

Harav Binyomin Landau, *shlita*, the Tosher Dayan of Boro Park, is a venerable figure who has earned the respect and admiration of a wide range of people, from educators and rabbis to medical specialists and scientists. His keen insight and specialized knowledge have brought succor to many. People congregate outside his house constantly, seeking his guidance and halachic adjudication — especially regarding problems of infertility, an area in which Rav Landau's expertise is renowned.



By Yitzchok Cohen



true, that the earth revolved around the sun, and he claimed to have resolved all the scientific dilemmas that had arisen in regard to the old theory. As expected, his powerful assertion unleashed a storm of protest in the scientific world, among non-Jews and Jews alike. However as the years went by, Copernicus's theory took firm hold in society, until there was not a single person who did not know the elementary fact that the "earth revolves around the sun."

The Jewish World and Copernicus

A hue and cry erupted among Jews concerning Copernicus's theory, for the simple reason that for generations upon generations, we had accepted the fact that the sun circles the earth. A Jew is bound by Torah alone; any contradictions coming from the secular world are meaningless. As the Rashba states clearly in his responsa concerning this topic, even if it seems patently clear to us, with our limited vision, that certain facts seem contradictory to Torah, we firmly believe that the Torah is the ultimate truth; we just cannot fathom all its scientific nuances. Not one letter of Torah is negotiable. Another Torah scholar, Harav Yonasan Eibeschutz, *zt"l*, in his *sefer Yaaros Devash*, rails strongly against Copernicus's theory, asserting that the sun revolves around

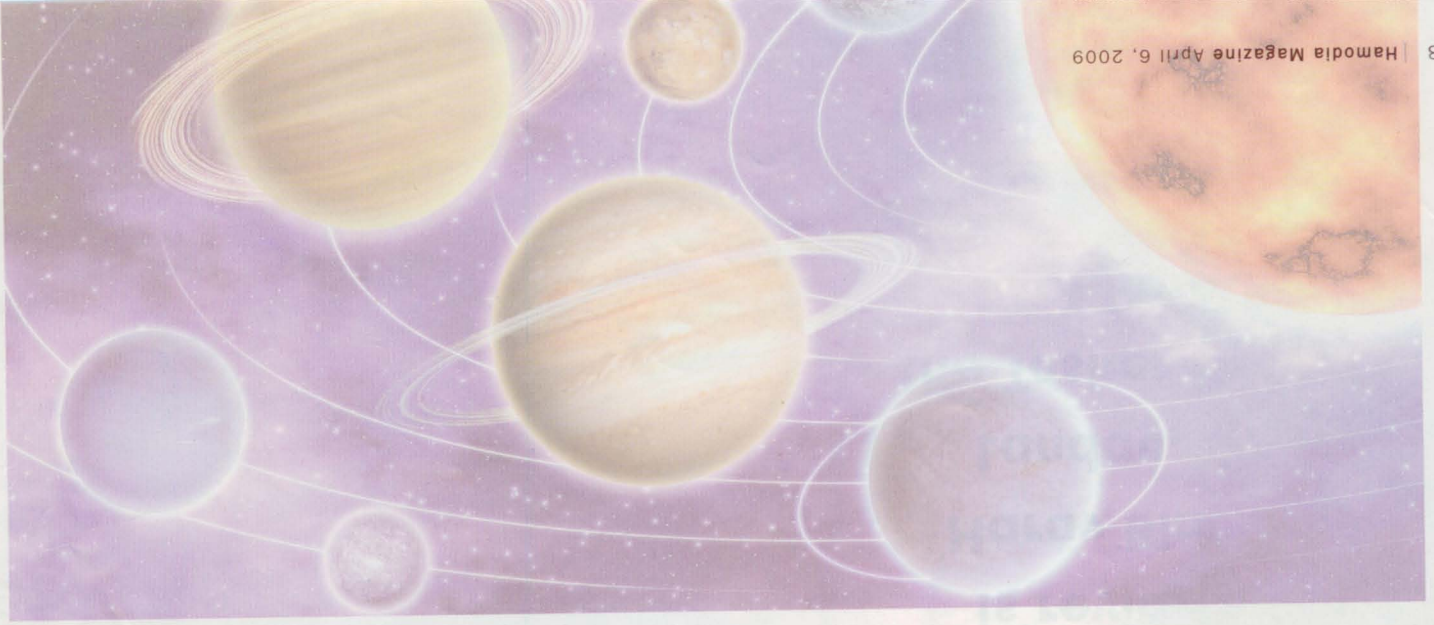
astronomy thousands of years ago and even committed some of their thoughts to writing, somehow not a trace remains of their knowledge except for orally transmitted kabbalistic sayings. Several hundred years ago, Copernicus, a well-known scientist of his time, shook the world with his controversial claim that scientists had erred grievously in their assumption that the sun revolved around the earth. He maintained that he had indisputable proof that the opposite was

The human power of illusion is such that a person always sees himself as stationary.

As *Klal Yisrael* stands on the brink of rectifying *Birchas Hachannah*, a rare occurrence that we are privileged to say once every twenty-eight years, it behooves us to contemplate more in depth the world of astronomy, the world of the skies — more specifically the sun as it relates to the earth and the constellations.

As a young child, I remember knowing with certainty that the sun revolved around the earth. This principle was a simple fact, universally accepted by Yidden, according to the *poskim*. And woe to any Jew who dared claim otherwise! He was immediately labeled an *apikoros* who had cut himself off from *Klal Yisrael*. However, as one grows older and studies this astronomical issue extensively, it becomes clear that the topic is not so clear-cut or straightforward.

According to the commentaries, *Chazal* stated that the sun revolves around the earth, a theory that held sway even among the gentiles until a few hundred years ago. In a very visible way, man sees the sun rising in the east every day and setting in the west, thus supporting the claim that the earth is the epicenter of creation, with the sun and planets circling it, rather than vice-versa. Although this theory became controversial later on, the Rambam writes that despite the fact that there were brilliant Torah scholars who immersed themselves in



Mazalos – Constellations

Among the heavenly spheres are the *mazalos*, or constellations. The sky is studied with hundreds of thousands of constellations that soar overhead constantly, with no exact location. Early astronomers named several constellations based on their shape and form. Certain groups of stars are always at a certain distance from each other, so when tracing an imaginary "dot-to-dot" connection, a clear outline can be noted, such as a *teih*, or the "hook." Each form bears the name of a *mazal*. Chazal mentioned twelve *mazalos* that are relevant to *Klal Yisrael*, and they are divided among the twelve parts of the world, each one occupying a twelfth of the world's circumference. Scientists have divided the globe according to degrees, minutes, and seconds as a practical means of identifying localities. In the division of the cosmos into 360 degrees, each *mazal* occupies about thirty degrees. This division of *mazalos* helps to locate the constellations at any given time — for example, to note whether the moon's position is at the beginning of the *teih* or at the end of it.

Here I feel it necessary to point out that should any Jew's opinion differ from that of others in regard to the sun-earth theory, one should never, *chas v'shalom*, brand him an *apikoros*, because, as we've pointed out, both opinions are identical in regard to the *halachah* of calendar calculations, and both *shtos* are supported by *Gedolei Yisrael*. **M**

This article is an excerpt from a speech that the Tosher Dayan delivered in the Tosher Kollel.

Thus, despite the controversy regarding Copernicus's statement, both the calculations of the holy Rambam and earlier *Gedolim* who lived in the era before Copernicus and those of the earth-people who supported the earth-around-the-sun hypothesis are in consonance with the Torah. Because nothing really changes — it's either the train moving or the trees. Either way, the traveling time and destination are identical. Consequently, all the passages in the Torah and all of Chazal's assertions in the Rambam's explanation of *Kiddush Hachodesh* are unchangeably feel more comfortable with the thought that the sun circles the earth — but in

If we understand human nature, it is easy to grasp why people are more comfortable with the sun-around-the-earth idea. A person can more effortlessly visualize things outside himself in motion than see himself in perpetual motion around everything else. With that in mind, ancient man fixed his calculations on the practical view that the sun revolves around the earth. I find that when I learn the Rambam on *Kiddush Hachodesh*, I also feel more comfortable with the thought that the sun circles the earth — but in

moves or the earth moves.