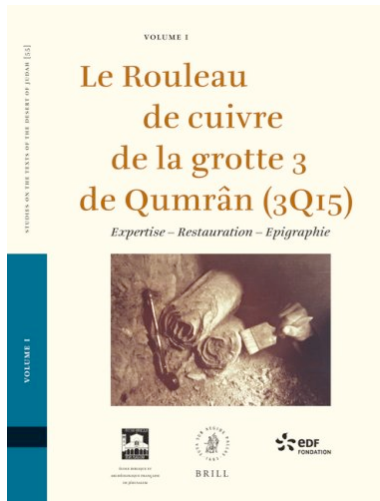


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Poffet, Jean-Michel, Daniel Brizemeure, Noël Lacoudre, and Émile Puech

Le Rouleau de cuivre de la grotte 3 de Qumran (3Q15): Expertise - Restauration - Epigraphie (2 Volumes)

Studies on the Text of the Desert of Judah 55

Leiden: Brill, 2006. Pp. xxii + 227/xxvi + 424. Cloth. \$254.00. ISBN 9004140301.

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The first thing to note about this publication on the Copper Scroll (3Q15) is its impressive presentation: two large full-color volumes with hundreds of illustrations and plates, many charts, graphs, and readouts, and meticulous attention to the details of nearly every aspect of this intriguing find from the Judean Desert—all on high-quality, glossy paper and wrapped in a handsome dust jacket. These two volumes are indeed eye-catching and hefty, and the relatively high price seems more reasonable in light of all these factors.

These volumes represent the results of a major intervention undertaken between 1994 and 1996 by the Department of Antiquities in Jordan, the École Biblique et Archéologique Française in Jerusalem, and Electricité de France (EDF), in order to renovate the twenty-three deteriorating segments of the Copper Scroll for conservation purposes. While there has been no shortage of scholarly transcriptions, translations, and analyses of 3Q15, these two volumes will doubtless prove to be important and useful in a variety of ways, not least because they provide an exhaustive scientific analysis of the copper substrate and its corrosive layers. Additionally, as a result of this kind of analysis, new information has been revealed about portions of the text where the copper had entirely disappeared from degradation.

This publication was a team collaboration and is the culmination of many years of research and preparation. Two of the authors, Daniel Brizemeure and Noël Lacoudre, are associated with the EDF's Valectra laboratory, which has long been involved in the conservation of ancient Near Eastern and Egyptian antiquities. (There were many EDF researchers and specialists involved in the conservation effort, and these are listed by Brizemeure and Lacoudre in the prefatory remarks on p. 1.v.) The other author, Émile Puech, well known for his work on various aspects of the Dead Sea Scrolls and biblical archeology, provides a new edition of the Scroll (and so far the only one) based on the EDF results. This edition includes both French and English translations (Vol. 1) as well as a new and helpful hand-drawing of the reconstructed 3Q15 (Vol. 2). Both Lacoudre (with Régis Bertholon and Jorge Vasquez) and Puech published some of their results in the 2002 book *Copper Scroll Studies* (ed. George J. Brooke and Philip R. Davies; JSPSup 40; Sheffield: Sheffield Academic Press), and *Le Rouleau de cuivre* is now the complete versions of those studies combined.

Volume 1 opens with introductions in both French and English, and a brief review of the Copper Scroll's history of discovery, conservation and preservation. It follows with a comprehensive (non-destructive) radiographic, stratographic and chemical analysis, and a "diagnosis" of its history of corrosion. Based on this diagnosis a program of conservation is outlined, and much of the rest of the volume contains the results of this program as it was carried out. This program was much more extensive than anything done on behalf of 3Q15 in the past. In addition to cleaning the surfaces (though not removing all of the corrosion), re-gluing the necessary inner-segment joints, and creating custom-fitted polyethylene mousse bases for each segment, a new travel-savvy "presentation box" was made for the Scroll's transport and permanent display in Amman. (For the first time in the United States a segment of the Copper Scroll is currently on display at the San Diego Natural History Museum, thanks in part to this high-tech casing.)

A significant portion of volume 1 describes the process by which a galvanoplastic facsimile of 3Q15 was fabricated, and discusses the rationale for making such a reproduction. Perhaps this facsimile really can serve the functions attributed to it: traveling display, educational and heuristic purposes, reading facility, etc. But such a stunning representation of an ancient artifact *redivivus* needs no pragmatic purpose; it is perhaps enough just to *have* it. It both serves as a reminder of the distance between 3Q15 and our modern world and it connects modern readers of the text in a physical way with the ancients who inscribed it. The book explains the process by which the replica was made, and provides beautiful photographs of the finished product.

The final part of volume 1 is dedicated to the text itself, beginning with a description of how computerized radiographic imaging techniques were used to gain a better reading of the text of 3Q15. Because the characters were hammered into the copper surface, therefore “denaturing” the copper in the areas of writing, electromagnetic radiation was conceived as a feasible way to detect and display features of the “original” text not visible to the naked eye.

In order to compensate for the curvature of the segments of the Copper Scroll (which, as the authors note, in places resemble a “gutter”), each segment was radiographed in separate sections (usually three per segment, more for badly deteriorated areas). These radiographic sections were assigned numerical values so that they could be reassembled in proportion to one another by manipulating the digitized images. The happy result is that each segment now has a ‘picture’ that provides a more detailed representation of the text and does so in a way that minimizes any distortion due to the curvature of the Scroll. These reconstituted radiographic images serve as the basis for a new and more reliable copy of the inscription.

Here Puech steps in as an epigrapher and Scrolls scholar, carefully scrutinizing the radiographic data and creating new detailed drawings of the inscription (which are given in volume 2). After a short introduction regarding the modern history and the nature of the Copper Scroll, Puech provides the text and his translation and commentary for each column (in French); this is followed at the very end of the volume by another presentation of the text and its French and English translations without any notes. In this last edition the text is presented according to column and line numbers, and also in terms of the sequence of the deposits as they are described in the Scroll (Puech here adopts the numbering of sixty deposits rather than the sixty-four counted by J. T. Milik in the *editio princeps*).

It is not likely that everyone will agree with Puech in every aspect of his presentation, and scholars will continue to debate whether the Scroll should be interpreted as an Essene document or the product of some other group, among other Copper Scroll controversies. But Scrolls scholars are in Puech’s debt for his provision of a careful edition of the text along with new readings and new suggestions for how to interpret the contents of the Scroll. To give one example from col. 1, previous editions of the text posited the uncertain reading <rw> “pit” to constitute the phrase, “pit at its bottom,” whereas Puech has now seen <kryb> to be able to read “at the side of its floor . . .” (1:7). (Medial and final forms are often mixed in the Copper Scroll, as in the medial *kaf* in the final position here.) This does not result in a radically different understanding of the passage, though it does bear on how we imagine the precise location of the treasure being described. New readings of

this kind run throughout Puech's edition, and they vary in the degrees to which they alter our understanding of the text.

Volume 2, the larger of the two tomes, consists primarily of photographic plates, graphic-relief drawings, and plates of the radiographic images. Additionally, there are photographs that depict the radiographic work in progress, various stages of the conservation effort (including construction of the presentation box), as well as the process by which the galvanoplastic reproduction was made. The photographic and graphic-relief plates are especially interesting because they show in a rather stark way the condition of the Copper Scroll both before and after the EDF intervention. In the graphic-relief drawings, one can really see how the advances in conservation techniques have resulted in a better life for 3Q15 (segment 12 is a particularly good example of this).

In the final parts of volume 2, the radiographic images of each of the twenty-three segments are assembled to reconstruct the twelve columns of the Scroll, and both the galvanoplastic replica and the drawings of Puech (based on the radiographic images) are placed side by side for each column. This juxtaposition has a nice effect, because the reader is able simultaneously to view the text as it may have appeared in antiquity (i.e., on a sheet of copper) while consulting the new definitive transcription for the reading itself. Here Puech has done a nice job of reproducing the characters from the radiographic images with exactness, and one can see, for example, how many times the engraving tools were used to hammer in each letter. As a result of this drawing it is more clear than ever that the inscriber(s) of 3Q15 did not have a very wide array of tools at his disposal (probably none with curves, for example) and that he did not always strike the copper sheet with great accuracy. The final page of the volume presents a full view of all Puech's drawings taken together, and thus one can see the full text of all twelve columns on a single page.

There is one final matter. While these volumes are beautiful and generally useful for specialists in the Dead Sea Scrolls—especially Puech's transcription, translations, and drawings—its broader appeal is perhaps rather limited given the particular orientation of this publication. It is primarily a kind of research report of a technical nature that will likely be of limited applicability (even comprehensibility) for scholars not trained to interpret spectrometry readings and chemical solubility charts. In short, it is an excellent thing that the results of this research are now on record—and that they have been used to produce a more appropriate conservation program than was heretofore employed—but it is doubtful that many Scrolls specialists will often consult these portions of this magnificent publication.

Nevertheless, anyone who knows the history of research on Qumran and the Dead Sea Scrolls knows that interpretation of the remains has always been a collaborative effort, and very often (in its best moments) interdisciplinary in nature. Radiocarbon and AMS dating techniques, ground-penetrating radar, DNA testing and medical forensics—these are among the more well-known scientific advancements that have made their impact on Qumran scholarship. As these volumes attest, the collaboration between physical and natural scientists and Qumran scholars can happen on a variety of levels, and the results can be both beautiful and useful. One hopes that this kind of work may continue to find support, so that we may continue to enjoy the presence of the Scrolls and to learn about what they contain. With this publication, some of the “hidden treasures” of the Copper Scroll have been uncovered—just not the ones described in the Scroll itself.