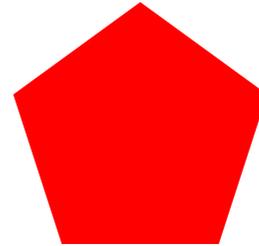
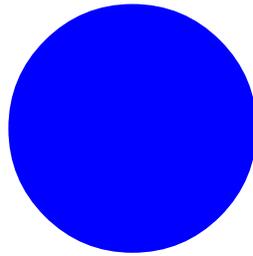


# Sacred Geometry and Numerology



**Moustafa Gadalla**

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This is an introductory course to learn the fundamentals of sacred geometry and numerology, in its true and complete form, as practiced in the Egyptian traditions.

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## 1

## Introduction

## What is Sacred Geometry

Herodotus, the father of history and a native Greek, stated in 500 BCE:

*Now, let me talk more of Egypt for it has a lot of admirable things and what one sees there is superior to any other country.*

The Ancient Egyptian works, large or small, are admired by all, because they are proportionally harmonious and as such appeal to our inner as well as outer feelings. This harmonic design concept is popularly known as *sacred geometry*—where all figures can be drawn or created using a straight line (not even necessarily a ruler) and compass, i.e. without measurement (dependent on proportion only).

The principles of sacred geometry are of Ancient Egyptian origin, where the basis of harmonic proportions are evident in their temples, buildings, theology, ...etc. The Ancient Egyptian design followed these principles in well-detailed canons. Plato himself attested to the longevity of the Egyptian harmonic canon of harmonic proportion (sacred geometry), when he stated,

*That the pictures and statues made ten thousand years ago, are in no one particular better or worse than what they now*

*make.*

The harmony inherent in geometry was recognized in Ancient Egypt as the most cogent expression of a divine plan that underlies the world—a metaphysical plan that determines the physical. Geometry exists everywhere in nature: its order underlies the structure of all things, from molecules to galaxies. The nature of the geometric form allows its functioning. The design using the principles of sacred geometry must achieve the same goal, i.e. form to serve/represent a function.

Sacred geometry deals not only of the proportions of the geometrical figures, but of the harmonic relations of the parts to the whole, such as the parts of the human being with one another; the structure of plants and animals; the forms of crystals and natural objects, all of which are manifestations of the universal continuum.

## The Tool

Since sacred geometry is based on harmonic proportion, the unit distance (length) can theoretically be any unit. The only needed tool is a cord consisting of 12 equally spaced distances. The unit distance can be small or large, so as to fit the required design of artwork on a canvas, statues, or laying out of buildings.



Temples and other buildings in Ancient Egypt were laid out in a religious ceremony. This laying out was performed by very knowledgeable people who are known by the Greek name, *harpedonaptae*.

The harpedonaptae are the people who strictly adhered to

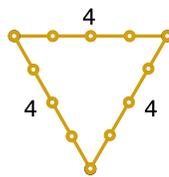
the principles of sacred geometry (using only a straight line and a compass). Their cord was (and still is, in parts of present-day Egypt) a very special cord that consists of a 13-knotted rope with 12 equally-spaced distances of one Egyptian cubit (1.72' or 0.5236m).

Any equally-spaced 13-knotted cord is the basic tool used to establish various geometric shapes.

### General Layout of Geometric Shapes

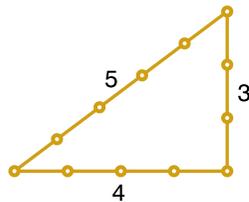
Triangles are the building blocks of any design.

The simplest formation is the equilateral triangle, which can be set out with the Egyptian rope knotted at twelve equal intervals and wound around three pegs, so that it formed three sides, each measuring four units.



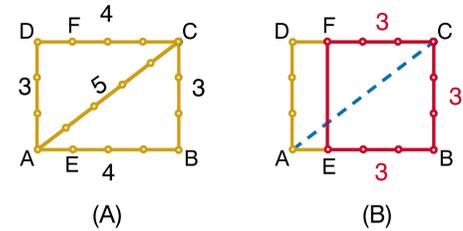
The line joining from any corner to the middle of the opposite side is its perpendicular.

However, the origin of the historic building layout was the setting out of the 3:4:5 triangle with the Egyptian rope, wound around three pegs so that it formed three sides measuring three, four, and five units, which provides a 90° angle between its 3 and 4 sides.



It was a relatively simple task to lay out rectangles and other more complex geometrical figures after establishing the 3:4:5 right-angle triangle.

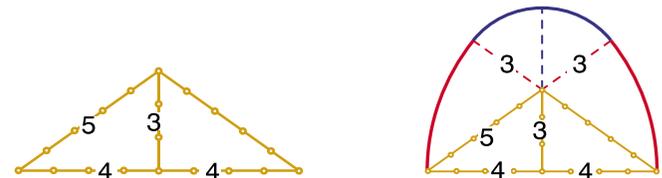
A square **EBCF**, for example, can be established as shown herein:



(A) Construct two 3:4:5 triangles with a common diagonal **AC**.

(B) Connect **FE** where **FC = EB = 3** units.

The Egyptian cord can be used as a compass to draw circular curves, as shown in the right diagram below.



Other shapes such as the 8:5 **Neb** (Golden) triangle or **rectangle**, as shown below, can also be established with the Egyptian cord.

