



יתרו
Yitro

אשרינו Ashreinu

Enhancing your Study of the Weekly Torah Portion

The Age of the World

Dr. Yosef Wolf

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Yoni Kurtz ('20)

Akiva Rosenthal ('20)

Adina Hirsch ('19)

Posing the question “How do we know that the Hebrew year is 5778?” usually elicits blank stares from a high school class, until one wiseguy in the back responds, “that’s what the calendar says!”

In a few months we will be celebrating the 3,330th anniversary of the giving of the Torah, which will commence immediately after approximately

173,160 Shabbats have been kept by the Jewish people since being commanded in this week’s parsha:

זכור את יום השבת לקדשו

“Remember the day of Shabbat to sanctify it” (Shmot 20:8).

It is an immense historical fact that for almost 3,330 years there have been Jews keeping Shabbat somewhere in the world every seven days. This means that our student in the back of the room was in fact correct: we know the current year because we simply add 1 to the previous year.

But how did they know the year was 2448 at the time of the giving of the Torah? Any rabbi will tell you that one can simply track the chronology of the stories that Moshe received on Har Sinai. And so it is resolved...the age of the world is 5,778 years old!

There are three independent ways to empirically deduce the age of the universe of which I am aware:

- 1) Studying the temperature anisotropy in the Cosmic Microwave Background data obtained from the WMAP and Plank satellites as analyzed through the context of cosmological models yields an approximate age of 13.7-13.9 billion years.
- 2) Using color magnitude diagram matching techniques on some of the oldest globular cluster stars in our galaxy yields an approximate age of 9-15 billion years old.



3) Analyzing the radioactive decay of Thorium-232/Uranium-238 in old stars yields estimates of 11-17/9-15 billion years old, respectively.

A common approach to resolving these discrepancies is to speculate that the days of creation metaphorically allude to billions of years. However, even when Ramban discusses how each of the days corresponds to a sefira of Atzilut, he makes sure to emphasize that these days were six regular days, mamash. This point is also in agreement with an earlier commentary of Rashi in perek bet of Gemara Chagigah, where he says that the first day and night composed a 24-hour period.

A few pesukim later, the Ramban explains that the Torah uses the words **יום אחד** (one day) instead of **יום הראשון** (first day) when describing the conclusion of the first day of creation, because “first” implies a series, and therefore one cannot say there was a first day when there was not yet a second day. Gerald Schroeder elucidates that the Ramban is implying the story of creation is being told looking forward, not backward. Combining this with a statement made a few lines earlier in his commentary, where Ramban states that time only begins when mass is present in the universe (which was only later realized by Einstein in the early 20th century), Schroeder’s insightful analysis allows us to realize that the first five and a half days of creation (until Adam is created) can actually span 13.9 billion years if we take into account relativistic time dilation. To put it succinctly, since the flow of time is relative, five and a half days from a vantage point looking forward from the first time mass is present in the universe until Adam is created will look like 13.9 billion years from our current vantage point looking backward.

While Schroeder’s analysis is novel, there is still yet another clue provided by Chassidut that alludes to a deep insight. After the shofar is blown on Rosh Hashanah, the anniversary of the creation of man, we say **היום הרת עולם**, today is the birthday of the world, which is perplexing since it is stated in Vayikra Rabba (29:1) in the name of Rabbi Eliezer that the world was created on the 25th of Elul. The Lubavitcher Rebbe provides a unique answer to this well-known contradiction: Through the creation of man, God established a new definition of existence, and according to this new definition the world did not previously exist (Sichot of Erev Rosh Hashanah, 5733). The immensity of this insight can be fully appreciated through the lens of quantum mechanics.

In the famed Double-Slit experiment of 1927, it was shown that the mere act of observing a subatomic particle affects the actual state of that particle between two contradictory modes of existence (cf. particle-wave duality). The philo-

sophical implications are astounding, leading the legendary Nobel laureate Richard Feynman to state that this experiment contains the central mystery of quantum theory and thus nobody can truly understand quantum mechanics. These sentiments were elucidated by another Nobel laureate, Eugene Wigner, who said that the quantum description of objects is influenced by impressions entering one’s consciousness, as the being with a consciousness must have a different role in quantum mechanics than the inanimate measuring device.

More recent delayed choice quantum eraser experiments offer a solid framework to the bold it-from-bit predictions made decades ago by Richard Feynman’s graduate advisor at Princeton University, John A. Wheeler: “the observer is as essential to the creation of the universe as the universe is to the creation of the observer...observership calls and enforces a transcendence of the usual order in time.” Three years after publishing this statement, Wheeler explained it further by saying “Beginning with the big bang, the universe expands and cools. After eons of dynamic development it gives rise to observership. Acts of observership-participancy in turn give tangible reality to the universe not only now, but back to the beginning.”

Combining Schroeder’s analysis of the timeframe of the first five and a half days of creation with this new understanding of the Chassidic explanation of the seeming contradiction regarding the date of creation through the lens of quantum mechanics, a new view on the history and age of the world can be postulated: the universe is in fact 5,778 years old, with 13.7-13.9 billion years of history that existed in potentia, until the creation of conscious man (made in God’s image) retroactively gave tangible reality to the universe’s past. This view demonstrates agreement between classical commentaries and modern science to a higher level than previously attained. But perhaps more astounding is that fact that the Jewish people have kept Shabbat every week for the past 3,330 years.

In it to Win it

Akiva Rosenthal ('20)

The Jewish people receive the Torah in this week’s parsha, Parshat Yitro. Hashem finally fulfills the promise He made to Avraham that his children would be strangers in a strange land, but He eventually would take them out and make them His people. But why does Hashem make the Jews wait at Har Sinai for a couple of days before accepting the Torah?

The Midrash Tanchuma answers that the Jews still had mental and physical problems after their initial time in the

desert. The midrash states that the Jews still felt like slaves after the harsh punishments that they had endured for over 200 years. They were not only in physical pain, but were also suffering mentally. Because of this, the Jewish people weren't quite ready to become Hashem's people because they didn't yet feel like a nation.

The Jews were not yet comfortable being "Jewish," so they couldn't accept a code of laws until they felt ready to be happy and excited about doing the mitzvot. We learn from the delay of Matan Torah that it's not what we do, but how we do it that makes a difference. If we appreciate that we are Hashem's chosen people, we should show that appreciation by doing the mitzvot with happiness and excitement.

Fly Eagles Fly

Adina Hirsch ('19)

In this week's parsha, Hashem gives Bnei Yisrael the Ten Commandments. Before He does so, He tells Bnei Yisrael:

אַתֶּם רְאִיתֶם אֶשֶׁר עָשִׂיתִי לְמִצְרַיִם; וְאֶשָּׂא אֶתְכֶם עַל-
כְּנָפֵי נְשָׂרִים, וְאָבֵא אֶתְכֶם אֵלַי
וְעַתָּה, אִם-שָׁמוּעַ תִּשְׁמָעוּ בְּקוֹלִי, וְשָׁמַרְתֶּם אֶת-בְּרִיתִי
וְהָיִיתֶם לִי סֻגְלָה מְכֹל־הָעַמִּים, כִּי-לִי כָל-הָאָרֶץ

"You have seen what I did to the Egyptians, and how I carried you on eagles' wings, and I brought you to Me.

And now, if you obey Me and keep My covenant, you will be to Me a treasure out of all peoples, for Mine is the entire earth" (Shmot 19:4).

These pesukim happen to be the lyrics to Simcha Leiner's renowned song, Kanfei Nesharim. We know the pesukim as lyrics to the song, but what makes these two poetic pesukim specifically meaningful enough to merit a song?

Rashi highlights the beautiful message emanating from the imagery of B'nai Israel being flown on the wings of eagles, **עַל-כְּנָפֵי נְשָׂרִים**. Eagles are unique and carry their young on their backs instead of in their talons. When a man tries to attack an eagle from below, she will take the arrow for her children and serve as their shield. The eagle is a metaphor for Hashem's relationship with Bnei Yisrael; He is like the eagle with open arms, always ready to protect and defend His children regardless of the pending danger. His wings are always available for us to take refuge in, for us to take advantage of His love to fly higher in life.

When Hashem took Bnei Yisrael out of Mitzrayim on his wings, he brought us to new heights, leaving us surrounded, literally, by the clouds, the Ananei HaKavod.

But Hashem did not only serve as Bnei Yisrael's eagle in Mitzrayim. Instead, He is always with us, willing to take the arrow in difficult times. We must remember this and appreciate that we are flying through life on Hashem's wings. Hashem is constantly helping us, taking weight off our daily struggles, and making our lives so much easier.

The subsequent pasuk states that Bnei Yisrael is Hashem's most beloved treasure. As Rashi reminds us, although He is the creator of all things and beings, Hashem affirms an unparalleled love for B'nai Israel, exclusively. Hashem chose us out of all the other nations of the world to receive a unique connection to Him, a connection that no one else has. Despite our constant hardships both in the past and present, He never leaves us for any other nation.

The next time we sing Kanfei Nesharim we should think about what the lyrics mean. As an eagle, God remains the protector for his young—for us. Hashem's devotion to the Jewish people is unfathomable, and these pesukim serve as a reminder for us that no matter how the situation presents itself, or how low we fall, He will always be by our side with open wings. May we all recognize how fortunate we are to fly on Hashem's wings and to be Hashem's treasures.

Fighting Jealousy

Yoni Kurtz ('20)

This week's parsha, Parshat Yitro, contains the famous Aseret Hadibrot, The Ten Commandments. The Aseret Hadibrot are generally viewed as a group of essential tenets of Judaism, and in examining them, this is very understandable. Shabbat, monotheistic belief, and the other moral obligations outlined are nearly all considered to be synonymous with Jewish faith. But one of the commandments appears a bit out of place in its inclusion. The Torah concludes the Aseret Hadibrot saying:

לֹא תַחְמַד בֵּית רֵעֶךָ לֹא-תַחְמַד אֶשֶׁת רֵעֶךָ וְעַבְדּוֹ
וְאִמָּתוֹ וְשׁוֹרוֹ וְחֹמְרוֹ וְכָל אֲשֶׁר לְרֵעֶךָ

"You shall not covet your neighbor's house. You shall not covet your neighbor's wife, his manservant, his maid-servant, his ox, his donkey, and all that belongs to your neighbor" (Shmot 20:13).

While jealousy is a terrible thing which can bring about strife, is it really on the same level as murder or adultery? In fact, the kind of jealousy outlined in the pasuk seems like something which many of us are predisposed to do. For one to never desire something that belongs to someone else is an incredibly difficult thing to do. By our very

nature, humans compare things. We compare cars, houses, and even people when making choices. So what does God want from us? How should we counteract our desire to desire?

The Ibn Ezra and Ramban each provide excellent answers to this conundrum. The Ibn Ezra suggests that a person who has true faith, or emunah in God, will understand that everything a person has is a direct result of what God decided. One's neighbor may have a more beautiful house, but the cure for jealousy of one's neighbor is emunah. If one truly believes that God is the one who decided that this person would have a more impressive house, they can more easily overcome jealousy.

The Ramban takes a less direct approach to this issue. He looks at an interesting midrash mentioned in Parshat Kedoshim, which points out that perek 19 of Vayikra, part of Kedoshim, appears to parallel the Aseret Hadibrot, while not explicitly stating them. In going through the parallel pesukim, the Ramban makes an interesting observation. He points out that the pasuk from Kedoshim corresponding to the above pasuk from Yitro is the famous,

וְאָהַבְתָּ לְרֵעֶךָ כָּמוֹךָ

commanding us to “love your neighbor as yourself” (Vayikra 19:18)

The Ramban claims that the “cure” to jealousy lies in this pasuk. He posits that if one truly loves his neighbor as himself, he will feel no pangs of jealousy when witnessing the successes of his neighbor. Jealousy stems from a belief that one is better than others, and therefore deserves to have nicer things than others. To truly conquer jealousy, the Ramban says, one must wholeheartedly love others.

When one considers these two approaches, it becomes much easier to understand not only how to overcome a sense of jealousy, but why this mitzvah merits inclusion in God's “Top Ten.” In both the Ibn Ezra's and Ramban's approach, one must develop essential and fundamental qualities, faith in God or love for others, to fulfill this commandment.

The fulfillment of **לֹא תַחַמֵּד** is a practical mitzvah that we can do every single day. Jealousy is natural, but it is also very dangerous. By working on changing our outlook on life to not think of ourselves first, but instead to think of God and other people, we can transform our sense of jealousy from a force that pulls people apart into a force of love that binds together the Jewish people.



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ravh@yeshivahs.org