

Golden Mean, Base “e” and the Cubit: A Puzzle

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Abstract

In this brief paper, we consider the ancient Egyptian measurement called the cubit. It is the length of a man’s forearm. More importantly, when mathematical operations are performed in the 44 cm, the golden mean results. (1.6180). Also, 44cm / 1.618 equals base e. The golden mean and base e are central to Astrotheology Mathematics which indicates the level of sophistication of ancient mathematical physics. The question is: How did the Egyptians know about the centimetre if that SI System was not invented until the 17th Century?

Keywords: Cubit; Astrotheology; Golden Mean

Introduction

A prolific term of measurement used throughout the Ancient world is the “cubit.” It is generally thought to be the length of a man’s forearm or about 44 cm. I propose herein that it is exactly 44 cm because basic operations on these digits give precisely the golden mean to 4 significant digits.

A cubit is 44 cm. Note the following when multiplying, dividing, adding and subtracting are performed on 44:

$$4 \times 4 = 16$$

$$4/4 = 1$$

$$4 + 4 = 8$$

$$4 - 4 = 0$$

1.6180 The golden mean.

The Centimetre was not invented until metric was in 1668 A.D.

The Golden Mean parabola ($x^2 - x - 1 = 0$) was used in the dimensions and layout of the Egyptian Pyramids shown in a previous paper by this author. A cubit is mentioned in the Bible (Solomon’s Temple; Noah’s Ark; and Ezekiel’s Altar) as a unit of measure [1]. Biblical authors viz Moses knew about the golden mean.

Genesis 6:15 Noah’s Ark

Exodus 25:10 Ark of the Covenant

Exodus 38:1 The Tent of Meeting

1 Samuel 17.4 Goliath’s Height

1 Kings 6:2 Solomon’s Temple

2 Chronicles 3:3 Solomon’s Temple

Ezekiel 43:13 Altar in the Temple

The Egyptians and Babylonians also used the Cubit, but it was of different measure apparently. It is thought to go back to 3000 BCE in Egypt where it was 44.4 cm in length. The Hanging Gardens of Babylon were not constructed until c. 600 BCE. The Hebrews would have learned of the cubit from the Egyptians Then they were in slavery there and the measure made its way into the Hebrew Scriptures [2].

Everything beautiful or the law of beauty in architecture used to be based on human measurements or proportions. A man’s forearm is a cubit. They used this in architecture up until the Middle Ages to create beautiful, well-proportioned architecture.

From linear algebra and Astrotheology Mathematics, the “determinant” of the universe is calculated as 4. Also note that [3]:

$$44/1.618 = 2.719 \sim \text{base } e$$

In addition, this author was visited by what is called an "Orb". It is a white sphere of light *one cubit* in diameter. It was hovering above me for a couple of minutes before it departed as quickly as it came. I don't know who it was or what it did [4].

From Pure Math Topology (Quanta Magazine) [5]

$$x^4 + y^4 = 1$$

Take succeeding derivatives:

$$4x^3/3 + 4y^3/3 = C1$$

$$12x^2/6 + 12y^2/6 = C2 = 0$$

Or:

$$2x^2 + 2y^2 = C2$$

So:

$$x^2 + y^2 = C2/2 = C3 = 0$$

$$x^2 = -y^2$$

$$x = -y$$

$$2x^2 = R^2 \text{ Circle}$$

$$x = R^2/2$$

$$x = R/\sqrt{2}$$

$$\text{Let } R = 1$$

$$x = 1/\sqrt{2} = -y$$

$$x = v; y = a$$

When $v = a$, $x = y = \text{Circle}$.

The rate of change of the derivative is constant and equal to the rate of change.

Now, the Volume of an Orb = sphere

$$\text{Vol.} = 4/3 \pi R^3$$

$$\text{Let dia} = 44 \text{ cm (cubit) } R = 22 \text{ cm}$$

$$\text{Vol.} = 4/3 \pi (22)^3$$

$$= 442$$

$$\text{dia} = \text{Vol.}$$

$$\text{Vol.} = 2R$$

For a circle:

$$x^2 + y^2 = R^2$$

$$= (\text{Vol.} / 2)^2$$

$$= 442^2 / 2^2$$

$$= 4884$$

$$\sqrt{4884}$$

$$= 221$$

$$\sim 1.618 - (-0.618)$$

Roots of the Golden Mean Equation:

$$X^2 - x - 1 = 0$$

Conclusion

The cubit is a measurement based on the man's forearm that was known to the Egyptians apparently as far back as 3000 BCE. The cubit as 44 centimetres is significant because when mathematically manipulated, produces the golden mean which is at the heart of Astrotheology Mathematics. Astrotheology Mathematics may extend as far back as 3000 BCE [6]. I can't figure out more than this. Maybe you can?

References

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