The procedure of the sanctification of the new moon described in Mishnah tractate Rosh ha-Shanah has received relatively little attention in modern research so far.\(^1\) In a recently published article, however, Sacha Stern renewed the discussion about this important piece of evidence for the history of scientific thinking within rabbinic Judaism, and has provided a comprehensive analysis of this text, which hopefully will be a starting point for further discussions.\(^2\) Stern focuses in his study mainly on the socio-political aspects of the procedure. Leaving aside the question of the historicity of the account he had dealt with in another place, he highlights the predominantly ‘judicial’ (or ‘pseudo-judicial’) character of the mishnaic rulings for the new moon procedure and convincingly interprets it as an attempt to legitimize rabbinic claims for authority within the context of a struggle for hegemony with other authorities—in this case with local city councils. Following this line of argumentation, he further hypothesizes that the gradual abandonment of judicial new moon procedures in the following centuries might reflect a change in the socio-political status of the rabbinic movement.\(^3\)

The present paper converges in many respects with Stern’s interpretation, although the general outlook is slightly different and it will partly draw different conclusions. Since it remains difficult to determine whether, and if so to which extent, the mishnaic regulations were ever

---


applied in practice, it is not clear whether we are entitled to speak of an actual *abandonment* of these procedures. But irrespective of this historical problem, the rabbinic new moon procedure arouses the question of whether the injunction for the empirical observation of the new moon, which undoubtedly is the core of the new moon procedure, had any influence on the development of scientific cosmological and astronomical concepts prevailing in rabbinic Judaism.\(^4\)

It is a commonplace to argue that the exact sciences of late antiquity have left only limited traces in rabbinic literature, and that Jewish calendar reckoning might be one of the few exceptions to this rule. While setting out with rather primitive observational methods, the rabbis are believed to have accumulated in the course of time rather solid astronomical and mathematical knowledge, which finally allowed them to fix the calendar on the basis of sound theoretical foundations. As Stern has shown, however, the increase of scientific knowledge alone cannot be seen as the only factor for the transition from an observational calendar to a fixed calculation, and it will be seen that also from other points of view this historical image needs qualification. One of the questions that arise is whether the scientific achievements in calendar reckoning represent an isolated phenomenon or are part of the broader development which led to the construction of any kind of coherent and comprehensive scientific worldview. In order to tackle this question, the present paper will re-examine the rabbinic sources about the observation of the new moon and ask whether and to which degree the rabbinic discussions about the calendar stood in any interdependence with the development of their astronomical and cosmological concepts in general.

Such an interdependence of the development of calendar calculation, astronomy and cosmology is far from being a matter of course given the fact that even the relation between astronomy and cosmology is often tenuous and problematic. The development of exact astronomical knowledge does not automatically imply the enhancement of specific cosmological worldview, and this problem becomes even more acute if one adds ‘calendars’ as a third term. Calendar calculation does not necessarily influence the cosmological and astronomical ideas prevalent in a specific culture, and one may well ask whether it did so among the Jews in Antiquity.