

Rabbi Fried,

We all get Jewish calendars at the grocery store or in the mail and take them for granted; who actually wrote the Jewish calendar and what are its origins? I've been wondering this for years and hope you can provide me some insight.

Marvin G.

Dear Marvin,

The very first mitzvah which the Jewish people were commanded, while still in Egypt, was to sanctify the new month. "This renewal [of the moon] shall be for you the beginning of the months, it shall be for you the first of the months of the year". (Exodus/Shemos 12:1-2). This means that the Jewish people are not to simply *calculate* our dates; we need to *sanctify* the first day of every month, which is called *Rosh Chodesh*, or the "head of the month". From the time of Moses for nearly a thousand years, the high Jewish court, or Sanhedrin, calculated and sanctified the new month. Each month the Sanhedrin in Jerusalem would wait for two witnesses to appear stating they have observed a new moon. After testing the veracity of the witnesses, they would establish the sanctity of Rosh Chodesh by the power vested in them, and by proclaiming "*mekudash, mekudash*", "it is sanctified, it is sanctified".

For all the centuries from the time that Joshua led the Jews into their land, the conditions existed to carry out the sanctification of the new months. As long as the months were sanctified in this Divinely ordained manner, there could not be an annual set "calendar". Since each new month required new testimony of witnesses, no one could guarantee whether the current month would be 29 or 30 days. Since the Jewish holidays, such as Passover, depended upon when the Sanhedrin proclaimed the new month, Jews would wait to be informed when Pesach would fall out that year, an uneasy feat in a pre-electronic communicative world. A system of bonfires, lit atop mountains across Israel, would announce from Jerusalem when the new month was established. When saboteurs maliciously lit fires on the wrong days to mislead the people, the Sanhedrin had to send actual messengers by horseback across the country to inform all of the new month.

This process continued until one of the last generations that its leaders still had actual *semicha*, or ordination through an unbroken chain from Moses. This type of *semicha* is a prerequisite to sanctify the new month. Because this *semicha* was in danger of cessation, the entire institution of Rosh Chodesh and Jewish months was in danger. In order to ensure the continuity of Jewish months, *Hillel the Last* and his court, who still held that form of *semicha*, calculated and sanctified all the coming months until the time of Messiah. By doing so, they established the first actual calendar, in the year 359CE. From the establishment of the calendar and onward, they no longer would wait for witnesses, and relied upon calculations sanctified with the *semicha* power vested in them.

The Torah established that our months be lunar, or moon-based, as opposed to general, or Gregorian, calendar in use today in most of the world. The Torah also commands that Passover always fall out in the spring. (Deut./Devarim 16:1) For this reason, an extra month, or leap year, was established to synchronize the solar with the lunar calendar, seven out of every 19 years. In this way, the months have remained successfully synchronized for over 3300 years since we received this commandment!

It is fascinating to further notice the precision of our sage's calculations. The Talmud (Rosh Hashana 25a) and Maimonides (Code, Laws of Sanctifying the Moon 6:2-3) calculate the length of a solar month as 29.53059 days. A number of years ago, NASA made the following statement: "After years of researched based on calculations using satellites, hairline telescopes, laser beams and super-computers, scientists at NASA have determined that the length of the "synodic month", i.e. the amount of time between one new moon and the next is : 29.530588 days" (!!).