## Medically based talk on the Shroud of Turin and crucifixion

What did Christ really go through, in the last day of His earthly life? Dr. Thomas McGovern, a Fort Wayne physician, opened "The Passion Through the Shroud of Turin" talk Thursday evening, March 9, by asking a highly disputed question. The Shroud of Turin, a length of linen cloth bearing the image of a man, is believed to be the burial shroud of Jesus.

The Lenten presentation on the sufferings of Christ at Our Lady, Mother of Mercy, located at The Center at Historic Kneipp Springs in Rome City, began with a dinner of soup, bread and water, followed by an audiovisual guided talk on the wounds and death process of Christ.

No stranger to this field, McGovern began speaking on Christ's sufferings in 1986. Ten years ago he began a medically based research process to investigate for himself the crucifixion process.

When it came to gathering reference material, McGovern looked to a variety of sources — including "Crucifixion in the Mediterranean World" by theology professor John Granger Cook — along with archaeology, epigraphy, graffiti, medical literature, ancient art and reenactment. He structured his talk by dividing his research into nine different subject matters.

## What Jesus carried, and weight

"The Gospels of Matthew, Mark and Luke never mention Jesus carried anything," McGovern said. He further points to John 19:17, which references the term "otaupos." The Greek term, prior to the New Testament, refers to a pole, or two-part wooden cross. This cross, based on McGovern's calculated research, weighed about 6.67 kilograms or 15 pounds — comparable to the weight of a bowling ball.

# Distance, and how the cross was carried to Calvary

In Scripture, there are nine locations named in Jerusalem as Jesus carried the cross. Five more are added to the Stations of the Cross path, based on tradition, McGovern said.

The distance Jesus carried the cross is comparable to 400 meters, or one time around a high school track.

"Based on the Shroud of Turin, it appears He is naked," McGovern stated, of Jesus' appearance as He carried the cross. "Literature of the time also depicted Jesus as naked, but this could still refer to the inclusion of a loincloth."

More swelling, bruising, and bleeding are apparent on the right side of the cloth than the left. "Jesus probably did not carry the cross evenly," McGovern said. "More likely, He carried it crooked, the cross hitting the right side of the body as indicated in the Shroud of Turin photographic negative."

#### **Hand attachment**

A graffito from A.D. 98-138 created in a Roman army barrack depicts crucifixion attachment in the wrist. Later graffito examples echo this depiction. When examining the Shroud of Turin, the bloodstains appear to be around the wrist area, and McGovern concluded that nails were most likely placed in the wrist.

Pierre Barbet, a French physician and surgeon in Paris, conducted a cadaver study using an amputated arm and concluded that the hand cannot support the full weight of the body, but ligaments in the bones of the wrist could. Other physicians successfully tested the palm support theory.

McGovern then moved on to examining art. The first piece of artwork depicting the crucifixion was not created until 400 years after the event, dating to 422-433 A.D.

"This is over 100 years after the abolition of crucifixion," McGovern emphasized. "Three generations have lived since this practice." For this reason, McGovern relied heavily on ancient graffiti to formulate his conclusions.

## Shape, position of the cross and feet attachment

Referenced from various writings, Roman soldiers nailed a large quantity of Jews to crosses in multiple ways. The cross was also shaped like a capital "T", slightly different than how it is depicted today.

McGovern, who was a solider for eight years, referred back to his knowledge in the field as to how the feet were attached.

"Were one or two nails used?" he asked in his research. "Was there a board foot rest?"

An Alexamenos graffito, dating back to A.D.193-211, depicts a Christian slave with feet side by side. Other works in gemstone also show crucifixion with feet side by side.

"Only one piece of archeological evidence exists from the crucifixion practice," McGovern said, "a heel bone with a nail through it found near Calvary." The piece is believed to be from a 24-28 year old male, killed by crucifixion during 40-70 A.D. The nail is placed through the heel bone.

McGovern then referenced various cadaver tests, which all found placing a nail through the heel can be inserted without breaking a bone. Upon examining the Shroud of Turin blood marks, details are disputed. Blood flow marks are consistent with either method.

"Most likely the feet were placed flat against the cross," McGovern said. "Both the single piece of archaeological evidence and graffiti suggest this."

He also stated the foot board was probably not used. The board would have required extra work for the soldiers and is not included in graffiti illustrations.

#### **Suffocation**

"Pictures and images stick with someone more than an idea," McGovern said, in response to the common notion that Jesus died of suffocation, or asphyxiation.

In further exploring whether suffocation was a factor, McGovern expanded on "aufbinden," a practice that means, "in time." This practice suspends a victim by his arms, leaving no weight on his feet. This causes him to sweat profusely, cramp and take shallow breaths. Within 30 minutes the victim will die. This length of time is inconsistent with the time it took for victims to die on the cross.

"With the asphyxiation theory, Jesus could not expand his lungs and speak," McGovern said. "In ancient literature, there is no reference to rising and falling on the cross, or difficulty breathing." The more horizontal the arms are, the less likely asphyxiation could be a factor.

"Just before Jesus died, He cried out loudly," McGovern said. This would not be possible if His cause of death was suffocation.

#### Probable cause of death

"Shock was a main factor," said McGovern.

He then shared various theories of what contributed factors to Jesus' death.

The body experiences shock through significant fluid loss and trauma. Jesus experienced profuse sweating, as well as probable internal and external bleeding. After a 30 percent blood loss, pulse and breathing begins to quicken. After a 40 percent blood loss, nothing can bring a person back.

Dr. William Edwards, a physician who studied and wrote on the physical death of Christ, believed asphyxiation combined with shock and arrhythmia contributed to cause of death.

While disputing the asphyxiation factor, McGovern agrees that arrhythmia — particularly ventricular tachycardia — is a likely factor of death.

"In ventricular tachycardia, the heart beats fast," he said, "but right before death the heart beats slowly for about 30 seconds." McGovern added that with this type of arrhythmia, Jesus would not have passed out. The sudden slowdown of the heart would have indicated to Jesus He was about to die, and allow Him time to speak. McGovern believes severe scourging, shock, and arrhythmia were contributing factors to Jesus' death.

The evening concluded with a question and answer session.

McGovern has written 14 Catholic catechetical courses that have received an Imprimatur from Bishop Kevin C. Rhoades. He also writes educational programs for Catholic Distance University. Visit cdu.edu to learn more.

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