



Monday January 31, 2011

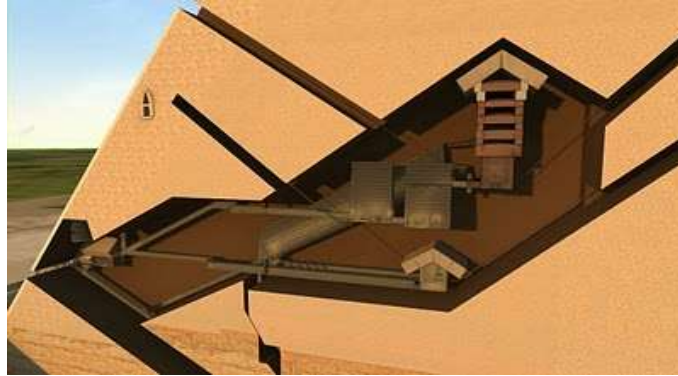
“The Egyptians built what they knew how to, as simply and logically as possible.” (Jean-Pierre Houdin)



Continuation of the interview Jean-Pierre gave exclusively to *Pyramidales*, to coincide with the public presentation of his “theory” *Khufu Reborn* (aka *Khufu Renaissance*).

After discussing his working approach in presenting the Great Pyramid’s construction in a new light, then flying us over the Giza Plateau (royal causeway, external ramp extended by a second internal ramp), he takes us inside the monument to show us structures abandoned a great many centuries ago to the silence of the stone.

The aim of his reasoning: to reveal the “how” of the pyramid’s primary function. Before being a gigantic arrangement of limestone and granite blocks, this monument was actually designed and built to serve as the eternal resting place for a deceased Pharaoh. Now, the similarities between the IVth dynasty pyramids lead the architect to draw the obvious conclusions, given the funeral architectural logic of the era: the inference of the existence of two antechambers in front of the King’s Chamber; the abandoning of the “service circuit” (descending and ascending corridors, Grand Gallery, etc.) as insufficiently “noble” for the royal funeral; the second entrance (the real one) to the King’s Chamber, and so on.



**The « Noble Circuit » inside the Great Pyramid**

For Jean-Pierre Houdin, the constructional logic of his former builder “colleagues” is irrefutable: how could Khufu have given up the technical advances used in pyramids built immediately before his own?

Unthinkable! The seventh Wonder of the World, the Great Pyramid, in its internal configuration, was only able to include the “Noble Circuit” and the essential facilities for an eternal resting place, by starting with the antechambers to the sarcophagus chamber.

Calling on the 3D techniques in which they are the internationally renowned specialists, the experts at Dassault Systèmes made virtual models of the pyramid to test the “feasibility” of the construction project as identified by Jean-Pierre in his study of the monument. The architect himself drew practical conclusions from this study: from now on, we can no longer look at or study the Pyramid of Khufu as we have considered it in the past. Archaeological myopia no longer applies to this illustrious monument.



**The external ramp: up to 1/3 of the height**

### **Pyramidales:**

“The facts learned from your reconstitution of the Great Pyramid’s construction are now well known: an external ramp up to one third of the final height, equivalent to two thirds of the pyramid’s final volume; a regularly reset counterweight system, developing into the Grand Gallery and the ascending corridor, to raise the monoliths for the King’s Chamber; an internal ramp to transport the blocks used for the last third of the volume, equivalent to the last two-thirds of the pyramid’s total height. Are you sticking to these facts? Or are you changing them with Khufu reborn?”

## ***Two internal ramps***

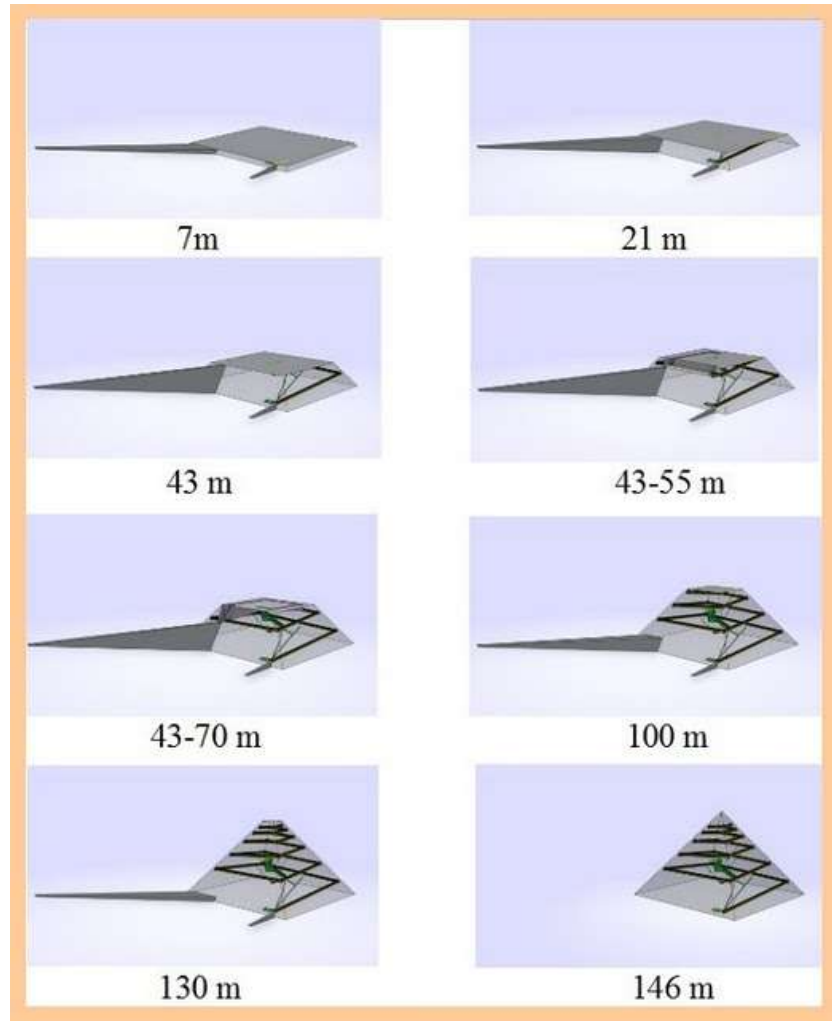
**J.-P. Houdin:**

“In fact I am coming back to these facts, by building on them. The new position of the external ramp, determined by the position of the plateau ramp, and the discovery of a room behind the notch on the north-east edge had a very special significance: 85% of the pyramid’s volume could be built using the external ramp.



**Level +43m (storage area for the granite beams)**

“From then on, I suspend construction of the internal ramp at level +43 m (south face) during the construction of the King’s Chamber and until the pyramid reaches a height of 70 m. The internal ramp ends in the south-west corner at level +43 m and resumes its progress at the same level in the south-east corner. Between the two, the teams dragging the facing blocks made of Tura stone passed through the storage area for the granite beams at this same level. The internal ramp, which runs counter-clockwise and which I now call the ‘main internal ramp’, no longer cuts across the path of the external ramp, so a second internal, spiral, open-trench ramp extends the route up a slope in the body of the pyramid, this time in a clockwise direction. The possibilities offered by this second ramp stop at about +70 m, as the snake chases its own tail.

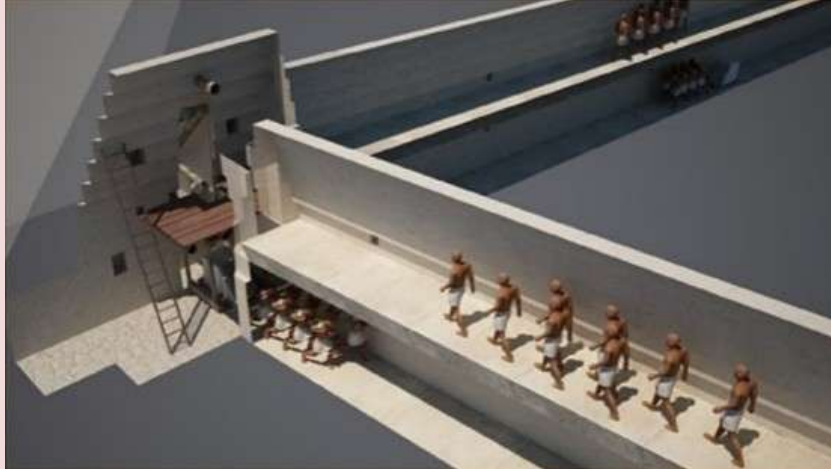


**Advancement of the construction (external ramp and internal ramp)**

The trench is then filled in and the section of the internal ramp between the two south-west and south-east edges is built, permanently connecting the two parts. The southern part is built up to catch up with level +70 m. The external ramp can then be dismantled to provide the limestone blocks needed to construct the last 76 meters in height. No extracted stone will be wasted.

“The price paid by the Egyptians: a section of the main internal ramp is horizontal, which might appear stupid: on the contrary, by sacrificing slope in this section, the Egyptians greatly reduced the workload of the ramp: it still needed to provide supplies for the construction up to the summit, that is to enable construction of the remaining 76 m in height, but only 15% of the volume instead of 33%. The advantage far outweighs the disadvantage.

“Moreover, the very strong supposition concerning the presence of a first counterweight on the plateau consequently supports the function of the Grand Gallery as a slide channel for the second counterweight. I fail to see any reason constraining the designers to give the Grand Gallery two functions. Making an antechamber of it? With a slope of 50%, it is not the most practical place to store funeral goods!

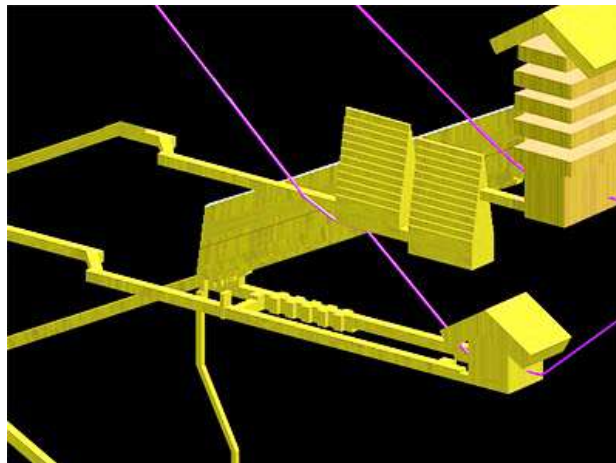


In the Khufu Reborn version of the theory of Jean-Pierre Houdin, the internal ramp has two levels:  
 The first one, at the lower level, for the teams pulling the sledges carrying the blocks;  
 the second, the upper level, for the teams coming back to their base with the empty sledges. The big advantage: the external gangway has disappeared.

Everything is done inside the pyramid.

At the junction of two sections of the internal ramp, where the sledges are rotated at a 90° angle to face the next section: The “Bob’s room”, by referring to the notch which has been explored by Dr Bob Brier, the Egyptologist and friend of Jean-Pierre Houdin

“We forget that the pyramid was built in successive horizontal layers (courses) and that therefore, at each level, workers were working on a flat surface. It was then easy to construct rooms of the same type as the antechambers in the Red Pyramid in parallel with construction of the Grand Gallery, and to create the shortest possible corridors to connect them to the entrance in the north face. For example, the second horizontal corridor of the Queen’s Chamber, discovered by the Japanese, is located at the same level as the summit of the first series of rafters above the descending corridor. No need to use a donkey to follow the route: it’s flat!



“I cannot see my colleagues of the period forgetting to make such as corridor and being content only to keep a route leading to the Queen’s Chamber, passing through the known structures. Taking the descending corridor over nearly 40 m, then continuing by going back up the ascending corridor for 35 m, and following another 35 m of horizontal corridor finally to enter this chamber: this is an assault course, not a logical plan for a precise function, namely to get from A to B by the shortest route, as the Egyptians had the habit of doing in pyramids.”

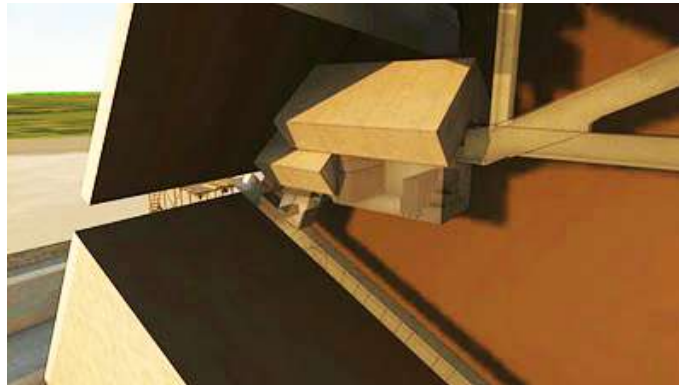
### **Pyramidales:**

“Now let’s go inside the pyramid, in your company. Let’s begin at the start of the journey that will bring us as far as the funeral chamber: the entrance to the monument.

What is the configuration?”

### ***The “multi-purpose plug”***

**Jean-Pierre Houdin:** “This other structure of the Great Pyramid still reveals the genius of its designers: it’s what I call the ‘multi-purpose plug’.



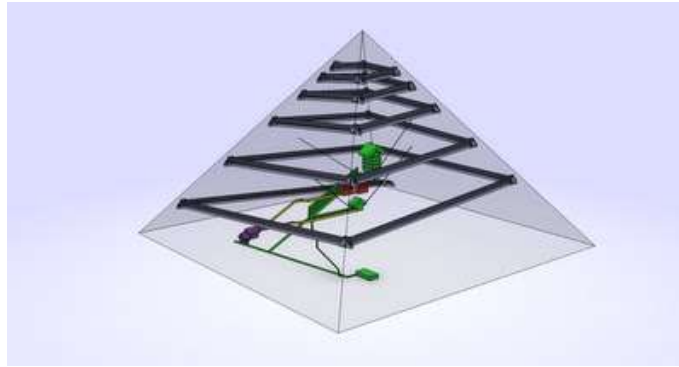
**The entrance of the pyramid: the « multi-purpose plug »**

“The Egyptians, while keeping a single entrance shared by all the pyramid’s corridors, grafted a double room a few meters from the north face onto the descending corridor. The role of the rafters we can see in this area was to cover voids (the double room) to the back of which the other circuit, the ‘Noble circuit’, could be connected. The funeral route then became logical and short: 5 m of descending corridor, passing through a 2 m-high shaft into the double room, continuing through a second ascending corridor, 35 m long and parallel to but higher than the known one, arriving in a horizontal corridor linking the first antechamber, passing into the second antechamber and ending up in the King’s Chamber through a short 5 m corridor beginning more than 7 m above the floor of the antechambers.

“I could describe the route of Snefru’s funeral in similar fashion, with the difference that, for the latter, the procession descended from the entrance, while for Khufu it climbs. And this multi-purpose plug had a last function: to link the ‘Noble Circuit’ to the internal ramp, which crosses a few meters above, through a small vertical shaft that was modeled in the bedrock and 50 m east of the pyramid, as the same time as other complex details that we find inside, such as the junctions of different corridors.

“This small shaft will play a very significant role at the end of the funeral: after having sealed the King’s Chamber and corridors, the workers will leave the pyramid by going back up this shaft and taking the internal ramp as far as its entrance at the pyramid’s base; once outside, this entrance will be sealed in its turn. Nothing simpler and more logical... because it was designed in advance!

“One last thing: the Egyptians certainly never thought of constructing pyramids so that their architectural structures would become enigmas to be solved by a civilization coming along several millennia later. They built what they knew how to, as simply and logically as possible. They never considered building tricks, to fool possible looters; this function was reserved, with a greater or lesser degree of luck, to the portcullis and especially the stopper-blocks we find in the pyramids. The ‘Noble Circuit’ that I suspected matches the architectural logic perfectly.”



**Structures and the internal ramp**

### **Pyramidales:**

“After having followed a second ascending corridor, then a second horizontal corridor – ‘new features’, if I may say so, in *Khufu Reborn* – the solemn funeral procession ended up at what you call the ‘Royal Apartments’. What were their function and their configuration?”

### ***Two antechambers***

### **Jean-Pierre Houdin:**

“In the funeral architectural tradition of the end of the IIIrd Dynasty and a large part of the IVth, the deceased’s apartments in the hereafter were composed of two antechambers immediately adjacent to the sepulchral chamber. To continue his life in the next world, the King therefore had his goods and personal possessions stored in these antechambers, what through the greed of man would later be called the ‘treasures of the Pharaohs’, but which in the spirit of the age had only a religious purpose; **and this is only the later which interest me.**



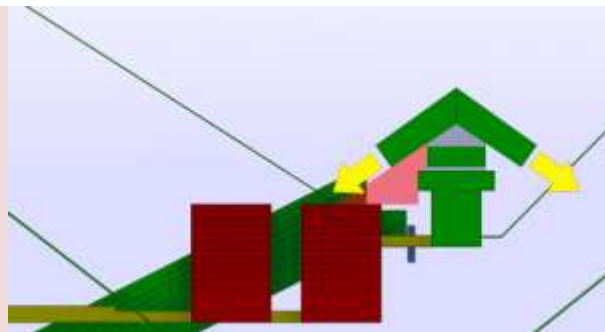
“At the end of the IIIrd Dynasty, then in the IVth under Snefru’s long reign, the architectural model of these apartments was based on the principle of a funeral chamber immediately preceded by two antechambers, slightly offset on a longitudinal axis. We find them in the form of two small cubicles in the Pyramid of Meidum, then as two contiguous rooms in the Bent Pyramid at Dahshur, and finally as two twinned rooms in the Red Pyramid, again at Dahshur.

“In parallel, we see continuous elevation of the funeral apartments, constructed first in the bedrock, then totally within the mass of the stonework for the Red Pyramid, the last one built before Khufu’s Pyramid.

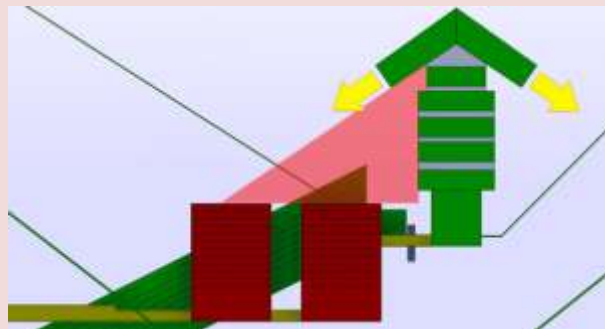
“We find nothing of this architectural logic in Khufu; and there lies the real reason that we can ask ourselves: do we really know this pyramid? Would its looting and exploration by the Caliph Al-Ma’mun have led to a misunderstanding that lasted twelve centuries? The simple fact that looters reached as far as the King’s Chamber does not necessarily imply that we were aware of the funeral apartments. The end of the story of looting by the Caliph, finally ending in failure, must be seen as an invitation to push on further in terms of the internal architecture.”

### **Pyramidales:**

“We may wonder about the structural link between the configuration of the two chambers in front of the actual King’s Chamber and the monumental superstructure, over several floors – the so-called “relieving chambers” – for this latter chamber...”



**Without the « Relieving Chambers » structure, the antechambers would have been crushed by the oblique load transferred by the rafters on the North side of the roof, their corbelled roofs being unable to bear any other load than a vertical one.**



**Above the King’s Chamber, the purpose of the “Relieving Chambers” is to raise up, higher up in the core of the masonry, the limestone rafters which cover the whole structure, the roof acting like an umbrella.**



## *The “umbrella” roof*

### **Jean-Pierre Houdin:**

“If, in the Pyramid of Khufu, we include conceptual consideration about the possible existence of a funeral apartment in this architectural continuity, while also including a change in technical expression (here I am talking about the innovative choice made by the designers to cover the sepulchral chamber with a flat ceiling, but without challenging technical knowledge, the magnificent corbelling of the antechambers in the Red Pyramid), the reason for the presence of this structure of “relieving chambers” suddenly becomes crystal clear.

“By combining antechambers roofed by corbelling (arches with springer stones), structurally only able to withstand vertical loads, and a vault with rafters located on a perpendicular axis, for the roof of the King’s Chamber, transferring oblique loads, the Egyptians made the bold choice by taking a calculated risk. Very knowledgeable about materials and force transfer, they chose granite to make the ceiling of the King’s Chamber, because it was the only stone that made it possible. As this ceiling takes no load, they would then have been able to place the roof of limestone rafters immediately above it, but then, the north slope of the latter would have transferred the supported load laterally and the corbelling would have been crushed under the load. They only had one solution: move the roof very high into the mass, which we can compare to an umbrella protecting the ceilings, so that the oblique loads transferred from the north slope are no longer applied to the corbelling.

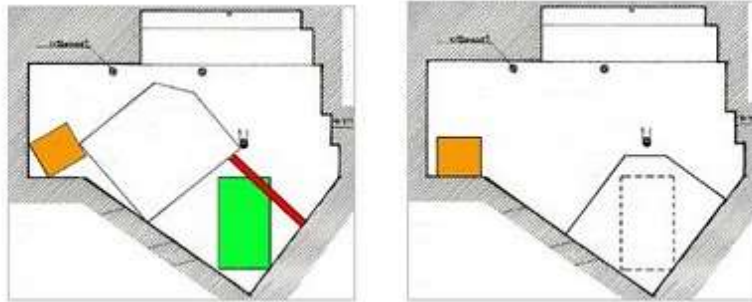
“The cost was worthy of the stakes: to create a room with absolutely perfect dimensions in the heart of the edifice, because the pyramid’s constructors had to place more than 3,000 tons of granite stacked over five ceilings. After having already been obliged to build in the counterweight systems for the beams for the first ceiling, they used installation methods that were already planned anyway.”



### **Pyramidales:**

“In your opinion, the only visible entrance to the King’s Chamber, which is still used today, only had an access role to this part of the construction site. How was it permanently blocked off?

“And the other entrance, in the west part of the north wall of the King’s Chamber, the one that you say was used for the funeral ceremonies, how was it permanently closed in its turn, to preserve the privacy and secret of the royal sepulcher?”



*A complex and “wonderful” closure system*

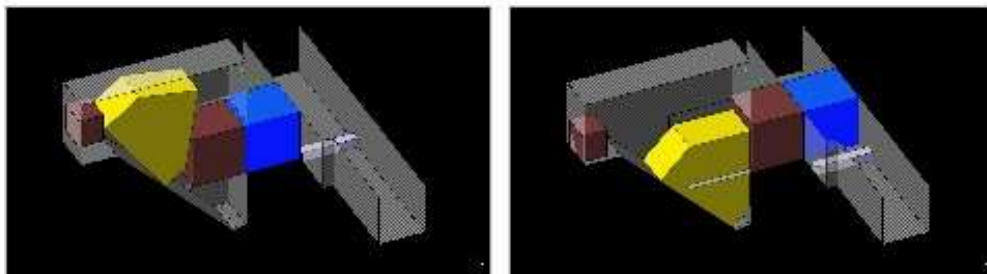
**Jean-Pierre Houdin:**

“The entrance to the King’s Chamber on the east side of its north wall, from what I call the service circuit (ascending corridor and Grand Gallery), could only be sealed from inside the chamber. Many details prove it. The sealing block that “lay around” in the chamber for 1,200 years is the absolute proof of it.

“To close off access to the chamber from the 2nd circuit, the “Noble (or funeral) circuit”, the Egyptians had included the essential technical process for perfect and simple closure right from the original plans, in the section of the corridor linking the last antechamber to the King’s Chamber.

“If we carefully analyze the closure system in the west access corridor of the Bent Pyramid at Dahshur, we notice the presence of two enormous oblique portcullis stones intended to block the passage to the funeral chamber. Through the chance of history, one of these two portcullis stones remained in its raised position, the second blocking the corridor in front. This closure mechanism is based on a block weighing several tons maintained in its raised position by a wooden prop on the corridor side (visible on the second, unreleased portcullis), while being ‘unstuck’ from its slide by being tipped up on a limestone block on the opposite side. Such unsticking is fundamental to avoid what is called ‘starting (or sticky) friction’, which if not dealt with prevents any movement without a ‘bit of a boost’, even on a pronounced slope (this is why on Egyptian bas-reliefs we often see figures carrying wooden levers used to unstick the back of the runners on transport sledges).

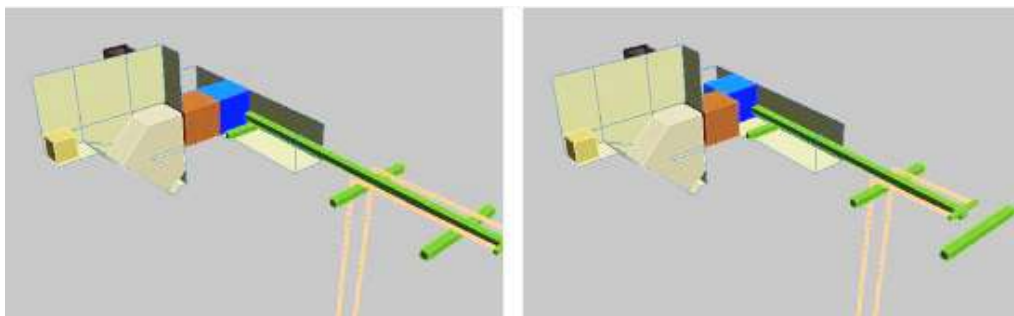
“The operating principle of this type of portcullis is therefore as follows: a worker removes the wooden prop straddling the corridor, thus releasing the portcullis that, not being ‘stuck’ to its slide, moves forward by making the rear block tip over. The portcullis then gains speed on its slide and ends its travel in the rebate made at the other end of its journey. We can say that this is practically an ‘automatic’ portcullis.



“From this system, the architects transposed a more elaborate version of it than that in the Bent Pyramid at Dahshur. In the case of the Great Pyramid, it was no longer a question of closing the access corridor, but of very cleanly and almost undetectably sealing the funeral chamber itself. The closure block therefore had to be able to merge completely with the other blocks in the room. The floor of the last antechamber before the funeral chamber being nearly 8 m lower than that of the chamber, it was

impossible for a dozen workers to raise a block weighing more than 3 tons to such a height, and particularly to introduce it into a corridor having an identical cross-section, to the nearest 2 mm. The only solution: store this block between the two rooms, as close to the connecting corridor as possible, and bring it into the corridor after interring the King in his sarcophagus.

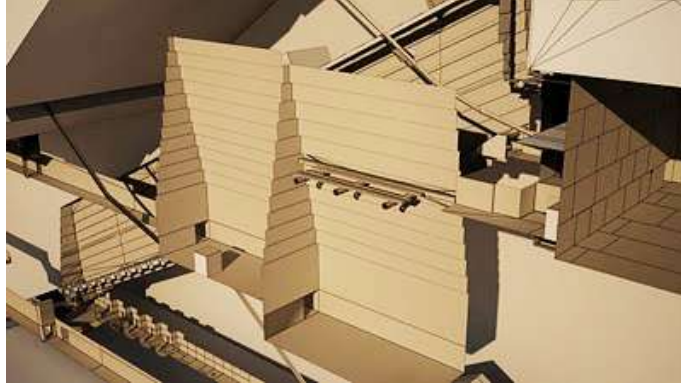
“And here again Egyptian genius has worked wonders: this block was positioned, with a little bit of play, in the wall of the corridor, halfway along it, as an integral part of this wall; it was held in place by a wooden prop laid on the floor across the corridor, this prop becoming the trigger for the planned mechanism. Stuck to the back of this block, a second ‘twinned’ block was positioned in a small corridor perpendicular to the access corridor. The aim was to bring the first block into position in the access corridor and to replace it in the wall by its twin. So that the operation was able to function, it was necessary to be able to push the two blocks from behind the second block using an independent mechanism; and this is where we find the development from the Bent Pyramid’s portcullis system. This was transformed into a ‘push-block’, while keeping the same original characteristics for starting it moving.



“The mechanism was very simple: after having sprinkled a very fine layer of Sinai sand on the corridor floor (for its perfectly regular ‘quartz beads’ properties), workers positioned in the second antechamber removed the wooden prop from the corridor using a rope. Once it was cleared away, the push-block was released and pushed the two twin blocks, the first taking its place in the corridor, and the second its place in the corridor wall. It only remained to push the closure block up to its final position in the wall of the funeral chamber.

“And here again, a stroke of genius: a wooden ‘piston’ (a single piece of wood about 7 m long) positioned longitudinally over cross-beams fitted between the corbelling of the second antechamber, at the same level as the corridor floor, was operated from the room. Once the block was in the corridor, there only remained about 1.50 m to travel for it to reach its final position. The piston was then brought up to the rear of this block weighing more than 3 tons. To push it, a force of about 750 kg-f was required, which was a mere formality for the workers. The piston was operated using ropes from the base of the antechamber, almost 8 m below. About eight workers climbed ‘by rope’, adding their own weight to the mechanism, four others remained on the floor pulling the entire system until the block arrived at its stop against the floor slab of the funeral chamber.

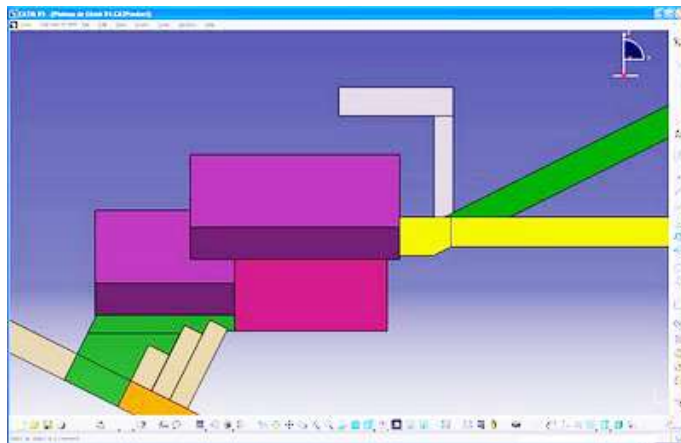
“In the Red Pyramid, it is very easy to confirm that this system was also used, by analyzing the second antechamber (holes in the corbelling for the beams supporting the piston) and the connecting corridor (twin block different from the other wall blocks and special feature of the ceiling in two parts).



“This system functioned perfectly and was repeated for Khufu’s Pyramid. When the closure block was put into place, some sand was perhaps pushed inside the funeral chamber, leaving something unusual on the floor. It was perhaps this that attracted the attention of looters from the time of Al-Ma’mun: although there are close to 32 linear meters of wall in this room, they dug a tunnel just right ahead this closure block...nowhere else. They felt that there should have been ‘something’ in this area, but instead of thinking of digging horizontally into the wall, they dug vertically to a depth of more than 5 m!”

### **Pyramidales:**

“Every construction project comes to an end. Like others, even that of the most sumptuous pyramid. And of course an exit route was needed for the last workers... Until now, a certain consensus was formed around the usefulness, for this purpose, of the ‘well’ leaving from the junction of the ascending corridor-horizontal corridor towards the Queen’s Chamber, coming out into the descending corridor. Now, according to you, this well had no other function than to ventilate the site. So from where did the last workers leave? And, for that matter, the priests and officials from the funeral procession, once the royal mummy had been laid in its eternal resting place?”



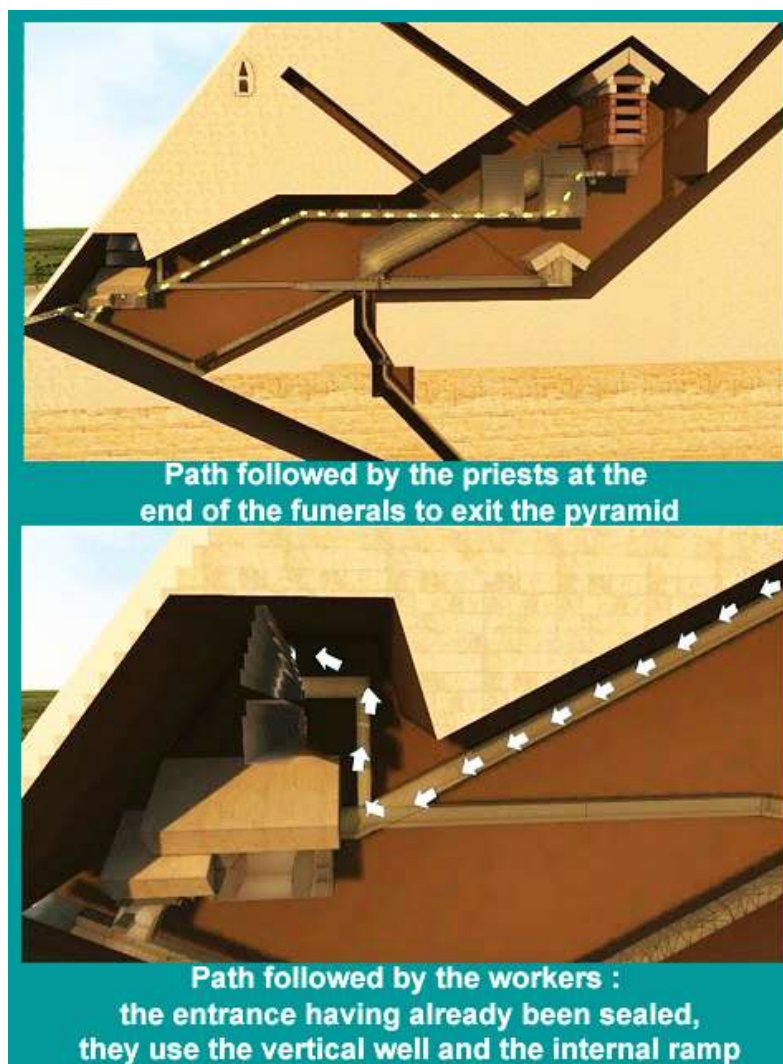
*The exit well*

### **Jean-Pierre Houdin:**

“The technique used to construct this ventilation shaft says a lot. Originally, there would have had to be a vertical route between the bedrock and the rear of the west wall of the Great Gallery at its junction with

the ascending corridor, its route being the most logical. It had to be extended into the rocky footing at an angle, until it joined the descending corridor level with the ceiling of the underground chamber, thus creating what is called a 'throat effect', like in a fireplace to increase the draw and create a double circuit with the descending corridor.

The presence of an unexpected cave immediately adjacent in the footing pushed the architects to take advantage of this void to save time. The part dug towards the underground chamber started vertically to join the theoretical oblique route and continue as planned. On the other hand, to return to the vertical towards the Great Gallery, the architects were obliged to reduce the deviation from the original vertical route: being so close to the north-south axis, they had the means of knowing where they were going. So they constructed the part of the shaft within the mass by remembering that they were sappers, people who dig. So they laid a first horizontal layer (course) of limestone blocks and dug into this layer to 'find' the shaft beneath. They continued in this way slightly offsetting the hole towards the north, but always the same distance from the north-south axis, until they returned to the vertical of the planned outlet. From then on they continued the process vertically.



"This well was necessary to enable a dozen workers to dig the underground chamber under acceptable conditions. The position of its outlet at the bottom of the Grand Gallery was shrewd: throughout its entire

construction, ventilation was provided at no great cost! The well had taken the shortest possible route in order to be used for the longest possible time.

“But when the King’s Chamber was constructed, the underground chamber was permanently abandoned and the Grand Gallery was going to be used for the reason it had been constructed: to be the slide channel for a giant counterweight. The well’s outlet, dug into the shelf on the west side, was filled in with perfectly executed masonry, in order to enable the roller train to move correctly.

“The way it was rediscovered by Al-Ma’mun’s men clearly shows that this shaft had been very carefully filled in from inside the Grand Gallery, preventing it being used to evacuate workers after the funeral, what’s more setting off the stopper-blocks obstructed the bottom of the ascending corridor.

“Nonetheless we must remember a fundamental element: the architects that designed this pyramid certainly did not forget the ‘why’ of the project, namely to construct a royal tomb to ensure eternity for their King. The question of the funeral was therefore one of the main subjects in their thoughts. They weren’t going to ‘botch’ this part of their project. In designing the ‘Noble Circuit’, the one passing through the antechambers, they planned the way out for priests and workers.

“Fifty meters east of the pyramid, they modeled all the slightly complex details that they were not able to deal with using their design system (using a horizontal grid and a vertical grid, which gives 3D when you read the two grids at the same time!). Thus we find details of the entrance to the descending corridor, its junctions with the ascending corridor, and finally the junction between the ascending corridor, Grand Gallery and horizontal corridor. And they detailed, above the junction of the ascending and descending corridor, a shaft that had very great significance for the project and that has not (yet) been found in the pyramid: this well had to connect the ‘Noble Circuit’ to an element that had already been included in the project from the start, for good reason: the internal ramp. The designers traced its route by making it cross the ‘Noble Circuit’ close to and a few meters above the entrance rooms (under the rafters).

“One shaft four meters high settled the problem of evacuating the workers after sealing the ‘Noble Circuit’ from the inside. The rest was just a ‘walk in the park’! The workers, once they had reached the internal ramp, were able to descend as far as its entrance on the south face. Stonemasons were waiting to close this entrance for good and bury it beneath the cloak of Tura limestone: 10 m<sup>2</sup> of blocks immersed in a facade of 21,000 m<sup>2</sup>... a needle in a haystack!”



## Pyramidales:

Following *Khufu Revealed*, you have called Episode 2 *Khufu Reborn* – for *Khufu Renaissance* -. Why this term? Our dictionaries offer several definitions for the word “renaissance”: “new birth”, “reappearance or new lease of life”, “intellectual and artistic revival”, appeared with the Italian *Rinascimento* in the XVth-XVIth centuries... Which of these definitions did you use as your reference?”

## Jean-Pierre Houdin:

“This is a very interesting question. *Khufu Renaissance* is a title suggested by Mehdi Tayoubi. It matches the content of this new stage in the development of my work perfectly, by combining each of the definitions you quoted:

- ‘new birth’, because our knowledge of the Great Pyramid is incomplete and it was really ‘born’ on January 27, 2011 (from my point of view, at least);
- ‘intellectual revival’, because this challenges our perception and our analysis of this monument: all the explanations regarding its construction, its internal layout and the funeral journey are ‘blown apart’;
- ‘reappearance’: we had not actually given any news since 2007;
- ‘new lease of life’: this presentation will relaunch the theory and especially bring an analysis and a new look to the whole Giza Plateau and beyond, including the other great pyramids: the Red Pyramid, the Bent Pyramid and Khafre’s Pyramid.

“And finally, in the context of The *Renaissance* as ‘intellectual and artistic revival’, it is actually a major evolution/revolution in the approach of archaeology; it brings it out of the simple context of studying documents, analysis on the ground and excavations, projecting it into the past using technologies of the future, at the center of which is 3D in all its forms (design, virtual reconstitution, animation and real time and relief immersion, for example). It brings a new dimension, anticipatory archaeology, enabling research on the ground to be guided.”



**While  
they built the  
pyramids, Egyptians didn't  
imagined a second that their  
architectures would become enigmas  
to be resolved by a civilisation which would  
come many milleniums later! But nevertheless...**

## Pyramidales:

“Jean-Pierre, to thank you for the welcome you have given readers of *Pyramidales* and for the clarity of your answers... a trick question! There was *Episode 1* (the Great Pyramid in its operational structures). Now there is *Episode 2* (the pyramid in its functional and ritual structures), from which we can already catch a glimpse of the impact on the general public and informed ‘pyramidologists’. Will there be, in the medium or longer term, an *Episode 3*? Or there again, are you planning to pitch your researcher’s tent at the foot of some other pyramid?”

*And now?*



## Jean-Pierre Houdin:

“Marc, strictly speaking there will be no *Episode 3*. No Hollywood thoughts in my approach, no desire for a Khufu Saga, but throughout all these years of research, I have discovered and studied all the large smooth pyramids from Snefru’s to Menkaure’s and, little by little, I have, in parallel, solved the problem of constructing each one.

A fundamental point common to them all: they were all constructed from the inside and they all, except Menkaure’s (and the Djedefre interlude), had an internal ramp running around their mass; on the other hand, this internal ramp was adapted to each pyramid. The route for one differed from that of another. Starting with Menkaure’s Pyramid, the technique of constructing from the inside continued for the smooth pyramids, but the problem of height, less serious, would be solved by construction trenches as can be seen in the ruins of the pyramids of Sahure and Neferirkare at Abu Sir.

My next steps should lead me to North Dahshur (the Red Pyramid) and South Dahshur (the Bent Pyramid), with yet another surprise in terms of the stages of construction for the latter.

But nothing will take me away from the Giza Plateau, because I still have one last small formality to complete: to be able to walk along the internal ramp and visit the funeral apartments... This is the only thing I have not achieved!”

Interview by Marc Chartier

