

ATENEIO PONTIFICIO REGINA APOSTOLORUM

Istituto Scienza e Fede

What is the importance of Shroud Science to Faith?

I SOUGHT THE LORD AND HE ANSWERED ME, DELIVERED ME FROM ALL MY FEARS

Psalm 34:5

Professor: Barrie Schwartz

Student: Dr Paola Conti Puorger

Lavoro scritto per il corso ISFD1006 – La ricerca scientifica sulla Sindone,

lo *STURP*, storia e prospettive

Roma, June 19, 2020

אתה חונן לאדם דעת ומלמד לאנוש בינה. וחננו מאתך חכמה בינה ודעה

ברוך אתה יי, חונן הדעת

Amidah 'Ata Honen Le'Adam Da'at

*You graciously bestow knowledge to man, and teach mortals understanding, graciously bestow upon us **from Yourself** wisdom, understanding and knowledge. Blessed are You Lord, Who graciously bestows knowledge. Amidah 'Ata Honen Le'Adam Da'at'*

INTRODUCTION

The expert professional photographer Professor Barrie M. Schwartz with his question 'What is the importance of Shroud science to faith?' has put 'into focus' a problem that is at the very heart of the scientific research on the Shroud. This question is a 'photo shoot' that fixes one's attention on the theme of the role of science and faith in front of the Shroud Linen, a theme that unavoidably is connected with numerous subsequent serious and very deep issues such as, just to mention some, to continue or not the scientific studies (and on the base of which criteria); the deep meaning of posing oneself personally in front of the Shroud, to ask oneself objectively why this *unique sign*² that the Shroud represents has been given to us, and if such a *sign* has not been underestimated till now. As a premise I would like to affirm that the acknowledgment, the attentive study and the comprehension of the material of highest scientific value provided from Professor Schwartz is of great personal advantage of each student and, obviously, of the whole scientific community. Hence, with deep gratitude, personally I would like to assure Professor Schwartz of my personal 'treasure' the precious information received both from a detailed chronology and chronicle of the events point of view, as well as from the perspective of the fundamental scientific experiments presented and also of the results obtained, that have been fully discussed in the Lectures.

-
- 1 For the text of the fourth prayer of the *Amidah* see: https://www.sefaria.org/Siddur_Edot_HaMizrach%2C_Weekday_Shacharit%2C_Amida.10?lang=bi&with=all&lang2=en. The citation of Psalm 34:5 on the title page is taken from *La Bibbia di Gerusalemme* Ed 1974. I will refer to such edition for all the biblical quotes.
 - 2 Cf SUA SANTITÀ SAN GIOVANNI PAOLO II, *Discorso in occasione della Celebrazione della Parola e Venerazione della Sindone*, Pastoral Visit of His Holiness John Paul II to Vercelli and Turin, May 1998.

I. SHROUD SCIENCE OR FAITH ?

The precious³ Shroud Linen bears one imprint that for its mysterious⁴ formation and for the evident strong reference to the Jesus of the Gospels, has always deeply questioned the observer. The scientific research on the Shroud played a role of great relevance in bringing into light the **intrinsic** characteristics of the Shroud that are always more compelling, such as the three dimensionality of the image⁵, the agreement between what can be read on the Shroud and the events of the Gospel narratives⁶, the finding of hematic traces⁷ and the evidence of their *pre-* and *post- mortem*⁸ aspects, etc.

- 3 *Precious* for the evidence of its antiquity and for the manufacturing of the fabric. Some of the textile aspects of the Shroud Linen are pointed out in the third chapter of the volume BAIMA BOLLONE, P., BENEDETTO, P.P., *Alla ricerca dell'uomo della sindone*, Arnoldo Mondadori Editore, 1978 pp 66-73. The textile structure and the preciousness of the manufacture of the Shroud is widely discussed in the book PATRIZI, M.E., *DE SINDONE - Nova et Vetera*, ταν Editrice 2018, pp 71-81. See also what affirmed by the historical textile expert Doctor Mechthild Flury-Lemberg (who participated in the year 2002 on the conservative intervention on the Shroud) in the volume CONFRATERNITA DEL SS. SUDARIO DI TORINO - CENTRO INTERNAZIONALE DI SINDONOLOGIA a cura di BARBERIS, B., ZACCONE, G.M., *Sindone - Cento Anni di Ricerca*, Istituto Poligrafico e Zecca dello Stato – Libreria dello Stato 1998, pp 264-265. *Precious* also overall for the imprint that it bears and that till nowadays remains mysterious in its formation and that is the reason of the birth of the scientific studies on the Shroud.
- 4 *Mysterious* also in the attentive and expert eyes of science. See JUMPER, E.J., ADLER, A.D, JACKSON, J.P., PELLICORI, S.F., HELLER, J.H., DRUZIK, J.R., *A Comprehensive Examination of the Various Stains and Images on the Shroud of Turin*, Reprinted from ACS Advances in Chemistry No. 205, Archaeological Chemistry III, Joseph B. Lambert Editor, 1984, pg 474 'We really do not have a satisfactory, simple explanation for how the body image got on the cloth. We think this fact is underscored by the fact that to our knowledge no other image on any cloth- grave cloth or art form- like the body image on the Shroud is known to exist today'.
- 5 Cf JACKSON, J.P., JUMPER, E.J., MOTTERN, B., ET AL., *The three dimensional Image on Jesus' burial cloth*, in PROCEEDINGS OF THE 1977 UNITED STATES CONFERENCE OF RESEARCH ON The Shroud of Turin, March 1977, Albuquerque, NM, USA, pg 74.
- 6 Cf PELLICORI, S., EVANS, M.,S., *The Shroud of Turin through the microscope*, Archaeology, January/February 1981, p 35. Cf MONS. RICCI, G., *Via Crucis Secondo La Sindone*, Edizioni Centro Romano di Sindologia, Gennaio 1972. See also MONS. RICCI, G., *L'uomo della Sindone è Gesù*, Ed. Cammino, Milano, Centro Romano di Sindologia, Roma, Aprile 1985.
- 7 Cf HELLER, J.H., ADLER, A.D., *Blood on the Shroud of Turin*, published in Applied Optics Vol.19, p 2742, August 1980.
- 8 See *A Comprehensive Examination of the Various Stains and Images on the Shroud of Turin*. See also *The Shroud of Turin through the microscope* and also MILLER, V.D., PELLICORI, S.F., *Ultraviolet fluorescence photography of the Shroud of Turin*, Journal of Biological Photography, Vol. 49, No.3, 1981, pp 71-85. Of extreme relevance in the history of studies on the Shroud it is also the authoritative opinion of the forensic doctor Professor Frederick T. Zugibe, cf ZUGIBE, F.T., *The Crucifixion of Jesus – A Forensic Inquiry*, Second Edition, M. Evans and Company Inc., New York, 2005. Since Professor Schwartz knows better than presumably anyone else the history of the researches and studies on the Shroud, I will limit

Historically the scientific research has been as a magnifying glass that allowed to start disclosing the *sign* which the Shroud bears imprinted. Historically, furthermore, the fact that science could imply the effective and objective belonging of the Shroud Linen to Jesus of Nazareth, has shown in many occasions the desire of many of deliberately censure such evidence due more to an animosity of prejudice rather than on objective facts, as it was a matter of choosing between science *or* faith. It is necessary, indeed, to mention that the scientific studies stemmed from the shocking photos of the lawyer Secondo Pia⁹ that he shot at the time of the Ostension of 1898¹⁰. Starting from the attentive study of those photos a first authoritative and respectable opinion, on a scientific point of view, already in favor on the belonging of the linen and of the imprint to the Jesus of the Gospels, came at the dawn of the twentieth century with the studies of the agnostic Yves Delage, professor of zoology at the authoritative (moreover in those years) university *La Sorbonne* in Paris. He was shocked by the beauty and perfection of the face of the Man of the Shroud and from the fact that the imprint appeared as a photographic negative¹¹ as he himself stated¹²

“1) l’image du linceul est un négatif, c’est-à-dire que les parties en relief sont foncées et inversement; 2) le négatif de cette image, en devenant positif par rapport à l’objet représenté, prend une netteté inattendue et fait apparaître une perfection anatomique et un caractère esthétique que rien auparavant ne laissait soupçonner.

myself, out of briefness, to essential citations, but many other aspects should obviously be added and elaborated.

- 9 Cf BARBERIS, B., BOCCALETTI, M., *Il caso Sindone non è chiuso*, Edizioni San Paolo 2010 pp 63-77.
- 10 For the analysis of the historical events of the 1898 Ostension see ZACCONE, G.M., *La Sindone - Storia di una immagine*, Edizioni Paoline 2010, pp 228-255.
- 11 Even if the studies that followed and that were performed by the *STURP* team contributed to better define the limits of this assertion and to explain its correct meaning. Cf JUMPER, E.J., ADLER, A.D, JACKSON, J.P., PELLICORI, S.F., HELLER, J.H., DRUZIK, J.R., *A Comprehensive Examination of the Various Stains and Images on the Shroud of Turin*, Reprinted from ACS Advances in Chemistry No. 205, Archaeological Chemistry III, Joseph B. Lambert Editor, 1984. Cf also in *Sindone – Cento Anni di Ricerca* the contribution of Professor Nello Balossino *La ricerca informatica sulla Sindone* pp 233-236.
- 12 The text of the letter in the original french language *La Lettre D’Yves Delage* dans *La Revue Scientifique* of 1902 can be found at www.sindone.it. The quoted section is from page 24 and it is part of the letter sent from Y. Delage to the editor of the scientific magazine *Revue scientifique* Professor C. Richet. Delage sent this letter because of the Richet’s denied publication in the *Comptes Rendus* of the French Accademy of Science of his (and of Paul Vignon that was one of his students and then collaborator of the Delage) studies and results about the Shroud. In those results Delage was bringing scientific logic-empiric objective evidences that were leading to recognize Jesus of Nazareth as the Man of the Shroud. A brief description of the vicissitude can be found in the previously cited book *Il caso Sindone non è chiuso* pp 79-93.

Le corps prend un modelé très juste, et la tête, plutôt choquante sur la reproduction réelle du linceul, devient, après ce renversement des ombres et des lumières, si admirable au point de vue expressif que, de l'avis de peintres faisant autorité, aucune des têtes de Christ des artistes de la Renaissance ne lui est supérieure.”

The text clearly shows the scientific-critic attitude of the Delage whose intent was a rational-objective study of the problem searching for an objective truth. Full of bitterness, hence, had to be his reaction to the censorship of his results by the scientific community witnessing how, at the origin of the refusal of their publication on the *Comptes Rendus* of the Academy of the Sciences, there was the possible attribution of the precious Linen to Jesus of Nazareth. In fact, he kept writing¹³ “*Si, au lieu du Christ, il s’était agi d’un Sargon, d’un Achille ou d’un Pharaon quelconque, personne n’eût trouvé rien à redire*”. Since then, it seems that the history has seen more parties *for* or *against* the belonging of the Linen to Jesus of Nazareth, rather than free scholars whose intent is to put their knowledge in front of the Shroud Cloth. It was a student and then colleague of the Delage, Paul Vignon, the one who contributed with a definitely more interdisciplinary and systematic approach to the studies of the Shroud, cooperating, extending, and continuing the work of Professor Delage. Paul Vignon based his studies mainly on the photos taken afterwards by Giuseppe Enrie in 1931. It was Vignon the one that first noticed that the intensity of the Shroud image was darker as the body that had caused it was in close proximity to the cloth. Thus, he observed that *the intensity of the image seemed to vary inversely with cloth-body distance*¹⁴. Starting precisely from this observation of Paul Vignon, as recalled in the lectures, two eminent scientists of the U.S. Air Force Academy, John P. Jackson and Eric J. Jumper in 1977 performed some studies and experiments in order to find evidences of three dimensional characteristics encoded in the Linen Shroud¹⁵. The results that they obtained were once more compelling and that was the reason that urged Jackson and Jumper to continue the

13 Cf *La Lettre D’Yves Delage* dans *La Revue Scientifique*, p 29.

14 Cf *The Three dimensional image on Jesus’ Burial Cloth*, p 74. See also the contribution entitled *Aspetti fisico-chimici delle immagini sindoniche* of Professor Alan D. Adler published in the volume *Sindone – Cento Anni di Ricerca*, p 166. In that paper Professor Adler gives a brief but accurate analysis of the studies of Paul Vignon. Another relevant contribution of Vignon was to assess that the hematic traces *‘erano compatibili con macchie causate da sangue coagulato e non da una ferita sanguinante da poco tempo, dal momento che apparivano ispessite ai bordi’*. Cf *Sindone – Cento Anni di Ricerca*, p 166.

15 Cf *The three dimensional Image on Jesus’ burial cloth*, the three dimensionality was confirmed by the use of the Interpretation System’s VP8 Image analyzer.

investigation forming the high level research-team named *Shroud of Turin Research Project, STURP*, of which Professor Barrie Schwartz had the honor and the privilege to be part of, thanks to his highly professional experience in the photographic field. Maybe also many scientists of the *STURP* team at the beginning approached the Shroud studies with skepticism¹⁶, but they were led by an attentive spirit of observation of the objective truth and of deep scientific interest. Nevertheless, in the years that followed the *STURP* researches, there was the complex vicissitude of the radio-carbon dating, analyzed in detail during the Lectures of Professor Schwartz, that clearly indicated how much animosity still surrounds the field of studies on the Shroud, and how many, in the scientific field, use it to manipulate the data according to their point of view, and not according to empiric spirit of search of an objective truth. Truly offensive for the whole scientific community and of a ‘bad taste’ the exclamation point that Michael Tite, Edward Hall and Robert Hedges placed at the presentation of their results affirming, in their publication on the Journal *Nature*, to have *definitely*¹⁷ solved the problem of the Shroud Linen dating. The exclamatory point was offensive also for the people of faith who were labeled with naive bigotry. It has been of extreme interest, during the Lectures of Professor Schwartz, the narration of the events of how the studies to demonstrate the inaccuracy of the radio-carbon dating results of 1988¹⁸ had continued.

II. THE SCIENCE AND THE FAITH AND THE SEARCH OF TRUTH.

From what is briefly accounted, it is clear how, exactly for the intrinsic property of the Shroud to be not only an *enigma*¹⁹ on a scientific point of view, but also to have deep implications on a faith account, it is this Linen itself that invites us to put the relationship between science and faith into a right perspective. Therefore, first of all,

16 Very interesting about this the introduction of the paper JUMPER, E.J., *An overview of the testing performed by the Shroud of Turin Research Project with a summary of results*, IEEE 1982 Proceedings of the International Conference on Cybernetics and Society, October 1982, p 535.

17 Cf DAMON, P.E., DONAHUE, D.J., GORE, B.H., ET AL, *Radiocarbon Dating of the Shroud of Turin*, *Nature*, vol 337, No 6208, pp 611-615, February 1989.

18 Besides the essential contributions of Joseph Marino and Sue Benford, of the eminent scientist Raymond N. Rogers and of John Jackson, it is important to mention also the studies of Professor Marco Riani and the most recent research of Tristan Casabianca.

19 Cf *The Shroud of Turin through the Microscope*, p 43.

science and faith show a common base that essentially is an ethical and existential problem of seeking an objective truth and of the anthropological vision of man. It is important to include also the faith and not only the science as instruments for the search of the objective truth because while the science, due also to its etymological meaning of knowledge²⁰, implies a first empirical knowledge, the faith, far from being only an intellectual adherence to certain truths or the act of believing without absolutely understanding, indicates having reached certainties, a trust²¹ which involves not only the empirical reality of man, but also the existential and spiritual one²². The faith, what we believe in, directs our every action whether we are aware of it or ignore it, thus, in some sense, we ‘live of faith’. The faith does not fear the science, on the contrary, it presupposes it because knowing is the first step of faith. It is important to notice that if an objective truth would not exist, nor science nor faith would have any meaning. Pointing out the importance of an ethics in the process of seeking the truth implies a being open, even from the science point of view, to the possibility of faith, because a science that does not consider all the possibilities would be *a priori* limited in its search. Thus, an objective Truth exists. This implies that this Truth is greater than the individual sciences and faith, as it contains them, and implies something far more important: because man is capable of reason and he has an intellect and a spirit that drives him to search for truth, one cannot admit that Truth is only the result of chance or is the ‘Chance’, otherwise the man with his intellect would be superior to it. Therefore this Truth not only is objective but it is a *Being*: that is, He can and wants to make himself known to man in a personal way. Here, then, that one can recognize that all this involves an anthropological vision of man: this Truth/Being, wants to make himself known to

20 From latin ‘*scientia*’, derived from *sciens scientis*, present participle of *scire* ‘to know’ cf Vocabolario Treccani www.Treccani.it. It corresponds to the term **דעה** from the root **דע** (see also **דעת**), cf SCERBO, F., *Dizionario Ebraico e Caldaico del Vecchio Testamento*, Libreria Editrice Fiorentina, Firenze 1911, pp 58-59.

21 *Fede* from the latin ‘*fides*’ indicates a full belief, trust cf Vocabolario Treccani www.Treccani.it. The corresponding hebrew term is **אמונה** (from the root **אמן** *truth, faith*) cf *Dizionario Ebraico e Caldaico del Vecchio Testamento* p 14.

22 “*Sicuro: la fede è realmente la conversione, in cui l'uomo scopre di stare inseguendo una illusione, qualora si getti unicamente in balia del percettibile*”, cf RATZINGER, J., *Introduzione al Cristianesimo*, Queriniana Editrice, 2005, p 44. Translation by the author (TbA): ‘*Sure: the faith is really the conversion, in which man discovers that he is chasing an illusion, if he throws himself solely at the mercy of the perceptible*’.

Of a very deep meaning is the definition of faith found in Heb 11:1 ‘*Faith is the realization of what is hoped for and evidence of things not seen.*’

man because He has esteem for him and because being such Truth *the Being*, and therefore *the Source of Being*, He is also *the One Who Gives Life* and if He gives Life He is also *Creator* and knows and has esteem for man because He is *his Creator*. Therefore, in an act of immense Love, this Being/Creator did not impose himself on his creature because He gave her the immense gift of freedom²³, but let himself be known by her. Thus, not only science but also faith both start from the objective fact that this Being/Creator wants to make himself known and historically He revealed himself²⁴, He chose a people for his own²⁵. Hence, there is a Truth about man and whether or not man adheres to this Truth, does not change the objective situation. It is good to report what was stated in the Encyclical Letter *Fides et Ratio* of the Supreme Pontiff Saint John Paul II to the bishops of the Catholic Church about the relationship between faith and reason where he says:

“Faith and reason are like two wings on which the human spirit rises to the contemplation of truth; and God has placed in the human heart a desire to know the truth—in a word, to know himself—so that, by knowing and loving God, men and women may also come to the fullness of truth about themselves”.

Reason is at the base of science, therefore it is important to note that this sentence of John Paul II underlines two fundamental aspects: God has a **great plan of love for every man**; science and faith are a **gift** from God. Even the man of science who professes himself to be an atheist has unwarily received from God the gift of intellect and reason. Furthermore, if a scientist undertakes a scientific research it is because he has faith to find a truth, an answer, therefore science and faith are truly intimately linked. Science is the human attempt to understand divine creation but only in so far as God has taken the first step of wanting to reveal himself, because he values man and has great esteem for man. The scientist who would want to explain the creation

23 Therefore man has freedom of choice, free will and it is in the knowledge of Truth that this freedom becomes full. See CATECHISMO DELLA CHIESA CATTOLICA, numbers 1730-1748.

24 וַיֹּאמֶר אֱלֹהִים אֲנִי הוּא אֱלֹהֵי אַבְרָהָם אֱלֹהֵי יִצְחָק וְאֱלֹהֵי יַעֲקֹב וַיִּסְתֵּר מִפְּנֵי כִּי יֵרָא מִהֲבִיט אֶל־הָאֱלֹהִים *Shemot 3:6 – Exodus 3:6* “**I am the God of your father**”, he continued, “**the God of Abraham, the God of Isaac, and the God of Jacob**”. Moses hid his face, for he was afraid to look at God’. See CATECHISMO DELLA CHIESA CATTOLICA, number 51. ‘It pleased God, in his goodness and wisdom, to reveal himself and to make known the mystery of his will. His will was that men should have access to the Father, through Christ, the Word made flesh, in the Holy Spirit, and thus become sharers in the divine nature’. In turn, taken from the documents of the Second Vatican Council Cost. Dogm. *Dei Filius* c.4: DS 3015.

25 וַעֲתָה אֲנִי־שׂוֹמֵר תִּשְׁמְעוּ בְקוֹלִי וּשְׁמַרְתֶּם אֶת־בְּרִיתִי וְהִיִּיתֶם לִי סֵגֻלָּה מִכָּל־הָעַמִּים כִּי־לִי כָל־הָאָרֶץ *Shemot 19:5 – Exodus 19:5* ‘Therefore, if you hearken to my voice and keep my covenant, you shall be **my special possession, dearer to me than all other people, though all the earth is mine**’.

without God would return to the problem of the Tower of Babel, but God will still seek him to bring him to the Truth. The scientist who wants to avoid the problem of God by choice does not esteem himself, but God still has esteem for him. The Shroud, then, asks to the man of science to be first truly looked at without any prejudice but in its essence. It then reveals itself, at a deeper glance and if we let ourselves be looked at by it, be not a mere object of scientific interest, but bearer of a presence that calls us to a higher knowledge questioning our life so that it could be directed to the True and open to the possibility of Faith²⁶ and to the certainty of the existence of God. The Shroud does not need to be defended or accused by science or faith, it knows how to defend itself, instead it needs to be accepted and welcomed as a possibility. Science and faith are not in contrast with each other because²⁷ “*God wills everyone to be saved and to come to knowledge of the truth*” and faith does not fear at all neither science nor reason, instead it needs them because knowledge is the first step of faith. Witness of this is a young and humble Jewish woman who, before saying her *yes* to the project of Love that the God of her Fathers had on her, wanted to understand. Indeed, before her *fiat* the Virgin Mary asked²⁸: ‘*Quomodo fiet istud?*’. I would like to emphasize that starting faith from an empirical knowledge does not imply that only scientists can get to ‘understand’ God to come to faith. God has abundantly shown in the History of Salvation that He has done

26 ‘*La fede nasce dall’ascolto dice Paolo (Rm 10,17) [...] in altri termini: nella fede si ha una precedenza della parola sul pensiero, che la stacca strutturalmente dall’impostazione tipica della filosofia. Nella filosofia il pensiero precede la parola; essa è quindi un prodotto della riflessione, che poi si cerca di rendere a parole, le quali rimangono perciò sempre un fattore secondario rispetto al pensiero, essendo esse per principio sempre sostituibili con altre parole. La fede, invece, giunge all’essere umano dall’esterno. Essa – ripetiamolo ancora una volta – non è un pensato da me stesso, bensì ciò che mi viene detto, che mi riguarda in quanto non pensato e non pensabile, e in quanto tale mi interpella e mi impegna. [...] Ecco perchè qui si ha una priorità della parola preesistente sul pensiero, per cui non è il pensiero che si crea le sue parole, bensì la parola preesistente che indica la via al pensiero che la comprende.*’ See *Introduzione al Cristianesimo*, pp 82-84. TbA: ‘*Faith comes from listening, says Paul (Rom 10:17) [...] in other terms: in faith there is a precedence of the word over the thought, which structurally detaches it from the typical approach of philosophy. In philosophy the thought precedes the word; it is therefore a product of reflection, which is then tried to render into words, which therefore always remain a secondary factor with respect to the thought, since they can always be replaced by other words. Faith, on the other hand, reaches the human being from the outside. It - let us repeat it one more time- is not a ‘thought’ by myself, but what I am told, which concerns me as something of unthought and unthinkable, and as such it challenges me and engages me. [...] This is why here there is a priority of the pre-existing word over the thought, so that it is not the thought that creates its words, but the pre-existing word that indicates the way to the thought that understands it.*’

27 Cf. 1Tm 2: 4.

28 Cf. Nova Vulgata, *Evangelium Secundum Lucam I*, 34. Lk 1:34 ‘*How can this be*’.

with His chosen-elected people, that He chooses what in the eyes of the world is humble to reveal His love and that the empirical knowledge of God means to have an experience of Him in life; and that this empirical knowledge of God manifests itself with facts in the history of every man because God has always acted, always acts and will always act in favor of man. Our father Abraham was not a scientist, but in the eyes of the world he was an old man without children and without a land, a failure, yet God intervened in his life and he became the father of faith because he trusted God till the point to sacrifice to him his own beloved, only child. This faith was based on an empirical knowledge, knowledge that Abraham had in reading the facts of his history: God had acted in his life by drawing from the death (Sarah's sterility) life in the birth of Isaac. Therefore whoever welcomes God lacks nothing. One can then assert that the events of the scientific research of the Shroud have shown how God intervened in History to make himself known also through the knowledge that He gave to the men of science who confronted the Shroud. The facts and events of how science has approached the Shroud were an intervention of God *for* and *in* the life of the scientists as a gift for them (because revelation teaches us that God intervenes in the life of every man in a personal relationship), but in favor of all.

III. CONTRIBUTION OF THE *SHROUD SCIENCE* TO FAITH IN THE LIGHT OF THE HISTORY OF SALVATION.

In the history of philosophy and of religions, the common thread was wanting through the *thought* to try to understand the *spirit*. A vast number of citations could be quoted but, out of brevity, I will quote a thought of the Pope Emeritus Benedict XVI²⁹:

“il paradosso della antica filosofia consiste, dal punto di vista della storia delle religioni, nel fatto che essa ha distrutto il mito a livello di pensiero, ma tentando al contempo di legittimarlo nuovamente nella sfera religiosa; ciò vuol dire che essa non è stata religiosamente rivoluzionaria, bensì tutt'al più evoluzionista, ha considerato la religione come una questione di ordinamento della vita, non come un problema di verità”.

²⁹ See *Introduzione al Cristianesimo*, pp 130-131. TbA: ‘*the paradox of ancient philosophy consists, from the point of view of the history of religions, in the fact that it has destroyed the myth at the level of thought, but at the same time trying to legitimize it again in the religious context; this means that it has not been religiously revolutionary, but at most evolutionist, it has considered religion as a matter of ordering of the life, not as a problem of truth*’.

Only the Judeo-Christian tradition originates from the revelation of God, and only improperly Judaism and Christianity are called *religions*. Christianity, furthermore, can be fully understood only in its being deeply rooted in the Jewish Faith³⁰. God is a God that acts, the faith, as for Abraham, is a gift, as to put oneself at listening and to answer to the history that God does with every man, and it is a constant making of the experience that only God can bring from death to life, from slavery to freedom. It is extremely important in the *Haggadah Shel Pesach* to remind that ‘*in every generation a person is obligated to regard himself as if he had come out of Egypt*’. It is good to point out that Judaism and Christianity stem from an objective event which is the desire of God to manifest Himself to man, to reveal Himself in all His Essence of deep Love, Life and Truth. The History of Salvation unites us and so it is very important to see if it is possible to speak of the Shroud, also through the scientific researches that have been performed on it, within the History of Salvation. God indeed, has never stopped to speak to man and if God has given us as a gift the *sign* of the Shroud, it would be foolish to think that the Shroud could be useful only for an intellectual-scientific exercise. The Shroud is greater than science and faith because the science until today cannot fully explain it and furthermore, since it refers to Christ, who Paul of Tarsus leads us to know how³¹ ‘*leader and perfecter of faith*’, the Shroud is also greater than

30 *La Chiesa di Cristo scopre il suo “legame” con l’Ebraismo “scrutando il suo proprio mistero”. La religione ebraica non ci è “estrinseca”, ma in un certo qual modo, è “intrinseca” alla nostra religione. Abbiamo quindi verso di essa dei rapporti che non abbiamo con nessun’altra religione. Siete i nostri fratelli prediletti e, in un certo modo, si potrebbe dire i nostri fratelli maggiori.*’ Cf Discorso di San Giovanni Paolo II durante l’Incontro con la comunità ebraica nella sinagoga della città di Roma, Domenica 13 Aprile 1986. http://www.vatican.va/content/john-paul-ii/it/speeches/1986/april/documents/hf_jp-ii_spe_19860413_sinagoga-roma.html. TbA: “*The Church of Christ discovers its ‘bound’ with Judaism by ‘scrutinizing its own mystery’.* The Jewish religion is not ‘extrinsic’ to us, but in a certain way, it is ‘intrinsic’ to our religion. We therefore have toward it relationships that we do not have with any other religion. You are our beloved brothers and, in a certain way, you could say our elder brothers.’ In the Apostolic Exhortation *Evangelii Gaudium* n. 247 of Pope Francis it is stated: ‘*We hold the Jewish people in special regard because their covenant with God has never been revoked, for “the gifts and the call of God are irrevocable” (Rom11:29). The Church, which shares with Jews an important part of the sacred Scriptures, looks upon the people of the covenant and their faith as one of the sacred roots of her own Christian identity (cf. Rom 11:16-18). As Christians, we cannot consider Judaism as a foreign religion; nor do we include the Jews among those called to turn from idols and to serve the true God (cf. 1 Thes 1: 9). With them, we believe in the one God who acts in history, and with them we accept his revealed word.*’ http://www.vatican.va/content/francesco/it/apost_exhortations/documents/papa-francesco_esortazione-ap_20131124_evangelii-gaudium.html.

31 Cf Hebrews 12: 2b.

faith and thus calls us to search for an objective Truth, **an intervention of God in History**. Hence, I would like to suggest a reading of the Shroud in the perspective of the History of Salvation³². Since some objective data, that do not lie, have been obtained on the Shroud by the *STURP* team, we will read them in the light of the History of Salvation. Thus, the Shroud, as mentioned, has been defined as a *sign* and God in the Scriptures has always acted through *signs*. An aspect of the Shroud that personally I found truly extraordinary, it is the fact that the imprint presents both a frontal and dorsal image and both with intrinsic three dimensional characteristics and, at least for the studies done on the frontal side³³,

‘only mapping in a vertical direction produces nearly correct correspondance between points on the body and cloth. Projections normal to either the body or the cloth surfaces would produce an image with significantly greater distorsions’.

32 Please allow me a personal note. Personally, I have a great love for the Jewish people, I myself take lessons for fluent Hebrew reading from an accredited Hasidic Orthodox Rabbi. **My most dear friendships**, since I live in America, are Jewish families. I find extremely important to read the *Tanakh* (where *Tanakh* is an acronym that indicates *Torah, Nevi'im, Ketuvim, Books of the Law, Prophets, Writings*) in the original Hebrew language. I am Catholic and I have (and always had) taken great care to always refer to the Magisterium of the Church and in everything, coming to know the Scriptures in depths in the original language, I find always more deeply that everything that is encoded in the canon of the Hebrew text is never in contradiction with what Jesus revealed in the Gospels, rather I think He brought to the Scriptures full meaning and fulfillment. Since the question posed by Professor Schwartz is so clear and so explicit: *‘What is the importance of Shroud Science to Faith?’*, coming to know the results of the scientific studies of the *STURP* team and since are many years that I am involved in studying the Scriptures in Hebrew in a deep way, I cannot exempt myself from answering in all sincerity what this question has produced in me as answer. Such answer went beyond my expectation in what it had made me realize and understand, and that I will start to write from now on. Thus I ask the reader in such delicate part, to follow me with patience precisely by the virtue of the deep love that I have for the Jewish people and for the irrevocable election that God bestowed on them. It is through them, in Jesus Christ, that also us Christians had come to faith.

33 Cf ERCOLINE, W., R., DOWNS, R.,C.,JR, JACKSON, J.,P., *Examination of the Turin Shroud for Image Distorsions*, IEEE 1982 Proceedings of the International Conference on Cybernetics and Society, October 1982, p 579. The figure has been extrapolated from the same paper. The *STURP* studies concerned essentially the frontal image. Cf *A Comprehensive Examination of the Various Stains and Images on the Shroud of Turin*, p 451: *‘Further, qualitatively, the optical density of the dorsal image falls off from peak density to that of the background over anatomical distances (e.g., in the region of the calf) suggesting a similar correlation to cloth- body distance as exists for the frontal image. However, other portions of the dorsal image might be interpreted as characteristic of a contact mechanism.’* However, also the dorsal image presents the same encoded three dimensionality as the sindonic holograms by Dr Petrus Soons show evidently without pronounced flattening due to the body-cloth contact. A study, made by J. Jackson, is useful to understand the difficulties involved with the formation of the frontal and dorsal images, see: <http://www.shroudofturin.com/Resources/ShroudFallThroughSDTV2.0.pdf>.

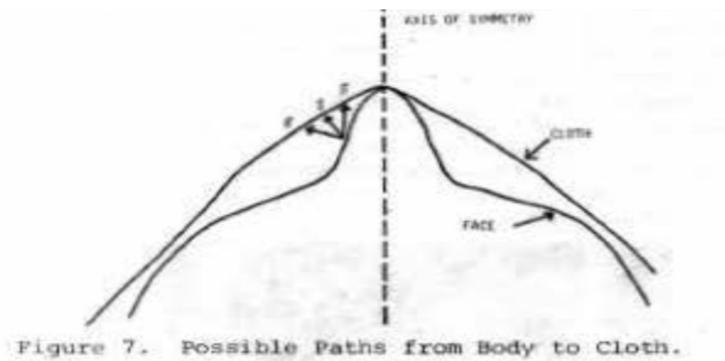


Figure 1. from the paper *Examination of the Turin Shroud for Image Distorsions: Possible paths from Body to cloth.*

Obviously, the Man who had been wrapped in the Shroud had a close contact with the cloth, but the imprint, with the encoded three dimensional characteristics and with such mapping in a vertical direction, seems to have originated as if in **both** the frontal and the dorsal side the body had imprinted the cloth in a *vertical direction* without causing distorsions. Hence, the same image of Figure 1 should be plotted also for the nape but with the arrows in a direction vertical from the body to the cloth and hence in a diametrically opposite direction respect to the frontal image. How a print with such characteristics could be obtained in **two opposite directions**? Furthermore, always on the base of detailed scientific researches of the *STURP* team, it is possible to deduct that there is no intervention of a human hand in obtaining the Shroud imprint³⁴. With such

34 The reading of the *STURP* conclusions reported by Professor Schwartz on the following web-page is truly **fundamental**: <https://www.shroud.com/78conclu.htm>.

See also *A Comprehensive Examination of the Various Stains and Images on the Shroud of Turin*, pg 448. “*the body image is made up of yellowed surface fibrils of the linen that are at more advanced stages of degradation than the non-image linen. The chromophore is a conjugated carbonyl. No evidence was found in the body image of any added substance that could have contributed to the yellow color of the fibrils that form the image. The blood images on the cloth are made of blood. The data, taken together, do not support the hypothesis that the images on the Shroud are due to an artist*”.

Very interesting what is outlined in the book of Doctor Zugibe: ‘*It has been reported that there is a lack of image on the sides of the facial image on the Shroud. However, using the magnetic lasso tool from the computer program Photoshop, Barrie Schwartz has shown that the sides of the Shroud’s facial image are indeed visible in the darker areas on the sides of the face*’. Cf *The crucifixion of Jesus*, p 177. Thus, even of sides that were not in direct contact with the cloth there is an image, and personally I think this seems to confirm once more the possibility of a radiant energy from the body to the cloth as cause of the possible formation of the image.

premises, before to get into the heart of what these considerations led me to conclude, I would like to briefly report few hints of what I wrote in the Essay for the Course³⁵ of *La Scienza e la Teologia di fronte alla Sindone*. In that paper, I pointed out how *signs* are the letters of the Hebrew alphabet that have great relevance in the Scriptures. For an observant Jew the *Torah* should not only be read or proclaimed but also always looked at, eye contact with it is essential. A *sign* mainly indicates the will for a choice, for an election. Since an isolated mark could be an oversight, typically a sign is designated with a cross: marking a cross always indicates a will, an election, even those who could not write in the past to indicate a choice signed by making a sign of a cross. The Hebrew letter that contains this graphic idea of choice is the *tav* ת. The original Hebrew word for *sign* is אֹת (*ot*) and often it is also only written as אַת³⁶, first and last letter of the Hebrew alphabet. It is interesting to note that for the Christians of the early Church the letter *tav* represented the cross (thus the *crucified one*)³⁷ while the *aleph* represents the *origin*, the *only one* and thus, in a translated way, *the only begotten one*. Therefore, for a scholar of the Scriptures to see ‘*the Only Begotten Crucified*’ it was certainly an eloquent *sign*. Furthermore, it was eloquent by itself to see the wrapping of the Crucified one in a Shroud, just think of the abbreviation סת *Sefer Tôrāh*³⁸ that indicates the *Books of the Law*. The letter *samekh* ס in fact, it also has the graphic meaning of wrapping just like a scroll of the *Tôrāh* that to be read was unrolled and then wrapped³⁹. Thus, the wrapping of Christ crucified in a Shroud visually shows the fulfillment of the scriptures, like He is the Word made flesh. It is interesting the following image⁴⁰ that

35 The title of the Essay I am referring to is *Sindone Segno Visibile di Gesù - Sindone Segno Visibile di Salvezza*.

36 Cf *Dizionario Ebraico e Caldaico del Vecchio Testamento*, p 23. Furthermore *aleph* and *tav* are the first and last letter of the Hebrew alphabet, thus the beginning and the end, and this implies also a *fulfillment*, a *fullness*.

37 Cf TESTA, E., *La fede della Chiesa madre di Gerusalemme*, Edizioni Dehoniane Roma, 1995, chapter XI particularly pp 256, 287-288. It is necessary to point out that one does not want to enter into any kind of exasperated symbolism, rather just to point out what is inherent in the richness of the canon of the Hebrew scriptures (as still today the Jewish people understand them) shared by Jesus and by the Jews of the time to whom He gave meaning, novelty and full fulfillment.

38 Ibidem pp 289, 297. From the initial letters of ספר תורה (*Sefer Tôrāh*).

39 The supposed graphic meaning has been confirmed to me by the Rabbi from whom I take lessons for fluent Hebrew reading.

40 Please allow me the reader to insert the image in this context and not at the end of the essay. The image taken from the web is classified as Andrew Ross Artwork the site of origin digilander.libero.it was not of interest but the image is explanatory and corresponding to how the *Thôrāh* is actually covered.

represents the *Tôrāh* 'clothed' (how it is placed inside the *`Aron* or carried in the processions in solemnities as in the feast of the *Simchàt Tôrāh*) if one compares it with the Shroud imprint.

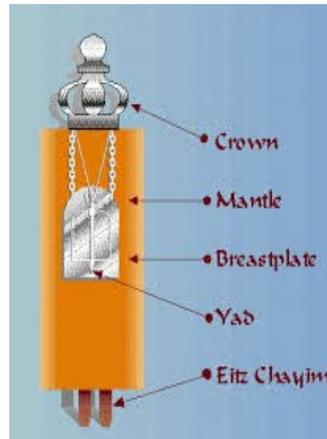


Figure 2. The *Tôrāh* 'Clothed'

It is remarkable to see the *crown*, the *yad* (*hand*) and then the *Eitz Chayim* (*Tree of Life*) as the body and legs and feet of Jesus. Another truly remarkable detail: the first word of the *Tôrāh* is *בְּרֵאשִׁית* (*bereshit*), thus the first letter of the Books of the Law is *ב* (*beth*), the last word is *יִשְׂרָאֵל* (*Israel*) and thus the last letter is *ל* (*lamed*). Therefore, the word 'לב' (*lev*) is originated, that is 'heart': truly in the Scriptures the Lord opens His Heart to us and He has completely given it to us in Christ⁴¹ and the *Torah* itself reveals us His heart. I wanted to recall these brief notes because they help to understand how the Scriptures in the Hebrew original language have a very deep richness that translations do not allow to grasp. Thus, going back to the history of Salvation and looking at the Shroud **not written by human hand** and with a frontal and dorsal imprints that give rise to **two images** and linking the fact that so far all the scientific results have done nothing but confirming the belonging of the precious Shroud Linen to the Jesus of the Gospels, and knowing that Jesus left this imprint in the fulfillment of his *Pesach*, that is, his personal Exodus, it makes sense to look at what happened to the people of Israel on

41 This detail caught my attention when I started the study of the *Tanakh* in the Hebrew original language and I find it very significative overall if one considers that in all the Eucharistic miracles that the scientific studies have objectively confirmed, it is always the cardiac tissue which is found and with irrefutable evidences. Cf. SERAFINI, F., *Un Cardiologo Visita Gesù – I miracoli Eucaristici alla prova della scienza*, Edizioni Studio Domenicani 2018.

leaving Egypt as a fulfillment of the Exodus. With a powerful arm the God of our Fathers took them from slavery to freedom, for them he opened the sea and made them pass unharmed through it and brought them to the desert to give them the most precious gift: the Tablets of the Law, written on **two** tables of stone from the **finger of God**. The Covenant of the Sinai is the fulfillment of the *Pesach* festivity. In the passage recalling the entrusting to Moses of the Tablets of the Law as a gift it is said⁴² in the Scriptures: ‘*When the LORD had finished speaking to Moses on Mount Sinai, he gave him the **two tablets of the commandments, the stone tablets inscribed by God's own finger***’. In the Hebrew original text it is written:

וַיִּתֵּן אֱלֹהֵי-מִצְרָיִם כְּכַלְתּוֹ לְדַבֵּר אֵתוֹ בְּהָר־סִינַי שְׁנֵי לְחֹת הַעֲדוּת לְחֹת אֶבֶן כְּתוּבִים בְּאֵצְבַּע אֱלֹהִים:

The term *finger* אֵצְבַּע (*etz'ba'*) is very interesting. Indeed, the term **צבע** (*tzv'* without `aleph א) means *color*⁴³. Thus, אֵצְבַּע could be read as: *written in the color of the only one* (and in a translated meaning) *in the color of the only begotten one...* interesting if one thinks in the Shroud Cloth. Furthermore, אֵצְבַּע could also be regarded as future tense of the verb **צבע**, ‘*to color*’, thus in the fulfillment of this covenant these Tablets will be ‘*colored*’ by *HaShem*. It is therefore the same finger of God that allowed the Shroud imprint to remain etched with a process on which science is still investigating⁴⁴. Interesting is also the term כְּכַלְתּוֹ *kekhattò*: generally כְּכַלְתּוֹ לְדַבֵּר (*kekhattò ledaber*) is translated ‘*had finished speaking*’ (because **כל** means *all, completed*, and **דבר** means *to speak*) but since the context talks of a covenant, כְּכַלְתּוֹ could be translated as ‘*as to his bride*⁴⁵’, thus the Tablets of the Testimony are a nuptial covenant of the Lord with His

42 Cf Es 31:18 – *Shemot 31:18*.

43 It is interesting that the same term **צבע** it is used in Judges 5:30 in its plural form to indicate colored **cloths**.

44 Although the Shroud imprint in its chemical-physical aspects can be explained as an accelerated aging process of flax fibrils through oxidation and dehydration of cellulose, to date no scientific laboratory has been able to reproduce something similar in full size and with physical details of minimum thickness of the fibrils involved in the coloring of the order of 0.2µm. See the results shown in <http://www.sindone.info/DILAZZA2.PDF> that are of extreme interest. See also *A Comprehensive Examination of the Various Stains and Images on the Shroud of Turin*.

45 In fact *bride כלל* is also found in the form **כלה** cf *Dizionario Ebraico e Caldaico del Vecchio Testamento* p 136. This detail, which jumped immediately into my eyes in reading the verse in the original language, is confirmed in the writings of *Rashi* (Rabbi Shlomo Yitzhaqi (1040-1105)) considered one of the greatest and most authoritative commentators of the *Torah* in the rabbinic commentary. *Rashi* stated that ‘*as to his bride*’ is a **possible**

people. It is interesting also the usage of the term **כְּתוּבִים** (*ketuvim*) that indeed recalls the nuptial *Ketubah* stipulated in the Tablets of the Testimony and that in the Shroud, intended also as the Tablets of the Testimony of the Nuptial Covenant, the Lord has confirmed, in His immense love for His people, and **He has left as dowry to the bride according to the correct Jewish costum**. Thus, the verse of Ex 31:18 besides the usual meaning⁴⁶ (*peshàt*), could in an exegetical form (*derùsh*) indicate: *He gave to draw out*⁴⁷ *as his bride (on the base) of this word (intended as a covenant) on Mount Sinai two tables of the testimony (acknowledgment of the occurred covenant) written from father to son*⁴⁸ *that HaShem will color (as a signature)*⁴⁹. It is particularly important to

translation and it is actually grammatically more correct as there would be a letter ך missing if one wanted to proceed according to the usual translation. See MAMASH, *Esodo – Shemot*, Khumash, Edizione Avishay Namdar, Prima Edizione Dicembre 2006, pg 512. Furthermore, the prefect of the Congregation for the Doctrine of the Faith Joseph Ratzinger wrote in the Preface to the document of the Pontifical Biblical Commission *Il popolo Ebraico e le sue Sacre Scritture nella Bibbia Cristiana* (2001) TbA: ‘**Christians can learn a lot from the Jewish exegesis practiced for two thousand years; in turn, Christians hope that Jews can benefit from the progress of Christian exegesis. I think that these analyzes will be useful for the progress of the Judeo-Christian dialogue, but also for the inner formation of the Christian conscience**’. Cf Articolo apparso nell’Osservatore Romano del 3 Marzo 2012, *Rashi e la fiamma di fuoco. Uno studio sulla esegesi ebraica del libro dell’Esodo* di Gianantonio Borgonovo.

- 46 Cf MAMASH, *Genesi – Bereshit*, Khumash, Edizione Avishay Namdar, Prima Edizione Dicembre 2006, p 20: ‘**There are four general methods that are used in the study of the *Khumàsh* (*Pentateuch*): *peshàt* (simple meaning and explanation), *rèmez* (clue, such as acronyms and numeric values), *derùsh* (homiletic interpretation), and *sod* (*Kabbalistic secrets*). The term *pardès* (orchard) it is utilized as acronym of these four methods’.**
- One should notice that from *pardès* is where the term *paradise* comes from. Jesus himself, according to the greek text of the Gospel of Luke, used this term talking to the good thief from the cross: ‘ὁμῆν σοι λέγω, σήμερον μετ’ ἐμοῦ ἔσῃ ἐν τῷ παραδείσῳ’, cf Lc 23:43.
- 47 Indeed the name Moses means also to draw out, to save. See *Dizionario Ebraico e Caldaico del Vecchio Testamento*, p 193.
- 48 Cf OUAKNIN, M.A., *Le Dieci Parole – Il Decalogo riletto e commentato dai Maestri ebrei antichi e moderni*, Ed Paoline, 2001. At p 40 one can read (TbA) “In Hebrew ‘stone’ is said ‘even. But this term can be split in two parts: ‘av and ben, ‘father’ and ‘son’”. It is also important to notice that in Exodus 24:10 it is used the term **לִבְנַת הַסַּפִּיר** (*liv’nat ha’ssappir*) in order to describe the pavement of sapphire underneath God’s feet. This term is extremely interesting if one reads the rabbinic commentary *Sifré* (*Beha’alotekhà 101*) according to which (TbA) ‘that was the same brick whence the Tablets of the Law would be carved from’. Cf MAMASH, *Esodo – Shemot*, Khumash, Edizione Avishay Namdar, Prima Edizione Gennaio 2010, p 391. Indeed the term **לִבְנַת** indicates more properly the concept of *brick*. See *Dizionario Ebraico-Caldaico del Vecchio Testamento*, p 146. Interesting because there is again the radical of *son* **בן**, but even more for the suggested idea of **לבן** means *white* -as white initially was the Shroud cloth- (independently from the vocalization of the word that was written much later).
- 49 The future indicates that *HaShem* will give to it certain fulfillment with the *signature* of its color (and in blood we could say). Very interesting if one considers the passage of Isaiah 51: 4-8 where in a future tense it is said: ‘For law (**תּוֹרָה**), **shall go forth from my presence, and**

notice that on the ‘*Tablets*’ that the Shroud represents, there is precisely the accomplishment of the greatest teaching⁵⁰, in fact on the Shroud it is imprinted the love to God with all the mind, with all the heart, and with all the strength, and there is also imprinted the complete love and total donation of oneself to others. **The gift of the Torah to the people was a Theophany as a Theophany imprinted for its people is the Holy Shroud of Turin that the Lord has left us.** It is important to note that, as God gave in the gift of the *Torah* on Mount Sinai the greatest gift⁵¹ to Israel, so then in the fulfillment of his Exodus the Lord Jesus has obtained for us the greatest gift of the Holy Spirit (fully poured out on Pentecost, fulfillment of the *Passover*), **Finger of the hand of God**, Living Water, Fire, Love, Advocate, Sweet Counselor, Light of Eternal

my judgment, as the light of the peoples[...] my salvation shall go forth (and my arm shall judge the nations)’ therefore there is the await for final completion of the Torah in the Messiah, not surprisingly this passage is placed between the third and fourth songs of the Servant of YHWH of Isaiah.

- 50 See Mc12, 28 – 34 ‘*One of the scribes, when he came forward and heard them disputing and saw how well he had answered them, asked him, “Which is the first of all the commandments?”*. Jesus replied: “**The first is this: ‘Hear, O Israel! The Lord our God is Lord alone! You shall love the Lord your God with all your heart, with all your soul, with all your mind, and with all your strength.’** The second is this: ‘**You shall love your neighbor as yourself.**’ There is no other commandment greater than these”. The scribe said to him, “Well said, teacher. You are right in saying, ‘He is **One** and there is no other than he.’ And ‘to love him with all your heart, with all your understanding, with all your strength, and to love your neighbor as yourself’ is worth more than all burnt offerings and sacrifices”. And when Jesus saw that (he) answered with understanding, he said to him, “You are not far from the kingdom of God.” And no one dared to ask him any more questions.’
- 51 Personally I find it very relevant that the Lord led me to write these pages in the days of Shavuot/Pentecost in which these events are lived in their fullness in Faith, also because these are reflections that only in these days have come to my attention in working on the current Essay. The term *Torah* rather than *Law* should be translated *Teaching*. The term *Torah* indicates the books of the Pentateuch (more properly *Torah She-bi-ktav* that is the written Torah as the oral tradition *Torah She-be-al’peh* is also of great relevance) also the gift of the Tables of Testimony with the ten words, in the Theophany of Sinai, is often referred to as the ‘*gift of the Torah*’. Very important in the Jewish tradition in the Babylonian Talmud, *Talmud Bavli*, the treatise *Pesachim 54a* where it is said that seven things were created by God before the creation of the world and the *Torah* was the first one. Very important the concept expressed in the *Midrash Shir HaShirim Rabbah 1:4* in which it is said that the Holy one, Blessed be He, in order to give to His people the greatest gift, that is the *Torah*, asked for a guarantee but nothing was found that he believed could be a valid guarantee. After lengthy negotiations the people of Israel said that in order to receive the greatest gift, as a guarantee they would give Him their children. The Holy One, Blessed be He, liked this guarantee and gave them the *Torah* because it must be handed down from father to son. In fact, the boards carved in stone have this intrinsic meaning of durability (*the stone*) and to be handed down from father to son because, as mentioned, stone is אבן (*even*) where אב (‘*ab*’) is *father* and בן (*ben*) is *son*.

Wisdom, Gift of the Father Most High⁵²... that is His same Spirit and that gives the possibility to the believers, to His faithful ones, to whom welcomes Him and let himself be transformed from Him in the image of the Lord, to accomplish through Christ the Law without effort. The gift of the *Torah* was an irrevocable Covenant that the Lord confirmed and renewed and sanctioned in His blood imprinted on the Shroud Linen for His beloved people in the spiritual marriage in which an help *similar to Him* comes out from the side of the New Adam: the Church made beautiful by the holiness of her husband⁵³. It was precisely thanks to the *STURP team* studies through *ultraviolet fluorescent photography*⁵⁴ that the evidence of the *post-mortem* nature of the hematic stain at the right hemithorax of the Man of the Shroud was shown, confirming the presence of serum separation and clot of the blood that came out as a jet⁵⁵. Furthermore, it is not by chance that the Shroud shows the new Adam naked, because having He never known sin, He has the original 'cloth' of the Creation. Through His beloved people the Lord in His immense love has called also Gentiles to faith by forming the Church as a new Israel, it is His people whom the Lord has married and with immense

52 Cf LITURGIA DELLE ORE, Libreria Editrice Vaticana 1989, TEMPO DI PASQUA, II. After the Ascension of the Lord, Vespers, *Hymn*, p 846.

53 See the fourth postbaptismal catechesis to the neophytes of Saint John Chrisostom numbers 16-18. CRISOSTOMO, G., *Catechesi Battesimali*, a cura di Luciano Zappella, Edizioni Paoline, 1998. Where did the early Church draw the concept of the spiritual marriage of the Lord with His people from, if not from having understood it fulfilled and realized in the Shroud by the first Christians who were of Jewish origins? This hypothesis cannot be discarded and in any case the concept of the nuptial covenant came from the Jewish world, **still today** the feast of Shavuot is remembered as *the day on which D-o espoused His people*. Joseph of Arimathea was for example an authoritative member of the Sanhedrin (as well as Nicodemus) and the Jewish people, in fact, were the first ones to recognize and welcome Christ, as happened for Mary of Nazareth, the *Just* Joseph her spouse, the apostles, Paul of Tarsus, Stephen, the three thousand of the house of Israel of which is said in Acts 2.41, the five thousand in Acts 4.4 etc. Personally I find important to underline that this aspect of being the Shroud the nuptial *Ketubah*, as the Tablets of the Testimony, **also illuminates why the Lord gave us the Shroud as the seal of a covenant that only His people could truly understand**. Personally I find, in light of these considerations, really important to reconsider the scientific studies on the Shroud Cloth and not to allow other part of it to be used for destructive experiments. A true miracle that the Shroud has arrived to present.

54 Cf *Ultraviolet Fluorescence Photography of the Shroud of Turin*, p. 81.

55 This is a very important detail that makes the eye testimony of John the Evangelist extremely precise: it came out exactly first blood and then water. See Gv 19:34. Furthermore, the certainty of death of the Jesus of Nazareth wrapped in the Shroud Cloth (together with His witnessed Resurrection) shows the fulfillment of the mystery of the Incarnation: if Christ had not really died he would not have shared in everything our human nature. The reference to Adam's sleep from whose side Eve was born is evident. See Genesis, *Bereshit* 2:21.

Love He lets us contemplate this Holy and Irrevocable Love in the Shroud Linen. The question, therefore, of what is the contribution of scientific studies on the Shroud to faith, for me was to objectively lay the foundations for entering even more deeply into the History of Salvation by reading objectively the signs that God has done for His people. If one reads the Gospels and the whole New Testament in the light of the Shroud, everything acquires a more lively sense and becomes actualized, if one reads the *Tanakh* in the light of the Shroud everything finds a fullness⁵⁶ and an equally fascinating clarity. A common way of thinking is to say (and I fully understand the reasons and, of course, in the sense in which it is asserted, it can be legitimate) that the Shroud is not needed in order to have faith and that it is not necessary to know scientific studies in order to have faith: it could be true, but partial. In fact, I personally believe that this is a way of reasoning that is not completely open to the reality of the Shroud and of the Creation: the Shroud has a strong link with the Creation that in this venue has only been briefly mentioned, the verb used in *Bereshit* for ‘created⁵⁷’ is בָּרָא (*barà*) that in the intrinsic meaning of the letters signifies *whitin ב the body of the Only One*⁵⁸. Creation is not, so to speak, ‘external’ to God, He brings us within Him⁵⁹. Thus, since the revelation of God is an objective fact and therefore an objective Truth exists, it is necessary to read the objective facts and the history in the light of the revelation. This consideration leads to see that then it is still God himself who in the Shroud ***is coming to encounter man*** (and since the Shroud is not essential to the man of faith -but it strengthens and seals his certainty- it comes above all to meet man in general and to come to meet the man of science in particular), the **initiative is always God's** because He loved us first⁶⁰ and the Shroud it happens **to exist**. Thus, personally, I leave to God the reasons for understanding if to come to know the Shroud it is useful or not to science and faith, **but the aspects here presented and encoded in the Scriptures in**

56 An extremely important aspect is to read in the original Hebrew text the Songs of the Servant of YHWH (Is 42,1-9 ; Is 49, 1-7 ; Is 50, 4- 11 ; Is 52, 13-15 & Is 53, 1-12) in the light of the scientific studies of the Shroud. Often they are interpreted as if the servant of YHWH were identified with the whole people of Israel, but the verse of the second song Is 49:5 clearly shows that the Servant of YHWH is not the people of Israel but a person who would have brought back the people of Israel to God.

57 בְּרֵאשִׁית בְּרָא אֱלֹהִים אֶת הַשָּׁמַיִם וְאֶת הָאָרֶץ: *Bereshit 1,1: ‘In the beginning, when God created the heavens and the earth’.*

58 But בָּרָא can also be read as ‘whitin ב’, ‘***I see (is in sight) רא***’: just as the Shroud that within it leads us to see the signature of the Creator.

59 Thus one can read in At 17: 28: ‘*In him we live and move and have our being*’.

60 Cf 1 Gv 4:10: ‘*In this is love: not that we have loved God, but that he loved us*’.

relation to the Tables of the Testimony contribute, in my opinion, to reveal much on this point. I also find it interesting that the Shroud shows the two footprints (as two were the Tables of the Law written by the finger of God) in a **single cloth**, highlighting what Jesus himself said in the proximity of His passion⁶¹: *‘This is my commandment: love one another as I love you’*, **one and only commandment** that brings together every other commandment in that *‘as I’* that the Shroud Linen shows in all its profound meaning and which holds the love for the Father in the perfect adherence to His will, and the love for each one of us when we were His enemies⁶². The contemplation of the Shroud, starting from science as knowledge and landing to faith as a certainty, then leads a careful observer to experience something much deeper that is *the existence*. Still Paul of Tarsus writes⁶³: *“And if I have the gift of prophecy and comprehend all mysteries and all knowledge; if I have all faith so as to move mountains but do not have love, I am nothing”*. This sentence does not want to diminish the role of science and faith, rather to reveal that man’s existence is linked to *being loved* and *re-loving* in turn. All science and all faith exist and have meaning only because we have been deeply loved to the deepest point of our being in a Salvation Event that silently but eloquently the Shroud shows in all its Beauty.

‘Well, this is exactly what happened on Holy Saturday: the voice of God resounded in the realm of death. The unimaginable occurred: namely, Love penetrated ‘hell’. [...] Human beings live because they are loved and can love; and if love even penetrated the realm of death, then life also even reached there’⁶⁴.

The voice of God that Pope Benedict XVI is referring to, for the first time resounded in *Bereshit, In the Beginning*, saying⁶⁵ *‘Let there be light’*. And John, the Apostle, then writes⁶⁶: *‘Whoever says he is in the light, yet hates his brother, is still in the darkness. Whoever loves his brother remains in the light, and there is nothing in him to cause a fall’*. Therefore, the Light with which God enlightened the world is His Love. Interesting that more recent studies show that a radiative photo-chemical process is the

61 See Gv15:12.

62 See Rm 5: 6-10.

63 Cf 1Cor 13: 2 where *all knowledge* can be understood as *all science*.

64 See SUA SANTITA’ BENEDETTO XVI, *Meditazione in occasione della Venerazione della Santa Sindone*, Maggio 2010.

65 Gen 1: 3.

66 1Gv 2: 9-10

possible cause of the formation of the Shroud imprint⁶⁷, a process that certainly cannot be explained in a corpse. It is good to underline that in the Shroud the contact between the body and the sheet did not exceed 36-40h and there are no signs of body-decomposition⁶⁸ and that that Jesus, to whom the Shroud of Turin seems so unequivocally to belong, is testified risen from the dead. Through the eyes, in the attentive listening of the voice of God that still resounds, it is the heart of every person that the Shroud seeks in order to testify within the depths of every man, of any creed, age or race, that he is loved by a Love who does not impose himself, but who continually gives himself, who does not judge but constantly justifies and who is faithful even when we are unfaithful because He is the only one who is truly always in our favor. Also through the knowledge that the Lord has given to Shroud scholars in their scientific tests, the Holy One, Blessed be He, has shown again that He has listened to the prayer *Amidah 'Ata Honen Le'Adam Da'at* in giving **from himself** His Wisdom, which Christians acknowledge to be Christ, in order to arrive at a fuller knowledge of Him. If we Christians would fully welcome the invitation that echoes the Second Vatican Council to look well within our Jewish roots so that our most dear and beloved Jewish brothers can receive our complete love, and vice versa, we would see that everything that unites us is imprinted forever in an unfadingly way in an infinite Love on the Shroud Linen.

67 Extremely important on this topic are the studies of Professor Giuseppe Baldacchini and of Professor Paolo Di Lazzaro. <https://www.youtube.com/watch?v=6ZKT1wXtfzY>
<https://www.youtube.com/watch?v=crrjqa7ynj8>; <http://www.sindone.info/BALDAK11.PDF>
Some important conclusions stemming from their studies are the possibility for an excimer laser to produce a permanent coloring of the linen not with a fixed light but through a light pulse lasting less than 100 nanoseconds. In particular, UV light allows coloring but only above a certain minimum wavelength threshold and below a limit beyond which the linen burns. Once the appropriate wavelength is found, the coloring appears superficial and does not fluoresce, just as occurs in the Shroud Cloth and the irradiated linen fibrils are fragile, as occurs in the Shroud. Tests performed on small linen samples indicate that to irradiate a sheet like the Shroud one would require 34 trillion Watts and there is no excimer laser of this power in the world today.

68 See *Via Crucis Secondo La Sindone*, pp 85-91. See also MARINELLI, E., *La Sindone. Testimone di una presenza*, Ed Paoline 2010 pp 80-82. Also this aspect is mentioned in : <http://www.sindone.info/DILAZZA2.PDF>

BIBLIOGRAPHY

La Bibbia di Gerusalemme, Edizioni Dehoniane Bologna, Bologna Edizione del 1974.

Hebrew-English TANAKH -The Traditional Hebrew Text and the New JPS Translation, The Jewish Publication Society, Philadelphia 1999, Second Edition.

BAIMA BOLLONE, P., BENEDETTO, P.P., *Alla ricerca dell'uomo della sindone*, Arnoldo Mondadori Editore, Luglio 1978

BARBERIS, B., BOCCALETTI, M., *Il caso Sindone non è chiuso*, Edizioni San Paolo 2010.

CARD. CAÑIZARES, A., GUERRA, H., L.C., LEDESMA, J.P.,L.C., *Cristo Nostra Pasqua- Il Mistero Pasquale nella Vita Cristiana*, Edizioni ART, 2012.

CATECHISMO DELLA CHIESA CATTOLICA, Libreria Editrice Vaticana, Ristampa 2005.

CONFRATERNITA DEL SS. SUDARIO DI TORINO - CENTRO INTERNAZIONALE DI SINDONOLOGIA a cura di BARBERIS, B., ZACCONE, G.M., *Sindone - Cento Anni di Ricerca*, Istituto Poligrafico e Zecca dello Stato – Libreria dello Stato 1998.

CRISOSTOMO, G., *Catechesi Battesimali*, a cura di Luciano Zappella, Edizioni Paoline, 1998.

DAMON, P.,E., DONAHUE, D.J., GORE, B.,H., ET AL, *Radiocarbon Dating of the Shroud of Turin*, Nature, vol 337, No 6208, pp 611-615, Febbraio 1989.

ERCOLINE, W., R., DOWNS, R.,C.,JR, JACKSON, J.,P., *Examination of the Turin Shroud for Image Distorsions*, IEEE 1982 Proceedings of the International Conference on Cybernetics and Society, October 1982.

HELLER, J.H., ADLER, A.d., *Blood on the Shroud of Turin*, published in Applied Optics Vol.19, page 2742, August 1980.

JACKSON, J.P., JUMPER, E.J., MOTTERN, B., ET AL., *The three dimensional Image on Jesus' burial cloth*, in PROCEEDINGS Of The 1977 United States Conference of Research on The Shroud of Turin, March 1977, Albuquerque, NM, USA.

JUMPER, E.J., *An overview of the testing performed by the Shroud of Turin Research Project with a summary of results*, IEEE 1982 Proceedings of the International Conference on Cybernetics and Society, October 1982.

JUMPER, E.J., ADLER, A.D, JACKSON, J.P., PELLICORI, S.F., HELLER, J.H., DRUZIK, J.R., *A Comprehensive Examination of the Various Stains and Images on the Shroud of Turin*, Reprinted from ACS Advances in Chemistry No. 205, Archaeological Chemistry III, Joseph B. Lambert Editor, 1984.

MAMASH, *Esodo – Shemot*, Khumash, Edizione Avishay Namdar, Prima Edizione Dicembre 2006.

MAMASH, *Genesi – Bereshit*, Khumash, Edizione Avishay Namdar, Prima Edizione Dicembre 2006.

MARINELLI, E., *La Sindone. Testimone di una presenza*, Ed Paoline 2010.

MILLER, V.D., PELLICORI, S.F., *Ultraviolet fluorescence photography of the Shroud of Turin*, Journal of Biological Photography, Vol. 49, No.3, 1981, pg 71-85.

NOSIGLIA, C., BARBERIS, B., ZACCONE, G.M., GHIBERTI, G., REPOLE, R., TOMATIS, P., *Sindone e Fede - Un dialogo Possibile*, Effatà Editrice 2013.

OUAKNIN, M.A., *Le Dieci Parole – Il Decalogo riletto e commentato dai Maestri ebrei antichi e moderni*, Ed Paoline, 2001.

PATRIZI, M.E., *DE SINDONE-Nova et Vetera*, ταν Editrice 2018.

PELLICORI, S., EVANS, M., S., *The Shroud of Turin through the microscope*, Archaeology, January/February 1981, pg 34-43.

PROCEEDINGS OF THE 1977 UNITED STATES CONFERENCE OF RESEARCH ON The Shroud of Turin, March 1977, Albuquerque, NM, USA.

RATZINGER, J., *Introduzione al Cristianesimo*, Queriniana Editrice, 2005, pg 130-131.

MONS. RICCI, G., *Via Crucis Secondo La Sindone*, Edizioni Centro Romano di Sindologia, Gennaio 1972.

SCERBO, F., *Dizionario Ebraico e Caldaico del Vecchio Testamento*, Libreria Editrice Fiorentina, Firenze 1911.

SUA SANTITÀ BENEDETTO XVI, *Meditazione in occasione della Venerazione della Santa Sindone*, Maggio 2010.

SUA SANTITÀ GIOVANNI PAOLO II, *Discorso in occasione della Celebrazione della Parola e Venerazione della Sindone*, Visita Pastorale di Sua Santità Giovanni Paolo II a Vercelli e Torino, Maggio 1998.

TESTA, E., *La fede della Chiesa madre di Gerusalemme*, Edizioni Dehoniana Roma, 1995.

ZACCONE, G.M., *La Sindone - Storia di una immagine*, Edizioni Paoline 2010.

ZUGIBE, F.T., *The Crucifixion of Jesus – A Forensic Inquiry*, Second Edition, M. Evans and Company Inc., New York, 2005.