

Newly Identified Lunar and Planetary Tables from Babylon in the British Museum

J. M. Steele

Brown University

john_steele@brown.edu

In memory of John P. Britton

Introduction

Lunar and planetary ephemerides and related tables form the largest portion of the corpus of tablets containing mathematical astronomy from Babylonia. Preserved examples come from the sites of Babylon and Uruk and mostly date to the last three centuries BC. In his *Astronomical Cuneiform Texts*, Neugebauer (1955: hereafter ACT) published all lunar and planetary tables known to him: a collection of well over one hundred tablets. Another fifty or so tablets of this same type have since been published, predominantly by Aaboe and (more recently) myself (see, for example, Aaboe (1964, 1968, 1969, 1971, 1977), Aaboe-Henderson (1975), Aaboe-Hamilton (1979), Steele (2002a, 2002b, 2006, 2010)). The present paper adds several more examples to this corpus.

The tablets edited here were all identified during my visits to the British Museum between 2005 and 2009. All probably originate from Babylon. Some of the fragments I identified join previously published tablets (in one case no less than four new fragments have been joined to ACT No. 122). Where the joins provide new information about either the layout of the tablet or its content, I include a full edition here; in two cases the new joins simply confirm Neugebauer's restorations in ACT and so I give only the details of the joins and photos. In my transcriptions, sexagesimal places are separated by commas. The two wedge cuneiform "separation mark" (𐎶) is transcribed by a colon. Preserved tablet edges are indicated by double rulings. In other respects, I follow the conventions established by Neugebauer in ACT.

The greatest number of ephemerides identified since the publication of ACT are lunar System A tablets. These discoveries, coupled with the development of computer programs for calculating long runs of System A data which has allowed the date of several small fragments published in ACT to be determined, place us in a better position to evaluate the corpus of System A lunar ephemerides than at the time of Neugebauer's work. In the final section of this paper I make some preliminary remarks on this subject. In due course it may be possible to make similar investigations of lunar System B and planetary ephemerides, although in these cases scholars today are not in a much better position than Neugebauer with regard to available material.

I wish to thank the Trustees of the British Museum for permission to study and publish these tablets, C. B. F. Walker for making available his catalogue of astronomical