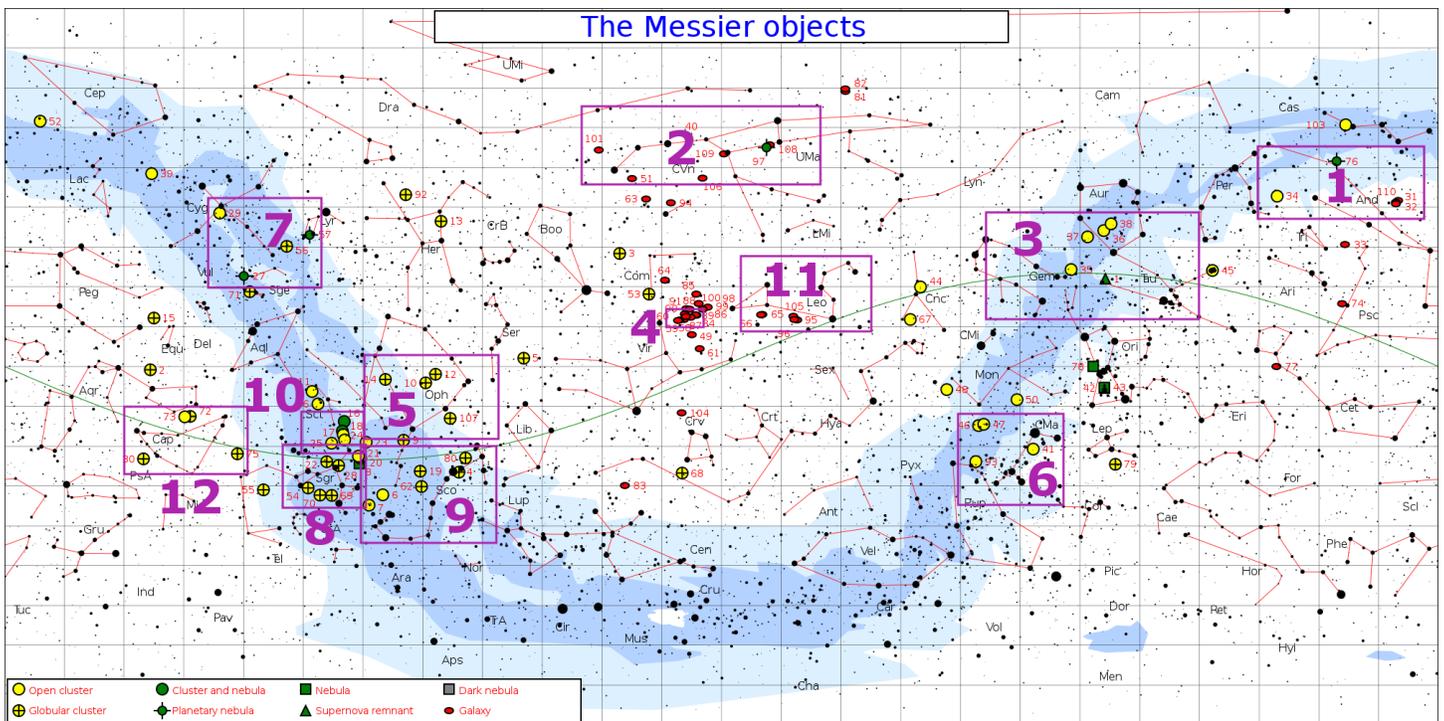
The message is EACH P IS MAP OF SKY; EACH PIC IS MESSIER, SO NUMBER IN A TIDY INCREASING ORDER. This tells us that each page is a map of the sky, and that each hexagon is at the location of a Messier object. We will discuss this puzzle next.

## Sky Maps

The Syria puzzle has informed us that each page is a sky map, and that the hexagons are [Messier objects](#). It turns out that multitude of coffee stains on the pages represent stars in constellations. More detail about which hexagons represent which Mesier objects can be found in the sixth column of the hexagon table.

| Page | Constellations  | Messier Objects                        |
|------|---|--|
| 1    | <a href="#">Andromeda</a> , <a href="#">Perseus</a>                       | M31, M32, M34, M76, M110               |
| 2    | <a href="#">Canes Venatici</a> , <a href="#">Ursa Major</a>               | M40, M51, M97, M101, M106, M108, M109  |
| 3    | <a href="#">Auriga</a> , <a href="#">Gemini</a> , <a href="#">Taurus</a>  | M1, M35, M36, M37, M38                 |
| 4    | <a href="#">Coma Berenices</a> , <a href="#">Virgo</a>                    | M58, M59, M60, M84, M86, M87, M89, M90 |
| 5    | <a href="#">Ophiuchus</a>   | M10, M12, M14, M107                    |
| 6    | <a href="#">Canis Major</a> , <a href="#">Puppis</a>                      | M41, M46, M47, M93                     |
| 7    | <a href="#">Cygnus</a> , <a href="#">Lyra</a> , <a href="#">Vulpecula</a> | M27, M29, M56, M57                     |
| 8    | <a href="#">Sagittarius</a>   | M8, M20, M21, M22, M28, M54, M69, M70  |
| 9    | Ophiuchus, <a href="#">Scorpius</a>                                       | M4, M6, M7, M19, M62, M80              |
| 10   | Sagittarius, <a href="#">Serpens Cauda</a>                                | M16, M17, M18, M24, M25                |
| 11   | <a href="#">Leo</a>   | M65, M66, M95, M96, M105               |
| 12   | <a href="#">Aquarius</a> , <a href="#">Capricornus</a> , Sagittarius      | M30, M72, M73, M75                     |

The locations of each page in the sky is shown in the following figure:



Arranging these Messier objects in numerically increasing order and taking the letters associated with the hexagons for each of the Messier objects results in the phrase: FIND AN ESSEX PLACE AMID EVERY EIGHTH BOX IN SYRIA; GO W FROM CH, TURN L, PICK UP MESS.

The first part concerns the message extracted from the Syria map. If we take every 8th letter of that message, we get MESSING. This is our first indication that the treasure location is in Messing, Colchester, Essex. The rest of the phrase from the Messier objects are directions on how to find the treasure in Messing.

# Musical Scores

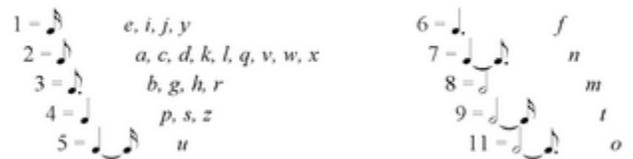
Several pages have musical scores that are connected to other items on the pages by dashed gray lines. The first of these, on Page 1, also has text associated with it. The apparent composer “Nieve O. Serialism” is an anagram for the French composer “Olivier Messiaen.” Messiaen used [serialism](#) for some of his compositions, such as [Mode de valeurs et d'intensités](#) (Mode of Durations and Intensities). Serialism is a method or technique of composition that uses a series of values to manipulate different musical elements.

So we know these score have something to do with Messiaen. In particular, they use Messiaen’s “[musical alphabet](#),” where different pitches are assigned to different letters, with each pitch always having the same duration, as illustrated in the following figures from the given link:

EXAMPLE 13: the ascending progression of musicalized letters



TABLE 12: the rhythmic value of the letters



Each page’s score will be discussed below. Durations will be given in terms of the base duration, the sixteenth note. Pitches will be given in terms of [scientific pitch notation](#).

## PAGE 1 SCORE

Nieve O. Serialism



| Pitch    | A4   | E6   | C5   | F6   | E5   | E $\flat$ 4 | C5   | F $\sharp$ 6 | E5   | E $\flat$ 5 |
|----------|------|------|------|------|------|-------------|------|--------------|------|-------------|
| Duration | 2/16 | 3/16 | 2/16 | 4/16 | 1/16 | 7/16        | 2/16 | 1/16         | 1/16 | 2/16        |
| Letter   | A    | R    | C    | S    | E    | N           | C    | I            | E    | L           |

ARCS-EN-CIEL is French for “rainbows,” and is attached to the rainbow hexagon.

## PAGE 7 SCORE



| Pitch    | B $\flat$ 4 | E6   | C $\sharp$ 3 | F6   | C4   | C $\sharp$ 3 | E5   | F6   | E5   | D2   | B5    | F $\sharp$ 6 |
|----------|-------------|------|--------------|------|------|--------------|------|------|------|------|-------|--------------|
| Duration | 3/16        | 3/16 | 5/16         | 4/16 | 2/16 | 5/16         | 1/16 | 4/16 | 1/16 | 9/16 | 11/16 | 1/16         |
| Letter   | B           | R    | U            | S    | Q    | U            | E    | S    | E    | T    | O     | I            |

| Pitch    | E $\flat$ 5 | E5   | F6   |
|----------|-------------|------|------|
| Duration | 2/16        | 1/16 | 4/16 |
| Letter   | L           | E    | S    |

BRUSQUES ÉTOILES is French for “sudden stars,” here meant to indicate comets as it is attached to the comet time line.

PAGE 9 SCORE



|                 |      |       |      |      |      |      |      |      |
|-----------------|------|-------|------|------|------|------|------|------|
| <b>Pitch</b>    | F5   | B5    | C#3  | F#6  | E♭5  | E♭5  | F#6  | F6   |
| <b>Duration</b> | 6/16 | 11/16 | 5/16 | 1/16 | 2/16 | 2/16 | 1/16 | 4/16 |
| <b>Letter</b>   | F    | O     | U    | I    | L    | L    | I    | S    |

FOUILLIS is French for “tangle” or “clutter,” or more thematically, “mess.” Appropriately, the score is attached to the Mr. Messy scribble path.

PAGE 10 SCORE



|                 |      |      |      |      |      |      |      |      |      |      |
|-----------------|------|------|------|------|------|------|------|------|------|------|
| <b>Pitch</b>    | E5   | G3   | E5   | E5   | F6   | D5   | E5   | F5   | E5   | C#3  |
| <b>Duration</b> | 1/16 | 4/16 | 1/16 | 1/16 | 4/16 | 2/16 | 1/16 | 6/16 | 1/16 | 5/16 |
| <b>Letter</b>   | E    | P    | E    | E    | S    | D    | E    | F    | E    | U    |

ÉPÉES DE FEU is French for “swords of fire.” The score is attached to the Essex County Fire & Rescue Service hexagon. The coat of arms for Essex (and the Fire and Rescue logo) has three Seaxes (charges consisting of a curved sword with a notched blade) on it, so one could envision calling the swords on the logo “swords of fire.”

QU’EST-CE QUE CES MOTS ONT À VOIR AVEC MESSIAEN?

What do these words have to do with Messiaen? They can all be found in the preface for the seventh movement of Messiaen’s *Quatuor pour la fin du temps* (Quartet for the End of Time). This work was inspired by text from the Book of Revelation (Rev 10:1–2, 5–7, King James Version).

French:

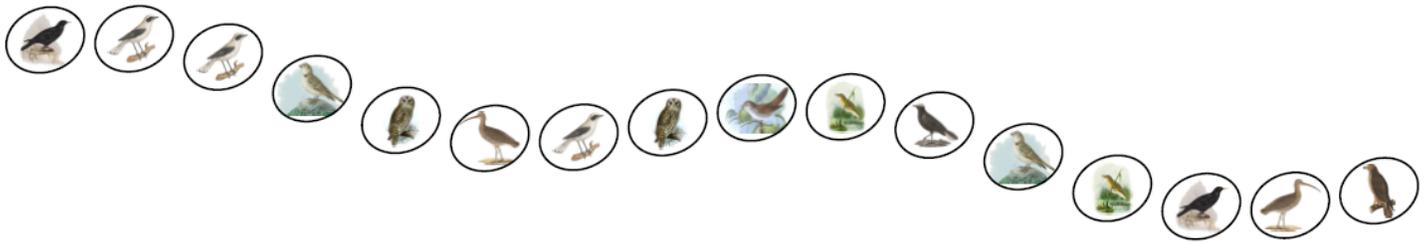
VII. **Fouillis d’arcs-en-ciel**, pour l’Ange qui annonce la fin du Temps  
 Reviennent ici certains passages du second mouvement. L’Ange plein de force apparaît, et surtout l’**arc-en-ciel** qui le couvre (l’**arc-en-ciel**, symbole de paix, de sagesse, et de toute vibration lumineuse et sonore). – Dans mes rêves, j’entends et vois accords et mélodies classés, couleurs et formes connues ; puis, après ce stade transitoire, je passe dans l’irréel et subis avec extase un tournoiement, une compénétration giratoire de sons et couleurs surhumains. Ces **épées de feu**, ces coulées de lave bleu-orange, ces **brusques étoiles** : voilà le **fouillis**, voilà les **arc-en-ciel**!

English:

VII. “Tangle (Mess) of rainbows, for the Angel who announces the end of time”  
 Recurring here are certain passages from the second movement. The angel appears in full force, especially the rainbow that covers him (the rainbow, symbol of peace, wisdom, and all luminescent and sonorous vibration). – In my dreams, I hear and see ordered chords and melodies, known colors and shapes; then, after this transitional stage, I pass through the unreal and suffer, with ecstasy, a tournament; a roundabout compenetrations of superhuman sounds and colors. These swords of fire, this blue-orange lava, these sudden stars: here is the tangle (mess), here are the rainbows!

# Bird Cipher

Page 10 has a string of sixteen ellipses with illustrations of various birds within them:



These birds are all included in Olivier Messiaen's thirteen-piece *Catalogue d'oiseaux* ("Catalogue of birds")<sup>1</sup>. Messiaen stated that "Each piece is written in honor of a French province. It bears the title of the bird-type of the chosen region." A clue to how this cipher works is presented on the blue-bordered word card:



This image evokes the phrase "A to Z." The bird shown is the Alpine chough, the first piece in *Catalogue d'oiseaux*. The method for this cipher is as follows. Right-facing birds represent the letters A-M, with their position within the Messiaen work used to count from the start of the alphabet. Left-facing birds represent the letters Z-N, with their position within the Messiaen work used to count from the end of the alphabet.

| Number | Bird                    | Direction | Letter |
|--------|-------------------------|-----------|--------|
| 1      | Alpine chough           | Right     | A      |
| 2      | Black-eared wheatear    | Right     | D      |
| 3      | Black-eared wheatear    | Right     | D      |
| 4      | Greater short-toed lark | Left      | S      |
| 5      | Tawny owl               | Right     | E      |
| 6      | Eurasian curlew         | Left      | N      |
| 7      | Black-eared wheatear    | Right     | D      |
| 8      | Tawny owl               | Right     | E      |
| 9      | Cetti's warbler         | Left      | R      |
| 10     | Eurasian reed warbler   | Left      | T      |
| 11     | Black wheatear          | Left      | O      |
| 12     | Greater short-toed lark | Left      | S      |
| 13     | Eurasian reed warbler   | Left      | T      |
| 14     | Alpine chough           | Right     | A      |
| 15     | Eurasian curlew         | Right     | M      |
| 16     | Common buzzard          | Left      | P      |

The resultant message "ADD SENDER TO STAMP" is a clue to the workings of the postcards found on each page.

<sup>1</sup> The sources for the bird images used in the Hunt document are: [Alpine chough](#), [Eurasian golden oriole](#), [Blue rock thrush](#), [Black-eared wheatear](#), [Tawny owl](#), [Woodlark](#), [Eurasian reed warbler](#), [Greater short-toed lark](#), [Cetti's warbler](#), [Common buzzard](#), [Black wheatear](#), [Eurasian curlew](#). Common rock thrush is not used.



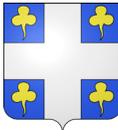
## BLUE SQUARES

The blue squares are French communes whose name starts with “Mess.”

| Position           | Commune                             | Coat of Arms   | Letters   |
|--------------------|-------------------------------------|--|-----------|
| Northernmost       | <a href="#">Messei</a>              |  | TOY       |
| Easternmost        | <a href="#">Messery</a>             |  | DOM       |
| Second easternmost | <a href="#">Messigny-et-Vantoux</a> |  | MGR       |
| Southernmost       | <a href="#">Messimy-sur-Saône</a>   |  | OFF GUARD |

## WHITE ELLIPSES

The white ellipses are French communes where [Olivier Messiaen](#) lived as a child.

| Position            | Commune   | Coat of Arms   | Letters |
|---------------------|---|--|---------|
| Northernmost        | <a href="#">Nantes</a><br>In 1918 his father returned from the war and the family moved to Nantes.  |  | BRO     |
| Second northernmost | <a href="#">Ambert</a><br>The family moved to Ambert in 1909 when he was 4 months old because his father got a teaching assignment there.                         |  | ALIEN   |
| Easternmost         | <a href="#">Grenoble</a><br>At the outbreak of World War I in 1914, Pierre Messiaen enlisted and Cécile took their two boys to live with her brother in Grenoble. |  | HERO    |
| Southernmost        | <a href="#">Avignon</a><br>Olivier Messiaen was born in Avignon on December 10, 1908.   |  | EARL    |

## RED HEXAGONS

The red hexagons are birthplaces of French astronomers who discovered Messier objects.

| Position            | Commune   | Coat of Arms  | Letters |
|---------------------|---|---|---------|
| Northernmost        | <a href="#">Rumigny</a><br>Birthplace of <a href="#">Nicolas-Louis De Lacaille</a> , who compiled a “Catalog of Nebulae of the Southern Sky” and is credited with discovering M4, M6, M7, M8, M69, M83 and M55. |  | GR      |
| Second northernmost | <a href="#">Laon</a><br>Birthplace of <a href="#">Pierre Méchain</a> , who discovered about 25 deep-sky objects which are now known as Messier objects.   |  | OTTOMAN |
| Westernmost         | <a href="#">Coutances</a><br>Birthplace of <a href="#">Guillaume Le Gentil</a> , who discovered M8, M32, M36 and M38.   |  | FLIER   |
| Southernmost        | <a href="#">Belgentier</a><br>Birthplace of <a href="#">Nicolas-Claude Fabri de Peiresc</a> , who made detailed observations of the Orion Nebula (M42) in 1610.   |  | PM      |

## LEFTOVER SYMBOLS

There are eight leftover coat of arms symbols: an argent (white) shield, a gules (red) chevron, three gules gloves and three or (yellow) cinquefoils. When put together, they form the coat of arms of Messing, Colchester, Essex.

[Messing sign 1](#), by the church.

[Messing sign 2](#), by the church.

[Messing sign 3](#), on the Village Hall.

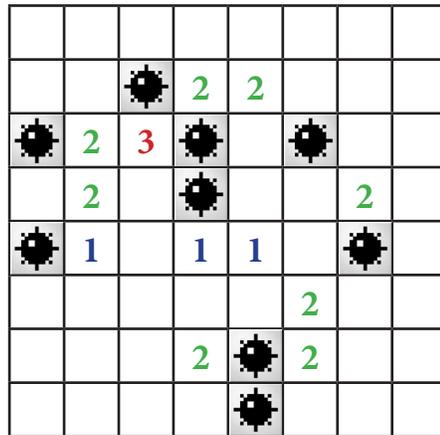
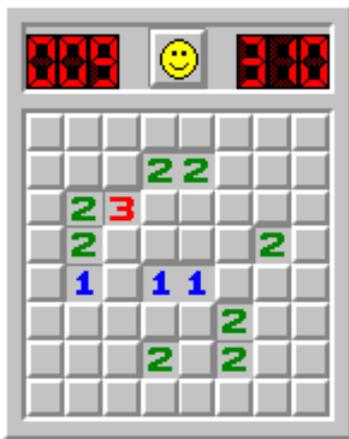
The letters given by the shield and charges spell out the word TREASURE, signifying that Messing is the location of the treasure. This is our second indication of Messing.

As a final note, the blue, white and red shapes on the map are the same as shown on the backs of the postcards. The clues given for each commune are used in conjunction with a postcard that has the same shape.



# Trifid Cipher

Page 6 and Page 7 of the Hunt document contain a cipher using material from the Battle of Messines. The Battle of Messines was known for the Allied forces exploding 19 mines underneath the German trenches. To start, we have to solve a Minesweeper game:



|   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| A | A | T | S | D | C | L | E |
| A | J | G | A | B | R | N | D |
| A | O | N | Y | + | G | A | B |
| G | C | K | O | P | F | A | F |
| P | S | I | A | D | Z | H | X |
| G | Z | T | O | F | X | F | C |
| Q | X | U | J | E | E | H | E |
| T | K | U | Q | R | Q | U | L |

The background image on the letter grid on Page 6 is grid square 21 from the [Wytschaete trench map](#), showing Oostaverne, Belgium in the upper right corner. The Oostaverne line was a German front in the WWI [Battle of Messines](#). Now, both grids have been shown to be linked to Messines. They are also both 8x8 grids. If you overlay the mine positions on the letter grid from Page 6 as a grille cipher, the mines highlight the letters GAYGOPHER (going left to right, top to bottom), which is an anagram of GEOGRAPHY.

On the evening of June 6, 1917, British Major General Charles Harington gathered with a group of reporters on the Western Front to discuss a massive attack that would be launched soon against German forces. [He was quoted as saying](#): “Gentlemen, I do not know whether we shall change history tomorrow,” he said. “But we shall certainly alter the geography.” Rearranging the letters to form GAYGOPHER could certainly be taken as altering the GEOGRAPHY.

The time in the Minesweeper image also relates to Messines. At 3:10 A.M. on June 7, 1917, British engineers detonated 19 mines along the ridge outside Messines. [This source](#) claims 21 mines were laid, so that might be why grid square 21 was chosen as the background image for the grid. Other sources state different numbers of mines.

The letter grid with the trench map is connected to the Jeanne Loriod hexagon by a dashed gray line, implying a link between the two. The Jeanne Loriod hexagon is in the position of M20 on Page 8, and M20 is the Trifid Nebula. This is telling us that the letter grid has been enciphered with a [trifid cipher](#).

There is a mine key icon next to the gray dashed line, implying that the keyword is GAYGOPHER from the Minesweeper grille, and following the use of this type of cipher on teletype, the period is 5. First, we need to remove the letters of the keyword from the text. Then we set of a three-layer tableau using the keyword:

|   |   | Layer 1 |   |   | Layer 2 |   |   | Layer 3 |   |   |
|---|---|---------|---|---|---------|---|---|---------|---|---|
|   |   | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 |
| 1 | G | A       | Y | C | D       | F | Q | S       | T |   |
| 2 | O | P       | H | I | J       | K | U | V       | W |   |
| 3 | E | R       | B | L | M       | N | X | Z       | + |   |

Letters are then assigned trigrams by layer, row and column. To decipher the message, we take the ciphertext in blocks of five, and write out the corresponding trigrams horizontally. The plaintext trigrams are then read vertically:

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| A A T S D   | C L E A J   | A B R N D   | O N + A B   |
| 1 1 2. 1 1  | 2 1 1. 2 3  | 1 1 2. 1 3  | 1 2 1. 2 3  |
| 2. 3 1 3. 3 | 1. 1 3 1. 1 | 3. 1 3 2. 2 | 3. 3 3 3. 1 |
| 1 2. 2 1 2. | 1 2. 2 2 2. | 3 3. 2 1 2. | 1 2. 1 3 3. |
| O R D E R   | C A R D S   | B Y M O V   | E M E N T   |

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| G C K P F   | A F S I A   | D Z X G Z   | T O F X F   |
| 1 1 1. 2 1  | 1 1 2. 2 1  | 2 1 2. 3 3  | 3 1 3. 1 2  |
| 1. 2 2 3. 1 | 3. 3 1 2. 2 | 2. 3 3 1. 1 | 1. 2 1 3. 3 |
| 2 2. 2 1 3. | 2 1. 1 1 2. | 1 1. 3 3 2. | 3 1. 2 1 3. |
| A P P L Y   | R E C I P   | I E N T S   | T O S E N   |

|             |             |             |
|-------------|-------------|-------------|
| C Q X U J   | E H E T K   | U Q Q U L   |
| 2 1 1. 3 1  | 1 3 1. 1 2  | 3 2 1. 3 1  |
| 1. 3 3 1. 3 | 3. 1 3 1. 3 | 1. 3 1 1. 3 |
| 2 1. 2 2 2. | 1 3. 2 2 3. | 2 1. 2 3 1. |
| D E R S R   | E T R A N   | S L A T E   |

This clue, ORDER CARDS BY MOVEMENT; APPLY RECIPIENTS TO SENDERS; RETRANSLATE, is to be used with the postcards and will be discussed in the following section.

## Postcards

Each page contains the front and back of a postcard. On the fronts are images of various things and on the backs are messages, geometric shapes and bird stamps. Each of the front images can be associated with a movement from Messiaen's *Des canyons aux étoiles...*, and act as an ordering mechanism for one of the two messages extracted from the postcards. The birds are among those in Messiaen's *Catalogue d'oiseaux*, and they represent letters of the alphabet just as in the bird cipher on Page 10. The geometric shapes are the same three types as appear on the map of France of Page 5, and the clues garnered from the coats of arms will each be associated with a postcard having a matching shape. These clues, along with the messages, will help identify the senders and recipients of the postcards. First we will need to identify everything.

### PAGE 1 POSTCARD



|        |  |
|--------|--|
| Front  | Amphitheater at <a href="#">Bryce Canyon National Park</a> , UT, USA |
| Shapes | Squares - DOM  |
| Stamp  | Woodlark (right) - F   |
| From:  | <a href="#">Pero da Covilhã</a> - C                                  |
| To:    | <a href="#">Eleni of Ethiopia</a> - E                                |

It is straightforward to link the image of Bryce Canyon to Movement 7 of *Des canyons aux étoiles...*, since the name is in the title Bryce Canyon et les rochers rouge-orange ("Bryce Canyon and the red-orange rocks").

Pero da Covilhã was a Portuguese explorer, charged by King John II to explore the Near East and surrounding areas. On his way back he reached Abyssinia (Ethiopia), and was received by the ruler, Emperor Eskender. He was well-treated and made governor of a district, but he was not allowed to leave the country. Some years later the Abyssinian regent, Queen Eleni, facing a growing threat from the Ottoman Empire, decided to send [Mateus](#) as an ambassador to the King of Portugal and to the Pope in Rome. He was counseled by Covilhã.

The Portuguese decided to send an embassy to Abyssinia. The first ambassador died, and his successor, Dom Rodrigo de Lima, reached the emperor's camp in December 1520. They found Pêro old but robust, and he served them as guide and interpreter. Covilhã was held prisoner in Ethiopia for over 30 years and was not allowed to leave the country until his death. The shape clue, DOM, relates to the honorific of Lima.

## PAGE 2 POSTCARD

|  |  |   |       |  |        |                  |       |                             |       |                                    |     |                                |
|--|--|---|-------|--|--------|------------------|-------|-----------------------------|-------|------------------------------------|-----|--------------------------------|
|  | <p>Good idea! I'll see if I can land there. I was wondering how I'd get across the Pacific. xx</p>   <p>From: _____<br/>To: _____</p> | <table border="1"> <tr> <td>Front</td> <td><a href="#">Jodie Foster</a> as Dr. Eleanor "Ellie" Arrowway in film <a href="#">Contact</a></td> </tr> <tr> <td>Shapes</td> <td>Hexagons - FLIER</td> </tr> <tr> <td>Stamp</td> <td>Cetti's warbler (right) - I</td> </tr> <tr> <td>From:</td> <td><a href="#">Amelia Earhart</a> - E</td> </tr> <tr> <td>To:</td> <td><a href="#">Gene Vidal</a> - V</td> </tr> </table> | Front | <a href="#">Jodie Foster</a> as Dr. Eleanor "Ellie" Arrowway in film <a href="#">Contact</a> | Shapes | Hexagons - FLIER | Stamp | Cetti's warbler (right) - I | From: | <a href="#">Amelia Earhart</a> - E | To: | <a href="#">Gene Vidal</a> - V |
| Front  | <a href="#">Jodie Foster</a> as Dr. Eleanor "Ellie" Arrowway in film <a href="#">Contact</a>   |   |       |  |        |                  |       |                             |       |                                    |     |                                |
| Shapes   | Hexagons - FLIER   |   |       |  |        |                  |       |                             |       |                                    |     |                                |
| Stamp  | Cetti's warbler (right) - I  |   |       |  |        |                  |       |                             |       |                                    |     |                                |
| From:  | <a href="#">Amelia Earhart</a> - E   |   |       |  |        |                  |       |                             |       |                                    |     |                                |
| To:  | <a href="#">Gene Vidal</a> - V   |   |       |  |        |                  |       |                             |       |                                    |     |                                |

In the film *Contact*, Ellie is chosen to make first contact with extraterrestrial life after discovering signals from the SETI program. This image is linked to Movement 6 of *Des canyons aux étoiles...*, Appel interstellaire ("Interstellar call").

Amelia Earhart was an American aviation pioneer, being the first female aviator to fly solo across the Atlantic Ocean. She attempted to make a circumnavigational flight of the globe in 1937, but disappeared over the Pacific Ocean. The most challenging leg of Amelia Earhart's flight was the long open ocean between Australia and Hawaii, too long to cross without refueling or rest. Earhart planned to land on a tiny island, [Howland Island](#), only one and a half miles long and a half-mile wide. The usefulness of Howland Island was brought to Amelia's attention by her secret admirer, Gene Vidal, the federal Director of Air Commerce. The shape clue, FLIER, refers to Earhart.

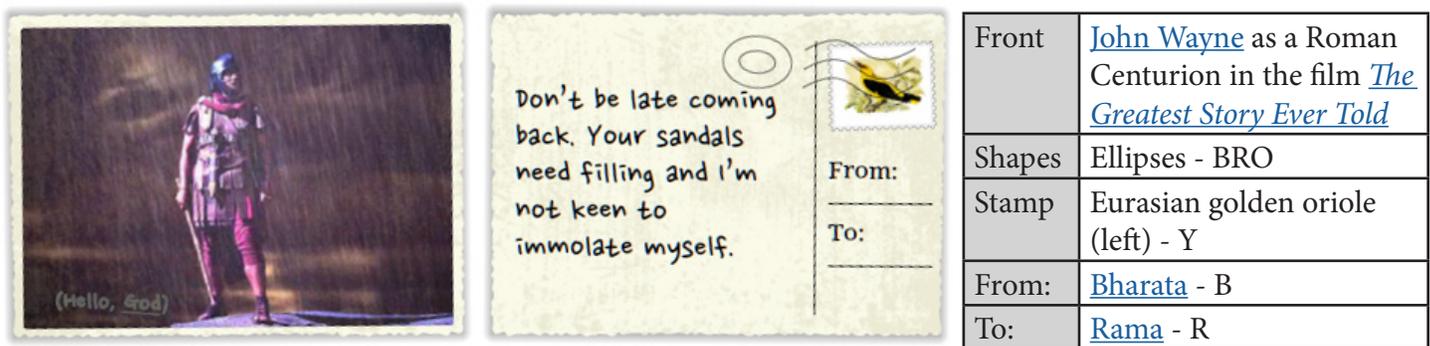
## PAGE 3 POSTCARD

|   |  |   |       |  |        |               |       |                       |       |                                 |     |  |
|---|--|---|-------|--|--------|---------------|-------|-----------------------|-------|---------------------------------|-----|--|
|  | <p>You can tell Mr Hitler from me: no-one will take him seriously while he looks like Charlie Chaplin.</p>   <p>From: _____<br/>To: _____</p> | <table border="1"> <tr> <td>Front</td> <td>Sixteenth notes on a coffee stain that represents the star <a href="#">Aldebaran</a></td> </tr> <tr> <td>Shapes</td> <td>Hexagons - MP</td> </tr> <tr> <td>Stamp</td> <td>Tawny owl (right) - E</td> </tr> <tr> <td>From:</td> <td><a href="#">Nancy Astor</a> - A</td> </tr> <tr> <td>To:</td> <td><a href="#">Joachim von Ribbentrop</a> - R</td> </tr> </table> | Front | Sixteenth notes on a coffee stain that represents the star <a href="#">Aldebaran</a> | Shapes | Hexagons - MP | Stamp | Tawny owl (right) - E | From: | <a href="#">Nancy Astor</a> - A | To: | <a href="#">Joachim von Ribbentrop</a> - R |
| Front   | Sixteenth notes on a coffee stain that represents the star <a href="#">Aldebaran</a>   |   |       |  |        |               |       |                       |       |                                 |     |  |
| Shapes  | Hexagons - MP  |   |       |  |        |               |       |                       |       |                                 |     |  |
| Stamp   | Tawny owl (right) - E  |   |       |  |        |               |       |                       |       |                                 |     |  |
| From:   | <a href="#">Nancy Astor</a> - A  |   |       |  |        |               |       |                       |       |                                 |     |  |
| To:   | <a href="#">Joachim von Ribbentrop</a> - R   |   |       |  |        |               |       |                       |       |                                 |     |  |

The front image here was tricky, because one had to realize that the coffee stain was to be used together with the notes in its interpretation. This image corresponds to Movement 8 of *Des canyons aux étoiles...*, Les ressuscités et le chant de l'étoile Aldebaran ("The resurrected and the song of the star Aldebaran").

Nancy Astor, Viscountess Astor, was the first female Member of Parliament to take her seat. Although she held anti-Semitic views, Astor has not been documented as influential in anti-Semitic or pro-Nazi policies. Astor did occasionally meet with Nazi officials in keeping with Neville Chamberlain's policies. She told Joachim von Ribbentrop, the German Ambassador who later became the Foreign Minister of Germany, that Hitler looked too much like Charlie Chaplin to be taken seriously. This statements is one of the only documented incidents of her expressing sympathy to Nazis, but her early support damaged her career. The shape clue, MP, is an abbreviation of Member of Parliament, and refers to Astor.

## PAGE 4 POSTCARD



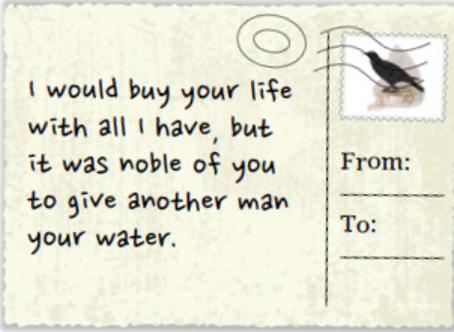
There is a [famous but untrue story](#) concerning Wayne's only line of dialogue in the Crucifixion scene in the film *The Greatest Story Ever Told*. According to legend, Wayne said his only line "Truly this was the Son of God" three times, none of them to the satisfaction of director George Stevens. So Stevens said, "Can you give it a little more awe, Duke?" and Duke said, "Aw, this was truly the Son of God." This connects the image to Movement 5 of *Des canyons aux étoiles...*, Cedar Breaks et le don de crainte ("Cedar Breaks and the gift of awe").

We note also the "Hello, God" written on the front of the postcard. This is one of two postcards to have quotes attributed to French author Ernest Hello. Messiaen was influenced by Hello's *Paroles de Dieu: réflexions sur quelques textes sacrés* (Words of God: reflections on some sacred texts), where the quotes are from. In this case Messiaen inserts words of Hello as an epigraph: "The replacement of fear by awe opens a window for adoration" (Hello, *Paroles de Dieu*, 176; quoted in Messiaen, Complete Edition, 33).

In the Indian epic poem, [Ramayana](#), Dasharatha, king of Ayodhya, wants to crown Rama as next king, but one of his wives, Kaikeyi, demands that Rama be exiled to the wilderness for 14 years, and her son Bharata be made king. Rama agrees to the decree. Meanwhile, Bharata who was on a visit to his maternal uncle, learns about the events in Ayodhya. Bharata refuses to profit from his mother's wicked scheming and visits Rama in the forest. He requests Rama to return and rule. But Rama, determined to carry out his father's orders to the letter, refuses to return before the period of exile. [Bharata states](#), "But not a day longer. How could I outlive my welcome? If you, Rama, do not appear when my time has passed I shall immolate myself". Bharata carries Rama's sandals and keeps them on the throne, while he rules as Rama's regent.

Bharata is the younger brother of Rama, so that is how the shape clue, BRO, fits in. Both are incarnations of deities, Rama is the seventh avatar of Vishnu, Bharta is a part-incarnation of Shankha.

## PAGE 5 POSTCARD

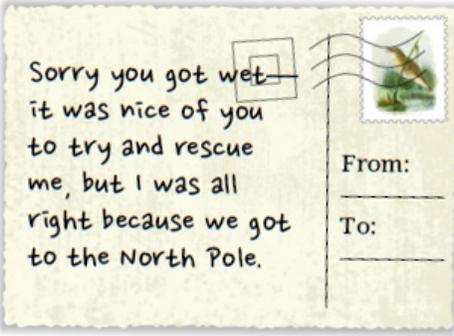
|   |  |        |   |
|---|--|--------|---|
|  |  | Front  | <a href="#">Gregory Peck</a> as Atticus Finch in the film <a href="#">To Kill a Mockingbird</a> |
|   |  | Shapes | Ellipses - EARL   |
|   |  | Stamp  | Alpine chough (left) - Z  |
|   |  | From:  | <a href="#">Earl of Leicester</a> - L   |
|   |  | To:    | <a href="#">Sir Philip Sidney</a> - S   |

The link between the image and *Des canyons aux étoiles...* is straightforward here. The scene from *To Kill a Mockingbird* is associated with Movement 9, Le moqueur polyglotte ("The mockingbird").

Sir Philip Sidney, noted Elizabethan poet, is known for giving up his water after having been shot in the leg in the Battle of Zutphen, fighting for the Protestant cause against the Spanish. According to the story, while lying wounded he gave his water to another wounded soldier, saying, "Thy necessity is yet greater than mine". Unfortunately for Sir Philip, his wound did not heal and he died of gangrene 26 days later.

The funeral procession was one of the most elaborate ever staged, so much so that his father-in-law, Francis Walsingham, almost went bankrupt. His younger brother, [Robert Sidney](#), was with him in the battle and by his side at the time of his death. He was chief mourner in the funeral procession. Robert was named 1st Earl of Leicester in 1618, and where the shape clue, EARL, comes into play. (Incidentally, Philip and Robert's uncle, Robert Dudley, was a prior Earl of Leicester.)

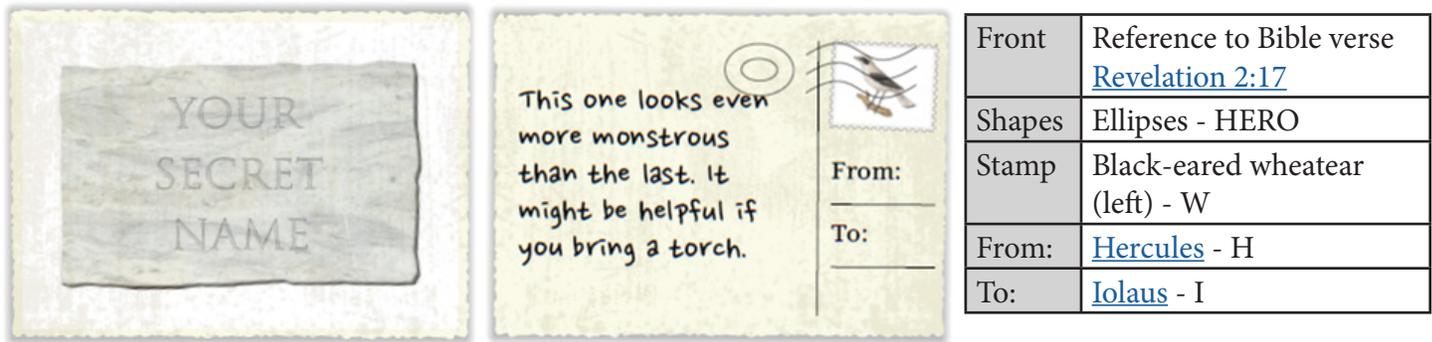
## PAGE 6 POSTCARD

|   |  |        |  |
|---|--|--------|--|
|  |  | Front  | <a href="#">Robin Williams</a> appearing on <a href="#">The Late Late Show with Craig Ferguson</a> |
|   |  | Shapes | Squares - TOY  |
|   |  | Stamp  | Eurasian reed warbler (left) - T   |
|   |  | From:  | <a href="#">Roo</a> - R  |
|   |  | To:    | <a href="#">Eeyore</a> - E   |

The image of Robin Williams links to *Des canyons aux étoiles...* through his first name, as Movement 4, Le cossy-phe d'Heuglin ("The white-browed robin-chat") concerns robin birdsong.

In [Winnie-the-Pooh and the North Pole Expedition](#), while searching for the North Pole in the Hundred Acre Wood with an entourage of characters, Roo falls into a stream. Eeyore tries to save him by sticking his tail in the water. That doesn't quite work, but Pooh finds a pole that Roo grabs onto and climbs out. They name the pole the North Pole, because why not? Eeyore proceeds to complain that his tail is cold. The shape clue, TOY, relates to the Winnie-the-Pooh characters because they were [stuffed toys](#) of A. A. Milne's son, Christopher Robin Milne.

## PAGE 7 POSTCARD



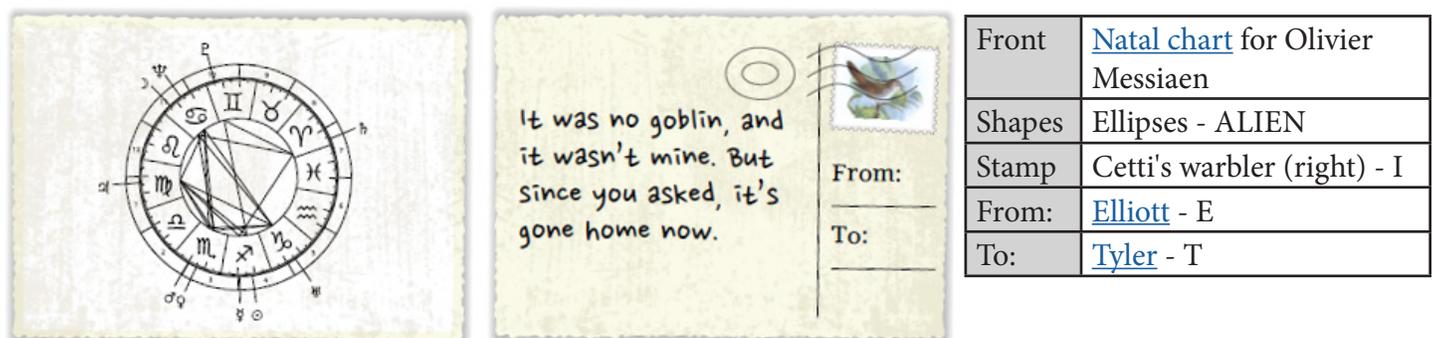
"Your Secret Name" on the front of the postcard refers to [two quotes](#) used as an [epigraph](#) to Movement 10 of *Des canyons aux étoiles...*, La grive des bois ("The wood thrush"):

- "Je lui donnerai une pierre blanche: sur la pierre est gravé un nom nouveau, que nul ne connaît sauf celui qui le recoit." ("I will give him a white stone: on the stone is engraved a new name, which no one knows except the one who receives it.") —Apocalypse of Saint John, ch. 2, v. 17
- "Quand nous rentrons en grâce, nous recevons du Saint—Esprit un nom nouveau: et ce sera là un nom éternel." ("When we return to grace, we receive from the Holy Spirit a new name: and this will be an eternal name.") —Ruysbroeck the Admirable - *The Sparkling Stone*

The back of the post card is linked to the hexagon showing Nebula on Page 7 by a dashed gray line, with a TV icon near the hexagon. The character Nebula is from the series [Hercules: The Legendary Journeys](#), implying that Hercules is involved with this postcard.

The monster described here is the [Lernean Hydra](#), which Hercules and his nephew Iolaus (companion in the TV series) battle. Each time Hercules decapitates the Hydra, two heads grow back in the place of the lost one. Iolaus has the idea to scorch the neck stumps after decapitation, allowing them to defeat the beast. The shape clue, HERO, refers to Hercules, Roman hero and demigod.

## PAGE 8 POSTCARD



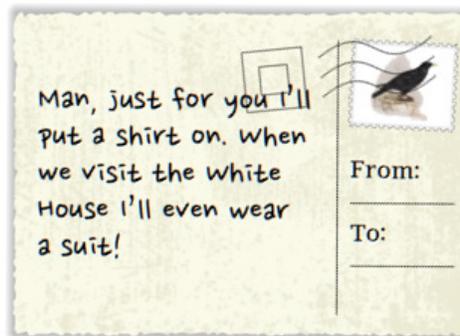
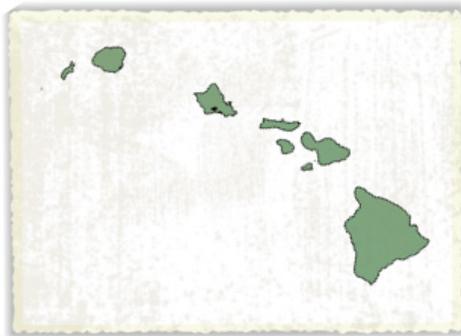
The astrological chart for the birth date of Messiaen on the front of the postcard can be thought of as a fortune determined by celestial bodies, or as Movement 3 of *Des canyons aux étoiles...* is titled, Ce qui est écrit sur les étoiles ("What is written in the stars").

The setting for the back of the postcard comes from the film [E.T. the Extra-Terrestrial](#). Elliott's friends are mocking him about the creature he supposedly saw (and that they haven't seen yet):

Tyler : [sarcastically] Hey, Elliot, where's your goblin?  
 Michael : Shut up.  
 Steve : Did he come back?  
 Pretty Young Girl : Hi, Elliot.  
 Greg : Well, did he?  
 Elliott : Yeah, he came back, but he's not a goblin. He's a spaceman.  
 Steve : Ooh, as in extra-terrestrial!  
 Tyler : Where is he from, Uranus? Get it? Your anus?

The shape clue, ALIEN, hints at an extraterrestrial.

### PAGE 9 POSTCARD



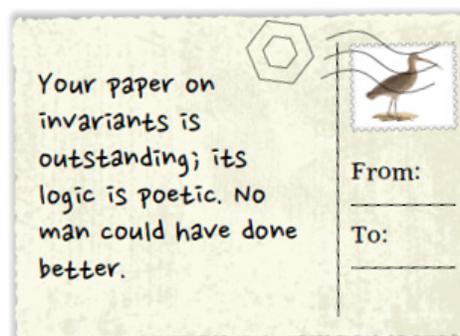
|        |                                   |
|--------|-----------------------------------|
| Front  | Islands of <a href="#">Hawaii</a> |
| Shapes | Squares - OFF GUARD               |
| Stamp  | Alpine chough (right) - A         |
| From:  | <a href="#">J. R. Smith</a> - S   |
| To:    | <a href="#">Barack Obama</a> - O  |

The image on the front of the postcard is an outline of the Hawaiian Islands. Some research shows that the title of Movement 11 from *Des canyons aux étoiles...*, Omao, leiothrix, elepaio, shama ("Omao, leiothrix, 'elepaio, shama"), has four different types of birds that are native to, or have been imported to Hawaii:

- ['Ōma'o](#) — An endemic species of robin-like bird found only on the island of Hawaii.
- [Red-billed leiothrix](#) — The species was introduced to the Hawaiian Islands in 1918 and spread to all the forested islands except Lanai.
- ['Elepaio](#) — Three species of monarch flycatcher endemic to the Hawaiian Islands.
- [White-rumped shama](#) — They are native across scrub and secondary forests in South and Southeast Asia, but have been introduced to Kauai, Hawaii, in early 1931 from Malaysia, and to Oahu in 1940.

In 2016 President [Barack Obama called](#) to offer his congratulations for the [Cleveland Cavaliers'](#) NBA title win. "Tell J. R. and everybody to put on a shirt. You can't be just walking around without a shirt like that for a whole week. Now Shumpert's taking off his shirt, Kyrie's taking off his shirt. Come on man." J. R. Smith is a shooting guard for the Cavaliers, and the shape clue, OFF GUARD, is another name for shooting guard (as opposed to point guard).

### PAGE 10 POSTCARD

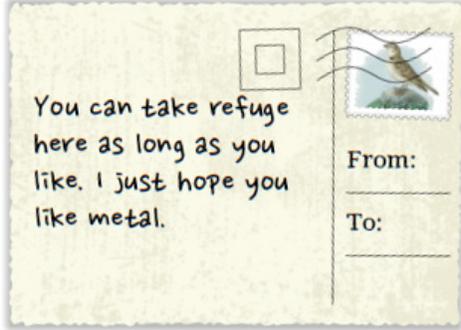


|        |   |
|--------|---|
| Front  | <a href="#">Adam Jones</a> , center fielder for the <a href="#">Baltimore Orioles</a> baseball team |
| Shapes | Hexagons - GR   |
| Stamp  | Eurasian curlew (right) - M   |
| From:  | <a href="#">Albert Einstein</a> - E   |
| To:    | <a href="#"> Emmy Noether</a> - N   |

The image on the front of the postcard is of a member of the Baltimore Orioles. The image is linked to Movement 2 from *Des canyons aux étoiles...*, which has oriole in its title: Les orioles ("The orioles").

Emmy Noether was a German mathematician known for her landmark contributions to abstract algebra and theoretical physics. She was described by Pavel Alexandrov, Albert Einstein, Jean Dieudonné, Hermann Weyl, and Norbert Wiener as the most important woman in the history of mathematics. Much of Noether's early work was associated with invariant theory, a topic on which she based her thesis. Noether's first theorem was used to understand the theory of [general relativity](#) of Einstein. Upon her death, Einstein wrote an [obituary for Noether](#), in which he wrote, "Pure mathematics is, in its way, the poetry of logical ideas." The shape clue, GR, is an abbreviation for general relativity.

## PAGE 11 POSTCARD

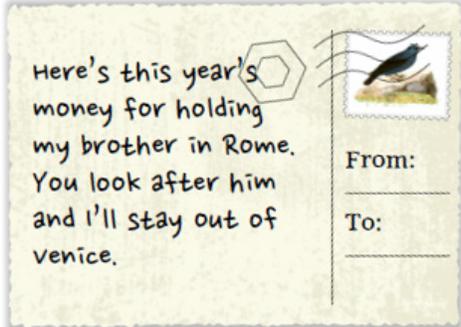
|   |  |        |  |
|---|--|--------|--|
|  |  | Front  | <a href="#">Battle for Zion</a> from the film <a href="#">The Matrix Revolutions</a> |
|   |  | Shapes | Squares - MGR  |
|   |  | Stamp  | Greater short-toed lark (left) - S   |
|   |  | From:  | <a href="#">Monsignor José Sebastián Laboa</a> - L                                   |
|   |  | To:    | <a href="#">Manuel Noriega</a> - N   |

The scene from the film *The Matrix Revolutions* take place in the sanctuary city of Zion. This is linked to Movement 12 from *Des canyons aux étoiles...*, which also has Zion in its title: Zion Park et la cité céleste ("Zion Park and the celestial city").

The message on the back of the postcard concerns [Operation Nifty Package](#). It was a United States Delta and Navy SEAL-operated plan conducted in 1989 designed to capture Panamanian leader Manuel Noriega. When Noriega took refuge in the Apostolic Nunciature of the Holy See (diplomatic quarter), deafening music and other psychological warfare tactics were used to convince him to exit and surrender himself.

The United States claimed that after ten days of psychological harassment, the Papal Nuncio (ambassador) Monsignor Laboa had threatened to revoke Noriega's sanctuary if he didn't surrender to the United States, although Laboa insisted that he had made no threats of revoking the right of asylum under the Church, but had used his own "precisely calibrated psychological campaign" to force Noriega's departure. The shape clue, MGR, is an abbreviation for Monsignor.

## PAGE 12 POSTCARD

|   |  |        |   |
|---|--|--------|---|
|  |  | Front  | <a href="#">Mesquite Flat Sand Dunes</a> , <a href="#">Death Valley</a> , CA, USA |
|   |  | Shapes | Hexagons - OTTOMAN  |
|   |  | Stamp  | Blue rock thrush (right) - C  |
|   |  | From:  | <a href="#">Bayezid II</a> , - B  |
|   |  | To:    | <a href="#">Pope Innocent VIII</a> -I   |

The dunes on the image in Death Valley certainly evoke thoughts of desert. This image is linked to Movement 1 of *Des canyons aux étoiles...*, Le désert ("The desert"). It is the second of two cards to have "Hello, God" written on the front. For this movement, Messiaen associates another quote from Hello's *Paroles de Dieu* to the work: "He who is to be found is vast: one must discard everything in order to take the first steps toward him...Go deep into the Desert of deserts." (quoted in Messiaen, titles and inscriptions to movements of From Canyons to Stars, in Complete Edition, 32-35.)

Bayezid II became Sultan of the Ottoman Empire during a time where battles with Europe were common. But his overriding concern was the quarrel with his brother Cem, who claimed the throne and sought military backing from the Mamluks in Egypt. Having been defeated by his brother's armies, Cem sought protection from the Knights of St. John in Rhodes. Eventually, the Knights handed Cem over to Pope Innocent VIII. The Pope thought of using Cem as a tool to drive the Turks out of Europe, which worried Bayezid. In a [secret agreement](#) in December 1490, The sultan promised not to attack Rhodes, Rome, or Venice, as well as to pay Cem's allowance of 40,000 ducats to the Pope (10,000 of which were earmarked for the Knights of Saint John), in return for the prince's incarceration.

### POSTCARDS IN PAGE ORDER

The bird cipher on Page 10 resulted in the message ADD SENDER TO STAMP. If we take these instructions literally, and add the numerical equivalent of the letters associated with the stamps and the senders, modulo 26, we create a new set of letters that gives us a message.

| Page           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----------------|---|---|---|---|---|---|---|---|---|----|----|----|
| Stamp          | F | I | E | Y | Z | T | W | I | A | M  | S  | C  |
| Sender         | C | E | A | B | L | R | H | E | S | E  | L  | B  |
| Sender + Stamp | I | N | F | A | L | L | E | N | T | R  | E  | E  |

IN FALLEN TREE is one of the instructions for locating the treasure.

### POSTCARDS IN MOVEMENT ORDER

The trifold cipher gives the instructions, ORDER CARDS BY MOVEMENT; APPLY RECIPIENTS TO SENDERS; RETRANSLATE. Each of the fronts of the postcards can be linked to one of the movements of Messiaen's [Des canyons aux étoiles...](#) (From canyons to stars...). Note that the title of the work has the same format as a postcard, From: X, To: Y. The movements thus give a page ordering for the postcards:

| #  | Movement   | Postcard Page | Sender | Recipient |
|----|--|---------------|--------|-----------|
| 1  | "The desert"   | 12            | B      | I         |
| 2  | "The orioles"  | 10            | E      | N         |
| 3  | "What is written in the stars"                       | 8             | E      | T         |
| 4  | "The white-browed robin-chat"                        | 6             | R      | E         |
| 5  | "Cedar Breaks and the gift of awe"                   | 4             | B      | R         |
| 6  | "Interstellar call"                                  | 2             | E      | V         |
| 7  | "Bryce Canyon and the red-orange rocks"              | 1             | C      | E         |
| 8  | "The resurrected and the song of the star Aldebaran" | 3             | A      | R         |
| 9  | "The mockingbird"                                    | 5             | L      | S         |
| 10 | "The wood thrush"                                    | 7             | H      | I         |
| 11 | "Omao, leiiothrix, 'elepaio, shama"                  | 9             | S      | O         |
| 12 | "Zion Park and the celestial city"                   | 11            | L      | N         |

The recipients spell out "INTERVERSION," which is a composition technique in which a sequence of elements composed of notes or rhythms is repeated in permuted orders. Messiaen explores this in full in *Île de Feu*, resulting in ten different interversions. The instructions from the trifold cipher then imply that we perform an interversion of the series of sender letters. (The series starts out BEER, which was one of the themes of last year's Hunt.)

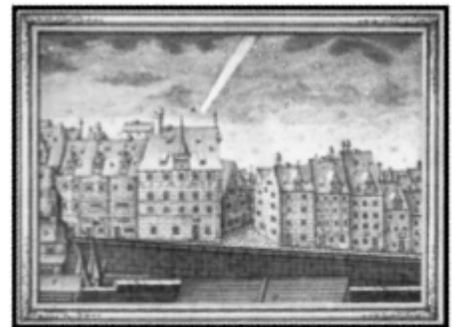
Since we don't know which interversion to use, we need to try them all, and look for a word or phrase to retranslate. Following the interversion permutations given in the link to *Île de Feu II*:

| Initial Series    | 12/B | 11/E | 10/E | 9/R  | 8/B  | 7/E  | 6/C  | 5/A  | 4/L  | 3/H  | 2/S  | 1/L  |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Interversion I    | 6/C  | 7/E  | 5/A  | 8/B  | 4/L  | 9/R  | 3/H  | 10/E | 2/S  | 11/E | 1/L  | 12/B |
| Interversion II   | 3/H  | 9/R  | 10/E | 4/L  | 2/S  | 8/B  | 11/E | 5/A  | 1/L  | 7/E  | 12/B | 6/C  |
| Interversion III  | 11/E | 8/B  | 5/A  | 2/S  | 1/L  | 4/L  | 7/E  | 10/E | 12/B | 9/R  | 6/C  | 3/H  |
| Interversion IV   | 7/E  | 4/L  | 10/E | 1/L  | 12/B | 2/S  | 9/R  | 5/A  | 6/C  | 8/B  | 3/H  | 11/E |
| Interversion V    | 9/R  | 2/S  | 5/A  | 12/B | 6/C  | 1/L  | 8/B  | 10/E | 3/H  | 4/L  | 11/E | 7/E  |
| Interversion VI   | 8/B  | 1/L  | 10/E | 6/C  | 3/H  | 12/B | 4/L  | 5/A  | 11/E | 2/S  | 7/E  | 9/R  |
| Interversion VII  | 4/L  | 12/B | 5/A  | 3/H  | 11/E | 6/C  | 2/S  | 10/E | 7/E  | 1/L  | 9/R  | 8/B  |
| Interversion VIII | 2/S  | 6/C  | 10/E | 11/E | 7/E  | 3/H  | 1/L  | 5/A  | 9/R  | 12/B | 8/B  | 4/L  |
| Interversion IX   | 1/L  | 3/H  | 5/A  | 7/E  | 9/R  | 11/E | 12/B | 10/E | 8/B  | 6/C  | 4/L  | 2/S  |
| Interversion X    | 12/B | 11/E | 10/E | 9/R  | 8/B  | 7/E  | 6/C  | 5/A  | 4/L  | 3/H  | 2/S  | 1/L  |

The only viable option is from Interversion VI, which gives BLECHBLAESER. Accounting for the Anglicization of umlauts by adding an "e" after the vowel, this is equivalent to Blechbläser, a German word for "brass." Coincidentally, another German word for brass is "Messing." This is the third indication that the treasure is located in Messing.

## Comet Cipher

Page 7 contains an image of a comet over a cityscape. This image is connected to the year 1769 on the line of 18th-century dates to the right. It is an engraving of the [Great Comet of 1769](#) over Nuremberg. Charles Messier discovered the comet on August 8, 1769 while at the Naval Observatory in Paris.

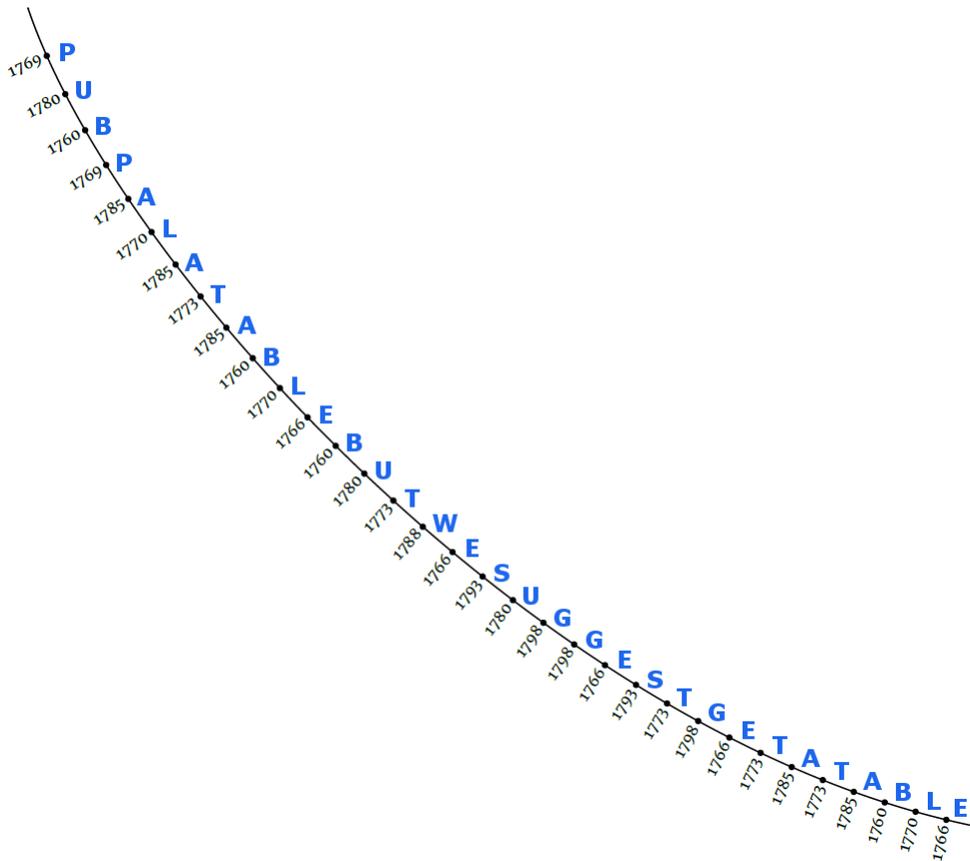


Towards the end of his life, Messier self-published a booklet connecting the comet's discovery to the birth of Napoleon, as a way of ingratiating himself to Napoleon.

Messier discovered 13 comets, each of which has a letter designation:

|           |           |           |           |
|-----------|-----------|-----------|-----------|
| C/1760 B1 | C/1769 P1 | C/1780 U2 | C/1785 A1 |
| C/1763 S1 | D/1770 L1 | C/1788 W1 |           |
| C/1764 A1 | C/1771 G1 | C/1793 S2 |           |
| C/1766 E1 | C/1773 T1 | C/1798 G1 |           |

All of the years on the "time line" are for one of these comets. Replacing the year with its letter designation gives a message:

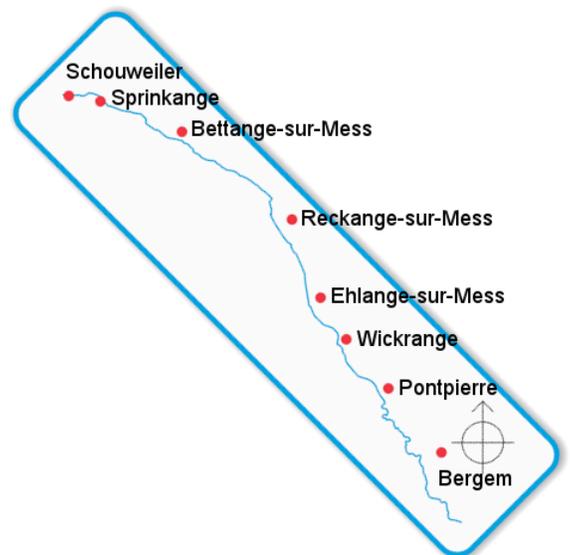


On its face, the phrase “PUB PALATABLE BUT WE SUGGEST GET A TABLE” could refer to the [The Old Crown](#) pub in Messing, but we think it has a hidden meaning. "Pub" is short for publications, and this is a hint to use the tables in the *Publications of the Astronomical Society of the Pacific* journal article referenced on the blue-bordered card on Page 3.

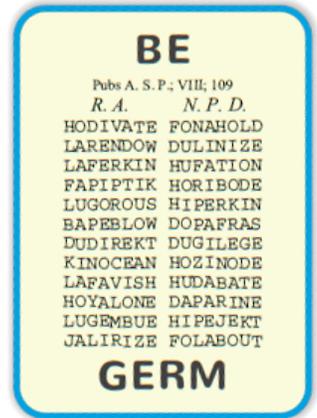
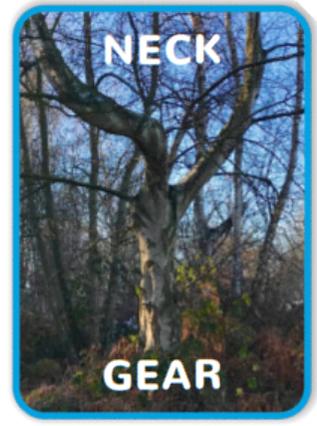
## Word Cards

Some of the pages have cards with blue borders and a word at the top and bottom of the card. Some of these cards also have images of landmarks to aid in finding the treasure. The words on a given card are anagrams for towns in Luxembourg along the [Mess River](#).

| Page | Top Word | Bottom Word | Town                                |
|------|----------|-------------|-------------------------------------|
| 1    | HEN      | GALE        | <a href="#">Ehlange(-sur-Mess)</a>  |
| 2    | NECK     | GEAR        | <a href="#">Reckange(-sur-Mess)</a> |
| 3    | BE       | GERM        | <a href="#">Bergem</a>              |
| 6    | PINK     | RANGES      | <a href="#">Sprinkange</a>          |
| 9    | WHOLE    | CRUISE      | <a href="#">Schouweiler</a>         |
| 10   | PINE     | PORTER      | <a href="#">Pontpierre</a>          |
| 11   | CAKE     | WRING       | <a href="#">Wickrange</a>           |
| 12   | BEAT     | GENT        | <a href="#">Bettange(-sur-Mess)</a> |



Each of these towns is shown by a red dot on the map on Page 3. The order of towns along the river gives an order for the cards, showing the progression of landmarks one comes across on the treasure path.



Of the two non-landmark cards, the one with the birds was discussed in the bird cipher section. We will discuss the Bergem card presently.

Ignoring the anagram words, the top line of text on the card is a citation to a journal article in *Publications of the Astronomical Society of the Pacific* titled [A Cipher-Code for Astronomical Messages](#) by Edward S. Holden. This code assigns 3 digits to prefix trigrams, and 2 digits to suffix strings. These prefixes and suffixes may be paired together such that celestial coordinates make codewords. The paper contains several tables of prefixes and suffixes. Given the clue from the comet "time line," we need to use these table to decode the "words" given on the card into coordinates. The columns of words have headings: R.A. stands for [right ascension](#), the angular distance measured eastward along the celestial equator (like longitude in geographic coordinate systems); N.P.D. stands for [north polar distance](#), the angular distance from the north celestial pole along a given R.A. The positions of most celestial objects are not given in N.P.D., but [declination](#) which is measured from the celestial equator (like latitude in geographic coordinate systems). We will convert using  $\text{Dec.} = 90^\circ - \text{N.P.D.}$

| R.A.     |                      |           | N.P.D.   |                      |          | Dec.      | Object | Letter |
|----------|----------------------|-----------|----------|----------------------|----------|-----------|--------|--------|
| HODIVATE | Hod=104<br>-ivate=68 | 10h 46.8m | FONAHOLD | Fon=078<br>-ahold=11 | 078° 11' | 011° 49'  | M96    | I      |
| LARENDOW | Lar=185<br>-endow=36 | 18h 53.6m | DULINIZE | Dul=056<br>-inize=58 | 056° 58' | 033° 02'  | M57    | N      |
| LAFERKIN | Laf=180<br>-erkin=38 | 18h 03.8m | HUFATION | Huf=114<br>-ation=23 | 114° 23' | -024° 23' | M8     | A      |
| FAPIPTIK | Fap=064<br>-iptik=60 | 06h 46.0m | HORIBODE | Hor=110<br>-ibode=44 | 110° 44' | -020° 44' | M41    | T      |

| R.A.     |                      |           | N.P.D.   |                      |          | Dec.      | Object | Letter |
|----------|----------------------|-----------|----------|----------------------|----------|-----------|--------|--------|
| LUGOROUS | Lug=205<br>-orous=89 | 20h 58.9m | HIPERKIN | Hip=102<br>-erkin=38 | 102° 38' | -012° 38' | M73    | R      |
| BAPEBLOW | Bap=004<br>-eblow=27 | 00h 42.7m | DOPAFRAS | Dop=049<br>-afras=08 | 049° 08' | 040° 52'  | M32    | E      |
| DUDIREKT | Dud=053<br>-irekt=61 | 05h 36.1m | DUGILEGE | Dug=055<br>-liege=52 | 055° 52' | 034° 08'  | M36    | E      |
| KINOCEAN | Kin=161<br>-ocean=70 | 16h 17.0m | HOZINODE | Hoz=112<br>-inode=59 | 112° 59' | -022° 59' | M80    | C      |
| LAFAVISH | Laf=180<br>-avish=26 | 18h 02.6m | HUDABATE | Hud=113<br>-abate=02 | 113° 02' | -023° 02' | M20    | L      |
| HOYALONE | Hoy=111<br>-alone=15 | 11h 11.5m | DAPARINE | Dap=034<br>-arine=20 | 034° 20' | 055° 40'  | M108   | E      |
| LUGENBUE | Lug=205<br>-enbue=35 | 20h 53.5m | HIPEJEKT | Hip=102<br>-ejekt=32 | 102° 32' | -012° 32' | M72    | F      |
| JALIRIZE | Jal=122<br>-irize=62 | 12h 26.2m | FOLABOUT | Fol=077<br>-about=03 | 077° 03' | 012° 57'  | M86    | T      |

The coordinates are all locations of Messier objects. Using the letters from the hexagons associated with these Messier objects spells out the message, IN A TREE CLEFT. Presumably where the treasure is hidden.

## ATH Scoreboard

Page 12 has an image of a scoreboard, with five teams, and their "scores." These teams represent the different "Mess-y" sub-themes in the Hunt:

 Olivier Messiaen-related items

 Lionel Messi-related items

 Mr. Messy (or "Mess" word)-related items

 Battle of Messines-related items

 Charles Messier-related items

| A.T.H. Scoreboard 2017 |   |   |   |   |   |
|------------------------|---|---|---|---|---|
| Team                   |  |  |  |  |  |
| Score                  | 1¼  | 1½  | 2¼  | 5   | 10  |

We aren't quite sure what the numbers represent, but we think they may be the relative weighting of each of the sub-themes for scoring purposes. Since we have to score our own submissions, I guess we'll find out soon!

# Treasure Location & Tales from the Trail

So after all that solving, what do we have?

We have three indications that the treasure is located somewhere in Messing, Colchester, Essex:

1. the leftover coat of arms from the France map on Page 5 is for this village;
2. the Essex location is extracted by taking every 8th letter of the Syria message is Messing;
3. the postcard message after performing an interversion is a German synonym of Messing.

We also have three textual clues from our solves:

1. GO W FROM CH TURN L PICK UP MESS (from 2nd part of Messier object-ordered message from the sky maps);
2. IN A TREE CLEFT (from the Page 3 Word Card message using the astronomical cipher-code);
3. IN FALLEN TREE (from the Postcard message using the sum of stamp and sender, in page order).

Beyond that we have the six images of landmarks from the Word Cards, in Mess River order:

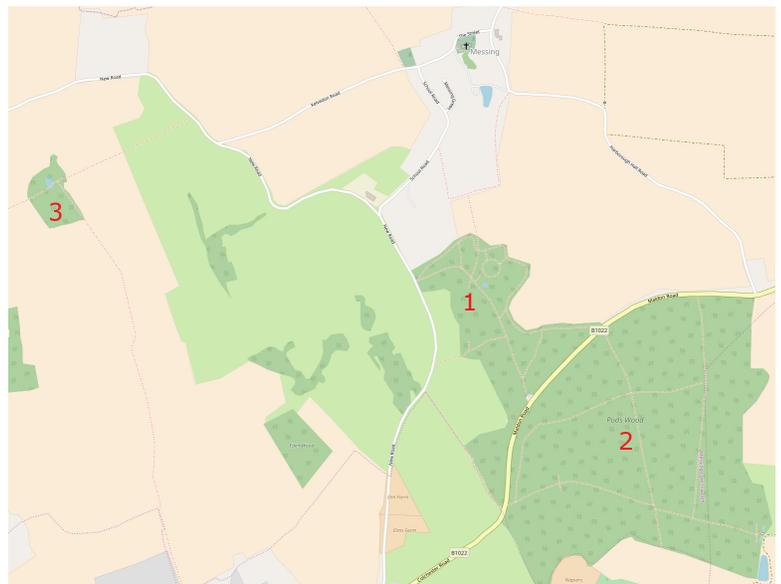


That's all we have to go on. This Hunt definitely needs boots on the ground, and unfortunately that excludes most of our team! But we can still deduce a few things from afar. First, Messing isn't very big. Second, most of the images look to be in a wooded area. Third, there appears to be a pond near the treasure location. There are limited areas that have a wooded area, pond and footpath in Messing. So we first came up with a best guess at where the treasure was located (turns out this guess was pretty accurate).

## THE GUESS

Looking for landmarks using Google Maps street view was a bust. The coverage didn't really let us see the areas we wanted to see, and the images in the maps are at least seven years old. Looking at maps, we first narrowed down the possible locations to three areas: Coneyfield Wood, Pods Wood, and a wooded area west of the Parsonage Farm. These areas are marked on the map to the right.

The directions to turn left after heading west from the church basically disqualified Area 3. So given the available two choices, the most straightforward seemed to be Coneyfield Wood. So we did more research into the viability of this location.



Maps of Coneyfield Wood show there are several public footpath trails going through it, and it has a [pond](#) where the trails form a circle around it. Even more interesting, there are several walks posted on-line that use public footpaths and go through Coneyfield Wood. One of these walks, posted on <http://www.essexwalks.com>, shows pine trees at the northern entrance to Coneyfield Wood. In the bottom part of the image, there is a blue post, so we know that Coneyfield Wood has at least one of them. This post is highlighted in the image below. And who knows, maybe this is \*the\* post in our landmark image.



With all this knowledge, we constructed our best guess. The path is shown on the map in blue.

1. From the All Saints Church in Messing, head west down Kelvedon Rd.
2. Take a left at School Rd. Somewhere along this road you should see the wreath in the first landmark image.
3. Follow School Rd around the bend heading SW.
4. About 300 ft after the bend turn left on to a public footpath. You should see the Public Footpath sign in the second landmark image.
5. Head S along the footpath. Somewhere along the footpath you should see the stile shown in the third landmark image
6. After about 550 ft, the path turns left.
7. After another 225 ft, the path turns right and leads to Coneyfield Wood. Look out for the tree shown in the fourth landmark image, it may guide in which direction to proceed.
8. After the tree, look out for the blue post in the 5th landmark image.
9. Somewhere SE of the entrance, there is a pond, that should look like the sixth landmark image. The fallen tree with the treasure should be nearby.



## THE HUNT FOR THE TREASURE

On Saturday, 13 Jan, our intrepid leader Noel journeyed to Messing to search for the treasure, armed only with our half-cocked theories about the treasure location. Here is his story.

It is basically exactly where we predicted it would be. I passed all of the items in the location photos on the way to the treasure, but photographed them on the way back. Don't want any other teams overtaking me on the way.



It begins! At the church.

The wreath shown on the card is no longer there, but the object it was attached to was easy to find. It appeared to be a small cartwheel. It's on the front of a house adjacent to the village green. I'd intended to take a picture of it, but the house was clearly occupied and the next door neighbour was in their garden. So I respected their privacy.

The "public footpath" sign was right next to the entrance to the footpath. There was a similar footpath sign on the other side of the village green, and I saw 2 people examining it as I was heading home. Might just be coincidence, but if they were ATHers, they'll be disappointed.



Following the predicted route along the path, it goes between 2 horse paddocks, hence the right angles, and then turns towards the woods. The wooden stile is at the first footpath junction in the woods and the distinct tree is right behind it. So they help to identify which path to take. I took photos of both, but they add little to the story. The setter's photos have snow and mine don't. The blue post is maybe about 100m further up the path.



The blue post is at another junction in the path, but the small pond is visible from it. The fallen tree is very obvious from the pond, and the treasure box is in a cleft on the far side of the tree.

To the left is the blue post, modeling the latest in treasure accoutrements. If one could hear what the post was thinking at this moment, it would have been, "I survived a treasure hunt and all I got was this messy globular cluster!"

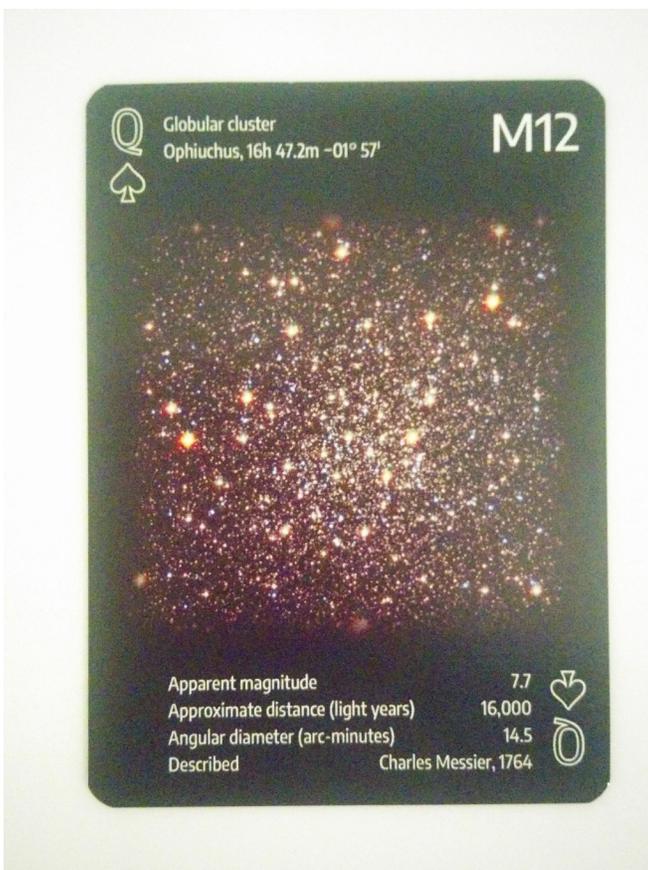


The fallen tree. Treasure awaits!

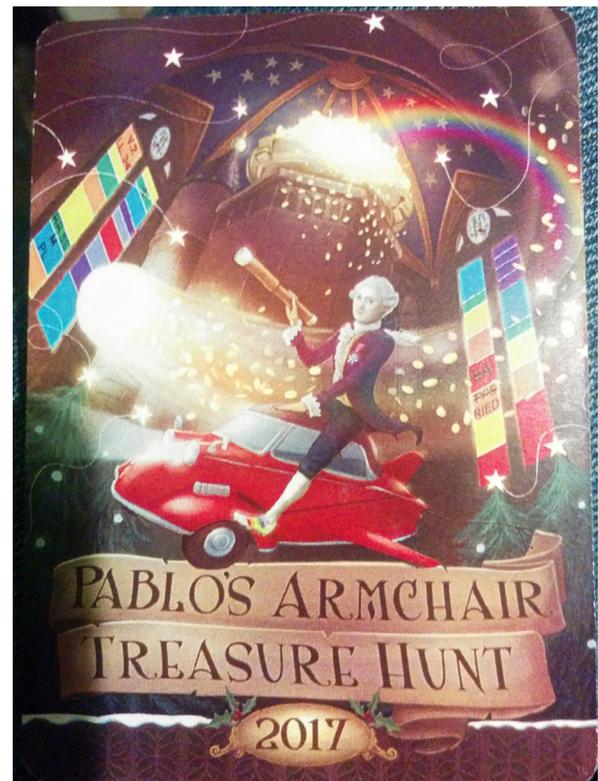


Box O'Treasure in the tree cleft.

Ticket 12. It's a playing card, like the ones shown in the Christmas message. Our one is the queen of spades. Object [M12](#), globular cluster Ophiuchus, described by Charles Messier in 1764. The back of the card is similar to the hunt poster.



Front of the treasure ticket



Back of the treasure ticket

We suppose that it's only appropriate that we get the M12 ticket... ...given our team name.

And on a parting note, one final tale from the trail.

I passed two guys on the way back to the car. They clearly weren't bothered about stealth, because I could hear them discussing the hunt before I could see them. They said hello as they passed, and I replied "it's a bit messy". I'd expected this to trigger a conversation but they obviously thought I was just talking about the mud. They then spent a long time photographing the wooden stile and the distinctive tree. I was tempted to follow them and then run past them as they approached the treasure site, to teach them a lesson about treasure hunting. But it was lunchtime.