

CREATOR

VOLUME 9

NUMBER 2

WHAT SHAPE AM I IN?

May the glory of the LORD endure forever; may the LORD rejoice in His works (Psalm 104:31).

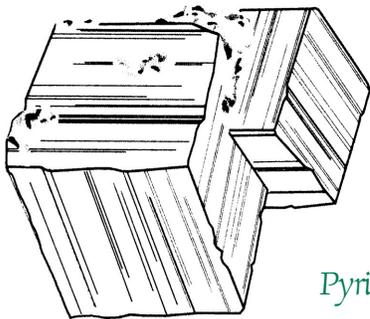
The other day I was riding my bicycle and happened upon a sign that read GET INTO SHAPE—CALL... and then it gave a telephone number. “Get into shape?” I asked myself. “What shape am I supposed to be in?” Briefly, I wondered if it could possibly be referring to my spiritual condition, but, of course, the ad was talking about exercise and becoming physically fit. That sign did start me thinking about another subject, though—**shapes**—you know, **triangles, squares, circles**, etc. I wondered what patterns I could discover in creation if I looked for them. So, off I went on my bike to find the “shape” of nature.

My first stop was a favorite little rock shop I had frequented when I was younger. It was owned by a kindly old gentleman who seemed to be more enduring than the rocks he sold. I explained that I was investigating shapes in nature and asked him if he could help me. With a

youthful smile, he politely asked me to wait at the front counter. Two minutes later he returned with a beautiful piece of pyrite. He explained that pyrite was a rock that took on many shapes: **spheres, triangles, circles, pentagons**. This one in particular was composed of **cubes** that appeared to be stuck together. And the sides of each cube formed a **square**; thus, I had found two different shapes in this one mineral! “Pyrite is also called fool’s gold because its yellow-brown color often fools people into thinking it’s real gold, but it’s not,” he remarked. “The word pyrite comes from the Greek ‘pyr’ which means fire.” I gave him a surprised look, and then he continued. “The literal translation of the word pyrite into English is ‘fire-rock,’ which is a good enough description if I’ve ever heard one. You strike a piece of pyrite with steel and it gives off sparks. Roman soldiers use to carry a hunk of pyrite with them when they marched. All they had to do is hit the rock with an iron nail, and pretty soon they had a campfire going!”

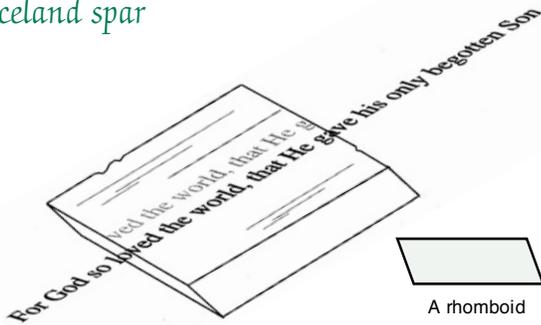
“Pyrite is crystallized iron sulfide, and is an important source of sulfur, from which we get sulfuric acid. It’s found in igneous, sedimentary, and metamorphic rocks.” The elderly man noticed that I was becoming restless, so he gently placed the mineral down and without saying a word, motioned me to a different counter. There, lying on top of the glass, was another interesting rock.

“This here is what’s called Iceland spar. It’s a type of calcite. Calcite is found all over the world, and forms more crystal shapes than any other type of mineral—some 300 altogether. Iceland spar is a fascinating rock because of its optical properties.” I gave him another puzzled look, so he explained further. “See its shape—its



Pyrite

Iceland spar



sides are made of **rhomboids**, and the whole crystal is called a **rhombohedron**. Iceland spar is as clear as water, and it has a unique property known as double refraction.” He opened a worn, large-print Bible tucked away on a bookshelf behind the counter, and placed the piece of calcite on top of one of the open pages. “See, the rock gives a double image! Naturally, Iceland spar was first discovered in Iceland, but it can be found in other parts of the world, such as New Mexico. All types of calcite, Iceland spar included, are made of calcium carbonate, which is the same substance the good Lord used to make sea shells,* and the stalactites and stalagmites of limestone caves. Marble is also made of calcium carbonate.”

He told me I could examine the Iceland spar as long as I liked, and so I did. I indulged myself in several minutes of fascinating study, but I then felt the desire to continue my search for shapes. After thanking him, I was back on two wheels. Next stop—the zoo!

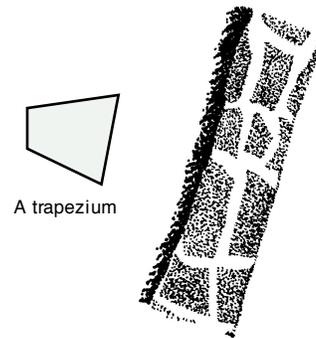
The zoo wasn’t very busy so I felt at ease to view the animals without rushing. All the while, I wondered if I would find more of Christ’s interesting designs. I then came to the African exhibit. It had just what I was looking for—giraffes!

I knew that giraffes were the tallest land animals in the world, reaching the height of a two-story building. They are also social creatures, moving about the grasslands, or savannas, of Africa in small groups called troops. Giraffes browse chiefly the leaves and fruit of flat-topped acacia trees.** They sleep two or three hours at night lying down, and can rest during the day, standing on all fours.

I had also read somewhere that Jesus ingeniously designed a giraffe so it would not

blow its brains out when bending its long neck down to drink water. The Lord fashioned the body of the giraffe with a complicated circulatory system that produces very high blood pressure at the level of the heart. Significant pressure is necessary to pump blood up to its 19-foot-high brain. Special valves are found in the blood vessels of the neck to prevent the giraffe’s blood pressure from going dangerously high in its brain when it drinks. A remarkable system, engineered by a remarkable God!

As I considered these amazing facts, I took time to examine the beautiful pattern of the



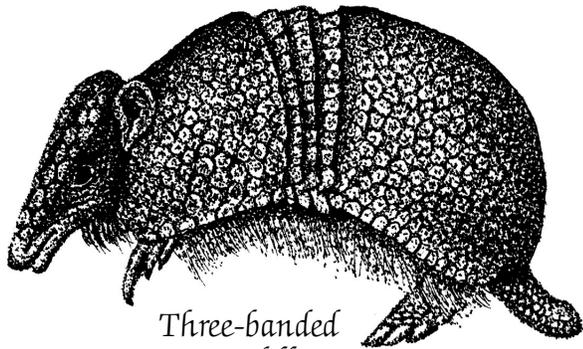
giraffe’s coat. To my delight, I found yet another shape—the **trapezium**! A trapezium has four sides, none of which are parallel to each other. In other words, it’s an irregularly-shaped, four-sided box. I was pleased to discover yet another of the Creator’s natural designs, and this propelled me to continue my search.

The activities of the morning had left me hungry, so I bought an ice cream cone at the outdoor snack stand. (A person has to have energy to explore, doesn’t he?) And then I continued to walk among the animal exhibits.

One particular display in the South American Exhibit caught my eye—**ARMADILLOS**. The sign read, **UNIQUE MAMMALS FOUND IN SOUTH AMERICA, CENTRAL AMERICA, AND THE SOUTHERN UNITED STATES. THEIR SKIN CONTAINS BONY PLATES THAT ARE COVERED WITH A HORNY MATERIAL SIMILAR TO YOUR FINGERNAILS. “Skin made of bone—how weird,” I thought. THIS ARMOR OF BONES PROTECTS THEM FROM HARM. ONE TYPE OF ARMADILLO, THE THREE-BANDED ARMADILLO, CAN ROLL UP INTO A SPHERE WHEN FRIGHTENED. EVEN LARGE PREDATORS HAVE DIFFICULTY PRYING OPEN THIS ARMORED BALL. “A sphere! I’ve found another shape,” I said out loud to myself with**

* See kids’ kreation #20

** See kids’ kreation #34



Three-banded armadillo

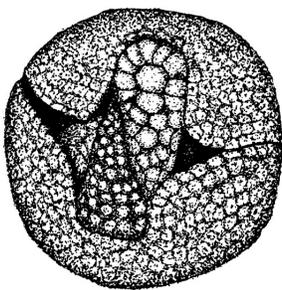
excitement. I read on:

ARMADILLOS ARE TIMID ANIMALS, AND MOST LIVE IN BURROWS UNDERGROUND. THEY FEED AT NIGHT, EATING INSECTS AND VEGETATION. THE NINE-BANDED ARMADILLO HAS A LONG STICKY TONGUE AND CAN EAT 40,000 INSECTS IN ONE SITTING. YUM! I felt a little sick to my stomach. I couldn't eat ONE insect in a sitting.

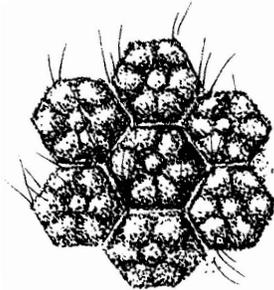
THE NINE-BANDED ARMADILLO IS ALSO A GOOD SWIMMER, PADDLING LIKE A DOG IN THE WATER. IT INFLATES ITS STOMACH AND INTESTINES BY SWALLOWING AIR TO HELP IT FLOAT. NORMALLY, ARMADILLOS WILL SINK IF PLACED IN WATER BECAUSE OF THE WEIGHT OF THEIR BONY PLATES!

The three-banded armadillo in the enclosure in front of me was a funny looking creature. It ran around on its tip-toes! Oh, and its skin...its

Armadillo rolled into a ball



Closeup of armadillo skin

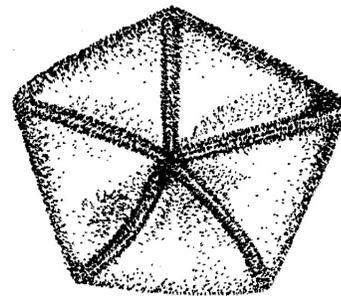


skin was covered with **hexagons**! I couldn't believe my eyes, but when the armadillo came closer, I could easily see its many bony hexagons. A mammal that rolls itself into a **sphere** and is decorated with **hexagons**—what a find!

I had planned to leave the zoo, but decided to

poke my head into the Seashore Exhibit, and I'm glad I did. A colorful display of starfish drew me inside. SINCE THE STARFISH IS NOT A FISH AT ALL, THE PREFERRED NAME FOR THESE CREATURES IS SEA STAR, the sign explained. THERE ARE 1600 DIFFERENT KINDS OF SEA STARS FOUND IN THE EARTH'S OCEANS AND SEAS. MOST LIVE ALONG THE COAST. SEA STARS ARE CARNIVOROUS ANIMALS—THEY EAT SNAILS, CLAMS, WORMS, EVEN FISH. A SEA STAR IS ABLE TO GROW A NEW ARM IF THE ORIGINAL IS AMPUTATED. IN SOME CASES, AN ENTIRE SEA STAR CAN BE REGENERATED FROM A SINGLE ARM. REGENERATION MAY TAKE UP TO A YEAR.

The colors and varieties of the starfish were great! There were little ones and big ones, starfish with long arms and short arms. "Hey!" I blurted out loud, "I see a sea star whose arms are so



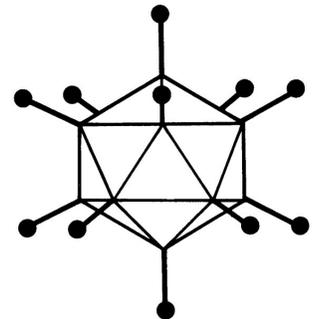
Sea Star (Starfish)

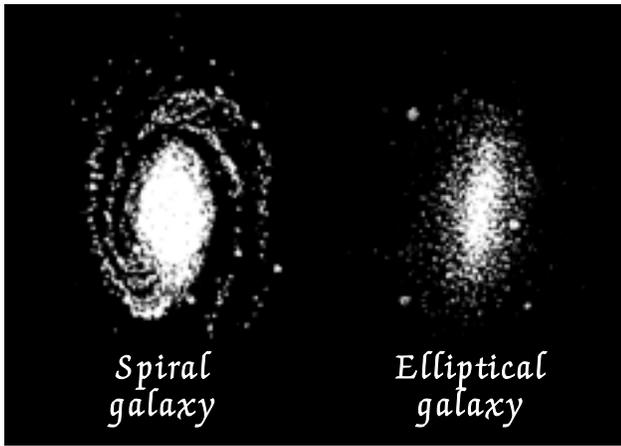
short it doesn't appear to have any at all. Would you look at that—it's in the shape of a **pentagon**!" As I turned, the lady standing next to me had a funny look on her face. But I left the Seashore Exhibit as happy as a clam (no pun intended). My next and final destination was my own house.

Once home, I wanted to explore my backyard, but first I took a little detour. There on the desk in my room was a

well-organized stack of *CREATOR* publications I had received over the years. In one of the issues, I found just what I was looking for—an adenovirus. Apparently, there are hundreds of viruses that cause the common cold, but the adenovirus is a prime

Common cold virus



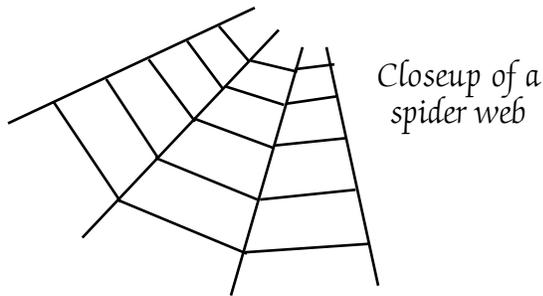


Spiral galaxy

Elliptical galaxy

suspect when the throat gets sore and the nose starts to run. And this particular virus Jesus had constructed using **triangles**—lots of triangles. He’s so imaginative! I continued to browse the issues of *CREATOR* and came to the November/December 1993 issue. In it, I found two more shapes by way of galaxies—a **spiral** galaxy, and an **elliptical** galaxy. What a contrast—a virus and a galaxy! So incredibly different in size; both clearly made by a creative God!

In the backyard, my search for the shapes the Lord Jesus had forged into creation was extended. I came across a beautiful spider web next to our house. It was composed of numerous



Closeup of a spider web

trapezoids. “How could a spider so small know how to make something so intricate and beautiful?” I thought to myself. “Of course, he didn’t,” I responded, “God showed him how!”

I walked away from the house and heard a noise in the deep grass. It was a garter snake! “Now what shape do you take on, little fella?” I asked the snake, knowing he couldn’t understand a word I was saying. “You’re a **cylinder!**” I



one at that. Soon he was out of sight.

Just then, four house finches landed on the ground near my feet, two males and two females. I glanced down and to my surprise, the quartet was staring up at me. Well, I must say, this made me uneasy at first. What had I done to attract the attention of these little birds? They gazed at me with eager eyes—eyes that seemed to say, “We’re ready now.” Ready? Ready for what? I didn’t have any food. What did they want from me? I stood very still. I even turned my head slowly away for a minute or two, but when I looked back, the finches were still there peering right at me. What did they see in me? Did my head appear to them as a giant ball of seeds? What?

As suddenly as they had appeared, the birds took to wing and flew away. I then remembered something I had read in my Bible earlier that morning. I rushed into the house to reread the eighth chapter of Romans. In the midst of this amazing message I found these verses: “I consider that our present sufferings are not worth comparing with the glory that will be revealed in us. The creation waits in eager expectation for the sons of God to be revealed” (Romans 8:18-19).

“...glory that will be revealed in us. The creation waits in eager expectation...” I repeated out loud. I was struck by an amazing thought: “Might these little birds have been staring at me to see if the glory of Christ was within me?” The Bible teaches that the Holy Spirit will live in anyone who truly believes in Jesus by following and obeying Him. “Could the birds see my spirit united with His?” I pondered. You might think me crazy, but Scripture gives account of animals temporarily having great insight—take the example of Balaam’s donkey recorded in Numbers 22!

Whether the birds saw the state of my spirit or were looking for a meal, I don’t know for sure. But they reminded me anew of God’s presence in my life, and what spiritual shape I am truly in! As Jesus Christ has forged the physical condition of the universe, He has also transformed the shape of my own heart, and molded it into something truly precious!

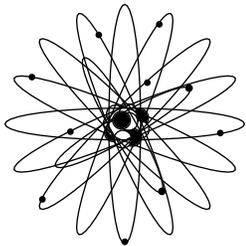
The preceding has been a fictionalized account of the author’s personal experiences.



ATOMIC SHAPES

Jesus hammered out fascinating shapes into all levels of creation—from immense galaxies to invisibly-small atoms. Despite its diminutive size, the atom broadcasts God’s creativity as clearly as any of His handiworks. It is only in the past century, however, that we have been able to understand the amazing atomic architecture.

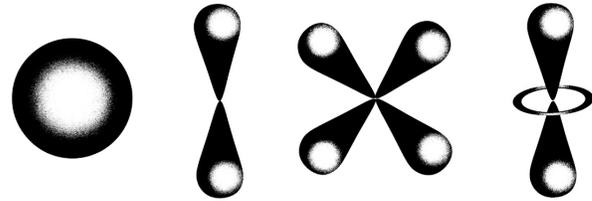
Neon atom



First, let’s review the basic structure of an atom. All atoms are composed of a nucleus, or center, and **electrons** orbiting that center. The nucleus, in turn, contains **protons** and **neutrons**. Each kind of atom that God’s Spirit created has an equal number of electrons and protons, ranging from one to 92.* In the case of the neon atom (above), it has ten electrons, ten protons, and a varying number of neutrons. The size of an atom, such as helium, is not determined by the nucleus, but the orbit of electrons circling around it. Believe it or not, the diameter of a helium atom can change depending on how energetic its electrons are! (We’ll get to that in a little bit.)

Contrary to what is commonly believed, electrons do not orbit an atom’s nucleus in a simple circular manner as the picture above would lead us to believe. At the moment of creation, Jesus assigned intricate “paths” for electrons to take. The word *path* is not, however, the best way of describing where electrons journey. It is impossible for scientists to know, at any moment, both the position and speed of an electron traveling around an atom; thus, it is impossible for them to know its precise “path.” This uncertainty of an electron’s movement, known as the Heisenberg Uncertainty Principle, speaks loudly of a **God Who is unknowable except by revelation!** The Lc has allowed scientists to discover

Atomic orbitals



electron moves within a complex three-dimensional space, called an **orbital**. The orbital surrounds the nucleus of an atom, and dictates its size. The Lord God designed many such spaces in which the electrons may roam. Orbitals may be thought of as “aquariums” in which the electrons “swim,” and they have very interesting shapes (see above).

If energy is somehow pumped into an atom, it is possible to shove its electrons out of one orbit and into a higher orbit—not unlike filling a balloon with a blast of air and watching it suddenly expand. If an energized electron then falls back to its lower energy orbit, the atom gives off electromagnetic radiation!** This is what happens in a neon sign. Electricity (a form of energy) excites the electrons of the neon atoms up into higher orbits. When the neon’s electrons return to lower orbits, orange-red light is given off. Many restaurants around the world take advantage of atomic physics without even knowing it!

Now, pause a moment to ponder the orbital shapes shown above. What thoughts come to mind when you study them? As I peer at these pictures I ask myself, “Why did the Heavenly Father make atoms so complex and give them so many interesting forms?” Certainly these discoveries cause us to consider **His infinite creativity**, and we mustn’t forget that it is the atom which best mirrors **His awesome wrath** (as seen in a nuclear bomb). Look past the advertisement of an ordinary neon sign and you’ll see **God’s incredible beauty** shining through; without Christ’s design of the atom and its many orbitals, a neon sign could never exist! And of this last example, might we also say that God is “**fun-loving**”? Hmmm, I wonder?! □

EAT



THE JOY OF GOD

Imagine an earth without shape, floating in a formless universe. In this world, there is no solid ground and no horizon. Water isn't water—it creates no pools or lakes; no rain falls for plants to drink. Life cannot exist in such a place, for biology teaches us that organisms need structure to have function. Yet, ours was just such a world at one time (Genesis 1:2). The creation was unhewn timber in the Great Carpenter's shop.

Jesus, our Creator, did not leave things as they were (Job 38:14). Over the course of six days He sculpted out nature using an unbelievable number of exacting shapes. His creation became a universe of architectural perfection, reflecting His more-perfect beauty and joy (Psalm 104:31). What other result could we expect, for the cosmos clings to God's being and thus mirrors His delightful character.

Had sin not invaded the universe, we would need ponder no further. But the story does not end here. People rebelled against God and ushered wickedness into Christ's awesome creation, distorting and corrupting it. Here, too, the saga could have been drawn to a close, leaving man to die in his sin. God loved us too much, however, to allow this to happen (John 3:16).

The Creator-of-All thus chose to display His wonder and joy in yet another incredibly unique and special way! He humbled Himself, and came into our corrupted world as a man. He then created a means for us to escape evil forever, and enter heaven itself. The task required the same power expended at the creation of the universe. I am speaking of Jesus being raised back to life again.

Man was originally made in God's image—he took on a divine shape—though he was not God. Because of sin, this divine form was corrupted and man no longer could live in the incredible joy of his Maker. In order to bring us back into focus with the image of God, Jesus had to die for you and me.

There's good news and bad news: The bad news is that an impenetrable barrier of sin surrounds us like a cage barring a condemned man. The good news is that Jesus Christ has broken through this gauntlet of sin by dying for us. Being God, He already possesses infinite joy, but He wanted to share this joy with us, so He endured the cross (Hebrews 12:2). The Lord Jesus punched a narrow path through our world into heaven. His blood became the means by

which we can reach the paradise of God. *There's no other way* (John 14:6).

You see, Jesus can easily pass from heaven to earth and back again, because He is perfect and without sin. If we want to enter into heaven, however, the shape or form of our lives must change. Like a rusted key that will no longer fit into its lock, we can no longer enter the joyful presence of God. We must be "reshaped." In order to share the glory of His paradise we must look like Jesus; we must be like Christ in His character.

Do you truly desire to know God and be like Jesus? Then recognize that you are a sinner and that Christ died for your sins. You must believe in Jesus of the Bible! To believe means that you will allow yourself to be changed—you cannot remain as you are spiritually. You must be willing to commit yourself to Christ—to be His servant; after all, *the only way a person can be like his Master is to follow and obey Him*. Then you will be His friend and He will share His joy with you for all eternity! Yet, you cannot change yourself, only God can make you like His Son and give you eternal life—this is the free gift of His grace.

Dear Father, I recognize that I have lived my life independently of You and You consider this sin. Please forgive me through Your Son, Jesus Christ—through His death on the cross. Jesus, please come into my heart right now. I embrace You as my God and my Savior. I accept Your gift of eternal life. Show me how to live the way You want me to live. In the name of the Lord Jesus Christ I pray, Amen.



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