



Artifacts of the Flower of Life

Marko Manninen © 2015

Table of Contents

Introduction	0
Reflections after the research journey	1
Theorizing the origins	2
Cownose	2.1
Flower of Life versus Cownose	2.2
Early visible traces	3
At the dawn of the Common Era	4
1500 AD and still going strong	5
List of artifacts	6
2000 BC - 0 AD	6.1
0 AD - 2000 AD	6.2
Undated	6.3
Map of artifacts of the Flower of Life	7
Conclusions?	8
Credits	9
References	10
Keywords	11

Introduction

In this essay, I am going to present historical artifacts of the certain geometrical symbol that is known as the **Flower of Life** in contemporary history. Origin of the symbol dates back at least to the beginning of the 2nd millennium BC in the ancient Mesopotamia. I've documented the usage of the symbol roughly from 1500 BC to 1500 AD.

The reader is expected to be familiar with basics of the Flower of Life geometry¹. Elementary knowledge of the ancient Near East history and history of mathematics is helpful. Knowledge of visual arts, geometry, and comparative religion studies are also useful.

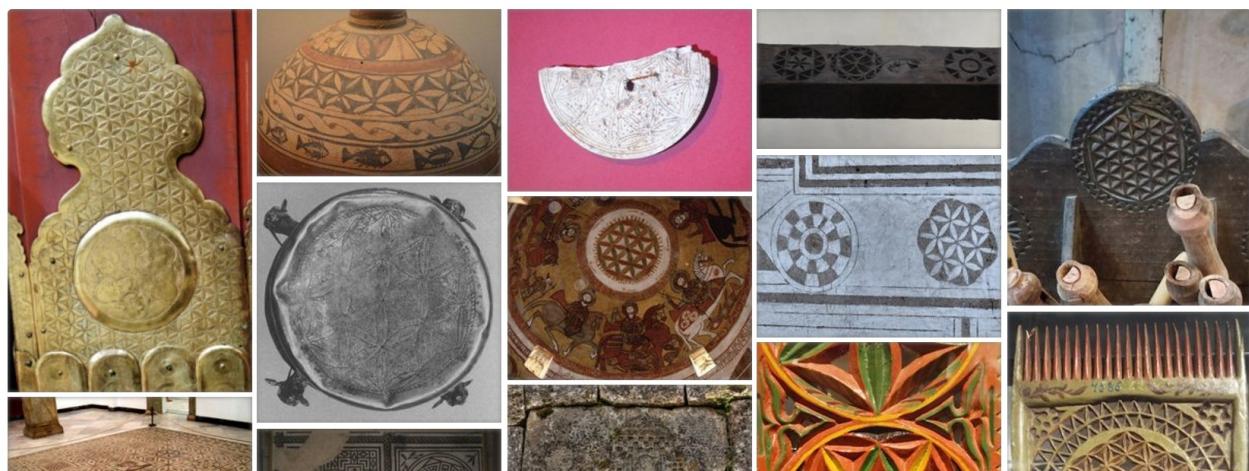
I hope my independent research provides valuable resources for people to do further investigation with the topic.

Artifacts of the Flower of Life electronic book is published in four different formats: [Online](#), [PDF](#), [EPUB](#), and [MOBI](#)

Title	Artifacts of the Flower of Life
Author	Marko Manninen
Pages	67 (PDF)
Description	Essay presents the continuity of historical artifacts of the Flower of Life from 1500 BC to 1500 AD
Keywords	Flower of Life, six-petal rosette, intersecting circles, equilateral triangle, apsamikku, sacred geometry
Language	English
Publish status	- First published 2014-08-29 as a blog post - Revised edition is published 2015-12-12 as an electronic book
Last updated	Sat Dec 12 2015 14:49:01 GMT+0000 (UTC)
ISBN	978-952-68480-0-6 (PDF) 978-952-68480-1-3 (EPUB) 978-952-68480-2-0 (MOBI)
Collection	Open-source
Website	http://artifacts.flowerofliferesearch.com

Reflections after the research journey

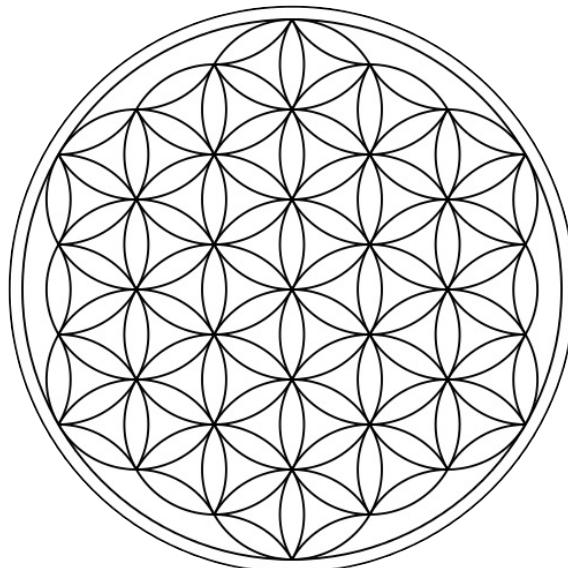
I made a six-week self-funded research trip to Greece, Turkey, France, and Sweden in summer 2014. Since that, I have been systematically collecting pictures of artifacts¹ of the Flower of Life into my Pinterest account. I'm going to present inclusively chosen artifacts from the Pinterest account in this essay. All artifacts have the Flower of Life symbol printed, carved or other way presented on them.



Picture 1.1: Artifacts of the FOL potpourri from Pinterest board

Some websites already had a good collection of occurrences of the symbol at the moment of writing this (August 2014). However, my personal findings on archeological sites and museums, followed by exhausting research on the Internet, has brought up new interesting occurrences of the Flower of Life. Artifacts of the Flower of Life in this form and scale have not been collected anywhere else before, as far as I know.

The occurrence of the Flower of Life in Egypt was first reported by the New Age author Drunvalo Melchizedek in his lectures in 80's and 90's. Later the Flower of Life was officially presented in his two-volume book *The Ancient Secret of the Flower of Life*². Melchizedek first proclaimed the modern term **Flower of Life**. In his books Melchizedek depicts the Flower of Life by the particular geometrical figure:



Picture 1.2: The Flower of Life / Public Domain

The Flower of Life term is often used more broadly to describe different formation phases of the symbol. I will use the Flower of Life term to denote the general pattern as well as different parts of the generation of the symbol. I will call the Flower of Life later by the abbreviation FOL.

Note: the Flower of Life symbol should not be confused with the Fleur-de-lis³ or the Tree of Life⁴ motifs.

Flower of Life wiki page⁵ (in August 2014) states that one of the earliest occurrences of the FOL is in the Assyrian stone carpet⁶ (650 BC). The wiki page also questions the dating of the FOL that is drawn on the Osirian temple stone in Abydos, Egypt. While dating of the FOL in Abydos is debated, it is evident that the geometrical formation of the symbol was known already in 1600 - 1400 BC. From that time, we have artifacts which show the very same decoration motif. Artifacts are:

- Golden rosettes (pic. [6.1.1](#)) from Mycenae, Greece
- Cosmetic boxes (pic. [6.1.2](#)) from Thebes, Egypt
- Ivory whorls (pic. [6.1.5](#)) from Cyprus
- Golden and silver goblets (pic. [6.1.3](#), [6.1.14](#)) from Marlik, Northern Iran

Many topics surrounding the FOL are highly controversial. This is due to Melchizedek's background in the New Age philosophy. But that shouldn't limit people from doing further research and seeking the origin of the symbol.

1.1. Marko Manninen: [Flower of Life Pinterest board](#)

1.2. Drunvalo Melchizedek: *The Ancient Secret of the Flower of Life* 1999, 2000

-
- 1.3. [wikipedia.org: Fleur-de-lis](#)
 - 1.4. [wikipedia.org: Tree of Life](#)
 - 1.5. [wikipedia.org: Flower of Life archived wiki page](#)
 - 1.6. [wikimedia.org: Assyrian stone carpet](#)

Theorizing the origins

The main goal of documenting and listing artifacts of the FOL is to become more aware of the historical origin of the symbol. That's why I'd like to theorize a little bit of the inception of the FOL first. After speculations, I'm going to describe occurrences of the Flower of Life according to the three span of time:

1. Early traces from 1500 BC to 200 BC
2. Beginning of the Common Era from 200 BC to 100 AD
3. Common Era until Middle Age from 100 AD to 1500 AD

Then I will selectively list main occurrences of the FOL symbol accompanied by pictures.

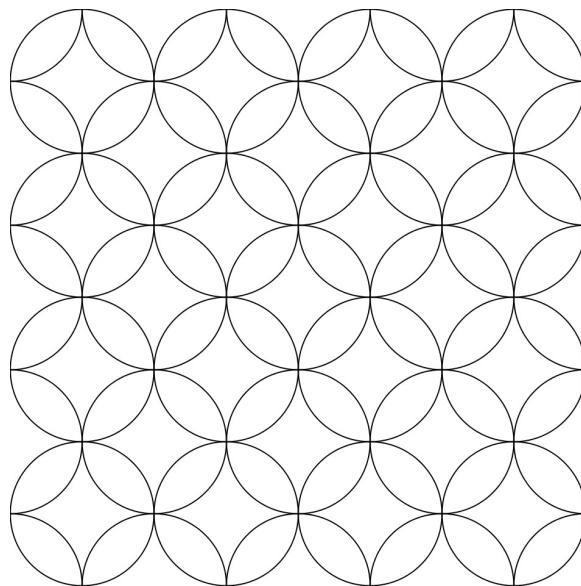
The more popular symbol from ancient times, the Cownose symbol, is crucial for understanding the FOL. It will give required historical and symbolical context to the FOL symbol. The Cownose symbol is a notable and a lot researched figure so I won't list occurrences of it. I'm just going to pinpoint some research journals and books mentioning the Cownose.

Understanding the history of the Cownose will also help on dating issues with the FOL. Association between these two symbols is not recognized and understood enough in my opinion.

Cownose

Educated geometrical practice relating to intersecting circles have a long tradition. We can see it from mathematical clay tablets available since Old Babylonian period (2000-1600 BC).

Intersecting circles forming the concave square or the so-called Apsamikku is discussed in *Mesopotamian mathematics*¹ by Eleanor Robson. See also: *Some old Babylonian geometry*² by Duncan J. Melville. Simple depiction of the four-petal rosette pattern in question looks like this:



Picture 2.1.1: The Cownose geometric pattern © Marko Manninen

The Apsamikku is translated as the Cownose which refers to the exterior shape of the Stingray³ fish. Naming convention in the current geometric context is a bit confusing. Cownose likeness of the Stingray comes from the lobes and a notched head of the Stingray. This is why the Stingray fish is also called the Cownose ray. The Apsamikku symbol doesn't look like the nose of a cow. It looks like the peripheral shape of the Cownose ray.



Picture 2.1.2: Cownose rays resembling the Cownose pattern © Doc Lucio

Ceremonial vessel⁴ from Indus Valley civilization period (2600 - 2450 BC) and other objects⁵ from Harappan and Mohenjo-Daro indicates that the Cownose pattern was known in the Indus Valley already in 3000 BC.

According to Robson, in *The apsamikku in Neo-Babylonian Mathematics*⁶ the Cownose design was known:

...from Halaf pottery of the sixth millennium BC to images of Neo-Assyrian textile in Syria...

It is probable that the Cownose pattern came somewhere from the ancient Fertile Crescent. At least, the earliest evidence we know comes from that area.



Picture 2.1.3: Ceremonial vessel with the Cownose pattern from Harappan © LACMA

In *Sound Holes And Geometrical Figures*⁷ by Lawergren & Gurney, the sound hole of a lyre or a harp is called the Apsamikku. Interestingly the shape of the hole resembles more of two facing equilateral concave triangles than the concave square.

It could rather be that the Apsamikku generally refers to a hole, a window or a frame in the figure, not the exact shape of it. Then the name of the FOL symbol could have been Apsamikku + some affix. Determining the case is outside of the scope of this essay, but intriguing enough. If the FOL symbol/pattern had any particular name for ancients, I leave it for future speculations.



Picture 2.1.4: Harappan jars with the Cownose pattern © Dakshayini (left), Ismoon (right)

-
- 2.1.1. Eleanor Robson: [Mesopotamian mathematics](#) 1999 Chapter 2
 - 2.1.2. Duncan J. Melville: [Some Old Babylonian geometry](#) 2005
 - 2.1.3. wikipedia.org: [Cownose rays](#)
 - 2.1.4. wikipedia.org: [Ceremonial vessel, Harappan, 2600 - 2450 BCE](#)
 - 2.1.5. Marko Manninen: [Cownose Pinterest board](#)
 - 2.1.6. Eleanor Robson: [The apsamikku in Neo-Babylonian Mathematics](#) 2007 page 214
 - 2.1.7. Lawergren & Gurney: [Sound Holes And Geometrical Figures](#) 1987 Plate X

Flower of Life versus Cownose

The square shape and square root of 2 are apparent on the Cownose pattern. Equilateral triangle and hexagon shape with the square root of 3 -property are fundamental in the FOL. All these properties were known by Old Babylonians as it is shown in the book *A Remarkable Collection of Babylonian Mathematical Texts*¹ by Joran Friberg. See also clay tablets: IM 52916² and Susu³.

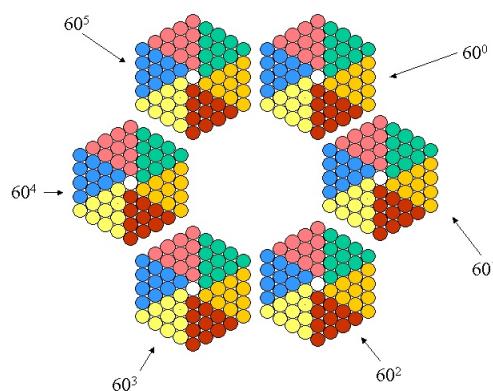
But there are incidents in the ancient history that urge the appearance of the FOL before 2000 BC. These incidents are the sexagesimal numeral system, rhombic cone mosaics, and six-petal cylinder seals.

Sexagesimal system

Sexagesimal place value system was known in the ancient Mesopotamia in the 3rd millennium BC. The geometrical link between a circle, a hexagon and the sexagesimal system is genuinely demonstrated by Jaime Vladimir⁴. He summarizes it:

...these geometrical facts show that there is a geometrical link between the circle and the sexagesimal system and that the division of the circle in 360 equal parts, which corresponds to 360 equal angles or degrees', isn't a choice that is completely independent of the geometry because this division can be suggested by the basic properties of the circles and the equilateral triangles.

The FOL and the sexagesimal system both shares same geometrical and mathematical properties. It means they would mutually benefit from the existence of each other.



Picture 2.2.1: Abacus or calculation table in base 60 © Jaime Vladimir Torres-Heredia

Cone mosaics

The pillar cone mosaic⁵ from the ancient Sumerian city, Uruk (3400 - 3100 BC) shows a tessellation pattern. This 60 degrees zig-zag rhombus pattern formed by two equilateral triangles is inside the FOL geometry as well.



Picture 2.2.2: Cone mosaic on a Uruk facade © Zentralarchiv der Staatlichen Museen zu Berlin - Preußischer Kulturbesitz

Cylinder seal

The Sumerian brown stone cylinder seal⁶ with two six petal rosettes originates from 3000 BC. Similar seals are repeatedly found from the late Uruk and Jemdet Nasr period (3100-2900 BC). See *Ancient Near Eastern Cylinder Seals from the Marcopoli Collection*⁷ by Beatrice Teissier. Six petal rosette is a partial symbol inside the FOL pattern.

Trivial design

The creation of the FOL symbol is started by drawing six intersecting circles around the seventh central circle. The FOL is easier to draw than the Cownose with a plain drafting compass (or a divider). In the FOL, you continue forming the pattern from simple and direct intersection points. In the Cownose pattern, you need to find perpendicular lines and right angles with a more complicated procedure. We can verify this by doing both figures manually. Thus, we could expect to see the FOL appearing on artifacts before the Cownose.

But surprisingly sum and substance based strictly on known artifacts is that four (and eight) - pointed shapes like the Cownose were antecedent and far more prominent. Only later six-pointed shapes like the FOL seems to have been used as a decoration motif.

Based on above considerations, we can safely make the next conjecture:

Prerequisite for the generation of the FOL was fulfilled in the ancient Mesopotamia already in the 3rd millennium BC. In the beginning of the 2nd millennium BC, people were playing with construction elements and pattern we find in the Flower of Life symbol.

Strictly speaking, first occurrences of the FOL are available on artifacts from 1600 - 1500 BC. And the first FOL as a complete symbol as Melchizedek has described it, is from Marlik, 1400 - 1100 BC. That is, if the occurrence from Abydos is not counted because of dating debate around it.

-
- 2.2.1. Joran Friberg: [A Remarkable Collection of Babylonian Mathematical Texts](#) 2007 MS 3051 on the page 207
 - 2.2.2. David Fowler and Eleanor Robson: [Square Root Approximations in Old Babylonian Mathematics](#) 1998
 - 2.2.3. Swapna Kumar Adhikaari: [Babylonian mathematics](#) 1997
 - 2.2.4. Jaime Vladimir: [A geometrical link between the circle and sexagesimal system](#) 2005
 - 2.2.5. wikipedia.org: [Cone mosaic courtyard](#)
 - 2.2.6. christies.com: [The Sumerian brown stone cylinder seal](#)
 - 2.2.7. Beatrice Teissier: [Ancient Near Eastern Cylinder Seals from the Marcopoli Collection](#) 1984 page 117, no. 18

Early visible traces

Most of artifacts from 1400 BC to 500 BC are found from an area that is nowadays Syria, Iraq and Iran. The FOL topic is hard subject to research in the Near East because of:

- Immature web technologies used on museum websites, lack of public online collections
- Current political situation, which effectively limits traveling in the Near East
- Illegal trade of the antiquities that has been continuing for the last two hundred years¹
- Massive destruction of the archeological sites and museum collections by religious fundamentalists

There are just a few scholarly works that refer to the FOL, often with an association to the six-petal rosette figure. At some point, this particular geometrical motif arrived from the mainland to Cyprus, Samos, and Miletos. This can be read from the history of the *Greek vases*² by B.B. Shefton (pages 47-57):

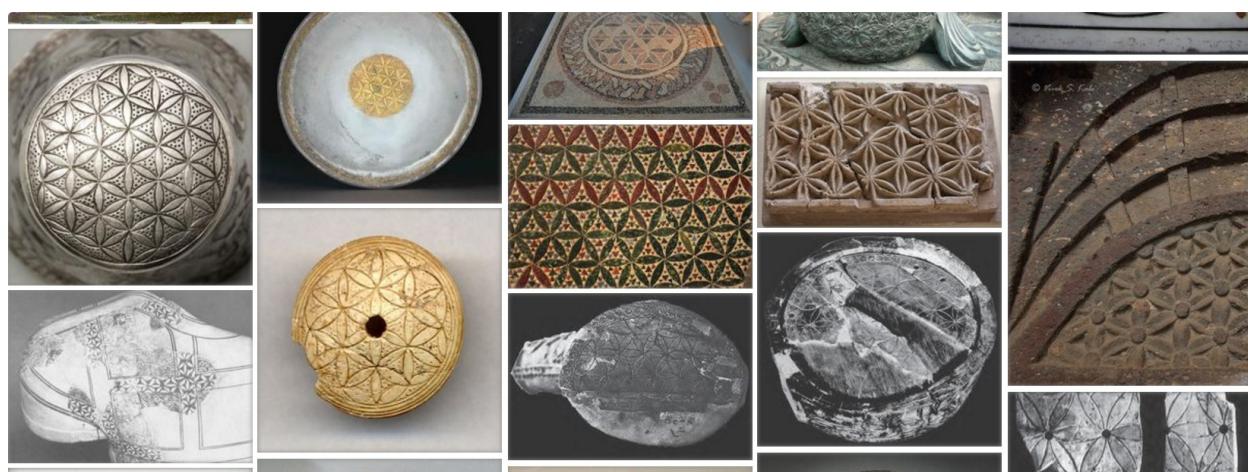
...it presents us with a rosette motif that, while it is not often found in Greek art, has a **story to it of considerable interest**, one that has only partially been explored by previous investigators... the net pattern first half of ninth century BC ... from Samaria are the earliest ones known to me, if indeed their early date can still be maintained... Earliest occurrence known to me is on the underside of a Middle Geometric Attic pyxis from the Kerameikos, that is to say some time in the second quarter of the eighth century...

Greeks didn't use the motif in its full extent. They were mostly interested of the six-petal rosette form of the FOL. It is still notable that the golden plates with a six-petal rosette decoration exist in Mycenae (pic. 6.1.1), Greece as early as 1600 BC. Ivory whorls (pic. 6.1.5) with the FOL decoration exists in Cyprus, 1600 BC. Shefton didn't mention anything about earlier dating goblets from Marlik (pic. 6.1.3 1400 BC) or about wooden lids from Egypt (pic. 6.1.2 1500 BC). All these artifacts exist in the middle of the second millennium, which is much earlier than "the second quarter of the eighth century". Gazelle cup³ from Iran is from 1000 BC.

Phoenicians in Nimrud around 700 BC decorated ivory items like the pyxis, the elephant tusk and the plaque with the FOL symbol. The use of the symbol is very conventional there because Phoenicians stayed right in the center of Levant. Levant is half way from Egyptian kingdom to Mesopotamia, where the major trade of goods, skills, and knowledge was made for thousands of years.

Stone door sills (pic. 6.1.8) having the FOL decoration existed in the King Ashurbanipal temple in Nineveh, 645 BC. The decoration in stone carpets gives the effect of flowers with six petals (continuous FOL pattern). *Assyrian Carpets in Stone*⁴ by Pauline Albenda lists several similar stone carpets from Nimrud. But she also seems to be unaware of Marlik culture goblets or existence of the Egyptian FOL ornament.

Oldest instance of the FOL that I have found in the Asia is from Maharashtra (pic. 6.1.10), India, 200 – 100 BC. It is an arch decoration from the Buddhist Bedse caves. In the Caves of Bedse⁵ blog, it is mentioned that decoration motifs around the cave are similar to Greco-Assyrian style. Newer instances in the East comprise of the marble floor decoration in the Indian Sikh temple (pic. 6.3.7) and Chinese Lion-Dog sculptures (pic. 6.3.6). But these are rather modern day objects having the FOL.



Picture 3.1: Artifacts of the FOL potpourri from Pinterest board

-
- 3.1. D.T. Potts: *A Companion to the Archaeology of the Ancient Near East* 2012 chapter 6
 - 3.2. B.B. Shefton: *Greek vases* 1989 pages 47-57
 - 3.3. Charles K. Wilkinson: *Art of the Marlik Culture* 1965 page 104
 - 3.4. Pauline Albenda: *Assyrian Carpets in Stone* 1978
 - 3.5. Kale V: *Divine Light at Bedse Caves, April 2014*

At the dawn of the Common Era

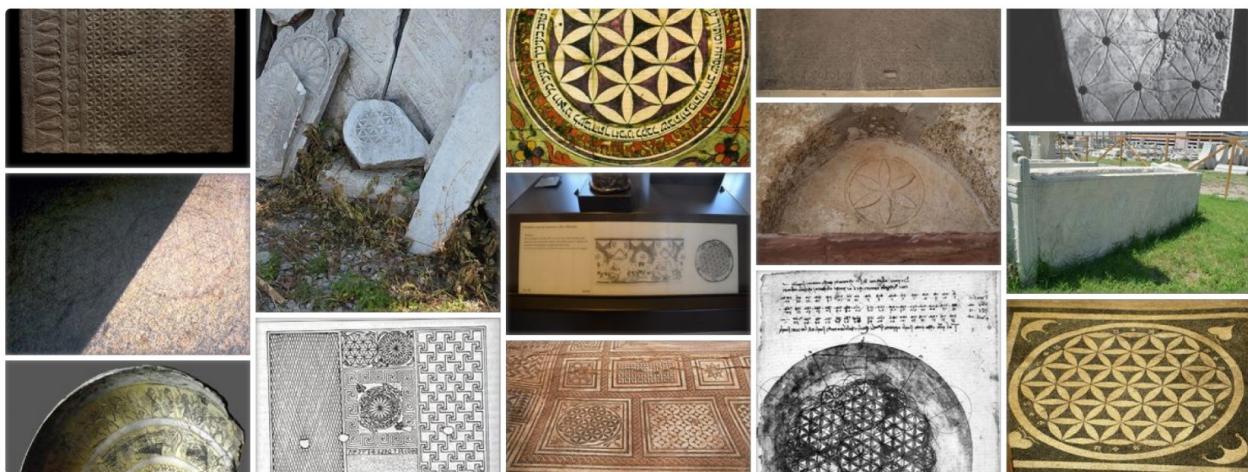
One interesting point is that the FOL symbol was extensively used by Jews, Greeks and Romans around the dawn of the new era, 100 BC - 200 AD. Especially mosaic floors (pic. [6.1.11](#), [6.1.12](#), [6.1.13](#), [6.2.1](#)) pop up from the history using the FOL theme often next to the Cownose decoration motif.

Decorations in the temples of Herod and in the religious center of Ephesus are one of the most beautiful and complete forms of the FOL.

The intriguing question about the influence and usage of the FOL symbol comes by its mathematical properties. This would warrant a separate article: were early Christians, Gnostics, middle Platonists and Neo-Pythagoreans aware of the FOL? How about writers of the Gospels and the book of Revelation, did they know the meaning of it?

Without going any deeper into the subject, it must be mentioned that Roman Imperial was spread up to Thrace in 180 AD leaving behind several floor mosaics with the FOL symbol. These mosaics can nowadays be witnessed on excavated sites in Bulgaria (pic. [6.2.6](#)) and Italy¹, also in Spain (pic. [6.2.2](#), [6.2.3](#)) and France (pic. [6.2.4](#), [6.2.5](#)).

Experimental paintings on the wall of temple ruin² in Syria desert is highly interesting and urges deeper research. Wall is full of symbols of the FOL in different forms. This resembles figure settings in Abydos wall, even Leonardo's drawings if you will.



Picture 4.1: Artifacts of the FOL potpourri from Pinterest board

4.1. Karl: [House of Tragic Poet as House of Glaucus - Pompeii - Mosaic floor](#)

4.2. Hans-Christian: [Picture of temple ruin in Qasr al-Hair ash-Sharqi](#)

1500 AD and still going strong

Much later geometrical patterns were used in the Arabic culture as an art itself. This is due to the fact that in their tradition God, prophets or even people and animals were not allowed to be drawn. For example, Ottomans used the FOL on cemetery works (pic. 6.2.10), the sarcophagus (pic. 6.2.11), tombs and Seljuk caravanserai gates. Orthodox Christians in Patmos island applied *sacred geometry* above the chapel door lunette (pic. 6.3.4, 6.3.5), thus appreciating the symbology behind the intersecting circles. You can see more complex figure on the lunette only when zooming into the image, which just adds tickling enigma around the symbol.

Multicolor opaque glass pavement (pic. 6.2.7) in the Westminster Abbey Gothic church incorporates the FOL symbol. It is well known that Vesica Piscis¹ is the basis of the FOL geometry and used widely on iconography though in the Orthodox tradition. In Orthodox symbolism, Vesica Piscis is rather called a mandorla² (almond) or a nimbus, which refers to the halo around the Saint. The FOL tradition possibly goes to the beginning of the Christian church. But the tradition of the FOL can be traced much further to the history.

At this point, it is good to lift up once more the specialty of the FOL symbol and at the same time its undiscovered history. S. Limani in his *An Eleventh Century Shipwreck Vol. 1* book³ lists several lead net sinkers that have the six-petal rosette symbol on them. He writes:

...regardless of its purpose, the rosette, rare among the Jewish remains of Greece and Rome, is a particularly eastern Jewish phenomenon... rosettes, used as ornament details on fifth and sixth century churches, were a particularly eastern Christian phenomenon as well, being peculiar to northern Syria.

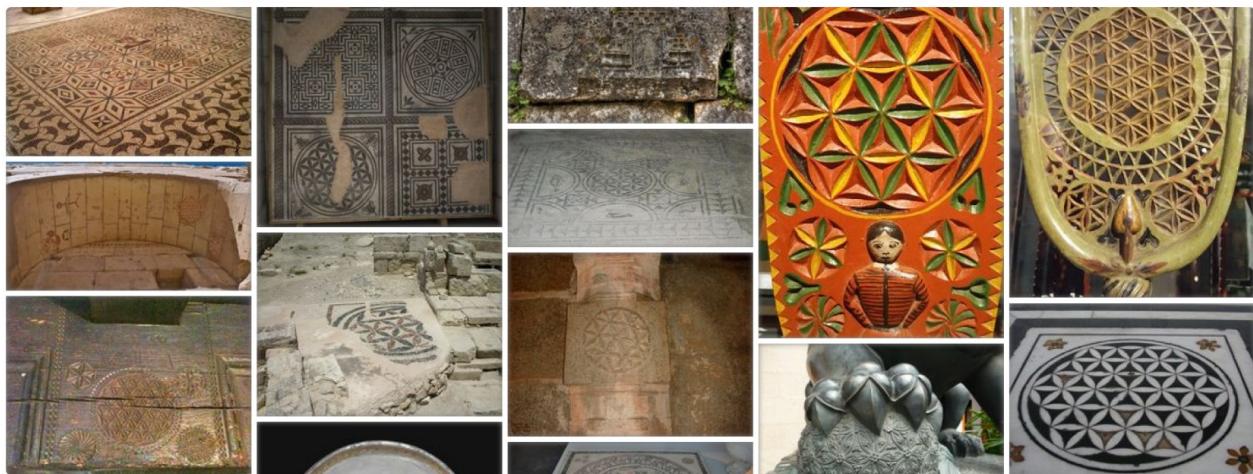
The formation of the FOL is simple, as noted before. E.R. Goodenough, the author of the monumental thirteen volume work about the Jewish and Christian symbolism⁴, calls the six petal rosette

the most banal of all designs

as quoted by Limani. Neither Goodenough or Limani knows hardly anything about the FOL in its full pattern. Nor do they know six petal rosette form from much older history.

If I would really need to guess the origin of the geographical area, where the FOL was first used in its fullest magnitude, my bet would be on upper Mesopotamia. So rich is the tradition of using geometrical forms, especially the usage of the six-petal rosette. The tradition there has lasted long and rich.

Finally, my historic survey ends at around 1500 AD, when Leonardo da Vinci used several pages on his sketchbook (pic. 6.2.13) to investigate the properties of the hexagonal net/grid when he studied the theory of lunes⁵. He was interested in the proportions of such a grid because it can be found from nature. For example, in bumble bee cells, a turtle's carapace and snowflakes. The theory of lunes, i.e. geometric figures formed by the intersection of two circular arcs, was invented by the Greek mathematician Hippocrates of Chios in 440 BC⁶. Both Leonardo and Hippocrates were investigating lunes to unveil the ancient "squaring the circle" enigma.



Picture 5.1: Artifacts of the FOL potpourri from Pinterest board

-
- 5.1. wikipedia.org: [Vesica Piscis](#)
 - 5.2. orthodoxwiki.org: [Mandorla](#)
 - 5.3. S. Limani: [An Eleventh Century Shipwreck Vol. 1](#) page 405
 - 5.4. E.R. Goodenough: [Jewish Symbols in the Greco Roman, Vol. 5 & 7](#) 1958
 - 5.5. Stephen Wolfram: [Wolfram Science](#) 2002 page 872, note d
 - 5.6. Frank J. Swetz: [From Five Fingers to Infinity: A Journey Through the History of Mathematics](#) 1994

List of artifacts

I have ordered the following list of the FOL artifacts by time from the oldest to the newest and added undated items to the end of the list. I hope this list will help further investigators to find out more details of the objects. Origin and history of listed artifacts can reveal more about the history of the FOL itself.

On picture descriptions I'm going to tell shortly where objects can be found, the dating of the objects and sometimes other additional notes, links and references. It is very probable that more objects with the FOL symbol attached on them will be found in future. Think approximately half a million clay tablets that have been excavated from the Near East so far. Reading, cataloging and interpreting them is still considered to be in child steps. Many times more tablets are supposed to hide under the desert sands ¹. Same applies to treasures in Egypt. Maybe thousands of relating objects are in private collections around the world waiting to see the daylight in uncertain future. Many museums don't have online picture collections of the objects yet but are constantly doing work to get information open for public.

Only when individuals and researchers have this particular subject on their mind, they may pay attention to the FOL geometry on artifacts. For example, the silver goblet (pic. 6.1.9) in the Medelhavsmuseet in Stockholm was found only, when I realized week earlier that the FOL can be seen from the bottom or the underside of the object. When I saw attracting silver item in the museum glass vitrine, my first thing to do was to peek inside it. It was truly amazing to see the perfect FOL appearing there right under my eyes.

2000 BC - 0 AD

<i>Item</i>	<i>Location</i>	<i>Date</i>
Gold foils	Mycenae, Greece	1600 BC
Wooden cosmetic boxes	Thebes, Egypt	1492 - 1473 BC
Silver gazelle cup	Iran	1000 BC
Gold and silver goblets	Marlik, Northern Iran	1400 – 1100 BC
Ivory whorls	Cyprus	1600 - 1100 BC
Phoenician bowl	Levant	850 BC
Idalion cup	Cyprus	800 – 700 BC
Oval pyxis	Nimrud	800 – 700 BC
Terracotta torsos	Greece & Cyprus	700 BC
Ivory tusk	Nimrud	800 - 700 BC
Ivory plaque	Nimrud	800 - 700 BC
Bronze vessel	Nimrud	700 BC
Stone floor sills	Northern Iraq	645 BC
Silver beaker	Near East	600 – 500 BC
Cave arches	Maharashtra, India	200 – 100 BC
Opus signinum	Caminreal, Spain	200 - 100 BC
Floor mosaic	Ephesus, Turkey	100 BC
Floor mosaic	Cyprus	75 – 50 BC
Floor mosaic	Israel	20 BC

0 AD - 2000 AD

Item	Location	Date
Mosaic floor	Pompeii, Italy	100 BC - 200 AD
Floor mosaic	Masada, Israel	30 BC – 70 AD
Mosaic floor	Seville, Spain	100 AD
Temple stele	Córdoba, Spain	100 - 500 AD
Floor mosaics	Besançon, France	123 BC – 486 AD
Floor mosaic	Kabile, Bulgaria	400 AD
Silver bowl	Near East	400 – 500 AD
Ruin wall paintings	Qasr al-Hair ash-Sharqi, Syria	729 AD
Cosmati pavement	London, England	1268 AD
Byzantine ruins	Deir Seta, Syria	1400 AD
Hampi pillar	India	1400 AD
Ottoman cemetery decorations	Izmir, Turkey	1400 AD
Castle of Rozmberk	Czech Republic	1400 - 1600 AD
Codex Atlanticus folio 307v	Italy	1500 AD
Stone inscriptions	Bulgaria	1600 AD

Undated

Item	Location	Date
Abydos wall	Egypt	BC, AD
Assyrian wall decoration	Near East	BC
Chapel lunette	Patmos, Greece	AD
Fu Dog sphere	Shanghai, China	AD
Giant urn	Beijing, China	AD
Marble floor decoration	Amritsar, India	AD
Jewish painting	-	AD

6.1. Bill T. Arnold: *Who Were The Babylonians?* 2005 page 13

2000 BC - 0 AD

Gold foils



Picture 6.1.1: Gold six-petal rosette foils © Marko Manninen

Mycenaean funerary gold foil attachments with six-petal rosette geometry found from the Archeological Museum of Istanbul. Mycenae, Greece, 1600 BC. (Photo © Marko Manninen)

Cosmetic box



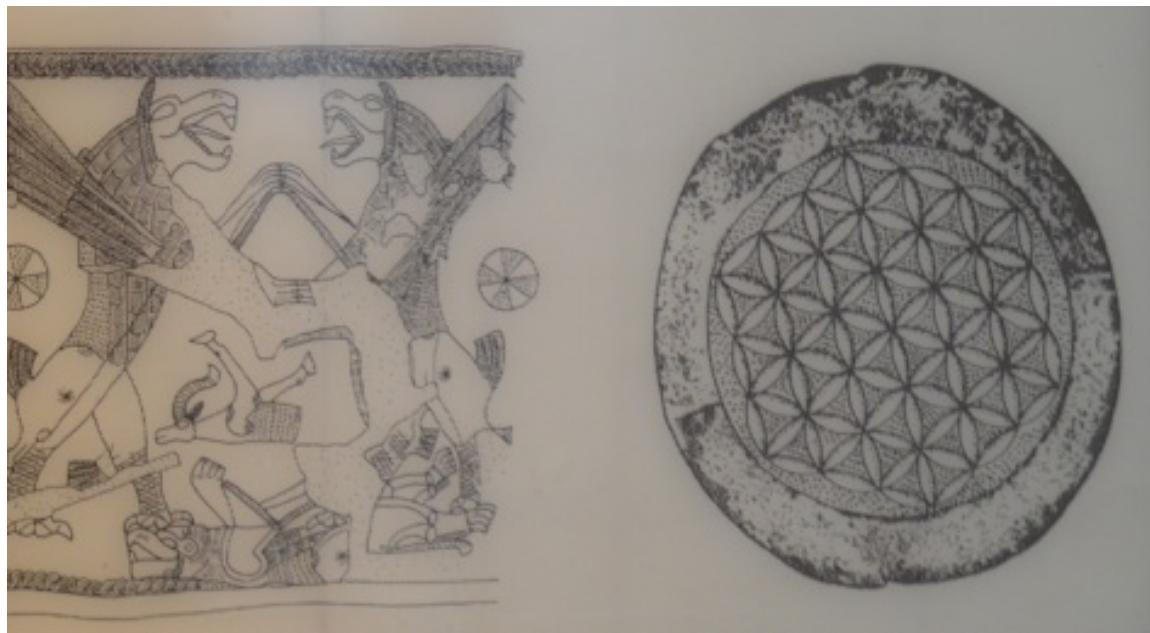
Picture 6.1.2: Wooden cosmetic box © MET

A circular wooden cosmetic box with a swivel lid¹ in the The Metropolitan Museum of Art in New York. Thebes, Egypt, 1492 - 1473 BC.

This box has a swivel top incised with a decorative pattern of concentric and overlapping circles that must have been made with an early version of a drawing compass.

Resembling 12 petal rosette in the ivory box² 1550 BC and 32 rays straight line star can be found from the same period. (Photo © MET)

Silver goblet



Picture 6.1.3: Silver goblet © Marko Manninen

A silver goblet³ in the museum of Louvre. The underside of the object was unreachable for the visitors because the goblet stands on the thick basement. But the picture in the object description shows a full Flower of Life pattern in the bottom, very much similar to the silver goblet underside decoration in Stockholm. Unfortunately only very little is known about the Marlik culture⁴, but artifacts found from the royal cemetery shows excellence in the gold and silver metalwork. Marlik, northern Iran, 1400 – 1100 BC. (Photo © Marko Manninen)

Silver gazelle cup

The base of the silver gazelle cup⁵. From the Safid River region, Iran, 1000 BC.

Golden goblet



Picture 6.1.4: Golden goblet © 1985 Photo RMN / Pierre et Maurice Chuzeville

The underside of a golden goblet⁶ in the museum of Louvre. Excavation report⁷ shows several artifacts having similar six-petal rosettes with surrounding petals (or larger rosette nets) under the goblets and beakers. Marlik, Iran, 1400 – 1100 BC. (Photo © 1985 Photo RMN / Pierre et Maurice Chuzeville)

Ivory whorl



Picture 6.1.5: Ivory whorl © Marko Manninen

This artifact was categorized as a local object from the sanctuary of Aphrodite. It is visible in the Museum of Palaipafos (Kouklia, Cyprus). Dating is mentioned between 1600 - 1100 BC making it one of the oldest FOL found from the Mediterranean world.

Similar ivory whorls⁸ can be seen in the British Museum. They are also from Cyprus, 1340 - 1050 BC. Note how peripheral petals are roughly made probably by a hand. This is a good example how precise much work it takes to draw the whole FOL pattern after the first seven simple circles. (Photo © Marko Manninen)

Phoenician bronze bowl

A Phoenician bronze bowl⁹ in the Los Angeles County Museum of Art. 850 BC.

Idalion cup



Picture 6.1.6: Idalion cup © Public Domain

A cup with mythological scenes ¹⁰ and flower of life pattern in the center visible in the Louvre museum. Idalion, Cyprus, 800 – 700 BC. (Photo © Public Domain)

Oval pyxis

An oval pyxis ¹¹ with a base and a lid in the Iraq Museum, Baghdad. Nimrud, 800 – 700 BC. Note the object IM79513 that has similar, but badly cracked lid with the same geometric figure.

Terracotta torso

A Cypriot terracotta torso ¹² in the British Museum. Similar terracotta torsos with the FOL pattern are visible on the Archeological Museum of Lefkosia also. Salamis, Greece, around 700 BC.

Ivory tusk

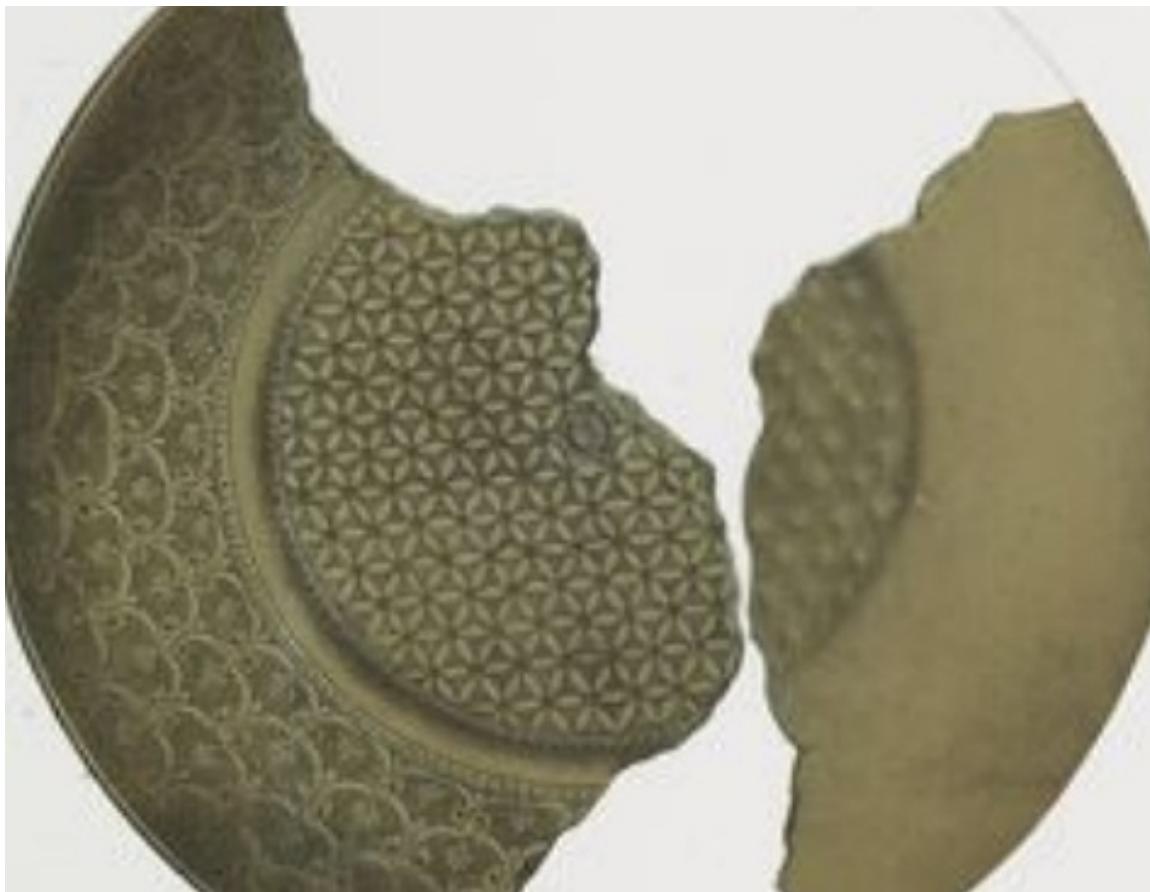
A carved ivory tusk ¹³ in the Iraq Museum, Baghdad. Nimrud, 800 - 700 BC.

Ivory plague

A fragment of an ivory plaque ¹⁴ in the Iraq Museum, Baghdad. Nimrud, 800 - 700 BC. Carving is noted by Wolfram Science ¹⁵ being characteristic form of ornament on Phoenician cultural period:

This was a common decorative pattern, formed by drawing circles centered at holes arranged in a triangular array. It is also found in Egyptian and other art.

Bronze vessel



Picture 6.1.7: Bronze vessel © NYPL Digital Library

A bronze vessel ¹⁶ from the palace of Sennacherib. New York public library. Iraq, Nimrud, 700 BC. (Photo © NYPL Digital Library)

Stone floor sill



Picture 6.1.8: Stone floor sill © Marko Manninen

A stone floor sill with a field of interlocking circles decoration from the palace of King Ashurbanipal. Visible in the Museum of Louvre. Related objects are also visible in the British Museum (BM 118910¹⁷, BM 118913¹⁸). The northern Iraq, 645 BC. (Photo © Marko Manninen)

Silver beaker



Picture 6.1.9: Silver beaker © Ove Kaneberg

An ancient Near East silver beaker bottom motif, 600 – 500 BC. The object with one of the most precise work of FOL is in the Swedish Medelhavsmuseet¹⁹. Kind staff from the museum gave me this information:

The archived accession catalogue gives that it was received in 1980, probably through a certain O. Engkvist. There is also a comment in the margin: Prob Archaemenid, acc. To Vincent Pigott (Iran in the Near East), Prof pennsylvania, USA. Personal communication.

(Photo © Ove Kaneberg)

Cave arches



Picture 6.1.10: Cave arches © Vivek S. Kale

Chaitya arches in a form of wood lattice patterns, floral patterns, berm-rail arches and a parapet with Assyrian pattern²⁰ of a row of stepped triangles in the Buddhist temple of Pitalkhora. Maharashtra, India, 200 – 100 BC. (Photo © Vivek S. Kale)

Opus signinum

Opus signinum²¹ (mosaic floor) of the Roman period house in the “city of charity”, Caminreal, Spain, 200 - 100 BC.

Floor mosaic at Ephesus



Picture 6.1.11: Floor mosaic at Ephesus © Ken & Nyetta

Floor mosaic that lays on the house 1a on the Curetes Street, near the Library of Celsus in the archeological site of Ephesus, Turkey, 100 BC. This photo is used as a cover photo in this e-book. (Photo © Ken & Nyetta²²)

Floor mosaic in Cyprus



Picture 6.1.12: Floor mosaic in Cyprus © Andrew Sweeney

Mosaic floor ornament of the late Hellenistic period at Roman agora, the archeological site of Kourion in Cyprus. 75 – 50 BC. (Photo © Andrew Sweeney ²³)

Floor mosaic at Herodium



Picture 6.1.13: Floor mosaic at Herodium © Shmuel Browns

Floor mosaic in the bathhouse at Lower Herodium built by Herod the Great, unearthed and visible at the National Museum of Israel. Israel, 20 BC. (Photo © Shmuel Browns²⁴)

- 6.1.1. metmuseum.org: Circular Cosmetic Box with a Swivel Lid
- 6.1.2. metmuseum.org: Cosmetic Box with a Swivel Top
- 6.1.3. louvre.fr: Gobelet orné de monstres ailés affrontés
- 6.1.4. dooroodiran: Marlik Culture
- 6.1.5. Charles K. Wilkinson: Art of the Marlik Culture 1965 page 104
- 6.1.6. louvre.fr: Goblet decorated with winged, two-headed monsters, grasping gazelles
- 6.1.7. Nigahban, Izzat Allah: Marlik: the complete excavation report. v. 2: Illustrations 1996
- 6.1.8. britishmuseum.org: Spindle whorl
- 6.1.9. lacma.org: Bronze bowl
- 6.1.10. wikimedia.org: Cup Idalion Louvre
- 6.1.11. Georgina Herrmann, Stuart Laidlaw: Ivories from Nimrud VI 2008 Plate 40
- 6.1.12. B.B. Shefton: Greek vases 1989 page 56
- 6.1.13. Georgina Herrmann, Stuart Laidlaw: Ivories from Nimrud VI 2008 Plate 55
- 6.1.14. Georgina Herrmann, Stuart Laidlaw: Ivories from Nimrud VI 2008 Plate 102
- 6.1.15. Stephen Wolfram: Wolfram Science 2002 page 872, note d
- 6.1.16. nypl.org: Bronze vessels from Nimroud
- 6.1.17. britishmuseum.org: Door sill
- 6.1.18. britishmuseum.org: Door sill
- 6.1.19. smvk.se: Silver beaker
- 6.1.20. Grasp Gra: Buddhist temple of Pitalkhora
- 6.1.21. Jalme D.V. Redon: El mosaico romano con inscripcw xiloca 3 iberica de 'la caridad' page 20, 23, 25
- 6.1.22. Ken & Nyetta: Mosaic and Fresco from Hillhouses of Anciennt Ephesus

-
- 6.1.23. Andrew Sweeney: Kourion - Ancient Town
 - 6.1.24. Shmuel Browns: Roman Bath House from Herodium

0 AD - 2000 AD

Mosaic floor in Pompeii

Mosaic floor¹ in the House of Tragic Poet as House of Glaucus. Italy, Pompeii. Undated.

Broken floor mosaic



Picture 6.2.1: Broken floor mosaic © James Emery

Broken floor mosaic of pomegranates, fig leaves and geometrical pattern of circles (the FOL) on the reception room in the Western Palace built by Herod the Great. Masada, Israel, 30 BC – 70 AD. (© James Emery²)

Mosaic floor in Seville



Picture 6.2.2: Mosaic floor in Seville © Rafael del Pino

Possibly a Roman period mosaic floor in the Archaeological Museum of Seville, Spain.
Undated. (Photo © Rafael del Pino)

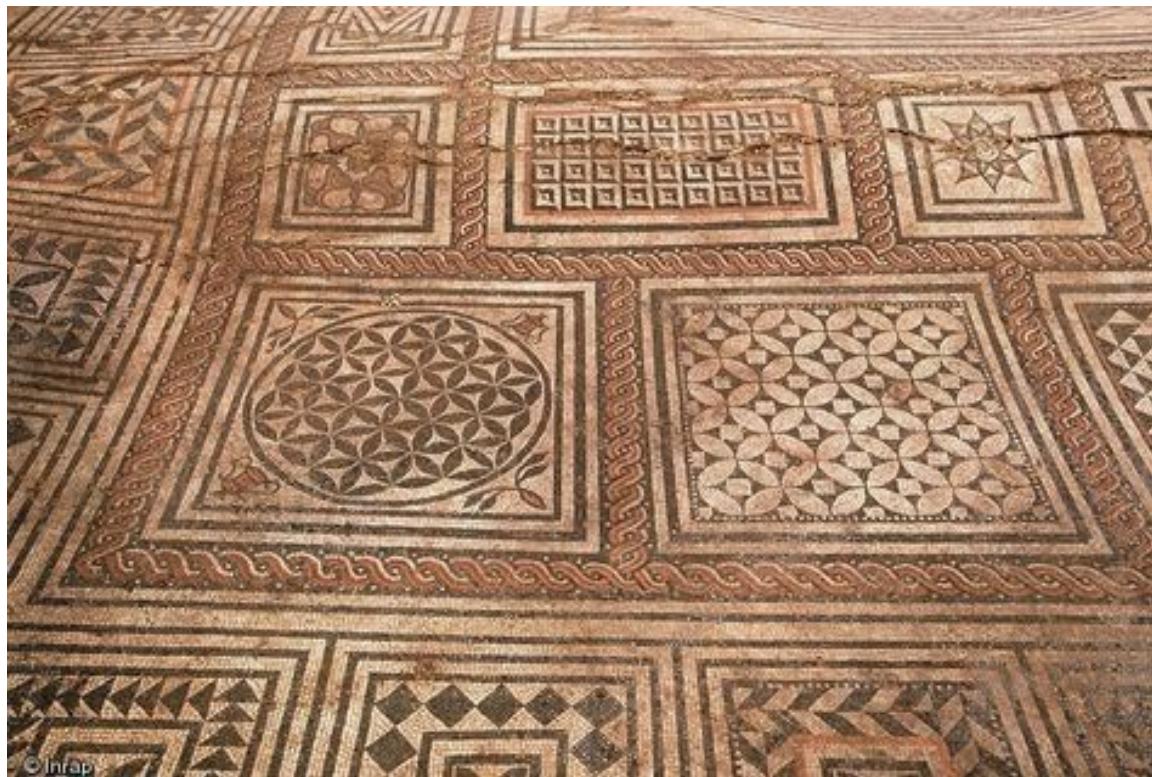
Roman temple stele



Picture 6.2.3: Roman temple stele © Steve Pope

A stele from the Roman temple ruins. Córdoba, Spain, 100 - 500 AD. (© Steve Pope)

Floor mosaic in Besancon



Picture 6.2.4: Floor mosaic © Pierre Dupont, Inrap

Geometrical motifs in the mosaics visible in the Museum of Fine Arts and Archaeology. Besancon, France, Gallo-Roman Period 123 BC – 486 AD. (© Pierre Dupont, Inrap)

Floor mosaic



Picture 6.2.5: Floor mosaic © heroesbed

Geometrical motifs in the mosaics visible in the Museum of Fine Arts and Archaeology.
Besancon, France, Gallo-Roman Period 123 BC – 486 AD. (© heroesbed)

Basilica floor mosaic



Picture 6.2.6: Basilica floor mosaic © bulstack.com

A mosaic floor from the basilica in the town near to Yambol. Kabile, Bulgaria, 400 AD. (Photo © bulstack.com)

Sassanian bowl

A Sassanian inscribed parcel-gilt silver bowl³. 400 – 500 AD.

Wall in Syria

About 100 kilometers west of Deir az-Zor on the Euphrates river in the Syrian desert is the Ummayad hunting château where wall paintings⁴ resembles much like drawings of the Leonardo da Vinci. Qasr al-Hair ash-Sharqi, 729 AD.

Pavement



Picture 6.2.7: Gothic church pavement © Dean and Chapter of Westminster

A multicolor opaque glass *Cosmati* pavement in the Westminster Abbey⁵ Gothic church. London, England, 1268 AD. (Photo © Dean and Chapter of Westminster)

Byzantine ruin



Picture 6.2.8: Byzantine-era ruin © Abd

Byzantine-era ruin from Deir Seta, Syria, around 1400 AD. (Photo © Abd)

Hampi temple pillar



Picture 6.2.9: Hampi temple pillar © Wm Jas

The Flower of Life symbol in the pillar in the Hampi temple⁶. India, 1400 AD. (Photo © Wm Jas)

Cemetery decorations



Picture 6.2.10: Ottoman cemetery decorations © Marko Manninen

Ottoman cemetery headstone decorations from the antique field of ancient Smyrna. Izmir, Turkey, 1400 AD. (Photo © Marko Manninen)

Sarcophagus



Picture 6.2.11: Ottoman sarcophagus © Marko Manninen

An Ottoman sarcophagus in the antique field of ancient Smyrna. Izmir, Turkey, 1400 AD.
(Photo © Marko Manninen)

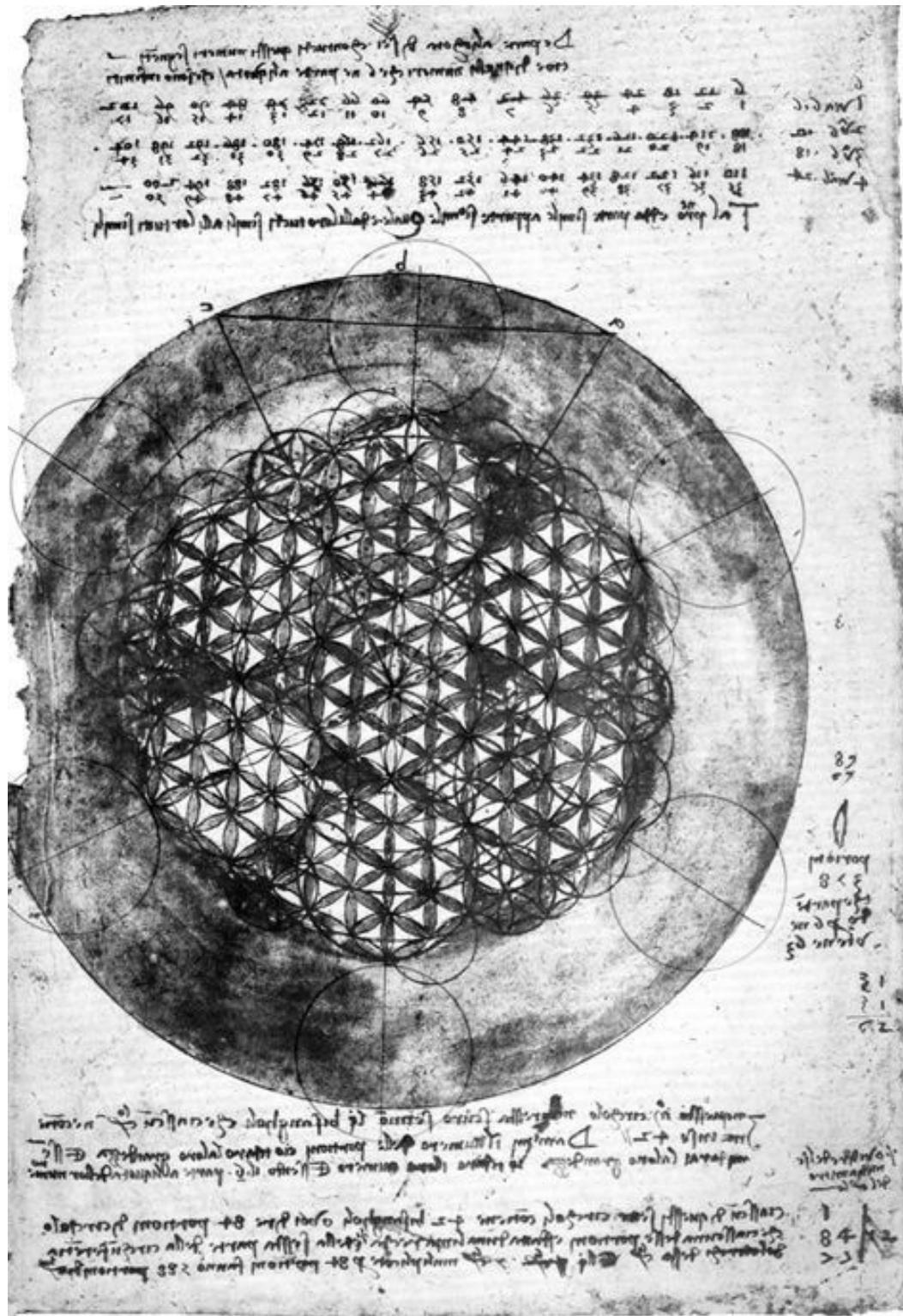
Castle of Rozmberk



Picture 6.2.12: Castle of Rozmberk © Mark Libal

Flower of Life and other geometric symbols from the castle of Rozmberk ⁷ in the Czech Republic. On 14 - 16th century AD castle was owned by a Czech alchemist, symbols are probably from that period. (Photo © Mark Libal)

Leonardo da Vinci's notes



Picture 6.2.13: Codex Atlanticus folio 307v / Public Domain

Leonardo da Vinci's explorations of the hexagonal geometry on his Codex Atlanticus⁸ notebooks, folio 307 verso⁹. Italy, 1500 AD. (Photo © Public Domain)

Stone inscriptions



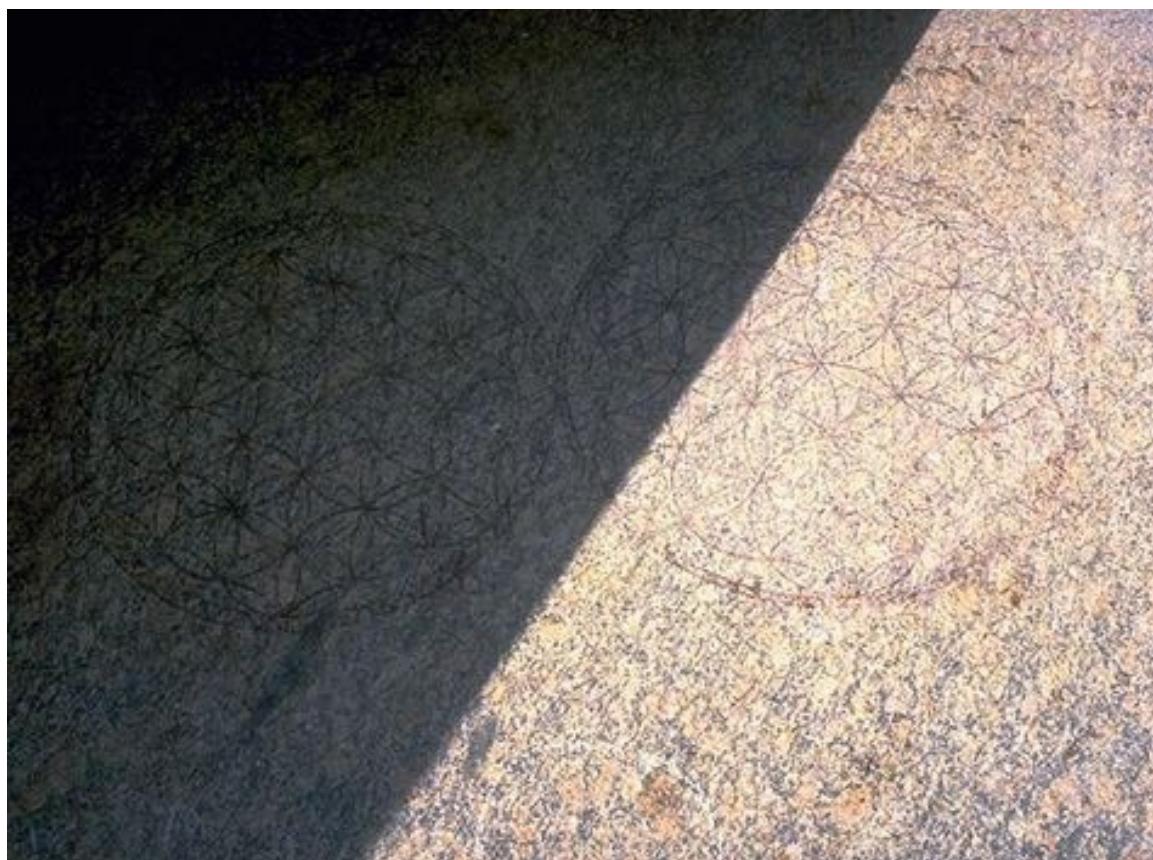
Picture 6.2.14: Stone inscriptions © Klearchos Kapoutsis

Inscription on the stones of the surrounding wall of Demir Baba Teke, Alevi mausoleum near the village of Sveshtari, in northeastern Bulgaria, 1600 AD. (Photo © Klearchos Kapoutsis ¹⁰)

-
- 6.2.1. Karl: [House of Tragic Poet as House of Glaucus - Pompeii - Mosaic floor](#)
 - 6.2.2. James Emery: [Masada mosaic](#)
 - 6.2.3. christies.com: [A Sassanian parcel-gilt silver inscribed bowl](#)
 - 6.2.4. Hans-Christian: [Picture of temple ruins in Qasr al-Hair ash-Sharqi](#)
 - 6.2.5. westminster-abby.org: [Westminster Abbey conservation](#)
 - 6.2.6. wikipedia.org: [Hampi temple](#)
 - 6.2.7. wikipedia.org: [Castle of Rozmberk](#)
 - 6.2.8. wikipedia.org: [Codex Atlanticus](#)
 - 6.2.9. wikimedia.org: [Codex Atlanticus, folio 307 verso](#)
 - 6.2.10. Klearchos Kapoutsis: [Демир Баба Теке](#)

Undated

Ornament at the Temple of Osiris



Picture 6.3.1: Abydos ornament © Ray Flowers

The famous ornament found at the stone slab in the Temple of Osiris. Claimed to have origins from 3000 BC (or even much older), but critical analysis gives dates from 400 - 200 BC to even after 1900 AD. Abydos, Egypt. (Photo © Ray Flowers)

Assyrian wall decoration



Picture 6.3.2: Assyrian wall decoration © Sanjin Đumišić



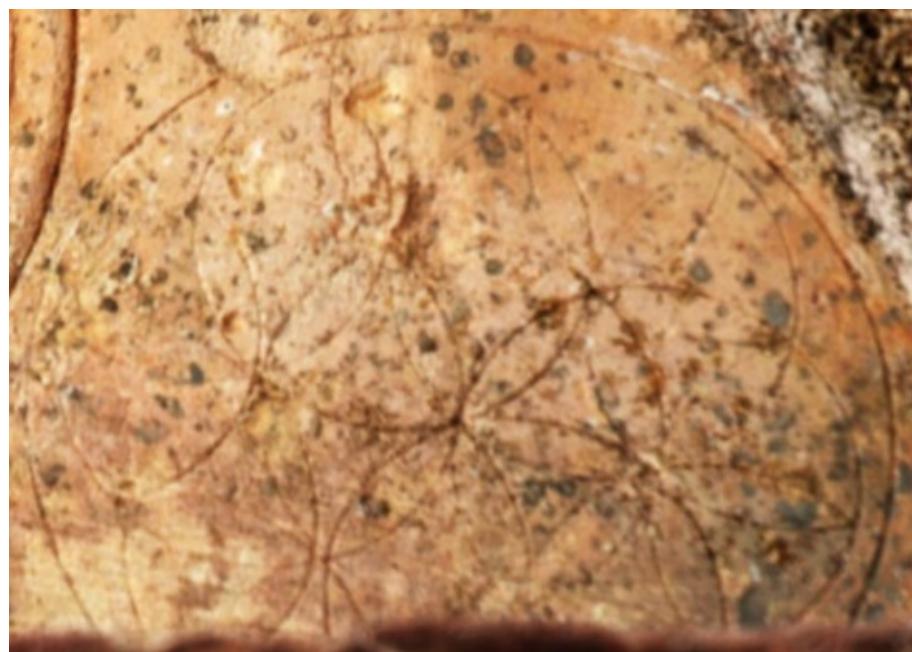
Picture 6.3.3: Assyrian wall decoration 2 © Sanjin Đumišić

Assyrian wall decorations ¹ in the Pergamon Museum in Berlin. Second picture has very similar ornament than Shefton has pointed in his book about Greek Vases ². Yet to be dated, possibly from 1st millennium BC. (Photo © Sanjin Đumišić)

Six-petal flower lunette



Picture 6.3.4: Six-petal flower on lunette © Marko Manninen



Picture 6.3.5: Intersecting circles on lunette (zoom) © Marko Manninen

A six-petal flower lunette above the door of the Orthodox chapel (upper picture). The more complex pattern of intersecting circles can be seen on both sides of the center circle when the picture is zoomed in (lower picture). Patmos, Chora, Greece. Undated. (Photos © Marko Manninen)

Fu Dog Sphere



Picture 6.3.6: Fu Dog sphere © Tyson Amick

An earth sphere under the Fu Dog (or male lion/Buddha). This is a common defender statue on the houses and temples in the Ming and Qing dynasties. In the picture is one of the stone lions guarding the Jing'An Temple in Shanghai, China. Undated. (Photo © Tyson Amick³)

Giant urn

A giant urn⁴ in the royal gardens of the Forbidden City in Beijing, China. Undated, but possibly from 1400 - 1500 AD.

Sikh temple marble floor



Picture 6.3.7: Sikh temple marble decoration

Marble floor decoration in the Harmandir Sahib Sikh temple⁵. Amritsar, India. Undated.
Unable to trace original photographer.

Jewish painting



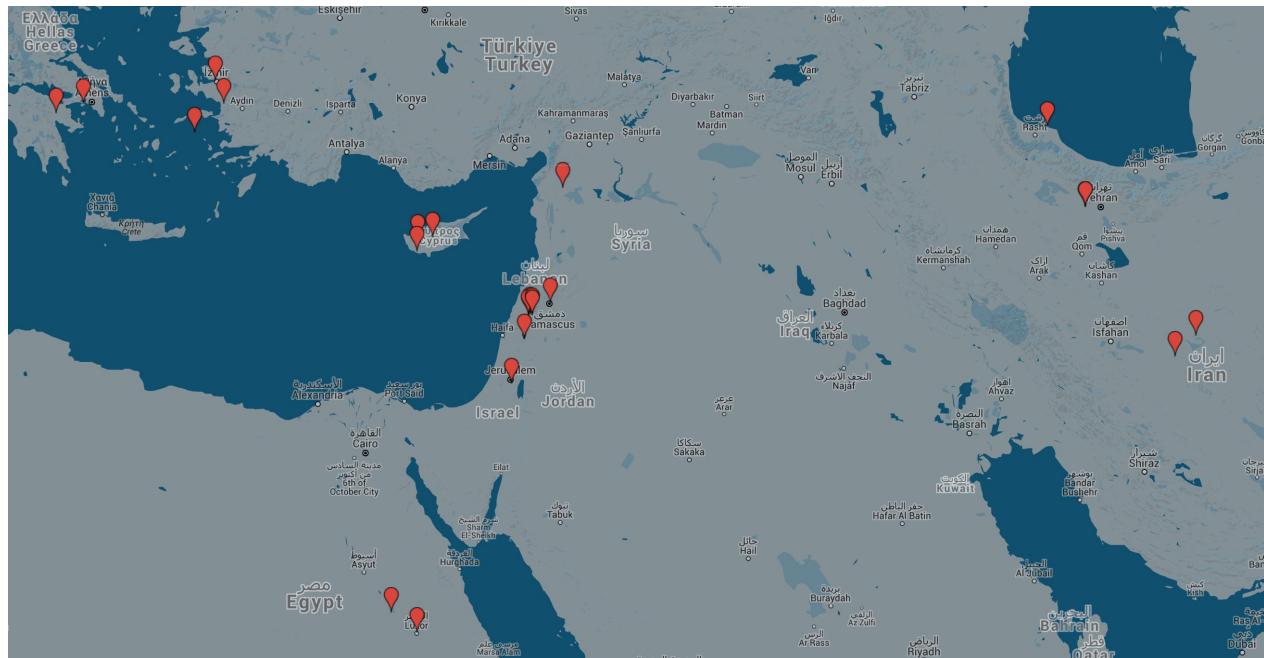
Picture 6.3.8: Jewish painting

A Jewish painting that has a Hebrew inscription around the circle of the Flower of Life.
Unplaced, Undated. Unable to trace original photographer.

- 6.3.1. Sanjin Đumišić: Sumer - Pergamon Museum in Berlin
 - 6.3.2. B.B. Shefton: Greek vases 1989 page 54
 - 6.3.3. Tyson Amick: Stone lions guarding the Jing'An Temple in Shanghai
 - 6.3.4. Jamie Janover: Giant urn
 - 6.3.5. wikipedia.org: Harmandir Sahib

Map of artifacts of the Flower of Life

The map below¹ shows locations where cataloged artifacts were found:



Picture 7.1: Mediterranean and Near East map of the FOL items

7.1. Marko Manninen: Google Maps of the Flower of Life items



Conclusions?

I think it is too early to do any firm conclusions of the Flower of Life symbol. Dating of the symbol is hard as it is usual when trying to trace ancient inventions. Often we can talk only in a precision of thousands of years, rather than hundreds, even we speak of relatively new history. But it is clear that history of the FOL goes further than many expect. It makes sense that six-petal rosette came first before the FOL preceding rhombus, triangle, hexagon and zig-zag patterns. Oblique slopes resembling 60 degrees' angle goes to the Neolithic periods and beyond.

How long it took to develop from six-petal rosettes to the continuous FOL pattern? That is one of many open questions. We do need classifications to distinguish the development of the symbol from simple parts to the complex form if we want to answer these questions. Different types of the FOL symbol/pattern are visible on pictures presented in this essay, but time is not used to specify them distinctively. This task belongs to the future work.

Another question is the development of the drafting compass, the divider, and the caliper. These tools provided required accuracy to construct the FOL pattern. Quite often it is believed that Egyptians didn't possess the compass, that they were mere rope stretchers¹. In contrast to this, we can see one of the oldest object in the current survey coming from Egypt indeed! Anyone can make own conclusions if those Egyptian cosmetic box lid carvings were made with a help of a string or a more accurate fixed / adjustable compass with sharp and durable endpoints. Museum object descriptions favor the compass. However, following this line to get more information about the FOL is kind of a dead end because the history of the compass based on artifacts can be traced to around 600 BC only. This is the earliest caliper which is found from Giglio shipwreck off the coast of Tuscany according to Roger Ulrich².

Are we thus forced to follow a more intuitive path and face the old Greek myth of Perdix³, who was assumed to invent a pair of compasses and a saw? Legend tells (see Ovid's dactylic hexameter poem *Metamorphoses* 8⁴) that a zig-zag figured saw was made from the spine of a fish:

He (Perdix) took the jagged backbone of a fish, and with it as a model made a saw, with sharp teeth fashioned from a strip of iron. And he was first to make two arms of iron, smooth hinged upon the center, so that one would make a pivot while the other, turned, described a circle.

Interestingly tessellation figure (the saw) and circle drawing tool (the compass) are combined on the same story. Perdix, who was saved by getting wings, witnessed the fall of the Icarus, who lost his wings. Let's take an advice from the instructive legend and be moderate with further conclusions at this point.

As it is with dating, it is with locating. Where did a sophisticated sense of geometric forms develop to such a degree that the FOL was in the ability of a human to be drawn? We shouldn't forget that designs of Samarra dishes⁵ are amazingly refined while they go as far as 7500 years back in the history.

What was the meaning of the FOL then? It is unlikely that the name and the meaning were carried out from millennium to millennium and through different cultures unchanged and same. Sometimes symbol was probably used as an interesting decoration and ornament, pleasing and exciting on the eye of an artisan, maybe without any specific profound meaning and name. Sometimes it appears clearly on a religious context. Later, when I'm struggling more with the mathematical and geometrical properties of the FOL as well as doing comparative mythological and etymological studies, I will present possible meanings and names attached to the symbol.

-
- 8.1. L.R. Shelby: *Medieval Masons' Tools* 1961 page 237
 - 8.2. Roger B. Ulrich: *Roman Woodworking* 1961 pages 52-53
 - 8.3. wikipedia.org: [Perdix mythology](#)
 - 8.4. Ovid: [Metamorphoses 8](#) 1 AD
 - 8.5. Marko Manninen: [Samarra geometry Pinterest board](#)

Credits

I need to credit all picture copyright holders and work made by numerous artists and authors. Without their willingness to share their work it would be impossible to present the continuity of the FOL symbol by its various appearances in any satisfactory way.

Most of the pictures have been published with Creative Commons license ¹. It was straightforward to use those images in this book. I have published all my own photos and illustrations with the same license. I believe it is the way to keep creative work and research hassle free and enjoyable for everyone.

Special thanks to Minna Haataja for proofreading help with the first edition of the document.

Pictures

- [Pic. 2.1.1](#) The Cownose geometric pattern © Marko Manninen
- [Pic. 2.1.2](#) Cownose rays resembling the Cownose pattern © Doc Lucio
- [Pic. 2.1.3](#) Ceremonial vessel with the Cownose pattern from Harappan © LACMA
- [Pic. 2.1.4](#) Harappan jars with the Cownose pattern © Dakshayini (left), Ismoon (right)
- [Pic. 2.2.1](#) Abacus or calculation table in base 60 © Jaime Vladimir Torres-Heredia
- [Pic. 2.2.2](#) Cone mosaic on a Uruk facade © Zentralarchiv der Staatlichen Museen zu Berlin - Preußischer Kulturbesitz
- [Pic. 3.1](#) Artifacts of the FOL potpourri from Pinterest board
- [Pic. 5.1](#) Artifacts of the FOL potpourri from Pinterest board
- [Pic. 4.1](#) Artifacts of the FOL potpourri from Pinterest board
- [Pic. 6.1.1](#) Gold six-petal rosette foils © Marko Manninen
- [Pic. 6.1.2](#) Wooden cosmetic box © MET
- [Pic. 6.1.3](#) Silver goblet © Marko Manninen
- [Pic. 6.1.4](#) Golden goblet © 1985 Photo RMN / Pierre et Maurice Chuzeville
- [Pic. 6.1.5](#) Ivory whorl © Marko Manninen
- [Pic. 6.1.6](#) Idalion cup © Public Domain
- [Pic. 6.1.7](#) Bronze vessel © NYPL Digital Library
- [Pic. 6.1.8](#) Stone floor sill © Marko Manninen
- [Pic. 6.1.9](#) Silver beaker © Ove Kaneberg
- [Pic. 6.1.10](#) Cave arches © Vivek S. Kale
- [Pic. 6.1.11](#) Floor mosaic at Ephesus © Ken & Nyetta
- [Pic. 6.1.12](#) Floor mosaic in Cyprus © Andrew Sweeney
- [Pic. 6.1.13](#) Floor mosaic at Herodium © Shmuel Browns
- [Pic. 6.3.1](#) Abydos ornament © Ray Flowers

-
- Pic. 6.3.2 Assyrian wall decoration © Sanjin Đumišić
 - Pic. 6.3.3 Assyrian wall decoration 2 © Sanjin Đumišić
 - Pic. 6.3.4 Six-petal flower on lunette © Marko Manninen
 - Pic. 6.3.5 Intersecting circles on lunette (zoom) © Marko Manninen
 - Pic. 6.3.6 Fu Dog sphere © Tyson Amick
 - Pic. 6.3.7 Sikh temple marble decoration
 - Pic. 6.3.8 Jewish painting
 - Pic. 6.2.1 Broken floor mosaic © James Emery
 - Pic. 6.2.2 Mosaic floor in Seville © Rafael del Pino
 - Pic. 6.2.3 Roman temple stele © Steve Pope
 - Pic. 6.2.4 Floor mosaic © Pierre Dupont, Inrap
 - Pic. 6.2.5 Floor mosaic © heroesbed
 - Pic. 6.2.6 Basilica floor mosaic © bulstack.com
 - Pic. 6.2.7 Gothic church pavement © Dean and Chapter of Westminster
 - Pic. 6.2.8 Byzantine-era ruin © Abd
 - Pic. 6.2.9 Hampi temple pillar © Wm Jas
 - Pic. 6.2.10 Ottoman cemetery decorations © Marko Manninen
 - Pic. 6.2.11 Ottoman sarcophagus © Marko Manninen
 - Pic. 6.2.12 Castle of Rozmberk © Mark Libal
 - Pic. 6.2.13 Codex Atlanticus folio 307v / Public Domain
 - Pic. 6.2.14 Stone inscriptions © Klearchos Kapoutsis
 - Pic. 7.1 Mediterranean and Near East map of the FOL items
 - Pic. 1.1 Artifacts of the FOL potpourri from Pinterest board
 - Pic. 1.2 The Flower of Life / Public Domain
-

9.1. wikipedia.org: [Creative Commons license](#)

References

Bibliography

- Drunvalo Melchizedek: The ancient secret of the Flower of Life, Vol. 1&2 (1999 & 2000)
- Eleanor Robson: Mesopotamian mathematics (1999)
- Eleanor Robson: The apsamikku in Neo-Babylonian Mathematics (2007)
- Joran Friberg: A remarkable collection of Babylonian mathematical texts (2007)
- Duncan J. Melville: Some old Babylonian geometry (2005)
- B.J. McCartin: Mysteries of the equilateral triangle (2010)
- B.B. Shefton: Greek vases (1989)
- Pauline Albenda: Assyrian carpets in stone (1978)
- Stephen Wolfram: A new kind of science (2002)
- Serçe Limani: An Eleventh-Century Shipwreck Vol. 1, The Ship and Its Anchorage, Crew, and Passenger (2004)
- E.R. Goodenough: Jewish Symbols in the Greco Roman, Vol. 5 & 7 (1958)
- D.T. Potts: A Companion to the Archaeology of the Ancient Near East (2012)
- Georgina Herrmann, Stuart Laidlaw: Ivories from Nimrud VI (2008)
- Beatrice Teissier: Ancient Near Eastern Cylinder Seals from the Marcopoli Collection (1984)
- Roger B. Ulrich: Roman Woodworking (2013)
- L.R. Shelby: Medieval Masons' Tools (1961)
- Ovid: Metamorphoses 8 (1 AD)
- Leonardo da Vinci: Codex Atlanticus (1500)
- Jalme D.V. Redon: El mosaico romano con inscripcw xiloca 3 iberica de "la caridad" (1989)
- Lawergren & Gurney: Sound Holes And Geometrical Figures (1987)

Websites

- [wikipedia.org](https://www.wikipedia.org)
- [wikimedia.org](https://www.wikimedia.org)
- [louvre.fr](https://www.louvre.fr)
- [metmuseum.org](https://www.metmuseum.org)
- [britishmuseum.org](https://www.britishmuseum.org)
- [lacma.org](https://www.lacma.org)
- [christies.com](https://www.christies.com)
- [pinterest.com](https://www.pinterest.com)

- flickr.com

Citations

- 0.1. wikipedia.org: [Flower of Life geometry](#)
- 2.1.1. Eleanor Robson: [Mesopotamian mathematics](#) 1999 Chapter 2
- 2.1.2. Duncan J. Melville: [Some Old Babylonian geometry](#) 2005
- 2.1.3. wikipedia.org: [Cownose rays](#)
- 2.1.4. wikipedia.org: [Ceremonial vessel, Harappan, 2600 - 2450 BCE](#)
- 2.1.5. Marko Manninen: [Cownose Pinterest board](#)
- 2.1.6. Eleanor Robson: [The apsamikku in Neo-Babylonian Mathematics](#) 2007 page 214
- 2.1.7. Lawergren & Gurney: [Sound Holes And Geometrical Figures](#) 1987 Plate X
- 2.2.1. Joran Friberg: [A Remarkable Collection of Babylonian Mathematical Texts](#) 2007 MS 3051 on the page 207
- 2.2.2. David Fowler and Eleanor Robson: [Square Root Approximations in Old Babylonian Mathematics](#) 1998
- 2.2.3. Swapna Kumar Adhikaari: [Babylonian mathematics](#) 1997
- 2.2.4. Jaime Vladimir: [A geometrical link between the circle and sexagesimal system](#) 2005
- 2.2.5. wikipedia.org: [Cone mosaic courtyard](#)
- 2.2.6. christies.com: [The Sumerian brown stone cylinder seal](#)
- 2.2.7. Beatrice Teissier: [Ancient Near Eastern Cylinder Seals from the Marcopoli Collection](#) 1984 page 117, no. 18
- 3.1. D.T. Potts: [A Companion to the Archaeology of the Ancient Near East](#) 2012 chapter 6
- 3.2. B.B. Shefton: [Greek vases](#) 1989 pages 47-57
- 3.3. Charles K. Wilkinson: [Art of the Marlik Culture](#) 1965 page 104
- 3.4. Pauline Albenda: [Assyrian Carpets in Stone](#) 1978
- 3.5. Kale V: [Divine Light at Bedse Caves, April 2014](#)
- 5.1. wikipedia.org: [Vesica Piscis](#)
- 5.2. orthodoxwiki.org: [Mandorla](#)
- 5.3. S. Limani: [An Eleventh Century Shipwreck Vol. 1](#) page 405
- 5.4. E.R. Goodenough: [Jewish Symbols in the Greco Roman, Vol. 5 & 7](#) 1958
- 5.5. Stephen Wolfram: [Wolfram Science](#) 2002 page 872, note d
- 5.6. Frank J. Swetz: [From Five Fingers to Infinity: A Journey Through the History of Mathematics](#) 1994
- 4.1. Karl: [House of Tragic Poet as House of Glaucus - Pompeii - Mosaic floor](#)
- 4.2. Hans-Christian: [Picture of temple ruin in Qasr al-Hair ash-Sharqi](#)
- 6.1. Bill T. Arnold: [Who Were The Babylonians?](#) 2005 page 13
- 6.1.1. metmuseum.org: [Circular Cosmetic Box with a Swivel Lid](#)

- 6.1.2. metmuseum.org: Cosmetic Box with a Swivel Top
- 6.1.3. louvre.fr: Gobelet orné de monstres ailés affrontés
- 6.1.4. dooroodiran: Marlik Culture
- 6.1.5. Charles K. Wilkinson: Art of the Marlik Culture 1965 page 104
- 6.1.6. louvre.fr: Goblet decorated with winged, two-headed monsters, grasping gazelles
- 6.1.7. Nigahban, Izzat Allah: Marlik: the complete excavation report. v. 2: Illustrations 1996
- 6.1.8. britishmuseum.org: Spindle whorl
- 6.1.9. lacma.org: Bronze bowl
- 6.1.10. wikimedia.org: Cup Idalion Louvre
- 6.1.11. Georgina Herrmann, Stuart Laidlaw: Ivories from Nimrud VI 2008 Plate 40
- 6.1.12. B.B. Shefton: Greek vases 1989 page 56
- 6.1.13. Georgina Herrmann, Stuart Laidlaw: Ivories from Nimrud VI 2008 Plate 55
- 6.1.14. Georgina Herrmann, Stuart Laidlaw: Ivories from Nimrud VI 2008 Plate 102
- 6.1.15. Stephen Wolfram: Wolfram Science 2002 page 872, note d
- 6.1.16. nypl.org: Bronze vessels from Nimroud
- 6.1.17. britishmuseum.org: Door sill
- 6.1.18. britishmuseum.org: Door sill
- 6.1.19. smvk.se: Silver beaker
- 6.1.20. Grasp Gra: Buddhist temple of Pitalkhora
- 6.1.21. Jalme D.V. Redon: El mosaico romano con inscripcw xiloca 3 iberica de 'la caridad' page 20, 23, 25
- 6.1.22. Ken & Nyetta: Mosaic and Fresco from Hillhouses of Anciennt Ephesus
- 6.1.23. Andrew Sweeney: Kourion - Ancient Town
- 6.1.24. Shmuel Browns: Roman Bath House from Herodium
- 6.3.1. Sanjin Đumišić: Sumer - Pergamon Museum in Berlin
- 6.3.2. B.B. Shefton: Greek vases 1989 page 54
- 6.3.3. Tyson Amick: Stone lions guarding the Jing'An Temple in Shanghai
- 6.3.4. Jamie Janover: Giant urn
- 6.3.5. wikipedia.org: Harmandir Sahib
- 6.2.1. Karl: House of Tragic Poet as House of Glaucus - Pompeii - Mosaic floor
- 6.2.2. James Emery: Masada mosaic
- 6.2.3. christies.com: A Sassanian parcel-gilt silver inscribed bowl
- 6.2.4. Hans-Christian: Picture of temple ruins in Qasr al-Hair ash-Sharqi
- 6.2.5. westminster-abbey.org: Westminster Abbey conservation
- 6.2.6. wikipedia.org: Hampi temple
- 6.2.7. wikipedia.org: Castle of Rozmberk
- 6.2.8. wikipedia.org: Codex Atlanticus
- 6.2.9. wikimedia.org: Codex Atlanticus, folio 307 verso
- 6.2.10. Klearchos Kapoutsis: Демир Баба Теке

- 7.1. Marko Manninen: [Google Maps of the Flower of Life items](#)
- 8.1. L.R. Shelby: *Medieval Masons' Tools* 1961 page 237
- 8.2. Roger B. Ulrich: *Roman Woodworking* 1961 pages 52-53
- 8.3. wikipedia.org: [Perdix mythology](#)
- 8.4. Ovid: [Metamorphoses 8 1 AD](#)
- 8.5. Marko Manninen: [Samarra geometry Pinterest board](#)
- 9.1. wikipedia.org: [Creative Commons license](#)
- 1.1. Marko Manninen: [Flower of Life Pinterest board](#)
- 1.2. Drunvalo Melchizedek: *The Ancient Secret of the Flower of Life* 1999, 2000
- 1.3. wikipedia.org: [Fleur-de-lis](#)
- 1.4. wikipedia.org: [Tree of Life](#)
- 1.5. wikipedia.org: [Flower of Life archived wiki page](#)
- 1.6. wikimedia.org: [Assyrian stone carpet](#)

Keywords

This list of keywords and phrases can be used to search more information about the FOL from libraries and search engines:

Flower of Life, six-petal rosette, rosette, rosette net, six rayed star, six spoked wheel, apsamikku / apsamikkum, concave square, square root of 3, intersecting circles, hexagon, equilateral triangle, rhombus, Vesica Piscis, goblets, beakers, pyxis, vases, vessels, cosmetic lids, ivory carvings, whorls, mosaics, cylinder seals, 60 degrees, sacred geometry, geometric patterns.