

THE POLITICS OF THE RADIOCARBON DATING OF THE TURIN SHROUD

Part I: Pre-April 21st, 1988

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This article (in three parts) will complete a trio of writings by the author concerning circumstances surrounding the controversial 1988 radiocarbon (C-14) test on the artifact known as the “Turin Shroud,” a.k.a. “Shroud of Turin,” believed by many to be the actual burial cloth of the historical Jesus. The test, performed by three different laboratories, was said to have shown that the Shroud was produced in AD 1260-1390, many centuries too late to be connected with Jesus. I believe those results have been blindly accepted by most people, who have little idea how complex and chaotic the whole enterprise was. However, as shown in my article [“Chronological History of the Evidence for the Anomalous Nature of the C-14 Sample Area of the Shroud of Turin.”](#) C-14 dating can be problematical if there are unknown factors that impinge on the reliability of the test. That same article also gives ample evidence that the area from which the C-14 sample was taken was anomalous vis-a-vis the rest of the cloth very possibly from repairs made to that corner. In this new article I’ve actually reproduced verbatim some of the material from that article that fits perfectly with the context and subject matter here. The second article, [“Bibliography of Major Sources Pertaining to the Events of the 1988 C-14 Dating of the Shroud of Turin,”](#) is self-explanatory.

In an interview by the *Atlanta Journal* of the late Rev. Kim Dreisbach, a proponent of the Shroud’s authenticity, he said regarding the C-14 dating of the Shroud, “What we have not seen—but will see—is the rest of the story.” The reader will find in this three-part article most of the rest of the story as we draw nearer to the thirtieth anniversary of this celebrated test.

For this new article, I have drawn heavily on three books by individuals listed there who were directly involved in the events (the late Harry Gove, William Meacham and H. David Sox). In one of the secondary sources I’ve used (Marinelli), which includes French and Italian sources (as well as over 250 footnotes). I’ve not checked that author’s primary sources. (I don’t read either language.) For the reader who is

interested in seeing those primary sources, the article can be accessed online at www.shroud.com/pdfs/marinelliv.pdf. I've also drawn on a book co-authored by Marinelli with a journalist who was the Vatican correspondent for the Italian paper // *Messaggero*, the late Orazio Petrosillo

After the dating results were announced on October 13th, 1988, many, including some who had believed that the Shroud was authentic, unquestionably accepted the results. The Cardinal of Turin said there was no reason to doubt the results, but later would say he believed that there had been a Masonic plot to discredit the Shroud. The Vatican also came out publicly to say that the C-14 results were strange in light of all the other data that had been collected (i.e., the 1978 study by the Shroud of Turin Research Project, known by acronym "STURP"), which performed hands-on testing on the Shroud for five days, analyzed all the data for three years and published their findings in peer-review scientific journals. The members of STURP came from some of the most prestigious and respected institutions in the country.

Ironically, and despite all the problems with the C-14 dating, the labs may have actually been reasonably accurate in the date they came up with, insofar as such a theory as the area from which the sample was taken from had been anomalous due to a reweave or other plausible explanations might explain why a first century cloth produced a medieval date; but even if that were the case, the various actions by Church officials and the C-14 labs have to be called into question. As will be shown by the many statements cited throughout the article, mistakes, questionable decisions and discrepancies abounded before, during, and after the sample was taken on April 21st, 1988, by both Church officials and representatives of the three labs, and I believe the evidence presented here will emphatically show that.

I believe that history will not be kind to those Church officials and individuals associated with the three labs. It is my hope that the Vatican will soon allow new testing. Science and technology have made enormous advances since the 1978 STURP study and the 1988 C-14 testing. New testing would allow the Church to both make up for the significant errors due to their own actions made in the 1988 dating and also to take advantage of the scientific and technological advances to learn more information about this enigmatic cloth, which continues to draw the interest of many scientists, researchers and Christians and non-Christians alike.

Part I will look at the years leading up to the dating. Part II will analyze the actual events of the day the sample was extracted. Part III will recount the aftermath, which continues to this day. The format will be a chronological listing, stating the information, the source used, and in some entries my comments, which may cross reference other sources and also fill in some additional information. I will periodically revise the article as information will need to be constantly adapted and added. It is my hope that you will find the article enlightening.

I would like to give special thanks to Cindy Sheltmire and Ed Prior for their many suggestions for on part 1. Any errors that remain are my responsibility. The author can be contacted at JMarino240@aol.com .

NOTE: This article was originally published on January 21st, 2016. It was updated on January 23rd 24th, 25th, 27th, 28th, 30th, 31st, February 1st, 2nd, 4th,

6th, 9th, 11th, 13th, 15th, 20th, 21st, 27th, March 5th, 6th, 19th, 20th, April 9th, 25th, 30th, May 15th, 21st, 30th, 31st, August 20th, September 5th and 9th. For the updated entries, I've added a separate line with the date for those who may have read the original version. Please also note that due to a website glitch on February 1st and 21st, I had to twice reconstruct the beginning of the article, which means there may be some resulting inadvertent errors.

Prefatory entry: The Shroud C-14 dating included, "deception, outright lies, low cunning, misrepresentation, and a pathological hunger for publicity as well as solid science and technology, faith that passeth all understanding, and, on Gove's part, tenacity and determination rarely encountered."

Source: Foreword by D. Allan Bromley in Gove, Harry. Relic, Icon or Hoax: Carbon Dating the Turin Shroud (Bristol: Institute of Physics Publishing: London), 1996, pg. x.

Comments: Notice that Bromley sets off the negative aspects completely from Gove. It should be noted that Bromley was a colleague of Gove's and apparently saw things through the latter's lenses. Bromley seemingly even gets sarcastic with his King James "passeth all understanding" remark, as if to say, "How can any thinking person believe the Shroud could be authentic after the results of the Shroud dating?" After reading the material found in Part I of this article, the readers can decide for themselves if Gove is blameless in the aforementioned negative aspects. Bromley also echoes Gove's assertion that STURP's findings were not significant and even claimed that the "group attempted to block the carbon dating of the shroud and, when that failed, attempted to move in and take credit for as much of the subsequent activity as possible." This is nonsense. STURP wanted to do a C-14 test but in conjunction with numerous other multi-disciplinary analyses. And given the sad state of events that ensued, why would STURP want to take any credit for them?

1947. The method of radiocarbon dating (C-14) was invented by chemist Willard F. Libby, who received the Nobel Prize for Chemistry in 1960 for his work. The method measures the activity of the radioisotope carbon-14 still present in the sample. By comparing this with a modern standard, an estimate of the calendar age of the artifact can be made.

Source: [General knowledge]

1955. Various scholars brought up the idea of doing a radiocarbon dating test on the Shroud. A Turinese Salesian priest, the late Luigi Fossati, commented, "We do not concur with this idea. The Shroud, as history records, has suffered too many vicissitudes, including exposure to fire and water. In these conditions, it might not offer the necessary elements for research by the scientists."

Source: Petrosillo, Orazio and Emanuela Marinelli. The Enigma of the Shroud: A Challenge to Science. San Gwann, Malta: Publishers Enterprises Group, 1996, pg. 19.

[Added May 29th, 2016]

1961 December. A British Shroud researcher inquired to P.J. Anderson of the Harwell C-14 laboratory about the possibility of having the Shroud dated by the C-14 method. Anderson said, "The history of the Shroud does not encourage one to put a great deal of reliance upon the validity of my carbon 14 dating. The whole principle of the method depends upon the specimen not undergoing any exchange of carbon between its own molecules and atmospheric dioxide, etc. The cellulose of the linen itself would be good from this point of view, but the effect of the fires and subsequent drenching with water . . . and the possibility of contamination during early times, would, I think, make the results doubtful. Any microbiological action upon the Shroud (fungi, moulds, etc., which might arise from damp conditions) might have important effects upon the carbon 14 content. This possibility could not be ruled out."

Source: Published in a communication by British Shroud Researcher Vera Barclay in *Sindon* (Journal of the Centro Internazionale di Sindonologia, Turin), December 1961, pg. 36, as cited in Wilson, Ian. The Shroud: The 2000-Year-Old Mystery Solved. Sydney: Bantam Press, 2010, pg. 92.

[Added May 31st, 2016]

1973 *November*. On November 22nd, the Shroud is exhibited before a limited gathering of journalists and specialists. The next day, the Shroud is shown on television all over Europe. On November 24th, a secret commission of experts examines the Shroud, and a small sample from one corner is extracted for study by Belgian textile expert, the late Prof. Gilbert Raes.

Source: Wilson, Ian. The Shroud: the 2000 Year Old Mystery Solved. (London: Bantam Press), 2010, pg. 308.

1977 *May*. Accelerator mass spectrometry (AMS) was invented at the University of Rochester by scientists from General Ionex Corporation, Lawrence Berkeley National Laboratory (Berkeley California), and University of Toronto. The leading figure in the group was the late Dr. Harry Gove of the University of Rochester. The first use of this method for C-14 dating took place at this facility.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 320.

1977 *June*. The University of Rochester issued a press release regarding this new dating procedure and articles were published in the *New York Times* and also *Time* magazine. After seeing the article in *Time*, Episcopal priest David Sox sent a letter on June 24th to the University to see if this method could be used to date the Shroud of Turin. In his letter, Sox informed Gove that the late Walter McCrone, a microscopist from Chicago, wanted to use the already-removed Raes sample from 1973 to carbon-date the Shroud.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), pg. 320.

Comments: Sox would eventually be significantly involved in the Shroud C-14 dating process and published a book that was already printed when the official results were announced on October 13th, 1988.

1977 *July*. On July 6th, Gove replied to Sox that could, but not immediately. Gove wrote, "By coincidence, on the same day I replied to Sox I got a call from Walter McCrone. We had never met and obviously he had no knowledge of the Sox letter. He told me, in a rather secretive manner (the shroud seems to bring out conspiratorial traits in people) that he had an important piece of cloth whose age he was eager to know. In particular he said he would like to know whether it was 2000 years old. Presumably he thought I couldn't guess to what cloth he was alluding. Had he called before we received Sox's letter I would, indeed, not have known. I had begun to suspect that Sox and McCrone were cooking up some scheme to obtain Raes' shroud samples. I told McCrone he should write to me and he did."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 18.

Comments: As we shall see, Gove himself was not immune from having conspiratorial traits. It will be also clear that he was pretty good himself at cooking up schemes to be involved with dating the Shroud. Schemes by various individuals were to be prevalent through the whole Shroud C-14 dating process. What did Gove think of McCrone? He wrote (pg. 19), "I sometimes think that McCrone dreamed of becoming history's greatest iconoclast. Having, in his view, demolished the authenticity of the Vinland Map he saw the chance to do the same to the Turin Shroud!" McCrone's initially-accepted verdict of "fake" regarding the Vinland Map was significantly challenged by other researchers. Those who are interested in further details should google "Vinland Map."

[Added September 5th, 2016]

1978 May. Gove wrote, "On 11 May 1978 I phoned the Reverend H David Sox at his home in London to find out what the latest interest was in carbon dating the shroud. He told me that the samples removed from the shroud in 1973 for examination by Professor Gilbert Raes had been in the hands of the Turin ecclesiastical authorities ever since Raes had mailed them back. He and McCrone had been working together to arrange for these samples to be made available for carbon dating."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 20.

[Added September 5th, 2016]

1978 May. McCrone, the microscopist who believed the Shroud had been produced by an artist, discussed at the end of May carbon dating the Shroud with Harry Gove, the inventor of the AMS method that was eventually used on the Shroud. According to Gove, McCrone "mentioned that the two pieces removed in 1973 came from the hem of the shroud and thus might be of more recent vintage."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 22.

Comments: Although McCrone later accepted outright the results of the 1988 testing because it supposedly proved his theory about an artist having produced the Shroud, it's interesting that he, and at a relatively early date, believed that the area from which the sample was actually taken might have contained repairs. McCrone was chastised by some for trying to deal directly with King Umberto of Italy, who owned the Shroud before bequeathing it to the Vatican upon his death in 1983, instead of going through the appropriate channels [for example, see Kenneth Stevenson and Gary Habermas' The Shroud and the Controversy, (Nashville: Thomas Nelson Publishers), 1990, pp. 46-47]. Gove discusses throughout his book many of the political and personal issues pertaining to McCrone's involvement in the Shroud. Gove himself was heavily involved in Shroud politics; he was lobbying, by his own admission in his book, to eliminate STURP, the team that tested the Shroud in 1978, from being involved in any new testing. One STURP member was quoted in a late 1970s Shroud article as saying about Gove, "His ego arrived about a half-hour before he did."

1978 June. On June 29th, Gove met David Sox for the first time. Sox was the General Secretary of the British Society for the Turin Shroud and was very keen to see a C-14 test performed on the Shroud. Gove wrote, "He can occasionally be mildly effeminate with a slightly shrill laugh. He has a tendency to be a name dropper in conversations. On the other hand he does know many important people and he knew a lot about the Turin Shroud and the people associated with it." Sox suggested to Gove that he should attend the Turin scientific congress planned for October 7th and 8th, 1978. It would

give Gove a chance to meet with Fr. Peter Rinaldi, a Turin-born Salesian priest stationed in the United States. Among those that Sox believed might have influence in who would participate in the C-14 dating, "Rinaldi was 'numero uno' and, in all modesty, he said that he was number two." Gove added, "As we were both to later learn, Luigi Gonella in his capacity as science advisor to the archbishop of Turin on matters of the shroud was 'numero uno' and all the other numbers as well!" In addition, Gove noted, "Walter McCrone would be there and wanted to play a major role in the dating operation."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 22-23.

Comments: It's hard not to come away with the impression that Gove is saying some very critical (and unnecessary) things about Sox but because of his contacts would be a very useful person to him. Gove, who would constantly be at odds with Gonella during the C-14 process, apparently had a strong dislike for Gove going back to the Turin congress. It also seems that Gove was concerned by the possible competition from McCrone. On page 21 of his book, Gove recounted a call he had received from McCrone, who "gratuitously donned the mantle of leadership in getting the shroud dated despite lacking expertise in the field of carbon dating."

[Added January 31, 2016]

1978 *July*. After an article on the Shroud is published in the popular journal *Science* and many negative letters-to-the-editor are written (for giving attention to a supposedly religious object), Gove recalled his own thoughts: "As a scientist, can one justify spending any of one's professional time on a religious artifact? My main justification was that dating the shroud captured the public imagination and it would be a tremendous boost for this new and publicly unknown technique. Other than this, it would be difficult to argue that dating the shroud served any scientific purpose."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 25.

Comments: Gove's logic about the Shroud dating not serving any scientific purpose apart from promoting the AMS method seems strange. Whether or not the Shroud is a "religious" object, it's an archaeological object that should be on equal footing and value as any other object that Gove's lab might have been asked to date. And Gove's emphasis on the promotion of AMS shows that Gove was not exactly immune to Bromley's observation of "pathological hunger for publicity."

[Added February 2nd, 2016]

1978 *October*. The Second International Congress on the Shroud was held in Turin. Both the University of Rochester and Brookhaven National Laboratory (Upton, New York) submitted papers describing how the Shroud could be carbon dated using minute samples with this new method. The Shroud was on public display in the Cathedral of St. John the Baptist from August 27th through October 8th and was followed by the congress on October 9-10th and then by 5 days of non-destructive tests by members of STURP as well as a few other scientists.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 320.

Comments: When discussing the STURP 1978 testing in his book (pp. 6-7), Gove related, "I believed STURP's members to be so convinced it was Christ's shroud that I was determined to prevent their involvement in its carbon dating, if that were ever to come about. I feared the most important measurement that could be made on the shroud would be rendered less credible by their participation. Fortunately in this I was successful." Gove here clearly indicates that he believed that C-14 was more important than the sum total of all other testing, which approaches the heights of arrogance. The STURP members came from some of the most prestigious U.S. institutions, including Los Alamos National Laboratory, Sandia Laboratory, Jet Propulsion Laboratory, Air Force Academy and others, most of which were and are involved in the U.S.' nuclear and space programs. It should also be pointed out that the STURP team included nominal Christians, Jews and agnostics.

On page 35, Gove wrote, ". . . the STURP team would work their 'non-destructive' space age scientific wonders on it for what turned out to be five days and nights." Their spokesman, press liaison man and chief of security, was Ken Stevenson. Stevenson was a rather abrasive black man, a graduate of the Air Force Academy, and, at that time, with International Business Machines ... Like Jackson and Jumper, he had an exaggerated view of the importance of this mission, the overwhelming need for security and secrecy, and of his own importance in STURP." Gove's use of quotation marks for "non-destructive" indicates he believed some tests were harmful. While Gove was critical of McCrone wanting to play a major role in the C-14 process despite lacking expertise, he apparently had no problem making scientific judgments about the expertise of scientists that could send men into space and make nuclear bombs. His phrase "space age scientific wonders" is clearly sarcastic. Regarding Stevenson, what does it add describing him as "black?" As far as Stevenson's "exaggerated view," Gove uses no qualifiers such as "my perception was . . ." and just states it as fact.

On page 38, Gove mentioned that the late Bishop John Robinson, in his paper at the congress, made a plea that the Shroud be radiocarbon dated using the new (AMS) method. There was a line of people waiting to make comments on Robinson's talk.

Well-known Shroud author Ian Wilson offered to make some remarks and to introduce Gove, who described it as "an offer I was pleased to accept--after all, Wilson was one of the stars of the Congress." When Wilson introduced him, Gove noticed considerable media activity. He gushed, "When I reached the podium it was as if I were some sort of

Hollywood celebrity ... When I later saw the CBC *Man Alive* programme I noted that my brief moment of glory was faithfully recorded for the pleasure of the viewing public--and I must confess, mine." Do you recall Bromley's phrase in the foreword, "a pathological hunger for publicity?" And there's more.

On page 39, Gove wrote, "During the break that followed, I was besieged with questions by the press. Their attention outrivalled what they had bestowed on Eric Jumper after his show and tell involving the cardboard cutout of the shroud image. I thought to myself that these spit and polish young Air Force officers with their vaunted space age technology were being outshone--and by a professor of physics old enough to be their father, who just happened to have superior technology at his command."

Notice that Gove used the demeaning phrase "show and tell" to describe Jumper's presentation. Gove does not clarify why his technology, only recently created, was superior to the technology that takes vehicles into space.

On page 41, Gove related that when he returned home to Rochester, he "was met by reporters from the three local TV stations and the two local newspapers." I was beginning to feel like a real celebrity--something that happens very infrequently to professors of physics."

On page 42, Gove stated that after another trip out of town, when he returned the mayor of Rochester was on the same plane. A local TV station started filming and interviewing Gove as the Mayor walked by. Gove noted that "he must have wondered who I was to be taking the spotlight from him. The reporter asked Gove when he would get Shroud samples to date. Gove remembered, "It was all very heady stuff. I began to think that maybe the best thing that could happen to me and my laboratory would be to continue getting all this free publicity without ever having to actually date the shroud."

[Comments added January 31, 2016]

1978 *October*. In a paper by Gove presented to the conference, he stated, "It would be preferable to obtain threads from several places throughout the material."

Source: Marinelli, Emanuela. "The Setting for the Radiocarbon Dating of the Shroud." Presented at 1st International Congress on the Holy Shroud in Spain - Valencia Centro Español de Sindonologia (CES), April 28-30, 2012, pg. 2, www.shroud.com/pdfs/marinelliv.pdf.

1979 *February*. The Rochester and Brookhaven groups sent a letter to archbishop of Turin offering to date the Shroud using only milligrams of cloth.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 320.

Comments: According to Gove (pg. 149), this offer was "sidetracked" and was resubmitted in August 1979.

[Comments added February 13th, 2016]

1979 *March*. STURP held a meeting in Santa Barbara, California to discuss their preliminary findings obtained from the October 1978 testing. Dr. Walter McCrone claimed the Shroud was a painting based on his studies. Gove gave a presentation and said he believed that the C-14 test was the only test worth doing at the present time. He asserted that it would settle once and for all whether the Shroud could have wrapped Jesus or was forged recently and therefore was a relic, icon or intentional hoax.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 53-54.

Comments: Considering that C-14 dating is not always accurate and has been known to even date objects into the future, Gove's belief that a non-1st century date would settle the question once and for all was not warranted and the fact that almost 30 years later the debate is as intense as ever bears that out.

[Added January 31st, 2016]

1979 *April*. Gove phoned the late Robert Dinegar of STURP and expressed concern that McCrone would be involved in the C-14 dating. Dinegar assured Gove that he would not. Dinegar was also told that the C-14 scientists wanted to be independent from STURP and that the Shroud sample should not be blind [i.e, identified as the Shroud when tested].

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 56.

Comments: It is not clear why Gove did not want the Shroud sample to be blind. The result would be more believable if it were blind.

[Added January 31st, 2016]

1979 *May*. Toward the end of the month, Sox called Gove and suggested that he should assure Dinegar that the C-14 scientists realized that STURP had spent an enormous amount of time and money on the Shroud and something could be arranged

to let them collaborate on the C-14 testing. Gove then stated, "I had very ambiguous feelings about STURP. On the one hand they were too convinced in their hearts that the shroud was Christ's burial cloth. On the other hand they had good connections in Turin and could be useful in obtaining a shroud sample for dating--if only they could be prevented from playing any other role."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 57.

Comments: Just as Gove did with Sox, Gove was only amenable to STURP mainly based on their usefulness to him in helping to arrange a C-14 test. Although Gove constantly expressed his opinion that STURP as a whole believed that the Shroud wrapped Jesus, Sox said in his book The Shroud Unmasked (Basingstroke, Hampshire: The Lamp Press, 1988, pg. 69), "Heller says that in his interviews only three STURP team members, John Jackson, Robert Bucklin, Barry [sic] Schwartz (one of the photographers), believe [sic] that it is probably the authentic burial cloth of Jesus of Nazareth; 'The rest of us have to say that we do not know.'"

[Added January 31st, 2016]

1979 *August*. The Rochester and Brookhaven proposal from February was resubmitted to the Vatican. Gove stated that STURP later backed this.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 149.

Comments: Gove wrote (pg. 149) that at a planning meeting in Turin in fall 1986, Gonella related that this proposal suggested using the 1973 Raes sample (given to the late Belgian textile expert Gilbert Raes for analysis) but Turin found out that the chain of evidence indicating the samples were genuine was broken. Raes later mailed the samples back to Turin. Gove further related that when they had offered in the late 1970s to date the Shroud, "we had no idea that such incredibly sloppy control had been exercised over the Raes samples by the archbishop of Turin--almost as if they had been cut from a dishrag."

[Added February 13th, 2016]

1982. At a conference held in Bradford, England, Dr. Robert Otlet of the C-14 lab in Harwell, England suggested that the British Museum provide textile samples to labs who were interested in dating the Shroud in order to gauge their accuracy. This became known as the "laboratory intercomparison test."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 321.

1983. Dr. Michael Tite of the research laboratory of the British Museum informed C-14 labs at University of Arizona, Bern/Zurich (Switzerland), University of Oxford (England) and University of Rochester (all of which use the new AMS method) and Brookhaven and Harwell (which use the older proportional-counter method) that he was willing to coordinate the intercomparison tests that Otlet had suggested.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 321.

1983. Each of the six labs received two 100 milligram samples. The labs were informed of the origin of the samples but not of their ages. One sample was Egyptian linen from B.C. 3,000 and the other was Peruvian cotton from A.D. 1,200. The Zurich lab, which used a new pretreatment, was off by 1,000 years on the Egyptian sample. In addition, all six labs dated the Peruvian cloth between A.D. 1400-1668. That sample was then replaced, without explanation, with another Peruvian cloth from A.D. 1,000-1,400.

Source: Marinelli, Emanuela. "The Setting for the Radiocarbon Dating of the Shroud." Presented at 1st International Congress on the Holy Shroud in Spain - Valencia Centro Español de Sindonologia (CES), April 28-30, 2012, pg. 3, www.shroud.com/pdfs/marinelliv.pdf.

1983. A French C-14 scientist, the late Dr. Jacques Evin, who would later be involved in supplying a controversial fourth control sample for the 1988 Shroud dating, wrote in an article "It is evident that the samples to be dated should contain carbon. However, the mere presence of this chemical is not sufficient to produce a valid result. After many years of C-14 dating it has been shown that numerous results are in error or are erroneously interpreted, often because of lack of knowledge about the value of the material selected for dating."

Source: Evin, J. "Materials of Terrestrial Origin Used for Radiocarbon Dating." *PACT* 8:235-276 (1983), on pg. 235.

Comments: Evin's comment makes the failure of having a chemical characterization of the three Shroud samples in 1988 inexcusable. A "control" sample is one of a known date that is also dated at the same time as the main object, in order to gauge the accuracy of the labs' results.

1983. Evin also told Bro. Bruno of the Catholic Counter-Reformation in the XXth Century in 1983, “Consult the scientific publications, independent of all journalism, propaganda and speculation, and you will note that there is still not a single list of results obtained from the accelerator method. Now, until that method has produced an impressive number of results on ordinary samples, taken under easy conditions and already dated by other methods, I consider, we consider, we professionals that it is not ready. Therefore, it must not be used to experiment on the Holy Shroud. That is elementary. When I am having trouble with my machines that is not the moment to carry out a crucial, difficult, spectacular experiment awaited by the world at large. I must first of all make my adjustments.”

Source: De Nantes, Georges (Abbe) and Brother Bruno Bonnet-Eymard . “The Scientific Rehabilitation of the Holy Shroud of Turin: Part Four—the Carbon Affair,” May 1989, no. 219, pg. 11.

Comments: Keep in mind that the accelerator (AMS) method had only been invented in 1979. Notice that Evin considered the accelerator method only as a confirmatory test, i.e., support for objects whose date was already known. C-14 dates are never accepted in isolation but always in the context of other data. In the case of the Shroud, however, all the data collected by STURP and others was discarded and the C-14 results from a method only eleven years old were pontificated as the sole arbiter of the cloth’s date. It should also be said that by 1988, Evin did believe that the test would be reliable (<http://www.shroud.com/pdfs/ssi27part3.pdf>). It is frustrating for people all around the world interested in the Shroud that the Vatican apparently rushed into the C-14 dating and after numerous problems with procedures were revealed, have not moved in almost thirty years to try to rectify the situation.

[Added August 20th, 2016]

1984. STURP sent a proposal of 26 tests, which included C-14 dating, to the Vatican, who forwarded it to the Pontifical Academy of Sciences, the body that advises the Pope on scientific matters, and to the Congregation for the Doctrine of the Faith. The late Prof. Luigi Gonella, scientific advisor to the Cardinal of Turin, wrote “For reasons that [the late] Cardinal Ballestrero and I were never able to understand, a deployment formed aiming at excluding any research that was not the radiocarbon dating.”

Source: Marinelli, Emanuela. “The Setting for the Radiocarbon Dating of the Shroud.” Presented at 1st International Congress on the Holy Shroud in Spain - Valencia Centro Español de Sindonología (CES), April 28-30, 2012, pg. 5, www.shroud.com/pdfs/marinelliv.pdf.

1984. According to two German authors, "A total of twenty-six researchers [sic] was proposed, to obtain definite answers to eighty-five crucial lines of inquiry. Besides the C-14 dating a diverse range of physical, chemical, optical and other valuable experiments was offered. The race to the best start positions for a new analysis of the linen began. Everyone wanted to take part. Many different interests were involved.

There were some who wanted nothing to do with a radiocarbon dating test: hardened sceptics pointed out that some 20 per cent of the entire material consisted of biologically foreign matter, which could influence the sensitive dating result considerably. The STURP researchers intended the dating to be just one part of their comprehensive, interdisciplinary analysis. Yet other researchers wanted just the C-14 test, and this at any price.

The tug-of-war began. Sox [David Sox, an American Anglican priest, the author of several Shroud books who had been involved in helping persuade the Vatican to agree to radiocarbon dating the Shroud] calumnised the STURP researchers as 'militarily organized religious fanatics'. In fact they were respectable scientists of the most diverse convictions, even numbering some agnostics. But it was no longer a case of fair treatment or balanced argument. Here motives were at play which were not always transparent, and all too often revealed their less noble origins. At the Trondheim congress Gove spoke the lines fed to him by Sox, proposing that the STURP group be entirely excluded. The six laboratories agreed. Perhaps the STURP people seemed suspect to them. After all, they had already laid out a whole range of results that spoke for the authenticity of the cloth. Could preconceived judgements [sic] have been at play in this phase of the decision-making, which found a cloth in which Jesus lay unacceptable for science? It is difficult to understand. The STURP researchers carried out their investigations in a perfectly neutral manner and based their judgements [sic] on the facts. Science itself does not doubt the historicity of Jesus. So there should be no need for mental dislocation before being able to accept an object that was connected with him. After all, it was not a question of some paranormal object, things occult or even a miracle, with which science as we know currently has its problems. On closer inspection the decision of the radiocarbon lobby against the collaboration of STURP seems to be based on professional vanity."

1984. Garman Harbottle from the Brookhaven lab described the decisions made at the 1982 laboratory intercomparison test in Bradford England: "At that time there was considerable pressure to proceed with a dating proposal through STURP involving Rochester, Brookhaven, and Harwell- there were *political* [my emphasis] consideration both within and outside the Church that suggested it might 'now or never'. The Tucson machine was, I believe, not yet routinely operating. The Oxford machine was bogged down in a seemingly-endless series of technical failures. (A year later, at the Naples Conference in the spring of 1983, it was still not operating. Despite all this, I proposed that in order to include as many laboratories as possible in order to do the scientifically best, and, to laymen most convincing job of dating the Shroud, the actual dating exercise should be postponed until Tucson (Dr. Long) and Oxford (Dr. Hall) got their machine on line (Harbottle, personal communication)"

Source: Laverdiere, H. "The Socio-Politic of a Relic: Carbon Dating of the Turin Shroud," 1989, pg. 65. Accessible via free download at <http://ethos.bl.uk/OrderDetails.do?did=1&uin=uk.bl.ethos.531916>

Comments: So at the time of the C-14 dating in 1988, both Oxford and Arizona had only six years earlier had either been routinely running or were having numerous problems. One C-14 lab head also didn't think Zurich should be picked because they had a significant dating error during the 1982 pre-test (see appendix in part 2 of this article). Harbottle also said (pg. 70) "We felt at the time of the Brookhaven/Rochester/STURP proposal . . . that result obtained by one laboratory or one methodology would be sure to be challenged" [emphasis in original].

[Added May 21st, 2016]

1984 *January*. On January 4th Edward Hall, head of the Oxford lab, wrote a multi-page letter to Prof. Porter, an academic of the Pontifical Academy of Sciences to encourage the Vatican to allow C-14 testing. A copy of the letter was sent to the Academy president, the late Prof. Carlos Chagas and also to the Vatican. But the Vatican copy only contained the first page, which criticized STURP, but without saying why. Chagas wrote Cardinal Ballestrero that everything was going fine but then wrote the Vatican saying there were problems with Ballestrero.

Source: *The Night of the Shroud (La Notte de la Sindone)*, documentary directed by Francesca Saracino, 2011. In 2016, it was revised and retitled "Cold Case: The Shroud of Turin," which is available at amazon.com. I have a review copy of the original version, which has an English voiceover. The revised version has English subtitles. (The material cited here can be found between approximately the 15 minute and 35 minute range on the original version review DVD).

1985. Archaeologist William Meacham, who would take part in the Turin planning meeting in Turin in 1986, wrote, "... Gove through his side kick Vittorio Canuto (a scientist working for NASA) had begun courting the president of the Pontifical Academy of Sciences, a Brazilian biochemist named Carlos Chagas . (I would later meet Chagas at the Turin C-14 conference; he was a genteel and distinguished man in his seventies.) The purpose of this courtship was to bring the Academy into the issue, as a counterfoil to the complete control theretofore wielded by Gonella on behalf of Cardinal Ballestrero, so that ultimately the C-14 dating could be done free and clear of STURP. From Gove's slanted and self-idolizing book, it is also clear that he developed other more sinister plots and objectives, which he pursued with the tenacity of a bulldog in a china shop. Whilst remaining part of STURP's C-14 team he worked to undermine and replace it with his own plan. Later, he began to press for all other STURP testing to be blocked while the dating went ahead.

The fact that Gove's side-kick had a close relationship with Chagas proved most useful in advancing these goals, as did Gove's knack for ringing advantage out of every situation. For example, at the conclusion of the Trondheim session, when 'it was suggested' that Gove draft the protocol, it was also agreed that the protocol, after being reviewed by the six laboratories to be involved, 'would be presented to the authorities in Turin or the Vatican.' When Gove sent round his draft for comment by the six laboratories, he indicated that he would send it to the Pontifical Academy of Sciences. Later, Gove relates that Chagas 'seemed to be particularly pleased that the Trondheim Group had emphasized [sic!] the importance of the involvement of the Pontifical Academy.' [Author note: the "[sic!]" is Meacham's.] This was a far stretch from one actually happened at Trondheim, but Chagas fell for it.

It is not easy to understand why Gove became so obsessed with dating the Shroud. From the account in his book it is clear that he made hundreds of phone calls, many to Brazil or Rome, sent hundreds of letters, faxes and cables, and spent thousands of hours plotting strategy with his sidekick. He made frantic efforts to contact ambassadors, senators, highly placed cardinals, and anyone else who he thought might be of use. The simplest explanation, that there was funding to be had, does not seem to fit, and Gove specifically rejects that as a motivation – not, of course, that his rejection of it would mean very much! He would say that, wouldn't he? But it does seem rather that it was all about glory, no matter which way the dating went. It was literally a win-win game for the C-14 folk: if the Shroud date came out 1st century, they were the ones who revealed that this to the world; if it turned out to be medieval, they were the ones who proved it could not be Christ's.

For Gove, there may have also been two other factors: the AMS was his baby (or so he ardently believed anyway); and after he began to lock horns with Gonella it became personal. Gove's published comments on Gonella, and some directed at me also, are defamatory; he quotes his sidekick as remarking: 'How is the Pope to know that Gonella is a second-rate scientist and that the rest of us are super scientists?'

According to Gove, Gonella was 'unprofessional,' 'an obscure polytechnic lecturer nobody had heard of,' 'a troublemaker of the first order,' 'malicious,' 'small minded etc. ad nauseam. All through the book Gove spares no effort to portray Gonella in the worst possible light. Ironically, in almost all of the issues described with such scorn by Gove, Gonella was right and Gove was dead wrong. But on the one that mattered the most, the one that would lead to a flawed dating of the Shroud, Gove essentially ignored it and Gonella made a huge error.

The intense media interest in the subject must also have attracted Gove and some of the other C-14 daters. Teddy Hall of Oxford supposedly offered the BBC exclusive coverage of his dating of the Shroud sample, for a hefty fee. After the results were announced Hall obtained a very handsome endowment for his lab from a group of businessmen. Garman Harbottle of Brookhaven may have also coveted the attention and glory. In one of his letters to Dinegar, Harbottle pointed out (as cited by Gove) that 'STURP had done all the experiments, written all the scientific articles, been on all the talk shows and starred in all the films on the Turin shroud.' Sounds as though he wanted in on the action! Gove professed a disdain for the press, but then seemed to relish each interview or reporter's query. He stated that all the media attention was

'heady stuff.' Overall, one gets the impression that Gove considered the Shroud dating enterprise to be his, and anyone who got in the way should be crushed. Unlike the others, for him it probably was not about the money, and maybe in the final analysis it was not even about the public attention or the glory, but rather his absolute fixation on and monolithic drive towards his objective, positively reeking of arrogance and dogmatism, bulldozing everything and everyone aside. In a military man or politician, this might be an admirable quality. In a scientist, it was pathetic. And he has the audacity to denigrate, over and over again, those he suspected of being 'true believers. He said that he had dealt with STURP for 10 years and 'regard them as a pack of religious zealots.' This of course is totally absurd, and merely serves to indicate how blinkered Gove's perception of reality was..."

Source: Meacham, William. The Rape of the Turin Shroud: How Christianity's most precious relic was wrongly condemned and violated (Lulu.com), 2005, pp. 64-66.

1985. Italian researcher Franco Faia, who was able to get access to Gonella's correspondence files after his death, said in an interview "Gove was supported by Canuto and had Chagas in his pocket. He had him in his pocket. At one point Gonella said, 'He seems to be dominated by Gove.' It was hard to understand. And he was the president of the Pontifical Academy of Sciences with all those Nobel Prize winners."

Source: *The Night of the Shroud (La Notte de la Sindone)*, documentary directed by Francesca Saracino, 2011. In 2016, it was revised and retitled "Cold Case: The Shroud of Turin," which is available at amazon.com. I have a review copy of the original version, which has an English voiceover. The revised version has English subtitles. (The material cited here can be found between approximately the 15 minute and 35 minute range on the original version review DVD).

Comments: One has to wonder if Gove's apparent influence over Chagas was a factor in his aforementioned schizophrenic attitude toward Cardinal Ballestrero. The phrase "in his pocket" has a connotation of the money that a person has, gets or spends.

1985 *May*. Meacham sent a document dated May 10th, 1985 directly to Turin's archbishop. Among other things, he said, "Radiocarbon (C-14) dating is without doubt the most important scientific test to which the Shroud of Turin will ever be subjected. The eventual C-14 date will have an enormous impact on the general public view of the Shroud's authenticity. In many respects it will represent the culmination of the scientific investigation into Christianity's holiest relic. The Shroud is, on the other hand, less than an ideal material for C-14, with many possibilities of contamination over the centuries. For these reasons, then, a very careful and specially devised set of procedures should be adopted in the collection and pre-treatment of samples, in the selection of C-14 technology, to be employed, and in the interpretation of laboratory results.

The proposal here submitted is not a technical plan for C-14 dating. Rather, it is an organizational scheme designed to achieve the highest possible reliability of C-14 measurement of the Shroud. It is imperative that this crucial test be conducted with all the rigorous controls and stringent procedures that science can bring to bear on the problem, in order to achieve in the end a broad academic consensus on the validity of the results. The inclusion of all relevant expertise in the planning and conducting of C-14 testing is highly important and should not be left to the fortuitous circumstances of personal contacts or technical preferences -- it should be mandated by the authorities responsible for Shroud.

It is my firm belief that C-14 dating of the Shroud would best be carried out under the supervision of a body of internationally prominent scholars, which I shall call the Shroud Dating Panel, appointed by the ecclesiastical authorities with a view to insure that expertise from all relevant fields of science are included. It would be the duty of this Panel to study all aspects of the procedures, to make consensus decisions, to collect and submit samples for the C-14 tests, to examine all aspects of possible contamination or other distortion of the laboratory measurement, and to interpret the results.

Of greatest importance in planning the C-14 dating of the Shroud is the inclusion of experts from all relevant fields. Clearly, the Panel should be composed of eminent radiocarbon scientists, archaeologists and art historians; it could include representatives of the bona-fide research groups which have submitted C-14 proposals for the Shroud, as well as scholars not affiliated with those groups. It would be chosen without regard to personality, nationality or other rivalries which have plagued self-appointed Shroud research groups until now. It could I believe be one of the most prestigious groups ever organized for the purpose of a single scientific test, and it would certainly give a scientific imprimatur to the eventual results and the significance attached to them.

Once appointed, the Panel would plan and implement a C-14 dating program, subject to the obvious limitation of disfigurement of the relic. The terms of reference for the Panel would include determining the minimum amounts of material required, and reaching agreement with the ecclesiastical authorities concerning the site or sites on the relic to be sampled. Certainly such a program would require at least 1-2 years and several meetings of the Panel, before results could be made known to the public. But for reasons which I hope to make clear below, such a course of action seems much the more preferable to simply selecting one or more of the C-14 proposals from various groups which have submitted applications. At the very least, the Panel could serve to review and modify these proposals as necessary. The principal reasons for the establishment of a supervisory Panel are, therefore 1. the enormous and universal importance that will be attached to the results of C-14 dating; 2. the complexity of technical issues surrounding the dating of Shroud samples; 3. the need for all relevant expertise to be consulted on these issues, both in designing the testing procedure and in interpreting the results to the general public.

The problems involved in C-14 dating the Shroud are considerable, in spite of some claims to the contrary. According to Dinegar for example, STURP made a detailed study in 1978-82 of the possible dating of the Shroud, and concluded that "sample preparation procedures can insure no error in date due to foreign contamination accreted over the centuries." This is absolutely not true; even the most sophisticated pre-treatment

methods cannot prove that lignins or hydrocarbons are not trapped in the structure of the cellulose, that occluded carbonates are not interfering with the level of C-14 activity, that ion exchange with older or younger materials has not taken place, etc. It is a very serious error to proceed with C-14 dating on the assumption that it is an infallible method”

In conclusion, I would urge the Church to take all steps to guarantee that this most important of tests is conducted according to the most rigorous scholarly procedure that can be devised. The appointment of a Panel as suggested in this paper would represent an effort to exclude, as far as is humanly possible, the effects of personality conflicts or cliques, national rivalries, and simple human error from the pursuit of the truth of the Holy Shroud.

Source: Meacham, William. “A Proposal to Cardinal Ballestrero, Archbishop of Turin, for the Planning and Implementation of Radiocarbon Dating of the Holy Shroud.”

Comments: Sadly, Meacham’s advice was ignored and the labs carried forth with the idea that the C-14 method (at least for the Shroud!) was infallible and the very things he detailed in his conclusion that would prevent the truth occurred.

[Added August 20th, 2016]

1985 *June*. In Trondheim, Norway, the 12th International Radiocarbon Conference is held. The British Museum presented the laboratory intercomparison test results. Gove organized a meeting of representatives of the British Museum, the six labs and one representative from STURP. It was suggested that the Pontifical Academy of Sciences be contacted and that Gove produce a C-14 dating protocol for the Shroud.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 321.

1985 *June*. According to Gove, Dinegar stated that he was representing STURP, which he said had been responsible for the intercomparison test and which would arrange the Shroud C-14 test and the announcement of the results. Gove asserted that STURP played no role in the intercomparison test and "had no credentials for playing any role at all in the carbon dating--if it ever took place." The next day, according to Gove, Dinegar made "an impassioned plea that STURP had to be intimately involved with this carbon dating enterprise. As chairman of the meeting, I found his discourse intensely annoying, especially in light of the offensive remarks he had made the previous day, but I didn't know how to silence him."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 81-83.

Comments: Once again, Gove exhibited his distaste for STURP. Dinegar's take on the situation can be found several entries below.

[Added January 31st, 2016]

1985 *June*. The German authors Holsten and Gruber write "While at Trondheim the representatives of the six laboratories drafted a protocol, which was accepted by all:

1. The British Museum would assume the coordinating role in the investigation, and act as 'guarantor' for a correct performance.
2. STURP members could cut the specimens from the cloth, so that they would not feel completely excluded.
3. The British Museum would provide two control specimens from cloths of known age. All three specimens, including those of the Shroud, were to be unravelled, so that they could no longer be identified.
4. The British Museum would receive a written assurance from the laboratories that they would inform no one of the results except those authorized by the Museum.
5. The laboratories could use the methods they considered best for preparing the samples, but were to keep a precise record of all the details.
6. The results were to be communicated to the Holy See before publication.

Dinegar of STURP, who was present in Trondheim, insisted that the radiocarbon dating should only be done after the analysis of the fibre components proposed by the STURP researchers Heller and Adler. The C-14 specialists threw out his suggestion, claiming that any further examination would be absurd as long as the age of the cloth was not settled. Obviously the STURP people were to be portrayed as fantasizers and undermined. Sox was even angry that they were allowed to be present at the sampling, while Gove declared in a polemical speech that he would abandon everything if STURP had any role other than the one allotted. At least now it was clear where the lines were drawn. Nothing remained of the team spirit for which scientists are often praised, nor of their dedication to the pursuit of knowledge, or the search for a variety of techniques to do justice to a complex problem. At Trondheim the declaration of war was on the table.

The next stage was the involvement of the Pontifical Academy of Sciences. It is not clear who approached the scientific experts of the Vatican, but their involvement is only logical when one considers that after Umberto's death in 1983 the relic passed into the hands of the Vatican. What is strange is the unconvincing role that their president, Prof Carlos Chagas, was to play. The Vatican agreed to a conference between the Academy and the scientists who were interested in the dating test. Chagas was to organize it. Strangely enough he delegated this task not to a member of the Academy, but to Vittorio Canuto, an astrophysicist at the NASA Institute for Space Studies in New York, who was his private adviser. Together they decided against the STURP proposals and in favour of the Trondheim protocol.

At this point one has to ask what possible motives could have lain behind this.

STURP members had already presented a lot of excellent research, their dedication and their thorough command of the subject matter were known. Their own proposals included a C-14 dating test as part of a more comprehensive project, and this would

certainly have increased the significance of the individual experiment. As far as the Turin cloth was concerned, Gove and the radiocarbon specialists were considered to be complete amateurs. Most of them did not even know the general facts about its history and the research already done. The 'test run' under the watchful eye of the British Museum had turned out to be a disastrous farce, leading one to expect any number of problems, and the behaviour of the researchers themselves had so far been marked by pride and conceit."

Source: Kersten, Holger and Gruber, Elmar R. The Jesus Conspiracy: The Turin Shroud And The Truth About The Resurrection (Rockport, MA: Element), 1994, pp. 40-42.

1985 *June*. Dr. Robert Dinegar, who was STURP's key person regarding a C-14 proposal, took notes at the meeting (copy of which sent to author) and made the following observations.

1985 *June 23rd*. Dinegar told Rainer Berger of UCLA that the real problem with dating the Shroud was not in doing the experiments but in the "politics" of obtaining samples. He added that STURP could handle getting the samples and that the labs would do an excellent job in determining the date. There was a discussion about an incorrect date that one of the labs had gotten in the 1983 intercomparison test held by the British museum in 1983. Hans Oeschger of the University of Bern came forth and said he didn't mind identifying his lab as the one who had gotten this particular date at the time. He revealed they didn't know why it happened as they had gotten good dates before. It apparently caused the lab a lot of embarrassment.

1985 *June 24th*. Various topics were brought up. Robert Otlet of Harwell (England) said that the participants should act like a team, not individuals seeking the spotlight. All others agreed but wanted to be able to do it "their way." Otlet was worried about the premature leaking of the results. Others were bothered by the perceived distrust from the Church authorities. Otlet emphasize that how much Harwell profited by the association with the Shroud project. The matter was then quickly dropped.

1985 *June 25th*. Gove then asserted that there was no further place for STURP; the labs were capable of doing the job independently. Gove stated that the British museum had the international reputation to parcel out the samples and collect the data; but STURP had no standing as a reputable scientific body. Dinegar agreed with Gove's points about the reputation of the British museum and the labs but took offense at his characterization of STURP.

An argument ensued about a conflict of interest for the British Museum, since Edward Hall of the Oxford lab was a trustee. The Zurich lab expressed significant concern about this. Dinegar noted that Zurich had showed a general lack of knowledge about the Shroud. Gove did not hide his annoyance that Dinegar been given the opportunity to speak up and he even started to walk out before Dinegar convinced him to return to his seat. Gove turned the discussion to the procurement of the samples, which body would pass on the recommendation and what Church body would actually give the approval. Gove stated that he was tired of dealing with clerics, Gonella and STURP. He said he would the deal directly with friends on the board of the Pontifical Academy of Sciences. He then went into a tirade about how he had been ignored by the Church and Gonella in 1978. He claimed the letters that he wrote were never delivered to the appropriate persons and that he had refused to work with STURP in 1979. Dinegar told Gove that the latter had been treated badly in 1978 but that not joining STURP was Gove's own decision. At a STURP meeting in Santa Barbara in 1979 Gove said he was going to act without any STURP involvement and get material for the C-14 labs.

After the meeting, Otlet gave Dinegar a ride and said that he didn't want to appear to be taking sides and so would not say anything more about the situation at the meeting.

Otlet invited Dinegar to come to England to discuss things further, but Dinegar told him he saw no point in going all that way to discuss Gove's obvious disdain for STURP or any of the other volatile issues that had been raised. Dinegar wrote that it was obvious that 1) Gove had come to Trondheim determined to get other C-14 labs to follow his lead; 2) Gove's stance was that STURP was not qualified to be involved in the C-14 testing; 3) although Dinegar didn't experience any direct hostility from the other participants, no one was pro-STURP enough to show support. Dinegar then resolved that Gove would never be involved in any STURP effort.

1985 *June 26th*. At breakfast in the hotel Dinegar are crossed paths of with Gove.

Gove invited Dinegar to sit with him. Gove said to Dinegar, "I guess you're peeved with me." Dinegar replied that "peeved" was not the word. Gove chuckled and said, "Worse than that, eh?" Dinegar made no comment. Gove then told Dinegar that he had misunderstood Gove, who now told Dinegar that there was a place for STURP in the testing. Gove next complimented STURP on the work they had done. Dinegar practically fell out of his chair. When Gove left the table for some coffee, Dinegar remarked to a companion of Gove that based on Gove's words of the 25th, any reasonable person would have concluded that STURP was being excluded. The companion nodded, smiling weakly.

When Gove returned he brought up the point about the British Museum coordinating the samples extraction and the collating of the data. Dinegar replied that the British Museum was qualified, but not exclusively so. Gove then asserted that Dinegar had recommended the British Museum for the Shroud dating. Dinegar pulled out a copy of the proposal sent to Gove on February 14th, 1984 and told Gove to read it again.

Dinegar pointed out that the British Museum would do it for the intercomparison tests, not the Shroud tests. Gove looked at it, admitted that the document in hand was the one he had received and confirmed what Dinegar had just said. Gove told Dinegar that

his remarks on the 25th about STURP had been an effort to “take a stand” within the C-14 coalition, which Dinegar interpreted to mean that Gove wanted to appear hardnosed and in charge. Gove also said that many in the Shroud community were worried about some religious statements made on the Shroud by some members of STURP. Gove then reminded Dinegar that it would take considerable funding to be involved in the Shroud dating (mostly travel) and inquired as to the state of STURP’s finances. Dinegar responded that STURP would be cooperative with the C-14 labs, that STURP had tried its best to separate religion from science in their analyses and that they believed they could raise the funds needed to participate. Dinegar ended his diary notes with “he who has the threads calls the shots.”

Source: Dr. Robert Dinegar’s handwritten notes, which were sent to the author. There is also a copy of the notes in the Holy Shroud Guild archives per Giorgio Bracaglia, who oversees the Guild’s web site.

Comments: Dinegar’s mini-diary shows how prevalent politics were in the planning for the Shroud C-14 test. The diary brings out many different significant points. The remarks by Oeschger indicate that C-14 datings can sometimes be wrong even when the reason is not fully indicated. Gove claimed that STURP had no international reputation. This belies the fact that the STURP members came from some of the most prestigious U.S. institutions, including Los Alamos National Laboratory, Sandia Laboratory, Jet Propulsion Laboratory, Air Force Academy and others, most of which were and are involved in the U.S.’ nuclear and space programs. It should also be pointed out that the STURP team included nominal Christians, Jews and agnostics.

There had been some concern about the British Museum being the overseer of the testing, since the head of the Oxford lab, Edward Hall, was a trustee. That concern was borne out when after the test Hall retired, and the Oxford lab was given a million-pound donation for a new chair, which was filled by none other than Michael Tite of the British Museum, who had been the overseer of the Shroud dating. Ironically, the donation was made on the Good Friday following the dating (“Turin Shroud Professor raises 1 million [pounds] for Oxford Post” in *Daily Telegraph*, March 25th, 1989).

Gove clearly had not forgotten what he considered to have been slights from the Church in the 1978 time period. It’s amazing, though, that Gove could openly make anti-STURP statements in a group meeting one day and then shortly thereafter tell Dinegar that he (Gove) was misunderstood and that there was a place for STURP in the testing. I cannot fathom how Gove could have said his original statements were simply misunderstood when the first statement clearly contradicted the second statement.

Gove seemed to be the consummate politician: saying whatever was the most opportune for him, regardless of the fact of blatant and conflicting statements.

1985. After the meeting in Trondheim, “Gove told Canuto that if STURP had any role beyond arranging for the sample removal he would pull his lab out of the whole enterprise.”

Source: Sox, David. The Shroud Unmasked (Basingstroke, Hampshire: The Lamp Press), 1988, pg. 98.

1985 *July*. On July 8th, after STURP submitted their test proposal, Chagas again had Canuto review it. Chagas reported as his own Canuto's report, which criticized STURP's proposal to a C-14 in conjunction with 25 other tests, which included analysis for conservation methods and also for identifying pollutants on the cloth.

Source: *The Night of the Shroud (La Notte de la Sindone)*, documentary directed by Francesca Saracino, 2011. In 2016, it was revised and retitled "Cold Case: The Shroud of Turin," which is available at amazon.com. I have a review copy of the original version, which has an English voiceover. The revised version has English subtitles. (The material cited here can be found between approximately the 15 minute and 35 minute range on the original version review DVD).

1985 *July*. On July 13th, Cardinal Joseph Ratzinger, later Pope Benedict XVI, approved STURP's proposal for the 26 tests.

Source: *The Night of the Shroud (La Notte de la Sindone)*, documentary directed by Francesca Saracino, 2011. In 2016, it was revised and retitled "Cold Case: The Shroud of Turin," which is available at amazon.com. I have a review copy of the original version, which has an English voiceover. The revised version has English subtitles. (The material cited here can be found between approximately the 15 minute and 35 minute range on the original version review DVD).

1985 *July*. On July 22nd, just eight days after Cardinal Ratzinger approved STURP's plan for 26 tests, Gove met in New York with Canuto and Monsignor Celli, Vatican ambassador to the United Nations. Canuto then informed Church officials that the tests STURP proposes were "dangerous."

Source: *The Night of the Shroud (La Notte de la Sindone)*, documentary directed by Francesca Saracino, 2011. In 2016, it was revised and retitled "Cold Case: The Shroud of Turin," which is available at amazon.com. I have a review copy of the original version, which has an English voiceover. The revised version has English subtitles. (The material cited here can be found between approximately the 15 minute and 35 minute range on the original version review DVD).

Comments: It is known from the Gonella correspondence file that Cardinal Ratzinger had approved STURP to have two full weeks to do the 26 tests. The question is, what individual or group was powerful enough to eventually override Cardinal Ratzinger's approval?? If STURP had been given two full weeks with the cloth, there's no telling

how many significant revelations would have resulted. Had STURP been allowed to perform their 26 tests, we undoubtedly would not be having the controversy we currently have.

1985 *August*. After several drafts, the final version of the protocol was submitted to the six C-14 labs, the British Museum and to the President of the Pontifical Academy of Sciences.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 321.

Comments: Note that although in June, Gove invited a representative from STURP to a meeting, STURP is not mentioned as having been sent the final version of the protocol.

1985 *October*. Gove and Shirley Brignall of the University of Rochester met in New York City with Dr. Carlos Chagas, president of the Pontifical Academy of Sciences, and Dr. Vittori (Victor) Canuto, a NASA astrophysicist and scientific aide to Chagas to discuss the possibility of holding for all interested groups a workshop on dating the Shroud.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 321.

1985 *November*. On November 12th, Canuto informed Gove that Chagas had received permission from the Vatican and Turin archdiocese to hold the workshop, which was scheduled for June 9-11th, 1986. Gove then wrote Dinegar that STURP's "good offices" were no longer needed as the Pontifical Academy of Sciences would take over.

Source: Sox, David. The Shroud Unmasked (Basingstroke, Hampshire: The Lamp Press), 1988, pg. 98.

1985 *November and December*. Chagas informed Gove that he should contact the US participants and also discuss arrangements for possible financing from the National Science Foundation (NSF) for one representative of each lab for travel expenses. On November 26th, Gove communicated by letter to all the labs regarding the recent events. On the copy of the letter to Dinegar, Gove noted that he might have trouble getting funding for Dinegar and asked if Dinegar would be able to find another source. Gove then stated, "This was distinctly tongue in cheek because I had no intention of asking the NSF to include him in the grant . . . By this time, I was finding Dinegar's actions on behalf of STURP intensely annoying. I felt, naively as it turned out, that I

now had a golden opportunity to eliminate STURP once and for all. On 6 December 1985 I wrote to Dinegar saying that I had been trying to rationalize a role that STURP might now play in the carbon dating the shroud. I noted that my initial patent reluctance to have STURP further involved in any way had been somewhat modified. I realized that STURP had an obvious interest in the shroud because of the years of effort put into its investigation. Their contacts in Turin might be important in obtaining samples. Now, however, the need for STURP's good offices no longer existed."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 86-88.

Comments: Gove's recounting of the issue of NSF funding for Dinegar suggests that he could very well have believed Gove's offer was serious. Gove says the offer was "tongue in cheek" but since it was in a letter, Dinegar might not have been able to sense Gove's real intention. Also see below in the second "May 1986" entry Gove's interaction with Dinegar regarding the postponement of the Turin workshop.

[Added February 1st, 2016]

1985 and 1986. Archaeologist William Meacham wrote, "During 1985 and early 1986 I had a lengthy correspondence with Gonella over the possible pitfalls of C-14 dating, amplifying on his concerns in my earlier paper on the subject." . . . "In this correspondence with Gonella, I continued to hammer the issue of sampling strategy and possible contamination. I pointed out that 'the edges are anomalous in my view because they were much more subject to handling, in more intimate contact with wooden boards when the Shroud was mounted, and may have been treated to prevent or repair unraveling. But I thought a sample from the edge could still be used, as long as it was not the only one: The sampling strategy that I would hope for would aim at four distinct areas -the charred cloth, the adjacent uncharred cloth, an edge sample (the size of Raes' [textile expert who was given threads in 1973 for examination], for CO2 proportional counting), and a thread sample (the size of Baima's, for AMS) [Baima Bollone of the Centro Internazionale Di Sindonologia in Turin]. In comparing to these other samples previously removed, I hoped to soften his opposition to 'punching holes all over the cloth' as he put it once. But I sensed that the correspondence was not actually sinking in. In one of his replies he asked me what part of the Shroud I thought would not be affected by the forms of contamination I had enumerated; in another he stated that such concerns needed to be quantified, otherwise they would be merely speculative. He failed to understand that these concerns are normally dealt with by archaeologists and geologists after rogue dates have occurred. What was needed for the Shroud was an approach that minimized the likelihood of getting an aberrant date. He wondered 'why should the Shroud be considered any more likely to be contaminated than any other sample routinely dated by C-14?' I responded that the principal and very important difference is that the Shroud is unprovenanced, has been in so many different handling situations, in contact with so many diverse substances,

subject to such extremes in temperature and humidity, unlike an object that has been buried in a stable matrix for several thousand years. And of course; another huge difference was that, unlike ordinary samples from an excavation, with the Shroud it would be very difficult to go back and collect more samples to study the problem once it had arisen. Ultimately, these same questions were discussed at the Turin meeting, and not entirely satisfactorily resolved. The pity is that Gonella involved himself so deeply in this matter and took charge at the final stage, committing a huge error in the choice of sampling site and the number of samples. At the higher level of responsibility is [Cardinal] Ballestrero, who delegated too much power to Gonella and failed to see the dangers in this."

Source: Meacham, William. The Rape of the Turin Shroud: How Christianity's most precious relic was wrongly condemned and violated (Lulu.com), 2005, pp. 68-69.

Comments: In retrospect, the decision to carbon date samples from only one region of the Shroud---a region so subject to handling and stress that it was an obvious candidate for earlier undocumented reweave/repairs---was a serious mistake.

1986. Meacham wrote, "The point that I hoped to drive home is that there are many things that can go wrong with C-14 dating; for some the cause is unknown, while the others are grouped under the terms 'rogue dates.' It is important for anyone wishing to understand the normal archaeological use of C-14 to know that a single date or even a series of dates on a single object or feature is seldom if ever cited to answer important questions about the age of a culture or a site. To put a single radiocarbon date in the position of being the ultimate arbiter of the age of the Turin Shroud is a blatant departure from the way C-14 is normally used. There are simply too many pitfalls. This was not a position that went down well with the hotshots from the radiocarbon labs."

Source: Meacham, William. The Rape of the Turin Shroud: How Christianity's most precious relic was wrongly condemned and violated (Lulu.com), 2005, pg. 59.

Comments: Meacham's paper "Radiocarbon Measurement and the Age of the Turin Shroud: Possibilities and Uncertainties" is accessible at www.shroud.com/meacham.htm.

1986. An article in the journal *Radiocarbon* notes, "...the dating of the Shroud of Turin would now be possible in principle although it is generally agreed that any such measurement ought not to be undertaken by a single laboratory, or even by use of one technique alone."

Source: Laverdiere, H. "The Socio-Politic of a Relic: Carbon Dating of the Turin Shroud," 1989, pg. 69. Accessible via free download at <http://ethos.bl.uk/OrderDetails.do?did=1&uin=uk.bl.ethos.531916>

Comments: Although the Turin authorities did choose more than one lab, they did not take the advice to restrict the test to one technique. Tite was actually a co-author on the article from which this quote was taken.

[Added May 21st, 2016]

1986 *January*. Gove submitted to the National Science Foundation's Cooperative Science Program with Western Europe a proposal to cover the expenses of three United States labs--Arizona, Brookhaven, and Rochester--to attend the workshop.

Source: Gove, Harry. Relic, Icon or Hoax: Carbon Dating the Turin Shroud (Bristol: Institute of Physics Publishing: London, 1996), pp. 321-322.

1986 *January*. On the 17th, Gove contacted Tite to inform him about Chagas' various preparations for the Turin workshop. Tite told Gove that when the samples were taken, a textile expert should be present to insure that a sample from the image area was taken and was not from a rewoven section. Tite would try to suggest an appropriate expert.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 90-91.

Comments: The sample was not ultimately taken from the image area and despite the presence of two textile experts, there is strong evidence that the area from which the sample was taken may, in fact, been rewoven. The late STURP scientist Al Adler, discussing his view after the dating that a sample taken from the side of the cloth wouldn't necessarily give the same date as one taken from the middle of the cloth remarked "So you can talk all you want about how reproducible the date is, but you can't talk about how accurate it is. You have no way of knowing if the area you took the C-14 sample from represents the whole cloth. That's an area which has obviously been repaired. There's cloth missing there. It's been rewoven on the edge. They even cut part of it off, because it was obviously rewoven on the edge. The simplest explanation why the date may be off is that it's rewoven cloth there. And that's not been tested." [From: Case, T.W. The Shroud of Turin And The C-14 Dating Fiasco: A Scientific Detective Story (Cincinnati: White Horse Press, 1996, pg. 73.)

[Added February 1st, 2016. Comment added May 29th, 2016]

1986 *February*. Gove and Brignall met with Gonella in New York City to discuss the upcoming workshop in Turin regarding the C-14 dating of the Shroud. Gonella wanted the workshop to be held at his own institution, the Turin Polytechnic. Gove pointed out that the workshop was being organized by the Pontifical Academy of Sciences and suggested it should be held in their Vatican headquarters. Gonella expressed his opposition to having six labs involved.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 322.

1986 *February*. Gonella informed Gove that STURP planned to perform their 26 tests two weeks after the June workshop. Chagas later informed Gove that Gonella felt the University of Rochester was trying to take charge and that Gove's agnosticism was at odds with his interest in the Shroud.

Source: Sox, David. The Shroud Unmasked (Basingstroke, Hampshire: The Lamp Press), 1988, pp. 100-101.

Comments: Most scientists involved with the study of the Shroud at the time were interested in it mainly from a scientific point of view, so it seems odd that Gonella would make a statement like that. However, it is clear that Gonella and Gove did not like each other, and it's likely that both would latch onto anything to criticize the other.

1986 *March*. Sox wrote that two clear camps had developed: the Pontifical Academy and Gove in one and STURP and Gonella in the other. There were five main sticking points: 1) After the meeting with Gove, Gonella met with Monsignor Celli, Vatican Ambassador to the United Nations to push the STURP camp. 2) On the way back to Turin, Gonella planned to visit Tite at the British Museum. 3) Despite the fact that the Pontifical Academy of Sciences normally held workshops in Rome, Gonella insisted that it be at his own institution, Turin Polytechnic. 4) Gonella and others in Turin asserted on STURP's involvement in the workshop. 5) STURP-appointed textile experts were the best choice.

Source: Sox, David. The Shroud Unmasked (Basingstroke, Hampshire: The Lamp Press), 1988, pg. 101.

1986 *March*. At a Shroud symposium held in Hong Kong, archaeologist William Meacham presented a paper in which he tried to warn everyone of putting too much stock in the C-14 date. He wrote, "Reviewing recent Shroud literature of all persuasions, I find little awareness of the limitations of the C-14 method, an urge to 'date first and ask questions later,' and a general disregard for the close collaboration

between field and laboratory personnel which is the ideal in archaeometric projects. Regarding the Shroud, consultations should take place among archeologists [sic], historians, conservationists, cellulose chemists and of course radiocarbon scientists in order to formulate a specific C-14 sampling and dating procedure.

“ . . . Even among social and physical scientists, there are numerous misconceptions about the radiocarbon method of dating; among journalists and the general public there are of course many more. But among specialists who frequently make use of the test, it is *not* [emphasis in original] considered as a method which produces an ‘absolute date’ for every sample that can be measured.”

“ . . . To measure Shroud samples, one must therefore consider every possible type of contamination and attempt to identify and counter them all, before the measurement is made and a ‘radiocarbon age’ assigned. Clearly, this result can only be considered as a possibility, at best a good probability, but hedged by many uncertainties. It would not be an absolute calendar date, and it would not ‘prove’ the Shroud to be authentic or a forger. Rather, it would be one further piece of evidence to be evaluated in the light the total complex of data about the Shroud.”

He further stated, “. . . I doubt that anyone with significant experience in the dating of excavated samples would dismiss for one moment the potential danger of contamination and other sources of error. No responsible field archaeologist would trust a single date, or a series of dates on a single feature, to settle a major historical issue, establish a site or cultural chronology, etc. No responsible radiocarbon scientist would claim that it was *proven* [emphasis in original] that all contaminants had been removed and that the dating range produced for a sample was without doubt the calendar age. The public and many non-specialist academics do seem to share the misconception that C-14 dates are absolute.”

Meacham also cites a quote from a paper presented in 1985 at a C-14 conference in Trondheim, Norway, in which the R.A. Johnson et al. wrote, “The existence of significant indeterminant errors can *never* [emphasis by Meacham] be excluded from any age determination. No method is immune from giving grossly [emphasis by Meacham] incorrect datings when there are non-apparent problems with the samples originating in the field. The results illustrated [in this paper] show that this situation occurs *frequently* [emphasis by Meacham].

Source: Meacham, William, editor. “Radiocarbon Measurement and the Age of the Turin Shroud: Possibilities and Uncertainties” in *Turin Shroud: Image of Christ? Symposium and Exhibition of Photographs*, March 3-9, 1986, Proceedings. Hong Kong: Turin Shroud Photographic Exhibition Organizing Committee pp. 41, 42, 43 and 53. An abbreviated version of this paper was published in *Shroud Spectrum International*, No. 19, 1986, which is accessible at <http://www.shroud.com/pdfs/ssi19part4.pdf>.

Comments: Recall the statement by Fr. Fossatti in 1955 in which he mentioned the many vicissitudes the Shroud had undergone in its history, which certainly could have introduced “significant indeterminant errors” and “non-apparent problems” into the equation. The C-14 scientists who dated the Shroud were not field archaeologists and

had no business ascribing a 95% confidence rate to the C-14 dating results. They arrogantly felt no need for the archaeologists, historians, conservationists and cellulose chemists that Meacham spoke of. In the scientific literature, there are many other similar statements to the one made by Johnson et al. and by Meacham, yet it seems that most who believe the Shroud is a forgery, have no problems accepting that 95% percent rate. One exception was the Jesuit priest, Fr. Robert Wild, who in an article in vol. 10, no.2 (1984), pg. 38 in *Biblical Archaeology Review*, said, “. . . test results showing a late date would be attributed to contamination, a not unreasonable suggestion in light of everything the Shroud has been through.”

Meacham, in a paper delivered to a conference in Turin, supplied some concrete numbers regarding the questionable reliability of C-14 dates: “Rogue dates are common in archaeology and geology . . . Such has been my experience as an archaeologist who has excavated, submitted and interpreted more than one hundred carbon 14 samples from Neolithic, Bronz Age and Early Historical sites. Of these dates obtained, 78 were considered credible, 26 were rejected as unreliable and 11 were problematic . . .” (“Thoughts on the Shroud 14C Debate” in Scannerini, Silvano and Piero Savarino (eds), *The Turin Shroud, Past Present and Future: International Scientific Symposium*, Torino, 2-5 March 2000, Torino, Effata Editrice, 2000, pp. 443-444.)

To give an example of a possible unique source of contamination for the Shroud, Meacham wrote (pg. 50), “Whereas all radiocarbon laboratories advise against placing a paper label in contact with the sample for the few weeks in transit from field to lab, the Shroud has had a backing cloth for 450 years!”

It's worth repeating that Meacham observed that a C-14 dating for the Shroud later than the first century would not prove that the Shroud was not from that time, which is reasonable given the Shroud's chaotic history and all of the lack of rigor in the testing that has been documented in my article. Meacham also commented in the *Shroud Spectrum International* version of his paper (pg. 17), “It is a very serious error indeed to proceed with C14 dating on the assumption that it is an infallible method.” Meacham, who had been invited to the 1986 Turin workshop, stated this in a submission sent to Cardinal Ballestrero. It is clear that the “date first and ask questions later” approach was a total disaster.

[Added May 29th, 2016]

1986 *Spring*. According to Kersten and Gruber, “In spring 1986 Canuto committed the indiscretion of passing Gove a confidential letter from Prof Luigi Gonella, the scientific adviser to Turin's Cardinal Ballestrero. Gove passed it to his friend Sox, who actually published it. In this letter Gonella accused Gove of trying to secure research funds for his institute in Rochester from the National Science Foundation, the largest science funding trust in the USA, by posing as the director of the six laboratories. In the midst of these intrigues Dinegar announced to Gove that the Vatican Secretary and the Pontifical Academy of Sciences had accepted the STURP project! To complete the confusion, on 13 April an article by the journalist Peter Jennings appeared in Britain

claiming that Chagas had personally spoken out against a radiocarbon test. After the diplomatic tug-of-war between the parties, probably themselves not knowing by now who was on who's [sic] side, the conference of carbon experts --the conclave of the carbonists --took place in late September 1986. Representatives from the six radiocarbon laboratories and other scientists, including some from STURP, took part. But no one was invited from the Turin Centro Internazionale di Sindonologia, the largest association of sindonologists.

While Gonella continued to insist that the taking of specimens should be integrated with the whole STURP programme, Gove was adamant. The carbon test could not be postponed any longer, and any further undertaking would just delay things. The representatives of the institutions pointed out that the test should be a so-called blind test. In a blind test the researchers do not know which piece is the actual test object and which samples are control specimens. In this way conscious or unconscious manipulation, or prejudicial treatment of the different specimens, was to be prevented.

Gonella made it clear that it was not Turin but the laboratories which were insisting on a blind test, 'so they would feel protected from the press'.

After three days the participants came to the agreement that seven institutions should be involved in the dating, with five using the AMS technique and two using the other methods. The British Museum was to supply a control sample. Original cloth and control samples were to be handed over to the individual laboratories after being unthreaded so as to be unrecognizable. Three institutions were to assume the supervision: the Pontifical Academy of Sciences, the British Museum and the Archiepiscopal Ordinariat of Turin. At a certain date after the examination all the laboratories were to pass on the data from their experimental results to three institutions for statistical analysis: the Pontifical Academy of Sciences, the British Museum and the Istituto di Metrologia G. Colonnetti (IMGC) in Turin. In this way stringent scientific criteria were to be ensured, guaranteeing the credibility of the enterprise.

These proposals appear to have been well thought out, although the additional STURP projects were still not out of the way. But the C-14 lobby had won priority for themselves."

Source: Kersten, Holger and Gruber, Elmar R. The Jesus Conspiracy: The Turin Shroud And The Truth About The Resurrection (Rockport, MA: Element), 1994, pp. 42-43.

Comments: Perhaps the best summary of Kersten and Gruber's description of these Shroud activities is their phrase that "the behaviour of the researchers themselves had so far been marked by pride and conceit." All too often it appears that Shroud research has been set back by the inability of some of the participants to put aside petty concerns and focus on the scientific method.

1986 *April*. On April 1st, Canuto had just seen a letter that Gonella sent to Chagas, although Chagas would not actually let Canuto read it. Chagas said that the letter was very unprofessional and extremely critical of Gove. Gonella felt that Gove was

attempting to get funding from the National Science Foundation and since there was such fierce competition among the NASF labs, he was trying to get involved in something that would make him stand out. According to Gonella, nuclear physics was a dying field, and C-14 dating was a significant factor in the eyes of U.S. Congressmen, who would be voting for appropriations. In Gonella's eyes, Gove was acting as leader of the six labs to bring prestige to the University of Rochester. Gonella had more to say: the other labs were annoyed by Gove. The sizes for the samples being asked for were too large and no distinction had been made between the AMS labs and the proportional counter labs. The Trondheim protocol was not well thought out. Gonella also made the point that the C-14 tests should be done in the context of the other proposed STURP tests. Gove was incensed to the point that he almost withdrew but on April 3rd, he received from Dinegar a STURP letter addressed "Dear Colleague." Dinegar reported that STURP would be obtaining samples. Gonella had notified STURP that their proposal for C-14 had been accepted by the Vatican and the Pontifical Academy of Sciences. STURP would be allowed to extract the samples. Dinegar added a note to Gove's letter: "A 'slip' now could have disastrous consequences." On April 13th an article in *Our Sunday Visitor* by Peter Jennings reported "Vatican May Allow Carbon Test on Shroud." Jennings mentioned in the article that he called Chagas, who said "I would as soon the test did not occur."

Source: Sox, David. The Shroud Unmasked (Basingstroke, Hampshire: The Lamp Press), 1988, pp. 102-104.

1986 *April*. On April 2nd, Gove called Canuto to say he was disturbed that Gonella would write a letter to Chagas accusing him of unprofessional behavior. Gove wrote, "My impulse was to say to hell with the whole thing except that some pretty high-class people in high-class institutions were now involved. A fevered imagination might conclude that the people connected with some or all of the institutions were motivated by lust, venality, cupidity, self-aggrandizement or other unprofessional concerns, but few rational people would take such a charge very seriously."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 106.

Comments: I believe there were and are more rational people than Gove thought that take that charge very seriously.

[Added February 4th, 2016]

1986 *April*. Chagas sent letters of invitation to various groups to attend the planning workshop to be held on June 9-11th in Cardinal Ballestrero's Palace. Chagas had

previously met with a British reporter, Peter Jennings, and informed him of the meeting. Jennings published an article that publicized the meeting.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 322.

1986 *May*. On May 16th, Gove received a call that the workshop planned for June 9-11th was postponed per the Pope's orders. The reasons given were the Chagas comment in the Jennings' article, conflicts of interest and STURP's criticism that Chagas had not invited all the individuals that they had recommended, which included STURP member Steven Lukasik, Meacham and the late Giovanni Riggi di Numana (normally just called "Riggi"), STURP's only Italian member. Gove later learned that the late Fr. Piero Coero-Borga of the International Center of Sindonology in Turin and another unnamed individual had put heavy pressure upon Somolo Martinus, Undersecretary of State, to stop the preparations for the C-14 test. On May 27th, Gove was sent a telex that read "Holy See and Cardinal Ballestrero have no intention not to date Shroud. Adjournment of meeting should only be considered temporarily postponed. Contact you in future."

Source: Sox, David. The Shroud Unmasked (Basingstroke, Hampshire: The Lamp Press), 1988, pp. 104-105.

1986 *May*. Regarding the postponement of the workshop in June, Gove wrote, "I decided that, rather than supinely letting this pass, I would try everything I possibly could to discover why the meeting had been postponed and to get the order for postponement rescinded. Despite all my efforts, I failed and the meeting was indeed postponed."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 119.

Comments: Gove exhibits here the tenacity that his colleague Bromley alluded to in his foreword to Gove's book, but one can question whether that situation was an appropriate place for it.

[Added February 4th, 2016]

1986 *May*. On May 17th, Gove called Gonella in Turin to find out more information regarding why the workshop was postponed. Gonella sounded flustered. He said the initial action had been taken by the Vatican. However, he admitted that Turin also had input, but did get specific. Gonella believed the first reason was the Peter Jennings

article in *Our Sunday Visitor*, which listed the time, place and purpose of the workshop based on information from Chagas. Gonella said this had upset Cardinal Ballestrero. The second reason was that Chagas had not invited all the people that the Cardinal had suggested. (Gove added that Gonella had actually made the suggestions.) Thirdly, it was the Cardinal's meeting, not a meeting of the Pontifical Academy, but Chagas apparently had refused to concede this. Gonella said that "Chagas was trying to play too dominant a role.

Gove told Gonella that the postponement was a serious matter. There were a number of prestigious scientific institutions involved that would probably perceive that the Catholic Church was afraid of getting the Shroud dated. Gove urged Gonella to have the Cardinal reverse the decision. Gonella said he would pass on Gove's comments to the Cardinal. Gonella continued to place all the blame on Chagas. Gonella insisted that Gove should get information on all this from Chagas, but Gove informed him that he had talked to Chagas shortly before and that he didn't know any details. Gonella told Gove the postponement would not prevent the Shroud from being dated.

On May 18th, Gove discussed the matter with Canuto and decided that as many people as possible that were to have been involved in the workshop should sign a cable that would be sent to Cardinal Ballestrero, Cardinal Casaroli at the Vatican, and Chagas. Canuto advised that Gove should first consult Chagas. When Gove contacted Chagas, he agreed that this cable should be sent.

On May 19th, Gove sent the cable to Ballestrero, Casaroli and Chagas. It was signed by Gove, Donahue from Arizona, Harbottle from Brookhaven, Sir David Wilson from the British Museum and Edward Hall from Oxford. Gove called Canuto, who had read the contents of the letter to Ambassador Celli, who said the wording was too strong for him to pass along to Cardinal Casaroli. But Celli believed the cable was the best way to proceed.

On May 20th, Gove heard from Canuto that Fr. Rovasenda, who in the past had been the director of the Pontifical Academy of Sciences, said that it was actually Pope John Paul II who had given the order for the postponement. Gove then got the idea of trying to get the assistance of various ambassadors to the Vatican.

On May 22nd, Gove learned from Canuto that he had called Cardinal Casaroli, who said he didn't even know about the postponement. He said that another branch of the Vatican State Department was handling matters. Gove believed it was Cardinal Somolo, the undersecretary of state. The next day, Canuto said that Fr. Rovasenda had reported to Cardinal Ballestrero that a group from Turin involved with the Shroud didn't want the C-14 dating to take place and were putting some pressure on the Pope. Ballestrero said he was not opposed to the dating and plans were made for May 26th for a meeting between Chagas and Cardinal Somolo. Canuto believed that individuals from the International Centre of Sindonology in Turin had Cardinal Somolo inform the Pope of their displeasure about the test. Canuto asked Gove if he had informed Dinegar of the postponement and Gove replied that he had not. Canuto said he would call Dinegar to see what he knew about it. Canuto called Gove later in the day and said he could not contact Dinegar. Canuto expressed the thought that only he and Gove

seemed concerned about the postponement. Gove wrote, "Chagas, on the other hand, was probably eating good food in Rome apparently unconcerned."

On May 28th, Gove phoned Chagas in the Vatican. Chagas said if the workshop was held in the Vatican, holding the workshop as planned wouldn't be a problem. Gove then asked why it wasn't held in the Vatican, then. Chagas told him that Cardinal Ballestrero insisted that it be held in Turin. Gove asked if the International Sindonology Center in Turin was connected with the archdiocese. Chagas replied that the Center was fighting the archdiocese. Gove asked why Cardinal Ballestrero just didn't ask them to stop. Chagas said "that it was very difficult to understand some aspects of Italian politics."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp 120-127.

Comments: This is further evidence of politics, especially the Italian aspects, rearing its ugly head. The late Dr. Robert Dinegar, STURP's C-14 representative, told an interesting anecdote in his presentation at the 1991 St. Louis International Shroud conference. Dinegar related that he had spoken on the phone with Gove at one point before the scheduled June meeting. Dinegar had to be in China before that so made plans to fly to Turin from China. On the day he was flying to China, he happened to get a phone call from another person who was going to be at the Turin meeting. When Dinegar said, "see you soon in Turin," the other person said, "Haven't you heard? The meeting has been postponed." It could be that Gove simply forgot to inform Dinegar of the postponement, but considering Gove, by his own admission throughout his 1995 book, eventually would do everything in his power to keep STURP out of the testing and also previously stated that he had no intention of trying to secure funding from the NSF for Dinegar's travel expenses for the Turin workshop, it looks at the very least suspicious, especially considering that Canuto had recently asked Gove if he had informed Dinegar about the postponement. (Dinegar's presentation is accessible at www.youtube.com/watch?v=NGRrt3d9Rao&feature=youtu.be&list=UUSv7BD9sKjlcA24ct1Hz_Aw, and this anecdote is between about 7:40 - 11:45.) Dinegar also stated that the media did not present the true story of the C-14 saga. It is my hope that this series of articles will help rectify that. Keep in mind how much material is available from what is publicly known. There is undoubtedly much more that has never seen the light of day.

[Main entry expanded from short version on February 6th, 2016, comment expanded on February 11th, 2016]

1986 *June*. Discussions began on the wording of the letter that would be sent to reschedule the postponed workshop. Gonella met with Chagas and Canuto in Rome and suggested saying that only two of the six labs would be selected to do the dating, using burnt samples. Lukasik of STURP would attend, as well as another friend of Gonella, Jacques Evin of the University of Lyons. Another Frenchman, Jean-Claude Duplessy of the lab at Gif-sur-Yvette, was also to be invited.

After Gonella left the meeting, Canuto convinced Chagas not to utilize Gonella's wording regarding the six labs, believing they would find it offensive. Canuto then asked Gove to ready the draft agenda, and Chagas insisted on using the words "the dating laboratories" instead of mentioning the six. Gove was designated as workshop secretary. Gonella reacted with various points: 1) Turin had not been consulted over the agenda. 2) Gonella was not mentioned as the moderator. 3) The words 'the Pontifical Academy thanked Professor Gove for organizing the meeting' should be deleted.

Confrontations were brewing. The C-14 labs insisted on decision-making autonomy; STURP felt that the C-14 test was a continuation of their investigation of 1978 and the Pontifical Academy of Sciences thought its prestige would trump all other factors.

Source: Sox, David. The Shroud Unmasked (Basingstroke, Hampshire: The Lamp Press), 1988, pp. 104-105.

Comments: According to Laverdiere, in her dissertation (pg. 70), Dupplepsy had been invited because of "his experience in dealing with cloth." This is another source of expertise that Turin ignored.

[Comments added May 21st, 2016]

1986 *June and July*. Gonella came to Rome to meet with Chagas and Canuto to discuss a revised workshop. Gonella had suggestions for a letter that would be sent to all the individuals and institutions that were going to be involved previously. The letter would include that only two of the six laboratories would be selected to perform the testing, that scorched cloth would be used and that for data analysis, the Turin Egyptian Museum would be used. He also said there should be additional invitations to C-14 scientist Jacques Evin, a person from the J P Getty Museum and STURP chemist Alan Adler. Canuto indicated to Gove that Chagas seemed to approve this but Canuto "convinced him that such a letter was ridiculous." Canuto and Chagas then composed a draft of a new letter, which was then sent to Cardinal Ballestrero and accepted.

On July 2nd, Gove and colleague Brignall received invitations from Chagas to the rescheduled workshop, which was now to be held on September 29th - October 1st. Chagas asked them to keep it confidential for the time being.

On July 22nd, Gove replied to Chagas' workshop invitation. Gove said that since the main reason for the postponement of the June meeting was Gonella's objection to the relatively insignificant Jennings article, he thought he would mention that Edward Hall had showed him (Gove) some correspondence he had received from the British author Ian Wilson, who at the time was the chairman of the British Society for the Turin Shroud. From the material that Hall had, it was clear to Gove that Gonella was informing Wilson about the workshop details. Wilson then shared the information with various people.

Wilson had sent a letter to Hall on June 26th and included three confidential memos from Wilson to individuals mostly in Britain but also including Gonella and Tom D'Muhala of STURP. The first memo stated that Gonella was giving STURP the

approval for carrying out in July their proposed tests. The second stated that Gonella had phoned from Turin and explained that the planned testing by STURP was then postponed due to complications related to the C-14 test as well as some logistical problems STURP was having. In the third memo, Wilson said no reason had been given why the Turin workshop in June had been postponed. In his letter to Hall, Wilson put the blame on Chagas for the postponement and indicated that he found it difficult to understand why or how long the stalling would be.

Gove said that this was “a serious breach of confidence and was remarkable evidence of double standards on Gonella’s part.” Gove felt that it was inexcusable for Gonella to be critical of Chagas for his interview with Jennings and then to provide sensitive information to Wilson. (However, Wilson did not make public any information that Gonella gave him.)

Gove told Chagas that a significant amount of effort needed to be devoted to planning the workshop and that an agenda needed to be agreed on by seven institutions; he offered to prepare one. Gove ended the letter by accepting Chagas’ invitation to participate in the rescheduled workshop.

On July 25th, Gove and Canuto talked on the phone. Canuto suggested that Gove and Brignall come to New York for a meeting that would include Ambassador Celli. Canuto informed Gove that he thought Gonella would be trying to produce an agenda for the workshop even though he wasn’t asked to do so by Chagas. In June at the meeting in the Vatican with Chagas, Canuto and Gonella in attendance, Gonella had been asking technical questions. Chagas had responded that they would be discussed at the workshop. It was believed that this may have caused Gonella to return to Turin to prepare an agenda.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 131-134.

[Main entry expanded from short version on February 9th, 2016]

1986 *August*. On August 4th, Gove received a letter from Chagas, who thanked him for his letter and call of July 22nd. Chagas said he expected some difficulties with the agenda but had no doubts they would succeed. Gove was informed by Chagas that he knew he had to be careful around some people associated with Cardinal Ballestrero but he felt confident he would prevail because he believed he had clear support from the Pope himself.

Gove and Brignall flew to New York on August 6th and met with Canuto and Ambassador Celli to discuss the workshop. Gove had intended to submit the agenda in a letter to Chagas but Celli also suggested that Gove recommend to Chagas also showing both the Vatican secretary of state and the Pope, so Gove did so when the letter was sent on August 8th. Gove informed Chagas in the letter that it had been discussed with Celli and Canuto. If Chagas approved of the agenda, Gove said he wanted to send copies to the heads of the six laboratories, the British Museum and the textile expert Mechthild Flury-Lemberg. Comments would be solicited before a final

document was submitted. Gove also requested that copies be sent to Cardinal Casaroli and Pope John Paul II and anyone else that Chagas deemed appropriate.

On August 26th, Gove called Chagas. Chagas indicated he approved of the agenda but proposed a minor change. Instead of referring to six labs, Chagas suggested just using the phrase "carbon dating laboratories" without specifying the number. Chagas knew that Gonella was opposed to a large number of labs being involved, so wanted to avoid controversy. Gove continued to press to leave "six" in. Chagas related that he was going to send the agenda that very day. He said that instead of sending a copy to Cardinal Casaroli, he would send it rather to Undersecretary of State Cardinal Somolo, who actually knew more about the workshop and had frequent contact with the Pope. Gove asked Chagas if he was going to ask for comments from those it was sent to and Chagas said he would not be doing so.

The next day, Gove called Chagas again and told him he was sending a letter regarding the changes that had been discussed in their conversation of the previous day. Chagas said he would not send out the agenda until he had received the letter. Chagas was then told by Gove that he had been caught off guard regarding the conversation about "six" labs and had agreed too quickly. Gove again expressed the desire to have "six" in the agenda. He also said that if the Turin authorities wanted to limit the sample size to such a small amount that it would not be enough for six labs and/or if only several of the six were deemed better suited to perform the test, that it should be discussed at the workshop. Gove felt that six labs had participated in the British Museum test so six would be appropriate for the Shroud dating. Finally, Gove suggested that Chagas "might somewhere indicate on the agenda that I had been involved in its preparation. I confess that I wanted some explicit recognition from Chagas that I had put considerable effort into organizing the workshop."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 135-137.

[Main entry expanded from short version on February 11th, 2016]

1986 *September*. Gove phone Chagas on September 2nd and asked if he had received his letter of August 27th. Chagas replied in the affirmative and then asked if he could be frank. Chagas said that he didn't know Gove very well and vice versa, but he had the impression that Gove did not trust him, possibly because he was a Latin American or in a different field of science. Gove recounted in his book that Chagas' statement surprised him. Gove was concerned whether Chagas had any influence in the Vatican and also whether he could hold his own with Gonella. Gove felt the trust question could be attributed to not agreeing to the deletion of the word "six" in the proposed agenda. Chagas went on to say that he still wanted to keep it out. He did think that six should participate but that the question should be settled in Turin, so Gove finally gave in. Chagas indicated that he wanted to be the chairman for the last two sessions, which dealt with the disclosure to the public regarding the results and conclusions. Gove had actually planned to let Gonella chair one of those sessions. Granting Gove's request for

explicit recognition, Chagas “said he would add some words like ‘the Pontifical Academy of Sciences has asked Professor Gove to organize the workshop and is grateful for his efforts’.”

After the phone call, Gove drafted a letter to Chagas to express some of his feelings about the Shroud dating process and Gonella’s involvement. Gove said that he “was not used to getting this heavily involved in an activity that fails because of extraneous and irrelevant machinations of individuals with highly questionable motives.” Gove said that Chagas’ perception that Gove lacked trust in Chagas’ leadership because he was a Latin-American or in a different field of science was just simply wrong. Gove went on to say that perhaps the real problem was that Chagas lacked trust in him and the role he was playing in the whole process. If that were the case, Gove felt that perhaps it would be best for the whole enterprise if he would withdraw completely.

Before sending the letter to Chagas, Gove ran it by Canuto on September 3rd. Canuto said that he didn’t understand what Chagas was saying but advised Gove not to send the letter offering to withdraw, which would be playing into Gonella’s hands. Gove didn’t send the letter to Chagas but sent a draft to Canuto, adding that he (Gove) was distressed by Chagas’ comments and felt that Chagas’ lack of trust in Gove set a very bad tone for the workshop. If that were so, Gove repeated that perhaps it would be best if he withdrew.

On September 5th, Chagas called Gove. Chagas didn’t say he had talked to Canuto but it was clear to Gove that he had. Chagas said that he hoped his frank, private comments wouldn’t be taken too seriously. Chagas told Gove that he had the highest regard for him a scientist and that he (Gove) “was more key to the success of the shroud enterprise than he was.” Chagas confirmed that the agenda would mention the Academy requesting Gove to organize the agenda and that Chagas would chair the two aforementioned sessions. Gove wrote, “I was quite pleased with this phone call.” A few days later, Gove received a copy of the agenda.

Canuto called Gove on September 22nd. Canuto related that Gonella had called Monsignor Dardozzi, the vice Chancellor of the Academy on September 17th and the discussion lasted 1 ½ hours. Gonella, according to Canuto, “had been blown out of the water” by several points in the agenda: 1) that the Academy had thanked Gove for organizing the workshop; 2) that Turin was not consulted on the agenda (Canuto said that Monsignor Celli’s involvement negated that but Gove said that since Celli was from the Vatican, he would be suspect in Turin.); 3) that he (Gonella) was not listed as being a moderator at any of the sessions.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 137-140.

Comments: As we shall see later, the agreed upon protocol was ignored at the time of the sample-taking on April 21, 1988. Gove’s exchange with Chagas about the apparent lack of trust between the two is telling. Chagas brings up the issue, acknowledging that the feeling was probably mutual. Yet, Gove ends up telling Chagas that the real problem may have been only that Chagas didn’t trust him. When Gove complains about “extraneous and irrelevant machinations of individuals with highly questionable

motives,” he is oblivious to the fact that others attribute that description to him. Gove clearly only saw the world through Gove-colored glasses. Regarding the organization of the workshop among the Vatican, the Pontifical Academy of Sciences, Turin and Gove, it seems as if the left hand did not know what the right hand was doing, not a great recipe for an important scientific test.

[Main entry expanded from short version on February 13th, 2016]

1986 *September/October*. Chagas and not Gonella acted as moderator. Gonella noted that the media was “unduly interested in carbon dating” and stated that X-ray fluorescence measurements in 1978 showed that the Shroud was not a painting.

STURP wanted that measurement repeated and Gonella supported STURP doing all other 25 tests in addition to the C-14. Chagas countered that X-ray fluorescence might damage the Shroud, and suggested that the “obtrusiveness” of C-14 dating would be “mild by comparison.”

Gove was the only one to bring up the point of STURP’s role in the C-14 dating and said that connecting it to the desired multi-disciplinary tests was only delaying performing the C-14. Gonella had insisted that the sample taking for the C-14 test would be done as part of STURP’s 26-test package. STURP’s endorsement of Flury-Lemberg was not firm—Dinegar said they would need a few hours to decide. Shortly after this, Gove ran into an agitated Flury-Lemberg, who said she was invited to dinner by STURP, but said she was under pressure to formally join the group and sign their secrecy agreement. Gove was angry about this and told her there was no need for this.

If seven labs were going to be involved, there was the question of how much sample material should be taken. Dinegar asserted that there was 400 cm. of charred cloth underneath the patches put on after the 1532 fire by the Poor Clare nuns. But nearly everyone was leery of using such material. Wolfli from Zurich said there was no firm evidence that charring affects samples, but Hall from Oxford, while agreeing that charring might have little effect, stated that uncharred material should be used to be on the safe side.

The scientists suggested 5 to 10 mg (in carbon weight) for the AMS labs and 10 to 15 mg for the proportional counter labs (if seven would be involved), but Gonella was not in favor of seven labs. Chagas replied “The more measurements, the better. This is the measurement of the century.”

Another disputed point was the question of blind testing. Gonella reminded the labs that the Turin authorities didn’t think it was necessary. Gonella said “We trust the scientists. It is you who have this idea which you feel will protect you from the press.”

He felt the matter should be discussed further, but the labs decided to keep blind testing as part of their procedures.

Gonella also brought up the matter of how many people would be physically present for the taking of the samples. He suggested having representatives from the labs observe on closed-circuit television. Chagas, with Archbishop Ballestrero present, summarized what he considered to be the agreement coming out of the workshop. That agreement was never released by Turin, but it was published in a scientific journal via

Harry Gove. Chagas concluded “If the Shroud must be dated, it must be done right. It must be done now. This may be the last chance.”

Source: Sox, David. The Shroud Unmasked (Basingstroke, Hampshire: The Lamp Press), 1988, pp. 106-108.

Comments: Sadly, many, including Gove himself, would conclude the test was not done right. “Blind testing” refers to the labs supposedly not knowing which sample was the Shroud when they tested it (along with control samples). But because of the Shroud's unique weave, the labs did know.

After reading this entry, Bill Meacham emailed me on July 16th, 2016 and said regarding Dinegar’s comment that everyone was leery about using samples from underneath the patches, “Exactly the opposite was true. Everyone including STURP was happy with the idea of using that material, but I argued against it, and finally after discussion got support from Otlet. See pp. 73-74 of my book.”

According to an article in the *Catholic Counter-Reformation In The XXth Century* (No. 295, April 1997, pg. 19), the protocol report would end up being eight hundred (800) typewritten pages! I bet the person who typed it up wasn’t too pleased when they ultimately virtually did not follow most of it. Meacham, who attended the meeting, confirmed to me in another email that the report was that long.

1986 *September/October*. There was a heated discussion in the Turin Workshop regarding the size and number of the samples, how the samples would be certified, and the use of control samples. It was agreed by everyone that Mechthild Flury-Lemberg, a Swiss textile expert, would be responsible for extracting the sample.

While Gonella wanted the C-14 tests to be performed in the context of the other tests that STURP proposed, Gove insisted that no other tests should be performed on the Shroud until a result was known from a C-14 dating. Archaeologist William Meacham from Hong Kong, who regularly would use multiple samples from a site when he employed C-14, proposed that samples should be taken from various places on the cloth, but Flury-Lemberg vehemently objected, claiming that the borders couldn’t be more contaminated than the rest of the cloth. STURP advised taking samples from at least three different areas of the cloth.

Meacham, as an experienced archaeologist, took seriously the issue of contamination and proposed taking a thread from the middle of the cloth, between the front and back images, a small piece from the edge adjoining where the 1973 sample was taken, a piece of charred material, part of the side strip, and a piece of the backing cloth that had been sewn on in 1534. Microchemical tests, mass spectrometry, micro-Raman would then be done, as well as the appropriate pretreatment for impurities.

Chagas sent the Vatican Secretary of State a report on the Turin meeting, but that report had not been read, much less signed by the participants. Gove published the report without even informing the Turin authorities, stating that it was an agreement signed during the meeting. The sample amounts had not been specified, which was the opposite of what Gove had written, and Gove wasn’t satisfied. Chagas sided with Gove

and wrote to Cardinal Casaroli that STURP would perform tests that the radiocarbon experts considered dangerous. Chagas and Gove proceeded to vigorously push for the C-14 test only, to the exclusion of all other tests. They were successful on that point but Cardinal Casaroli would not agree with their wishes on the number of samples and labs to be involved. (The number of labs would be reduced to three.)

Source: Marinelli, Emanuela. "The Setting for the Radiocarbon Dating of the Shroud." Presented at 1st International Congress on the Holy Shroud in Spain - Valencia Centro Español de Sindonologia (CES), April 28-30, 2012, pp. 5-6, www.shroud.com/pdfs/marinelliv.pdf.

Comments: Gonella had also requested that corrections be made to the report but that wasn't done, according the Night of the Shroud documentary (original version). The Petrosillo/Marinelli book (pg. 29) noted, "Meanwhile Chagas was playing a sort of double game. He kept Gove informed about the difficulties that had arisen with STURP. He even told him that Gonella did not think much of him: his interest in the dating was considered suspicious for he seems to have been an agnostic."

[Another comment added May 29th, 2016]

1986 *September/October*. Meacham wrote, "Day Three saw more discussion on the issue of possible dummy samples, and Gove threatened to withdraw from the project if he could not be assured that his lab would be receiving a real Shroud sample. Chagas gently chided him, reminding that he came from a democratic country and surely he would abide by the consensus reached. Gove somewhat sheepishly withdrew his threat. For a moment Gonella had a look of barely suppressed joy, but it was not to last. Gove tossed out the snide comment that 'STURP seems to be on some sort of crusade to prove the Shroud authentic.' A few minutes later, Gonella opened with a comment 'Apparently Gove does not like the STURP people.' Chagas weighed in at this point and said that we should keep the discussion to the issues at hand, and not let it denigrate into personal or emotional attacks. I was tempted to point out that the time for such an intervention by the chairman would have been after Gove's offensive remark, but held my tongue. This incident would come up later in correspondence with Chagas.

The discussion turned to the question of statistical analysis again, and I began to realize that what the labs were most concerned about was obtaining matching results from each lab, or if not, then at least the one outlier could be quite easily identified and rejected before calculating the radiocarbon date. This concern and seemed to me misplaced; what was much more important was ensuring that a rogue sample was not chosen. It would be a tragedy if every lab got the same result but it was wrong because there was something inherently wrong with that particular sample chosen. Adler agreed that this was the biggest worry. We've raised the subject again of sampling sites, and now a consensus was forming that only one sample needed to be taken, cut into seven pieces, and distributed to the seven labs. I pleaded for a minimum of two sample sites,

even if one of them was the charred material under the patches. At this there was much chortling from Gove and Canuto, and Chagas dryly remarked that I'd spent so much energy arguing against the charred that he was mystified to see me 'reverse' my position. Adler tried to argue the point further, but Gonella would not support us. At this late stage the chairman's control of the meeting was the deciding factor, and he stated that a single sample was the consensus and move on. I felt a *frisson* of the anxiety, that the future reputation of the Shroud could be in jeopardy."

Source: Meacham, William. The Rape of the Turin Shroud: How Christianity's most precious relic was wrongly condemned and violated (Lulu.com), 2005, pg. 75.

Comments: Meacham's statement, "It would be a tragedy if every lab got the same result but it was wrong because there was something inherently wrong with that particular sample chosen" was seemingly prophetic.

1986 *September and October*. While addressing the gathering, Gonella said that the first formal proposal to date the Shroud was by STURP in October 1984. Gove objected and said that he had made the first proposal in 1978 and sent a formal letter to Cardinal Ballestrero in 1979. Gonella countered by saying the 1979 proposal was for the use of the Raes samples. Gonella then added that STURP had proposed taking new samples and also doing other tests; that started the chain of events that led to the Turin workshop. Gonella indicated that he only learned from STURP about the Trondheim protocol of July 1985 and subsequent revision in September 1985. He said that proposal was never formally submitted to Turin and so did not count. According to Gove, "Gonella seemed hell-bent on historical revision."

Gonella then explained how a seventh lab was added as a participant. In April 1986, J-C. Duplessy of the Gif-sur-Yvette AMS lab submitted an independent proposal to the date the Shroud, which led to his invitation. STURP had proposed many other tests. Gonella further said that Turin were possibly more interested in these other tests over C-14 because they addressed conservation, which he claimed was the major priority. Gove commented in his book that Turin had totally ignored conservation for at least 300 years. Gove asserted that decisions on conservation are based on a knowledge of an object's age.

STURP suggested that they, in close conjunction with Turin, should extract and distribute the samples. The Trondheim proposal had suggested using the British Museum as the coordinating institution, but Gonella felt that other institutions would just as good. Regarding blind testing, Turin didn't request it—it was the C-14 scientists who wanted it. Gonella expressed concern regarding the amount of material that would be needed if seven labs were involved. He said that they must distinguish between scientific and political motivation. Gove asked Gonella to define "political;" the latter said it was anything not scientific. Gove wrote that Gonella considered the former's motives to be political because Gonella had written in a letter to Chagas that Gove was using the opportunity to date the Shroud "as a lever for extracting more support funds

from the NSF.” Gove then added “I wondered about his personal motivations as much as he did about mine.”

Chagas then addressed the participants and explained how the Academy had become involved. Chagas had been given in 1984 STURP’s proposal for the Shroud C-14 dating but felt that the Trondheim protocol was better. If the Shroud dating was carried out, it must be done right and it must be done now since this might be the last chance. The Turin workshop was meant to only address the C-14 dating and not, as Gonella seemed to be suggesting, additional tests as well.

Edward Hall from Oxford said he thought blind testing was needed only to convince people outside. He felt that the British Museum was needed to coordinate matters “to make it look convincing.” Michael Tite from the British Museum indicated they would be willing to assist and would not be upset if not asked.

Further comments were made on blind testing, the number of labs to be involved and whether every lab should get a Shroud sample (i.e, some labs would only have received non-Shroud samples that looked like the Shroud and/or control samples that would gauge lab dating accuracy). Gove remarked that he thought people at his lab would lose motivation if they didn’t actually have a Shroud sample. Several other scientists thought it was a good idea that not every lab would get a Shroud sample. Al Adler from STURP advised that samples should be taken from various parts on the Shroud. The archaeologist Meacham said that it was unusual to have so many labs involved. After a discussion about the cloth weight per square centimeter, Gove realized that all labs would be able to tell which sample was the Shroud, which made moot the whole question of blind testing.

Flury-Lemberg asserted that there was no need to take samples from various places on the cloth because the Shroud was the same from one end to the other. Chagas then asked if all seven labs should get a Shroud sample or whether several would just get control samples. Harbottle advised that seven be used since as the British Museum interlab comparison test had shown, “a hundred things could go wrong.” Harbottle also suggested that the new AMS method as well as the older proportional-counter method be used. Chagas again asked if all seven labs should get a Shroud sample. Harbottle first commented that he thought six labs should get a Shroud sample and one should get a “dummy” Shroud sample. He thought that two control samples should also be provided to each lab. Harbottle also said that four labs would not be enough. After advice from Duplessy, he later suggested 1 Shroud sample and 1 control sample for each of the seven labs. Flury-Lemberg advised that it would be impossible to get a dummy sample that could pass for the Shroud. During this part of the discussion, Gove wrote that Gonella was periodically making “incoherent teeth grinding sounds.” Gonella was also clearly unhappy that seven labs were being considered and that Harbottle said that four labs were too few.

The following day, Gonella presented a slide show that highlighted the tests that STURP had carried out in 1978. It showed the Shroud on a frame designed by STURP under bright lights for various tests. Gove wrote that Chagas perceived that the bright lights were intrusive and several felt that the slide show had a negative impact. Gonella seemed to be favoring only two labs being involved. During a break, Gove struck up a conversation with STURP member Steven Lukasik, who had recently joined the group

after having become fascinated with the Shroud after having read an article in *Readers' Digest*. Lukasik worked for Northrup, which built fighter planes for the U.S. Government. Gove described him as "one tough, steely eyed individual—an unreconstructed cold warrior in his position of vice president for research at Northrup and clearly another 'true believer' as far as the shroud was concerned."

Woelfli from Zurich discussed the outlier in the British Museum intercomparison tests and indicated that it was due to human error, not in his lab, but he took responsibility for it and said such things could happen again. He said one problem with small samples is that the standard cleaning procedure is not always sufficient.

Hall made the argument that they were dealing with people from outside the scientific circle. Hall thought seven labs would be appropriate because they could perhaps say that six out of seven labs agreed rather than two out of three agree. Thus the more labs the more convincing the results would be. Gove wrote that he found this comment interesting because when it was finally decided to use only three labs and Hall's was one of them, Hall then made the comment that he agreed because the more labs involved the greater the chance that one or more could make a mistake with a resulting wrong answer.

Gonella said that Hall and Harbottle had given good reasons, political but good, for using seven samples and labs. He added that the C-14 dating had slowed down a plan for other tests, not the other way around as Gove claimed. Gonella felt that seven samples and labs was not for scientific reasons, but for aiming for greater acceptance by the public.

Chagas said that STURP was interested in other tests besides C-14 but this workshop was only devoted to the latter. If STURP wanted to be associated with the C-14, it was not his decision. He had discussed it with several people who maintained that any future tests on the Shroud depended on its age. The Academy had chosen seven labs, so seven labs should participate. C-14 dating of the Shroud was the measurement of this century; STURP might want to make further measurements next century. With the exception of Gonella, the consensus was that seven labs should get one Shroud sample and two control samples.

The question of blind testing came up again. Most participants seem to favor it. It was then agreed that only six labs would get a Shroud sample (with one kept in reserve) and the seventh would get the dummy Shroud sample, in spite of the fact that Flury-Lemberg asserted that it would be impossible to find a sample that closely resembled the Shroud. Gove was opposed to this but knew that he would be able to know if his lab had a real sample or dummy sample just by weighing the threads. Chagas then led a discussion on the procedure for the cutting of the samples and how they would be transported to the British Museum and then the labs. Additional questions were how would the results be statistically analyzed and how would they be made public? It was decided that the cleaning of the samples would be left to the labs themselves. Regarding which lab would get a dummy sample, Gove stated he was not clear who would make that decision. He wrote that he had come to the conclusion that if it was up to Gonella, Rochester would not get a Shroud sample. Gove wanted the British Museum and the Pontifical Academy of Sciences to decide on the distribution of the samples. Who would oversee the taking of the sample? Would it be someone chosen

by STURP? Chagas said that, with all due respect to STURP, Flury-Lemberg was the best choice.

According to Gove, “Adler then described the magnitude of the attack STURP wished to launch on the shroud-- . . .” Adler said there would probably be four or five conservation textile persons as well as other experts involved. Chagas suggested that Flury-Lemberg be involved in this aspect. He said he would like to see the dating done as soon as possible so when could STURP take this on? In response, Gove wrote, “This comment appalled me but I remained silent. As far as I was concerned, STURP would never take on the job.” Dinegar said STURP could extract the sample as soon as they received permission and that Flury-Lemberg was probably acceptable but they would need a few hours to decide for sure

Gonella asked Dinegar how much lead time was needed for STURP to organize. Dinegar replied that not much time was needed just to take the samples. Chagas asked whether they could be ready by March or April and Dinegar replied in the affirmative. Gove then noted in his recounting, “I could see that Lukasik, by this time, was really licking his lips.” Gove then asked if STURP wouldn’t want to know if the Shroud was only 600 years old—wouldn’t that change their approach for the battery of tests they wished to perform? Dinegar replied that at the moment, he was not sure. Lukasik added that it wouldn’t make that much difference “if STURP just took samples or if they carried out all the tests they lusted to do. The samples would have to be characterized (whatever that meant) . . . “

Chagas said that the discussion had drifted away from the procedure for the C-14 dating. The dating could be done very soon and wouldn’t have to wait for the additional STURP tests. Meacham spoke up and disagreed. He believed the STURP tests should not be set aside. He said an archaeologist would never stop a dig just because a date came out younger than expected. Gove wrote of Meacham, “He had such a boyish enthusiasm for archaeology and yet his attempted analogies between that field and carbon dating the shroud seemed far fetched to say the least. He should never have been allowed to play a role in the workshop.”

Dinegar stated that STURP accepted responsibility for taking the Shroud samples. Gove wrote, “I thought to myself—over my dead body they will. Dinegar asked if it was agreed that STURP, along with Flury-Lemberg, would take the samples. Chagas said that after conservation assessment, samples would be taken at the beginning of May under Flury-Lemberg’s direction. Chagas then said he assumed that all participants were pledged to keep matters as secret as possible until the final results were announced. Gove then announced he was surprised that the sample taking would be done by STURP. Since the samples would eventually be turned over to the British Museum, Gove wanted a simple operation with Flury-Lemberg extracting samples witnessed by the C-14 consortium. Gove wrote, “I said I saw no reason at all, and I was being more forthright and less diplomatic than I should be, that our carbon dating enterprise had to be connected in any way with any of the enterprises that STURP wished to carry out. I said I felt so strongly about this that I would have to consider the question of our laboratory’s participation if STURP played any role at all.”

On the question whether each lab would receive an actual Shroud sample, Gove said that one of the reasons he had for wanting to be involved in the Shroud dating was

that he wanted his lab to occasionally be involved in something mainstream that the public was interested in, since it was their tax dollars that funded the lab. If he went to his lab saying that he had three samples, one of which may or may not be the Shroud, he would have difficulty getting everyone enthused. Gove then added, "Whether one called such sentiments political and not scientific, they were very real."

Regarding blind testing, Gove said that if they did, in fact, receive three samples and one was the Shroud, they would do the measurements, which would not be affected by whatever prejudices they had about the Shroud's date. Gove conceded that in science, "it was true that in making a measurement sometimes one involuntarily got the answer one wanted by somehow unconsciously manipulating the apparatus and I assumed this was the reason for making the measurement blind." But he felt that they did not need to go the extra step of not giving a Shroud sample to one lab only. Gove said that if that extra step was taken, Rochester would withdraw.

On the question of not keeping secrecy pertaining to the test results, Gove said that would risk being dishonored in the C-14 community forever. So members of each and every lab had high motivation to keep secrecy. More discussion ensued about blind testing and whether the Shroud samples given to labs should be unraveled or whole. Most seemed to favor whole. Hall opined that he would like to see the samples unraveled but then Tite could put them and the control samples in envelopes to give to the labs' representatives. Hall reasoned that if the sample was whole, it would easily be identified as the Shroud. It was unlikely to find a dummy Shroud sample, so blindness was impossible. But he said it was important to do blind testing because if it wasn't done, they would be open to criticism. Gove wrote that he found Hall's argument confusing insofar as he seemed to be saying there was no feasible way to do blind testing but they must do so anyway. Tite said there clearly was no question of blind testing unless the samples were shredded to some extent and that he wasn't the one pushing for the blindness.

Gove wrote that Gonella "gave another of his tiresome monologues. He was concerned that there was a significant lack of trust among the participants." He inquired whether he should be present for each step of the process in each lab. Gove then wrote, "At the time this struck me as an inventive way to dispose of Gonella." Gonella was critical of the decision to use seven labs. He also said he didn't understand why the labs had to be present at the sample taking. Didn't they trust the British Museum? Finally he said that Turin had not requested the blind testing. If there were no blindness, there was no need for seven labs and a dummy sample. He ended with the remark that "we all know that Professor Gove doesn't like STURP" and added that Gove had "said that many others felt the same way." Gonella wanted to know specifics on this. Chagas censured Gonella saying he didn't want let personal conflicts intrude. Gove then jumped in saying he was just accused of not liking the STURP people. Gove stated that this was untrue and irrelevant.

Chagas reported that the samples would be taken outside the image area of the Shroud. If the Shroud were younger than 2,000 years, there would be a declining interest in the Shroud—at least among the general public. He indicated that samples would be taken in early May 1987 and the results would be announced at Easter 1988, and anyone from the labs was welcome to come witness the sample taking. Chagas

then asked Giovanni Riggi, who would end up being the one to cut the sample, about the logistics of getting the Shroud out of storage. In his book, Gove was critical of Riggi for cutting the sample without even wearing gloves.

Gove then related that Lukasik followed. “To me his monologues were almost as sanctimonious, tiresome and tutorial as Gonella’s.” Lukasik stated that STURP’s main concerns were authenticity, conservation and image formation, but that a C-14 dating was a first priority. Gove then asked if all labs would be getting a Shroud sample. Chagas asked what the various labs thought about not getting a Shroud sample and added that since Dr. Gove came from a democratic country, he would abide by the majority decision. Members from the various labs went on the record giving their answers. Chagas stated that the Shroud C-14 dating would be blind and added, “I do not think Professor Gove was serious when he said Rochester would withdraw.” Gove replied “that perhaps Professor Chagas knew me too well—we would not withdraw.”

Although Chagas had said only a few minutes before that anyone from the labs could witness the sample taking, he then announced only one person from each lab could observe. Gonella expressed concern about the number of people that would be in the small room where the sample would be removed. Gove relates in his book that Gonella later told him that he was even concerned that a representative from the lab might be seized by religious fervor and rush forward to touch the Shroud. Gove wrote, “This struck me as so ludicrous I laughed in his face.”

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 150-173.

Comments: Gove clearly wouldn’t have been satisfied participating if his lab hadn’t received a Shroud sample. Regarding Flury-Lemberg’s comment, how could she know without having examined the cloth if an area had been repaired or not? Regarding Gove’s comment about Gonella’s “incoherent teeth grinding sounds,” the question has to be asked, “Does anyone ever make coherent teeth grinding sounds?” Gove paints Lukasik as a “true believer” but doesn’t give any examples of why that was so. Gove seemingly painted STURP with one large brush. Again describing Lukasik, it’s not clear what an “unreconstructed cold warrior” is, but it’s not a compliment.

Despite the fact that Woelfli acknowledged that small samples are not sufficiently cleaned, the labs would later proclaim their test results with a 95% confidence level. One can get the impression that the C-14 consortium believed that certain C-14 problems just aren’t applicable to the Shroud. Gove’s recounting of Hall swaying on the number of labs based on whichever one would benefit his lab seems suggests that scientific objectivity did not trump—well, how did Bromley describe in the foreword to Gove’s book some behavior that went on—“deception, outright lies, low cunning, misrepresentation, and a pathological hunger for publicity . . .” The idea that future tests on the Shroud depends on its age ignored two very important points: 1) STURP did its battery of tests in 1978 without knowing exactly the age of the cloth and 2) given that C-14 results are sometimes wrong, it would be unwise to deem other tests insignificant.

Chagas’ suggestion that STURP might make additional measurements next century would mean that approximately twenty two year would have elapsed between their

twentieth-century expedition and the proposed twenty-first century expedition. Needless to say, that's a large gap of time to expect any real continuity. Notice Gove's inflammatory language when speaking of STURP. When Adler talked of conservation measures, Gove described it as an "attack." When talking about the tests that STURP proposed, he says they "lusted." What exactly was the difference between Gove wanting to perform a C-14 test on the Shroud and STURP wanting to perform other tests (which actually included C-14)? The answer is none other than perspective. Lukasik is described as "licking his lips" in response to a proposed STURP involvement. Gove questioned Lukasik saying the samples should be "characterized (whatever that meant) . . ." Presumably he meant they should be chemically analyzed, something the labs should have done but didn't. Even though the Shroud is an archaeological object, Gove saw no need for the archaeologist Meacham, with his "boyish enthusiasm," to be at the meeting. Once again, Gove seems to be overly critical of non-C-14 scientists. Gove seemingly admits that his motives for wanting to date the Shroud were more political than scientific. In the case of a highly emotional topic like the Shroud, one cannot underestimate the unconscious manipulation factor that Gove conceded occurs in science.

Regarding secrets being kept until the final results were announced, it was not done, as we shall see later. At the very least, the labs allowed unauthorized persons to view the datings, which was strictly prohibited in the agreement they signed. Given that, it doesn't matter much whether or not the leak came directly from a member of one of the labs. Gove's critique of Hall's argument about the blind testing shows how convoluted the thinking was during the workshop.

When Gonella pronounced that Gove didn't like STURP, Gove responded that he was accused of not liking STURP people. Gove added the "people." Gonella wasn't talking about STURP as individuals—he was talking about them as a group. And any rational person, based on Gove's own statements, would conclude that Gove didn't like STURP. And it was relevant—it played a major role in the discussions leading up to and throughout the workshop.

[Added February 15th, 2016]

1986 *September and October*. Adler recounted his recollections of the meeting and the subsequent results: "I was at that meeting, too as the chemical advisor. It was written up in *Archaeological Chemistry IV*. Bill [Meacham] pointed out all the things that you could screw up if you didn't have an archaeologist involved in the sampling, to advise you what to do and what not to do. And a chemist, to tell you what to do and what not to do, before you start sampling. That was all in the original protocol. *They didn't follow it* [emphasis in original]. They wrote a different protocol. *They didn't even follow that* [emphasis in original]. When asked why they took the sample where they took it, the answer was: 'Well, it was cut there before.' Now that is the stupidest argument in the world for taking one sample from the place where they took it. Because they know that area is an area that's been repaired; they know it's by a water stain; they know it's by a scorch; and they know that people have found previous chemical evidence that that

area is peculiar. But nevertheless, that's what they did. And that's why we have a date that all sorts of people don't believe. Because they don't believe the accuracy of the thing."

Source: Case, T.W. The Shroud of Turin And The C-14 Dating Fiasco: A Scientific Detective Story (Cincinnati: White Horse Press, 1996, pp. 77-78.)

Comments: Having advisors at meetings don't do much good if their advice is not taken.

[Added May 29th, 2016]

1986 *September and October*. Summary of the protocol finally decided on: 1) This is the time for radiocarbon dating of the Shroud of Turin. (2) A minimum amount of cloth will be removed, which is sufficient (a) to ensure a result that is scientifically rigorous and (b) to maximize the credibility of the enterprise to the public. For these reasons, the decision was made that seven laboratories will carry out the experiment: five accelerator-mass spectrometer laboratories and two small counter laboratories. (3) The samples should be taken from an unobtrusive part of the shroud, and from a portion which is not likely to yield other useful information. The samples should not include charred material. They should be prepared in a form, not too small, so as to allow reasonable pre-treatment processes. In addition to the shroud samples [and the dummy sample*], the British Museum will also prepare and provide two control samples for each laboratory. (4) For logistic reasons, samples for radiocarbon dating will be taken from the shroud immediately prior to a series of other experiments planned by other groups. Selection of the material to be removed and the actual removal will be the responsibility of Mrs. Flury-Lemberg (Abegg-Stiftung, Bern, Switzerland). (5) Seven samples containing a total of 50 milligrams of carbon will be taken from the shroud. In addition, a single dummy sample will be prepared by the British Museum. These shroud sample and the dummy sample will be distributed to the seven laboratories in such a way as to ensure that the seven laboratories are not aware of the identification of their individual sample. This distribution will be the responsibility of the following three, certifying institutions: the Pontifical Academy of Sciences (Professor C. Chagas), the British Museum. (Dr. M.S. Tite) and the Archbishopric of Turin" (Professor L Gonella). (6) The taking of the samples will be done so that representatives from the seven laboratories, will have complete knowledge of the process. Samples will be delivered by the three certifying institutions (see 5 above) directly and immediately to the representatives of the seven laboratories who will thereafter be responsible for the samples. (7) At this time, a date will be chosen for submission of experimental results from the seven laboratories to the following three analyzing institutions: the Pontifical Academy of Sciences, the British Museum, and the Metrological Institute of Turin, "G. Colonnetti". These institutions will keep the results in sealed envelopes until an agreed upon date, at which time they will be opened, for statistical analysis. (8) After the analysis of the experimental result by the three analyzing institutions, a meeting will be

held in Turin between the three analyzing institutions and representatives of the seven laboratories to discuss the results of the statistical analysis with the objective of deciding the final result of the measurement program. (9) The radiocarbon groups will, through correspondence, establish a common format for presenting the experimental results to the analyzing institutions. (10) The cost of the experiments and the analyses will be borne by the participating institutions. Travel and living expenses entailed will be provided by the Pontifical Academy of Sciences unless other arrangements are made. (11) Samples from the shroud will be taken by May 1987 . It is hoped that the final result will be available by Easter of 1988. This final result will be published in an appropriate scientific journal as a collaborative paper. (12) The Archbishop of Turin, Cardinal A. Ballestrero, will issue a press release concerning this Turin Workshop.

*Parenthetical phrase added by Gove for clarity.

Source: Gove, H.E. "Turin Workshop on Radiocarbon Dating the Turin Shroud." *Nuclear Instruments and Methods in Physics Research B29* (1987): 193-195.

[Added August 20, 2016]

1986 *October*. Italian researcher Franco Faia stated, "[Gove] involved the head of the British Museum, getting him to sign something without being aware of what it was. From all over the world the Church was blackmailed, being told, 'either you let us examine it or it means you're scared and it's false.' Gove even put pressure on the three labs chosen to refuse the dating of it if it were carried out only by three laboratories."

Source: *The Night of the Shroud (La Notte de la Sindone)*, documentary directed by Francesca Saracino, 2011. In 2016, it was revised and retitled "Cold Case: The Shroud of Turin," which is available at amazon.com. I have a review copy of the original version, which has an English voiceover. The revised version has English subtitles. (The material cited here can be found between approximately the 15 minute and 35 minute range on the original version review DVD).

1986 *October*. On October 5th, the Italian newspaper *La Stampa* announced that the Pope had given approval for the Shroud to be dated by seven labs. When Gove discussed the story with Canuto, he said that the Pope, in fact, had not approved the testing. The protocol was being prepared in Rome and copies would be sent to everyone, include the Pope and Cardinal Ballestrero. Chagas started having second thoughts about the tests that STURP proposed after the removal of the samples. He was concerned about floodlights and X-ray and UV irradiation that the Shroud would be exposed to. Chagas wanted to get advice from the other labs about this. Canuto said that he could call Harbottle and Donahue and suggested that Gove contact the other four.

The next day Hall said he would write to Chagas that he was less worried about X-rays than UV light. Wolfli, Harbottle and Donahue said they would write to Chagas. Duplessy and Otlet declined to offer advice. Harbottle claimed there was nothing new in STURP's proposed tests. Gove wrote to Chagas on October 7th saying that if the C-14 date did come out first century, no further testing should be allowed "until they had been approved by some reputable and dispassionate international group of scientists."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp 177-178.

Comments: Harbottle's remark about nothing new in the proposed new round of tests is wrong—STURP specifically wanted to do additional testing that they were unable to do from 1978. Gove's comment about additional tests being "approved by some reputable and dispassionate international group of scientists" is obviously meant to exclude STURP's participation.

[Added February 20th, 2016]

1986 *October*. Meacham wrote, "a few weeks after the Turin conference, things began to unravel. According to Gove's own account, in October 1986 'Chagas was having second thoughts about the tests STURP planned to carry out after the removal of the Shroud material] for [C-14]. He was concerned about the floodlights and the X-rays and the ultraviolet radiation . . . Chagas would like the advice from the laboratories on the possible danger that these tests might pose to the Shroud.' And if accurate, this account puts Chagas in an extremely bad light. And he was asking the radiocarbon labs for advice about the conservation impact of tests that STURP was planning on a textile? These were the very same labs whose directors mostly could not see the relevance of these tests for the carbon dating; needless to say, they would not have a clue about such a conservation matter. And yet, amazingly, they jumped in where angels fear to tread, and Gove, Harbottle, Hall and Donahue wrote to Chagas expressing the objections to the STURP tests. This was probably also a political move, to finish the job of shoving the STURP aside completely period. The whole enterprise was shameful.

Gonella would write later about this move on the part of Gove and his cohorts: 'at the beginning ... They [the radiocarbon labs] had guaranteed us the utmost seriousness and completeness in the analysis, as well as promising to collaborate with the custodian of the Shroud, the archbishop of Turin and with his scientific advisor, the undersigned. Seized however by a feverish desire for celebrity, they began to renege on their promises: up no further interdisciplinary investigations; just the carbon 14 test.

Up they even badgered Rome, bringing pressure to bear so that Turin would have to accept their conditions. . . . Scientifically, I would have been happier and have my mind at ease if the dating operation had been carried out in the context of comprehensive, wider ranging and thorough chemical and physical investigation of the Shroud as originally planned. The carbon 14 laboratories preferred to work independently and

they did not wish to collaborate with other scientists, something that, from the point of view of scientific methodology, left me greatly puzzled and certainly not satisfied’.”

Source: Meacham, William. The Rape of the Turin Shroud: How Christianity’s most precious relic was wrongly condemned and violated (Lulu.com), 2005, pp. 76-77.

1986 *November*. Gove talked with Canuto on November 5th. Chagas and Monsignor Rovasenda had gotten together with the Pope for lunch the week of October 20th. The Pope had been “pleased at how the workshop had gone but had expressed concern about STURP.” Canuto related that Chagas had received letters from Gove, Donahue, Hall and Harbottle regarding the proposed STURP tests. Canuto summarized them for Chagas to deliver in a letter to the Pope the week of November 5th. Canuto remarked that if the dating did not come out to first century, interest in STURP’s tests would diminish.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp 178-179.

Comments: Canuto’s prediction that if the Shroud dating turned out not to be first century that interest in STURP’s proposed testing would diminish did not come true. In fact, given that STURP’s 1978 tests were the impetus for a C-14 dating, the C-14 results were doubted by many from the very beginning, and that Cardinal Ratzinger had in 1985 actually approved STURP to have two full weeks with the cloth, the importance of the proposed STURP tests can hardly be overestimated. Sadly, though, the Church never gave STURP permission again to do more testing.

Gove did not elaborate in his book exactly why the Pope had expressed concern about STURP. Perhaps Chagas’ won concerns impacted him. Perhaps the Pope would not have had concerns had he been able to meet with a scheduled STURP contingent on May 13th, 1981. Unfortunately, that was the day of the assassination attempt on the Pope and the contingent never did meet with him again.

[Added February 20th, 2016]

1986 *December*. On December 14th, Cardinal Ballestrero wrote a letter to Vatican Secretary of State, Cardinal Casaroli, regarding the strange behavior of Chagas.

Gonella said “The actions of Chagas over the laboratories was clearly a pretext. It was a serious violation of scientific ethics. Those involved have now sunk to the letter of anonymous letters.”

Source: *The Night of the Shroud (La Notte de la Sindone)*, documentary directed by Francesca Saracino, 2011. In 2016, it was revised and retitled “Cold Case: The Shroud of Turin,” which is available at amazon.com. I have a review copy of the original

version, which has an English voiceover. The revised version has English subtitles. (The material cited here can be found between approximately the 15 minute and 35 minute range on the original version review DVD).

Comments: The narrator in the *Night of the Shroud* documentary posed the question, “What lies behind these alliances?”

1986 *December*. On December 17th, Gove asked Canuto if there any new developments. He said that the Chagas letter to the Pope had also been sent to Cardinal Ballestrero. Gonella had been shown the letter and apparently showed no agitation. Gove wrote “One would have expected him to be enraged by the thought that STURP might be slighted. Canuto was suspicious of his calm reaction.”

Source: Gove, Harry. Relic, Icon or Hoax: Carbon Dating the Turin Shroud (Bristol: Institute of Physics Publishing: London, 1996), pg. 179.

Comments: Once again Gove skimmed on elaboration. Canuto said he was suspicious of Gonella’s calm reaction but goes no further. One senses that Gove told this story simply because he did not like Gonella.

[Added February 20th, 2016]

1987. Cardinal Ballestrero wrote an official letter to all participants of the 1986 Turin conference and said, “. . . some participants in the Workshop . . . stepped out of the radiocarbon field to oppose research in other fields, with implications for the freedom of research of other scientists and on our own programs for the Shroud conservation that asked for thorough deliberation. Besides, when the competent Authorities advised me they deemed we ought to proceed with three samples, a concerted initiative was taken to counter the decision, with the outcome of a telegram sent to H.E. the Cardinal Secretary of State and myself by some participants in the Workshop, a telegram where the meaning of my introductory words at the Workshop was heavily misinterpreted.”

Source: Meacham, William. The Rape of the Turin Shroud: How Christianity’s most precious relic was wrongly condemned and violated (Lulu.com), 2005, pg. 84.

1987. When changes were made to the original protocol for dating the Shroud, Gove wrote to Pope John Paul II: “The procedure that the Cardinal of Turin is suggesting is bound to produce a result that will be questioned in strictly scientific terms by many scientists around the world who will be very skeptical of the arbitrarily small statistical basis when it is well known that a better procedure was recommended. Since there is great world expectation for the date of the Shroud, the publicity resulting from a

scientifically dubious result will do great harm to the Church. We respectfully urge your Holiness to persuade the Cardinal of Turin that the scientific advice being given to him is not shared by the world experts in this field. He should be urged to see the advice of the eminent scientific organization expressly created to advise you, namely the Pontifical Academy of Sciences that enjoys the respect of the scientific world at large. Rather than following an ill advised procedure that will not generate a reliable date but will rather give rise to world controversy, we suggest that it would be better not to date the Shroud at all.”

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 219.

1987. According to Meacham, “I heard from several sources that the number of labs was going to be cut to three, and that STURP and other groups would not be allowed to run any of its planned testing until after the C-14 dates were announced. This was a sad state of affairs, as STURP was the main group studying the relic. Clearly Michael Tite of the British Museum was only in the picture as a referee of sorts; he would not be directly involved in the sample-taking or in the interpretation of the results. Sensing an opportunity for a small group to play a role in the project, I contacted two Italian archaeologists I knew --Roberto Ciarla and Maurizio Tosi--both of whom had worked in the Middle East. Together we formulated a proposal to be involved in the sampling and in the final interpretation of the results. Unfortunately Gonella did not take up this offer, and in the end chose his colleague Riggi, plus two textile experts who knew nothing about the Shroud, to assist in selecting the sampling site. This was a terrible decision on the part of Gonella, matched only by his equally appalling handling of the announcement of the results.”

Source: Meacham’s book: The Rape of the Turin Shroud: How Christianity’s most precious relic was wrongly condemned and violated (Lulu.com, 2005, pg. 83).

Comments: The shocking exclusion of STURP from the process---and failing even to ask STURP’s advice on a suitable C-14 sample Shroud location---were errors as serious as the decision to choose only one sample region for the carbon dating.

1987 *January*. Cardinal Ballestrero sent a letter to the Pope requesting that he authorize revisions to the protocol. Gove stated that he believed that the revisions had been suggested by Gonella and “were just the ones Gonella wanted.” Gove said that Canuto related that Chagas was not sent a copy of this letter.

Meacham wrote a letter to Adler, Damon, Donahue, Hedges, Lukasik, Otlet and Woelfli. Meacham did not include Gove, but someone sent him a copy. Meacham related “that he had received very disturbing news from Gonella that cause him to write to Chagas.” In the letter, which was also sent to Cardinal Ballestrero and Michael Tite,

Meacham expressed alarm that some participants at the Turin workshop had voiced concerns about the proposed STURP tests and the negative impact those tests might have. He asserted that the tests were outside their areas of expertise and that questioning them exhibited a hostile attitude toward appropriate study of the Shroud. Meacham said that this attitude had been “reinforced by the provocative and improper remark made at the meeting, regrettably allowed to pass without reprimand by the chair, that STURP was on a crusade to study the shroud in the full glare of publicity.”

Meacham believed that the consensus reached at the workshop had several significant weaknesses. But he acknowledged that it had been reached through negotiations. The timing and relevance of the proposed STURP tests were discussed at length and the agreement on them was spelled out in Item 4 of the conclusion paper, specifying that the samples would be taken right before other tests. Meacham felt that “any attempt now to alter this agreement through back-room dealings appeared to him to be subversive and underhanded.” He hoped that Chagas would ensure that the agreed-upon consensus would be adhered to. Meacham further stated that no faction should be allowed to maneuver through whatever connections they might have to get their priorities to the fore or to block steps that had been agreed upon at the workshop. He concluded by saying either there was a basic agreement on the protocol or not. If there wasn't, the workshop was simply an academic debate and the authorities responsible for the Shroud would be justified in reconsidering the whole issue of C-14 dating for it.

Source: Gove, Harry. Relic, Icon or Hoax: Carbon Dating the Turin Shroud (Bristol: Institute of Physics Publishing: London, 1996), pg. 195 (re: Ballestrero letter to Pope); pp. 180-181 re: Meacham letter.

Comments: Gove guesses that Meacham's allusion to the “provocative and improper remark” at the Turin workshop was “probably his version of some quote from me.” Gove seemed to have a hard time entertaining the idea that such negative thoughts could have been expressed by himself. And there was a double standard regarding publicity. Although the C-14 consortium, based on various quotes found in this article, definitely thought of the publicity aspect for their labs, Gove, at least, apparently accused STURP of having publicity uppermost in their minds. Meacham, it should be pointed out, was neither a member of STURP nor of the C-14 consortium, so probably could be considered one of the more objective participants.

[Added January 30th, 2016 (re: Ballestrero letter to Pope); February 20th, 2016 (re: Meacham letter)]

1987 *Early February*. Canuto returned from Rome. He said that the authorities in Turin “were still dragging their feet.” Cardinal Ballestrero had visited the Vatican recently and had been invited to also visit the Pontifical Academy of Sciences but declined. While Cardinal Ballestrero was in Rome, Chagas had dinner with the Pope. Chagas repeated to the Pope his concern about the STURP tests and the Pope said he was going to

meet with Ballestrero the next day and would remind the Cardinal that some action must be taken with regards to the C-14 testing. Canuto believed that the STURP testing was the big obstacle and that Gonella was still pushing for them. Canuto suggested that Chagas send Monsignor Rovasenda to Turin to meet one on one with Cardinal Ballestrero, as one clergyman (and friend) to another. In that way, Gonella could be excluded. Chagas obliged. Canuto told Chagas that Cardinals were powerful individuals. Gove said that he began to realize that in some matters the Pope was just a brother Cardinal. Gove saw Ballestrero and Gonella as “the key players in this shroud drama.” Gove added that Canuto remarked, tongue in cheek, “How is the pope to know that Gonella is a second rate scientist and that the rest of us are super scientists?”

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 181.

Comments: It’s worth remembering here again that Cardinal Ratzinger had officially approved in 1985 STURP getting two full weeks to do additional testing on the Shroud. Regarding Canuto’s remark about Gonella, given all the previous comments by Gove, one can wonder how firmly Canuto’s tongue was in his cheek. In fact, according to Kersten and Gruber (see October 1987 entry below in which they quote Gove as seriously asserting that Gonella was “a second-class scientist”!!

[Added February 20th, 2016]

1987 *March*. Sox called Gove on March 8th. Sox had recently been in Italy and told Gove he got indications while there that “all was not smooth sailing with the shroud dating project.” He also “had no doubts that the problem lay with STURP. Sox learned that Fr. Coero-Borga, who had been head of the International Sindonology Centre in Turin, had died in December. Gove noted that Coero-Borga had always been opposed to the Shroud being dated, “so we had one less adversary. Plenty remained.”

In mid-March, Canuto called Chagas. There still was no definitive word yet on the Shroud dating. Gove then wrote Chagas and said he was sure that the Vatican and Turin were not having any doubts about the efficacy of the AMS method, so “It must be because STURP was insisting that its battery of high technology, invasive and possibly deleterious measurements must immediately follow the removal of a small sample for carbon dating. Gove then added, “STURP’s desire to conduct further measurements on the shroud seemed to have rendered them bereft of reason.”

On March 19th, Gove received a letter from Mark Plummer, executive director of the *Skeptical Inquirer*, “a journal that investigated claims of the paranormal.” Plummer inquired if “scientific observers” from his group to be present at every stage of the testing. Plummer also enclosed a copy of a letter written by Fr. Rinaldi of the Holy Shroud Guild written to Guild members that the Shroud would soon be undergoing the most thorough scientific examination ever attempted, including the C-14 dating. Fr. Rinaldi said it was the Pope’s wish “that everything be done to solve the mystery of the shroud.” The examination would involve many experts and would involve a lot of

expenses. Donations were requested. Plummer wanted to know from Gove if the Guild was directly or indirectly funding Gove's lab's involvement. Gove responded to Plummer that his lab was not being funded by the Guild. Gove said that many groups would like to be present for every stage of the testing but that would be impossible. But he assured Plummer "that the radiocarbon measurements would be carried out in a manner that would satisfy even the most skeptical inquirer."

On March 28th, Gove informed Chagas about the letter from Fr. Rinaldi. Chagas was surprised as he had not been kept informed about the STURP's proposal. Chagas then asked Gove to send him a copy of the Rinaldi letter.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 181-183.

Comments: Gove saw Coero-Borga, and anyone else who didn't agree with Gove, as adversaries. Gove's attitude, needless to say, was not conducive to a cooperative effort in dating the Shroud. Gove made an educated guess, but practically boarding on fact, that STURP was responsible for the delay in the dating. It's not clear why STURP's desire to do additional testing to complement C-14 dating, a test that is sometimes in error, left them "bereft of reason."

The *Skeptical Inquirer* is not a journal but is rather a magazine. To describe them as investigating the paranormal is not quite accurate; they in reality try to debunk every paranormal claim. Had they been allowed to be present for the testing, and the test had come out first century, it's a safe bet they would have found a reason or reasons why the testing was not valid. Gove was in error in his belief that the dating would be carried out in a manner that would satisfy even the most skeptical.

Regarding the Church's pronouncements via various individuals regarding particulars of the dating procedures, it is obvious that the left hand did not know what the right hand was doing.

[Added February 20th, 2016]

1987 *April*. Gove phone Gonella in Turin on April 1st and asked if there were any new developments. He said that Turin was still waiting to hear from Rome. Gove told him he had heard that Rome was waiting to hear from Turin. Gove then read to Gonella a portion of Fr. Rinaldi's letter and said the only way he could interpret it was that STURP had some big plans, which concerned Gove regarding the impact on C-14 dating. Gove suggested to Gonella that Cardinal Ballestrero call the Pope and pin down who was waiting for whom. Gonella said he would pass along the suggestion when he met with the Cardinal the following Wednesday.

On April 10th, Chagas wrote a short letter to Gove saying "I think something has happened which will find a solution for the work of dating carbon-14." On April 15th, Gove sent a progress report to the six labs and to Tite at the British Museum. Six months had passed since the Turin workshop. At a C-14 conference held between April 27th-30th, Gove met with representatives from five of the AMS labs involved in the Turin

workshop to discuss the delay in the Shroud C-14 dating. Gove was requested by the others to write a letter to Chagas reaffirming their support for the protocol that had been agreed to and to press for action.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 183-184.

[Main entry expanded from short version February 21st, 2016]

1987 *May*. On May 7th, Gove sends a telegram to senior representatives of the six other labs and to the British Museum. Gove informs them he planned to hand-deliver it to Chagas in New York on May 16th or 17th. Gove says that in his view, "Gonella and STURP are being deliberately mischievous concerning carbon dating." He further states that if Turin workshop is not followed to the letter, he would no longer be willing to be involved. He then asked the recipients to approve the letter. In particular, they affirmed 1) all seven labs must be directly involved; 2) Mechthild Flury-Lemberg must be responsible for the selection and removal of the samples; 3) representatives of all 7 laboratories should be in attendance when the sample is removed; 4) representatives from the Pontifical Academy of Sciences, the British Museum, and the Archbishopric of Turin will supervise the removal of the samples and their transfer to the representatives of the seven labs.

Hall from Oxford called Gove that day and expressed his concern that the letter might actually make the situation more complicated. He believed Chagas preferred only two or three labs. Gove replied that it was his impression that the Turin authorities was by-passing Chagas and that this letter could strengthen his hand. Hall also said that if the number of labs was reduced it would mean starting again. Although it was clear to Gove that Hall opposed the reduction of the number of labs, Hall would later change his mind.

On May 8th, Gove received a message from Woelfli in Zurich saying that he fully agreed with all the points made in the letter and would sign it. He also stated categorically that he would withdraw if the Turin workshop agreement was not followed to the letter. Gove noted that Woelfli would also change his mind later on.

On May 11th, Gove sent the letter to Chagas; it was signed by the heads of the five AMS labs that gave their approval.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 187-189.

Comments: Gove does not elaborate on why he feels Gonella and STURP are being "mischievous" regarding the C-14. Although Gove and Woelfli both had stated they would not be involved if the Turin workshop protocols weren't followed, both stayed involved: Gove, by attending Arizona's dating (even though the labs had agreed not to invite outsiders) and Woelfli with his Zurich lab being one of the three labs ultimately

chosen. Hall, although not threatening to withdraw, did not complain when the number of labs was reduced from seven to three, with Hall's lab also being one of the three labs finally picked. There seemed to be a wave of scientists "not sticking to their guns." As will be noted later, Gonella believed the three labs would not refuse being involved because "the prize was too great."

[Added January 25, 2016]

1987 *May*. On May 21st, Cardinal Casaroli announced that only three samples would be taken and only three labs would be involved in the testing. Gove's lab was not one of the three chosen and furious protests ensued. Some labs claimed that the AMS method wasn't ready yet, mainly because of the significant number of incorrect readings from small samples. Harbottle claimed that the chances of a measurement being incorrect was one in five. Cardinal Casaroli did not allude to the other tests, which ultimately would never be done.

Meanwhile, New Zealand art historian Dennis Dutton wrote a letter to the editor of *Nature* (where the final report would be published in February 1989), expressing a lack of confidence in the protocol. He said it left open the possibility of samples being tampered with. He worried that fibers of linen from mummy could be substituted for the Shroud samples. The insinuation was offensive to the experts who had met in Turin.

Tite replied in another published letter to the editor in *Nature* that all the involved institutions were fully aware of the critical need to guarantee that the chain of evidence was unbroken. Tite said that the British Museum was invited to be part of the process for that very reason. The protocol would be monitored at every stage by two other institutions as well: the Pontifical Academy of Sciences and the Archbishopric of Turin.

Gove, in yet another letter to *Nature* wrote that the agreements made in Turin excluded any possibility of tampering.

Source: Marinelli, Emanuela. "The Setting for the Radiocarbon Dating of the Shroud." Presented at 1st International Congress on the Holy Shroud in Spain - Valencia Centro Español de Sindonología (CES), April 28-30, 2012, pp. 6-7, www.shroud.com/pdfs/marinelliv.pdf.

Comments: The Petrosillo/Marinelli book (pg. 38), quoted Gonella, "These laboratories . . . are a very closed group. I have become aware of this; they are much more concerned about the good relations between themselves not to offend their individual susceptibility, even more than about their relationship with the outside world."

[Comments added May 29th, 2016]

1987 *June*. Gove wrote a letter to Chagas sharply critical of the way that the Turin authorities had handled Shroud matters in the past and were continuing to mishandle matters. Gove stated that the Shroud "had been subjected to a number of scientific

tests of dubious value carried out in ill conceived ways by scientists of unknown reputation." He first cited the 1973 investigation of textile expert Prof. Gilbert Raes, who analyzed some threads. Gove claimed that Raes' discoveries had minimal significance and that his and Turin's control of the samples were so careless that they were judged to be not suitable for carbon dating. He then recounts the 1978 STURP study, "carried out by people who were already convinced they were dealing with Christ's shroud." He asserted that STURP's findings yielded "negligibly significant results" and that STURP "subjected the shroud to a number of intrusive stresses." He further stated "almost every aspect of the STURP organization was distasteful to many other scientists. This included their clear religious zeal, their questionable sources of support, their military mind set, and last, but not least, their assumption that the Turin Shroud was their property as self-appointed investigators of its origins and properties."

Gove's key points to Chagas were: 1) If Chagas was not allowed to continue his leadership of the C-14 dating process, the C-14 "consortium" would probably become disenchanted and withdraw their participation. He added that if STURP was involved in any way in the C-14 dating, the consortium withdrawal would be guaranteed. 2) If the C-14 dating was delayed due to conservation considerations, "conservation experts should be contacted by the Pontifical Academy and not by STURP." 3) Gove noted that STURP had proposed that Shroud samples would be removed from behind the patches in order to measure stable isotope ratios to try to determine the geographical origin of the cloth. Gove stated he "described this, quite charitably, as outrageous nonsense and asked whether there was nothing that could be done to hold STURP in check." 4) He reminded Chagas of the pressure that he claimed STURP had put on Flury-Lemberg during the 1986 Turin workshop "and, exaggeratedly, compared it to the Spanish Inquisition."

Gove had hoped that Pontifical Academy under Chagas would bring "a proper degree of international dispassion and integrity to the scientific endeavours to solve the mystery of the Turin Shroud." Gove said that "So far it had not because, clearly, he was unable to control the antics of STURP." He further stated that "One would be amused by the whole farce if one did not feel so saddened by the consequences STURP's activities would have ..."

In his conclusion, Gove says that those directly involved in the C-14 dating hoped that the Shroud would "be subjected only to sensible and prudent" testing. He acknowledged that STURP might be allowed to do other tests, but "what is in our power, however, is to ensure that STURP plays no role in carbon dating." Gove related that he received no reply from Chagas nor any indication of his reaction. He thought that Chagas may have realized, as Gove did not at the time, that the Pope had nixed the Academy's involvement.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 191-193.

Comments: It doesn't seem to have occurred to Gove that if the previous scientific tests had not been allowed, the C-14 test probably wouldn't have been performed. Regarding Raes, he was from the Ghent Institute of Textile Technology in

Belgium. A Dutch web site says "The Belgian textile industry is one of the most advanced and most successful industries in the world." That does not fit with "scientists of unknown reputation." Gove's characterization of STURP is laughable. The only point on which he was remotely accurate was the military mind set. STURP did have various members who had been in the military; perhaps the group could have used a little less of that mind set. But they were not "scientists of unknown reputation." Many of them worked in the U.S.'s space and nuclear programs.

(See www.shroud.com/78team.htm for a list of STURP members and their organizations.) While the group included several devout Catholics and some believed that it could be Christ's Shroud, their main objective had been to try and discover how the image got on the cloth, which they actually unable to do. Far from producing "negligibly significant results," they produced an enormous amount of data, which took three years to analyze. STURP had agreed to do only non-destructive testing and even constructed a special table at the cost of \$20,000 (in 1978 dollars!) to be as careful with the Shroud as possible. Some money and equipment for the project were donated by corporations and some STURP members even spent some of their own money to get there so it's not clear what Gove had in mind regarding "questionable sources of support." Gove's claim that they assumed "that the Turin Shroud was their property as self-appointed investigators of its origins and properties" is just absurd. They worked with various Church authorities, who gave them permission to work on the cloth and the results were reported. Gove clearly unfairly demonized STURP and seemed to criticize any scientists outside the C-14 consortium.

Regarding the numbered points Gove made in the letter: 1) even though the Pontifical Academy ended up basically having no role in the C-14 dating, the C-14 consortium did not withdraw. 2) Once again, Gove exhibited his fanatical antipathy toward STURP. 3) Gove revealed his bias that only a C-14 test had any significance, which is absurd given all the scientific disciplines that had been involved with the Shroud. 4) With all the pressures that Gove had been putting on various individuals to try and get his own way, it's laughable that Gove was complaining about STURP putting pressure on an individual. He even admits his analogy is exaggerated!

Gove judged that STURP had lacked objectivity and integrity and was presently up to "antics." And by implication, he was saying that none of that applied to him. The reader can judge if Gove was blameless in those areas. In the letter's conclusion, Gove again stated his intense desire to at least keep STURP from being involved in the C-14 dating.

[Added January 28th, 2016]

1987 *June*. Gove told the others they should have a position before Gonella sprung the announcement about the reduction of the number of labs. He thought the C-14 consortium would stick together and just inform Gonella that they refused to accept the decision. He thought, "That might bring Turin to its senses. Harbottle told Gove he would say "no." Donahue said he wouldn't do anything without more discussion but would want to stick by the original protocol. Gove thought it might be good to get the

input from the other four labs. Gove decided he would inform all seven labs that as a result of Cardinal Ballestrero's request to the Pope, 1) The Pontifical Academy of Sciences would not be involved from this point onward, 2) Gonella was in charge of the whole enterprise and 3) fewer than seven labs, probably only two or three would be chosen to do the dating.

On June 30th, Gove wrote Woelfli suggesting that a group letter be sent to Cardinal Ballestrero requesting that another planning meeting be convened "or we would just say to hell with it." Woelfli said he would agree to such a letter. Gove then talked to Hall. Hall said he suggested that Gove not do anything. Hall told Gove, "If you do anything to your enemies in Turin it will be curtains." Hall thought Gove's wording of the letter was threatening and that Gove should just request another meeting and not threaten to withdraw. Gove actually took Hall's advice. Gove followed by talking with Donahue, who expressed his thought that what had happened was almost certainly the work of STURP. He thought it would be tough to get it reversed. Gove "replied that I could not help thinking that it was STURP's enmity toward me that was causing the problem." Donahue told Gove he didn't think Gove was being singled out but that STURP didn't like their meddling. Donahue agreed with Hall regarding not including the threat to withdraw. Harbottle suggested to Gove that they make some mention of the Cardinal's opening address at the Turin workshop, in which he said it was important that the procedure be carried out properly. The original protocol was drawn up on that basis, and the changes were not in the best interest of carrying it out. Gove then phoned Tite, who seemed to Gove "a bit cagey as to what he knew." Gove felt Tite knew much more than he was letting on. He said he would sign Gove's proposed letter. Tite also said if the number of labs were reduced to three, the labs themselves should decide which ones would be involved.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 197-200.

Comments: Tite's comment that if the number of labs were reduced to three, the labs themselves should decide which of the seven would participate, is most bizarre. First of all, why would he assume that the Vatican and Turin authorities would be content with that. Secondly, given the existing chaos and human nature, how could he think that the labs could make an objective decision??

[Main entry expanded from short version February 21st, 2016]

1987 *June*. Regarding the exclusion of the Pontifical Academy of Sciences, "Its exclusion was perceived as a *political* [my emphasis] gain for Turin: it would be clear that they were to decide, without Rome interfering. But they were not completely pleased either with the choice of these institutions, and particularly of the British Museum: they felt that Dr. Tite was willing to act as a guarantor for the laboratories, but not for them. There were some hard feelings left after both Tite and Gove had published a reply to a letter from Dutton, in *Nature*, where the latter had warned against

possible fraud. Indeed they answered by saying more or less that they would take any precaution 'not to be tricked'. This was interpreted in Turin as 'not being tricked by the Turin authorities'."

Source: Laverdiere, H. "The Socio-Politic of a Relic: Carbon Dating of the Turin Shroud," 1989, pg. 85. Accessible via free download at <http://ethos.bl.uk/OrderDetails.do?did=1&uin=uk.bl.ethos.531916>

Comments: Laverdiere notes (pg. 254) that Dutton ". . . did not complain about the protocol after the results indicating a medieval date."

1987 *July*. Canuto phoned Gove on July 1st and informed him that Cardinal Casaroli would be travelling to the United States. Gove discussed the revised letter he had recently penned and wanted to send to Cardinal Ballestrero. Gove wanted to send Canuto the final version and have him translate it into Italian for the Cardinal. According to Gove, "This would bypass the need for Gonella to translate it with all the attendant potential for mischief." That day, Gove sent the completed letter to Canuto, representatives of the seven labs, and the British Museum and told everyone he hoped they would all sign it, even though he actually feared that it was already too late. Gove called Canuto the next day, and it was decided that a copy of the letter would also be sent to Cardinal Casaroli and the Pontifical Academy of Sciences. Donahue and Damon from Arizona called Gove that day and said they would sign. Damon was appalled at the change in the protocol and said that if his lab was chosen they would probably refuse.

On July 3rd, Otlet and Tite indicated they would sign the letter. Hall said he was not pleased with the letter. He was open to having seven labs involved but thought even additional labs should be used. Gove informed Hall who had agreed to sign the letter and then asked Gove if he had talked with Tite recently. Gove replied that they had talked within the past several hours and Tite said he would sign. Hall then made the cryptic remark, "It didn't change anything, then, hmmm." This led Gove to believe that Hall, like Tite, knew more than he was willing to admit. Gove thought Hall probably knew that Tite had some information—probably from Gonella—about which labs had been chosen and that Hall's Oxford was one of them. Gove and Hall then had a discussion about seven labs versus three. Gove said that using four additional labs wouldn't use that much more material so Gonella's main concern couldn't be saving cloth. Hall told Gove he suspected that Gonella did have other motives. Hall finally agreed to have his name added to the letter. Gove reached Duplessy in France on July 6th and he agreed to have his name added as well. That day, Gove sent off Canuto's Italian translation by cable. Canuto then called Gove on July 9th. He had lunch with Cardinal Casaroli and had driven him to the airport, but they had no chance to discuss Shroud matters. Gove was disappointed that Canuto could not find the time to discuss with the Cardinal such an important matter.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 201-205.

Comments: Gove did not even trust Gonella enough to assume he wouldn't do a straightforward translation of the letter. Damon's threat to withdraw, like Gove's multiple ones, was not carried out after Arizona was chosen to be one of the three to date the Shroud. It appears from comments and Gove's perceptions that even some of the individuals of the C-14 consortium were trying to keep secrets from the others. It would be interesting to know what Cardinal Casaroli and Canuto discussed in their time together instead of the Shroud.

[Main entry expanded from short version February 21st, 2016]

1987 *August*. On the 19th, Gove received a letter from Hall, who brought up the conversation they had concerning Gove's proposed letter (in Italian) to Ballestrero. Hall said he considered the letter unwise but had agreed to sign it as a friendly gesture. Hall learned that the Archbishop had been displeased (and told Gove that the Cardinal "was now probably laying various mystical punishments" on their heads), so he and his colleague Robert Hedges intended to distance themselves between the Gove camp and the Gonella camp. He felt "that any further hectoring" would only delay things. Hall informed Gove that he intended to keep a low profile and just await developments from Italy. Gove commented in his book, ". . . he was breaking ranks—he was letting the side down." Two days later Gove sent a response to Hall. Gove said he couldn't understand why his letter why the letter would have displeased the Cardinal.

Gove went on at length: "Let me hasten to assure you that my 'hectoring' as you call it is directed toward STURP and only peripherally toward Professor Gonella to the extent that he champions STURP's cause. It is certainly not directed to him in his capacity as the cardinal's science advisor. By all accounts, however, he is not held in particularly high regard in that capacity outside Turin. He is unfortunately still *the* power in Turin as far as the shroud is concerned. I have had almost ten years experience with STURP and regard them as a pack of religious zealots, who could really queer the pitch for carbon dating unless they are held at bay. I fear the cold and malevolent eye of Mr Lukasik much more than your suggested mystical imprecations of the cardinal. I have received recent information that STURP's influence is on the wane and high bloody time I would say."

Hall was told by Gove that a paper he had written about the protocol was going to be published in the November issue of *Nuclear Instruments and Methods in Physics Research*, section B and that it was refereed by Paul Damon of Arizona. They went on to discuss the question of seven labs versus three and the hope that the British Museum and the Oxford lab would be able to participate. Gove wrote, "Why the hell should Turin be permitted to put us in this 'Sophie's Choice' situation? Do any of us so lust to have our laboratory involved that we are willing to behave in unseemly ways? I suggest we continue to stick together. There is no earthly reason why three laboratories are better than seven. They cannot date it without us and who of us really cares if it is ever dated? I suppose I should care the most since I have put so much time and effort into the enterprise . . ." Gove related in his book that he was still

annoyed with Hall breaking ranks for what he (Gove) suspected were “self-serving reasons.”

Gove proceeded on August 24th to send a letter to all of the other labs. Gove summarized Hall’s letter and his own response. Gove advised, “. . . Representatives of the seven labs must also be present during the sample taking in Turin and personally receive the samples and controls for delivery to their labs. If Turin intends to modify any of these protocol provisions I believe none of us should accede. I suggest in such circumstances Turin be invited to find three other carbon dating laboratories which would be willing to take on the task. Such a stance should not be taken as a threat to Turin but rather as an act of prudence and responsibility.”

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 205-209.

Comments: Gove and Hall’s discussion about the letter that Gove had sent the Cardinal clearly brings out the cliques and courting of favors, elements which should not be present in a pure scientific exercise. Even after it was revealed that the letter displeased the Cardinal, Gove couldn’t understand why—another example of him seeing through “Gove-colored” glasses. And once again, Gove took the opportunity to bash STURP and Gonella. Given that Gove feared “the cold and malevolent eye of Mr Lukasik,” it’s probably not too strong to say that Gove demonized STURP.

Since Gove and Damon were close colleagues, what were the chances that Damon, in his role of referee for Gove’s paper, would reject it? Regarding Gove’s question “Do any of us so lust to have our laboratory involved that we are willing to behave in unseemly ways?,” he apparently answered it with his comment about Hall’s “self-serving reasons.” Gove seems to contradict himself: he asks Hall who of us really cares if it is ever dated but all of his statements actions clearly indicate that he did. Previously, Gove had several times threatened to pull his lab from the enterprise and acknowledged he wouldn’t when pressed by Chagas; now he’s suggesting that the other six labs pull out if their demands weren’t met. Does anybody think that there was any realistic chance of that happening???

[Main entry expanded from short version February 27th, 2016]

1987 *September*. Gove received a reply from Hall on September 3rd regarding the August 21st letter. He said his main point was that Cardinal Ballestrero would be the only making decisions. The C-14 consortium made their wishes known but he wasn’t obliged to follow them. Hall said any lab was free to withdraw. Hall said he would “have to think hard if less than four labs were involved.” Gove was then quick to point out, “He clearly did not have to think too hard when it was decreed that only three labs would be involved—one being Oxford. He accepted with alacrity.” Hall mentioned that the C-14 consortium had all agreed they would all pull out if STURP “ran the show.”

Woelfli from Zurich also replied on September 3rd, regarding Gove’s August 24th letter. Woelfli informed Gove that he had received from Gonella a phone call saying

that the cable to Ballestrero was upsetting to him and even might put the C-14 dating in danger. According to Woelfli, Gonella was agitated when Woelfli told him that he still favored the procedures as outlined in the Turin Workshop and that any change would necessitate another meeting of the C-14 consortium. Gonella told Woelfli that the final decision on procedures would now definitely be delayed.

Gove received a letter on September 3rd from Otlet from Harwell. He told Gove he was sorry to hear of the exchange with Hall. Otlet heard from a colleague that Hall had given a talk near Harwell and had ridiculed Harwell's proportional-counter method, the time it would take a measurement and the sample size needed, which he described as handkerchief-size. But Gove wrote that Hall knew full well that due to advancements, Harwell would only need a sample slightly larger than what Oxford needed with its AMS method. Otlet told Gove that he was uncomfortable with the latter's approach to the Cardinal. But he said that any significant change in the protocol wouldn't be acceptable to him and he wrote Chagas directly to tell him that.

Tite wrote Gove on September 11th regarding the latter's letter of August 24th. Tite told Gove he agreed with many points in the letter but didn't want to comment further until something more specific came from Turin. Gove also received a letter from Damon of Arizona (with copy to his colleague Donahue) saying that the consortium should push for the original protocol or not participate and that Donahue agreed.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 205-209.

Comments: For Hall to have said that Harwell would need a handkerchief-size sample to date the Shroud when he knew it was actually smaller was unethical, to say the least. Once again, the labs made threats about withdrawing if the original protocol was changed, but when it actually did, not one of them did withdraw.

[Added February 27th, 2016]

1987 *October*. Kersten and Gruber wrote "On 10 October 1987 Cardinal Ballestrero wrote to the seven laboratories and told them that he had received the go-ahead from the Holy See for the experiment. But now suddenly the procedure looked completely different. All that was left of the agreement made a year before was the role of the British Museum as procurer of control samples. The most interesting and certainly the most unexpected change was the total exclusion of the Pontifical Academy of Sciences.

Chagas was now only to be admitted to the sampling as personal guest of Cardinal Ballestrero. There was not a word about precautions to prevent the specimens being swapped; and this even though this precise danger had been addressed in an article which appeared shortly before, which had excited a lot of attention--accusations, discussion and apologia--and must still have been fresh in the organizers' memory. No mention was made either of the Swiss textiles expert Flury-Lemberg, who was originally to have taken the specimen from the relic. Only Tite of the British Museum was left as guarantor of the correctness of the procedure. Neither the Pontifical Academy nor the

IMGC would take part in the analysis of the final data. This too was to pass exclusively into the hands of Tite. Only three laboratories--Tucson, Oxford and Zurich--were selected; a decision which had apparently been reached as far back as May. All three worked with the newer AMS technique.

Harry Gove, who had assumed the role of sole leader of the radiocarbon investigation, was furious. He fired off letters to the Pope, the journal *Nature* and the British Museum. His colleague Harbottle at the Brookhaven laboratory also aired his disappointment. They had both worked to develop the classical technique further as a method for small samples. The exclusion of the Harwell laboratory baffled the others, because it had the most experience of them all, and was renowned for the most precise datings. In their joint letter to the Pope, Gove and Harbottle classed this decision as scientifically short-sighted. The original Turin protocol with the seven laboratories would eradicate errors like those at the Zurich laboratory during the 'test run.' It would be better to do nothing at all, they added, rather than dare to go ahead with such a truncated experiment. In another letter of protest Robert Otlet of the Harwell laboratory voiced the suspicion that someone in Italy wanted to obstruct the course of science.

Reducing the number of laboratories to three would lead to a scientific catastrophe. 'It is,' he wrote, 'like ordering a bulldozer to run over an archaeological dig site before you had examined it.' The rumour spread that the Vatican had restricted the test to three laboratories in the hope of obtaining contradictory results. Gove accused the Archbishop of having a false advisor. He said Gonella was not qualified for the post, he was nothing but a 'second-class scientist'. Gonella countered that they were dealing with a real 'radiocarbon Mafia', who were seeking their own advantage."

Source: Kersten, Holger and Gruber, Elmar R. The Jesus Conspiracy: The Turin Shroud And The Truth About The Resurrection (Rockport, MA: Element), 1994, pp. 44-45.

Comments: Kersten & Gruber add "One thing emerges from these reactions. The excluded parties felt deeply offended, and did not hesitate to speak out against these decisions, taken by anonymous backroom men at the Vatican, and to attack their 'adversary'."

1987 *October*. On October 19th, Otlet called Gove and informed him he received a letter from Cardinal Ballestrero that three labs chosen to date the Shroud were Arizona, Oxford and Zurich. Gove wrote, "My first reaction was to say that the exclusion of Rochester meant I should probably take a course in diplomacy." He added, "I admitted that I was most disappointed (a monumental understatement) and he said that he understood." Otlet faxed Gove a copy of the letter. Various points stood out to Gove: 1) The Pontifical Academy of Sciences would not be directly involved; 2) the labs were told that representatives of the labs need not be present at the sample taking, which Gove found "outrageous;" 3) it was clear that the cable that was sent to Ballestrero had intensely agitated him. Gove added that the Cardinal's "thinly veiled accusation that we

were attempting to prevent STURP from carrying out its scientific investigation was quite accurate.”

Gove phoned Donahue later in the day. The latter was taken aback by the letter and said Arizona probably wouldn't go along with it. He suggesting a discussion at a C-14 conference to be held in Yugoslavia the following year. Gove said he would try to contact Woelfli. Harbottle called Gove the next day to say he was going to contact Dutton, the New Zealand art historian, the *Skeptical Inquirer*, National Public Radio, and whoever else he could think of to complain about the decision. He said he would call Canuto and possibly Chagas, whom Harbottle thought could get through to the Pope.

When Gove talked with Harbottle the next morning, the latter said he talked with Canuto, who agreed that Chagas should try one more time to have the Pope advise Cardinal Ballestrero that he was receiving bad scientific advice. Gove suggested a joint press release involving himself, Harbottle, Damon and Donahue. Canuto phoned Gove shortly after and suggested they send an open letter to the Pope via Chagas that the seven lab protocol should be followed.

On October 26th, Gove phoned Woelfli in Zurich. Woelfli also was upset that the Cardinal indicated that the lab representatives need not be there for the sample taking. He was not in favor of Gove's press release but did want to see both a draft of the letter to the Pope and the press release and then would decide if he would participate. On October 29th, Gove prepared a memo with both drafts that was sent to the other six labs. Gove indicated he would only send the letter to the Pope if at least six of the seven labs signed it. It was decided to resort to a press release only if the proposed letter to the Pope failed. Duplessy called from France the next day and said he had recently received a call from Gonella, whom he told that he didn't want any changes from the Turin Workshop protocol. Duplessy said he would sign the letter to the Pope if the others did but, like Woelfli, did not like the idea of a press release.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 213-219.

Comments: Very few people would probably disagree that Gove could have used some lessons in diplomacy. Although Gove in August had written to Hall, “who of us really cares if it is ever dated,” his response did not reflect his earlier statement. Regarding the Pontifical Academy of Sciences non-involvement, a reliable source told me (which is why it's only mentioned in the “Comments” section) that the Academy continued to call the shots and even let Gonella be the fall guy for their bad decisions. Although this is not proven, it would fit in with all the other skullduggery reported throughout this article. Regarding the lab representatives supposedly not being present at the sample taking, they were allowed to be there when the samples were taken on April 21st, 1988.

[Added February 28th, 2016]

1987 *October*. Regarding the reduction of labs and also the exclusion of STURP, two Italian authors observed, “The manoeuvre had reeked of a *political* [my emphasis] intended to eliminate those who use modern methods to deal with the problem in various disciplines, thus favoring access to the Shroud by only a very restricted circle of persons intending to furnish a result which would not be controllable and would therefore not be reliable.”

The two authors added, “The three chosen laboratories were amongst the most capable, but they did not have the same experience as either Harwell or Brookhaven in the preparation of the samples. With regard to radiocarbon dating, Harwell had more practical knowledge than all the other six together. ‘Harwell probably can obtain the most accurate dating of all of us,’ admitted Gove, while Hall declared himself convinced that Harwell would have been a useful addition. Gonella maintained nevertheless that the three chosen laboratories had more specific experience in archaeological dating.”

Source: Petrosillo, Orazio and Emanuela Marinelli. *The Enigma of the Shroud: A Challenge to Science*. San Gwann, Malta: Publishers Enterprises Group, 1996, pp. 42-44.

Comments: The disconnect between pronouncements and actual facts reminds me of the United State presidential campaign currently going on.

[Added May 29th, 2016]

1987 *November*. On November 2nd, Gove received a call from Canuto, who said he had talked to Chagas. Canuto was told by Chagas that he had felt he had been kicked in the stomach when he read the October 10th letter from Cardinal Ballestrero. Canuto told him about the letter and news release that Gove and others were proposing.

Chagas thought the letter was a good idea and that he would likely endorse and deliver it. Chagas was particularly interested in what Woelfli felt. Canuto said that he thought that Donahue in Arizona was the key person because if that lab pulled out, the United States would be out of the loop, which could have some impact on Turin. Gove then called Woelfli, who said he would be agreeable to sign the letter to the Pope as long as both Oxford and Arizona signed it. He said he had now received a letter from Ballestrero specifically inviting his lab to participate—Arizona and Oxford had received similar letters. Woelfli said he felt that they should jointly answer the invitation. He thought Oxford would be prepared to go and wanted to hear from Donahue. Woelfli wanted to coordinate the reply to Ballestrero; he thought it best for all three labs to agree not to participate and also to sign the letter to the Pope. Donahue called later in the day saying he was in favor of the three labs trying to negotiate with the Cardinal and if that was unsuccessful, they should withdraw.

The next day, Hall told Gove that he would not sign the letter to the Pope, feeling that Ballestrero would perceive it as blackmail. Hall said that he didn't know how

Arizona and Oxford would respond to Ballestrero's letter, but he assured Gove that he (Hall) would not go it alone. He also said that everything would be fine if all three labs got the same date, although there was some risk. Hall told Gove that he thought that Gonella reduced the number of labs from seven to three to get back at Gove. Hall believed that the representatives from the labs must be at least in the next room from where Tite would supervise the sample extraction and should be given the samples immediately to protect against a possible allegation that Tite substituted the samples. In fact, Tite did package the samples instead of handing over the samples right away and that allegation was later made.

Gove was not surprised that Hall wouldn't sign the letter to the Pope. Hall believed that any protest and threat to withdraw would be seen by both Rome and Turin as blackmail and could lead to the cancellation of the dating. Gove knew that Hall wanted Oxford to be involved and as things currently stood, they would be so why take any risks? Gove then talked to Donahue, who said he was composing a letter that hopefully would be signed by all three labs saying they were upset with the protocol changes and would also likely request that five or six labs be involved. In any event, the letter would say that the three labs did not want to go along with just that number. Donahue told Gove that if Arizona was chosen and Gove's lab was not, that Gove could be involved with Arizona as a consultant or some other capacity.

On November 4th, Canuto informed Gove that he spent an hour on the phone with Fr. Rinaldi, who was very unhappy about the cable that had been sent to Ballestrero. Rinaldi, who was unaware about the article that had been in *La Stampa*, said that the decision to use only three labs had actually been made long before the Turin workshop. Gonella's statements before the workshop reflected that, and Gove believed that the number wasn't reduced because of Gonella trying to get back at him. Gove called Donahue later in the day and said he thought that Donahue should tell the Cardinal that Arizona wanted to keep the original protocol. Donahue said he didn't want to sign the letter to the Pope, but suggested that Gove call Damon. Gove made the call and Damon also said he didn't want to sign the letter. Arizona didn't want to be preparing a reply to Ballestrero's letter and also signing a letter to the Pope. Damon said that Donahue's original draft to the Cardinal would say that Arizona preferred the original protocol. If the Cardinal refused to go back to that, then Damon said they didn't know what they should do.

Gove received a message on November 5th from the Arizona lab that contained a draft of the letter that the three labs were planning to send to Ballestrero. It emphasized that the reduction of labs from seven to three would threaten "the credibility of the enterprise." It informed the Cardinal that they were "hesitant to proceed" if only three labs participated. The following day, Gove read the draft to Canuto, who thought the letter was good but should be specific on what they would like the Cardinal to do, eg., hold another meeting. On November 17th, Donahue told Gove that the translation of their letter by Canuto into Italian would be expressed mailed to Hall the next day, then to Woelfli and the Cardinal. Canuto called Gove shortly after the Donahue call and said that Fr. Rinaldi said that Gonella had talked with STURP's president, Tom D'Muhala and said he would actually not push the three labs decision if the three labs stood firm in their opposition.

On November 25th, Rochester's paper *Democrat & Chronicle* carried an editorial that talked about Gove's desire to be involved in the dating of the Shroud. It said "his hopes gave way to one bureaucratic hurdle after another." When plans were put in place to date the Shroud, he was optimistic again that he would be involved but when the decision was made to use only three, his lab was excluded. The author, a friend of Gove's, wrote "After so many years spent thinking about the image of that bearded man on the shroud, he deserves to prevail." Gove sent a copy to Donahue, Woelfli, Hall and Canuto with a little note: "Does this not bring tears to your eyes. I would enclose a small piece of linen to dab them, but you know how it is—Harry."

The day the editorial came out, Gove called Canuto. Fr. Rinaldi told him that Dinegar of STURP had obtained a copy of the letter that the three labs had sent to Ballestrero, but no one knew how Dinegar got it. STURP had recently held a meeting in Rye, New York, which Gonella attended. STURP was very angry at Gonella. Dinegar asked Gonella what would happen if the three labs withdrew. Gonella replied he would go outside the original seven labs. Gove then called Fr. Rinaldi, who said his position was delicate. He thought that only three labs was a mistake but Gonella did not. Gove asked Rinaldi what labs he thought Gonella could go to, because the heads of all the other labs were close colleagues and Gove felt that he would have trouble getting other labs be willing to take the place of the three. Gove urged Rinaldi to phone Ballestrero and he said he was considering that.

Source: Gove, Harry. Relic, Icon or Hoax: Carbon Dating the Turin Shroud (Bristol: Institute of Physics Publishing: London, 1996), pp. 220-225.

Comments: Hall had predicted that everything would be fine if all three labs got the same date but because of the fact that the samples had only been taken from one disputed area and because of all the politics being documented in this article, very few people ultimately accepted the labs' results. Given the secrecy agreement that the labs signed, it seems inappropriate that Donahue would offer Gove a consultant position. Gove, in fact, was invited by Arizona to observe their testing. Considering Gove's own actions, it would have been particularly galling to many people if he had been allowed to "prevail." The many back and forth decisions and behind-the-scenes actions after various planned protocols did not bode well for a rigorous dating test.

[Main entry expanded from short version and also comments added March 5th, 2016]

1987 November. Archaeologist Paul Maloney wrote, "I met with Luigi Gonella on Saturday evening, Nov. 21, 1987 and discussed with him the possible sites on the Shroud from which a sample might be taken. Gonella placed great emphasis on the conservation of the Shroud. Although he would not openly admit that the "Raes' Corner" would be the site from which a sample would be taken, all of the implications in his conversation with me were that, the Raes' Corner would indeed be the "best" candidate site simply because it was thought the most appropriate place since a sample had been

excised previously from this corner for Raes and since the royalty of Italy had stitched repairs on the patches, and they wanted to preserve that history, therefore no samples should be removed from anywhere else on the Shroud. By the end of that meeting my growing conviction was that Gonella was leaning very strongly toward taking a single sample only from a single site, the “Raes’ Corner”. He was perhaps following the wishes of Cardinal Ballestrero who had appointed him science advisor for the project.

Following that dialogue I conducted a series of technical phone interviews around the world with leading specialists in the field of radiocarbon dating and from that series I developed a “white paper” which summarized the collection of data. On March 22, 1988, nearly a month before the April 21 sample removal session, I sent a copy of this paper to Pope John Paul II (actually to his then secretary, Cardinal Cassaroli) via his Papal Nuncio, Cardinal Pio Laghi in Washington, D. C. in a diplomatic pouch. I sent a second copy to His Eminence Anastasio Cardinal Ballestrero, and one to Gonella himself urging the need for convening a new Turin Workshop wherein specialists could analyze the fresh data. One of the most important points in this paper was made by Marian Scott of the International Radiocarbon Calibration Program, headquartered in Glasgow, Scotland: she asserted that a minimum of three samples must be taken from three different areas on the Shroud so that the results could be compared with all other results. Without this we would not know if the date obtained from the “Raes’ Corner” represented the date for the main body of the Shroud. I also suggested in that paper a method that could be used to circumvent Gonella’s argument that royalty had helped stitch the patches: single yarns could be teased out from under the many burn patches without interfering with any of the stitches known to have been placed there by members of the royal family. But the final decision, on April 21 of that year, was to take a single large sample only from the “Raes’ Corner.”

Source: Maloney, Paul. “What Went Wrong With the Shroud’s Radiocarbon Date? Setting it all in Context” (pp. 4-5), presented August 16th, 2008 at “The Shroud of Turin: Perspectives on a Multifaceted Enigma” Shroud conference in Columbus, Ohio. Maloney’s paper is accessible at <https://shroudofturin.files.wordpress.com/2014/12/maloneywhatwentwrongwiththeshroudiversionfive2014.pdf>.

[Added September 9th, 2016]

1987 *December*. On December 1st, Harbottle called Gove and said that he had called Dinegar at the STURP meeting in Rye held on November 21st. Dinegar had told Harbottle there was no need for the latter to drive there because Gonella had announced there that even if the three chosen labs proceeded with the testing, STURP would not be allowed to do additional testing afterwards. STURP was prepared for the testing but they would not be allowed to proceed, which was apparently why D’Muhala was angry towards Gonella. Gove was told by Harbottle that he was having his own dispute with STURP. He had received a letter from D’Muhala with a copy of an interview Harbottle had given to *Science News*. Harbottle was described as a STURP

spokesman. D'Muhala told Harbottle he had no right to be speaking for STURP and should cease and desist. Harbottle was furious; he called Dinegar and said that D'Muhala should be kicked out.

Fr. Rinaldi called Gove on December 3rd and said that Gonella had called him the day before saying the Cardinal had received the letter from the three labs but didn't reveal his or the Cardinal's reactions to it. Rinaldi thought that Ballestrero would contact the Vatican; the former felt that it was concerned about its image and might reconsider. Rinaldi emphasized to Gonella that there would be bad publicity if the Turin authorities kept making bad decisions. On December 7th, Canuto told Gove that Gonella had advised Ballestrero to stick to the three-labs decision. Someone called from England to tell Gove that Hall had made an offer to a person from the BBC to give them an exclusive on the dating in Oxford "for a fancy price."

On the 28th Gove talked again with Rinaldi. Rinaldi said that on December 18th, the Cardinal had written to the three labs trying to convince them to agree that there was no chance to return to the original protocol. Gove then called Donahue, who said he had just received the letter from Ballestrero. The Cardinal (Gonella in Gove's eyes) said that the labs had claimed that seven labs would provide a higher accuracy to the measurements but claimed that wasn't valid. Donahue said the Cardinal didn't understand the difference between statistical and non-statistical errors. Donahue said he had talked with Hall, who had received the letter from Ballestrero the week before.

Hall was going to agree to the three-labs decision and that Woelfli would do the same. Donahue had not yet talked to Woelfli but surmised that the three labs would proceed with the dating. Gove related, "So despite all the high-minded statements he, Damon, Woelfli and even Hall had made to me in writing that they would stick by the protocol, it all went down the drain as soon as their bluff was called."

Canuto called Gove and informed him that he had tried to persuade Donahue to stand firm. Canuto asked Donahue whether Ballestrero's letter had really answered the joint letter sent by the three labs and Donahue replied it had not. Canuto asked why cave in now? Canuto asserted that would make the whole workshop a farce and that Chagas had felt he and the Academy had been kicked in the stomach. But Donahue seemed unmoved. Gove told Canuto that they should have a press conference. Gove called Harbottle and told him about the Cardinal's reply and his idea about the press conference, which should be held before the three labs officially agreed to proceed with the dating. Harbottle agreed; Gove said he would call Woelfli the next day.

Gove reached Woelfli on December 30th. Woelfli asserted that Turin wanted to play the leading role. According to him, there was friction between Turin and Rome as to who controlled the Shroud. He said he would probably say "yes" to his involvement but with restrictions. Woelfli informed Gove that Hall had talked with Gonella and had suggested that Tite and the representatives from the three labs should meet with Gonella in London for a final pre-dating meeting. Woelfli felt that if the three labs didn't participate, other labs would. Gove asked Woelfli which labs specifically and he said Otlet, Harbottle or Duplessy. Gove wrote that he was surprised that Woelfli didn't include Rochester. That same day, Donahue told Gove that he had talked with Woelfli and was surprised that the latter was going to go along with the new protocol. Donahue believe that Woelfli felt that if he did not go along with it, Gonella would find another lab

besides Zurich. Donahue said he would go to the meeting in London and also that he would still like to have Gove involved in the Arizona dating. However, he would not mention that at the meeting because he was afraid it would “infuriate Gonella.”

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 225-228.

Comments: Hall’s offer to the BBC is a clear example of the labs trying to take financial advantage of their participation in the Shroud dating. Gove criticized Damon, Hall and Woelfli for backing down but makes no mention of his own previous multiple unfulfilled threats to withdraw. The fact that Woelfli’s recommendations for substitute labs didn’t include Gove’s speaks volumes. The various exchanges detailed in this entry show that the labs were only concerned with their own advantages.

[Main entry expanded from short version and also comments added March 6th, 2016]

1987 December. Archaeologist Paul Maloney phoned Dr. Marion Scott, statistician at the International Radiocarbon Calibration Programme headquartered at Glasgow University in Scotland and asked "What is the minimum sample one should take from the Shroud in order to have a reliable date?" She responded: "At minimum, for a project as important as this, one should take no less than THREE samples (preferably more) from disparate and separate places on the Shroud. If you take only one and you get a result that is not commensurate with other pieces of evidence, you have no way to compare or question if the result is historically viable. If you take two samples and they differ in date from each other, you have no way to determine which of the two date results is the correct one. Only if you take three disparate samples from different areas will you have a working basis for questioning outliers." Therefore, I do not believe that we can yet--scientifically--make the second assumption. I am personally resoundingly in favor of a new radiocarbon dating project."

Source: Email from Paul Maloney to Shroud Science Internet group on 20 May 2016.

Comments: Maloney sent this information to Gonella. Sadly, this would be additional expert advice that the Turin authorities would ignore.

[Added May 21st, 2016]

1987. Gove remarked, “I am, unfortunately, I think, in many ways better known because of my involmnet [sic] in the Shroud having never measured it... the best thing that can happen to us is to always be on the verge of measuring it but never measure it.”

Source: Laverdiere, H. "The Socio-Politic of a Relic: Carbon Dating of the Turin Shroud," 1989, pg. 78. Accessible via free download at <http://ethos.bl.uk/OrderDetails.do?did=1&uin=uk.bl.ethos.531916>

Comments: It's hard to interpret this quote any other way than Gove would have liked to milk association with the Shroud dating as much as he could independent of any result.

[Added May 21st, 2016]

1988 *January*. Gove wrote: "Rinaldi had told me that Ian Wilson, author of the most authoritative and, in some ways, the most fanciful, book on the Turin Shroud, was opposed to the use of only three labs and he might have some influence with Gonella, so I phoned Wilson on Monday 11 January 1988. He said he had spoken to Gonella and had raised the question of there being no representatives of the small-counter labs involved in the dating. He tried to persuade Luigi to include the small-counter labs—specifically Otlet's. Gonella told him that no more than three samples could be taken from the shroud. Wilson said that Hall [Edward "Teddy" Hall of Oxford, now deceased] was certainly going to agree to do it. The publicity he would receive from dating the shroud would be too tempting for Hall to resist..."

Source: Gove's book: Relic, Icon or Hoax: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing, 1996), pg. 229.

[Added January 17th, 2016]

1988 January. Gove stated: "... Damon returned my call [evening of the 13th]. He said he would be in London on Wednesday 20 January and that Donahue would arrive the next day. He said that they would make demands of Gonella that would make the whole affair workable. I, of course, had continued to hope that perhaps at least Arizona would decide not to go along with Gonella's dictate but it was pretty clear from talking to Damon that they were going to proceed. I knew Damon to be a person of considerable rectitude and decency. Apparently the lure of dating the Turin Shroud was so great it overcame his previously expressed reservations. He had said he was opposed to limiting the number of laboratories to be involved to three, but he now seemed neither remorseful nor contrite about changing his mind. I was surprised and saddened."

Source: Gove's book: Relic, Icon or Hoax: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing, 1996), pp. 231-232.

Comments: In Gove's eyes, this was an ethical compromise by Damon.

[Added January 17th, 2016]

1988 *January*. Gove and Harbottle held a press conference on January 15th at Columbia University (New York) to protest the change in the protocol. On January 22nd representatives of the three chosen labs and the British Museum met with Gonella in London and agreed to the revised plans advocated by Cardinal Ballestrero.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 324.

1988 *January*. Gonella stated that the original protocol at the Turin meeting was only a suggestion and never an official agreement. He also observed that he wasn't aware of any archaeological dating for which more than two independent labs were used (see reference below for "Jennings"). However, one C-14 project (see reference below for "International Study Group") had twenty different labs each date eight samples from one tree. And, interestingly, the results revealed an "existence of systematic bias and unexplained variability." According to C-14 expert Reidar Nydal (see reference below), who wrote about the study, "the main reason for using more than one sample ... is generally to get some idea of the magnitude of other sources of error rather than purely statistical ones."

Harbottle wrote regarding the new proposal, "Professor Gove and I have deep reservations about this. We're concerned that we may be opening the door to enormous controversy and endless, endless bickering and recriminations that could go on and on" (see reference below for "Clark"). Harbottle told another journalist, "The original protocol was pretty fail-safe. I think this way will be chancy. As an experiment goes, it is not very well drawn up. If you do an experiment like this, you should do it right" ... "With only three pieces of data, the project is fraught with danger. Even if it goes well, skeptics will have a field day. They can say the Church had a chance to rig the results. If there is a problem, the whole thing will be a fiasco. They can lose more reputation than they gain. It's a wild scientific problem these fellows have gotten into, a win-or-lose proposition" (see reference below for "Kava").

Paul Damon of Arizona stated, "When you're doing research, you always have that thing that doesn't fit. What did we do wrong? Could we have mixed the samples? Was there an error in the lab? You can't do that with something like the Shroud. You've got to get it right the first time. I would prefer seven labs to three for a number of reasons..." (see reference below for "Clark").

Otlet of Harwell remarked, "I think it's as much a catastrophe as it would be if you allowed bulldozers to go over an archaeological site before you examined it" (see reference below for "Glass." He went on to say that the changing were made by "someone in Italy obstructing the true path of science" (see reference below for "Wright").

Archaeologist Paul Maloney, General Projects Director of the “Association of Scientists and Scholars International for the Shroud of Turin” (ASSIST), sent a report to Cardinal Ballestrero after discussing which C-14 method would be best with many eminent C-14 scientists, most of whom were not even connected with the Shroud project. He says he found many felt a “grave concern . . . that accelerator technology is not yet ready to do what the Church wants it to do”—mainly because “small samples often give fallacious results” (see reference below for “Raloff”).

Another archaeologist, William Meacham, who was concerned about contamination that might have been present in the Shroud due to the fire it had been in 1532, was told by one of the directors of the three labs chosen to date the Shroud that “I share your opinion on the contamination problem. As a matter of fact, it is *the problem* in small sample dating. I was quite surprised to learn in [the] Turin [conference] that most of my colleagues are not yet fully aware of the problem [emphasis in original]” (see reference below for “Meacham”).

Sources:

Clark, Kenneth R. “Shroud of Turin Controversy Resumes.” *Chicago Tribune*, October 14, 1988, pp. 1, 4, on pg. 4.

Glass, Robert. “Modern Technology May Finally Fix Age of the Shroud of Turin.” *Chicago Sun Times*, April 8, 1988, pg. 4.

International Study Group. “An Inter-Laboratory Comparison of Radiocarbon Measurements in Tree Rings.” *Nature*, 298:619-623 (1982), on pg. 619.

Kava, Brad. “Scientist Protests Vatican Changes in Shroud Testing.” *Corpus Christi Caller-Times*, April 23, 1988, pp. 14A-15A, on pg. 14A.

Jennings, Peter. “Shroud of Turin to Undergo Radiocarbon Testing.” *Our Sunday Visitor*, February 14, 1988, pg. 3.

Meacham, William. “Turin Shroud Carbon Dating.” Unpublished manuscript.

Nydal, Reidar. “Optimal Number of Samples and Accuracy in Dating Problems.” *PACT* 8:107-121 (1983), on pg. 107.

Raloff, J. “Controversy Builds as Shroud Tests Near.” *Science News*, April 16, pg. 345.

Wright, Pearce. “New Dispute on Dating Tests.” *London Times*, January 16, 1988, pg. 3.

Comments: Ironically, or perhaps not surprisingly, the protocol that would be adapted at the meeting in London was also substantially changed. Regarding “unexplained variability,” one has to wonder why it’s permissible to acknowledge that in other cases, but apparently not in the case of the Shroud, especially considering how much other evidence is known about it. The enormous controversy and endless bickering that Harbottle fear ensued. It is significant that C-14 people involved in the Shroud testing found so many grounds for criticisms—and yet, so many people have not critically questioned the end results. Most people are familiar with the computer phrase “garbage in—garbage out,” which means that end results are affected by the quality of the data one starts with.

[Additional content added to main entry as well as corresponding sources May 29th, 2016. Sources for this entry have now been put in alphabetical order by author last name instead of by location of quote in entry.]

1988 *January*. Sox suggests that more than just scientific reasons entered into the decision to reduce the number of labs from seven to three. The day that Gonella met with the representatives of the three labs, “Wilson and Tite listened to Gonella rant and rave about Harry Gove in the lobby of his hotel. Otlet suggested the real problem was Gonella’s distaste for Gove. As Gonella saw it, any change now would be giving in to Gove. The scenario was taking on the dimensions of Homeric feuding and casting-coach performances.”

Sox added, “When Gonella was asked from where the samples might be taken, he appeared vague, and then mentioned the area near the sidestrip. He was reminded that was where the Raes’ samples had come from. One was from the mysterious sidestrip itself. Gonella appeared unaware that the sidestrip has always been a questionable matter. It is unknown whether it was originally a part of the Shroud or not. Incredibly Gonella had not brought photographic documentation of the relic with him.”

Source: Sox, David. The Shroud Unmasked (Basingstroke, Hampshire: The Lamp Press), 1988, pp. 120-121.

Comments: Harbottle wrote in a personal letter to me in 1988: “We have then, in my opinion, a shaky experiment, badly designed, innocent of peer-review, and having a reasonable chance of failing to produce a result convincing everyone, for all time, of the ‘truth’.”

[Additional content added to main entry on May 29th, 2016]

1988 *January*. With tensions high, the lab representatives requested 40 mg. each, which corresponds to about two centimeters of cloth. The reps admitted that the blind test (i.e., the Shroud sample being unidentified when dated) is impossible (because of the unique twill). They pushed for sampling coming from one site only to better ensure the homogeneity of results. Gonella, keen to cause minimal defacement to the cloth, agreed. The sampling site would be designated by a qualified textile expert to be chosen by Cardinal Ballestrero; this expert would extract the sample. Tite would provide control samples, dated to the first and fourteenth century.

The representatives ask to attend the extraction of the sample to guarantee the chain of evidence. Gonella replied that their presence shouldn’t be linked with sample verification, but they could be admitted as guests. The labs promised to complete the work in three months, to maintain strict confidentiality, and to send data to Tite as well as the G. Colonnetti Institute of Turin for statistical analysis. Then there would be a meeting in Turin to coordinate communications, including to the official custodian of the Shroud, Cardinal Ballestrero, who would make the results public.

Source: Marinelli, Emanuela. "The Setting for the Radiocarbon Dating of the Shroud." Presented at 1st International Congress on the Holy Shroud in Spain - Valencia Centro Español de Sindonologia (CES), April 28-30, 2012, pg. 7. www.shroud.com/pdfs/marinelliv.pdf.

Comments: The point about the labs requesting only one site is crucial. Other experts had adamantly requested that multiple sites be used. By using only one site, the compilation and completion of the process would be much quicker. But this was going to be one of the most important C-14 tests ever, and expediency should not have been a consideration.

Although Mechthild Flury-Lemberg was the initial choice to take the sample, she would not perform the cutting, which was ultimately done by Italian scientists Giovanni Riggi di Numana and Franco Testore and French scientist Gabriel Vial. During the sample taking, Testore would point to the blood from the side wound area of the image and inquire, "What is that?"

Gonella's comments about the representatives being at the sample-taking as guests as opposed to not being connected to certifying the sample authenticity ring hollow.

The "strict confidentiality" of the labs would later be proved to have not been maintained. Gove was allowed to view the Tucson datings and even signed their non-disclosure agreement (*Night of the Shroud* documentary, original version). Sox and a BBC film crew were allowed to view the Zurich datings (Sox, pp. 135-140).

The G. Colonnetti Institute of Turin ultimately were not involved, still another example of planned procedures that were later jettisoned.

According to the Petrosillo/Marinelli book (pg. 47), Gonella hoped that "the serious research programme on the Shroud would not lead to petty attempts at stealing the limelight."

[Additional comment added May 29th, 2016]

1988 *January*. Although Gove had previously tried to persuade the three chosen labs to refuse to do the dating if more labs were added, the labs in Arizona, Oxford and Zurich decided to proceed with this limitation. According to Sox, had they refused to do the test, labs in Pisa and Udine would supposedly have been chosen to replace them.

Apparently, Gonella believed the three labs would not refuse to do it because, as Sox put it, "the prize was too great."

Source: Sox, David. The Shroud Unmasked (Basingstroke, Hampshire: The Lamp Press), 1988, pg. 117.

1988 *January*. "Most of the laboratories involved were very happy with this protocol. One of the most important aspect [sic] was the amount of cloth given to each laboratory. For some that was the main point, far more important than the number of laboratories.

But for others this new amount of cloth was the proof that the preservation of the linen was not the true reason for reducing the number of laboratories to three.

As for the textile expert, the opinions were divided. Some agreed with Turin's position that it was their responsibility 'because the main thing that a textile must do is to guarantee us that the minimum damage is made.' (Gonella, interview) Others however saw it as a needless change which could further decrease the credibility of the whole enterprise."

Source: Laverdiere, H. "The Socio-Politic of a Relic: Carbon Dating of the Turin Shroud," 1989, pp. 88-89. Accessible via free download at <http://ethos.bl.uk/OrderDetails.do?did=1&uin=uk.bl.ethos.531916>

[Added May 21st, 2016]

1988 *January*. Gove sent a letter to Sir David Wilson of the British Museum telling him that the dating process had turned into a "shoddy enterprise," which Tite and the British Museum "might live to regret."

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pg. 242.

Comments: Sadly, things would only get worse.

1988 *January*. On the 18th, Otlet called Gove and told him he heard from Harbottle that the press conference had gone well. Reuters and the BBC carried stories and the *London Times* was going to run a story on Saturday. Otlet mentioned to Gove that Edward Hall and Sir David Wilson (of the British Museum) "were members of the millionaire's club so that one had to be very careful in dealing with them. Otlet was "still worried about the possibility of collusion between the British Museum and Oxford."

The following day, Gove talked with Woelfli, who said that at the London meeting scheduled on the 22nd, they would make proposals for changes. Specifically, he would request 40 milligrams, larger than previously requested. He would also insist that at the sample-taking, two independent persons would be in attendance. He would voice these as non-negotiable and if Gonella would not accept them then he would withdraw.

On January 21st, Sox told Gove that Hall had gone to the producers of a BBC program called *The Chronicle*. He asked them to pay his lab to cover Oxford carrying out the Shroud dating. Hall was told that the BBC's *Timewatch* program was already involved in covering the dating so it was inappropriate for another program to get involved. Sox then told Gove "that Hall's stock in the BBC was now absolute zero."

Gove received a call from a reporter at the *Daily Telegraph* who said that the decision had been made to use only three labs, the sample taking would be videotaped and that Turin workshop protocol would be respected as far as possible. That evening,

Harbottle informed Gove that he received a message from Otlet confirming that information and that a textile expert would be present, although it wasn't known if it would be Flury-Lemberg. Harbottle agreed that Senator D'Amato should be pressured to help them with their cause.

Canuto informed Gove on January 23rd that Fr. Rinaldi had talked with author Ian Wilson, who "stated he was going to write a story deploring the situation." Canuto would later gather all news clippings to take to Rome with him. Fr. Rinaldi said that Gonella had told Wilson the samples would be taken at Easter. If there were any problems with the sampling, additional samples could be taken when STURP did its tests in June. Gove said this was the first he heard that the STURP tests were back on track. Canuto also said that Fr. Rinaldi suggested to Gove that the latter contact a man named Vik Weisskopf, who was a member of the Pontifical Academy of Science and long-standing friend of Gove, to try to intervene in some manner. Gove decided to talk directly with Rinaldi, who said that the press release from the January 22nd London meeting said that the new procedure still had to be approved by Cardinal Ballestrero. Maybe, Rinaldi thought, if Ballestrero was sufficiently pressured, he would compromise. Gove felt there was little chance of that. Rinaldi expressed the thought that this whole affair might discredit the Catholic Church.

Gove called Weisskopf at home. Weisskopf did not believe that the Shroud was genuine and preferred that the Shroud be left alone. Gove wrote, "I said there was absolutely no scientific justification for measuring the age of the shroud." If it were to be dated, Weisskopf wanted Gove to be involved. They left the matter there. Gove then resigned himself to the fact that Weisskopf probably would not be able to get any decisions changed. Gove wrote, "It was another case of my clutching at any straw."

On January 25th, Gove phoned Donahue, who filled him in on details of the meeting on the 22nd. Donahue said that Gonella seemed agreeable to various requests they had made but he would have to check with the Cardinal. (Donahue said no "demands" were made.) Donahue said that Gonella still had anger toward both Gove and Chagas. Gove asked why Gonella was angry with Chagas. Donahue speculated it was because Gonella perceived that "Chagas was taking over the whole enterprise." Donahue read Gove the press release that was put out after the meeting. Gove asked if Flury-Lemberg would be the textile expert present. "Donahue said it would be some Italian expert—for purely political reasons." Donahue related to Gove that the Shroud samples would not be unraveled but that he didn't know what the Shroud actually looked like. He said "that Tite would make an effort to make the samples look as similar as possible but there was no pretence that it would be really blind because the shroud weave was so distinctive." Toward the end of the conversation, Gove told Donahue, "I can't disguise from you the fact that I envy the hell out of you." Donahue then told Gove he would try to have him in Arizona as an observer.

Gove called Canuto the next day and relayed the gist of his conversation with Donahue. Canuto asked Gove if he criticized Donahue "for knuckling under to Gonella."

Gove said he did not because it wouldn't have done any good. Canuto suggested to Gove that he (along with Otlet and Harbottle) send a letter to the Pope via both the U.S. and Vatican ambassadors to the United Nations; Gove said he would think about it.

On January 27th, Gove wrote a letter to Sir David Wilson of the British Museum. Gove told Wilson that he had no concerns about Tite representing the British Museum but that some people were suspicious of the whole operation, especially considering that the head of the Oxford lab, Hall, was a trustee of the Museum. Gove reminded Wilson that the original protocol had called for someone from the Pontifical Academy of Science to be involved in both the certification and data analysis. Gove told Wilson he was surprised that he would allow the British Museum to risk its reputation “in what had become a somewhat shoddy enterprise” and that Tite may have “taken on a responsibility which he and the British Museum might live to regret.”

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 234-242.

Comments: It’s interesting that Otlet was concerned about the possibility of collusion between the British Museum and Oxford. That doesn’t seem to say much about the perceived integrity of both institutions. Hall seemingly wanted to financially capitalize on having been chosen. Recall that after Hall retired, his lab was given a 1 million pound donation and his position was taken over by Michael Tite of the British Museum, of which Hall was a trustee. In most people’s books, that would qualify for a conflict of interest. For someone who thought there was no scientific justification for dating the Shroud, Gove sure put in a lot of time and effort trying to be involved, to the point of grasping for straws, no less.

Gove had hoped that his friend Weisskopf could exert some influence on the Academy. There is another story of intrigue involving another member of the Academy, Monsignor Dardozzi. Dardozzi was the Chancellor of the Academy (i.e, Chagas’ right-hand man). According to June 3, 2009 article in *The Guardian* (UK) (www.guardian.co.uk/commentisfree/belief/2009/jun/03/vatican-central-bank) Dardozzi smuggled out more than 4,000 documents pertaining to the scandal-racked Vatican Bank. The article says, “It is interesting to note that Dardozzi’s motive for turning whistleblower was not unalloyed disapproval of the IOR’s unethical conduct. His decision to smuggle his secret archive out of the Vatican was motivated, at least in part, by anger at the Institute’s refusal to pay him a commission on the sale of a valuable real estate property near Florence. The unusual monsignor wanted to leave the money to his adoptive daughter, who health condition required expensive treatment.”

So, we have a financially-needy monsignor, who was the right-hand man to Chagas, alleged to be in Harry Gove’s pocket. If there was a million dollar pound donation available for the Oxford lab after supposedly having proven the Shroud to be a fake, were there additional “donations” to pass around to key authorities to make sure that certain actions would take place for the C-14 dating of the Shroud? While there’s no hard proof, it once again looks suspicious.

It’s unbelievable that the textile expert was to be chosen not based on ability but on politics. The “blind” testing was, in reality, not going to be blind. Donahue’s offer to Gove to have him in Arizona as an observer was technically prohibited by the agreement that lab members signed. Since Gove termed the dating “a somewhat shoddy enterprise,” why did he so readily accept the A.D. 1260-1390 results??

[Added March 19th, 2016]

1988 *February*. On February 12th, Tite sent a request to the French C-14 expert, Jacques Evin, to procure a sample that resembles the Shroud. "I would certainly much welcome any assistance that you can give in obtaining a mediaeval control sample, which is as similar as possible in terms of weave and colour as the Shroud" "The material of the sample should be linen. . . ." "We are looking for a sample which dates from the 13th or the 14th century AD, preferably the latter."

Source: Bonnet-Eymard Bruno (Brother). "The Holy Shroud Is As Old As The Risen Christ." *The Catholic Counter-Reformation in the XXth Century*, No. 330 (May, 2000), pp. 27-28.

Comments: This sample, discrepancies about the actual number of control samples (as well as who was involved), along with discrepancies about the sizes and weights of the Shroud samples, will later lead some to theorize that other samples were substituted for Shroud samples. Piero Savarino, a chemistry professor from the University of Turin, who would eventually become the scientific advisor to Cardinal Polletto, a successor of Cardinal Ballestrero, stated, "Unfortunately, a set of facts, or rather of deficiencies and carelessness, leaves the suspicion survive" (Source: Marinelli's Valencia presentation, pg. 10). There will be more details in Parts II and III about the discrepancies regarding both the control samples and sizes and weights of the Shroud samples.

[Added January 23rd, 2016]

1988 *February*. On the 1st, Gove spoke to Canuto, who said it appeared that Chagas had lost influence in the Vatican. Chagas was disappointed because in his eyes, the three labs had caved in to Gonella. Canuto felt that a letter to the Pope "was very important, if only to give him some historical perspective on what was going on." Gove then composed a letter to Cardinal Ballestrero that he hoped would be signed by Harbottle and Otlet. Gove phoned a *La Stampa* representative in Washington, D.C. and asked him what he thought of the idea of publishing an open letter to the Cardinal in *La Stampa*. The rep said he thought it was an excellent idea and volunteered to try to make it happen. Gove faxed to Otlet and Harbottle on the 15th a copy of the proposed letter and asked if they would be willing to sign it. Gove also wanted Duplessy to sign but had problems contacting him.

Otlet replied on February 26th. Otlet said his hands were tied because such a letter would have to be vetted by their press officer who said they were not prepared to support any such contacts regarding the Shroud. Otlet didn't think that the open-letter would be effective. "It will be seen as a stunt and will be used as good evidence against you as the very reason your laboratory and the ones that sign with you were best left out of the

dating exercise.” Otlet suggested to Gove to write a direct letter to the Pope. Otlet was upset that their colleagues “have not the decency to say that the decision to leave out the founder laboratories was both scientifically and morally wrong.”

In late February, Gove talked again with Harbottle, who reminded Gove that the other senator in New York State, Daniel Moynihan, was up for reelection. Harbottle suggested sending a joint letter to him with newspaper clippings and a mention that Bishop Clark of Rochester was on their side. On February 26th, Gove put down on paper some final thoughts for his own records about the Shroud project. Gove found it lamentable that many of the C-14 consortium “now have a distinctly different and more suspicious attitude toward one another.” Gove admitted, “None of us has come out of it whole and pure although some more than others.” In addition, Gove said that “the affection and admiration some of us had for others in the group of twelve had lessened and, in some cases, even vanished.” Gove described the reasons for the changes in procedures as “contemptible as to be embarrassing.”

Fr. Rinaldi called Gove later that day. He said the Cardinal still had not officially approved the procedures agreed to in the January 22nd London meeting. Rinaldi felt that perhaps Gonella was rethinking his position. Gonella had been in touch with STURP’s Lukasik, who believed that three labs were too few and who had Gonella’s ear. Meanwhile, Gove contacted one of Senator Moynihan’s staff, who took Gove’s number and promised to get back with him. Rinaldi sent Gove a copy of a letter that author Ian Wilson had sent to several Shroud scholars. Wilson believed that seven labs were too excessive. He was in favor of doing a C-14 test but noted it was not infallible. Wilson’s last paragraph was both insightful and humorous. Wilson mentioned how the Roman soldiers cast lots to decide who would receive Jesus’ clothing. “Might there not even now someone looking down on the sorry scene and murmuring, ‘Father forgive them for they know not what do’ . . .”

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 242-247.

Comments: The giving of “historical perspective on what was going on” is exactly why I’m writing this article. Very few people understand how complicated and polluted the whole process became. Regarding the open letter to Ballestrero proposed by Gove, practically everyone knows that Church officials do not respond to open letters. It’s amazing that Gove entertained the idea that it would work considering that he knew that the Cardinal had been upset when the labs sent him a private cable the year before pertaining the Turin workshop. But Gove seemed to be a desperate man. Regarding Otlet’s claim that leaving out the founders’ laboratories was “morally wrong,” since little or no morality had been seen up to that point, why did he think it would start at that stage? It is easy to imagine where Gove would have placed himself on his “whole and pure” spectrum. The fact that there was a loss of respect and admiration among individuals of the C-14 consortium points out how deplorable their behavior had been. If the change in protocol was contemptible and embarrassing, why were the final results basically unquestioned?

[Added March 20th, 2016]

1988 March. Evin went to Saint Maximin's, and without even informing the parish priest, tore a few threads from the cope of St. Louis d'Anjou (1274-1297). In the version recounted here (there are several versions), he wasn't able to send them to Tite because of a postal strike so asked Gabriel Vial to deliver them personally on the day of the sample taking.

In the meantime, Tite, not having heard from Evin, asked Ian Wilson of the British Society for the Turin Shroud to try to get a control sample.

Source: Bonnet-Eymard, Bruno. "The Holy Shroud, Silent Witness." *The Catholic Counter-Reformation In The XXth Century*, No. 295 (April 1997), pp. 19-20.

Comments: Other versions of the story regarding the threads from the cope will be detailed in part three.

1988 *March*. Art historian Dutton sent another letter to *Nature* repeating that the procedures do not preclude a sample switch with mummy linen. He also expressed his disappointment at the number of labs being reduced to three.

Source: Marinelli, Emanuela. "The Setting for the Radiocarbon Dating of the Shroud." Presented at 1st International Congress on the Holy Shroud in Spain - Valencia Centro Español de Sindonologia (CES), April 28-30, 2012, pg. 7. www.shroud.com/pdfs/marinelliv.pdf.

1988 *March*. Meacham wrote: "Elsewhere Gove commented on STURP's desire to "characterize the sample" before it was dated by saying 'whatever that means.' This was the absolute nonsense! Clearly he had no concept of or interest in investigating the chemistry of a sample prior to running it through the standard pretreatment. The three selected labs were equally blinkered, they would conduct no research on where the sample should come from, and they planned to treat their prized Shroud fragment largely as they would any other archaeological specimen."

Source: Meacham's book: [The Rape of the Turin Shroud: How Christianity's most precious relic was wrongly condemned and violated](#) (Lulu.com), 2005, pp. 89-90.

Comments: Laverdiere cites two experts regarding the pretreatment: "The thing is that the treatment [sic] that most of the laboratories who are going to date the shroud are using is just acid and alkaline and that does not remove the contamination. And the cloth is dirty, terribly dirty...'

So what is the right sort of pre-treatment?

'Which particular methods are employed will to a large extent depend on the information provided by the user... The user must be aware that no pretreatment procedure can guarantee [sic] absolute decontamination.' [Gillespie on pg 12 of Radiocarbon User's Handbook printed by Oxford University Committee for Archaeology.]

1988 *March*. Gove wrote, "...Olet said that Teddy Hall and Sir David Wilson (Wilson is director of the British Museum) were members of the millionaire's club so that one had to be very careful in dealing with them. (He may have to be but I do not.) He said he was still worried about the possibility of collusion between the British Museum and Oxford."

Fr. Rinaldi called Gove on March 17th to say the mystery had deepened. Turin was being totally silent and Gonella was "speaking in riddles." Apparently every move from that point on was going to be secret. STURP would play no role in the dating and samples would be taken in the next few days. Wilson found out from Gonella that STURP would not be allowed to do any testing until after the C-14 dating, which Wilson thought unsound since he believed that the C-14 dating should be done in conjunction with other tests. Gove asserted that those tests appropriately should not proceed because the approach would be different depending on the age.

Gove revealed, "On 18 March I talked to Ted Litherland. He had just come back from a trip to Oxford and he said that he had had a grand dinner at Teddy Hall's house but Hall seemed a bit ill at ease. He was defending his stand on the whole carbon dating enterprise on the grounds that Tite was involved. There was a four year plan that was prepared for Hall's Oxford lab, that stated Oxford was 'chosen' to date the shroud and this was reason enough to support the lab. Ted said Hall would be retiring in the next year or so and Tite was the top contender to replace him. That was the first time I had heard of this possibility and it turned out to be true. No wonder Tite made no objection to only three labs being involved as long as one of them was Oxford!"

On March 24th, Dutton, the New Zealand art historian, had a letter-to-the-editor published in *Nature* expressing the concern that there were no procedures in place to guarantee the authenticity of the samples, so that for example, Egyptian mummy linen couldn't be substituted. Gove felt that Dutton was "snatching at straws."

That same day, Gove completed the final version of the letter he was planning to send to the Pope. Gove knew it was a lost cause but proceeded anyway because he didn't want to leave any stone unturned. The letter included the background of Gove's involvement, the summaries of all the meetings between 1977 and the London meeting of January 22nd, 1988, the changes in the Turin workshop demanded by Gonella; it encouraged the Pope to advise Ballestrero to revert to the original protocol. It also included a copy of the cable to the Cardinal warning him of the possible severe consequences of changes in the protocol as well as the letter from Ballestrero to all the workshop participants regarding the implementation of the changes. It was mailed on March 25th.

On that day, Gove sent a copy of the letter to Senator Moynihan. Because Gove was worried that his own letter wouldn't reach the Pope, Gove appealed to Moynihan to

send a copy of the letter and materials to the U.S. Ambassador to the Vatican so that he could alert the Vatican Secretary of State.

On March 30th, Gove wrote to Donahue that it appeared certain that only Arizona, Oxford and Zurich would be permitted to date the Shroud. Gove indicated that he would accept Arizona's previous invitation to attend their dating process

Source: Gove's book: Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 234, 247-250.

Comments: Gove suggests here that Tite's "top contender" status to replace Hall at Oxford might have influenced Tite's acceptance (representing the British Museum, overseer of the testing) of the 4-lab plan that included Oxford.

[Added January 17th, 2016 and expanded April 9, 2016]

1988 *April*. Tite sent another letter to *Nature* outlining the summary of the agreements made in London in January. The dating was to be performed by the University of Arizona, University of Oxford, and the Federal Institute of Technology in Zurich. Each lab would be provided with 40 mg. samples as whole piece, not shredded or unraveled as well as two control samples with known dates. A blind test procedure would be adopted. The Shroud sample would be distinguishable even if shredded, so the blind test would ultimately depend on the good faith of the laboratories. The Shroud sample would be taken from one site only, away from any charred areas or patches. The extraction would be taken by a qualified textile expert. All of the samples would be weighed, wrapped in aluminum foil and sealed in numbered stainless-steel cases.

All the operations would be certified by Cardinal Ballestrero and Tite. After the samples were packaged, they would be handed over to the attending three representatives of the labs. All facets of the procedures would have video recording and photographic documentation. After the completion of the procedures, the labs would send their data to Tite and the G. Colonnetti Institute in Turin for preliminary statistical analysis. The laboratories agreed not to discuss their results until after they had sent their data to Tite and the Institute. Final discussion of the data would be made at a meeting in Turin among representatives of the British Museum, the Colonnetti Institute, and of the three labs, to whom identification of the three samples would be revealed. The results of the meeting would then be the basis for both a scientific paper and an oral communication to the public.

Source: Marinelli, Emanuela. "The Setting for the Radiocarbon Dating of the Shroud." Presented at 1st International Congress on the Holy Shroud in Spain - Valencia Centro Español de Sindonologia (CES), April 28-30, 2012, pp. 7-8. www.shroud.com/pdfs/marinelliv.pdf.

Comments: Although there was approximately sixteen hours of video of the various proceedings, the actual placing of the samples into the stainless-steel cases was NOT recorded, a fact that has never been explained and certainly opens the doors for a sample-switch theory.

Although it had been previously acknowledged that the labs would know which sample was the Shroud, Tite still stated that the labs would be informed which sample was the Shroud!

1988 *April*. Sox previously surmised that the three labs didn't push for Gove's wish that more than three labs be involved because they could have been replaced. Dr. Garman Harbottle of the Brookhaven lab, one of those considered but not chosen, wrote to me in a personal letter: "The experiment is to be performed by the same scientists who not three months earlier clearly and effectively objected to its terms. But Oxford is heavily supported by the British S.E.R.C. (Science Research Engineering) and Tucson equally so by N.S.F. (National Science Foundation); one will be very surprised if shroud dating is not prominently mentioned in their next round of grant applications."

Source: Harbottle, Garman, personal communication, 1988.

Comments: As early as February 1989, Oxford indeed mentioned the Shroud dating in their application.

1988 *April*. Robert Hedges, one of the Oxford C-14 scientists, was asked how confident he was of being able to establish the Shroud's age, admitted, "I wouldn't put my life on it."

Source: Glass, Robert. "Modern Technology May Finally Fix Age of the Shroud of Turin." *Chicago Sun-Times*, April 8, 1988, pg. 4.

Comments: Yet when the dating results were released in *Nature*, with Hedges being one of twenty one authors, it was claimed it was with a 95% confidence level.

1988 *April*. Meacham wrote, "One certainly felt that an historic occasion was approaching; I doubted that a bulls eye date of first century would be obtained, but was cautiously optimistic that a result would indicate some antiquity for the Shroud, perhaps back to the 4th or 5th centuries, owing to some intractable contamination. This could be taken as a good indication the Shroud was the genuine article. I made one last effort to persuade Gonella of the need for a small team of advisory archaeologists that I had suggested, particularly for the selection of sampling sites. Again, I put it to him in the strongest terms that a minimum of two sites was needed. By this stage he was not listening, and I did not receive a response. Fr. Rinaldi kept me informed what he

learned of the developments, and it was clear that Gonella was proudly running the show. No one knew just how much he was going to ruin it, but there was a shadow in my mind of continuing nagging worry that he would take the sole sample from a bad location, and the Shroud could be assigned an incorrect age.

Source: Meacham's book: The Rape of the Turin Shroud: How Christianity's most precious relic was wrongly condemned and violated (Lulu.com), 2005, pp. 87-88.

1988 *April*. On April 7th, a letter from Michael Tite was published in *Nature*. Tite stated that the samples would be given to the labs without being unraveled, since even if the samples were shredded, the labs would be able identify the Shroud sample. Tite was quoted in a newspaper article saying that if the date came out medieval, it couldn't be the burial cloth of Jesus. If it came out about 2,000 years old, it would only show that it could be genuine.

Gonella was quoted in another paper as saying the authorities had never officially agreed to allow more than three labs to participate. They didn't see it as reducing the number from seven to three but rather increasing from one to three.

On April 16th, an article was published in *Science News*, which expressed concern about there being only three labs involved. Harbottle was quoted as saying there was a one in five chance in any given measurement that the answer would be wrong. With only three labs, it could be difficult to determine which lab had the bad reading.

Gove wrote a letter to *Nature* in response to Tite's letter published April 7th. (Gove's letter was published a few weeks later.) It highlighted the procedures that were changed from the Turin workshop. Gove concluded his letter with "All these unnecessary and unexplained changes unilaterally dictated by the Archbishop of Turin will produce an age for the Turin Shroud which will be vastly less credible than that which could have been obtained if the original Turin Workshop Protocol had been followed. Perhaps that is just what the Turin authorities intend."

Just about the time that the samples would be taken, Fr. Rinaldi called Gove. There was complete secrecy about the sample taking. The original April 25th date was cancelled and it wasn't known if the removal would happen before or after that date. No one except Tite, Gonella, and an Italian textile expert would be involved in actually cutting the Shroud, which would be videotaped. Rinaldi indicated that Wilson had called Gonella around April 7th to inquire whether STURP could do some measurements before the C-14 date was announced. Gonella said there was no chance of that—STURP would not be involved in the sample taking or in taking any measurements before the dating.

Source: Gove, Harry. Relic, Icon or Hoax?: Carbon Dating the Turin Shroud (Bristol and Philadelphia: Institute of Physics Publishing), 1996, pp. 250-252.

Comments: Even though it was acknowledged that the labs would be able to identify the Shroud, procedures for the "blind testing" would be kept in place when the samples were taken on April 21st.

Tite's remarks about a medieval date disauthenticating the Shroud and a 2,000 year old date not authenticating the Shroud shows the dating was really a no-win situation. Because the labs had total faith that C-14 couldn't be wrong and because no amount of scientific data, at least in some peoples' minds, could not prove the cloth genuine, Shroud advocates found themselves between a rock and a hard place.

Regarding the Church's stance on the number of labs, since so many changes were made, it seems pointless to designate what was official and what wasn't. Despite years of planning, the whole enterprise was a fiasco. And given Gove's statement that the results will be "vastly less credible" because of changes, one has to ask again how the labs could proclaim that the results they produced had a 95% confidence rate. If no changes had been made, would they have proclaimed a 100% confidence rate?

True to form with other numerous changes in procedures, the specifics of the sample taking promulgated shortly before the actual event, did not actually happen. Unfortunately, Gonella's statement about STURP not being involved, did turn out to be true.

[Added April 9th, 2016]

1988 *April*. Text of Tite's letter to *Nature*: Sir —Following my letter of 11 June 1987 (*Nature* 327,456; 1987), I am now able to provide an outline of the procedures that have been finally agreed for the radiocarbon dating of the Shroud of Turin. Of the seven original offers to undertake the dating of the Shroud, three have been accepted by Cardinal Ballestrero, Archbishop of Turin and Pontifical Custodian of the Shroud. The radiocarbon laboratories concerned are at the University of Arizona, the University of Oxford and the Federal Institute of Technology in Zurich, and each has now agreed to proceed with the project.

Each laboratory will be provided with a sample from the shroud, together with two known-age control samples, one of which will have been independently dated by conventional radiocarbon dating. The shroud samples will be taken from a single site on the main body of the shroud away from any patches or charred areas. In order to ensure that ample carbon for dating survives after pretreatment, the weight of each cloth sample (that is, shroud and controls) will be 40mg. All the samples will be given to the laboratories as whole pieces of cloth without being unravelled or shredded. A blind test procedure will be adopted in that the three samples given to each laboratory will be labelled 1, 2 and 3 and the laboratories will not be told which sample comes from the shroud. Even if the samples were shredded, it would still be possible for a laboratory to distinguish the shroud sample from the others. It is therefore accepted that the blind test depends ultimately on the good faith of the laboratories.

The removal of the samples from the shroud will be undertaken under the supervision of a qualified textile expert. These samples will be weighed, wrapped in aluminium foil and sealed in numbered stainless steel containers. The control samples will be similarly treated. All these operations will be watched over and certified by Cardinal Ballestrero in collaboration with myself. After they have been packaged, we will immediately hand over three samples (shroud and two controls) to representatives

of each of the three radiocarbon dating laboratories who will be in Turin for this purpose. In addition, all stages will be fully documented by video film and photography.

On completion of their measurements, the laboratories will send their data for the three samples to both myself at the British Museum and to the Institute of Metrology "G. Colonnetti" in Turin for preliminary statistical analysis. The laboratories have agreed not to discuss their results with each other until after they have deposited their data for statistical analysis. A final discussion of the measurement data will be made at a subsequent meeting in Turin between representatives of these two 'institutions' and representatives of the three laboratories at which the identity of the three samples will be revealed. The results as finalized at this meeting will form a basis for both a scientific paper and for communication to the public. The timetable for the operations has not yet been fully established but it is hoped that a radiocarbon date for the Shroud of Turin will be released by the end of 1988.

Source: M.S. Tite. "Turin Shroud." *Nature* 332 (7 April 1988): 482.

[Added August 20th, 2016]

[To be continued in Parts 2 and 3]

Part 2: <http://newvistas.homestead.com/C-14PoliticsPt2.html>

Part 3: <http://newvistas.homestead.com/C-14PoliticsPt3.html>