

INTRODUCTION TO CHAPTER SIX

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Before the discussion turns to directly examine the incredible process of nuclear Creation, let us examine what God actually created within this Earth. In the last chapters, the core of the Earth's massive nuclear reactor was introduced. But this immense reactor needed to be rendered safe for extended use in an environment which was meant to support life.

The following chapter begins to examine the special protective layers which surround the immense reactor. These important layers are located immediately outside of the main nuclear-reactor layers, with their radioactive materials. These vital, surrounding layers give built-in radiation and heat protection to the world-class reactor. This reactor and its protective layers were all set in place, by God and His Son, during the early part of Day One of the Creation week. But there is more.

This chapter also introduces a logical, yet very simple method by which God harnesses and contains the intense nuclear inferno within the extreme core of this Earth. Even mankind's nuclear research has proven the reliability of this method. Because of the importance for the natural force used in this process to maintain its given strength, let us therefore bear in mind the potential ramifications if this force should lose its strength, as it appears it may be doing.

Some of the properties of the individual elemental layers within the shielding region (surrounding the reactor core) are declared in this chapter. This is only a very rudimentary introduction to this subject. Only a few things are understood by the writer at this time. Nevertheless, the groundwork is laid, and the Reader is pointed in the proper direction. This book is written for those with a desire to continue on into further research of Earth layering, and the effects caused by the action and interaction of the elemental layers and their compounds.

The writer believes that a complete course in Solid State Physics might be helpful for certain individuals desiring to obtain a clearer understanding of that which is occurring in the heart of this Earth. Other individuals may come to a clear understanding by their own independent research.

Of special note: In this chapter is presented the electrically-based cooling system for the Earth's main nuclear reactor. The process upon which this cooling system operates is extremely simple, yet extremely effective. More is presented on this process in Chapter 13. In the Reference section of this chapter is also noted the potential for a magnetically-based cooling system, which is located further out in the layering of the Earth. God the Father truly did an incredible job of designing this Earth. May that glory be given to Him which He most certainly deserves. May we glory in obedience to Him, through the very power of Christ!

Chapter 6: THE NUCLEAR VESSEL

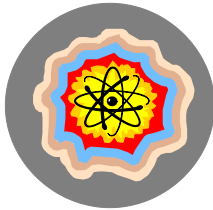
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PURE TRUTH

The psalmist cries: *“Many, O LORD my God, are thy wonderful works which thou hast done, and thy thoughts which are to us-ward: they cannot be reckoned up in order unto thee: if I would declare and speak of them, they are more than can be numbered.”*¹

OPENING STATEMENT

Friend, the above psalmist speaks pure truth! As the things which God Almighty has created are examined, it is only possible to “just scratch the surface” when we speak of His many mighty works. Truly, only those infinitesimal parts which are revealed to us are able to be shown.



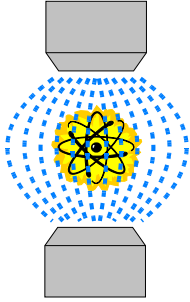
The early chapters of this book examine the internal structure of the ‘Earth-blob,’ as it was formed on the first day of Creation. This particular chapter examines the enveloping layers which lie directly around, and outside of, the nuclear inferno in the reactor at the nucleus of this Earth. As the chemical and physical properties for each of these layering elements are examined, a particular picture begins to emerge. It strongly appears that these next elemental layers form a type of containment vessel around the main nuclear reactor.

MAGNETIC CONCENTRATION

The magnetic lines of force which encircle the Earth converge, and are concentrated at the north and south poles. At these poles, the flux density of the magnetic field is so strong that it supports ionization of the air. This ionization of the air, fueled by radiation from the sun, produces the Northern Lights (Aurora Borealis) and the Southern Lights (Aurora Australis).² In any magnetic system, the effects of the high magnetic flux density located at both the north and south magnetic poles does not simply stop at the outer surface.³ In the Earth, these powerful magnetic effects pour all the way down into the very heart of the nuclear reactor in the core, where they are concentrated.

THE MAGNETIC SHIELD

At the very nucleus of the Earth lies an extremely strong magnetic field. There is a very important reason for a high magnetic field to exist at this location.



At the thermonuclear temperatures encountered in the nucleus of the Earth, the radioactive elements can only exist in a predominately ionic plasma state.⁴ Because of the exceedingly high temperatures involved, any material-type of containment vessel would be instantly vaporized. God the Father, in His infinite wisdom, chose a much better route to contain the nuclear reaction. He simply chose magnetism.⁵

An intense magnetic field has the ability to fully contain the charged particles which make up a high-temperature plasma. The intense magnetic field is also able to constrict and condense the plasma, readily confining it to one particular location.⁶ There are other advantages to using magnetism, especially with a extremely high-temperature plasma. A magnetic containment field is not damaged or destroyed by heat, radiation, or chemicals of any sort.

SHIELDING ELEMENTS

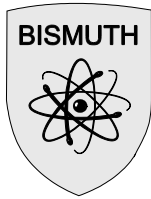
The following portion of the Periodic Table shows the elements which are included in the inner radiation shield. Once again, this special shield completely envelops the elements of the radioactive inferno which is located at the nucleus of this Earth.

By starting at bismuth (the heaviest), and continuing upward through osmium (the lightest), a person will view the elements as they are generally placed in the strata, at the very core of this Earth.

Atomic Number -----	Element -----	Atomic Weight -----
76	Osmium	190.2
77	Iridium	192.22
78	Platinum	195.09
79	Gold	196.9665
80	Mercury	200.59
81	Thallium	204.37
82	Lead	207.2
83	Bismuth	208.9804

BISMUTH SHIELD

The first layer of material enveloping the central nuclear reaction is bismuth. Bismuth is not a radioactive material. Because of its properties, this metal should not react with the alpha particles which are emitted by the main nuclear reactor, nor readily produce free neutrons. Bismuth is a very shiny metal,⁷ and may reflect certain frequencies of radiation back into the core of the reactor.



Because of its location by atomic weight, bismuth may form part of the inner radiation shield around the intense nuclear reaction at the core of this Earth. Bismuth may also have special interactions with the fuel charge in the nucleus. Only a few of bismuth's functions will be examined in this short study.

Bismuth is diamagnetic, and tends to turn at right angles to magnetic fields.⁸ Some of its heat-conduction properties may be controlled by the strong magnetic field at the core of the Earth. Bismuth, by nature, is a poor conductor of both heat and electricity. When bismuth is placed in a magnetic field, its electrical resistance is further increased.

Bismuth is opaque to X-rays.⁹ This property of opacity may cause bismuth to be a poor conductor of nuclear radiation. In other words, bismuth may restrict the flow of nuclear radiation. It may possess a high resistance to the passage of the intense nuclear radiation contained in the central core of the Earth. Bismuth may also convert some of the passing radiation into other forms of energy.

The layer of bismuth defuses the brutal assault of the intense nuclear radiation. This protects the next outer layer, which is made of lead. It prevents the lead from taking the full, brutal beating of all this energy. The bismuth layer also appears to function as part of a rather simple cooling system around the core of the nuclear reactor. This cooling effect may further protect the next layer of lead.

ELECTRIFIED WIND

In Chapter 5 was presented the first process of beta decay. In this process, high-energy electrons are emitted. Ahead (in Chapter 8), it is shown that this electron-producing process is the more common of the two types of beta decay. Further on (in Chapter 12), it is shown that low-energy gamma rays also interact with atoms and cause electrons to be ejected from them.

With all of the beta decay and gamma radiation occurring in the nuclear core of this Earth, there has to be an exceptionally high flow of free-electrons in this region. This high flow of electrons would tend to cause a 'space-charge' in the nuclear core. This space-charge would flow to the surrounding bismuth layer. This electric flow may be likened to a negatively charged electric wind.

COOLING SYSTEM

An "electric wind" actually produces a cooling effect. For cooling purposes, a negative electric charge (such as that in the Earth's core) works best. When a negative electric wind is blown onto red-hot metal, or even molten metals, the cooling effect is extremely rapid.¹⁰

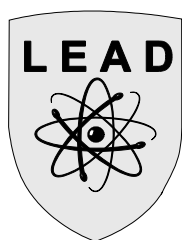
The exceedingly high negative space-charge in the nuclear reactor causes an intense, negatively charged electric wind to literally blast against the surrounding layer of bismuth. This intense electric wind may have the ability to keep the bismuth below its melting temperature.

The cooling of the bismuth layer works to contain the massive heat output from the Earth's nuclear reactor. (Again, examples of this type of cooling process are discussed further in Chapter 13.) If the bismuth layer is truly cooled below its melting temperature, it may then function as a structural layer upon which the next layer, of lead, is built.¹¹ Oh, the magnificent wisdom of God!¹²

CURRENT CONTROL

Bismuth, and the next outer layer of lead, are poor conductors of electricity. These layers may control the amount of electrical current flowing out of the nuclear reactor at the core of this Earth. These layers may also limit the outbound voltage from the reactor.

LEAD SHIELD



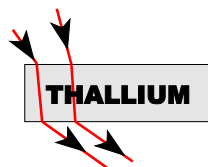
The next ascending element in the Periodic Table is lead. Lead may form the main radiation shield in the very core of the Earth. Lead is a very heavy and dense metal, therefore the radiation from the core should not dislodge a penetrating stream of neutrons from this metal.

Lead is shiny, especially where it has not been exposed to air. In the core of the Earth should be no air, therefore the lead should not tarnish. The properties of lead may also cause some of the electromagnetic radiation to be reflected back toward the nucleus of the Earth.

It is commonly believed that there are four stable lead isotopes which occur in nature. Three of these isotopes are the final results of the radioactive decay of uranium, actinium, and thorium.¹³ Friend, what this means to us is that God the Father, in His infinite wisdom, created the Earth in such a manner that the raging nuclear reactor is continually creating and replenishing its own radiation shield. God is exceptionally beautiful in the manner in which He works!

Ordinary lead is not radioactive, but rather, it is a very excellent shield against gamma and X-rays. That is why lead is used as shielding in the nuclear reactors which man has constructed. Friend, mankind is simply copying, on a minute scale, the mighty works of God.

THE REDIRECTOR



The next general enveloping layer outside of the lead (by atomic weight) is made up of thallium. Thallium is a soft, but very heavy metal. This should prevent a stream of destructive neutrons from being dislodged from it. Thallium has a high index of refraction, it bends electromagnetic radiation. For this reason, it is used in optics.¹⁴

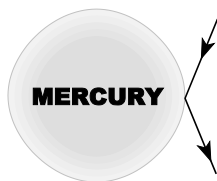
Thallium's high index of refraction may be of great importance at this particular location in the layering of the Earth. This property is valuable in controlling any radiation which may penetrate through the protective layer of lead. This bending-property toward electromagnetic radiation may cause any escaping rays to become greatly diffused. This bending may redirect the rays at an angle which causes them to bounce off the next-outer reflector-layer. The radiation may bounce off the next layer with a glancing blow, rather than scoring a direct, penetrating blow.

Mankind commonly uses thallium in electronic components and in superconducting research.¹⁵ Thallium compounds are used in photo-multiplier tubes within scintillation counters. These counters are used to detect gamma radiation. Another interesting property of certain thallium compounds is their use as detectors of infrared: or more simply, to detect heat.¹⁶

Because of the special properties of thallium, a couple of its uses may be: one, as a sensor of any excess radiation which may penetrate through the bismuth and lead layers; and, two, as a sensor of excessive heat from the main reactor core. The signals from this sensor layer may allow the main control-unit of this Earth to magnetically alter the properties of the inboard bismuth layer. This may cause the bismuth to restrict the flow of excess heat and radiation. The properties of bismuth would also allow for the partial flow of any electrical current emanating from the nuclear core.

FIRST REFLECTOR

The next outer, general enveloping layer is made of mercury. Mercury is a heavy, dense metal. This attribute should help to avoid the production of a stream of neutrons from this layer. At a pressure of about 7,640 atmospheres (112,308 psi, or 7,894 kgs/sq cm), mercury becomes a solid.¹⁷



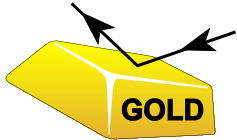
Mercury is a shiny metal. It may form a good reflector. Because of mercury's position in the layering of the Earth, one of its functions may be to reflect some of the electromagnetic radiation back, inward toward the thallium layer. This would help confine any radiation to the core region. As the radiation once again passes inward through the thallium, it enters the lead. This allows the layer of lead every opportunity to deal with any stray high-energy radiation, and keep it confined to the core region of the Earth.

Mercury is one of the transitional elements, and it therefore paramagnetic. This paramagnetic property causes mercury to interact with the Earth's magnetic field, and strengthen it. A strengthening of the magnetic field in the core of the Earth helps to contain the superheated plasma in the nucleus of the Earth's main reactor. Some of the properties of the mercury-reflector may also be automatically controlled by the fluctuating magnetic field of the Earth.¹⁸

Mercury is a conductor of electricity. It is sometimes used in electrical rectifiers.¹⁹ A mercury rectifier may allow the electrical current from the nuclear reactor to flow in one direction only.

GOLDEN REFLECTOR

A general enveloping reflector-layer just outside of the mercury appears to be made of gold. Gold is a metallic element. It is a good conductor of both heat and electricity. For this reason, it will readily transmit the outbound heat and electricity from the Earth's core reactor. The good heat transmission capability will allow the gold to be more easily cooled. Looking at another property, gold is very non-reactive.²⁰ It does not readily combine with other elements. This should be an attribute in the environment at the inner core of this Earth.



Gold is a very shiny metal. This property makes it a good reflector of certain forms of electromagnetic radiation. For this reason, mankind has used gold as a reflective coating on the visors of certain space-helmets.²¹ Examining all of the given properties of gold, it can act as a type of “gate” for electromagnetic radiation. Its properties will allow certain types and frequencies of radiation to pass through relatively unhindered, while completely blocking the passage of other types of radiation.²²

Gold is one of the transitional elements. It has paramagnetic properties. These properties cause gold to interact with, and strengthen, the magnetic field of the Earth. A strengthened magnetic field can better contain the superheated plasma in the core. Because gold is paramagnetic, certain of its characteristics may also be automatically controlled by the fluctuating magnetic field of the Earth.

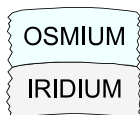
PLATINUM LAYERS



The next layer in the reflector-section is made of platinum. One of the properties of this metal is a high resistance to the flow of electricity. It is often formed into thermocouple wires. These thermocouples produce electricity, and are used for measuring high temperatures.^{23 and 24} In the Earth, platinum may work as part of a heat sensor. The electrical signals from the sensor are then sent to the Earth's main control-system.

Platinum is one of the transitional elements. It is paramagnetic, and strengthens the Earth's magnetic field. Because platinum is paramagnetic, some of its other special properties may be automatically altered and controlled by the fluctuating magnetic field of the Earth.

CONTAINMENT VESSEL WALLS



The next enveloping layers appear to be the structural walls of the nuclear containment vessel. These layers surround the central nuclear reactor, the radiation shields, and the reflectors. The first layer in this vessel appears to be made of corrosion-resistant iridium. The next layer is of osmium.

Osmium and iridium are considered to be the most dense of all the elements.²⁵ This property should prevent the release of a detrimental stream of neutrons from these layers. The high density of these materials may also cause the inner core of the Earth to appear as a dense, solid mass. This is the manner in which the inner core appears to those in seismic research.²⁶

Iridium and osmium are both members of that important group of transitional elements. Once again, these elements are paramagnetic, and strengthen the Earth's magnetic field. Certain of their properties and functions are automatically controlled by the fluctuating magnetic field of the Earth.

All the elements, with their individual specific properties, are important to the operation of this Earth. God is the only one who knows all the various functions of each of these individual elemental layers which are found in the inner core of this Earth. Nevertheless, herein are noted those known properties which appear to be at work in the layering of the Earth. Granted, this study is very basic.

IMPORTANT ELEMENTS

Let us now examine two elemental layers which surround the wall-layers of the main nuclear reactor's containment vessel. These layers consist of the two special elements, tungsten and rhenium. Their special properties are very important at this location in the layering of the Earth. The atomic numbers and weights for these two elements are listed below.

Atomic Number -----	Element -----	Atomic Weight -----
74	Tungsten	183.85
75	Rhenium	186.207

THE HEAT SHIELD



The inner layer of the structural heat shield for the nuclear reactor is made of rhenium. Rhenium is an extremely hard metal. It has the very high melting temperature of 5,756 degrees Fahrenheit (3,180 degrees C).²⁷ Rhenium is part of that rather large group of transitional elements. It is therefore paramagnetic. For this reason, it helps to strengthen the magnetic field of the Earth. Also, certain of its physical and chemical properties may be varied by the Earth's fluctuating magnetic field.

The outer layer of the structural heat shield is made of tungsten. Tungsten has the highest melting point of any metal. It melts at 6,170 degrees Fahrenheit (3,410 degrees C). Tungsten is one of the transitional elements. It is paramagnetic and strengthens the magnetic field at the Earth's core. Some of its properties may also be controlled by the Earth's varying magnetic field.

CENTRAL CORE

The above elements all serve specific purposes in the nucleus of the Earth's inner core. Each element exhibits its own special properties. The order in which these elements (with their properties) are layered in the deep inner core of the Earth is of special importance. It effects how they interact with each other, and with the magnetic field of the Earth. It also effects the net result of the Earth-unit's interaction with the nuclear radiation produced at the nucleus of the inner core.

Of note is the reactor's cooling system, and the two sensors which appear to be build into the Earth's layering. The thallium layer appears to be part of a system which senses any escaping radiation from the core-reactor. The gold and platinum layers may work together as a thermocouple heat sensor. The information from both of these sensors is sent to the main control-unit for this Earth. This control unit is beyond the scope of this particular book, and may be examined in a later Volume.

The functions listed for each elemental layer does not negate the finding of many more functions for these elements (and their combinations) in the future. As the Creation of God is examined, it becomes very clear that He is not a waster of any of those resources which He has created.²⁸

SIMPLE STATEMENT

Surrounding the layers thus far identified at the core of the Earth are a number of other elemental layers. Each of these enveloping layers has its particular function or functions. It appears that certain of these layers automatically control the electric and magnetic fields of the Earth. The functions of these particular layers are discussed further in the "Closing Note" below.

SCIENTIFIC FINDINGS

In the latter part of 2003, the writer came across a scientific article which supports the belief of layering within the inner core of this Earth. This article did not appear to agree with the common encyclopedia-theory which portrays the central core as nothing but a large ball or crystal of iron. The belief for inner-core layering is based on an examination of the characteristics of seismic waves which pass through the inner core of the Earth from various directions.²⁹

Of interest in the above-stated scientific article is the discovery of a seismic velocity discontinuity located about 124 miles (200 km) below the outer boundary of the Earth's electrically conductive inner core. It appears that the structural composition above the seismic discontinuity is of one nature, called isotropic, and that below the discontinuity of yet another nature, called anisotropic.³⁰

Isotropic materials tend to have a high degree of regularity, similarity, or uniformity throughout their structure. These materials lack natural cleavage planes. Igneous basalt is an example of an isotropic material.^{31 and 32} The properties of anisotropic materials vary throughout their structure.³³

In accordance with the above information, the material closer to the nucleus of the Earth (below the seismic velocity discontinuity) is composed of a variety of individual materials within its structure. This coincides with the information which has so far been introduced in this book. The material on the outward side of the seismic discontinuity is of a structural nature similar to that of ordinary basalt. It may be like a protective sheath surrounding the intricately constructed inner core.

CLOSING NOTE

There is one item of special note within the above discussion on the seismic-velocity discontinuity in the Earth's inner core. It states that the Earth's inner core is electrically conductive. This conductivity is a very important property. This inner core is conductive for a special reason. It truly has an imbedded electrical system. This Earth has an electrical system, just as surely as the human body has an electrical system. This Earth has a functional electrical system, just as surely as plants and animals have electrical systems. Truly, this Earth is not just a "dead" rock orbiting in space. Rather, this Earth is living, just as much as any other entity within all of God's Creation.

Please note that God the Father is the initial giver of life. This truth is found throughout the whole Word of God. God created plants, animals, bugs, and microscopic things which are readily recognized as possessing life. The problem with humans is that they usually cannot recognize "life" unless it is thrashing wildly about. Friend, there are sedentary forms of life also. Nevertheless, though they be sedentary, they still possess life! Once again, God the Father is the giver of all true life. He did not create anything "dead" in all those things which He made. Death did not come until Satan began his evil works. But for now, let us return to the electrical system of this "living" Earth.

CENTRAL CONTROL

Friend, if one were to open the skull of a human, and then dissect the brain, they would find what appears to be simply a mass of tissue. The average human may look at that mass of tissue and question its ability to control all of the magnificent feats which are performed by the human body. They may wonder where all the wires, printed circuits, and other electronic devices are located which they are accustomed to seeing in computers. But God is much wiser than man!

Once the complete layering scheme of this Earth is clearly understood, it will be found that there is a type of "control computer" imbedded within the layering of the inner core. The main computer appears to control the magnetic, and possibly the electric fields of the Earth. A secondary computer appears higher up in the Earth's layering. The nearest technology which mankind has to this "Earth-computer" is the Josephson Junction design. The Earth's computers basically operate on solid-state principles. They do not use keyboards for input, as our crude computers do. Their input device operates on a completely different and automatic principle. They operate on the simple principle of moving "holes." These computers, and the operation of them, will not be discussed further in this basic study. Again, if God allows, these special systems may be discussed in a later Volume.

A GENTLE SHIFT

There is One who designed and created the very structure of this Earth. There is One who knows for sure the complete makeup of each and every part, and how all of these individual parts work together. There is One who knows all the functions of each and every element contained within this Earth. That One is God the Father. To Him belongs great glory and honor! He deserves more glory and honor than these lisping lips and stammering tongues can ever give! The only true way to honor Him is by giving Him our complete lives, and willingly walking in obedience to His ways. This can only be done through the very power of Christ. There truly is no other way to please Him! Friend, let us now turn our gaze to the perfect and righteous God of all Creation.

TO THE CREATOR

The psalmist cries: *“I will extol thee, my God, O king; and I will bless thy name for ever and ever. Every day will I bless thee; and I will praise thy name for ever and ever.*

“Great is the LORD, and greatly to be praised; and his greatness is unsearchable. One generation shall praise thy works to another, and shall declare thy mighty acts.

“I will speak of the glorious honour of thy majesty, and of thy wondrous works. And men shall speak of the might of thy terrible acts: and I will declare thy greatness. They shall abundantly utter the memory of thy great goodness, and shall sing of thy righteousness.

“The LORD is gracious, and full of compassion; slow to anger, and of great mercy. The LORD is good to all: and his tender mercies are over all his works.

“All thy works shall praise thee, O LORD; and thy saints shall bless thee. They shall speak of the glory of thy kingdom, and talk of thy power; to make known to the sons of men his mighty acts, and the glorious majesty of his kingdom.

“Thy kingdom is an everlasting kingdom, and thy dominion endureth throughout all generations.”³⁴ Amen, and amen!

Great is the Lord, and greatly should He be praised. The Lord truly is gracious, and full of compassion; slow to anger, and of great mercy. To the rebellious ones of the house of Israel, the Lord God proclaimed: *“Cast away from you all your transgressions, whereby ye have transgressed; and make you a new heart and a new spirit: for why will ye die, O house of Israel? For I have no pleasure in the death of him that dieth, saith the Lord GOD: wherefore turn yourselves, and live ye.”³⁵*

Friend, the principles of the above truth also apply to each and every one of us. May we willingly walk in true obedience to God the Father, through the very power of Christ working in our lives, that we may truly live: and that for all eternity. Look to Christ, for He is able to subdue all things unto Himself. He is even able to subdue our sinful nature! May we all give that glory to God the Father which He most certainly deserves. Amen.

Friend, so ends another Chapter in this FIRST EDITION of
Listen To The Earth, Volume One, THE CREATION, by *David E. Sakrison and Friends*
in 34 Chapters, plus README, Preview, Start, and End files
with References following each Chapter

REFERENCES

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1. *The Holy Bible*, Book of Psalms, chapter 40, verse 5.
2. *The 1998 Grolier Multimedia Encyclopedia*, "Auroras."
3. See: *Conceptual Physics*, Paul G. Hewitt, 6th Edition, 1989, Figure 23-2 caption, page 413.
4. Please keep in mind that this plasma is extremely compressed by the forces of gravity. It is compressed almost to the point of looking like a solid.
5. It strongly appears that this intense magnetic-form of shielding in the core of the Earth came into being on Day Two of the Creation week. As the magnetic field of this shielding came into being, it began to exert its power upon the radioactive plasma at the nucleus region of the Earth. The stronger this magnetic field became, the more it contained and confined the radioactive inferno in the very nucleus of the Earth. The creation of this magnetic containment field will be discussed further in Chapter 19.

Friend, let us consider a particular thought, for one moment. If the strength of the Earth's magnetic field keeps the main nuclear reactor confined and under control, what would happen if the strength of this magnetic field were reduced, or allowed to suddenly collapse? What effect would be produced upon the surface of this Earth by a sudden expansion of the superheated plasma in the nucleus of the Earth? What geologic catastrophe would be experienced by mankind because of the related, immense release of heat rushing upward to the Earth's surface? Please keep this thought in mind as you read further into this book.
6. *The 1998 Grolier Multimedia Encyclopedia*, "Fusion Energy."
7. *The 1998 Grolier Multimedia Encyclopedia*, "Bismuth."
8. *Microsoft Encarta 98 Encyclopedia*, "Bismuth."
9. *Microsoft Encarta 98 Encyclopedia*, "Bismuth."
10. *Popular Science*, March 1973, "Incredible New Probe Puts the Freeze on Hot Spots -- Instantly," E.F. Lindsley, pages 26 & 28.
11. From an article in *Machine Design* (the November 16, 2000 issue, on page 45, called "Rare earths make super heat sinks," by Sherri Koucky and Stephen Mraz) it appears that lead possesses the special property of being able to absorb large amounts of heat before it experiences a change in temperature. This would be a very special property for any material or element which is located so close to the nuclear inferno at the central core of the Earth. It should be further noted that (according to an article called "A silent cool: Thermoelectrics may offer new ways to refrigerate and generate power," by Corinna Wu, on page 152 of the September 6, 1997 issue of *Science News*) lead telluride is used in mankind's thermoelectric cooling systems. Consider then the massive flow of electrons out of the central core of the Earth, through the bismuth layer. Could the next layer of lead form part of a world-class thermoelectric cooling system surrounding the main nuclear reactor of the Earth?
12. There may be more than just an electrically-operated cooling system in the inner core of the Earth (this one being that which immediately surrounds the immense nuclear reactor in the heart of the Earth). After the electrically-operated cooling system comes the layers of radiation shielding, with imbedded sensors. Next come the containment vessel walls, which are then surrounded by the high-temperature structural materials. Surrounding the high-temperature structural materials (in the Earth layering), it appears that the materials are in place for producing a magnetically-based cooling system. The materials of this magnetically-based cooling system are actually a number of rare-earth metal layers. (These layers are further noted in the Reference section of Chapter 13.)

A very interesting phenomenon takes place in ferromagnetic rare-earth metals, when they are influenced by strong magnetic fields (such as exist within the core region of this Earth). This phenomenon is called *the magnetocaloric effect*. The magnetocaloric effect is a highly reversible process. It appears that it can be used for either heating or cooling purposes. Scientists and engineers of our day are exploiting the magnetocaloric effect, using rare-earth materials to produce magnetically-driven cryogenic (very low temperature) cooling systems. (For an

(Reference note 12, continued on next page)

(Reference note 12, continued from previous page)

introduction to this process, see *Mechanical Engineering*, December 1994, "Fridge of the future," by Steven Asley, starting on page 76.) What may be even more important is that, under the proper conditions, it appears these magnetocaloric systems can be made very energy efficient. It appears that the larger a properly designed system is, the more efficient it may be made. Let us be assured of this fact: God created things which operate with extreme efficiency within the core region of this Earth!

Please note: This introduction to magnetocaloric cooling is quite basic. Much more research needs to be done to establish how this process may work within the inner Earth. Nevertheless, the very effective process of adiabatic magnetization and demagnetization of paramagnetic salts has been used for many decades in ultralow-temperature physics research. (In the Earth, could the radioactive promethium layer imbedded in the rare-earth layers work to produce a constantly changing magnetic state in this region of the Earth layering?) Friend, considering the good results which man has obtained from this simple magnetocaloric cooling process, indeed, what has God been doing in the core region of this Earth, from the beginning of Creation? Let us not fight against God in any way. But let us truly turn to God and His ways. Let us closely examine what He has created, that we may learn many important and useful things.

13. *The 1998 Grolier Multimedia Encyclopedia*, "Lead."
14. *Microsoft Encarta 98 Encyclopedia*, "Thallium."
15. *The 1998 Grolier Multimedia Encyclopedia*, "Thallium."
16. *Microsoft Encarta 98 Encyclopedia*, "Thallium."
17. *Microsoft Encarta 98 Encyclopedia*, "Mercury (element)."
18. The element, mercury, appears to have a number of other interesting properties which the author would like to research when he has the necessary time. These other properties may shed more light on why mercury is located at this particular place in the layering of the Earth.
19. *Microsoft Encarta 98 Encyclopedia*, "Mercury (element)."
20. *Microsoft Encarta 98 Encyclopedia*, "Gold."
21. It should also be noted that gold is used as a reflective coating on the lenses of some welding hoods which are used in the metal welding industry.
22. Again, it appears that gold may have other interesting properties which the author would like to research, that he may come to a better understanding of why gold is located at this particular place in the layering of the Earth.
23. *Microsoft Encarta 98 Encyclopedia*, "Platinum."
24. *The 1998 Grolier Multimedia Encyclopedia*, "Platinum."
25. *Microsoft Encarta 98 Encyclopedia*, "Osmium."
26. *Microsoft Encarta 98 Encyclopedia*, "Earth."
27. *Microsoft Encarta 98 Encyclopedia*, "Rhenium."
28. The author's research has led him to believe that many of the things which God has created have multiple functions, many of which functions have yet to be recognized by mankind.
29. *Science*; October 30, 1998; "Seismic Evidence for an Inner Core Transition Zone," Song and Helmberger, pages 924-927.
30. *Science*; October 30, 1998; "Seismic Evidence for an Inner Core Transition Zone," Song and Helmberger, pages 924-927.
31. *The 1998 Grolier Multimedia Encyclopedia*, "Optical Mineralogy."

32. *The 1998 Grolier Multimedia Encyclopedia*, “Paleolithic Period.”
33. *The 1998 Grolier Multimedia Encyclopedia*, “Materials Engineering.”
34. *The Holy Bible*, Book of Psalms, chapter 145, verses 1-13.
35. *The Holy Bible*, Book of Ezekiel, chapter 18, verses 31-32.