



# REASONS for BELIEVING

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THE TESTIMONY OF ARCHAEOLOGY, SCIENCE AND HISTORY



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## REASONS FOR BELIEVING

*"Forever, O Lord, thy word is settled in heaven" (Ps. 119:89).  
"Thy word is true from the beginning" (Ps. 119:160).*

### KNOWLEDGE EXPLOSION

In his book, *Studies in the Bible and Science*, Henry Morris tells us that Daniel the prophet received a remarkable foreview of future history from an angel sent from God. This marvelous prophecy, recorded in the book of Daniel, chapters 10-12, is climaxed by the succinct statement: "But thou, O Daniel, shut up the words, and seal the book, even to the time of the end; many shall run to and fro, and knowledge shall be increased" (Dan. 12:4).

The explosion of population in our time is trivial in comparison to the recent knowledge explosion. One-half of man's total knowledge was gained in approximately the first 10,000 years; the other half was gained in the last 50-75 years. It is estimated that of all the scientists who ever lived since time began, more than 90 percent are living today. This proliferation of knowledge and scientists has resulted in a proliferation and continuous subdividing of scientific specialties, each with its own particular professional literature. The number of different scientific periodicals now being published in the world is estimated at about 100,000. Not even the Library of Congress can ever hope to provide space for the flood of technical literature pouring off the presses. Someone has cal-

culated that 2000 words a minute are being added to the volumes of knowledge.

The point is that with such a tremendous increase of knowledge, no living man can ever claim to be an "authority" in science in general, or even in any one discipline. Further, no man can possibly presume to make such statements as "Science contradicts the Bible" or "The world view necessitated by modern science disproves Biblical cosmology." That such statements are made and, in fact, are quite frequently made, is a sad testimonial to the immodesty and presumptuousness of many scientists, who are fallible and sinful human beings as all other people.

### *MODERN SCIENCE ABSOLUTE TRUTH?*

There is a widespread idea deeply rooted in the modern mind that the science of today is the absolute and final truth, or at the least, it is believed that methods of scientific investigation provide us with a body of knowledge founded upon bedrock, while all impressions gained through intuition, hope, aspirations and moral feelings lack the same ground in reality, and are more or less built upon sand. We can easily understand the prevalence of this idea when we reflect that modern science has provided us with a vast amount of knowledge regarding the structures and forces of the material world and which, for all practical purposes, is entirely comprehensible within the narrow sphere in which we live and work.

However, scientists themselves are under no such delusion that the science of today is absolute and final truth. The great thinkers, at least those who have combined wisdom with their learning, have always been keenly aware of the limitations of human knowledge, like Newton, who compared himself to a little child gathering a few pebbles on the shore of a boundless sea. In the same spirit, Charles Darwin said that all of man's knowledge of our earth is something like an old hen's knowledge of a forty-acre field in one corner of which she happens to be scratching. The English philosopher, Alfred North Whitehead, reminds us that the so-called certainties

of science are a delusion, for they are hedged about with unexplored limitations. Whenever scientists obtain some new method of observational experience, the old doctrines crumble into a fog of inaccuracies.

### *BIBLE'S TRUSTWORTHINESS ACCLAIMED*

On the other hand, the Bible claims to be the very Word of God—unchanging, eternal and absolute—and it has been accepted as such by multitudes of intelligent men and women down through the centuries. This is more true today than ever in the past, with hundreds of highly qualified scientists and historians around the world known quite definitely to believe in the full, verbal inspiration and infallibility of the Scriptures. This, of course, does not establish the “authority” of the Bible, but it does, at least, give lie to the frequent claim that no scientist backs the Bible.

It is commonly believed, even by some professing Christians, that the Bible is filled with scientific and historical errors. If this were true, then the Bible could not possibly be the inspired Word of God, because God knew every fact of science and history from the beginning.

However, it can be stated with certainty that there is no proven scientific fact that is in real contradiction with the Bible on any fair interpretation of the Biblical text. Even progressive, modern science, which has unsettled the notions of the centuries, has been unable to prove the testimony of God's Word to be false. Moreover, after centuries of archaeological excavations in the Middle East, there has never been one spade of dirt unearthed that denies or contradicts any part of the Bible; rather, archaeological findings continually confirm the scientific, historic and geographic accuracy of the Word of God.

As far back as the 18th century, astronomer Sir William Herschel wrote that all of man's discoveries seem to be made for the purpose of confirming more strongly the truths contained in God's Word. A greater astronomer than he, Galileo, wrote in 1614 that because the Bible is true, and all truth agrees with truth, the truth of



Holy Writ cannot be contrary to the truth obtained by reason and experiment. This being so, the judicious expositor must seek to find the true meaning of the Scriptural passages which must agree with the conclusions of observations and experiment, and care must be taken that the work of exposition does not fall into foolish and ignorant hands.

Obviously, the primary object of the Bible is to teach not science, but moral and spiritual truths. These truths are expressed in everyday language that can be understood by all men. The Bible does not give detailed technical descriptions and mathematical formulations of natural phenomena. The writers naturally used the language of appearance, even as we do in this scientific age. For example, we know that the sun is the center of our solar system and that the earth revolves around it. Yet, we speak of the sun rising in the east and setting in the west, and moving around the earth. Therefore, when Bible writers use forms of speech that fit appearances, not realities, the absence of scientific statement by no means involves any discrepancy or contradiction. However, when the Word of God speaks directly on the subject of science, it is always accurate.

An editorial in *Christianity Today* (Jan. 17, 1975) suggests that when scholarly objections to particular Biblical texts are raised, it is proper to meet them with scholarly evidence. If, however, as frequently happens, the critic continues to reject the Scripture's reliability even when he is shown that his criticism is unfounded, we should recognize that his objections are based on anti-Biblical presuppositions and must be viewed as a kind of faith (or antifaith), rather than as scholarship and science.

### **BIBLE'S SCIENTIFIC FOREKNOWLEDGE**

As scientists probe deeper into the mysteries of space, they often discover that their "latest" findings were recorded in the Scriptures generations ago. Frequently they are also humbled upon realizing that their "newest" inventions have had some application in nature since the world was created; even such inventions as jet

propulsion, or sonar and radar devices. Is it any wonder, then, that the greatest scientists look to God's Word with reverence and awe?

Science has never disproved any statement in the Bible, but it has proved and demonstrated the truths of hundreds of facts anticipated in the Bible. The mind that directed the writing of the Word of God put into it many truths that were beyond the range of human knowledge and comprehension at the time they were written.

For example, Dr. Morris points out that perhaps the most fundamental fact concerning the physical or inorganic sciences is that the physical world is basically *non-physical* in its ultimate essence. The mechanics of the universe can only be comprehended (and then only vaguely) in terms of nonmechanical, mathematical concepts. This was only recently acknowledged by science, yet it was revealed long ago in the Bible.

The Scriptures clearly declare that the physical universe was created *ex nihilo* and is fundamentally spiritual in essence. Hebrews 11:3: "Through faith we understand that the worlds were framed by the word of God, so that things which are seen were not made of things which do appear." Considering the modern view of the universe as a space-matter-time continuum, it would clearly be correct to speak of either space, matter, or time, or all of them, as having been created by the Word of God, and that the basic stuff of this continuum is obviously not apparent to the physical senses. In this respect, the hard, cold materialistic theory suffered a severe reverse. Physicists today, in their pursuit of the secret of matter, have broken through to what one might call a submaterial world, where physical categories and concepts fail and where at last it is obvious that "things which are seen were not made of things which do appear." As Sir Arthur Eddington expresses it, "Something unknown is doing we don't know what." The universe appears to be much more like a great thought than like a great machine. This corresponds exactly with the teachings of the Word of God.

In any comparison of the Bible and science, we



need to be certain, as W. A. Criswell suggests, of both our Scriptural and our scientific facts. Unlike the Bible, however, science changes every day. What are supposed to be today's latest facts are often found to be foolishness tomorrow. An authoritative report says that there are three and one-half miles of bookshelves in the great library in the Louvre in Paris. These shelves contain thousands of outmoded scientific books that have been made obsolete in the last fifty years.

If every generation could equate the Bible with the scientific theories of their day, and if these errors were supposedly confirmed by the Scriptures, by this time the Bible would be obsolete. Imagine if the teachings of the Bible were compatible with the so-called scientific conjunctions and monstrosities of A.D. 1670, or 1770, or 1870, or 1970, or for that matter, 1990!

The Bible, penned by forty or more authors over a period of about 1500 years, has remained unchanged almost 2000 years. And nowhere does it contradict the constant, verified facts of true science. Lord Kelvin, the eminent scientist, said, "True religion and true science harmonize perfectly."

Consider the sublime way in which the Bible accounts for the creation of the universe. The book of Genesis begins with the majestic words, "In the beginning God created the heaven and the earth." It would take an infinite being of infinite intelligence to create a universe such as this. Many other passages in the Bible attribute the original creation to God. Psalm 33:6 declares, "By the word of the Lord were the heavens made, and all the host of them by the breath of his mouth."

Geologist William Dana comments that when one reads the creation account in Genesis, the first thought that strikes the reader is the evidence of deity—not merely in the opening verse and in the successive fiat, but in the whole order of creation. There is so much that the most recent readings of science have for the first time explained, that the idea of unaided man as the author of Scripture becomes utterly incomprehensible. By proving the Bible record scientifically true, science pronounces it

divine, for who could have correctly narrated the secrets of eternity but God Himself?

An endorsement such as this from perhaps one of the greatest geologists of modern times surely ought to provoke serious thought on the part of all conscientious people who have been led to doubt the authority of the Bible. Remember that when Moses wrote Genesis, the Jews were just as ignorant of science as the Hindus, the Chinese or the Egyptians. Yet, the teachings of Genesis agree exactly with the findings of the best scientists of the past fifty years. There is only one explanation for Moses' accuracy: the God who created this universe revealed His knowledge to Moses.

### *OTHER WRITINGS TESTED*

Dr. Criswell reminds us that the Bible says Moses was "learned in all the wisdom of the Egyptians," and archaeologists have placed in our hands the very textbooks Moses studied. Those ancient Egyptians had an interesting cosmogony (theory of the birth of the world). They claimed that a winged egg flew around and around until the process of mitosis was completed, and then out hatched the world. That was the major scientific theory Moses studied. Reading the Bible, one would consequently expect to find the theory about that winged egg, but instead, the ten greatest words that ever introduced a book loom up before us: "In the beginning God created the heaven and the earth."

Much of the Bible was written against the background and culture of the ancient Babylonian empire. According to the latest facts on their anthropology and cosmology, there was a giant monster of chaos named Tiamat, and a great god named Marduk. Marduk fought against the chaos monster and slew him, then flattened out his body, which became earth. Then the brave god, Marduk, spat, and where he spat men sprung up, and then men spat, and where they spat women sprung up, and then women spat, and where they spat animals sprung up. This was "modern science," contemporary with the book of Genesis.



Not one scientific blunder or absurdity has ever been found in the exalted writings of Moses, or in the whole of Biblical revelation. Can the sacred books of other religions endure this test? The Koran, the Shastaras, the Zend-Avesta, and the teachings of the wisest and best of divinely uninspired men all abound in historical and scientific errors. Compare Moses with Zoroaster, Confucius, Seneca, Socrates, Plato, Pythagoras, and Anaxagoras, or Aristotle. When they attempt to account for creation their absurdity becomes actually humorous!

Suppose the Bible agreed with Plato, who believed the earth to be an intelligent being and that both the heavens and the earth originated out of a kind of pulp generated from the slime of the Nile River? Or what of the old notions that the fabled Phoenix was a real bird, that thunderbolts were thrust by Jupiter? Suppose any of this was found in the Word of God. Who guarded the ancient writings of Scripture from the superstitions that corrupted other writings, that turned astronomy into astrology, chemistry into alchemy? Who taught the writer of the 104th Psalm to compose that grand poem on the wonders of the created world, and yet introduce not one of the scientific errors current in those days? It is clearly obvious that the writers of the Bible were given supernatural wisdom, that "...holy men of God spoke as they were moved by the Holy Spirit" (II Pet. 1:21).

Our attitude toward the Scriptures can be the same as that of our Lord Jesus Christ—one of total trust. He regarded the Hebrew Bible, the Old Testament in the original documents, as the infallible Word of God. Christ's own teaching regarding His apostles' authority undergirds their claims and the confession of historic Christendom, that both the Old and the New Testaments are to be received as God-breathed, altogether reliable Scripture.

### "MODERN" FACTS "OLD" TO THE BIBLE

#### 1. *The Bible says there was light before the sun.*

Men once held, with Sir Isaac Newton, that light is  
 8 an emanation from the sun and other luminous bodies.



There are many theories concerning light, but in recent years scientists believe they have proved (and are apparently agreed) that light existed before the sun was made its governor. Since this was discovered, many pseudo-scientists have ridiculed the "old Bible idea" that light comes from the sun.

While George W. DeHoff was an undergraduate in college, he heard a professor explain his favorite theory of light. At the end of the explanation he said, "Well, this completely upsets the Biblical notion that light comes from the sun. In fact, it just proves the Bible to be out of date."

The young student raised his hand and asked the eminent professor, "Where does the Bible say that light comes from the sun?"

"I don't know," he replied, "but everybody knows it's there."

At the student's insistence, a Bible was brought and the professor read from the first chapter of Genesis: "In the beginning God created the heaven and the earth. And the earth was without form, and void; and darkness was upon the face of the deep...And God said, Let there be light: and there was light." Then he read on to verses 17 and 18 where God later made the sun, moon, and stars to control the light, acting as chronometers.

Seeing that Moses was perfectly scientific, the professor said, "Well, that makes a donkey out of me!"

The young student later said that he agreed wholeheartedly, but doubted the expediency of saying so at the time!

How did Moses know this important scientific fact thousands of years before others discovered it?

## 2. *"The moon shineth not."*

A century ago scientists taught that the moon was a great luminous body like the sun, but 1500 years before Christ the book of Job correctly stated, "Behold even to the moon, and it shineth not..." (Job 25:5). Did the author of Job have knowledge superior not only to his contemporaries, but to all the sages and scientists for 3000

years after his time? How can this be explained except to say that he wrote by inspiration of God?

When our astronauts returned from the moon, they said that the soil on the moon consists largely of volcanic glass beads, that the rocks are splashed over with this glass. If you have a movie screen at home, a close look reveals a surface covered similarly with tiny glass-like beads. Furthermore, rocks on the moon are filled with titanium, which can reflect light better than a diamond. On the moon there are great irregularities—huge boulders, flat plains, and craters. With no vegetation and very little atmosphere to obstruct the light, those rough surfaces on the moon act like the rough corrugations on the headlights of your automobile. In other words, the moon is actually an enormous light reflector, just as the Bible tells us: God put the sun to shine by day and the moon to reflect the light of it to the earth by night (Gen. 1:16).

The Scripture also says, "It shall be established forever like the moon, and as a faithful witness in heaven" (Ps. 89:37). Here once again we have the magnificent lyrical poetry so characteristic of Scripture.

What does a witness do? A witness sees and testifies to others concerning that which they have not seen or cannot see. The moon does exactly that! When the sun sinks below the horizon and we cannot see it shine on the other side of the earth, the moon, high in the sky, sees and reflects its light back to us, as its witness. The fact of the reflected light of the moon was unknown in the days of David, yet David wrote of it!

### 3. God *"hangeth the earth upon nothing"* (Job 26:7).

At the time this verse was written, most men on earth believed the world was held up by some kind of solid foundation. The Egyptians believed it was held up by five columns, one under each corner and one under the middle. The scholarly, philosophical Greeks believed the world was carried on the back of a great giant named Atlas. The Hindus believed it was balanced on the back

of a great elephant that stood on the back of a huge turtle that was swimming in the cosmic sea. When the turtle moved, the elephant moved, and the earth moved, from which cause we get our earthquakes.

Some said the earth floated on water. Nearly all the early physicists and philosophers, including Ptolemy, Plato, and Herodotus, believed the earth was a round but quite flat disk of land surrounded by a great world river, Oceanus.

Copernicus, the 16th century astronomer, was the first to discover that the earth was poised in space. The book of Job, written over 3000 years beforehand, was scientifically correct.

The attraction of gravity is invoked to account for the earth's affinity to the sun, but that explains nothing. No one knows what gravity is, or why it is. It is merely a term invented to explain certain observed phenomena. Indeed, there is nothing that modern science can add to or take away from the age-old statement that God hung the earth upon nothing.

#### *4. The earth is a sphere.*

While the ancients generally affirmed that the earth was flat, the Bible attested to its globular shape. In Columbus' day, men were afraid to sail very far out to sea for fear of falling off the edge of the earth. Yet, in 700 B.C. the Prophet Isaiah wrote, "It is he who sitteth upon the circle of the earth..." (Isa. 40:22).

The word "circle" in the Hebrew (*klug*) literally means an arch or sphere, a more exact connotation of which is "sphericity" or "roundness." Thus, the verse clearly teaches that the earth is shaped like a globe. This is astounding when we remember it was written centuries before men believed the earth was spherical.

One of the proofs used to show that the earth is a globe is that the surface of the ocean shows a curvature about eight inches to the mile. That is why the last thing one sees of a ship passing out of sight over the horizon is the top of the funnel. In view of this fact, it is interesting to read Proverbs 8:27: "When he prepared the heavens, I



was there; when he set a compass upon the face of the depth." Or, as the Revised Standard Version has it, "He set a circle upon the face of the deep." The God who originally created the earth and the oceans recorded the curvature of the ocean's surface in 1000 B.C. From a purely human point of view, this is remarkable; yet it is what one should expect, because the Bible is the revelation of God to man.

In harmony with the facts concerning the different time zones around the world, Christ said concerning His sudden appearance at His second advent, "I tell you, in that night there shall be two men in one bed; the one shall be taken, and the other shall be left. Two women shall be grinding together; the one shall be taken, and the other left. Two men shall be in the field; the one shall be taken, and the other left. And they answered, and said unto him, Where, Lord? And he said unto them, Wherever the body is, there will the eagles be gathered together" (Luke 17:34-37). When Christ returns, some will be in a part of the world where it is night; others will be where it is early morning.

### 5. *The earth "is turned" on its axis.*

Another intriguing statement in the Holy Book suggests that the earth rotates on its axis. "It is turned," the Bible says, "like clay to the seal..." (Job 38:14). This analogy refers to the small clay cylinders used in ancient times for writing. Archaeologists have found these in Mesopotamia and also in the region of the Dead Sea. Before these cylinders were baked, a thin rod, like a pencil, was inserted through each lengthwise, and then they were rotated while still soft, with this rod as an axis to receive the impression from the seals. God said this is how the earth is turned.

As we have seen, until a few centuries ago it was the universal belief that the earth was stationary. The Koran, written in A.D. 700, explains that the Creator anchored the earth with cables to the mountains so that it could not move. Why do we not find some of this nonsense in the Bible?

### 6. *Fire under the earth.*

Geologists tell us that approximately 30 to 50 miles below the earth's crust there is fire of unimaginable intensity. It is doubtful whether the ancients had knowledge of the heat in the bowels of the earth and that the deeper one goes, the higher the temperature rises (one degree Fahrenheit for every 55 feet). Yet, the book of Job, written 3500 years ago, declares, "As for the earth, out of it cometh bread, and under it is turned up as it were fire" (Job 28:5).

Apostle Peter tells us the earth is stored with fire. He warns of a judgment to come one day upon a Christ-rejecting world, when "...the heavens shall pass away with a great noise, and the elements shall melt with fervent heat; the earth also, and the works that are in it, shall be burned up." Then he admonishes us, "Seeing, then, that all these things shall be dissolved, what manner of persons ought ye to be in all holy living and godliness..." (II Pet. 3:10,11). How did Peter know that the earth was stored with fire—fire that one day would be released in awesome judgment upon a defiled earth? Interestingly, Peter uses the language of atomic fission when he speaks of the heavens being on fire and dissolving and the elements melting with fervent heat.

### 7. *The sun's circuit in space.*

The 19th Psalm was long a source of amusement to the critics. In speaking of the sun, the Psalmist says, "His going forth is from the end of the heaven, and his circuit unto the ends of it; and there is nothing hidden from the heat thereof." It was claimed that the writer obviously believed in the ancient's notion of the sun's revolving around the earth. But now it is believed by leading astronomers that the sun, with the entire solar system, actually moves through space at the tremendous speed of 72,000 miles per hour in such a gigantic orbit that it requires over 2 million centuries to complete it!

Furthermore, it is probable that our galaxy is also moving with respect to other galaxies. Thus, the sun's cir-



cuit would indeed be from one end of the heavens to the other. Who can accuse the Holy Spirit of ignorance of modern astronomy?

*8. The immensity of the heavens  
and the innumerable stars.*

The Bible clearly teaches the essential, infinite size and variety of the physical universe (infinite, that is, as far as man's measurement or comprehension can extend), which is perhaps the most striking fact of modern astronomy. For instance, Isaiah 55:9 compares the vastness of the heavens to the vastness of the thoughts of the omniscient God. Job 22:12 exclaims, "...behold the height of the stars, how high they are!" Other passages stress that the stars are so numerous as to be utterly beyond man's ability to count them. I Corinthians 15:41 points out that "one star differeth from another star in glory." Many of the efforts of modern astronomers are devoted to the study and cataloging of the numerous different types of stars.

Job gives us a glimpse of the immensity of the heavens in these words, "By his Spirit the heavens are garnished; His hand hath pierced the swift serpent. Lo, these are but the outskirts of his ways: and how small a whisper do we hear of him! But the thunder of his power, who can understand?" (Job 26:13,14, *A.R.V.*). He is saying that the farthest reaches of the human vision are only the outskirts, the borders, of the universe. The center is infinitely beyond. We can only hear the "whispers" of these heavenly singers; the thunders of His power are not for human ears today.

The Prophet Jeremiah knew that "...the host of heaven cannot be numbered..." (Jer. 33:22). However, before the invention of the telescope in the 17th century, the number of the stars was regarded as practically determined. Hipparchus concluded there were 1022 stars in the heavens. Ptolemy said 1056; Kepler counted 1005. Now astronomers agree it is humanly impossible to count the stars. Recent astronomy textbooks tell us there are an average of 100 billion stars in a galaxy. About 10 bil-

lion galaxies are within range of the great 200-inch Hale telescope. And if Einstein was correct, the total space is at least 100,000 times greater than observable space. This means there must be 100 septillion ( $10^{26}$ ) stars in space—and this is far beyond comprehension. Sir James Jeans says there are about as many stars as there are grains of sand on the planet earth. In this light, what an astounding tribute it is to the Lord Jesus Christ to read in the Psalms, "He appointeth the number of the stars; he called them all by their names" (Ps. 147:4).

Once again we ask why do we not find the Bible making some absurd statement? Why do we not find one of its writers giving some kind of a number of the stars that would contradict the known facts of science? Again, the only answer is, in the words of II Peter 1:21, "...holy men of God spoke as they were moved [controlled, guided] by the Holy Spirit." And He would not allow them to make mistakes. The Bible is veritably the Word of God.

#### *9. Empty place in the heavens.*

Job 26:7 speaks of an empty place in the heavens located in the north: "He stretcheth out the north over the empty place...." Astronomers have found that there is an empty space in the heavens, a vast space containing only a few stars, as compared to the rest of the universe, and certainly not visible to the naked eye under the best conditions. Professor Lomis of Yale informs us that by using the largest telescope in the Naval Observatory at Washington, we can see a great vacuum that corresponds to the empty space of Job 26:7. This has been discovered in the depths of the northern heavens.

Where did Job get this information more than 3500 years ago? How can we do otherwise than affirm this Holy Book to be a revelation from God to man?

#### *10. Pleiades—The Seven Stars.*

In the book of Job, this rather casual challenge is flung out: "Canst thou bind the sweet influences of the Pleiades...?" (Job 38:31). On the surface this appears to



be only a bit of poetry, but it actually has startling implications. Sidney Collett tells us that the word *pleiades* derives from the Greek *pleein* ("to sail") and is the name given by the ancient Greeks to what is known as "The Seven Stars." The appearance of this group of stars indicated a favorable time for sailors to begin their voyage. The Pleiades were also supposed to usher in the spring, but apparently little beyond this was known until recent years.

The original Chaldaic word translated "pleiades" is *chimah*, which means "hinge" or "pivot." After elaborate calculations, astronomers Bradley in 1748, and more recently Madler, and others, have discovered that Alcyone, the brightest of these seven stars, is actually, so far as is known, the pivotal center of our whole solar system—the hinge around which our sun with all its attendant planets is believed to revolve.

When we remember that the sun is over 3000 light-year miles away from Alcyone, we get some idea of how marvelous must be the "influence" of the Pleiades which swings these planets, the earth included, around it at the rate of more than 150 million miles a year in an orbit so vast that one circuit would take thousands of years to complete. Who can contemplate without an overwhelming sense of awe the mighty power of God referred to in this verse, in what is probably the oldest book in the Bible, and the implications of which recent astronomical discoveries enable us but dimly to appreciate? Moreover, notice that this "influence" is said to be "sweet," the word engineers use today to describe perfectly smooth-running machinery.

### 11. The "Run-away" star.

In Job 38:32 the Lord speaks, "Or canst thou guide Arcturus with his sons?" Here God singles out what astronomers tell us is the swiftest moving sun in the heavens, called the "runaway star"; it travels at a rate of 15,420 miles a minute. Arcturus is actually a constellation of 89 stars which the Scriptures refer to as his



"sons." God is saying to Job, "Who can guide such a ponderous world going at such awesome speed?"

### *12. Light: Traveling, Divided.*

The Word of God teaches that light is not stationary, but travels with great rapidity. Job asks, "Where is the way where light dwelleth?" (Job 38:19). Note that Job does not question, "Where is the *place* where light dwelleth?" If he had, he would have been scientifically incorrect, for light travels at the rate of 186,000 miles per second; so it could not dwell in one place.

Job also tells us that light can be divided: "By what way is the light parted (divided)...?" (Job 38:24). Nothing was known of this until Newton made the suggestion and later the discovery. Now it is known that light can be divided into the 21 visible colors of the spectrum, and others that are invisible to the naked eye.

### *13. The "voice" of light.*

The Word of God tells us that light is vocal. Wherever there is light there is sound, even if our ears are not attuned to hear it. Job 38:7 states, "...the morning stars sang together...."

Light has a definite tonal value. Light, color and sound are fundamentally the same, rushing through space in waves. When these waves strike the eyes, nerves in the brain transform them into light and color. Those that strike the ears are transformed into sound. There are rays of color so short and so fast that we cannot see them. The lowest tone we can hear is made by 16.5 vibrations of air per second. The highest tone is very shrill, being made by 38,000 vibrations per second. We cannot hear beyond these limits in either direction.

Job did not understand these truths, even though he wrote about them. It is quite possible that in eternity—in the future life—our senses will be so delicately refined that we shall be able to hear not only the separate key notes, but the infinite swelling harmony of those myriad stars of the sky as they pour their mighty tide of harmonious anthems into the ear of our matchless Christ.

*14. The weight of the wind or the air.*

No scientist before Galileo (A.D. 1630) was aware that wind or air had weight. It wasn't until 1643 that the Italian physicist, Torricelli, found that if a long glass tube, closed at one end, was filled with mercury and inverted over mercury in a bowl, the fluid in the tube would stand at a constant height of about 30 inches above that in the bowl. At this level (29.92 inches of mercury) is our normal atmospheric (barometric) pressure. Further work done by Pascal in 1648 showed conclusively that the phenomenon occurred because atmosphere has weight. It has since been learned that air exerts pressure at about 15 pounds to the square inch at sea level. This pressure is one of the great problems in attempting to orbit a man in a rocket, prior to when he rises above the atmosphere and becomes weightless. It is fascinating that this fact was spoken of in the Hebrew Scriptures (Job 28:25) centuries before Christ, and actually appeared in the King James Version of 1611, thirty-seven years before science discovered that God gave the air its weight.

*15. The water cycle and wind circuits.*

The "water cycle" (the way water falls as rain or snow then drains off by rivers into the ocean, where it is raised by evaporation into the sky and carried by the wind back to the land to be again precipitated), is a fundamental of a comparatively new field of science—hydrology. This tremendous mechanism, absolutely necessary for the maintenance of life on the earth, provides for the evaporation, transportation, precipitation and runoff of the waters of the earth. This cycle is described with fine accuracy and was set forth in the Bible ages before man discovered it.

Furthermore, it is now well known that the major wind currents of the world follow well-defined circuits. These great wind circuits are largely responsible for all the great ocean currents, as well as the great air currents



of the world. But this truth, too, is a matter of comparatively recent discovery.

Ecclesiastes 1:6,7, written by King Solomon 3000 years ago, declares: "The wind goeth toward the south, and turneth about unto the north; it whirleth about continually, and the wind returneth again according to its circuits. All the rivers run into the sea; yet the sea is not full. Unto the place from whence the rivers come, thither they return again." No wonder we speak of the wisdom of Solomon! How remarkable that while the rest of the world was in pagan darkness, the Bible, by inspiration, revealed those things before the science of meteorology or hydrology was dreamed of!

Consider the words of the Psalmist: "He causeth the vapors to ascend from the ends of the earth; he maketh the lightnings for the rain; he bringeth the wind out of his treasures" (Ps. 135:7). One could not ask for a better description of the method by which rain, with all its life-giving blessings, is made to water the earth. Evaporation, wind, and electrical discharges are now known to be the three things necessary to bring about the precipitation of the waters upon the land. Notice the phrase, "he maketh lightnings for the rain," so that the vapor clouds can become rain! There is one kind of electrical charge in the rain cloud and another in the cloud it meets—the positive and the negative. The contact initiates the lightning flash, the shock masses the rain globules together, and the rain is precipitated.

The Greeks and the Romans thought that a thunderstorm was caused by Jupiter, who held handfuls of thunderbolts and hurled them at the earth and its people. I cannot refrain from asking once again, why do we not find any of this kind of mythology in the Bible? Why is it that we do not find even one statement comparable to what we read in the pseudo-science of the Greeks and the Romans?

They might have informed themselves, however, by reading Jeremiah 10:13: "...he maketh lightnings with rain...." The thunder we hear in a rain storm is the result of lightning exploding hydrogen and oxygen, which com-

bine to form more rain. The explosion and the inrush of the air causes thunder, and the rain falls. The expression of thunder is found in Job 28:26: "When he made a decree for the rain, and a way for the lightning of the thunder...." After thirty-five centuries it was discovered that Job was correct. High speed photography has revealed that there is a dim, almost invisible dart or arrow of electrical particles which strike out a path for the real flash that follows a fraction of a second later. Job, without a high speed camera, informs us about this "way for the lightnings of thunder."

#### 16. *Why clouds float.*

The Word of God tells us about the "balancings of the clouds" (Job 37:16). If clouds didn't float, life on the earth would be impossible, because there would be no rain. The miracle of this wondrous arrangement is seen when God tells us about the firmament in the midst of the waters. At first glance, the word "firmament" in Genesis 1:14 seems to suggest that the heavens are a solid sphere, as Aristotle and others believed. However, the Hebrew word *rakiya*, translated "firmament," literally means "expanse," and suggests something thin or spread out. The Hebrew word here translated "heaven" literally means "high" or "lofty." These are the most appropriate terms which could possibly have been used to describe the floating clouds.

#### 17. *Water weighed and measured.*

The Word of God speaks of the weight of water in Job 28:24,25: "For he [God] looketh to the ends of the earth, and seeth unto the whole heaven, To make the weight for the winds; and he weigheth the waters by measure." Scientists tell us that the amount of water on the earth could not be appreciably increased or diminished without destroying life. Isaiah tells us that God "hath measured the waters in the hollow of his hand, and measured out heaven with the span, and measured the dust of the earth in a measure, and weighed the mountains in scales, and the hills in a balance" (Isa. 40:12).

### 18. Cell structure differs.

I Corinthians 15:39 states, "All flesh is not the same flesh, but there is one kind of flesh of men, another flesh of beasts, another of fish, and another of birds." Up until 1928, leading universities and biologists taught the continuity theory of cell structure. But recently a technique has been discovered through which scientists can tell the difference in the cells of different species by their structure. This new technique and information has utterly disproved the continuity theory of the essential similarity of all cell structure. Though the Apostle Paul was not a scientist, yet, in common with all other writers of Scripture, when he wrote on a subject that directly or indirectly touched on the facts of life and nature, he wrote accurately. In no other way can one account for this phenomenon than to say the authors were divinely inspired.

### 19. So much dust.

Another scientifically accurate statement in the Bible is that man is formed out of the dust of the ground. Genesis 2:7 tells us, "And the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul." Dr. Slosson, in his book, *Sermons From a Chemist*, relates that the chemical analysis of the dust of the ground and the residue of the human body (after cremation) shows that both are made up of the same 16 different chemical elements. He says that the miracle of man's creation from the dust of the ground cannot be doubted because we see it repeated all around us every day, even in our own bodies. Each of us was created out of the dust of the earth. This is especially interesting in view of the fact that there are 103 chemical elements known to science, but 16 of the 103 are found in man and in the dust. There are two other elements found in dust: aluminum and silicone, of which the body makes no use.



## 20. Every man's seal.

The book of Job makes this fascinating statement: "He sealeth up the hand of every man, that all men may know his work" (Job 37:7). This plainly testifies to the possibility of fingerprinting as a means of identification. Detective Sergeant Garrett of Scotland Yard, Great Britain's crime investigation bureau, declared at an inquest that the Bible stated the infallibility of identification by fingerprints, and then he proceeded to quote this very Scripture. He then said that since 1901, Scotland Yard had discovered hundreds of thousands of persons by means of fingerprints, who otherwise would never be found or traced. Now, of course, this means of identification is used all over the world. Of the four billion people in the world, no two have the same fingerprints!

The actual beginning of biological science was when Adam obeyed God's command to "replenish the earth, and subdue it; and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth" (Gen. 1:28). Adam was the first taxonomist—the first to give names to plants and animals (Gen. 2:19).

People came from distant lands to hear Solomon teach on zoology and botany (I Kings 4:29-34). We may infer from Proverbs 6:6 how Solomon learned so much from nature. He said, "Go to the ant, thou sluggard; consider her ways, and be wise." Again and again he says in the book of Ecclesiastes, "I have seen," and "I considered." Solomon was a skilled and accurate observer, and thus was in line with the scientific method, for observation is the keystone of modern science. Solomon's advice about the ant, incidently, is particularly interesting in view of the fact that we now have a science of "bionomics," devoted to the study of ants, bees, birds, and other creatures. Scientists in this field are learning much that helps man to build better components of communications and electronic equipment. These creatures have more to teach us than even Solomon dreamed!

Dr. A. T. Pierson, in his excellent work, *Many Infal-*

*libile Proofs*, refers to a criticism of Proverbs 6:8. It was claimed to be an error to say that the ant "provideth her food in the summer, and gathereth her food in the harvest." Study by entomologists in Palestine, however, revealed the presence of agricultural ants which not only feed on seeds, but harvest them. If their stores become wet by the heavy rains, they bring them to the surface and dry them in the sun to prevent their sprouting. Moreover, recent discovery shows that the agricultural ant not only stores grain, but prepares the soil for the crops, plants the seed, keeps the ground free of weeds, and reaps the harvest. Thus, all that Solomon says of the ants of Palestine, as exemplifying forethought and economy, is more than justified by the facts.

### 21. *A sanitary menu.*

It is significant that the medical and sanitary laws and regulations of Moses were far in advance of the time. To see this we need only compare the customs and beliefs of the ancient Egyptians and Babylonians, for instance, with those of the Hebrews as given to them in the books of Moses. Dr. A. Rendle Short demonstrates the wisdom of the food laws contained in Leviticus 11. Here a list is given of animals, fish, birds, and insects that the Israelites could regard as clean and fit to eat. The criterion of both chewing the cud and parting the hoof was set as a guide to differentiating clean from unclean animals. The meat diet of people in our scientific age roughly corresponds to the suggestions in Scripture, except that we eat also the pig, the rabbit and the hare, which were prohibited to the Jews by this rule. It is now known, however, that these latter animals are easily subject to parasitic infestation and are safe only if they have been cleanly fed and have been well-cooked before eating. The birds and fish the Israelites were permitted to eat are the same as those now known to modern medical knowledge to be the safest and best. Perhaps the distastefulness that some people have toward eating horse meat is based on the fact that it was not considered an animal to be eaten. The only insect allowed for food was the locust, which



is still eaten in large quantities in other parts of the world and seems satisfactory as food.

In Deuteronomy 14:21 Moses forbade the Jews to eat the flesh of any animal that had died a natural death. Twentieth century food laws also prohibit sale of meat from animals that die "naturally," of old age or disease. There was still another reason for avoiding dead carcasses, as William R. Vis, M.D. indicates. Today we know that carcasses may harbor fleas, ticks, and lice, which are all carriers of deadly diseases such as bubonic plague or typhus fever. In spite of the fact that the Jews lived in desert regions and their flocks were essential sources of food, this is still regarded as such good advice that similar laws are enforced in most civilized countries today.

### *22. Pure water.*

Water supply and sewage disposal are of great interest and importance to bacteriologists and civil engineers, as well as the general public. Leviticus 11:29 and 36 accurately stress the need for pure water. (This is especially interesting in the light of the current water problems caused by environmental pollution.) Only about fifty years ago it was recognized that typhoid fever in this country, cholera in India, bilharziasis in Egypt, and many other diseases were spread principally by polluted water. It was not until a few years ago that the significance of a clean and sanitary water supply in the prevention of disease was recognized. But Moses seemed to understand something of modern bacteriology because he forbade the drinking of water from smaller stagnant pools, or from water that had been contaminated by coming in contact with animals and meat.

### *23. Cleanliness and disease.*

The Jews placed great emphasis on washing—an important modern adjunct to public health. In Deuteronomy 23:12-14 directions were given for the disposal of sanitary sewage by burial (Moses demanded that body waste be buried with a shovel or paddle). This provision alone would have gone far toward preventing epidemics



of typhoid and paratyphoid fever. All of these regulations, as well as those concerning personal cleanliness of the body, were far in advance of the practices in even the so-called civilized countries of the world, until within the past 100 years.

It is also true of the proscribed segregation and treatment of such diseases as leprosy. The quarantine of contagious diseases was established in Israel as one of the basic rules of health. Leviticus 13:46 says of the leper, "All the days wherein the plague shall be in him he shall be defiled; he is unclean: he shall dwell alone; outside the camp shall his habitation be." The Hebrew word translated "leprosy" in Leviticus 13 referred to a set of skin disease symptoms. To prevent the spread of leprosy, the patient was isolated and his clothing disinfected. Unclean garments were burned. Further, the leper had to warn all who approached, at the same time covering his mouth! Instead of trying to control this disease by fetishes, as ancient pagans sometimes did, the Hebrew priest acted as a health officer and conducted a systematic plan of diagnosis.

Leviticus 15 contains laws regarding "a running issue." It lists steps that undoubtedly helped to control the spread of disease. Coder and Howe, in their book, *The Bible, Science and Creation*, tell us that the story of the capture of the ark (recorded in I Sam. 5 and 6) contains a graphic account of a bubonic plague. The symptoms of this disease in I Samuel 5:9 ("emerods [or tumors] in their secret parts") are swollen lymph glands or buboes on the groin. It is important to notice that the disease was even at that time associated with *akhbar* (rats and mice), because it was not until the 20th century that scientists in the Western world discovered the connection between the rat fleas and the spread of this plague. If the writings of Moses had been studied during past centuries, there is no doubt that many of the plagues that swept through the world might have been arrested early in their course.

## 24. *Lands idle.*

In Leviticus 25 it was decreed that all of the cultivated lands of the Israelites were to lie idle every seventh year. We have recently learned that when this is not done, the agricultural land resource becomes nutritionally deficient.

Not only were the scientific and medical laws of Moses far ahead of the times, but so were the civil laws. The laws of Moses spawned the basis of the law systems of all the great democratic nations of the world.

In conclusion, although the writers of Scripture were not preparing scientific dissertations, they did make references to scientific subjects which are easily checked. We have compared Biblical statements about scientific matters with the modern evidence in various scientific fields. This, by the way, is something no one would think of doing with any other book as ancient as the Bible.

We could cite example after example to indicate the supernatural inspiration of the Scriptures. One or two of them might be explained or passed off as coincidence, but we have already looked at almost a score of truths concerning, or relative to, modern knowledge as reported in the Scriptures, and it is mathematically absurd, by the law of probability, to attribute them to coincidence. Let us place our confidence in this glorious revelation of God and not only believe it and obey it, but above all accept the matchless, glorious Christ it presents.

## *THE WITNESS OF RUINS*

The confirmation of archaeology to the truthfulness of the Bible is one of the most amazing developments of the latter part of the 20th century. Millar Borroughs of Yale states that on the whole, archaeological work has unquestionably strengthened confidence in the reliability of the Biblical record. In many cases it has shown that the views of modern critics rest on false assumptions and artificial schemes of historical development.

26 Sir Frederic Kenyon, former director of the British Museum, in considering the Old Testament portions



against which the disintegrating criticism of the last half of the 19th century was chiefly directed, affirmed that the evidence of archaeology has re-established its authority and, moreover, augmented its value by rendering it more intelligible through fuller knowledge of its historical setting. Archaeology has not yet said its last word, but the results already achieved confirm what faith suggests—the veracity of the Bible can only gain from an increase of knowledge.

It would not be easy to find a better or more timely rule for people to follow, when speaking with those who scoff at the Scriptures, than the one enunciated by Dr. Melvin G. Kyle, the great American archaeologist. He wrote that no theory should be accepted as final and applied to faith and life until tested and attested by facts: if it is a theory in the field of nature, by the facts of nature; if in the field of experience, by facts of experience; if in the field of history, by facts of history. Our Lord Jesus Christ brings even revelation to this test when He says, "If any man will to do his will, he shall know of the doctrine, whether it be of God, or whether I speak of [from] myself" (John 7:17).

### BIBLE'S GEOGRAPHICAL ACCURACY

Floyd E. Hamilton, in his book, *The Basis of the Christian Faith*, tells of the topographical and geographical trustworthiness of the Bible. The peoples, places and events mentioned are found in the exact localities and under the exact geographical circumstances described in the Bible. Dr. Kyle suggests that correctness concerning the site of an event is an important indication of a true happening. The excavations in Palestine, Egypt and Babylonia have marvelously supported the accuracy of the Bible in its geographical references. Only recently, within the past one hundred years, have the vast majority of the archaeological discoveries been made to substantiate the existence of places of localities in which Biblical events took place. Under these circumstances, it is difficult to understand how the critics can still challenge its accuracy in other respects.

Years ago it was the custom of British navy chaplains to give sailors copies of the book of Acts, because it contained such an accurate description of travel on the Mediterranean Sea. Werner Keller, in his excellent book, *The Bible as History*, comments that no guidebook other than the Bible is needed when traveling down the coast of the Red Sea along the line of the Biblical exodus, for the whole topography corresponds exactly with that mentioned in the Bible.

Several years ago *Post* magazine carried an article entitled "Battle by Bible." Its author, John Hicks, relates an amazing incident told to the men at the army's command and general staff school at Fort Leavenworth, Kansas. During World War I, the Bible once supplied not only inspiration, but a precise plan of battle. The British, under General Allenby, knew that in order to capture Jericho, they must eliminate a Turkish garrison at the village of Michmash. A frontal attack was decided upon, despite the probability of inflicting heavy casualties. On the eve of the attack, the British Chief of Staff outlined to his officers the plan for taking Michmash by direct assault. One of the officers, Major Petrie, was startled. The name of the village was familiar to him, but he didn't know why.

After the meeting, Petrie retired to his quarters and tried to sleep, but the word "Michmash" kept running through his mind. Where had he encountered it before? Suddenly he remembered: in the book of Samuel in the Bible! He quickly located the passages he wanted in I Samuel 13 and 14, then rushed into the commanding officer's quarters and excitedly announced his find. It was the account of how Jonathan had taken Michmash from the Philistines nearly thirty centuries before. Various landmarks were mentioned, including two large, sharp rocks which indicated a pass and a plot of ground overlooking the town. On a hunch, the commander sent out scouts to look for the landmarks, which they found.

That night Petrie and the commander pored over the Biblical passage and completely changed the British plan of attack. Just before daybreak, a small force set



out for the plot of ground above Michmash. At dawn, with loud cries, they emerged from hiding. Seeing the men on the strategic ledge behind them, the Turks became confused and terrorized and were easily subdued. And so Michmash was taken with only a few casualties, and the door to the Near East opened for a great British victory.

Accuracy such as this, in so ancient a collection of writings as the Bible, may surprise some; but to the Christian, it is precisely what one expects to find in the Bible, because it is more than just a book passed down to us from remote times.

### *ETHNOLOGICAL, CHRONOLOGICAL ACCURACY*

The Scriptures are also accurate with respect to ethnology. Whenever any peoples are mentioned or any statement is made about their origin, kinship or customs, whether they ruled over others or served other nations, or any other fact about them, these statements can be depended upon to be in precise accordance with the facts as revealed by archaeology.

The 10th chapter of Genesis contains the list of the lands peopled by the different branches of the family of Noah. A number of remarkable allegations are found in this chapter. As far as archaeology has investigated, every allegation is historically correct. The only natural explanation would be that the author must have had original sources of the first rank before him when he inscribed those words. Yet, when Moses wrote the book of Genesis, he obviously had none of the knowledge of archaeology which we have today, and he recorded those events long after they occurred, but nevertheless, with absolute accuracy.

Furthermore, Biblical chronology is accurate. For example, when we compare events in Egypt, as recorded on the tombs and monuments, and the corresponding events in Babylonia and Assyria with the interwoven events recorded in the Scriptures, we find that the different parts of the chronology fit perfectly. Josiah is side by side with Pharaoh Necho, as the Bible places him.

Hezekiah with Tirhaka, and Rehoboam with Shishak.

It must be admitted by the sincere student that the essential elements of trustworthy history are found in the Bible documents: 1) The places where the events are said to happen are accurately located; 2) The people who are said to be in such and such localities were actually there; and 3) The time of the events recorded is the exact time when they must have happened. This furnishes the framework for the whole of Old Testament history. Without such a framework there could be no trustworthy history in the Old Testament. If we could not trust the accuracy of the history recorded in the Bible, we would have every reason for not trusting anything else we find in the Bible. But when the discoveries of archaeology show us the irrefutable accuracy of Biblical history, it becomes a solid foundation on which the building of revelation rises.

There has been a tremendous amount of research and volumes written confirming the historicity of the Bible. Following are a few of the more striking examples of the vindication of the Bible by archaeology and related fields.

### 1. *"Fabled" Babel.*

Unbelievers have previously taken keen delight in pointing out the amusing absurdity of the account of the tower of Babel and the dispersion of the Babylonians in the 11th chapter of Genesis. This account has now been verified by the fact that temple towers called ziggurats, the Assyrian-Babylonian word for a "pinnacle" or "mountain top," and the ziggurats were "gigantic, artificial mountains of sun-dried bricks." The oldest recovered ziggurat is that at ancient Uruk, biblical Erech (Gen. 10:10), modern Warka, dating from the latter part of the 4th century B.C. Modern archaeology confirms that the temple tower, the ziggurat, became a characteristic feature of temple architecture in Mesopotamia, so that the locations of more than two dozen of such structures are known today.

It has not been many years since what seemed to

be the greatest of the Babylonian ziggurats was uncovered. However, it was found from the Babylonian records that this ziggurat (actually a tower) was old during Babylon's heyday, and had, in fact, been repaired and restored for use in their sacrificial worship. The 6th century B.C. Greek historian, Herodotus, described the structure which then consisted of a series of eight ascending towers, each recessed in turn with a spiral roadway running around it as a means of climbing to the top. At the very top was a great temple, which was used in the worship of Babylon's gods. Babylonian legend had it that this tower was originally built by Nimrod, which coincides again with the Bible record. In fact, the region is still called "Birs-Nimroud" by the Arabs. This great structure had a height of over 700 feet. The tremendous structural accomplishment here is better appreciated when we realize that the Washington Monument of our own day is only about 500 feet high.

Genesis 11:4 reads, "And they said, Come, let us build us a city and a tower, whose top may reach unto heaven...." There are no words in the Hebrew for "may reach"; thus, there is nothing in the text to suggest that the height was to be as high as heaven. The meaning is that the top would be *dedicated to* the heavens, with signs of the zodiac portrayed on it as visible objects to worship. It was this idolatry that brought the judgment of God.

## 2. Abraham and elusive Ur.

Years ago critics doubted the historicity of the Biblical account of Abraham, because the city in which he was supposed to have lived, "Ur of the Chaldees," could not be found. Therefore, they reasoned, Abraham was just a mythical figure. And if indeed he did live, they believed he was just an ignorant, primitive nomad, and that for him to move from Ur to Haran was merely a minor nomadic shift.

Now we know that Ur did disappear from history some time after the days of Cyrus the Great (6th century B.C.) as a result of the change in the course of the



Euphrates River, which left the area without adequate water supply for irrigation. Even the site of the famous metropolis was unknown until 1854 when J. E. Taylor excavated briefly at Tel Mukayyar 150 miles northwest of the Persian Gulf, and identified it as Ur.

There were further excavations in 1918, but the main work at the site was conducted by Sir Leonard Woolley from 1922 to 1934 in a joint expedition of the University Museum of Philadelphia and the British Museum. We now know from the archaeologists' finds that long before the days of Abraham, Ur boasted a high development of civilization. Among the most remarkable discoveries made by Woolley were royal tombs, now dated by many scholars at about 2800 B.C. Advanced multi-story housing with inner courtyards and many clay tablets, the equivalent of books, have been unearthed. Because these ancient people believed strongly in the afterlife, tombs were furnished with musical instruments, jewelry, clothing, utensils of various kinds, wagons and beasts of burden, weapons, and even servants. King A-bar-gi's grave included 65 people besides himself. Queen Shubad's contained 25. Evidence of violent death being absent, it is supposed that these servants were either poisoned, or drugged and buried alive.

During Ur's heyday, education was at a high degree of development. Howard Vos, in his book, *Introduction to Bible Archaeology*, remarks that one is particularly surprised by the great advancement in mathematics. Besides working multiplication and division tables, students were able to extract square and cube roots and do exercises in practical geometry. It becomes evident that Abraham was a product of a brilliant and highly developed culture, and that it must have meant a great deal for him to leave by faith for unknown lands. The brilliant archaeologist, William F. Albright, says that historical skepticism regarding Genesis, chapters 12-50 is quite unwarranted, and that the case for substantial historicity of the tradition of the patriarchs is clinched.

Interestingly, the theories of higher critics about the gradual evolution of culture, science and religion are



gradually being demolished by new archaeological discoveries. Recent excavations at many ancient cities have consistently shown that the very earliest discoverable civilizations were the highest, and that there was a constant degeneration in arts and sciences as time went on.

It has also become evident that religion was originally monotheistic, then later degraded into polytheism, rather than the opposite, as has been claimed.

Concerning the attack on the Pentateuch, that the Mosaic era was a barbarous one and so Moses could not possibly have had enough ability to write, in 1887 some Arabs discovered a collection of tablets at Tell el Amarna, an obscure settlement on the east bank of the Nile, about 200 miles south of Cairo. They were composed of clay, written over with cuneiform inscriptions such as are found in Babylonia. These tablets disproved the critics' contentions and in every way confirmed the Bible narrative. The inscriptions were at length deciphered and found to be a collection of official letters which had been sent shortly before 1300 B.C. to the last king of the 18th dynasty. Thus, the evidence lay bare that hundreds of years before Moses, writing was in existence.

Subsequent discoveries have amply confirmed this fact, and the criticisms of God's Word have been proved again to be baseless assumptions. Instead of Israel's being a people just emerging from barbarism, we find in the light of these discoveries that it was a people conversant with literature and culture of the highest kind. In fact, before Israel ever came into "the Promised Land," Dr. A. H. Sayce, the British Assyriologist, tells us that in the century before the exodus, Palestine was a land of schools and books.

### *3. Hammurabi's Code.*

In 1902, in the ruins of Susa (present-day Iran), a fascinating discovery was made—the Code of King Hammurabi. It contained 248 laws formulated by the Babylonian king about 2250 B.C., 200 years before Abraham left Haran to go to Canaan. The Code was inscribed in cuneiform characters on a great block of polished marble

and was found to contain a complete code of laws, the earliest in the world ever discovered, antedating the Law of Moses by 800 years. Some of the laws of Hammurabi's Code are similar to the laws of Moses, so that there is reason to believe that they were both derived originally from divine revelation. They were somewhat lacking in completeness and detail, in the case of Hammurabi, but were expressed in completeness and detail through divine revelation and inspiration to Abraham and his descendants. This corresponds to the facts better than any other view. This discovery upset the critical contention that such a complete and ethical code as the Mosaic Law was impossible at that age. But instead of confessing their blunder, many critics turned around and claimed, illogically, that the Law of Moses was a mere copy of the Code of Hammurabi!

#### *4. Sodom and Gomorrah.*

Archaeology has also demonstrated the literal truth of another narrative in the Bible which formerly was the butt of much skeptical consideration—the destruction of Sodom and Gomorrah by a deluge of fire and brimstone, in the course of which the wife of Lot was encased in salt. By way of explanation, Dr. Short informs us that the Dead Sea has no outlet; the Jordan and other streams that flow into it bring down water and dissolved mineral salts. The water then evaporates from the surface, leaving behind salts that become concentrated and which are deposited in crystalline form in and around the lake. There is a stratum of rock salt 150 feet thick that can be traced for six miles. Overlaying it is a stratum of sulfur that can be lit with a match.

Large quantities of bitumen (asphalt) once existed around the lake. Much has been taken away, but some remains. (There was enough oil to cause an oil company, before World War I, to commence operation.) The "slime pits" of Genesis 14 no doubt refer to the excavations for asphalt. It may be observed that the whole area is highly peculiar. If, by some act of God, the gases generated in such a region became ignited, it is not at all surprising



that fire and brimstone could have rained upon Sodom and Gomorrah, and that masses of salt hurled into the air may have covered over Lot's wife (the English translation that "she *became* a pillar of salt" gives a misleading sense) and that the smoke of the country went up as the smoke of a furnace.

Dr. Kyle says that a rupture of the strata is plainly visible. According to Alexis Mallon, writing in 1929, the site of Sodom shows that it was destroyed by a great fire, after which it was never again occupied. He also adds in passing that we are not at all disposed to explain away a miracle. It was by an act of God that Lot was warned and enabled to escape, and that the catastrophe occurred when and how it did.

It is conceivable that Lot's wife was buried by lava, and later, through the years, and by ordinary forces of nature, became petrified or fossilized, thus actually turning into "salt." That very thing is known to have happened to a great many individuals in the volcanic destruction in A.D. 79 of the Roman cities of Herculaneum and Pompeii.

Furthermore, archaeological exploration at the site proved definitely that the region of Sodom was inhabited during the time of Abraham, but immediately thereafter became barren of inhabitants and remained so for about 2000 years. At the present time, two U.S. archaeologists, R. T. Schaub and W. E. Past, are digging in this area in four sites dating back to the time of Abraham.

### 5. *The flood.*

The evidence is impressive that a sudden flood overwhelmed the human race, as recorded in Genesis 6, and that all of mankind has descended from the single surviving family. Dr. Morris, in his book, *That You Might Believe*, reminds us that the population of the world in 1800 has been estimated as about 850 million. Today it is about 4 billion. We can find by logarithmic calculation that the population would have to double itself exactly 30 times to produce the present number of people in the world. If the original pair lived, say 500,000 years ago,



which is considerably less than the average evolutionary estimate, the average interval for doubling of the population would have been 16,667 years—which is absurd. If, on the other hand, all people are descended from Noah and his wife, who, according to the best Biblical chronology, must have lived about 4500 years ago, then the average interval for doubling is 150 years—which is entirely reasonable. (By the way, Paul R. Ehrlich, the Stanford biologist, says that the population now doubles every 35 years.)

Anthropologists have learned from ancient religious literature, as well as from primitive tribes, that some form of flood story occurs all around the world. The oldest known uninspired account is the Mesopotamian, written on clay tablets at least as early as 2000 B.C. by the Sumerian people. Slightly later, the Babylonian narrative is recorded in the 11th book of the Epic of Gilgamesh. Flood tablets were unearthed at Nineveh by H. Rassam in 1853 from Ashurbanipal's library (669-626 B.C.), which furnish the most striking extrabiblical parallel to any Biblical event.

There are nine points that show parallels with the Genesis account: 1) The gods decide to make a flood; 2) One man is warned by the deity, Ea, and told to build a ship; 3) In addition to his family, relatives and some craftsmen, he is to take animals of all kinds on board; 4) A seven-day flood turns all mankind into clay; 5) The ship grounds on Mt. Niser, probably east of Nineveh; 6) The man learns that the waters have subsided, by sending out a dove, a swallow, and a raven; 7) He offers sacrifice to the gods; 8) The gods smell the pleasing odor; 9) The god Enlil blesses the man and his wife.

The Babylonian account is polytheistic, in contrast to the monotheistic Hebrew account, and the former has no adequate moral concept of the cause of the flood. While the story has been corrupted by crude and polytheistic features, it nevertheless reflects the true account that was almost certainly maintained in the line of Abraham's ancestors. This narrative is better evidence of the Noahic deluge than any of the deposits of sediment by

inundation found in the excavation of Ur and other Mesopotamian cities, for these layers do not all correspond with each other in time, and apparently tell the tale of local floods.

Several excellent books have been written by highly qualified Christian men concerning the flood, espousing a supernatural catastrophism, as against the modern, naturalistic theory of uniformity. Two of them are, *The Biblical Flood and the Ice Epoch*, by Donald W. Patten, and *The Genesis Flood*, by Henry M. Morris and John C. Whitcomb.

#### 6. *The four kings of Genesis 14.*

Julius Wellhausen and most of the Biblical critics of the 19th century declared that the four Babylonian kings who overcame the five local rulers in the region of the Dead Sea were mythical persons, because nothing was known of them outside of the Bible. Wellhausen arrogantly asserted in 1889 that all the incidents concerning the kings are sheer impossibilities which gain no credibility from the fact that they are placed in a world that has passed away. Thus, the campaign of King Chedorlaomer was declared to be fictitious.

The critics held that no Babylonian army at that time was able to march westward into Palestine, and that the nations of Canaan had never been subjugated by the Babylonians. So confident were the critics that Professor Noldeke, the great Semitic scholar, published a book entitled *The Unhistorical Character of the 14th Chapter of Genesis*. All of this contemptuous chatter is now childish in the light of recent discoveries. From deciphered inscriptions on objects found in the valley of the Euphrates it is now shown that the four kings mentioned in the Bible were real, historical characters. The names of every one of them have been discovered and identified. Mr. Pinches of the British Museum found broken tablets bearing the names of the kings joined together—proving either an alliance or concerted action by all four. If all the fragments of written messages could be found,



we would no doubt learn from them the details of this campaign.

### *7. Bricks without straw.*

In remarkable ways, minor incidents in the Exodus narratives have been confirmed by archaeological discoveries. No one living at 500 B.C., with only vague traditions to go on, could possibly have included the following incidents in such a forgery as the critics say were foisted on the Israelites.

For example, in Exodus 1, written 3500 years ago, it is recorded that the Egyptians set task masters over the Hebrews and forced them to build the store cities of Pithom and Ramses. Exodus 5 relates how Pharaoh compelled them to make bricks without straw. Then, when they took too much time gathering stubble, he forced them to make bricks without even stubble. Sometimes the bricks were bound together with sticks. In 1908 Kyle examined the ruins of what appeared to be Pithom. He reported that the lower levels in some of the store chambers are laid with brick filled with good chopped straw; the upper levels are made of brick having in them no binding material whatever, and the middle courses are made of brick filled with stubble pulled up by the roots. The impress of the roots is as plainly marked in the brick as though cut by an engraver's tools. The Egyptians were not known to build walls with mortar, so an alien people, not native Egyptians, must have done this work.

### *8. The walls that tumbled down.*

Because of the witness of ruins, no one should ever again speak with disdain of the conquest of Jericho by the Israelites, recorded in Joshua 6:2-20. What sport the skeptics once had with this narrative! We now know from excavations at the site of Jericho that Joshua's account is thoroughly reliable.

Jericho was destroyed and rebuilt at least ten times, in vivid illustration of the Biblical curse that rested upon its rebuilding. Archaeologist John Garstang, who did not have the least concern about proving the truth of the Bi-



ble, did extensive research at the site between 1930 and 1936. According to his conclusions, the outer walls apparently collapsed outward and slid down the slope on which the town was built. Remains of the wall can still be seen on the slopes today. So completely was the wall destroyed that it would have been possible for besiegers to climb over the rubble and into the city. In further confirmation of the Scriptures, the site was burned at the time of conquest, for there are traces of intense fire, including ashes and masses of reddened brick. Moreover, as a result of the Israelites' obedience to God's command not to plunder the city, foodstuffs were found in abundance in the remains. This is a remarkable discovery when we consider that the Hebrews had not yet found opportunity to raise crops since coming in from the desert.

Furthermore, part of the inner wall next to the citadel still stands at a height of 18 feet. Here was a likely location for the house of Rahab (Josh. 2:1; 6:17-25). The walls originally may have been as high as 30 feet.

The critics also claimed that Joshua's account was a myth because of the unlikelihood of a great throng of people walking around a city as large as Jericho seven times in one day. However, since the excavation of Jericho, it has been found that the city was so small and compact that one could walk around it easily in an hour. Today it is quite safe to place your entire confidence in the complete credibility of the Biblical story of the fall of Jericho.

### 9. *The Hittites.*

A rich and powerful people called the Hittites are mentioned in the Bible forty-six times. The critics once scoffed at the Bible's delineation of such an empire, because none of their inscriptions or cities had been found, and nowhere were they referred to in the fragmentary pagan literature known a century ago. Thus, in no uncertain terms it was claimed that the people called the Hittites never existed, that they were nothing more than legendary.

Here again, however, archaeologists came to the res-

cue. The Hittites are now known to be everything the Bible described them to be, and more! The uncovering of the Hittite empire and their industrious civilization is one of the miracles of modern archaeology. As a result of the labors of a number of scholars on Hittite inscriptions, knowledge of an empire comparable in greatness and importance to the Egyptian or the Assyrian has emerged. Assyrian inscriptions testify to the greatness of this people, as do tablets found in Turkey. The empire reached from north and west of the Euphrates to the Black Sea north of Asia Minor. The capitol city of Boghaz Koi has been excavated, as well as Carchemish (Jer. 46:2). One of the great magazines of our country devoted an issue wholly to the fabulous capitol and the conquests of these ancient Hittites. Once again, Bible history has proved to be accurate, while the scoffing of the critics has proved to be unfounded.

#### 10. *The "way of the water tunnel."*

Many incidents of Davidic history have been confirmed by archaeological findings. Martin Noth, the critical theologian, tells us that the David narratives must be regarded as largely historical. Werner Keller gives us an intriguing example. The Bible records how the soldiers in David's army were unsuccessful in their attempt to capture Jerusalem. The Jebusites, who held the city, taunted the Israelites by saying that the city was so strong that even the blind and the lame could defend it! But David saw that the water shaft or "channel" or "tunnel" could be used as a way to enter and take the city. II Samuel 5:8: "And David said on that day, Whosoever getteth up to the water shaft...smiteth the Jebusites...."

On the east side of Jerusalem, where the rock slopes down into the Kidron Valley, lies the "Fountain of the Virgin Mary." In the Old Testament it was called the "Gihon," that is, "Bubbler," and it has always been the source of water of the inhabitants of Jerusalem. In 1867, Captain Warren, of the British army, visited this famous spring, and despite the semi-darkness, he noticed a dark cavity in the roof a few yards above the spot where the



water flowed out from the rocks. Apparently this had never been noticed before. Surmising that it could be a concealed passage, he returned the next day with a ladder and a long rope and carefully made his way upward into the "chimney." After about forty feet, the shaft suddenly came to an end. Feeling his way in the darkness, he eventually found a narrow passage. Continuing to crawl, he followed it until he saw a slight glimmer of light. Finally, he reached a chamber which contained nothing but old jars and glass bottles covered with dust. Forcing himself through a small opening, he suddenly found himself in broad daylight in the middle of the city. Far below him lay the Fountain of the Virgin. He had discovered the "way of the water tunnel." Centuries ago David's men captured Jerusalem by going up the same passage.

### *11. Solomon's empire.*

It was formerly claimed that such an empire as the Bible describes existing in the time of Solomon was terribly exaggerated. Critics argued that the powerful empires then on the Euphrates and the Nile would hinder such expansion. Now we know that in Solomon's day the empires on the Euphrates were in decline and the Egyptian empire was practically impotent. In the whole history of Israel there would not be such a time for expansion than there was at that particular moment of history.

The Biblical description of the grandeur of Solomon's reign has not been in the least exaggerated. Archaeology has verified the extent and the glory of his empire, and hundreds of examples could be given of the unearthed remains of magnificent military installations, royal stables, copper mines and refining plants, ships and harbors. Archaeologists working at various tells (mounds) in Solomon's kingdom have been absolutely astonished as each new structure comes to light. No wonder the "fame of Solomon" came to the knowledge of the Queen of Sheba (I Kings 10:1).



## THE NEW TESTAMENT

In this study we have touched only a few of the highlights of the great mass of corroborative evidence that archaeology has brought to light to support the accuracy of Old Testament documents and history. What was said of the Old Testament can be said of the New: there has not been found one single mistake in the New Testament record.

Archaeological research and discovery for the New Testament is of a different nature than for the Old Testament. It is not so much a matter of digging for buried buildings or inscribed tablets; it is primarily a matter of written documents.

Because we do not have the original copies of the New Testament books, we wonder, can we really trust what we do have? The answer is an unqualified yes! F. G. Kenyon tells us concerning the textual advantage of the New Testament documents over all other ancient manuscripts, that with no other writing is the interval of time between its composition and the date of the earliest extant manuscripts so short as in that of the New Testament. For example, the earliest existing manuscript of Sophocles dates 1400 years from the time it was written. For Euripides it is 1500 years, 1200 for Plato, and 900 for Horace. However, manuscript copies of the New Testament are found as early as from 250 to 300 years from the time of the original documents. (Since the time of Kenyon's writing, numerous papyri portions of the New Testament documents have been discovered. These go back to the end of the 1st century and bridge the 250-300 year gap of which Kenyon spoke.)

In evaluating these discoveries, shortly before his death, Kenyon concluded that the interval between the dates of the original writings and the earliest extant manuscripts becomes so small as to be in fact negligible. The last foundation for any doubt that the Scriptures have come down to us substantially as they were written, has now been removed. Both the authenticity and the integ-

rity of the New Testament books may be regarded as finally established.

Moreover, A. T. Robertson, author of the most comprehensive grammar of the New Testament, tells us that there are about 8000 manuscripts of the Latin Vulgate, and at least 1000 for the other earlier versions. Add over 4000 Greek manuscripts and we have more than 13,000 manuscript copies of portions of the New Testament. Moreover, much of the New Testament can be reproduced from the quotations of the early Christian writers.

John Warwick Montgomery concludes that to be skeptical of the text of the New Testament books is to allow all of classical antiquity to slip into obscurity, for there is no document of the ancient period as well attested, bibliographically, as the New Testament.

The New Testament documents represent the testimony of eyewitnesses, or testimony from equally reliable sources. Careful comparison of the documents with inscriptions and other independent early evidence has, in the modern period, confirmed their primary claim.

A fragment of the Gospel of John, known as the Ryland's fragment, was found in 1935. It was dated in the early 2nd century, circulating in Egypt in the period A.D. 130-150. According to the scholars, this means that the original Gospel of John was written about A.D. 85 or 90. This was a fantastic blow to the critics, because they had argued that the Gospel of John was not written until the 3rd century.

In regard to the Synoptic Gospels (Matthew, Mark, and Luke), it is refreshing to see that one of the great French liberal scholars of today, Maurice Goguel, puts them in the 1st century in his recent book *The Early Church*.

More important is the fact that the internal evidence from the Gospels and the evidence from the archaeological discoveries and papyrus documents point to both the early date and the absolute integrity and validity of the Gospels.

There was a time when the critics suggested that Pontius Pilate never lived, but since that time there has



been abundant historical data to verify his place in history. For example, the Roman historian Tacitus, while explaining the meaning of the word "Christians" in his *Annals*, says, "Christ, from whom they derive their name, was condemned to death by the Procurator, Pontius Pilate, in the reign of Emperor Tiberius." Excavations in the theater in Caesarea on the coast of Palestine in 1961 revealed an inscription which included the name of Pontius Pilate. Though referred to by Josephus, this is the first time archaeological evidence of an inscriptional nature has been found attesting to Pontius Pilate. The inscription also bears the name of Tiberius; Pilate served under Tiberius as procurator of Judea.

The accuracy of Luke as a historian is amazing. For example, in Luke 3:1 there is the mention of a Lysanias, "the tetrarch of Abilene in the fifteenth year of the reign of Tiberius Caesar." A "Lysanias" is mentioned by Josephus as having reigned over this province in 36 B.C., and as having been killed by Mark Antony. Immediately there were those who seized upon the glaring mistake Luke had apparently made in placing Lysanias nearly six years later. However, inscriptions have been discovered which show that Luke was right. The Lysanias of the Gospel was a descendant of the one Josephus mentioned.

Hamilton gives us an illustration of the accuracy of Acts in the purely incidental way in which the author threads his way through the complex political situations in the different cities mentioned on the Apostle's missionary journeys. For example, Philippi was a Roman colony with few Jews, no synagogue, and a *propraetor* as ruler. Thessalonica, on the other hand, was a Greek city, with its own constitution and a certain amount of autonomy. The magistrates were called "politarchs" in Acts, a title which occurs nowhere else in Greek literature. For many years it was supposed that Luke was in error here, and that the magistrates must have been called by some other name. But an inscription has been found on an arch which stood at the western end of the main street in Salonica, proving that "politarch" was the correct title of the magistrates, and that Luke was right af-



ter all. The archaeologist, J. P. Free, says there are seventeen inscriptions in the city using this term.

Another instance of the historicity of the New Testament can be seen in the case of the Roman proconsul, Gallio, mentioned in Acts 18:12-17. The critics said there was no such man and that certainly he was not the ruler of Corinth. However, archaeologists have uncovered the record of this man, and an inscription found in Delphi reveals that Gallio was proconsul in Achaia in A.D. 52.

Many significant items connected with Paul's stay at Ephesus have been illuminated by archaeological discoveries. For example, the books on magic, which were burned (Acts 19:19), are paralleled by texts on magic found in the discoveries, one volume of which may be seen in the British Museum. The Temple of Diana (Acts 19:27), discovered after a series of excavations begun in 1863 by J. T. Wood, proved to measure 160 by 340 feet, with some of its columns measuring as much as 20 feet in circumference.

We could give many more similar examples of how statements in the Word of God have been proved true by external evidence, from inscriptions, papyri, manuscripts, coins, the Dead Sea Scrolls, etc. Such evidence may not prove to some that the Bible is a revelation from God, but it does prove that it is historically reliable and that its critics have not only been malicious, but wrong. Such historical accuracy gives valid reason for a step of faith based not on incredulity, but on the best evidence that the Bible is a revelation from God. And if, when tested by external evidence, it is proven absolutely trustworthy, certainly it logically follows that we may presume that it is true in the places where its claim of having inspiration cannot be tested by external evidence, but that it is nevertheless well-founded. Certainly there is every reason for believing the Bible is veritably the Word of God. God has not handicapped this generation, but has given us ample evidence of His existence, His nature, and that He has spoken to us in the revelation of His Word and in the person of His Son. How foolish men would be not to believe it!

With confidence we can rest in the assurance that in the Old Testament, and particularly in the New Testament, we have an accurate account of God's mighty intervention into the stream of history in the person of His Son, the Lord Jesus Christ, the One who came to redeem us from sin's destroying power of death, and to reconcile us, forgiven, cleansed, and renewed to the God who loves us!





