Interview with Dr. Nabil Swelim by Guy Leigh of Astraea Magazine's Web Radio

Biographical Introduction: Dr. Nabil Swelim earned his Egyptology degree at Budapest Yeta-Slovan University in 1981 and is currently a Doctorate of Science candidate at the Hungarian Academy of Science. In 1953, he gained his BSE at the Naval Academy in Alexandria, Egypt, his MSE degree at the Naval Institute of Ismail(?) in 1963, and then in 1973, at Zunaet Karnes(?) Commander in Staff at Officers College.

As an author, lecturer, excavator, photographer who specializes in pyramid research. Dr. Swelim is credited for discovering Sinki Pyramid at Abydos, the Step Pyramid's Tri-mode at Sakkara [and] the identity of the pyramid at Seila, the Brick Pyramid Abu Rawash and the North Pyramid at Sakona.(?)

He's listed on the monument at the Sakkara Museum as being one of the main archeologists there in 1850 – 2006. He was recently invited to observe the research and investigations at the Bosnian Pyramid of the Sun Foundation. He has also contributed to various papers and journals including articles for archeological, historical studies: Studia(?), Egyptias(?), and McMillan Dictionary of Art.

He's a member of the International Association of Egyptologists, the International Association of Cryptology and the Wimbledon corresponding member of the German Institutes of Archeology.

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GL: Very controversial, fantastic findings out there . . .a lot of opposition, as well, but now four specialists, four Egyptologists and archeologists and geologists from Egypt recently visited that area and that region—the Archeological Park out there . . . Egyptian Egyptologist and a serious researcher of many years standing in pyramids, Dr. Nabil Swelim . . .

Dr. Nabil Swelim, welcome. How are you?

Dr. S: Oh, I am very well, thank you.

GL: It's a great pleasure to have you here with us on the show. Now, Dr. Swelim, as one of the experts from Egypt who went out to Bosnia recently, you've had a press conference in Cairo about your findings, when you returned, and based this on, obviously, something which must be quite interesting and exciting for yourself. You're an expert in the Old Kingdom and the pyramids there. Can you tell me, briefly, what exactly defines a pyramid as opposed to something which you could say is not a pyramid?

Dr. S: Well, pyramids generally have some properties, and those properties are: the geometric form which is aesthetic; they have to have a certain degree of stability, orientation, relationship to other monuments; orientation to the cardinal points; and a few common features which would apply to pyramids all over the world.

When you come to Egyptian pyramids, you find that the Egyptian pyramids have their own properties. First of all, each pyramid in Egypt is built within one generation, for one king, a funerary pyramid, which is a tomb in a complex. The pyramid is oriented to the cardinal points and has these geometrical—these aesthetic properties. The pyramid doesn't have to be tall and sharp or low and blunt. It's somewhere in between, and it adheres to the angle of repose, which gives it great stability.

The angle of repose is a very important feature in soil mechanics, so that pyramids are really very stable. The pyramids in Egypt, as I told you, are tombs, and the requirements of the tomb are to fulfill some religious requirements.

First of all, the superstructure is the primeval hill out of which the Solar God Ra (pronounced: "ray") rose at the time of creation. The substructure is the realm of the Netherworld of the God Osiris. The corridors point to the certain polar region. These are the stars that never set in the Northern Hemisphere, or at certain times of the year. They point to Sirius. So, there are these solar and Netherworld and astral features, in addition to some religious requirements for the King himself, where the King is worshipped in the temples, which are attached to the pyramid and the causeway and then the priesthood and so forth.

GL: So, we have here in Egypt, at least, a complete complex and it's funereal, as you say, and it is based on astronomical pointers, as well . . . the way it's orientated. And these pyramids—you've got other pyramids as well. There are pyramids in Mesopotamia, in the Americas, and in China, which may or may not have been built in contemporary times, to each other. Different civilizations, weren't they? But would you say it's true that with every pyramid, obviously, you've got an organization and a structure, and a complex behind it--a civilization, a community, an urban community, or complex, or does that not necessarily have to be the case to prove a pyramid?

Dr. S: The thing that is the purpose of the pyramid: why does a certain period build these pyramids? In Egypt, as I said, they are funerary, and each pyramid is built for one king or they're built in one generation, whereas, in Mexico, the pyramids aren't. The pyramids are built over several generations. There is one pyramid inside the other, inside the third. In Mesopotamia, there are the ziggurats, which are mud brick structures, which are also mounds of primeval hills. And so, I mean, the reasons behind building the pyramids and the times, the background, the historical background is different from one place to the other.

GL: Okay, thank you and if we take ourselves over to Bosnia--and you went over there with an open mind, I presume, Dr. Swelim—what was the first time you thought, "Hmmmm, maybe, maybe," or did you think, "Maybe or maybe not."

Dr. S: First, I knew about the Bosnian Pyramids last March '07, when Semir came to Cairo and gave a talk or presentation about these monuments, and I saw that there was a lot of positive, or there are a lot of positive points in his presentation. I talked to him a little and just about the last month, I think, it was the end of August, or yeah . . . the end of August. I was surprised to get an invitation to go and visit the sites that he was talking about last March. I was very happy to go and see for myself.

When I went to central Bosnia . . . it's an area of mountains. They are covered by vegetation and green trees and there are rivers and it's quite a beautiful area, or region. But, you know, mountains are mountains everywhere. They don't have to be regular at any point. But when you, as an experienced eye . . . when you see the mountain is flat on one side, this could be the work of Mother Nature. But if it's repeated on three sides, then one starts to be curious. And, when you find that these are repeated with three monuments in one area, it becomes more and more oriented—it raises curiosity. When you know that they are at the heads—or their summits are at the heads—of an equal-sided triangle, [of] 60 degrees, well I mean, you have something.

Moreover, they are oriented to the cardinal points and they have the feature of stability. They are all appearing to adhere to the angle of repose. So there is something unusual about Mother Nature in that area. Is that because of the intervention of mankind? Or what is the reason? That is the question that began my observations.

GL: And, began your search, really, and that must have filled your curiosity, I should have thought, because you have, after all, researched how many pyramids in your years of experience in Egypt? How many pyramids would you say you've examined?

Dr. S: I have examined them all, but I've discovered four pyramids, and excavated them.

GL: Which ones were they, Dr . . . ?

Dr. S: Well, a Third Dynasty pyramid at Abu Rawash (Ah-BOO Rah-wash), which is called Sinki (SEEN-key), a large mud brick pyramid, which is at the Abu Rawash; and a pyramid which has long been forgotten, on top of a mountain near the Il Pharom(?) (ILL-Fah-ROOM). It's called the Pyramid of Seila (SEE-lah). Also, from aerial photography and academic research, I was able to identify some of unidentified pyramids with their time.

GL: So, you managed to date them.

Dr. S: Yes.

GL: That's incredible. Obviously, it's a different matter of dating out in Bosnia because here the research is still on what we call the threshold, isn't it? It's still a way to go.

Dr. S: Yeah.

GL: Which pyramid would you say . . . there are three monuments out there: the greatest one, and then the other two.

Dr. S: Yes,

GL: Which one did you concentrate on, or did you look at all three?

Dr. S: No, I looked at two of them. I looked at Piramida Sunca (SOON-sah), which is the Sunca (SOON-cah), which is the Pyramid of the Sun, and the Pyramid of the Moon.

GL: Yeah. Okay, and of those two, which one was the most striking in its features, that you though . . . ?

Dr. S: It would be the Piramida Sunca (SOON-cah), the Pyramid of the Sun.

GL: Um hmm.

Dr. S: That was very striking and it seems to be a focal point in several directions. There are other monuments that the Foundation of Semir is working on. One is a tumulus and there are the tunnels, all in the vicinity of the . . . down of Visoko.

GL: Was it in the tunnels that made you think, "Hmmm, because there are tunnels associated with pyramids. Is that not true to say? And so, did you go and investigate those tunnels in any depth at all?

Dr. S: Yes, yes. We visited the tunnels. I saw the hard work that's being done to many of them. They're very damp and they are very interesting because they found the writing and artifacts—these sort of thing--in the tunnels.

GL: What sorts of artifacts have been found? Did you see any yourself?

Dr. S: Yeah, sort of knives and stone implements and a few objects, which need to be dated.

GL: Okay, the tunnel complex . . . Is there any way of getting any indication of the layouts? Are they tunnels which approach from all around the monument or . . .?

Dr. S: No, there are two entrances—two tunnels . . . (GL: Okay.) . . . which are located at different places. One is about 1 kilometer northeast of the Pyramid of the Sun, and the other's about 2.2 kilometers, or something like that, northwest of the pyramid. Their direction is towards the Piramida Sunca.

GL: So, with the tunnels is . . . well, you walked up the sites, presumably, as well, and [you've] seen the excavation work there. Did you see any indication that there's more than one layer on the main pyramid of the Sun?

Dr. S: Well, I want to come to that a little later. But what I want to say is that the Pyramid of the Sun resembled, very much, a pyramid that we have here at Dahshur (DAH-shur). It's called the Red Pyramid.

GL: The Red Pyramid?

Dr. S: The Red Pyramid. They are—their resemblance is striking. They are the same appearance and the same angle and so forth. This is [a] stone pyramid in Egypt. The others are built in masonry. The other is a mountain that is covered by a forest. But they have, at a distance, they have the same appearance. A mathematician from Croatia made a drawing of the Pyramid of the Sun and the drawing had a triangular base . . . uh, uh, a rectangular base. We also have pyramids in Egypt with rectangular bases. Semir found these tunnels, which we just talked about. The Step Pyramid at Sakkara Complex has five kilometers of underground galleries of great hypogeal, which is under those, uh, under this monument. So, there are striking similarities between the two. As the Foundation has approached these monuments, the Pyramids of the Sun and the Moon, what they did is they selected certain places where they removed the top soil, and the clay beneath it, uncovering parts of the nucleus of the monument. That's very interesting, because at some point, the nucleus is composed of large blocks of breccias—that's a conglomerate stone, sandstone—and large areas which are covered with some sort of concrete--very, very large areas.

GL: It is actually manmade. It is not natural, the concrete?

Dr. S: I have asked the geologists that question and they say that it's manmade. I cannot judge for myself.

GL: That's all you can say is, that from your findings, that concrete, or substrate, or whatever it was . . .

Dr. S: It's the outer face of the pyramid.

GL: Right. And what sort of area are we talking about here, would you say Dr. Swelim, in terms of square meters. Do you have any idea?

Dr. S: Uh, I'd say about, uh, uh, twenty meters by five meters . . . a large area.

GL: Twenty meters by five meters?

Dr. S: Yeah.

GL: Or in imperial terms, Western measurement, 15 feet by 60 feet. But of course, we're talking about a whole side. That's a relatively small area compared to other places.

GL: Or in imperial terms, Western measurement, 15 feet by 60 feet. But of course, we're talking about a whole side. That's a relatively small area compared to other places.

Dr. S: Oh, very small—very small.

GL: But you would say that . . .

Dr. S: You can't, you can't generalize. I mean just by one side.

GL: Oh, okay.

Dr. S: In between these two areas, there seems to be the very common method of having tiled terraces and this is the outstanding feature of the composition or the architectural composition of these monuments.

GL: And these tiled terraces . . .

Dr. S: Tiled Terraces?

GL: Yes they extend out and down? How many sides are they on? Two, some say three . . .

Dr. S: Well, I mean, the pyramid has only been uncovered at several points, but at the Pyramid of the Moon, these tiled terraces are very, very common at every site. They have investigated; they have discovered these tiled terraces. This is a very curious feature. Because we have a layer of, or a terrace of clay, and this is covered by very beautiful tiles, very neatly arranged, side by side. Above that is clay, say about . . . One is a meter and the other is less than a meter, and that is also covered with tiles. And, above that is the third one and a fourth one and so forth.

GL: So, you're saying that the tiles are laid on top of the clay.

Dr. S: Yeah.

GL: Okay, could you give us an idea of the size of those tiles? Are they rough worked limestone or . . . ?

Dr. S: No, no. They're very nice. They're not rough at all. And, they're laid together very meticulously and skillfully.

GL: What sort of workmanship does that remind you of in your experience in Egypt or does it not?

Dr. S: Well, I mean they are . . . in Egypt we have different periods. They usually don't have tiles, except in the Roman times, or in the European, on the European streets, London and so forth. You get these blocks that are side by side to pave the road. They are something like that, but much thinner.

GL: So they would have been meticulously laid down. We're about an enormous structure here, aren't we?

Dr. S: Yes.

GL: Do you feel any kin with the Pyramid of Seila that you found in Egypt? That maybe this has been put . . . this is something that's been built over, that was originally there as a natural mountain? Do you think someone has adapted this complex of maybe a mountain and two smaller mountains?

Dr. S: Yes, well . . .

GL: Is that possible?

Dr. S: First of all, there is a difference between being the architectural composition of the early Egyptian pyramids and these clay, this tiled clay layers, the terraces. Those terraces are horizontal, not exactly

horizontal, but they are inclined backwards to the center of the monument. The early pyramids in Egypt are built with accretion (?) layers, which are walls standing upright, leaning on one another at an angle. So, they're both layers—terraces—horizontal accretion layers, upright. So, that's a significant . . . uh . . .

GL: Difference?

Dr. S: Difference.

GL: Okay.

Dr. S: The other thing is the accretion layers in Egypt are masonry. These [Bosnian Pyramids] are clay.

GL: So, what could one deduce from that? One of your colleagues from Egypt is a geologist isn't he?

Dr. S: Yeah.

GL: What did he think? Could you give up his name please?

Dr. S: Dr. Aly Barakat.

GL: And he's a working, professional geologist in Egypt?

Dr. S: Yes, he works in Egypt and his is somewhere in the government.

GL: Okay.

Dr. S: Yeah.

GL: And he looked at this. What were his thoughts? Did he say anything when he saw these?

Dr. S: Well, uh . . .

GL: As a geologist? Some geologists might say it's just a natural formation that's been forced up by tectonic plates. That pressure . . .

Dr. S: Yeah, or course. Absolutely.

GL: You know?

Dr. S: Yeah. Clay is sedimented naturally.

GL: Yeah.

Dr. S: But for a terrace of clay of a height of one meter, it takes 7,000 years to accumulate.

GL: Right. That's . . .

Dr. S: So you don't put tiles on one terrace and then wait 7,000 years to put tiles on the second layer above it.

GL: No, assuredly.

Dr. S: Where would . . . what would sediments . . . what would lay down that? So, it's . . . you see, maybe I have not explained this well enough. These terraces *extend* inside, I mean, we haven't see any of them . . .

GL: So, it goes right back inside of the pyramid?

Dr. S: It goes right back into the structure . . .

GL: The structure, yes.

Dr. S: And then you have this layer on top of it. So why is something so neatly paved [and] covered with clay, and then another neatly paved [layer], covered in tiles, is above it and so forth? This is a very difficult question to answer.

GL: What does the geologist feel? What did he say?

Dr. S: Well, I think they have not reached something conclusive that I know of, but the thing is, the thing is that if this clay was not sedimented by Mother Nature, [then it] was brought by the builders of the monument, it was transported. Maybe from the tunnels and dumped there for the sake of the construction of the monument. It wouldn't be the entire monument that would be done as such, but only the trimming of the natural hill, when addition is needed.

GL: To make the shape appear . . .

Dr. S: To make the shape of the pyramid.

GL: Sure.

Dr. S: If there is any protruding part of the natural hill that would have been . . . that should be quarried away. I assume by conventional quarrymen.

[Commercial break.]

GL: And of course, there is a river [that] runs through that area which could be used to transport, possibly, do you think?

Dr. S: Well, I have asked about the river. Surprisingly, at some parts of the river, [in] the bed of the river [are] these tiles.

GL: Right.

Dr. S: They can be seen by the naked eye.

GL: Eye?

Dr. S: But the river, I asked if the river is navigatable. So the answer came [to] me that, the legends say that "once upon a time, these rivers were connected, were all connecting the Adriatic Sea with the Black Sea, through certain rivers. Bosna(?) and another few, the Danube and you could sail your way from east to west or from west to east.

GL: So, it's quite well positioned then.

Dr. S: It would be very nice if these rivers were navigatible and would be the route of transporting the material.

GL: Okay, so if we look at this complex and the tunnels, the inscriptions, which presumably are very strange to your eye, compared to what you are used to seeing in Egypt, which is . . . is that right? No one really knows what those inscriptions mean, I believe. What's your feeling about why those monuments would have been there—all those hills would have been refashioned or accepted in that location, given that there's no—or not so far—anything similar found nearby, as you do in Egypt, to support a complex with a civilization nearby. Is it possible that if it gets found to be what it's claimed to be, what you found indicates it to be—from what you've seen so far . . . Where did these people come from? Was it something that maybe they sailed up a river from somewhere else and said we need these monuments in this particular place, to celebrate something, or to perform some sort of religious function? Did you have any thoughts along those lines?

Dr. S: I have no idea, but I think it's the location that sort of offered the opportunity to give the mountains or the hills their shape. But who did it and how? I understand that if you want to build a pyramid. Let's start from an earlier point. A pyramid is a monument that relies on eleven straight lines: four at the base; four at the corners, which meet at the apex; the apex is above, where the two diagonals of the base cross. So, this all in all . . . four at the base, two at the diagonals, four corners, and the height are eleven

GL: It's eleven? Yeah.

Dr. S: Eleven lines. And that's what a pyramid is, an ideal pyramid. At the Pyramid of the Sun, there is a side, the Western side is, either destroyed, unfinished, or was sort of intended [for] such [or] the work was too hard, or the additions [that] were needed were beyond the means of it. Now with the Pyramid of the Sun, we really don't know where the base of the pyramid is at; what level is the base of the pyramid. The height or the apex can be worked on easily because we have three corners which are well-defined, and they can meet at a point. That point has been drawn to be over the center of the . . . or over the center of the base, which is rectangular. So we have very important pyramid properties. Now, the volume of a pyramid is the area of the base, or the base line squared, or the longer [side] times the shorter side of the angle . . .

GL: Sure.

Dr. S: At times; one-third of the height. With this equation, the volume of the pyramid is calculated. For example, the Great Pyramid of Giza is 2.6 million cubic meters.

GL: Now, that's big. That's a lot of . . .

Dr. S: That's big. We're talking about a pyramid which is bigger. Let's say it is . . . if we sort of guess the volume of the pyramid and certain . . . it would be about 10 million.

GL: That's far, far larger.

Dr. S: Far larger.

GL: Yeah.

Dr. S: Now from the point of view of the economical side of building a pyramid, it would be very nice if you have a rock mall (?), or you have a feature, a natural feature, which you would build the pyramids around, because once you have built up to 10 percent of the height of the edifice, you have already consumed, or you have already achieved 50 percent or more of its volume.

GL: Sure. Of course, 'cause you can lower it down . . .

Dr. S: Because, the supply of material here is very essential and consequently, to make use of the natural hills in the Bosnian area of Visoko. It was a very reasonable idea, because, I mean, maybe only 10 percent of the volume of the Pyramid of the Sun is manmade. The other, inside, is what nature offered.

GL: So, you could see that man has fashioned nature.

Dr. S: Yes. Now, the building material that the pyramids are built on, we mentioned, the breccia blocks and we mentioned the concrete.

GL: Yeah.

Dr. S: Now, but the majority of the pyramid, especially the Pyramid of the Moon, have these terraces that have tiles upon them.

GL: Okay.

Dr. S: So, if you are moving baskets of clay for these terraces, it's much easier than hauling large blocks of stone, which weighed one or two tons . . .

GL: Yeah

Dr. S: Especially in a rugged terrain such as the surroundings over there. So, when you think about it from the point of view of construction, you find that when you are moving loose material, it's much easier than moving blocks or such immense stones.

GL: Sure, it's much easier than hauling all of that masonry up the slopes.

Dr. S: Yeah.

GL: So, it's a more efficient method of building construction . . .

Dr. S: Yeah.

GL: In that respect. And how high up did you go up the pyramid of the Sun. Did you go right to the apex?

Dr. S: No, I think that when you are 72, you don't climb to the apex. (Both laugh.)

GL: I'm sure you went a fair way up there. (Chuckling.)

Dr. S: Well, I went on the south side . . . (GL: Yeah) . . . [it] takes you up about a hundred meters below the apex. The pyramid is huge.

GL: Yeah, yeah, yeah.

Dr. S: You have to see for yourself. It . . . I mean . . . The summit of the pyramid is 747 meters above sea level.

GL: That fine.

Dr. S: Visoko is less than 500 meters (1,640 feet) above sea level, so we are talking about a difference in height, above sea level, of 200 or 300 meters (656 feet to 984 feet).

GL: It's very high compared to, say . . .

Dr. S: The Pyramid at Cheops.

GL: Yeah.

Dr. S: The Great Pyramid, which is only 146 meters high (479 feet high) . . .

GL: Right. Okay.

Dr. S: So, we have something. We have something, very, very intriguing, very different.

GL: On such an enormous scale such as this. It's been a legend for many, many years—generations—in the area, that these are pyramids. These are pyramids, I believe, long before Sam Osmanagich came along and thought, "Hmmmm, this does look like something, possibly. Where do you think this is going to go from here? With this research I mean. You've been out there. Your colleagues have been out there, from Cairo, [and] had a look. Would you welcome other specialists, scientists, whether they believe in it with open minds or they are opposed to go and look for themselves?

Dr. S: Well, I think any scientific research for or against . . . I mean, look, scientific research is neutral.

GL: I should be open-minded. It should be.

Dr. S: I mean, when you are going to investigate something, you're not going with a preconceived idea. I'm going to investigate it and say that it's a fake, or I'm going to go and investigate it and I'm going to say that it's going to be a pyramid. I'm going to investigate the result of the investigations is what has to be known, the truth. So any opposition to any scientific curiosity, which goes there, is quite welcomed, because they are helping reveal the truth. Anybody who has doubts goes there. You must always remember that these are structures that have the properties of a pyramid, and this is a Bosnian Pyramid. It's a pyramid that is covered by forests and vegetation. It's not an Egyptian pyramid that's built on the desert. They are built in the middle of mountains. So, if the mountains [are] connected at one side that is understandable. They are built to the angle of repose. The orientation is not a coincidence. This relative position to one another is unique.

So with these fundamental . . . with fundamental knowledge . . . you proceed towards widening and deepening your understanding of these monuments. If you go with a skeptical mind, [that] these are not pyramids, they are fake, and they are this or that . . . You have to be fair. You have to take these properties into consideration. You have to learn that the Bosnian Pyramids have properties that differ from Egyptian, Mexican, Mesopotamian, Chinese, or whatever.

GL: Are we back to the age old debate—and this is huge—do you feel Dr. Swelim, if we go back to your first love, Egypt . . . there's always been a continual debate between geology and Egyptology, hasn't there?

Dr. S: In what way?

GL: Well, in trying to date structures, the terrain, etc. If you look at, say going back to Bosnia, again, Egyptian archeology as opposed to Egyptology, might well find itself up against geology. Do you think that geology is so much more likely to be skeptical?

Dr. S: Absolutely. Absolutely. These Bosnian Pyramids need Geological Archeology before historical archeology.

GL: And this is something which, for some reason the West, so to speak—Europe—Western Europe and the United States, the universities . . . there are hardly any of them has visited other than Dr. Robert Schoch, I believe, who was skeptical about it, but he was a geologist. Do you know of any other colleagues of yours, Egyptologists, or maybe archeologists or geologists from maybe Egypt or your contacts in the United States and farther afield, who might also want to go visit—see for themselves?

Dr. S: Well, when I am through with my report, I'm going to give lectures in Cairo, Alexandria, to a multi-national audience of Egyptologists, and when I say what I've seen, this may raise curiosity and they may want to go and investigate things for themselves.

GL: This is something which you would welcome?

Dr. S: I hope that when I have published, or when I have sent my report to the Foundation, that it will be published and that . . . I mean it will be read and thanks to people like yourself, your website, that is sort of promoting the knowledge on this matter.

GL: Well, thank you for that Dr. Swelim. [At] Astraea web radio, as our listeners probably know, we like to show both sides of an opinion, open new things, new findings, especially [if] it's like yourselves. You go and find something, we would hope that perhaps someone else may go, may come to similar findings, or may not. We hope to have them on the show at some point.

Going back to the research, let's take you away from Bosnia for a minute, back to Egypt. What's your biggest love of your work you've done through the decades would you say? What do you think is left? Is there a lot left to discover, do you feel?

Dr. S: Oh, absolutely. Absolutely. Although, you know, the properties of the Egyptian pyramid the shape and the tradition . . . the tradition. Every Egyptian pyramid embeds in it earlier forms of the tombs of the earlier pharaohs; so the superstructure has a step pyramid inside, the step pyramid has a mastaba, and the mastaba has a tumulus, and these are found in many of the pyramids, so that the tradition is embedded inside one another. But in spite of our knowledge . . . we know the dates of the pyramids, we know who built them, we have studied types and so forth . . . They are all, by the way, on Google Earth, if you know where to look—all of them.

GL: Every single pyramid.

Dr. S: Every single pyramid. I have pointed out on Google Earth. That's a wonderful aid to research.

GL: Yes, of course. And also, with your knowledge and your research, Dr. Swelim, you've written some books on your topic and subjects. Could you tell us about a couple of your books? Are they available?

Dr. S: Yes. I just want to go a little further with my last point.

GL: Of course.

Dr. S: And that is in spite of all the knowledge we have on the pyramids, we don't know how they [were] planned. We don't know how the supplies came and how. We don't know the building techniques. We still are wondering how the blocks were taken up ramps to the top of the pyramid. And we don't know the administrations, the planning, logistics, building techniques—administration—are still subjects we need to learn about the Egyptian pyramids.

GL: To explore . . . Dr. Hawass found the village, the workers village, didn't he?

Dr. S: I mean if that's a worker's village, if it turns out to be the workers village of one pyramid . . . we have 130 pyramids to account for.

GL: Way to go, as they say. (Laughs)

Dr. S: Yeah, yeah.

GL: So, I do believe [that] you in your research over the years, you've discovered the earliest beginnings of the ancient Egypt, down the Sudan. The Sudan particularly interests you, doesn't it?

Dr. S: Well, yes. The pyramids of Sudan are of a late period, and it was borrowed from Egypt by the kings of _____ (?) in the Sudan in Nubia . . . sort of a continuation of Egyptian tradition during the Roman occupation of Egypt.

GL: 'Cause the Romans themselves didn't build pyramids, as far as we know . . .

Dr. S: Well, they did.

GL: Did they?

Dr. S: They did 'cause Hadrian and Trajan are built in tumuli, which now are monasteries on top of this tumuli . . . are some sort of a pyramid.

GL: Where is this?

Dr. S: In Rome.

GL: In Rome?

Dr. S: Yes, and there is a pyramid in Rome, which is still standing--a very handsome pyramid. Even at a Metro station—a subway station—called Piramidi, where you come out of the Metro on the surface and there's a beautiful pyramid standing.

GL: I see. Tumustalis—the Italians and Romans have always done, I guess.

Dr. S: Yeah.

GL: If I could ask you very quickly, about the Great Pyramid . . .

Dr. S: Yeah.

GL: As it is known to some . . . what do you think the purpose of these shafts—if they are shafts—are, considering that one of them at least has got an angle on it? Do you think they'll ever find out?

Dr. S: Well, I mean, as I said, [the] properties of the Egyptian Pyramid, or the religious requirements of the Egyptian pyramid are (1) [the] solar and the superstructure; (2) netherworld and substructure; and (3) [the] astral and corridors. So the main corridor of an Egyptian pyramid is pointing to the circular polar region. That is where the stars never set. They are always rotating around the polar star, above the visible horizon, so they don't set and they don't rise. They don't die and resurrect. They are eternal. This is a region of immortality, where the soul of the dead king will leave through this corridor and direct himself to that area of immortality where the Elysian Fields are located, according to ancient Egyptian religion.

GL: Hhhmmm, so it's all inherent. The design is meticulous, isn't it?

Dr. S: Absolutely.

GL: No trace of the planning?

Dr. S: No trace of the planning.

GL: At the moment.

Dr. S: Yeah, so far.

GL: Surely there would have been, or must have been. Maybe these plans are written on parchment, which is long since gone.

Dr. S: Papyrus, you mean.

GL: Papyrus, rather. Forgive me . . .

Dr. S: Yeah. Well, a civil engineering project like one of the pyramids of Giza, or Dahshur, or Modumo(?) (Moh-DOOM-oh) is not built, you know [like] just let's go build a pyramid, so you build a pyramid. It's a very, very meticulous job, because first of all, the leveling the base of the pyramid is so perfect in its leveling that I think there is about a fraction of an inch difference in the level of one of the corners in comparison to the other. The orientation . . . to create a square base, the right angle is not an easy thing to do.

GL: Hmmmm.

Dr. S: The direction of the corridors . . . and to do all this . . .

GL: The precision.

Dr. S: Yeah, precision. And to do all this with 2.6 million blocks of stone--because the block is a meter cube—in the reign of one king . . . I mean, it's a very neat . . .

GL: It's remarkable, really.

Dr. S: It *is* remarkable. It is remarkable.

GL: Of course, they did have a learning curve, the Egyptians, didn't they? The ancient Egyptians with the . . . wasn't it the Bent Pyramid . . . the first pyramid they tried? No? What do they call it?

Dr. S: Actually, the Bent Pyramid represents one of the forms of the Benben [Pyramid], and the Benben is the origin of Egyptian Pyramids that is a black stone at the Temple of Heliopolis, where it's believed that the sun rose of the primeval waters at the creation of time.

GL: In the beginning?

Dr. S: At the beginning.

GL: I see.

Dr. S: So the pyramid is such, but pyramids came with the spread of the solar religions. Before that, there were other religions and the kings were buried in the tumuli, or mastabas, and then when the very

powerful person and genius person, Imhotep, became the vizier of the King of the Third Dynasty. He converted the conventional flat top Mastaba into a step pyramid.

GL: Aaaaahhh.

Dr. S: Then the Step Pyramid developed the true pyramid and the true pyramid grew until it became, [or] went to it's . . . or the height of building pyramids was in the fourth dynasty. [In] the fifth dynasty the pyramids started to decline a bit on the quality of the building of the pyramids and they started to elaborate on the temples, where the king is worshipped. And of course, all the temples of these pyramids had priesthoods. These priesthoods kept the cult of the dead king running all the time, but the priesthood had a livelihood, so there was a state providing money or resources for the priesthood to carry out the cult of the dead king, who is worshipped in the pyramid. Then, too many kings, too many pyramids, too many estates providing for [the]cult of the dead kings and not for the prosperity of the nation and the people. So, the Old Kingdom collapsed.

GL: And that was the cult?

Dr. S: An economical collapse.

GL: I see.

Dr. S: An economical collapse. So you go into [an] age of chaos, anarchy and so forth, and very poor pyramids are built on. So, we step into another resurrection of glory in the Kingdom, and they are building pyramids once more, and then that also declines under foreign rule, and then the Kings say, in the New Kingdom, "We're not going to build pyramids. We're going to use the Valley of the Kings.

GL: And that's how that happened, and that was the New Kingdom, wasn't it?

Dr. S: That's the New Kingdom.

GL: Hhhmmm.

Dr. S: And, then when the New Kingdom was . . . all these tombs of the Valley of the Kings of the New Kingdom were robbed, they started to have their tombs within the complex of the principal temples, to be guarded by the priests.

GL: And the guardians [of] the temples.

Dr. S: Yeah.

GL: Hhhmmm. Uhm, hhhmmm.

Dr. S: So then came the foreign rule. The Ptolemies were buried in Tumuli or Pyramid-oriented Alexandria, which were never found. Also, Alexander the Great, and the Romans, as I just mentioned—Hadrian and Trajan—are buried under Tumuli in Rome.

GL: Yes, yes.

Dr. S: The pyramid is continuous and we have a pyramid on top of the Louvre Museum, and we have a pyramid over the tomb of President Sadat. Well . . . (laughs)

GL: Yes, there's even one in Las Vegas (laughs) . . . a miniature pyramid there of the Great Pyramid.

Dr. S: Yeah.

GL: It goes on. We've only got a few more minutes left here, Dr. Swelim. I would like to just ask you briefly about any publications of yours on pyramid subjects or Egypt in general?

Dr. S: I have tens of articles in periodicals . . .

GL: Okay.

Dr. S: In the Egyptological periodicals, but I have a book which is titled *Some Problems on the History of the Third Dynasty.*

GL: *Some Problems on the History of the Third Dynasty?*

Dr. S: Yes. That was published by the Archeological Society of Alexandria.

GL: And is that still available?

Dr. S: I think at the Society it is.

GL: Okay, and uh . . .

Dr. S: I have another. I discovered a pyramid at Abu Rawash, which is called The Brick Pyramid.[1]

GL: Really?

Dr. S: Which was noticed by Lepius[2] when he came in 1843 and it was completely forgotten after that, until I discovered it. So, I wrote a book about my discovery and my investigation of the pyramid—big pyramid of Abu Rawash.

GL: Okay, and that's presumably . . .

Dr. S: That's also in the Archeological Society of Alexandria.

GL: Okay, people can find that on the internet, I hope, Dr. Swelim.

Dr. S: Yes.

GL: And briefly, I believe that you're now retired aren't you? You had a professorship. I believe you were formerly an Admiral in the Egyptian Navy many years ago?

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[1] For more info about Step Pyramid go to: http://www.ancientworlds.net/aw/Article/737402

Dr. S: A long time [ago] . . .

GL: And for many years . . . a long time ago. You're a colleague of Dr. Hawass and I believe you know one of our other guests, Dr. Rosalie David?

Dr. S: Dr. Rosalie David in Manchester, oh yes!

GL: Yes, we interviewed her last year about religion and magic in Ancient Egypt.

Dr. S: Oh, that's . . . she knows that subject so well.

GL: Absolutely. Absolutely. And, well I hope you're rested after your journey back from Bosnia. It's quite a long way for you and . . .

Dr. S: Thank you.

GL: I'd like to thank you on behalf of everyone her at Astraea Magazine and I hope the listeners will share this conversation and interview with Dr. Swelim with their friends, and we look forward to further facts, controversies, being unveiled in this ongoing debate on our Bosnian Pyramid Series. On behalf of everyone here, I'd like to say a big thank you to yourself, Dr. Nabil Swelim.

Dr. S: It's my pleasure. I am honored.

GL: It's been a terrific pleasure to have you here on the show, Dr. Nabil Swelim. Thank you.