THE GREAT PYRAMID

Resolution to the enigma of its design

Francesc Navarro Prat

Analysis and assessment by Josep Vives i Santa Eulalia (PhD in Mathematics. Professor at Universitat de Barcelona, Spain)

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DESIGN STUDY RESULTS ACCORDING TO WILLIAM FLINDERS PETRIE MEASUREMENTS

UNVEILED THE KEY TO CALCULATION AND THE CRITERIA OF ITS DESIGNERS TO DETERMINE THE OUTSIDE AND INSIDE DIMENSIONS

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ediciones EE experiencia

Edita: Ediciones Experiencia, S.L.
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Ilustración de la cubierta: Sandra Puig
Cover illustration: Sandra Puig

Primera edición: mayo 2023
Segunda edición ampliada y revisada: marzo 2025

Depósito legal: B 8879-2026
ISBN papel: 979-13-992036-2-2
ISBN Ebook (español): 979-13-992036-3-9
ISBN Ebook (english): 979-13-992036-4-6

Impreso en España – Printed in Spain

To my father, who showed me the path of Life.
You are always with me.

To my mother who at 92 years old still cares about me as if I were a child. Yes, I am your boy. And you, the best of mothers.

Thank you for your infinite Love.

What enters the mind through reasoning can be corrected; what is admitted by faith, almost never.

Let resign ourselves to humbly march behind the wise, so that one day we can march in their company.

Santiago Ramón y Cajal
(Nobel Prize in Medicine, 1906)

Preface

It is a pleasure to write the prologue to the latest edition of this book by Francesc Navarro Prat, who gave me a copy so that I could analyse and evaluate it.

The book addresses the enigma of what was the unit of measurement with which the Great Pyramid of Khufu was designed, as well as those of Khafre and Menkaure.

In this sense, it must be said that all the measurements mentioned in the book correspond to those obtained and published by W.F. Petrie in "The pyramids and temples of Gizeh" in 1883. All the calculations contained therein give the results expressed.

It is assumed that the Egyptian Cubit was the unit of measurement used in the Great Pyramid, with the only argument that the perimeter of the base was 1,760 cubits and the height was 280, without being able to justify why the rest of the measurements (of the corridors and interior chambers, the heights at which they are located, of the sarcophagus...) do not correspond to an exact number of cubits. As for the other two pyramids, not a single measurement corresponds to cubits. For the author, the hypothesis of the Royal Egyptian Cubit is not sufficiently substantiated.

The book provides about forty precise calculations, discovered by the author, which, considered together, constitute a solid and surprising argument in favour of the hypothesis of John Taylor, who was the researcher who concluded that most likely the unit of measurement used in the design of the Great Pyramid was the so-called pyramid inch, equivalent to 2.5426 centimetres, and which until now has not been proven.

The mathematical evidence presented by Navarro's study makes plausible the ancient hypothesis of the pyramid inch as the one used in the design not only of the Great Pyramid, but also of those of Khafre and Menkaure.

The calculations presented by Francesc Navarro are elementary mathematical operations (multiplications and divisions), in which in addition to the different measurements, the number pi (considered 22/7 at that time) intervenes in some cases, and when it comes to divisions, the same divisor, 91, that appears on 22 occasions, a remarkable fact when assessing the credibility of the study. (We note that 22/7 is the same as 286/91). As is also the fact that the results of the calculations are always the same, and are significant values like the average duration of a year (or exact multiples) and the perimeter of the base of the Great Pyramid (and that of Khafre), also the height of the Great Pyramid and the number pi.

It should be noted that 70 percent of the calculations (and 77 in the specific case of the Great Pyramid) only give their results if they are made in pyramid inches.

I know that the author's objective is that his work be disseminated for the knowledge of researchers and scholars of the mathematics and architecture of the pyramids and that they can evaluate it. The author considers that his study will have great significance for the History of Architecture and for Egyptology, if it is corroborated by them.

The reading of this book, pleasant and easy to read, and relatively short, has been interesting and surprising to me and I believe that due to its solid arguments it deserves to be considered by specialists in matter.

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