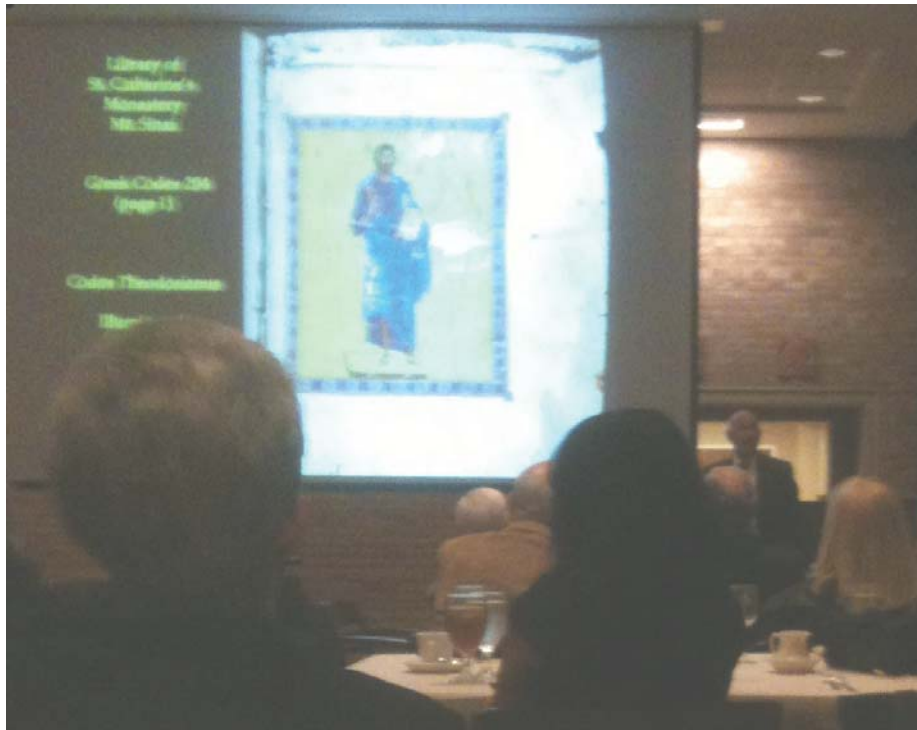


Program Summary (20 October 2011)

At 8:10 p.m. after a scrumptious salmon dinner, President Alexander introduced the evening's speaker **Dr. L. Michael White**. Professor White holds the Ronald Nelson Smith Chair in Classics and Religious Studies at the University of Texas at Austin. Professor Smith is the author of several research monographs, including *Scripting Jesus: The Gospels in Rewrite* published in 2010 by HarperCollins. Ten years ago within the Classics Department, Michael founded the Institute for the Study of Antiquity and Christian Origins, whose work is the focus of tonight's presentation entitled *NASA Technology Explores the World of the Bible*.



Professor White began by noting that his son graduated from Rice in 2005 after studying Electrical Engineering. Michael and his wife maintain residences in both Austin and Houston. He is a sixth generation Texan. His presentation will be a slide show focusing on several of the UT projects of the antiquity institute using new high tech imaging tools which complement the more common archaeological excavations.



Michael's began with a discussion of his work in Mt. Sinai at St. Catherine's monastery, whose origins trace to the 4th century and building to the 6th century. The monastery has 4,329 ancient books in its library, second only to the Vatican. The monks are Greek Orthodox. One unusual item in their extensive art and artifact collection is a well-preserved handprint of Mohammed, founder of the Islamic faith.

Perhaps the rarest book in the library is Codex Sinaiticus, which is the oldest known complete copy of the New Testament of the Greek Bible dated at 402 A.D. Michael has led an effort to digitize the Codex, which is extremely fragile. Father Justin and a local Bedouin scientist are performing the digitization using equipment especially developed in Austin. Seems Father Justin is originally from El Paso and holds a degree from UT. The Codex was printed on animal skins and is in remarkably good shape. The high-resolution digitization allows any scholars electronic access to this book. Each page requires 500 megabytes of storage.

The plan is to digitize all 4,329 books in the library. This number includes 1,000 monographs discovered while cleaning up after a fire. New equipment has been installed in order to accelerate the pace of the digitization.



Michael then moved to a second book, M. Syriac 30, which is notable because it is printed (handwritten) on top of a 3rd century Syriac copy of the book

of John. Unfortunately the Syriac text was partially erased prior to the re-printing, and mostly overwritten line by line, so that only 25% of the Syriac text is visible with an ordinary camera. Michael then showed how the use of a multispectral camera, such as cameras that NASA uses in its remote sensing satellites, can be used to filter unwanted portions of the spectrum. Thus at one frequency, the Syriac text is “removed” while at another frequency only the Syriac text is “visible.” Thus scholars can easily read both books written on the same pages! (The audience was visually moved.) Other examples showed how it is now possible to extend this capability to books that have been reprinted three times.

A completely different application of this technology was illustrated on the Herculaneum papyri found in Herculaneum at the Villa of the Papyri in the 18th century. These papyri had been carbonized by the eruption of Mount Vesuvius in AD 79. A method was found to unroll the papyri, but they appear uniformly dark black to the naked eye. Once again, the multispectral imaging technology revealed the original text at a quality that is easy to read. The larger risk was the physical process of trying to unroll the charred papyri.

The final portion of Michael’s talk focused on his current ten-year excavations at the ruins of Ostia Antica, which is the ancient port city of Rome seventeen miles away. Using satellite imaging, they have determined the complete extent of Ostia. The ongoing excavations cover about half of the city. Italy gave Michael permission to excavate a Synagogue in the southeast corner of the un-excavated portion. It is now known that this Synagogue is the oldest in all of Europe. Again, the use of the several imaging technologies allows for a extremely well-planned excavation of surgical precision.

Professor White concluded at 9:07 p.m. with a summary noting how the new technology is allowing for enhanced exploration and preservation of these resources. The audience gave Michael a robust round of applause. During a short question-and-answer period, Michael answered that the language of the original new testaments canonical gospels was indeed Greek, and that the earliest gospel of Mark was written in 75 A.D. while the last gospel of John was written in 120 A.D.

The program concluded at 9:20 p.m.

David W. Scott
Recording Secretary