The Qumran Visualization Project: Portal to Ancient Past

By Jessica Holmes Chatigny

Next summer's *Dead Sea Scrolls* exhibition at the San Diego Natural History Museum marks many firsts for these ancient, invaluable texts.

Among these firsts, visitors will be able to explore the archeological site at Khirbet Qumran in an immersive virtual experience in the Museum's giant-screen theater: The Qumran Visualization Project. Qumran was inhabited thousands of years ago by a Jewish sect—most scholars believe that this community, who refer to themselves in the scrolls as the "Yahad," copied the scrolls and then hid them in nearby caves. In the Qumran Visualization Project, virtual reality meets ancient history.

The Project

The Qumran Visualization Project (QVP) is a fully reconstructed, three-dimensional, real-time, interactive model of the site at Khirbet Qumran. The QVP, setting the standard for Qumran archaeology, allows the ancient site to literally emerge from its remains. Every room at Khirbet Qumran is reconstructed and furnished with artifacts. The result is a journey back in time and a glimpse into a world that influenced the birth of modern Judaism and Christianity.

There are two important benefits of modeling archaeological remains in a virtual environment. First, the model allows us to illustrate and visualize reconstructed sites. Computer modeling assists the archaeologist in articulating and communicating his or her vision of what the site actually looked like in antiquity. This technique reveals to laypeople—those who cannot easily visualize three-dimensional structures from site maps or floor plans—what the site looked like in antiquity.

The second, and perhaps more valuable, benefit of virtual modeling is that the model actually allows researchers to test new theories, ideas, and reconstructions. Virtual modeling allows the archaeologist to test certain interpretations, much like an automobile designer tests certain designs for structural and performance flaws in a virtual setting before producing the actual object. The QVP forces scholars to test their theories and, therefore, teaches and informs research and scholarship.

In addition, as new areas of Qumran are excavated, new interpretations are suggested and old ideas are discarded. This model can easily be updated in very little time and a new interpretation can be quickly rendered.

New Findings

The Qumran Visualization Project suggests some important findings that weigh in on the debate of the nature of the Qumran settlement.

First, after raising the remains into three dimensions, it becomes obvious that the original structure was a fortress—possibly Hasmonean. The main building is a 37 x 37 meter square, defended on the west and south by a sharp precipice and defended in the northwest corner by a massive tower.

Second, there is substantial evidence indicating that the site was abandoned, and then reoccupied, expanded, and repurposed by some other group, possibly the "Yahad" of the scrolls. The QVP has shown that the nature of the newer, expanded areas was communal and non-militaristic. Additionally, the inhabitants were involved in some agricultural activities and some industrial activity, including pottery making.

These findings support many aspects of the new theories surrounding Qumran, while maintaining that the site did in fact manufacture scrolls, and is ultimately responsible for the Dead Sea Scrolls found in nearby caves.

The Creators

The model is being designed by University of California, Los Angeles (UCLA), doctoral candidate Robert R. Cargill, who is studying under Dr. William Schniedewind, Qumran Visualization Project Director and Chair of the Department of Near Eastern Languages and Cultures at UCLA. Cargill is trained in both Biblical Studies and archaeology, holds a Master of Divinity from Pepperdine University and is near completion of his Ph.D. in Second Temple Judaism and Archaeology. He has taught at Pepperdine University for four years.

The UCLA Experiential Technologies Center is supporting the project through equipment and training. With the support of the Righteous Persons Foundation, the San Diego Natural History Museum is underwriting the production of QVP.

The QVP was designed using MultiGen Creator®, the most powerful modeling tool on the market, and AutoDesk Maya®, which movie-rendering features add to the realism. In addition, original, high-resolution photographs of archeological sites were used to recreate the textures—such as wood grains, soil and plasters.

The Qumran Visualization Project experience is included in Museum admission, and the theater will be seated on a first-come first-served basis. Showings, beginning on the hour and the half-hour, are expected to fill to capacity. Visit www.sdscrolls.org for more information.