



# Ohr Yerushalayim News

ד"ר טבת תשע"ד – פרשת וארא – 28th December 2013 - Volume 6 - Issue 24

## THE NEWS ... LATEST NEWS ... LATEST

### מזל טוב

Mazel Tov to Mr & Mrs Shua Dansky on the Bar Mitzva this Shabbos of their son, Avromi.

The Kehilla is invited to a Kiddush after Davenning at their home, 13 Old Hall Road.

### Yarchei Kallah

The Yarchei Kallah starts this Sunday. See the schedule on the back page.

## THE NEWS ... LATEST NEWS ... LATEST

### Lock, stock and smoking barrel

Dani Epstein

Of all the plagues inflicted on the Mitzryim, Borod has got to be one of the most exciting - flaming hailstones, thunder and lightning, death and destruction. It's an all-rounder.

But there are mysteries afoot. How does the Torah describe the start of this plague? Hashem says to Moshe: "Stretch out your hand to the sky and there will be hail in the whole land of Mitzrayim on man and beast, and on all the grass of the fields in the land of Mitzrayim." Notice the duplication of the phrase "land of Mitzrayim".

Double-dipping is the order of the day, since in the next posuk it says that Hashem "gave thunder and hail, and fire went down to earth, and Hashem rained hail on the land of Mitzrayim". How about that. Let's not stop there, however.

Two verses later we have: "The hail struck throughout the entire land of Egypt, all that was in the field, both man and beast, and the hail struck all the vegetation of the field, and it broke all the trees of the field." In case you were wondering, the Torah is not in the habit of repeating itself for stylistic considerations.

Finally, after all this hellfire and hailstones Pharaoh has an epiphany and admits: "I have sinned this time. Hashem is the righteous one, and I and my people are the evil ones". Oh really. What was he thinking of after plague number two or three? That maybe he was only a little bit naughty?

When Moshe turned up to the palace to warn Pharaoh about the next installment of pain, death and general misery he seems to be in a very helpful mood and provides the Mitzryim with some practical advice regarding the measure they could take to protect themselves.

"Send in your livestock and everything you have in the field, any man or animal that is found in the field and not brought into the house - the hail will fall on them, and they will die." This is followed by an observation that "...he who feared the word of Hashem, of Pharaoh's servants, drove his servants and his livestock into the houses. But he who did not pay attention to the word of Hashem left his servants and livestock in the field."

Basically, Moshe was addressing the landed gentry and warning them

that they needed to pull in their servants, slaves and livestock for the upcoming plague. Some of them took Moshe quite seriously and followed his instructions, but many were quite happy to take the gamble in the off-chance that Moshe was getting a little carried away.

Was Moshe moonlighting as some kind of a Plague Mitigation Consultant all of a sudden? What is the point of telling everyone that you are about to bring a plague on them and then tell them how to avoid being harmed by the plague?

The Malbim blazes a trail through the mists of these mysteries, using a principle that essentially states that a duplication within a verse indicates that the second item – although apparently identical – represents something different.

A little background is required in order to make head or tail out of this brief saga. For those who learned how to knit during physics, sound travels a lot slower than light. Approximately 880,000 times slower. Hail travels even slower, at perhaps 150mph per hour or even less, as it has a relatively low terminal velocity. This is a very important point to bear in mind, as we are about to see.

Prior to this plague of Borod, Moshe had turned up to the palace and scratched a mark on the royal wallpaper, then turned to the king and said to him: "When the sun strikes this mark tomorrow, hail, lightning and thunder will fall all across the land." He also warned them to take their cattle and slaves inside.

No matter what he had said, the truth is Moshe never stood a chance. Even if the first flash of lightning would have been seen at exactly the time he predicted, it would have taken the thunder several seconds to arrive. The hail would have arrived a few minutes later. "Aha," the naysayers would have neighed. "He was wrong on the thunder, and oh-so-wrong on the hailstones."

### The Week Ahead

פרשת שמות	שבת מברכין שבת
Candle Lighting	3.40pm
Mincha & Kabbolas Shabbos	3.45pm
Seder HaLimud	8.40am
Shacharis	9.00am
סוף זמן ק"ש	10.17am
Mincha 1st Minyan	1.30pm
Rov's Pirkei Ovos Shiur	3.05pm
Mincha 2nd Minyan	3.35pm
Motzei Shabbos	4.55pm
Ovos uBonim	6.10pm
Sunday / Tuesday / Wednesday	7.15am / 8.20am / 9.30am
Monday	7.15am / 8.10am / 9.30am
Thursday ראש חודש	6.30am / 7.00am
Friday	6.45am / 7.20am
Mincha & Maariv	3.45pm
Late Maariv	8.00pm
Mincha & Maariv Next Shabbos	3.52pm (Shabbos 3.47pm)

So Hashem decided to create a miracle especially for Moshe. When the hail struck, it came in two waves. Wave one arrived at exactly the same time the thunder did, followed immediately by the lightning, as the verse states: "So Moshe stretched staff heavenward, and the Lord sent thunder and hail, and fire came down to the earth." The Malbim states that this "fire" was electrical fire, i.e. lightning. See the order? Thunder – hail – lightning instead of what we would have expected: lightning, thunder, hail.

Says the Malbim, for the hail to arrive for the start of the show, it was travelling "like a bullet out of the barrel of a gun", and so was the sound. A hail stone the size of a tennis ball has a mass of roughly 160 grammes, which when travelling at the speed of sound – roughly 1225 kmh or 340m/s – will have a kinetic energy of approximately 8500 joules, over ten times that of a 0.45 ACP round.

The largest hailstone recorded by the National Severe Storms Laboratory in the USA had a diameter of 8in/20.3cm. Something that size travelling at the speed of sound would have a kinetic energy of around 222,000 joules, which is more energy than a 30mm round from a GAU-8/A Avenger, a tank-shredding gatling gun.

Hence the verse says that Hashem 'sent' the thunder and hail since they had been miraculously accelerated. The lightning, on the other hand, travelled at the usual speed of lightning.

That same verse actually continues to say: "and Hashem rained hail all over the land of Mitzrayim". This was the second wave, travelling at natural speeds so this is described as "raining", as opposed to being "sent".

And we have yet to clear up the enigma of Moshe's new role as a Plague Mitigation Consultant.

Says the Malbim: originally the intention behind Borod was only to destroy the grass (which was presumably grown for animal fodder), which is why Moshe told them to bring their livestock indoors as well as any humans. Had the Mitzriyim listened to him and taken their slaves and cattle indoors, then only the vegetation would have been destroyed, but many simply ignored him and consequently Hashem decreed that the target of the Borod was to be expanded to include all human life and livestock outside in the fields.

This explains why there were two waves of hail; the first one served two

purposes. It proved Moshe's prediction to be accurate, and it punished anyone or anything out in the fields that should have been brought indoors. As mentioned above, the kinetic energy of a really big one was enough to instantly pound a human being into steak Tartar. This first wave came by divine hypersonic delivery. The second wave of hail was the original vegetation-destroying Borod, whose purpose remained unchanged, which explains the constant repetition of the word "Borod", and it travelled at its usual, much slower speed.

Verse 25 says: "The hail struck throughout the entire land of Mitzrayim, all that was in the field, from man until animal, and the hail struck all the grass of the field, and it broke all the trees of the field." The verse clearly describes two waves of hail: one that killed men and livestock that were out in the field and should not have been, and one that destroyed the grass and trees.

So that's that, really, for the hail repetitions and Moshe's timely advice.

What about Pharaoh's confession then? Why did he only realise now that he was wicked?

This was due to Moshe's warning about humans and livestock having been ignored. Pharaoh realised that despite all the plagues Moshe visited upon Mitzrayim, he was not being nasty about it. Whatever Hashem instructed him to do was one thing, but if he could give them some practical advice, why shouldn't he? Pharaoh was also quite aware that Moshe simply followed Hashem's instructions, and that Hashem had a very clearly defined purpose for each plague. Therefore, is the humans and livestock were not the target of the plague and there would be a possibility of saving them from being killed, Hashem instructed Moshe to pass on this information.

With this observation Pharaoh realised the extent of Hashem's justice – the punishment was very precise and did not have to spill over beyond the boundaries originally delineated. Hashem was not vicious, petty or spiteful. When the Mitzriyim refused to listen to Moshe's advice he realised that Hashem was truly just, and the deaths of the Mitzriyim in the fields had been totally unnecessary.

Therefore he confessed: "I have sinned this time. Hashem is the righteous one, and I and my people are the guilty ones." We could have avoided so many unnecessary deaths, but we failed to do so because we were being evil by being greedy and ignoring Hashem's warning.

Sunday 29th December 26th Teves	Wednesday 1st January 29th Teves	Sunday 5th January 3rd Shevat
9.00 - 9.30 Breakfast, generously provided by <b>Shefa Mehadrin</b>	9.00 - 9.30 Breakfast, generously provided by <b>Shefa Mehadrin</b>	9.00 - 9.30 Breakfast, generously provided by <b>Brackman's Bakery</b>
9.30 - 11.15 <b>Learning Programme: Maaser &amp; Tzedoka</b> Rabbi Emanuel Danan Rosh Kollel, Shaarei Halacha, Gateshead	9.30 - 10.20 <b>Middas Sdom: Concept &amp; Practice</b> Dayan Avrohom Bookman International Lecturer	9.30 - 11.15 <b>Learning Programme: Maaser &amp; Tzedoka</b> Rabbi Emanuel Danan Rosh Kollel, Shaarei Halacha, Gateshead
11.15 - 11.30 <b>Break</b>	10.30 - 11.20 <b>Zevulun</b> Rabbi Avraham Hassan Senior Lecturer, Seed	11.15 - 11.30 <b>Break</b>
11.30 - 12.20 <b>Chovos HaTalmidim Teaching for Today</b> Rabbi Y Reuven Rubín Rosh Mesivta, Mesivta Ohr Shlomoh & Rav, Aish Kodesh	11.30 - 12.20 <b>New Year's Day in Halacho</b> Dayan Osher Yaakov Westheim Av Beis Din & President, B'adatz Igud Rabbonim KIR	11.30 - 12.20 <b>Summary Halacho Shiur Maaser &amp; Tzedoka</b> Rabbi Emanuel Danan Rosh Kollel, Shaarei Halacha, Gateshead