

Shayla: Was the plague of blood actual blood or was it an algal bloom?

Meforshim: *So the LORD said to Moses, "Tell Aaron: Take your staff and stretch out your hand over the waters of Egypt--over their rivers, canals, ponds, and all their water reservoirs--and they will become blood. There will be blood throughout the land of Egypt, even in wooden and stone containers. – Exodus 17:19 HCSB*

There are two principle ways in which people approach the miracles described in the Bible. Some say that each was completely supernatural and that there were no natural explanations. Others say that though the timing was fortuitous, these were natural phenomena that uneducated people simply interpreted as miraculous.

Those who hold to the second view say that the Red Sea divided as a result of a strong steady wind that blew across the shallow marshes sufficiently to allow a passable ford. They would say that manna was probably some form of spirulina (a blue-green algae) that when baked on rocks forms a flaky sweet crust that would be nutritionally sufficient to sustain life. When those who hold this purely reductionist view cross Exodus 7's description of the plague of blood, they consider the possibility that what was described as blood was in fact an algal bloom that not only tinted the river red, but killed all the fish, rendering the water temporarily poisonous.

A critical point to take into consideration here is the fact that when Hashem afflicted the Egyptians with this plague, not only the river water of the Nile was infected but also every canal, pond, water reservoir and even the water already in wooden or stone containers.

The Hebrew word translated "blood" here is the word "dam." *Dam* is primarily used to indicate blood. For instance, it is the word used when King Saul's starving soldiers rushed upon the plunder and in their haste ate meat with the blood still in it¹ which was in direct contravention to the Jewish dietary laws.²

However, it is interesting to note that *dam* stems from a root word that means "red". Clearly, at the very least, the waters were reddish in color. More importantly, the same word is used metaphorically of innocence (as in "innocent blood"),³ the blood of an innocent person,⁴ and even of the innocent person themselves.⁵

Even more to the point in this particular context is the fact that blood is often used to indicate bloodshed, slaughter⁶ or the guilt that is incurred when one kills.⁷

My take on miracles is that they are miraculous whether every element in them is completely supernatural, or the timing is too perfect to be explained by anything other than divine intervention. For instance, whether the waters of the river Jordan piled up because Hashem simply put some kind of force field in the way, or because there was an avalanche somewhere upstream, doesn't the fact that it happened just as the priest's feet touched the water as predicted make the timing just as miraculous?⁸

Just as Hashem chooses to use us to do miraculous works, He may choose to use natural events and elements to achieve His supernatural ends. Whether He allowed an algal bloom to infect the Egyptian waters, including the stored water sealed in containers or whether He transformed it all into actual blood, we still must stand in awe of His amazing powers.

¹ 1 Samuel 14:32-33

² Leviticus 17:11; Deuteronomy 12:23; Ezekiel 33:25

³ 2 Kings 21:16; Psalm 106:38

⁴ Deuteronomy 19:10, 13; 27:25; Jeremiah 19:4; 22:17

⁵ Psalm 94:21

⁶ Leviticus 19:16

⁷ Genesis 37:26; Leviticus 17:4; 20:9, 11; Deuteronomy 17:8; 2 Samuel 21:1; Ezekiel 18:13; 22:2; 24:6

⁸ Joshua 3:15-16