

Holograms, Light ... and the Word of God

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Introduction... In view of our special guest appearance of Frank DeFreitas, and his splendid presentation of holographic images of ancient biblical artifacts in light, it is most appropriate that we consider the phenomenon of light itself. Just as the original creation received the radiant glory and power of the Creator expressed as light, the future eternal ages will enjoy the resplendent radiance of God Himself, for

"...the city had no need of the sun, neither of the moon, to shine in it:
for the glory of God did lighten it, and the Lamb is the light thereof" (Rev. 21:23),
"Who only has immortality, dwelling in the light" (I Tim. 3:16).

I. Holograms as beautiful illustrations of the Triune God

Technical journals describe Holograms as true three-dimensional images. While viewing the image you can move your head and actually see it in a different perspective. This movement includes revealing part of the image that was hidden at another viewing angle. *Holos* comes from the Greek, meaning "whole, complete, entirety." And a phenomenal feature about Holograms is that "every part contains the image of the complete object!" It is no wonder that physicist Dennis Gabor received the Nobel Prize in 1971 for inventing holography.

The science of holography is termed "lensless photography," because it is not an image focused ON film. It is, instead, an "interference pattern" or "conjunction pattern" of two different sources of light AT the film. The film is the agent giving the image tangible expression when illuminated in natural light from a specific direction (56 degrees being the optimal angle).

Typically, in producing a hologram (1) a pure laser reference beam (that has not been modified in any way) is combined at the film with (2) coherent light from the laser that is object reflected and recorded at the film. The recorded "conjunction pattern" actually contains much more information than is seen in standard photography, and enables the viewer to see a true three-dimensional image that exhibits parallax. Unless the viewing angle is correct, nothing is seen other than a blank (to the eye) film plate.

As an illustration, the application to spiritual matters is obvious. **God the Father** is represented by the pure, coherent laser reference beam, unmodified in any way:

"Every good gift and every perfect gift is from above, and cometh down from
from the Father of lights, with whom is no variableness, neither shadow of
turning" (James 1:17).

God the Son is represented by the conjuncting coherent laser light that is reflected and combined at the film with the reference beam: the God-man who walked in full physical dimension among men. "[B]eing in the form of God...equal with God...found in fashion as a man" (Phil 2:5,6), He is "the Light of the world" (John 9:5):

(Phil 2:5,6). "He that hath seen me hath seen the Father" (John 14:9).

God the Spirit is represented by the film plate as the Agent making the "conjuncting image" viewable:

"When He, the Spirit of Truth is come He shall glorify me: for he shall receive of mine, and shall show it unto you" (John 16:14).

The **Scriptures** are represented by the correct viewing angle through which the image is properly seen:

"The entrance of the Word giveth light" (Ps. 119:130),
"In thy light shall we see light" (Ps. 36:9).

The Hologram illustration further parallels the Scriptures in that each Gospel relates a correct image of Jesus, but each is viewed from a different vantage point:

...**Matthew** was primarily written to Israel, showing Jesus as the **King of the Jews**,
...**Mark** was primarily written to the Gentiles, showing Jesus as the **Faithful Servant**,
...**Luke** was primarily written to the Greeks, showing Jesus as the **Perfect Man**,
...**John** was primarily written to New Testament believers, showing Jesus as **Son of God**.

Yet, in *each* of the four Gospels **all aspects of the other three are included!** "For God, who commanded the light to shine out of darkness, hath shined in our hearts, to give the light of the knowledge of the glory of God in the face of Jesus Christ" (II Cor. 4:6).

II. Light and Portraits of Christ¹

This brings us to relationships using physical light that we experience throughout our lifetimes. Light can be broken up into the individual colors of the spectrum. Taken individually, they are red, orange, yellow, green, blue, indigo, and violet. More commonly referred to as ROY G BIV.

When viewed through the "Bible Spectroscope" each color can be matched with its associated reference in Holy Scripture. The BIBLE is the SPECTROSCOPE or PRISM which diffracts seven color pictures or portraits of CHRIST (Psa. 119:130):

¹ Frank DeFreitas, *Personal Correspondence*, March 20, 2016 (www.holoworld.com); 100 hours with your Bible, Merv Rosell, 1952.

1. **RED:** for his REDEMPTION (Blood) Rev. 5:9; 1 Pet. 1:18-19; Gal. 3:13; Rom. 3:23
2. **ORANGE:** for his JUDGEMENT (burnished brass) 1 Pet. 2:22-24; Ex. 38:1
3. **YELLOW:** for his DEITY (Yellow-Gold of his Deity) Col. 2:9; John 1:1-5, 9,5:18
4. **GREEN:** for his HUMANITY (Green is Earth's Color) John 1:14; Phil. 2:7-8; Heb. 4
5. **BLUE:** for his ETERNITY (Heavenly Color) 1 John 5:11-13; Col. 1:15-19; Heb. 1:8
6. **INDIGO:** for his SUFFERING (strange color) Isa. 53:3-4; Lu. 22:44; Matt. 27; Lu. 23
7. **VIOLET:** for his ROYALTY (the royal purple) Isa. 9:6-7; Eph. 1:20-23; Rev. 5:11-13

III. Light as the awesome display of the power of the Triune God

Marcus Chown elaborates on Einstein's formula equating energy, mass, and their relationship to the speed of light: "The physicists' symbol for the speed of light, "c," is a big number – 300 million meters [186,000 miles] per second. Squaring it- multiplying it by itself- creates an even bigger number. Applying the formula to **1 kilogram of matter** shows that it contains 9×10^{16} joules of energy- enough to **lift the entire population of the world into space!**" (Chown pp.114-115).

When we bring this down to the Bible and to the creation of the world we must realize what an astounding amount of energy it took to create from nothing the world and the universe. The Son of God as the agent of creation spoke the whole universe into existence. We are awed by the vast and incredible power display of the word of God both to create the universe and to sustain it to this present moment (Jn. 1:3; Heb. 1:3). In the Hebrew language, "word" is "*devar*" and "things" are "*devarim*." After all these centuries "word" and "created things" have a very close connection. When God speaks, things happen.²

IV. Light as an instrument in God's control over His universe

One of the stunning discoveries about light (and electromagnetic radiation throughout the universe) came with the introduction of quantum physics and quantum mechanics. This discovery had to do with the Dual Nature of light: light can travel as either a **particle** or a **wave!** Physicist Lambert Dolphin writes that "all forms of EM radiation can be described mathematically as consisting of streaming photons...The concept of 'wave-particle' duality is well established by experimental evidence."³

² Ibid.

³ Lambert Dolphin, *What is Light?*, Physicist Website

Professor Christopher Cagan of the University of California made a very insightful observation. He wrote that the dual nature of light provides the Creator the opportunity to *alter the course of universal events at His own discretion* by directing the function of light (and all radiation) in His preference as *either a wave or a particle!*⁴

This essentially means that at the very foundation of the structure of all matter and energy the Creator has the *potential and option to re-arrange its relationship* with all other matter and energy. Mysteries such as *God's ability to alter situations in answer to prayer* may thus be easier for us to understand.

V. Light illuminating the character of Jesus to the believer

It is impossible to overemphasize the importance of the life and person of Jesus Christ. Scriptural light and personal illumination reveal our very intimate relationship with Him:

To the *artist* He is the *One Altogether Lovely* (Song of Sol. 5:16).

To the *architect* He is the *Chief Cornerstone* (I Peter 2:6).

To the *astronomer* He is the *Sun of Righteousness* (Mal. 4:2).

To the *baker* He is the *Bread of Life* (John 6:35).

To the *banker* He is the *Hidden Treasure* (Mt. 13:44)

To the *builder* He is the *Sure Foundation* (Isaiah 28:16).

To the *carpenter* He is the *Door* (John 10:7).

To the *doctor* He is the *Great Physician* (Jer. 8:22).

To the *educator* He is the *New and Living Way* (Heb. 10:20).

To the *farmer* He is the *Sower and the Lord of Harvest* (Luke 10:20).

To the *believer* He is the *Son of the Living God* (Mt. 16:16).⁵

In a universal dimension He sheds light on *who He is* in offering himself to the whole world. In John's Gospel He calls himself the "*I AM*" seven times:

"I am the *Bread of Life*" (6:35).

"I am the *Light of the World*" (9:5).

"I am the *Door*" (10:9).

"I am the *Good Shepherd*" (10:11).

"I am the *Resurrection*" (11:25).

"I am the *True Vine*" (15:1).

"I am the *Way*" (14:6).

Dr. Henry Morris wrote: "Light is the most fundamental and important form of energy, and energy includes every phenomenon in the physical universe."⁶ All this energy and power are resident in the electromagnetic spectrum of light spoken into existence by Jesus Christ on Day One of Creation. He is the awesome and powerful Creator of the universe.

⁴ Christopher Cagan, *From Darwin to Design*, Amazon

⁵ Harold Wilmington, *Wilmington's Guide to the Bible*, Tyndale House, Wheaton, IL, 1981 p. 609

⁶ Henry M. Morris, "In Him is No Darkness," *Evidence for Creation*, icr.org

ABOUT:

Dr. CARL BAUGH...

is the Founder and Director of the **Creation Evidence Museum of Texas** in Glen Rose.

He is the scientific research director of the world's first hyperbaric biosphere, simulating earth's atmospheric conditions before the world-wide flood of Noah's day. He is the discoverer and excavation director of sixteen dinosaurs, including Acrocanthosaurus in Texas and Diplodocus Colorado.

In 1990 he was co-director of an expedition searching for the Ark on Mt. Ararat. After forty years of research in this area, he directed the construction of a 25-foot (1/20 scale) replica of the Ark now in the museum, and holds a U.S. Patent on the gofer wood process.

Carl Baugh lectures internationally on evidence for scientific creation on television and radio, and in schools, churches and various organizations. He stands firmly for the Biblical account of creation.

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FRANK DeFREITAS...

now retired, had his laser and holography studio / lab in Allentown, Pennsylvania for thirty four years. He provided holographic services, workshops and outreach programs.

He is an elected member of Sigma-Pi-Sigma; the National Physics Honor Society; American Institute of Physics; for his work in laser and holography educational programs.

He is a two-time keynote address conference speaker for MENSA (1999 and 2017).

His current retirement project is overseeing **Wonders of the Bible**.

He stands firmly for the Biblical account of creation.

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