

The Petra Papyri*

In its special issue "1994: The Year in Science", the magazine *Discover* lists the Petra Papyri as one of the top 75 science stories of the year.

The scrolls were found in a room adjacent to the fifth-sixth century Byzantine church excavated by the American Center of Oriental Research (ACOR). The church had been destroyed by a fire which also burned the scrolls.

Conservation work on the carbonized Petra papyrus scrolls was conducted in the conservation lab at ACOR in 'Ammān. The conservation team began its work at the beginning of September 1994 under the leadership of Jaakko Frösén (Department of Papyrology at the Academy of Finland). The team consisted of eight Finnish graduate and postgraduate students from the University of Helsinki: Marjo Lehtinen, Mari and Matti Mustonen, Tiina Purola, Erja Salmenkivi, Marjaana and Sampo Vesterinen and Jan Vihonen; Fatma Marii, a Jordanian student of archaeology and conservation from Yarmouk University; photographer R. Henry Cowherd; and the archaeologist Zbigniew T. Fiema. In January 1995, they were joined by Ludwig Koenen of the University of Michigan and Clement A. Kuehn of Loyola University, Chicago, who are beginning work on the transcription of the scrolls assigned to the University of Michigan for publication.

Although a fire would seem to be a sure way to destroy any type of writing material, in the case of the papyri just the opposite happened. Stored in tight rolls, the papyri were only carbonized and the dull black ink is still legible on the charred shiny black background. As of March 1995 more than 120 Petra scrolls had been 'unrolled'. Conservation work on the rest is due to be completed in May 1995. It is estimated that there are about 30 more scrolls to be opened.

Due to the fragility of the material and to the fact that most of the scroll layers were very thin (about one tenth of a millimeter) and tightly packed together by the carbonizing process, it was not possible to actually unroll them. The fragments of layers had to be lifted, piece by piece, and consolidated or fixed by gluing them by the

blank back on pieces of acid free Japanese tissue paper. A neutral (PH 7) polyvinylacetate glue (Planatol BP) was used. Then, the fragments were sandwiched between wax paper, under slight pressure. When dried, the fragments were put together and the original document—the opened scroll—was reconstructed with the aid of the preliminary transcriptions, and then put between glass plates. The whole process has been documented by photographing and video. The extremely fragile written material was photographed using special methods of overexposure in order to obtain black and white prints from the black on black pieces, as well as to obtain transparencies which can be used for the computer-generated enhancement of the pictures.

Publication work will be undertaken jointly by the University of Helsinki and University of Michigan, under the leadership of Jaakko Frösén and Ludwig Koenen, respectively.

The texts found in the scrolls constitute the largest group of written material from antiquity found in Jordan. All the scrolls opened so far contain documentary texts written in Greek. The handwriting varies from the very cursive that is difficult to decipher, to the easily legible, indicating different scribes.

The earliest date found so far in the scrolls is AD 523, and the latest AD 559. The dates were written using four dating systems: the regnal year of the Emperor Justinian; the consular year; the year of indiction (i.e. taxation period); and the era of the Province of Arabia, or the era of Gaza. Many of the documents refer to the city of Petra as the metropolis of the Province *Palaestina Tertia Salutaris*. One of the scrolls containing the date AD 538 is a notice to the record office about a cession of agricultural land. This document, written in two wide columns, was found lying open—perhaps someone was consulting it when the fire broke out.

The papyri are yielding information on the population of Petra and its economic and social situation. At least half of the texts read so far deal with wills and inherited property. About 60 different individual names have been deciphered. Among the key figures of the archive are men

* This paper relies in great part on materials provided by Drs Jaakko Frösén, Ludwig Koenen, and Zbigniew T. Fiema.

representing administrative ranks both ecclesiastic (bishop, archdeacon, deacon, prior or abbot, steward of the bishop, primate, presbyter, physician), and civic (governor, curator, collector of taxes, public advocate, notary). They bear typical Byzantine honorific titles referring to the ecclesiastics as, for example, very reverend, divinely favored, most pious, most holy, orthodox, Christ-loving, or to the laymen, for example, most magnificent, most brilliant, most admirable (to men) and most decorous (to women). Also some slaves have been identified.

Names of settlements other than Petra, such as Augustopolis and Eleutheropolis, are mentioned, together with numerous places around Petra and Augustopolis. From historical and archaeological points of view, Augustopolis may be identified with Udhruh, a Roman-Byzantine fortress-cum-town, located ca. 10 km east of Petra. The other names include villages, farming lands, threshing-floors, water cisterns, roads, streams and dunghills. Churches and other buildings in the cities of Petra and Augustopolis are also mentioned. Historically, the early to mid- sixth century in Petra is an almost blank page. Thus, the texts are especially important, providing a plethora of information on the social and economic life of the city and its rural hinterland. This information should allow for a substantial reassessment of the history of Petra and southern Jordan in the Byzantine period.

Particularly interesting information coming from the texts concerns the survival of Nabataean culture during the Byzantine period. Despite the fact that Greek was the main language of Roman and Byzantine *Arabia* and *Palaestina*, traditional Nabataean names appear among Christian and pagan Greek and Roman names. Thus, the Nabataean tradition, at least in the onomastic form, was still alive in Petra in the mid-sixth century. Fragmentary signatures written in a script other than Greek (Semitic ?) have also been found. A variety of topographical names around Petra and Augustopolis seem to represent a Greek rendition of names in early Arabic, and indicate the importance of this language among farming communities around Petra at this date, before the coming of Islam.

Simultaneously, the investigation of scrolls from the archaeological standpoint, and their significance in a

wider historical perspective is being conducted by the archaeologist Zbigniew T. Fiema. It was initially suggested that a disastrous earthquake of AD 551, recorded in Byzantine sources, was responsible for the final demise of the ecclesiastical complex of Petra and for the destruction of the archive. That interpretation is now untenable in light of the evidence provided by one of the scrolls. It is significant, however, that the documents can be used for an improved chronological assessment of the church complex. The location of the scrolls, and their initial reading suggest that the scrolls represent an archive related to a limited number of people, perhaps associated with the church as parishioners or benefactors. Furthermore, the place of the discovery seems to be a storage area where documents were deposited and consulted, rather than a scriptorium.

Charred wooden fragments recovered with the scrolls provide important information on the manner in which the scrolls were stored. Remains of what seem lightweight 3-shelf bookcases may have been located in the NW corner of the room. Layers of thin, charred shelves were recovered from among the scrolls found there. Other scrolls may have been stored in separate wooden containers. The finds include fragments of vertical staves (?), probably elements of barrel-like, wooden containers. These would have been joined together by wooden pegs, and reinforced by horizontal straps made of bronze/copper strips.

Tightly rolled scrolls were tied with strings and wrapped in textile before being deposited in the barrels. Available iconographic and archaeological evidence from elsewhere supports such a manner of storage. There may also have been wooden boxes. Additionally, the surface of two charcoal fragments, either of barrels or boxes, preserves scratches, perhaps letters or signs, made with a pointed tool.

The scrolls were excavated by conservator Catherine Valentour and Zbigniew T. Fiema, chief archaeologist of the Petra Project, with the assistance of staff archaeologist Deborah Koorring and Suleiman Farajat of the Department of Antiquities. Excavations at the Petra church site were conducted under the direction of Pierre M. Bikai of ACOR in cooperation with the Department of Antiquities.