

... And Indeed there was light: a commentary on the biblical creation of light.

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The meaning of light

Light is defined as a form of energy makes vision possible. Light is a form of wave. A wave is a disturbance through a medium which carries information which in this case is energy through a medium which in this case a vacuum from one region to another. Without light, vision is impossible because, our eyes is build to detect light.

In the context on physics, I might define light as a form of energy but this energy is a wave of contains photons which are excitations of the photon field which in its self is an electromagnetic field to be specific a quantum of the EM field.

The bottom line is, we have darkness. Once these photons are present, darkness is no more existing. This is one of the basis for our commentary but will not go into the intricacies of light - we'll just stay on the surface.

Light in the context of Genesis 1

Genesis 1 uses light about 7 times and the usage can be grouped into two of which the second group is plural and singular use. We'll stick to the singular use of light in this commentary. The usage are as follows

1. אור (or) for general light
2. מַאֲרוֹת (*me'orot*) for luminaries

The first light which appeared in 1:3-5 is talking about general light as in the abstracted form - light - no material to transmitt. The second talks about the Sun, Stars and the moon which reflects the אור.

A critique by a fellow religious friend

A fellow friend - a professor of mathematics critiqued the creation story in Genesis 1. He hammered on the creation of light. From his view point, in the text, light was created about two times. First, Genesis 1:3 and the second time was the sun which was supposed to give light to the plants for photosynthesis in Genesis 1:14 which also unfortunately came after the creation of plants. But what if I told you that, creation of the second light was to meet the need for plants to undergo photosynthesis? We'll get into that.

On his critique

On Genesis 1:3

God saying let there be light the first time might signify the creation of the laws governing light particularly Maxwells equations. This was to set a kind of rule for light to follow.

Objects exists because, they follow a rule which leads to their existence or governs it. Without the laws of nature, an object shouldn't exist because existence requires a law of nature for such an object to follow.

Therefore, the need for God to establish these laws before the existence of light.

Other usage of "Light" in the text

In the next verse, 1:4, when God saw that, light was Good in other words, engineers can see the laws of physics and predict technologies - same with God as he created us in his image and likeness. He for saw that light was Good so has to separate light from darkness.

The only difference between light and darkness is the absence and presence of photons. Perhaps, the existence of photons to obey his rules (Maxwell's equations) entails the separation.

Whoever wrote it goes on to write in 1:14 that, let there be lights in the firmament. The Hebrew translation used the word **מְאֹרוֹת** (*me'orot*) which translates to luminaries like the sun and stars. This is a clear application of the physical processes to produce this light and all these light produced obey Maxwell's Equations.

In addition, I see the luminaries were created as part of the need for plants to undergo photosynthesis.