CHAPTER 3

THE TRIENNIAL CYCLE

Although the 364DY creates the framework for cycles of three, six, seven, forty-nine years, etc., the basic year cycle in the 364DCT is the triennial cycle. This cycle is based on the ten-day gap between the lunar year (354 days) and the schematic 364DY, according to the equation:

\[3 \times 364 = 3 \times (354 + 10)\]

This scheme allows for the synchronization of the lunar and schematic cycles by the addition of a 30-day month at the end of every third lunar year. 36 schematic months thus equal 37 lunations. This basic insight is implied in some form in AB (74:13–16) and constitutes a fundamental element in the 364DCT until the triennial cycle merges into the six-year mišmarot cycle. The present chapter examines, conceptually and textually, the mechanism of a “cycle of years” as it is reflected in various texts, including the different versions of AB and selected texts from Qumran.

3.1 THE SCHEMATIC YEAR

Why are year cycles needed, and what level of knowledge is required in order to implement them? These issues were recently addressed by Leo Depuydt, who proposed the following outlines for a developmental model:

Stage 1: Use of natural time cycles: day, month, year

Stage 2: The merging of the various natural cycles into a single lunar/solar/luni-solar year

Stage 3: Fashioning cycles longer than one year.¹

¹ L. Depuydt, Civil Calendar and Lunar Calendar in Ancient Egypt (OLA 77; Leuven: Peeters, 1997), 24–31.
The term “year” (šanah, annus, etos, ʿamat, šattu) covers a range of highly divergent meanings. It primarily denotes the tropical solar year: a defined physical unit reflecting the period of time between two consecutive dates of the spring equinox. In both ancient and modern languages, the term “year” is also frequently used to denote the lunar “year”—an arithmetical entity defined as a period of twelve lunar months. The notion of a lunar “year” is a Mischwesen, devised in order to achieve a reasonable degree of synchronization between the solar year and another physical unit—the month—which relates to the orbit of the moon. As long as only one parameter is employed by a certain society—either moon or sun—no need arises for either intercalation or year cycles. Since many human societies chose to take both solar and lunar phenomena into account, however, the introduction of year cycles became a necessity. According to the model established by Depuydt, in stage (2) intercalation and the creation of year cycles are random, even haphazard: the regulation of the calendar only occurs ad hoc, when a problem arises. Only later (stage 3) is intercalation stabilized by fixed rules and recurrent year cycles.

The problem of synchronizing distinct natural time units is amenable to another solution. The schematic year was fashioned in order to account for all possible natural time units. The call for a schematic year arose first and foremost from the need for long-range calculations. The best example is the 360-day year developed by Sumerian scribes in the fourth millennium B.C.E. These scribes’ preoccupation with calculations regarding tax payments, reimbursement of loans, land tenure, etc., required them to keep accounts for periods longer than one year. Under the constraints of an unstable calendar regulation in which each calendrical year contained a different number of days, this was a difficult task. The Sumerian scribes consequently sought to create a schematic year of a fixed length. The ancient Egyptian civil year of 360 + 5 days was equally

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3 On administrative uses of the year, see also F.H. Cryer, “The 360-Day Calendar Year and Early Judaic Sectarianism,” *SJOT* 1 (1987): 116–22. For the sake of comparison, the present-day Jewish calendar is awkward for use in banking and