



## Divine Design: A Christian Approach to Technology--Part 1 by Dr. Ronald A. Buelow (January/February, 1991)

### Technology is God's

*"The fear of the Lord is the beginning of wisdom." Psalm 111:10*

This passage takes on more and more meaning as one studies the treasures of God, both in His Word and in His Creation. We usually understand this wisdom spoken of in the Holy Scriptures as the "wisdom of salvation." But this wisdom encompasses more than the wisdom of salvation. It refers to all true wisdom. This includes the wisdom of modern technology.

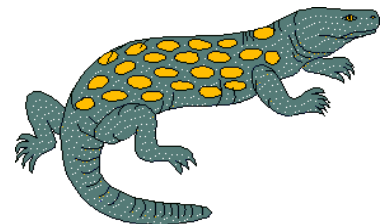
We knew from little on the truth that "every good and perfect gift is from above, coming down from the Father of the heavenly lights." We also know that his creation has been tainted by the fall of man. But this fall had taken place before David wrote the Psalm 33:4 passage which is written out above. In Proverbs we read about the wisdom of 4 little creatures of God's creation, the ant, coney (badger), locust, and lizard. (Proverbs 30:24-28) Paul, in his letter to the Romans, chapter 1, verse 20 says: "For since the creation of the world God's invisible qualities – his eternal power and divine nature – have been clearly seen, being understood from what has been made, so that men are without excuse." All of these sections of Scripture were written after the fall.

(James 1:17a) We also know well that "through him all things were made; without him was nothing made that has been made." (John 1:3) But do we think about and study these truths when we study technology? Do we really think about God's wisdom when we deal with objects and gifts of his creation? Christians have a responsibility not to take these gifts of God for granted. Unless we make a conscious effort to study these gifts, we will very likely not appreciate their Creator as much.

Most of us realize that we can find treasures by mining His Word. But seldom do we realize another important truth. This truth tells us the sources of His truth. Psalm 33:4 tells us "...for the Word of the Lord is right, and all His Works are done in truth." There are TWO sources of God's truth! God's word is truth, and God's precious works are done in truth! God's infinite works of creation are truth! What we study in mathematics, science and technology are God's truths! Technology is from God. As Christians we must graphically show this to ourselves and others, and praise God for such an outpouring of gifts!

### Our Ability to Mimic is a Gift

"Long ago a professor of philosophy shouted at me, 'You have no imagination and you can create nothing!' I thought him to be unkind, and I hotly denied the charge in front of the class. With a smile, the professor told me to go to the blackboard and draw an imaginary beast. The beast I concocted had the head of the professor, the body of a pig, the wings of an eagle, the tail of a fish and the legs of a deer. The students giggled, but the professor regarded it with disdain. 'You see,' he said. 'you have imagined nothing. All you

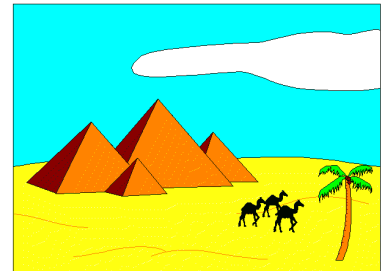


have done is to take parts you have observed and rearranged them. That's all anyone can do. Only God creates. Man rearranges.' "1

God has given us the ability in some limited ways to see how precious his creation is and to study its design. In some cases He gives us the ability to mimic or rearrange his designs. These gifts are marvelous blessings, and blessings not gone unnoticed by non-believing scientists. A whole rapidly expanding branch of science (bionics) has been set aside for doing research on God's works of truth. Many discoveries of technological design have resulted from bionics. We then mimic the design of God in our designs.

### Man's Mimicry

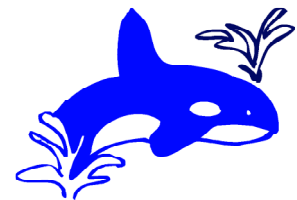
Very early in history, man mimicked parts of the human body for replacement. The tomb of the court physician near the Great Pyramid of Giza has inscriptions showing that Pepi-Ankh, who died around 2600 B.C., was the head of a medical staff that included the physician for the eyes of the Pharaoh, the physician for the teeth, and a "tooth maker." Therefore false teeth are among the first parts of the human body copied or mimicked for use as replacement parts. The wooden leg is another. Artificial legs made of copper and wood have been found dating back as far as 300 B.C. The development and improvement of artificial limbs and organs is expanding in recent years. It is to be noted that all of these efforts have failed to approach the design and technology displayed in the "original", namely, God's creation.



The fly's eye is made up of many facets. These many facets, and the marvelous way they were fitted together and work together, will gather light from almost any direction. Recently, a new type of fluorescent lighting has been developed based on the design of the fly's eye. The optical facets of Malcolite's Plastic P-99 Energy Lens project light at very wide angles because of the mimicking of the many facets. Because of the wide angle, less light is needed and savings result.

In comparison with modern airplanes, fast swimming fish are very wide of beam. The tuna, dolphin, swordfish, and blue whale, which are among the fastest of all swimmers, share similar body proportions, with an average length that is only four times the diameter of their middle width. While they are sharply pointed at the nose and tail, it is interesting to note that these rather wide structures represent the maximum volume, allowing for minimum drag in water. It has been calculated that the effects of drag and turbulence on airplanes would be greatly reduced if their fuselages were thicker, and their general proportions approached the one-to-four ratio of the blue whale.

The greater mass, however, would require a sharp increase in the power needed for lift-off. The Boeing 707 has a ratio of one-to-nine. The more recent 747, considered the most stable airplane ever made, has a ratio closer to one-to-six and is highly resistant to turbulence.



Over the years man has learned to make more and more sensitive thermometers. None of them compares to the precision around us. A rattlesnake can detect heat change in 35 milliseconds, whereas a sensitive manmade device takes a minute to make the same measurement. Snakes use this ability to find warm-bodied prey. They can also detect the direction in which the heat source is located.



There are lubricants in our skeletal joints that technology can't match ... Your hands .... powerful and precise servants of your mind .... 25 joints put together in such a way that 58 independent motions are possible .... the hand is the most versatile instrument on earth, and you have TWO of them.

Consider the \$100,000,000 Remote Manipulator System carried along and used for the first time with the space shuttle Columbia in space on November 13, 1981. Scientists at NASA were thrilled with the way the RMS performed in space. Consider .... that this arm still has some bugs to work out ... that the first one cost \$100,000,000 ... that it does not have the versatility of the human hand and arm. (The RMS cannot be used on earth.)

## **Bionics**

Bionics is the science of intensely studying objects of God's creation, and utilizing it for mankind, taking advantage of its divine design. Bionics is a rapidly expanding aspect of modern day science.

The visual system of the horseshoe crab has suggested a means of creating a television image with sharper contrast than any previously produced television system.

Pumps, levers and bellows are inventions in which man has unknowingly simulated animal mechanisms.

Military and aerospace engineers have developed a radar system based on the optics of a frog's eye. It can detect planes, missiles and spacecraft better than ordinary radar, which is too often confused by accidental intrusions such as clouds, rain and birds.

The United States Air Force has utilized a design principle of the lowly beetle to greatly improve the precision on their latest jets. The beetle has a superior ground speed indicator "on board" which uses sensors at its head and tail to give accurate readings.

The Air Force has now installed on its latest jets similar sensors copied from the beetle, to give their jets a much more accurate ground speed indicator than it previously had.

Man has long copied the symmetry "built in" to so much of God's creation and has used it for good reasons. Not only are symmetric designs more pleasing to the eye, but they are also important for reasons of static and dynamic balance. Just image an airplane with a totally different wing and fuselage structure on one side than the other. Flight would be an impossibility! The plane simply must obey the symmetric laws built into the universe by the same Creator. And it should be no surprise to you that man finds these symmetric designs not only more useful but also more beautiful. It should be no surprise, the Divine Designer was (and is) at work!

Dragonflies and hawk moths are being studied by scientists at the University of Colorado in hopes that their secrets of flight may lead to super-efficient aircraft. Tethered by light lines in a wind tunnel, the flying insects perform their complex maneuvers which allow them to generate specific flows in the air that support hovering and a variety of lateral, vertical and reverse movements. Learning how these insects utilize "unsteady dynamics" could lead to a better understanding of lift and thrust, said bioengineer Marvin Luttges. An advertisement for the Smithsonian's National Air & Space Museum shows a full page color picture of the aerodynamics of a dragonfly's wing, and points out that this type of high speed photography of God's technological design is helping design airplanes of the future.

Mimicry of the atomic structure of some elements of God's creation has given man what most regard as an invention of the human mind. The spectacular invention of rubber and plastic came about because alert chemists studied closely how God designed his treasures. Again, it was man mimicking God. Rarely does God receive the credit and the thanks for these treasures. It is time He did. Praise be to God, our great provider, for these marvelous works of truth!

The “daddy longlegs,” which coordinates its jointed legs as it negotiates uneven surfaces, is aiding the development of walking machines that could operate on terrain inaccessible to man. The study of the “daddy longlegs” to make robots which can walk on uneven terrain is taking place at Ohio State University under the direction of electrical engineer Robert McGhee

Other examples of man's mimicry or bionics:

Bats and dolphins use sonar

Octopuses use jet propulsion

Mosquitoes use hypodermic needles

Wasps make paper

Beavers build dams

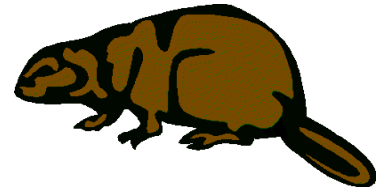
Ants make bridges

Bees and termites use air conditioning

Fish, worms, and insects make cold light

Birds weave, tie knots, construct incubators, do masonry, build apartment houses, desalinate seawater, have compasses and internal clocks and navigate

Beetles use aqualungs *LSI*



**Note**

**1. Wilson, Sloan, *The Writer's Handbook*. Writer, Inc.**