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Great Pyramid as Cuckoo Clock? It Might Not Be Crazy



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THEY have been called mystical, awe-inspiring, one of the seven wonders of the ancient world. But it is safe to say that in the 45 centuries the great pyramids of Giza have cast their formidable shadow over the desert, they have never before been described as a cuckoo clock.

But that is what Jean-Pierre Houdin said as he lifted his tall lanky body up the steps into the pyramid of Cheops, the largest of the three pyramids high up on the Giza plateau overlooking this teeming, ancient city on the Nile.

"This is not just a pile of rocks," he said, his words curled around a soft French accent. "This is a cuckoo clock."

Then with a short, friendly laugh, he loped through the cool, dank passage and examined his cuckoo clock with the enthusiasm of a child. He pointed excitedly at what he calls its mechanics — every carving, every joint, every scratch — all, he said, part of a fabulously intricate engineering design by ancient Egyptians.

"It is an engineering project, from A to Z," he said, again with the same friendly chuckle.

People in search of themselves often look to great challenges: running a marathon, climbing a mountain or learning a new language. Mr. Houdin selected the pyramids as his vehicle for personal reflection, as the salve for his midlife crisis. His was an analytical venture, a quest to explain what appears impossible to prove, at least given the current public record: exactly how the ancient Egyptians built the pyramids using about 2.5 million stones, each weighing at least several tons.

Now, eight years later, he is ready to present his findings, one step at a time, and in doing so will be remembered either as the man who unlocked the secrets of ancient brilliance or as a bit of an eccentric who merely indulged his imagination.

"When you work every day, your mind is turned off to new ideas," said Mr. Houdin, whose wardrobe seems to be primarily black T-shirts and black jeans. "Then one day you are old. I looked for a new life."

Mr. Houdin says he had a successful business in [France](#) for 20 years designing buildings and homes, when he shut everything down to focus on the pyramid built by Cheops, second ruler of the fourth dynasty. Mr. Houdin thinks he has the answer to how it was built — a series of theories, really — which he says he developed over more than 5,000 hours working with three-dimensional imaging software on his computer. Along the way, he also learned a bit about the challenges of dealing with modern Egypt and a bit about the competitive and ego-laden world of Egyptology.

"It's huge, yes it's huge," he said, staring up at the eastern face. "But it is a cuckoo clock. Everything is precise."

OVER the years, those who study the pyramids have learned a lot about their construction. They know that the bedrock of the plateau was incorporated into the base, so fewer stones were needed than originally estimated. Egyptologists say there is evidence that the stones of the pyramid were cut from the earth south of the base of the pyramid and that some of the granite rafters were transported from Luxor in the south.

What no one is exactly sure of is how the ancient Egyptians managed to move and assemble the stones into a pyramid 480 feet high. There are theories, including one popular one that the builders constructed a huge ramp leading to the very top of the pyramid. (There is another theory, too, that aliens were involved.)

Mr. Houdin says the large ramp theory could not have worked because it would have to be way too long, miles in fact, to avoid a slope that was not too steep. Mr. Houdin's main theory is that the only way to get stones up to the apex would be with a small outside ramp and a second ramp that spirals up the inside the pyramid. By his estimation, the outside ramp went up about a third of the way, while there was an inside ramp that is still there, sealed inside the walls of the pyramid, waiting centuries to be discovered.

"Every time I explain my ideas to people, they say it is logical," Mr. Houdin said, again with the laugh. "Now there is nothing else to say; we have to prove it."

His second central point is that everything in the pyramid has a practical — not necessarily mystical — explanation. And so, he says, for example, the Grand Gallery leading up into the burial chamber was designed to accommodate a sort of conveyor belt built on logs, and an extensive counterweight system that ran up through the middle of the pyramid to help hoist huge stones. The system he envisions is linked to clues inside the pyramid, but is nevertheless based on his own calculations.

"This is engineering!" he declared, as he climbed up inside the Grand Gallery, now a passageway for tourists willing to brave the slippery wooden ramp that passes for stairs.

MR. HOUDIN'S enthusiasm has not exactly been embraced by the experts who have dedicated their lives to Egyptian antiquities, particularly the most important person in Egypt, the godfather of all that is pharaonic, Dr. Zahi Hawass, general secretary of the Supreme Council of Antiquities. For starters, Mr. Houdin is not part of the club, not a trained Egyptologist, and while his work is premised on facts it relies heavily on his imagination. Where some Egyptologists, for example, saw a tunnel leading from the burial chamber to the stars, Mr. Houdin said he saw a ventilation shaft.

"It is difficult to say whether he's right or not, there is no proof of anything," said Audran Labrousse, a French architect directing the excavation on the pyramids of South Sakarra, south of Cairo. "It is such a mystery because, of course, it is a question of engineering."

Dr. Hawass is less charitable. He says Mr. Houdin is wrong. Period. "Any Egyptologist cannot accept this," he said. "He imagined this. I don't see his evidence."

It is a slightly strange condemnation, given that Dr. Hawass has written the foreword to Mr. Houdin's most recent book, published in Egypt. In it he described the theory as worth considering. Perhaps because of that he is generous, if dismissive, about Mr. Houdin. He said in an interview that he wrote the foreword to get Mr. Houdin off his back.

"This is not a crazy book, and he is not a pyramidiot," Dr. Hawass said, mustering a degree of charity while employing a term he said described many of the people he had encountered during his two decades working with the pyramids.

Mr. Houdin recognizes that his theories may ultimately be proved wrong. There may not be a ramp waiting to be discovered. There may never have been an elaborate counterweight system, at least not exactly as he envisions it. But it seems that even if there is not, he has already found what he was looking for.

"Why care?" he responded when asked why he would spend so much of his life studying a pyramid. "Because it's a pleasure. It's my third life. My first life was until I was 20. My second life was until I was 45. Three lives are very nice."

Mona el-Naggar contributed reporting for this article.