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CONTENTS

S. Tinney: A New Look at Naram-Sin and the "Great Rebellion"	1
W. Sallaberger: Eine reiche Bestattung in neusumerischen Ur	15
G. M. Beckman: The Siege of Uršu Text (CTH 7)	23
K. van der Toorn: The Domestic Cult at Emar	35
K. Fabritius: Vowel Dissimilation as a Marker of Plurality in Neo-Assyrian	51
M. Liverani: The Medes at Esarhaddon's Court	57
V. Donbaz and J. Koch: Ein Astrolab der dritten Generation: Nv. 10	63
P. A. Beaulieu: The Brewers of Nippur	85
$L.\ Depuydt:\ "More\ Valuable\ than\ all\ Gold":\ Ptolemy's\ Royal\ Canon\ and\ Babylonian\ Chronology$	97
Book Reviews:	
M. Stol, Epilepsy in Babylonia (H. Avalos)	119
C. Wunsch, Die Urkunden des babylonisches Geschäftsmannes Iddin-Marduk. Zum Handel mit Naturalien im 6. Jahrhundert v.Chr. (M. Dandamayev)	121
Books Received	125

2. A Brief History of the Royal Canon

A. Babylon (Eighth Century BCE to First Century CE)

The history of the Canon begins, together with that of astronomy, in Babylon sometime in the early first millennium BCE. The Canon was designed for astronomical purposes. Its history is therefore intertwined with that of astronomy. Neugebauer (1975, 1:2) distinguishes three periods in the latter: (1) the prehistory until about 700 BCE, "when (probably) Mesopotamian astronomy begins"; (2) the ancient and medieval period to the mid seventeenth century CE; and (3) modern astronomy beginning with Newton. The Canon squarely belongs in period (2). Its history is about twenty-three centuries long, from the first Babylonian astronomical observations in the eighth century BCE for the dating of which it was designed to the end of the reign of the last ruler whose name was added to it in the fifteenth century CE in Byzantine manuscripts. From 1602 onward, the Canon became the object of antiquarian and historical pursuits (see 2.F).

The sources suggest a marked increase in intellectual activity in Babylonia, including astronomical observations, from about the reign of Nabonassar in the eighth century BCE onward.¹¹

First, later historiographers describe Nabonassar's reign as a new beginning. Second, none of the absolutely dated cuneiform astronomical texts that have come to light so far are earlier than BM 32312, written in 652 BCE, which is the earliest fragment of the so-called Diaries (Sachs 1974, 44, 48, Figure 3). Third, the cuneiform Babylonian Chronicle also begins with the reign of Nabonassar. And fourth, eclipse reports preserved on later tablets go back to the second half of the eighth century BCE (Sachs and Hunger 1988–89, 1:12, with note 4).

All this is not evidence, however, that there ever existed a historical Era of Nabonassar in Mesopotamia, with years counted according to the Babylonian calendar with its years of twelve or thirteen lunar months. The Era is in all likelihood a product of Hellenistic times, for use by astronomers only, and perhaps dates to about the second century BCE.

Astronomers did not date their observations for the benefit of historians. This fact does not diminish, however, the benefits that historians can draw from astronomical datings and tools like the Canon. On the other hand, it also follows that

^{10.} In Greek dictionaries, I have found the word only in Demetrakos (1949–53). It is characterized as "medieval" and one source, dating to ca. 1300 CE, is cited.

^{11.} For surveys of the sources, see Neugebauer (1975, 1:351-53) and Aaboe (1991). Cuneiform observational records have been found at Babylon and Uruk, and there is so far no

reason to suspect that there were other centers, except perhaps Sippar. A sophisticated astronomical theory came about later, probably in the fifth or fourth century BCE. It is preserved in tablets dating from about 300 BCE to nearly the end of the cuneiform tradition around 50 CE.

^{12.} For a survey of the sources, see Hallo (1988).

^{13.} The Venus tablets of Ammisaduqa are about a millennium older, but their absolute date is not certain; on these tablets, see Reiner and Pingree (1975). On the relation between the astronomical diaries and the chronicles, with a discussion of BM 32312, see Brinkman (1990, 95-97).

^{14.} On Assyrian and Babylonian Chronicles, see Grayson (1975). On the Babylonian Chronicle, see now also Brinkman (1990). On its beginning, see Brinkman (1990, 97, note 137 and 83–84, note 60). It cannot be confirmed that the Chronicle began with Year 1 of Nabonassar. But this need not have been the case. When the Era of Nabonassar was constructed in Hellenistic times to encompass a historical tradition that began sometime in Nabonassar's reign, it must have seemed only natural to begin the Era with the beginning of his reign.

^{15. &}quot;The Era of Nabonassar does not result from a political decision or a reorganization of the calendar, but reflects the fact that Nabonassar's reign was the beginning of more careful observation of the movement of planets and stars" (Kugler 1907-24, 2:368).

students of ancient astronomy need not be concerned with the historical implications of such datings. Here, the paths of the historian and the astronomer part, and Neugehauer could justifiably state in his history of ancient astronomy, "the chronological tables and their ancestors in ancient oriental king lists contain many difficult historical problems but are fortunately of no concern to us here" (1975, 2:1025).