

The Image on the Shroud of Turin is not the result of Earthquake Activity

A response to the recent article: “Is the Shroud of Turin in relation to the Old Jerusalem historical earthquake?” by Carpinteri, Lacidogna and Borla.

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A recent article by the above authors (Carpinteri, Lacidogna, Borla) makes a very intriguing case that “it is possible to generate neutron emissions from very brittle rock specimens in compression through piezonuclear fission reactions.” The authors, from the Department of Structural, Geotechnical and Building Engineering, Politecnico de Torino in Turin, Italy, then build an interesting case that “neutron emissions by an earthquake...could have induced the image formation on the Shroud linen fibers through thermal neutron capture...” It is this author’s opinion after over 35 years of study of the Shroud of Turin that the information outlined by Carpinteri and team do not support this premise.

A Selective Earthquake?

Assuming there were an earthquake, the first question that comes to mind is that if the image on the Shroud was generated by neutron emissions from an earthquake, one would expect to find many other imaged cloths from the many bodies enshrouded in linen cloths in multiple cave tombs of the Jerusalem area at the time. In addition, given many earthquakes throughout history, often of high magnitude, we would expect similar results elsewhere. To the best of my knowledge, no other cloth of the period or later was found to have any image in any way comparable to the Shroud of Turin. This would make the “Old Jerusalem” earthquake a “selective earthquake” affecting only the image on the Shroud of Turin.

A Question of Timing:

Carpinteri and colleagues speak several times of “a disastrous earthquake” that occurred at the time of Jesus’ death at 3:00 P.M. (the ninth hour). However, Jesus was not enveloped in the Shroud for several hours later at or near the time of sundown commencing with the beginning of the Sabbath. If an earthquake event occurred at His death – several hours before He was enshrouded – it raises the question of how an earthquake at Jesus’ death formed the image created at a later time during His period in the tomb? Even accepting that there may have been some seismic activity at the time of Jesus’ death, it does not account for the timing of that seismic activity with the formation of the image in the tomb.

Darkness Over The Earth:

The authors discuss the passages in Matthew 27:45, Mark 15:33 and Luke 23:44 of “darkness over the earth” from the sixth hour (12:00 noon) until the ninth hour (3:00 P.M.) . Matthew

says the earth trembled. (Only Matthew mentions the earthquake or tremors). Mark 15:38 says only that the veil of the temple was torn in two from top to bottom." Mark gives no details about the earthquake. Luke and John do not mention it at all, making one wonder whether it was of a magnitude that was "disastrous" as suggested by Carpinteri and team. The darkness over the earth could have been a heavy cloud cover of a thunderstorm and perhaps the earth trembled from lightning. Having lived for several years in the Tampa Bay area of Florida, considered, the "lightening capital of the world" I can attest that powerful summer thunderstorms are accompanied by darkened, sometime black, skies and powerful lightning bolts that cause severe rattling and shaking of homes and the ground.

It raises the question, however, of how darkness over the earth in the hours leading up to Jesus' death is related to an earthquake that helped form an image many hours after this event.

When one reads Matthew further on he say *"the earth shook and the rocks split. The tombs broke open and the bodies of many holy people who had died were raised to life. They came out of the tombs, and after Jesus' resurrection they went into the holy city and appeared to many people."* Matthew 27: 51-53. Matthew is the only one who mentions this unusual event and it is likely symbolic and not real.

Actions of Roman and Jewish Authorities and Others after the Death and before the Entombment:

In their article, Carpinteri and fellow authors make three references that this earthquake was a "disastrous" event and reference a hypothesis that, in "Old Jerusalem" there "was a strong earthquake very close to the 9th degree in the Richter scale." This would make it a very powerful earthquake. However, this seems inconsistent with the reports and the actions of the figures in/around the crucified Jesus or of the authorities of Jerusalem.

John, who is an eye witness at the foot of the Cross, is the most extensive writer on the passion, death and resurrection of Jesus. His passages are quite detailed. In his Gospel, John says absolutely nothing about an earthquake at the time of Jesus' death, suggesting that the event was either non-existent or possibly relatively mild. He states simply:

"When he had received the drink (wine vinegar) Jesus said 'It is finished.' With that, he bowed his head and gave up his spirit." John 19:30.

No mention is made by John, an eyewitness, of the darkness or earthquake. John further states that the soldiers were casting lots for Jesus' clothes while Mary, his mother along with Mary, wife of Cleopas and Mary Magdalene and John himself were standing there. No mention is made of the awareness of a "disastrous earthquake" taking place or efforts on John's part to

get Mary and others to safety which would seem to be a logical action if they were all endangered.

The Gospel of Luke says:

“It was now about the sixth hour and darkness came over the whole land until the ninth hour, for the sun stopped shining. And the curtain of the temple was torn in two.” Luke 23:44-46. He goes on to say: “When all the people who had gathered to witness this sign saw what took place, they beat their breasts and went away. But all those who knew him, including the women who had followed him from Galilee, stood at a distance, watching these things.” Luke 23: 48-49.

There doesn't seem to be any panic over an earthquake or fleeing in fear. There is mention of the “curtain of the temple” being torn, again likely a symbolic reference.

The Gospel of Mark says:

“At the sixth hour darkness came over the whole land until the ninth hour. And at the ninth hour Jesus cried out in a loud voice, ‘Eloi, Eloi lama sabachthani?’ – which means, ‘My God, my God, why have you forsaken me?’”

Luke goes on to mention the many women watching, showing no signs of panic over an earthquake. His mention of the “curtain of the temple was torn in two” is the only mention that suggests some seismic activity if we take this literally. However it could be symbolic of the separation of the past from a new era.

The actions of Pilate and the disciples and followers do not give the impression of any earthquake as suggested by the authors. Those on the scene seem to be going about their business in a somewhat normal manner. Joseph goes to Pilate to ask for the body. The Centurion, at Pilate's instructions, lances Jesus to ensure He is dead. Soldiers are casting lots for His garments. Many people stand at the foot of the Cross. Joseph and Nicodemus carry the body to the tomb and prepare Him for entombment. All seems normal and not indicative of a hysteria that would follow a massive earthquake.

One would think that if the gospels were talking in literal language of a massive earthquake, Pilate and his soldiers; Herod and his soldiers; Caiaphas, the High Priest and others would have been involved in a somewhat frantic “emergency management” with hundreds of Jerusalem homes in collapse and massive injuries and deaths. It is doubtful Pilate would have taken time to talk with Joseph of Arimathea to release the body of Jesus. The gospels do not talk as if there was large scale destruction, but perhaps, at most, tremors that would catch attention but not stop life going on.

Historians close to the period such as the Jewish historians Flavius Josephus and Philo of Alexandria do not mention any significant destruction in 33. A.D.. Roman historians of the period such as Tacitus, Suetonius and Pliny do not mention this either. Carpinteri references Thallos whose original work was lost. Thallos is quoted by Julius Africanus later circa 250 A.D. and Carpinteri also quoted Dante circa 1300 A.D. He notes that Thallos is quoted as saying the darkness was an “eclipse of this sun” in the third book of his Histories. This was obviously not the case and calls into question Thallos’ credibility. It is obviously not an “eyewitness” account, as noted from the confusion of his interpreters Julius Africanus. The Apostle John, on the other hand, an eyewitness, was present at the foot of the cross and at the tomb. His extensive treatment of the crucifixion and entry to the tomb makes no mention of an earthquake.

Carbon-14 Test of 1988 Invalidated Due to Contaminated Samples, not Earthquake:

The authors quote one carbon scientist (Hedges), who had noted the Carbon Labs (Oxford, Zurich and Arizona) findings that the Shroud’s date was from between 1260-1390 in the 1988 Carbon-14 test. Hedges indicates that the carbon dating was likely thrown off by a disruption of C-14 from the earthquake of 33 A.D.

In 2002, Susan Benford and Joseph Marino demonstrated convincingly that the 1988 C-14 test was invalidated from the fact that the testing scientists violated several points of protocol that had been carefully set up for two years in advance of the test. Among these violations were that the test samples, instead of being representative of the whole 14 ft. 3 in. x 3 ft. 7 in. cloth (as required by analytical chemists), were all taken from a contaminated small area on the lower left corner where a 16th century repair had been done. The Benford-Marino findings (confirmed by chemist Dr. Ray Rogers) demonstrated that renaissance cotton fibers used to repair a patched area were woven into the ancient linen (French Invisible Weaving Technique). Sue Benford and Joseph Marino noted that the C-14 samples had cotton fibers that had intruded into the ancient linen of the Shroud. The combination and proportions of ancient linen and renaissance cotton rendered a medieval date.

The C-14 error does not appear to have any relation to the disruption of neutrons from an earthquake in 33 A.D. Quad-mosaic photographs taken by Vernon Miller and shown to me by Barrie Schwartz (both official photographers of the Shroud) show the chemistry of the colored patch as differing from the main cloth and intruding into the main cloth. Shroud chemist Dr. Alan Adler also noted aluminum oxide on the patched area representing the binder holding the yellow madder-root dye use to color the cotton patch that was carefully woven into the main cloth.

Transfiguration in Matthew, Mark and Luke:

Since the authors used Matthew, Mark and Luke to help build their theory, we need to look further at two important clues, (often overlooked in Shroud studies), outlined by these same synoptic gospel writers - major clues (in this writer's opinion) to the power emanating from the person of Jesus during His Resurrection – a radiant energy that impacted the linen and formed the image. Matthew, Mark and Luke relate an event that occurred before Jesus went to Jerusalem, commonly known as “The Transfiguration.”

As the gospels explain, Jesus is going to Jerusalem and knows that He will be turned over to the authorities and crucified. He is trying to prepare his disciples, mainly Peter, James and John, for what is about to happen. He takes them up to a mountain top and tells them what is about to happen but that they shouldn't worry because He will rise again on the third day. He is then “transfigured” before them.

Matthew 17:2: *“There he was transfigured before them. His face shone like the sun, and his clothes became as white as the light.”*

Mark 9:2-3: *“After six days Jesus took Peter, James and John with him and led them up a high mountain, where they were all alone. There he was transfigured before them. His clothes became dazzling white, whiter than anyone in the world could bleach them.”*

Luke 9: 28-29: *“About eight days after Jesus said this, he took Peter, John and James with him and went up onto a mountain to pray. As he was praying, the appearance of his face changed, and his clothes became as bright as a flash of lightning.”*

This phenomenon on the mountain is not associated with an earthquake, but is presented as a power inherent in the person of Jesus - a clue to what happened at the moment of His resurrection that imprinted the image on the cloth.

I suggest that the defining event of the Resurrection is foreshadowed in the passages of the Transfiguration, namely that it was not an earthquake or any “natural” event but a supernatural event wherein the body of Jesus manifested a radiant energy from within that imprinted an image on the cloth in a manner not yet known to modern physics. This should not be surprising since God is the author of the laws of physics and we continue to learn each year new dimensions of physics. The formation of the image does not appear to have been formed by an earthquake event.

Resurrection Accounts:

With regard to mention of a “violent earthquake” mentioned only by Matthew in the Resurrection account, we note that Matthew says:

“There was a violent earthquake, for an angel of the Lord came down from heaven and, going to the tomb, rolled back the stone and sat on it. His appearance was like lightning and his clothes were white as snow.” Matthew 28: 1-3.

We note two things: the appearance of the angel was *“like lightning and his clothes were white as snow.”* This is reminiscent of the Transfiguration and is associated with the angel.

Secondly, Matthew says *“there was a violent earthquake...”* However, none of the other facts related support a real earthquake but rather that Matthew is, again, talking symbolically.

Mark 16:1-8 shows Mary Magdalene, Mary the mother of James and Salome bringing spices to the tomb so they might go to anoint Jesus’s body. They do not act as if there was a *“violent earthquake.”*

Luke 24:1-3 says simply that: *“On the first day of the week, very early in the morning, the women took the spices they had prepared and went to the tomb. They found the stone rolled away from the tomb, but when they entered, they did not find the body of the Lord Jesus.”* Again, no indication of a *“violent earthquake.”*

In John we find a similar verse (John 20:1-2) with Mary Magdalene going to the tomb, finding the stone rolled back and running to Peter and John who then went running to the tomb. No indication of any unusual seismic activity. We recall that it was Peter and John who entered the tomb and saw the Shroud. Yet John, a true eyewitness, says nothing about a *“violent earthquake.”* Again, it appears that Matthew was talking symbolically.

The Woman with a Hemorrhage:

We find another clue in Mark 5:30. Jesus is walking with a crowd. A woman with a hemorrhage comes up behind Him and touches the hem of his garment. Jesus stops and heals the woman. Mark relates:

“At once Jesus realized that power had gone out from him. He turned around in the crowd and asked, ‘Who touched my clothes?’ ” Mark 5:30.

The original Greek text uses the word *“dunamin”* for power. Greek New Testament Lexicons define *dunamin* as *“strength power, ability inherent power, power residing in a thing by virtue of its nature, or which a person or thing exerts and puts forth power...”*

Note that *“power had gone out of him,”* not from an earthquake but from a power inherent in Him because of who He was: the Son of God. It was this same as yet unknown power that is responsible for the formation of the image on the Shroud.

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