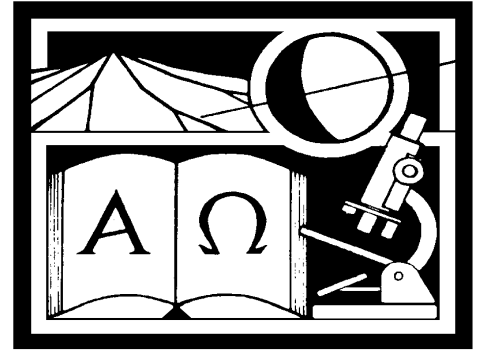


Origins Insights

A MONTHLY PUBLICATION OF THE
CREATION SCIENCE FELLOWSHIP



December 2000

Design in Nature Demands a Designer! Part Two

by Bob Harsh

Let's take a look at the chemistry of sight.

Light enters the eye through the cornea, which then bends the light to focus on the retina. It has no blood vessels but is nourished by aqueous humor that is contained in a special chamber in the front of the eye. It is absolutely clear so as to limit the refraction of light. Special ion pumps at the cellular level keep cornea cells dehydrated when compared with other cells. This further promotes clarity.

Your cornea is seven layered and the outside is very sensitive to pressure. This, of course, allows the split-second blink to be accomplished that may save the eye from being damaged. Your cornea is made of specially arranged collagen fibrils that permit 99% of the light to pass through without scattering.

The iris controls the amount of light that goes to the retina while the lens fine-tunes the focus.

Our lens is constructed by layering of very elongated cells that synthesize and then become filled with the protein, *crystallins*. Eventually *synthesis* stops, the cell dies and functions as a fiber that helps build one of nature's most perfectly engineered structures. The lens is flexible and is attached to ciliary muscles, which change lens' shape.

Light travels through near-perfectly-clear *Vitreous Humor* to the retina. Vitreous humor is a special liquid that inflates the eyeball and gives it the proper shape. It provides exactly the right pressure to protect the retina. This fluid even gets filtered and recycled which prevents loss of vision due to internal bleeding.

Light is captured by photoreceptor cells [rods and cones] of retina. Each eye has 6.5 million light sensitive cones and 125 million rods each wired to the central nervous system and

each sensitive to one photon. A computer screen has 1/2 million light sensitive spots [pixels]; each sending messages to the computer.

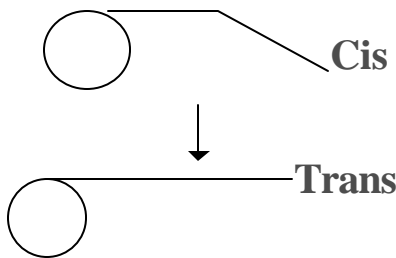
The size of one photoreceptor cell is two microns. Now get this. The optical resolution of human eye is, you guessed it, two microns! Is that a coincidence, or what?!

The "message" of light is collected by the retina and is *transformed* into a chemical message by neuroreceptors found in the retina. The *choroid* is located behind the retina is black to prevent reflected light from blurring the image.

Let's explore the chemical sequence in the retina involved in reception and transmission of the visual image. The following takes place within the membrane-lined disks located inside the visual pigment cells known as rods and cones:

(Continued from page 1)

1. **Rhodopsin absorbs light.** Rhodopsin consists of a protein called Retinal and the membrane that surrounds it called Opsin.
2. The absorption of light causes the Retinal component to change its shape from the cis-retinal form that has an angle in its shape to the trans-retinal, which is a straight molecule.



3. This produces a change in shape of the Opsin component of the Rhodopsin. So it is now called Metarhodopsin.

The following events involve the whole rod cell:

1. This shape change triggers the signal-transduction pathway. The altered shape of Rhodopsin activates the G protein [of the signal-transduction pathway] called Transducin. This G protein is located *on the membrane* of the discs. Inactivated Transducin is bound to a small molecule known as GDP. When Transducin is activated by the change in shape of Rhodopsin, the GDP is

chemically changed into GTP.

2. Activated Transducin in turn activates an enzyme known as Cyclic GMP Phosphodiesterase. This enzyme digests c-GMP [Cyclic GMP], causing c-GMP to become detached from Na⁺ Channels on the rod's cell membrane. The Na⁺ channels normally have c-GMP attached to them and they allow Na⁺ and Ca⁺ to pass through them.

3. This makes the cell non-polarized. When c-GMP's are digested they detach and the Na⁺ Channels close. The major consequence is that Ca⁺ ions don't come in through the cell's membrane resulting in an abundance of positive ions outside the cell as compared to inside. The cell becomes *hyperpolarized* [really polarized, negative on the inside and positive on the outside].

4. This hyperpolarization causes the rod cells to stop releasing Inhibitory Neurotransmitter in the synapse with other neurons. The stopping of the release of inhibitory neurotransmitter is the message to the rest of the nervous system that light has stimulated that particular rod cell.

In order to use a photoreceptor cell again the trans-retinal must be converted back

to cis-retinal. This is done by the *Retinal Pigment Epithelium*. [RPE]. Cones and rods must be in *physical contact with RPE*. RPE digests and replaces photoreceptor cell membrane. RPE collects used retinal and uses Vitamin A to convert trans-retinal back to cis-retinal.

Each of these chemicals is a protein and is coded for by our DNA.

Does it really make sense that pure chance events caused the DNA for these chemicals to come together in just the right sequences by pure chance?

That conclusion is irrational!

Photoreceptors and the RPE require a huge amount of energy. The per gram of tissue energy expenditure is:

-50% greater than kidney

-300% greater than cerebral cortex

-600% greater than cardiac muscle

What does a tissue that has a high metabolic rate need?

Abundant Oxygen and Glucose

How does large amounts of anything get to a cell?

Blood

Approximately 80% of blood supply to the eye travels through very large choriocapillaries. By comparison, only 5%

(Continued on page 3)

(Continued from page 2)

flows through the retinal artery that supplies the retinal layer in front of the photoreceptors. Choriocapillaries literally bath the photoreceptors in blood.

The famous Evolutionist, Richard Dawkins, in his book, *The Blind Watchmaker*, ridiculed the engineering of the retina. He laughed at the very idea of placing the neurons in front of the photoreceptor cells.

"The principle of the thing would offend any tidy-minded engineer." [Dawkins, 1986]

Dawkins was dead wrong again!

If the neurons were located behind the photoreceptors and the choriocapillaries were in front they would absorb all of the light! Blood readily absorbs light.

The optic nerves from each eye travel to both left and right sides of the brain.

The brain interprets the various messages sent to it by:
Form /Color /Motion /Depth

"To suppose that the eye with all its inimitable contrivances for adjusting the focus to different distances, for admitting different amounts of light, and for the correction of spherical and chromatic aberrations, could have been formed by natural selection, seems, I freely confess, absurd in the highest degree."

Who made this valid observation?

Charles Darwin!

The wisest man, who ever lived, Solomon agreed with Darwin when he wrote: "Ears that hear and eyes that see- the LORD made them both." Proverbs 20:12

Darwin went against his common sense because he believed the *Evolutionary Naturalism* paradigm that requires everything to come about without supernatural cause. I believe Darwin's paradigm about the origin of living things crippled not only his understanding of nature, but also, his understanding about God.

"For although they knew God, they neither glorified him as God nor gave thanks to him, but their thinking became futile and their foolish hearts were darkened. Although they claimed to be wise, they became fools. They exchanged the truth of God for a lie!"

**[Paul - 1st Century AD
Romans 1: 21,22,25]**

Good advice for the use of our eyes.

**"I will lift up my eyes to the hills-
where does my help come from?
My help comes from the LORD,
the Maker of heaven and earth."**

**[David - 1000 BC
Psalm 121:1,2]**



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Thank for your cooperation
Dennis E. Wert, Chairman

(Continued on page 4)

(Continued from page 3)

**Creation Science Fellowship
Monthly Meeting Tape List
CSF**

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Attention: Tape Orders

For those who are unable to attend our monthly meetings. In response to requests, we are making available tapes and study notes from the following meetings for 1999 and 2000. The tapes are up to 90 minutes long and most include the very extensive set of overheads and notes used by the speakers for these presentations.

Prices are: \$5.00 for tape and notes + \$5.00 Shipping for 1 to 4 tapes and then add \$1.00 for each additional tape shipping. Order by title given below by check, Visa, Mastercard or you may purchase with cash at the meeting.

JAN 99: "Developing the creation model for yourself" by Robert Walsh. A how-to-guide on doing Biblical creation studies at home and studying the Bible in general. Excellent resource and guide.

FEB 99: "The age of the earth. What does the Bible say?" by Robert Walsh and Don Schell. An in depth scripture study of two of the most popular compromise explanations for genesis account of origins given in the church. Learn about the day/age and gap theories.

MAR 99: "Rocks around the clock" - Chuck Danley. What does the Bible say about the original created geology of the world

and do any of those features remain on the earth today?

MAY 99: "The pre-flood world" - Robert Walsh and Henry Jackson. A close look at the Biblical descriptions of the pre-fall and pre-flood world in the areas of climate, geology, anthropology, and religion. A discussion of the zodiac and its relationship to the Bible is included in this lively presentation.

JUN 99: "Noah's Ark - Robert Walsh and Jeff Lawther. This presentation developed the Biblical framework regarding the Ark and Flood, examining the sequence and duration of Noah's Flood. The Biblical texts that discuss the sources of the Flood waters were examined along with the data provided for the Ark itself. Jeff and Bob examined some of the frequent questions that often arise when discussing Noah's Ark. These questions include (1) Was the Ark large enough to repopulate the world with all of the know extinct and extant creatures?; (2) How could fresh and salt water fish exist in the same ocean?; (3) Was Noah's Flood local or global in extent?; (4) If the Ark existed, could it be sea worthy? (5) How could Noah feed and care for all of the required animals while on the Ark?; and more...

AUG 99: "The Dead Speak" - Dennis E. Wert. This talk examined the effect of the flood on living things. In particular, what was the impact of the world wide flood of Noah on all the living creatures on the earth at the time of that flood. We looked at the questions of evidences for the flood in the fossil record and effect of the flood on the survival of the animals taken on the ark

and those that were not taken. This lively talk had a number of good questions and answers at the end.

SEP 99: "Should Creationism be Taught in Public Schools?" This presentation is done by Robert Walsh at a local secular political "think tank" meeting. It defines and examines the issues involved and clears of the confusion that clouds this topic. It attacks the assumption that evolution is science and creation is religion and clearly differentiates what science can say about how the universe operates versus what they "believe" about how the universe came to be.

NOV 99: "Creation: What's All the Fuss" is the topic of Bob Walsh's talk at this monthly meeting. His emphasis is on the effect of "compromise" efforts by the Church have had on its effectiveness and doctrine. He clearly shows how the doctrine of creation affects all aspects of Christian Doctrine and Practice. The destructive effect on the Christian view of marriage and the family is also discussed. The very basis of our political founding documents rest on the fact of the creation of man by God.

JAN 2000: "Philosophical and Logical Evidences for Creation" by Dr. Stephen Rodabaugh. This talk investigates the basis and consequences of a persons worldview" or guiding philosophy on not only what they think but how they act. Dr. Rodabaugh points out the moral bankruptcy of the evolutionary philosophy and the superiority of life from a creationist perspective..

(Continued on page 5)

(Continued from page 4)

APR 2000: "Living Things As Evidence for Creation". This presentation was done by Dennis Wert and seeks to compare and contrast the views of life - including mankind - as seen from an evolutionary and creationist perspective. The more explanatory and scientifically valid theory of why living things look the same as well as different is shown to be creationism. Its logical and satisfying elements better describe not only what we see but how living things came to be as they appear today. This is short and BASIC introductory talk suitable for 6th grade and up.

MAY 2000: "Geologic Evidences for Creation and the Flood" by Chuck Danley. Chuck gives an overview of the geologic evidences for the creation of the earth and the worldwide flood of Noah. In this talk he compares and contrasts the evidences as described by evolutionary geology with the better explanation of a fiat creation and the sedimentary effects of a global flood. A must hear talk on basic creationist geology.

JUN 2000: "Evidences for a Young Earth" presented by Jeff Lawther. Jeff first examines the issue of, Does a young earth position matter to the origin's debate and the church. His reasons will clearly demonstrate the necessity of affirming the Biblical young earth model. Then Jeff moves on to cite the physical evidences for a young age for the earth and the universe: decay of the earth's magnetic field, decay of comets, seafloor sediments, out of sequence fossils, polystrate fossils, helium in the atmosphere, abrupt appearance of history and society, radio halos of Polonium 210, popu-

lation of the earth, and the recession of the moon. This is another excellent overview, introductory talk on the basics of these evidence for a recent creation.

JUL 2000: "Chinese Pictographs and Creation." Reid Moon presents evidence of the antiquity and shared nature of the Genesis account of creation, the flood and Tower of Babel as found in the pictographs of the Chinese language. His presentation looked at the language and the elements of various words that demonstrate not only the monotheistic history of China but also attest to a knowledge of the events recorded in the first 11 chapters of the book of Genesis. You will be fascinated of truths that make up words like: man, to create, garden, and boat.

AUG 2000: "Fossil Evidence for the Flood" by Bob Ivey. Bob presents some basic information on what fossils are and what the term "fossil record" means to geologists. He examines how information formerly cited as supporting evolution better supports the catastrophic flood model found in the book of Genesis. He discusses fossils positions and succession as well as why the lack of human fossil evidence in the rocks. He discusses how even some modern evolutionary geologists suggest catastrophic event(s) for the formation of these large fossil remains.

OCT 2000: "Man, The Image of GOD" by Robert Walsh. Bob gives information on the Biblical phrase of man being created in God's image. He demonstrates from Scripture how the Trinitarian nature of God is

evidenced in his creation of the world and man in particular. He provides insight into how the "ancient of days" is a icon of God and then how man is in the likeness of this Icon of God. Bob discusses in what fundamental spiritual ways man is like and God and yet in physical likeness similar to the rest of the biological creation. However, Bob shows that man is very different at his core and purpose. Good Bible study group starter material.

NOV 2000: "Eye Design Demands a Designer" by Robert Harsh. The first part of Bob's presentation consisted of a review of some very interesting facts about how the human body points towards the necessity of the Designer, God. The second half provided fascinating information about the structure of the human eye and the biochemistry of sight. This lecture provided excellent information for those who have no formal training in biology as well as a very detailed description that will even be new information for those who have training in Biology.



The original man and woman had a perfect understanding of each other. Sin brought the curse. The curse brought many books.

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2001 CALENDARS

If you didn't get your "God the Creator 2001 Creation calendar" at the November meeting, we have 25 left! Contact CSF via phone or e-mail (located on the back page) if you are interested in having any shipped to you. The cost per calendar is \$11.99 plus \$1 per calendar for shipping and handling. *Have a Merry Christmas!*

E-MAIL Preferences

Update: We now have Odobe Acrobat for newsletter publication. Please verify whether or not you want to receive the newsletter via e-mail. csf@trfn.clpgh.org/csf.

Creation Science Fellowship, Inc. newsletter is published monthly.

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CSF MEETING TOPICS 2001, FIRST QUARTER

- JAN 16** The Creation Model: Summary of Where We Are and Where We Need to Go. Presenter: Bob Walsh
- FEB 20** Disease: How and When in a Creation Model. Presenter: Dennis Wert
- MAR 20** The Wedge of Truth: The Case Against Naturalism. Presenter: Bob Harsh
- NOTE TO INTERESTED PARTIES:** Pre-order "The Wedge" at the January meeting, pick it up at the February meeting so it can be read prior to the March meeting. E-mail CSF for more details.

UPCOMING EVENT: March 10 (Saturday) 2001—South Hills Home Educators/Book sale, . More details to come in a future newsletter. We're looking to borrow a TV/VCR unit to show some videos to people at the conference.