

PEET'S TRANSLATION OF THE RHIND PAPYRUS

The Rhind Mathematical Papyrus. By T. Eric Peet. Liverpool, The University Press, and London, Hodder and Stoughton, 1923. Pp. (4) + 136 + 24 plates.

In the history of mathematics the one outstanding original document of the ancient world is the so-called Ahmes Papyrus. Its importance is not due to the value of the work as a contribution to the science of mathematics, but to its value as a historical document, it being the only extensive treatise upon the subject existing in the form of a manuscript written before the beginning of the Christian era. It dates from about the middle of the second millenium before Christ and is now, with the exception of a small fragment, in the British Museum. Curiously enough, this small fragment has recently been found in the collection of the New York Historical Society, the original discoverer having apparently sold this piece separately. We have many older documents relating to mathematics, chiefly in the form of Babylonian tablets, but they are not treatises of any extent, valuable though they are as showing the symbols and tables of the Mesopotamian civilization.

The general nature of the work is well known. Eisenlohr published a German translation of it more than fifty years ago, and Professor Archibald has listed a large number of articles upon the subject, written by some seventy-five different scholars. For the present purposes, therefore, and in view of the limited space at the disposal of the reviewer, it is not proposed to speak further of the significance and the special features of the manuscript itself, but to call attention to the nature of the work done by Professor Peet.

It has long been patent, even to those who have no special training in Egyptology, that both the translation made by Professor Eisenlohr and his commentary upon it were in need of revision. Our knowledge of the history of the Egyptian people and their language and rulers has made much progress in half a century. There was therefore a need for a first-class student of history, of ancient epigraphy, of language, and of metrology who should undertake the task of translating the papyrus and of explaining its contents and its general significance. To undertake such a piece of work Professor Peet, Brunner professor of Egyptology in the University of Liverpool, an Oxford man of high standing, was unusually well qualified and he seems to have executed his mission with the thoroughness of a British scholar.

As one examines the impressive work, mechanically a product of the University Press of Liverpool, three questions of moment arise: (1) What is the distinguishing feature of Professor Peet's work? (2) What does the work tell us that is new concerning the man Ahmes (whose name Eisenlohr transliterates as Aah-mesu, and Professor Peet as Ahmōse) and his time? (3) Is the work a scholarly production that should stand forth as an authority and have a place in our libraries of reference?

As to the first question, the author has given us a new translation, made from the facsimile published by the British Museum in 1898 and from the New York fragment. Moreover, he has greatly assisted the student by transliterating from the difficult hieratic of the original to the relatively simple hieroglyphic form of which a considerable part can be understood after only a little study. The translation and discussion show evidence of the scholarly way in which the whole undertaking has been carried through. If the work contained nothing else, it would rank high as a source book in the study of an interesting and important phase of the ancient Egyptian development of "the science venerable." No doubt the layman would have welcomed an explanation of the diacritical marks and a brief statement as to the probable pronunciations used by the ancients, but these are matters that can be found in linguistic treatises and which, after all, have no special bearing upon the mathematical problem involved.

As to the second question, the work is helpful as locating a little more definitely, for the time being at least, the probable period in which the manuscript was written. This has long been a matter of dispute. Eisenlohr was of the opinion that it dates from c. 1700 B. C. and was a copy of an earlier work made in the time of Amenemhat III. The manuscript itself, as now translated, contains this statement:

"Behold this roll was written in Year 33, month 4 of the inundation season, [. . .] and Lower Egypt Aauserrē', endowed with life, in the likeness of a writing of antiquity made in the time of the King of Upper and Lower Egypt Nemarē'. It was the scribe Ahmōse who wrote this copy." This Nemarē' seems to have been the Amenemmes (Amenemhat) III of the twelfth dynasty, who reigned from c. 1849 to 1801 B. C., so that the original work of which we have the copy made by "the scribe Ahmōse" seems to date from c. 1850 B. C., or the half century following.

As to Ahmes himself, Professor Peet places the date of Aauserrē' (Apophis, Apepa I) as "some time between 1788 and 1580 B. C." There is an indorsement on the roll, seemingly of about the same period, which has given rise to much speculation, some authorities having placed it as late as 1321 B. C. It can hardly be said, therefore, that the date is yet fixed with certainty, and perhaps we are fairly safe in saying, at least until more precise data are found to change the opinion, that

it was written c. 1600 or c. 1550 B. C. In a work on the Egyptian Collection in the British Museum, written by E. A. Wallis Budge and published in 1908, no precise dates were given for *Āa-user-Rā* (*Aausserrē*) and he was not included in the Museum list of prominent rulers. We have, however, in the work under review, the latest chronological information at hand. A more precise date is of little moment in this connection.

As to the third question, the scholarly nature of the work, the answer would seem to be definite. The translation doubtless represents a degree of excellence not heretofore reached with respect to this important document, and perhaps not to be surpassed. It is futile to say that research in the field of Egyptology will not permit of the removal of certain doubts which Professor Peet himself has mentioned, and for a more satisfactory interpretation of certain problems, but for the present we have reason to be thankful to him, to the University of Liverpool, and to Messrs. Hodder and Stoughton, for what has been done in the preparation and the printing of this noteworthy work.

As to the other side of the case it may be said in general that after a treatise like this is in print there is little or no use in wishing for changes. Fault finding for its own sake is an easy task, but it is an ungracious act unless it results in corrections that would otherwise escape attention or warns the reader against a book which is poorly written or is generally unreliable.

The chief adverse criticism of Professor Peet's work will probably be that it is so good that the reader wishes it had been carried to greater length,—say with the hieratic along with the hieroglyphic, with perhaps a transliteration in Latin letters and a translation directly connected with it, and possibly with a table of pronunciations,—a criticism of no real significance. The only complaint of the present reviewer is that the descriptive statement preceding the translation is not arranged as he would have planned it, which only shows that we all have our idiosyncracies.

The book has a list of the technical words discussed in the text, and an index which has not proved as helpful in actual use as the reviewer had hoped.

Professor Peet's work should be in all our university libraries, and in public libraries of any pretense to completeness in the matter of standard books of reference. Those who are interested in the history of science will naturally wish, in spite of the high post-war price, to add it to their own collections.

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