

PYRAMIDS OF THE GIZA COMPLEX AND AREA VALUES EQUAL TO FIBONACCI NUMBERS IN TWO LENGTH MEASUREMENT SYSTEMS

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Abstract

Based on the results of the selection of mathematical criteria for the location of the pyramids of the Giza complex, the criterion of mathematical equality of the areas of two triangles formed by the peaks of the pyramids of the Giza plateau and the peak of the monument "The Great Sphinx" was revealed. The calculation in the metric system of units of the area of the base and the lateral (visible) surface of the pyramid of Mykerin (Menkaur) revealed numerical values that almost coincide with the 21st and 22nd Fibonacci numbers. The calculation of the base area and the visible surface of the Chephren pyramid also revealed numbers close to the values of the 24th and 25th Fibonacci numbers.

1 Introduction

One of the publications [1] discusses the hypothesis that the Giza pyramid complex and the Great Sphinx monument were created by a highly developed civilization to display a specific star system and as a way of communicating with the planet of this system. At the same time, on a scale of 1 meter: 1 million kilometers, a probable "map" of this star system is shown. The distance from the upper part of the monument "The Great Sphinx" to the upper part for the pyramids was: Khufu ≈ 3.89 AU; Chephren ≈ 4.57 AU; Menkaura ≈ 6.54 AU (figure).

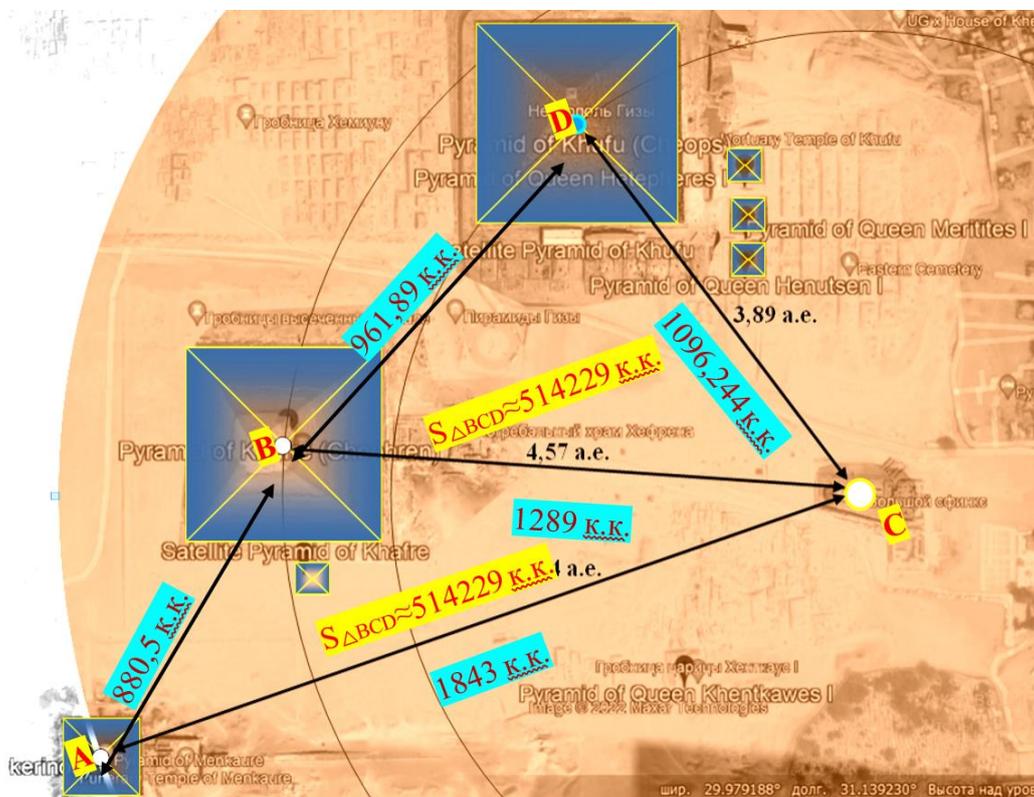


Figure – Schematic representation of the Giza pyramid complex and the Great Sphinx monument and measurements in the Royal Qubit length system, 1 square meter. = $(\sqrt{5}+3)/10$

2 The main part

In connection with the measurements carried out [1], it was suggested that the location of the pyramids of the Giza complex relative to each other may also not be accidental. By observing the required distance in conventional units (AU), they could be arranged in a variety of ways, but one of them was chosen.

Based on the results of the selection of possible mathematical criteria for the location of the pyramids of the Giza complex, the criterion of mathematical equality of the areas of two triangles formed by the peaks of the pyramids of the Giza plateau and the peak of the monument "The Great Sphinx" was revealed. The following two triangles were obtained with sides 574; 508.5; 675 meters ($S=142134.946$) and – 675; 463.4; 965 meters ($S=142151.917$). The areas of these triangles in the metric system are $\approx 377^2$ – the 14th Fibonacci number squared [2]. In addition, the areas are calculated in the same way in the "Royal Qubit" length system." = $(\sqrt{5}+3)/10$ (drawing). The resulting area of the triangles is approximately equal to the 29th Fibonacci number - 514229. The same area value – the sum of the areas of the base and the visible surface of the pyramid of Cheops – was obtained in another study [3]. At the same time, the area of the base and the visible surface of the pyramid of Cheops are correlated as the 27th and 28th Fibonacci numbers – 196418 and 317811 – expressed in one unit – the square of the Royal Qubit [3].

The calculation in the metric system of units of the base area and the lateral (visible) surface of the Mykerin pyramid (Menkaura) revealed numerical values almost identical to the 21st and 22nd Fibonacci numbers – 10946 m^2 and 17711 m^2 (the length of the base side is 104.6 m; height is 66.5 m). The calculation of the base area and the visible surface of the Chephren pyramid also revealed numbers close to the values of the 24th and 25th Fibonacci numbers - 46368 m^2 and 75025 m^2 (base side length - 215.3 m; height – 137.5 m).

It was probably shown that the builders of the pyramids of the Giza complex knew the Fibonacci numbers in two length measurement systems – the "Royal Qubit" measure (the area of the base and visible surface of the pyramid of Cheops are equal to the 27th and 28th Fibonacci numbers - obtained in the study [3]) and the "meter" (the area of the base and visible surface the pyramids of Chephren are the 24th and 25th Fibonacci numbers and the pyramids of Mikerin are the 21st and 22nd Fibonacci numbers). Thus, a sequential series of Fibonacci numbers with numbers is obtained. 21, 22, –, 24, 25, –, 27, 28.

3 Conclusion

1. Based on the results of the selection of mathematical criteria for the location of the pyramids of the Giza complex, the criterion of mathematical equality of the areas of two triangles formed by the peaks of the pyramids of the Giza plateau and the peak of the monument "The Great Sphinx" was revealed.

2. The calculation in the metric system of units of the base area and the lateral (visible) surface of the Mykerin pyramid (Menkaura) revealed numerical values almost identical to the 21st and 22nd Fibonacci numbers – 10946 m^2 and 17711 m^2 (the length of the base side is 104.6 m; height is 66.5 m). The calculation of the base area and the visible surface of the Chephren pyramid also revealed numbers close to the values of the 24th and 25th Fibonacci numbers - 46368 m^2 and 75025 m^2 (base side length - 215.3 m; height – 137.5 m).

References

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