## SCIENCE FICTION TO SCIENCE FACT?

Cloak and Dagger with Shroud DNA....

Back in early 1988 - and before the samples for carbon dating had even been taken - there was published in the U.K. a strangely prophetic novel: The Legacy of the Shroud written by Dr. Raymond Leonard, Director of Total Technology at UMIST, the University of Manchester's Institute of Science and Technology. A family man long fascinated with the themes of science, religion and the future, Ray Leonard wondered what would happen if the blood of the Shroud really were that of Jesus, and a bioscientist with access to a tiny sample of the blood secretly tried cloning from this, using the DNA?

Although Leonard's fictional story soon became forgotten in the wake of the adverse carbon dating finding, interest in the Shroud's DNA certainly did not. In Newsletter 42 we featured the claim from Prof. Marcello Canale of Genoa concerning the finding of feminine DNA on the Shroud, together with Cardinal Saldarini's quickly dismissive remarks on this. But breaking at around the time of issue no.42's publication was a story of altogether more elaborate and more international proportions, also involving Shroud DNA, that we can only now reveal in proper detail.

This derives from some determined sleuthing by award-winning Italian television journalist Dr. Piero Di Pasquale, whom your editor met in Los Angeles last October, and who was already working then on a Shroud documentary for Italy's RAI TV. This documentary, originally scheduled for late December of last year, was eventually transmitted from Rome on 3rd January, mysteriously and extensively altered from the form in which Di Pasquale had submitted it, though many of the details of his uncut



version can be gleaned from a accompanying article he wrote for Italy's television magazine Format.

What we know is that while working on assignment in Los Angeles, Di Pasquale happened to interview the University of Texas's Leoncio Dr. Garza-Valdes concerning the fungal-type bioplastic coating and 'blood' that Valdes claimed to have found on Shroud samples

(see Newsletter 37, p.3). In particular, Di Pasquale was curious to know how and from whom these samples had been obtained. Somewhat warily, Valdes told him to talk to Professor Giovanni Riggi of Turin, (above) the microanalyst who, with Professor Luigi

Gonella, assisted in the 1978 STURP testing, and who personally cut from the Shroud the samples taken for the carbon dating in 1998. As Di Pasquale takes up the story:

I telephoned Riggi in Italy, and the very first question he asked was: 'How did you find me?' He then confirmed that it was indeed he who had supplied the University of Texas team with their samples. But how and when could those samples have been removed? In the reports from 1988, there was absolutely no mention either of blood samples, or of any left-over linen. I therefore travelled to Turin for the purpose of obtaining more direct answers from Riggi. According to his own very detailed statement: 'We began work on the Shroud at 5 a.m. on April 21, 1988, removing a sample of the linen eight centimetres long by one and a half centimetres wide. This sample was then cut in half. One half was given to Cardinal Ballestrero, as the Shroud's then Custodian. The other was divided into three equal portions, and given to the representatives of the Zurich, Oxford and Tucson laboratories, in order for them to perform the radiocarbon dating test by which the linen's age could be determined.'

As Di Pasquale knew from his own researches, this sample-taking work was concluded no later than 1 pm this same day, yet the Shroud was not put back in its casket until 8.30 pm that evening. So what took place during those intervening seven and a half hours? Riggi told him:

It was during these hours that we removed the blood samples, to test them in order to find out the man of the Shroud's genetic characteristics.

Riggi apparently used two tiny scalpels to take these samples from the lower part of the apparent crown of thorns bloodstains on the Shroud's dorsal image. This operation was not secret as such, because it was videotaped for the official record, and watched by some twenty technicians and clergy. But then, according to Riggi, both these samples and the portion not used for the carbon-dating were personally given to him by Cardinal Ballestrero, he for his part then depositing them in a bank-vault for temporary safekeeping.

The story then moves on four and a half years, to Garza-Valdes's discovery of a partly living bioplastic coating on certain ancient Mayan artifacts that he found to have caused some serious radiocarbon dating errors. This caused him to wonder whether the Shroud might have become covered with a similar accretion that had led to similar errors, and on his journeying to Turin expressly to gain permission to examine the Shroud directly, he was initially turned away by Cardinal Saldarini, Ballestrero's successor as the Shroud's custodian. However Professor Gonella, who had been Cardinal Ballestrero's foremost scientific advisor, directed Valdes to Giovanni Riggi, who duly brought his samples out from the bank vault. On examining these under a portable microscope Valdes immediately saw that there was indeed a bioplastic coating quite sufficient to have seriously affected the accuracy of the Shroud carbon dating reading. He then offered Riggi the services of the University of Texas's Health Science Center at San Antonio, Texas, for further studies, in particular of Riggi's samples from the Shroud's crown of thorns bloodflows. And with little further ado Riggi was westward bound across the Atlantic, the samples in his luggage.

Once arrived at the University of Texas's San Antonio campus, Riggi's 'blood' samples swiftly came under the scrutiny of two individuals new to Shroud circles, the University's microbiology professor Stephen J. Mattingly, widely respected for his research on group B streptococci and neonatal disease, and his assistant professor, Dr. Victor V. Tryon, director of the University's Center for Advanced DNA Technologies. Inevitably one of the first questions to be addressed was whether that which appeared to be blood on the samples was indeed actual blood, and whether it derived from a human being? Studying a sticky tape bearing a 1.5mm 'blood' fragment Dr.Tryon unhesitatingly confirmed it as human blood, carrying both the X and Y chromosomes that indicate male sex. A second fragment furnished an identical result.

But what else can be learned from these samples? According to Tryon, as quoted, in Italian, by Di Pasquale:

Special deliberation is needed before we carry out our next tests because from these science can establish the ethnic group of the man of the Shroud, and thereby determine whether his DNA matches that to be found in people of Jewish birth. Furthermore, if this DNA was found to have come only from the mother, with no contribution from the father, then there are religious implications obvious to anyone. We are ready to carry out these tests, but the permission for us to do so really ought to come from some interdisciplinary commission.

In other words, Mattingly and Tryon's proposal is for nothing less than a test for the Virgin Birth - assuming of course that (a) the Shroud is genuinely that of Jesus; and (b) the two gospel accounts attesting to Jesus's mother's virginity are indeed gospel truth. However what has really fulfilled the prophecy of Ray Leonard's Legacy of the Shroud is that while purportedly awaiting the verdict of a commission that has yet, if ever, to be formulated, Dr.Tryon has apparently gone ahead and cloned the DNA extracted from the bloodstains, depositing the result in the University of Texas's bloodbank. As grandiloquently expressed by Di Pasquale:

The Son of God came down to earth and was cloned, as if in a science fiction film! For scientists the word 'cloning' broadly conveys the idea of multiplication, but for us it can only spell confusion. Science does not hesitate, even before the Divine. It confidently insists that before long it will be able to inject an egg with the DNA. And then? The idea that a man's DNA - and not just any man's, but one thought by a billion or more people to be the Son of God - could be inserted into an egg and then 'grown' is hardly an issue just to be left just for scientists to mull over in the privacy of their laboratories.

Of course, for Valdez, for Mattingly and for Tryon, the person whom they have been hoping to hear from to give them some form of ruling on what they have in their power to do is none other than the Pope. But on 1st January of this year, and quite possibly in response to their challenge, Cardinal Saldarini issued a press statement formally requesting the return of all Shroud samples scattered around the world, and expressly forbidding the carrying out of any further tests on these. It is almost certainly a forlorn hope that everyone around the world with Shroud samples will be minded to return them, though Valdez, Mattingly and Tryon have actually expressed their willingness to do so. However in their case, as they know full well, they already have what they want, as

endlessly reproducible as a photographic negative, on deposit in the University of Texas's blood bank.

It is therefore an extraordinary situation that three American scientists are holding a genetic code that they believe once controlled every cell in Jesus's physical body, details of which they can open up at any time. Opinions must inevitably be divided on their ethics, let alone the ethics of what they propose to do with the Shroud DNA. But whatever the outcome of this situation, and it is as yet far from resolved, Dr. Ray Leonard can congratulate himself on some remarkable powers of prophecy...