

**Electronic Archiving and Distribution:
The Value of the Internet and CD-ROM Technology**

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Verbatim transcript (from audio tape) of an extemporaneous presentation made by Barrie M. Schwartz on September 7, 1998 at the Shroud meeting in Dallas, Texas:

There are a lot of different things that I wanted to talk about today, probably far more than I have time to talk about. Then of course, last night I inadvertently showed something to a few people who then insisted I show it to everybody.

I want to give you a quick update on the digital archiving that we started talking about last year (at the September 1997 Kaufman, Texas meeting) and it's simply this: Last year, right after our meeting, Fr. Fred Brinkmann immediately sent me the Wuenschel Collection on disc. Paul Maloney and I worked out a way where he could provide his bibliography from his work by making sure it didn't conflict with his publishing contracts. Of course, Emanuela Marinelli's collection has already been archived as the Booklist page on my website. And Richard Orareo immediately handed me a printed version of his collection, which I am thrilled to hear that Fr. Kim (Albert Dreisbach) is now working on getting into a digital form. We have already integrated the Wuenschel and Marinelli collections into a single database, so we did get about half way through the process before my resources ran out and I had to stop that so we could work on the (Shroud of Turin) CD-ROM, which some of you know I am working on.

One of the great things about this meeting, and it's funny how these things work out when you are involved with the Shroud, but one of the things I was coming here to say was a simple, one word plea, Help! And then, I wound up rooming next to Mark Borkan. Thank you! So I've now found help. He happens to be an expert in Microsoft Access, the database (program) we are using for (archiving) the collections. Even though it's long distance, I'm in Los Angeles and he's in New York, and AT & T's stock will rise again, we will work together. It's wonderful to have found an ally as skilled and experienced as Mark.

I want to thank Russ (Breault) for bringing this wonderful projector (making reference to the equipment that projects an image from a computer to a large screen), because there are some of you that have given me a lot of "guff" about the Internet, Al (making reference to Alan Adler). (laughter) And I know that there are some of you who don't have (Internet) access for other reasons beyond just stubbornness!

I had brought a number of overhead projector transparencies to show my website, but thanks to wonderful Russ Breault who brought this beautiful projector, I can now do that directly from the computer.

With that in mind, for those of you who have not had access to the Internet, who don't know how it works, I'm going to very quickly show you the Shroud of Turin Website, or more accurately, some of the key areas on the Shroud of Turin Website.

Basically, this is what you encounter when you first get there, which is a Main Menu of various things that are available on the website. First, there is the Late Breaking Website News. Whenever I add something (to the site) it goes on this page first. That tells you, since the website has gotten as huge as it has, where things are.

For example, this particular meeting, if you wanted to read about it you could click on the text and, this is what a hyperlink is, it jumps you immediately to that spot (on the website). And you can always hit the back button and go back to where you were.

Now a few of the pages I want you to see are accessible from the Shroud Library. The most logical place to find information is the library, so I've created a library page on the website that covers these primary areas:

The Shroud History - note that it is blinking "updated" because we recently updated the 20th century segment, the most significant scientific years (of Shroud history) and expanded it thanks first to Ian Wilson, and also to Harry Gove and his detailed account of what occurred during the time of the carbon dating. Then I went through my archives of 22 years of STURP (Shroud of Turin Research Project) history and that has also been included. So, starting in the 1900's, you just scroll down the list and through each date, including the background of Fr. Adam Otterbein, Fr. Francis Filas, Fr. Peter Rinaldi, the Holy Shroud Guild, etc. All of that is now found in the Shroud History. So this is one of the important pages I wanted you to see.

Now, going quickly back to the Shroud Library, I want you to see what I'm told is now over 700 titles on the Shroud Booklist. And this is done in several ways. You can search it (the list) alphabetically by just picking a letter. For example, let's pick an author, say Ian Wilson, so you go to the W's by clicking on the letter. Then it immediately takes you to the W's and, if you wanted to you could scroll through the whole list. You will also notice certain book titles are highlighted and linked, so you can click on them and go directly to Amazon.com and virtually purchase the book online.

Now backing up to the Library again, we select probably the most important page, and that is the Shroud Scientific Papers and Articles page. This page has the complete text of many articles, well, there are forty articles currently on this page. I am going quickly to the latest one I put up by Isabel Piczek.

Now the reason I'm showing you this is because one of the problems I've had as a professional photographer for the last 28 years is the frustration of seeing my work horribly mangled when it gets into print. One of the best examples of that was the "Mapping of Research Test Points" paper that I did for STURP. The (photographic) maps were so unreadable in the printed results that very few people were able to use them. The reason I'm showing you Isabel's article here first is because Isabel profusely

illustrates her articles. I'm not going to show it all to you, but I'm just going to scroll down quickly so you'll see, and maybe for the first time Isabel will see, the way it really works. It's all one huge, long page Isabel. The ability to reproduce an image on the Internet is so far superior to what it takes to do it onto a printed page, that I recreated those maps from my own mapping article for the website. And I was able to add color so you can see that certain specific data points are in red and some are in blue because they illustrate only approximate areas. This is now far more useable in this form than it ever was on the printed page.

I recently got a telephone call from the Pentagon. I know that sounds strange, but I got a call from a nuclear physicist who called me to thank me personally for putting the carbon dating paper on the website. For those who don't know what I mean, I'm referring to *the* carbon dating paper. Now why did I put that up there you might ask. Well, finding it is pretty difficult unless you happen to have access to a research library. And many interested scientists out there aren't going to take the time to go find it. But when you put it right there in front of them, the reason this nuclear physicist from the Pentagon called me was to tell me he appreciated my putting it there, because after he read this (and he was a firm believer in the carbon date until he read this), he then said, wait a minute, that's a preliminary set of tests! How can they claim a 95% certainty? Well, I'm just a photographer and I can't answer the question, but I told him, "thank you for calling to ask."

Of course, immediately after I told Isabel about this phone call she asked, "will he put it in writing?" Well he probably won't, he works at the Pentagon! He doesn't want to jeopardize his situation. (laughter) But on the other hand, the advantage of putting the factual information on the screen for people to see, if you present people with facts, they can make informed decisions. Up until now, the average person, not the researchers (we know where to research stuff), but the average person in the world, does most of his Shroud "research" at the grocery store checkout counter! (laughter)

And I hate to say it, but, when somebody calls me up and says, "Hey! I noticed at the grocery store checkout counter, that they've taken Jesus' blood off the Shroud and formed a serum that cures every disease known to man!" (laughter) You know, when I hear that kind of stuff, it pretty pathetic, it really bothers me! And part of the reason that this happens is that people don't have access to (accurate) information. So this website was designed because I was tired of explaining to my friends that no, Leonardo couldn't have painted the Shroud, it was being displayed 60 years before he was born! And that's what prompted the website. That phone call! When somebody told me that "Shroud thing" I was involved with... well, Leonardo painted it!

Now another thing the website is good for is debates. A gentleman named Antonio Lombatti, who is the editor of *Approfondimento Sindone*, the somewhat anti-Shroud publication, wrote an article that appeared in the British Society Newsletter. Alan Whanger saw it and responded to it. It prompted an e-mail debate that went back and forth amongst some of us, and I was a party to it, until I finally wrote to everybody and

said, look, that needs to be on the Internet. And so the debate between Lombatti and Whanger is on the website.

The point is, it is a place where people can debate an issue and do it in a manner where all of us can either be participants or at least, observers. It doesn't have to happen just in personal correspondence.

Now the last page about the website that I'm going to talk about now, is a very important page and one that I'm also very proud of. It's called the Research Registry. The Research Registry is a page where people can place a request or "want ad" for things that they're looking for (relative to Shroud research). In this case, somebody was looking for documentation and that was from Remi Van Haelst in Belgium. Here's a search for photographs and bibliography information. Now here is somebody who wanted a paper, Diana Fulbright. And Diana got it because, Gino Moretti of the Centro in Turin saw this on the website and immediately responded to Diana. I was very pleased to hear that.

Also, here is a researcher in Japan and wants to be a participant in Shroud research if somebody is willing to use his services. We've been talking about finding new blood? And we've got top-notch scientists, experts in certain disciplines, ready and willing. But they can't be participants until somebody invites them. So this website can stimulate and attract people in that direction.

A lady put up a notice trying to find a book and Richard Orareo promptly sent her a copy! Gus (Dr. August) Accetta used the Research Registry, he was the first! And people responded. The point is that the website can provide us with the resource to do that.

Another thing the website can do, and this is something Al Adler and I have been really talking about for well over a year. And with all the noise Al jokingly makes about the Internet and the website, he also realizes that this is the place for materials to be published once they've been peer reviewed. And my goal is to establish a peer review committee, listing researchers in specific disciplines that can be called upon for peer review within their area of expertise. Underline, boldface, capital letters: within their area of expertise.

Short story: Nicholas Allen published his theory that the Shroud image was formed by UV light via camera obscura using a form of photography he devised using medieval raw materials ("The Shroud is a proto-photograph"), so I included a link to Allen's website from mine. Shortly thereafter, a gentleman wrote to me from NOAA (the National Oceanographic and Atmospheric Administration). He stated that he was not a Shroud researcher, but that his field was specifically "the effects of UV radiation on the biosphere." In other words, how ultraviolet light impacts us on the surface of the planet. He stated that it was impossible for the wavelengths quoted by Nicholas Allen to have caused the "exposure," and, should they ever reach us here on the surface of the planet, there would be no life as we know it remaining. So, for that one precise, short moment, that researcher, who has nothing to do with the Shroud, was able to contribute to the body

of knowledge. And because I put this response on the website and sent it to Nicholas Allen, Allen had to go back to the drawing board on that part of his theory.

So the Internet is not only a place to publish the science, but a place to attract scientists. It's the credibility that we've been missing for the last number of years. STURP was very credible when it began. When we got back we had gathered some of the very best data that researchers are still using worldwide, but in the end, the credibility was lost, in part of course, because of the carbon dating, and in part because STURP, like everybody else, was comprised of human beings. And when the cameras are pointing you in the face, sometimes the ego gets a little bigger than it needs to. So we did experience some problems along those lines.

At any rate, I was planning to come here and read everyone the riot act about cooperation and communication, but after getting here and seeing how cooperative everyone was being, I decided not to. I will suggest that, if you can get onto the website there's an editorial I wrote called "Repeating the Past" (on the Late Breaking Website News page). In essence it says that, with all the criticism of STURP, perhaps we should go back and reexamine what STURP did, because they certainly did one thing right: they are the only group in history to put together a multi-disciplinary group of experts, go to Turin and examine the Shroud of Turin for five days and nights. Nobody else has ever done that. In retrospect, we know that STURP did some things wrong, but they did that one thing very right! It was STURP having their act together and functioning as a disciplined team of scientists, with a written test plan so they knew exactly what they were supposed to do that eventually got them the permission to examine the Shroud of Turin. And they went and they performed flawlessly for five days and nights. I think that is critical for us to remember, so although we shouldn't go back and repeat the mistakes they made, we should go back and look at what they did right. If we want to be a part of whatever comes next we better do that or we'll be sitting on the sidelines watching someone else do it. If we don't get our act together. And this meeting is a wonderful step toward doing so.

Now, because of what happened last night, I'm going to shut the website off. I've now given a few of you who have not seen the Internet a peek at it. And now I'm going to show you something completely different.

You've heard me talk for years about the Shroud of Turin CD-ROM. Many of you probably think that it's just something I'm imagining! Well, rather than just telling you about it, what I'd like to do is allow you to see a little bit of the Shroud of Turin CD-ROM. And I'm so thrilled Mr. (Pete) Schmacher is here (in reference to the man who developed the VP-8 Image Analyzer), because what I'm going to show you is what I call "The Virtual VP-8."© It is a complete simulation of the VP-8 Image Analyzer.

One of the most frustrating areas of Shroud image study is the so-called 3-D image that was detected by the VP-8 Image Analyzer. It is without question the least understood property of the Shroud image and the VP-8 is the wonderful device that allows us to examine that property. Yet few outside the inner circle of Shroud research have ever had

the opportunity to operate the device and examine the Shroud image with it. In realizing this, I wanted to give everyone the same opportunity to examine the Shroud for themselves, using the VP-8. So we created the "Virtual VP-8"© Image Analyzer simulation.

Now this is on a CD-ROM, much like the Emanuela Marinelli CD-ROM that Kevin Moran showed you. From within the simulation you can select from one of four available Shroud photographs and a normal photograph of two children to examine. Once selected, the photo moves under the camera, the lights come on and it is displayed on a black and white video monitor within the display of the simulator. Then you go to the control panel and select a function, such as "gain" (which turns up and down the 3-D effect), and now you actually use your mouse to manipulate the gain at your own pace using the provided controls, just like on a real VP-8.

As a matter of fact, this is real VP-8 imagery, thanks to Kevin and Anne Moran, who were kind enough to let me come into their home and disrupt it for about 20 hours! Poor Anne was probably a little concerned that Kevin wasn't going to get to sleep at all that night. I actually videotaped, with a broadcast BetaCam camera right off the screen, my manipulations of four of my Shroud photographs on the VP-8.

Then, we took the videotape and spent eleven months designing and building it into the multi-layered interactive computer simulation you see here, so that eventually, everyone will be able to do it. And just like a real VP-8, you can turn up and down the gain, rotate the image, or tilt it up and down from flat to vertical. And any time you want, you can click on the black and white monitor screen and it opens a detailed, scrollable written description of the image currently on the VP-8 screen. The descriptions include clues of what to look for in each of these various images. You just click on it again and it goes back to the view of the source image.

Now the other thing you can do of course, is select different images. You'll see the previous photograph go out from under the camera and be replaced by the new one. And once again you select what control you want to use. This is the tilt function and you can then tilt that image of the Shroud, in this case the face.

Now of course, everybody says, "so what?" What's the big deal? Why is that significant? Well, you have to take a normal photograph (referring to the photo of two children that is part of the Virtual VP-8 simulation), and this happens to be the Moran grandchildren, which was the nearest one available so I grabbed it off the wall, and compare it to a VP-8 Shroud image. That's when you begin to understand the differences.

For example, if you use the gain control here on the kids, you will immediately notice that, instead of getting a natural relief, the kids hair is going into his head, in the facial relief his mouth is going deep in, the eyes are going deep in. Not close to a natural relief. Why, because this is an image made by light using photography, unlike the image on the Shroud. Note that I refer to the VP-8 image of the Shroud as a "relief" and not as "three

dimensional" or "3-D." It's not three dimensional, which implies 360 degrees. It is a relief image.

This virtually simulates the precise way a VP-8 works. There is a camera, there are lights, there is a monitor to see the camera image on, and that is what the top monitor is, and of course, there is the green-screen oscilloscope type monitor that shows the VP-8 image.

This is one that Kevin was really happy about. He says it is one of the very best dorsal images we've been able to get. And you have to rotate the image. At certain angles it's not very good at all but at other angles it's quite good.

At any rate, I'm showing you this part of the Shroud of Turin CD-ROM to give you a sense of what we're working on and how valuable it will be when it is complete.

I want to thank everybody that's here for showing the spirit of cooperation that they've shown, the spirit of participation. And remember that the two things that will do the best towards getting us down the road in the future together is to cooperate and communicate. We now have the tools available. Not just one website anymore, but a complete network of websites.

I must point out that the Whangers (Dr. Alan and Mary) have updated their website. For those of you who have Internet access, you've got to go see this. If your familiar with Alan Whanger's polarized light overlay technique, you now go onto the website and compare the images yourself. There are a dozen different ones, it's very simple to operate and it gives everybody the opportunity to see this.

So again, I thank you for your time and I thank you for your cooperation. We have to keep this up and we have to open it up to everybody. We have to remember it's an international thing. The Shroud is not American, the Shroud is not Italian, the Shroud doesn't belong to anyone, it belongs to everyone (although we know it belongs technically and legally to the Vatican). But what it stands for belongs to everyone. And we have to remember that it's not about us. It's about the Shroud.

Thank you.

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