

PROGRAM SUMMARY

Monday, August 22, 1949

- 8:45 A.M. Registration
- 9:15 A.M. Opening Session
- 10:30 A.M. Technical Session
- 1:00 P.M. Technical Session
- 2:20 P.M. Bus leaves for Mount Wilson

Tuesday, August 23, 1949

- 7:15 A.M. Devotional Period
- 9:00 A.M. Technical Session
- 11:30 A.M. Motion Picture, "The Story of Palomar"
- 1:30 P.M. Technical Session
- 2:10 P.M. Bus leaves on La Brea Fossil trip.
- 8:00 P.M. Public Lecture, Dr. Allan A. MacRae

Wednesday, August 24, 1949

- 7:15 A.M. Devotional Period
- 9:00 A.M. Bus leaves for Palomar Observatory

Thursday, August 25, 1949

- 7:15 A.M. Devotional Period
- 9:00 A.M. Technical Session
- 1:30 P.M. Technical Session
- 7:00 P.M. Bus leaves for Moody Institute of Science

Friday, August 26, 1949

- 7:15 A.M. Devotional Period
- 9:00 A.M. Technical Session
- 11:00 A.M. Business Session
- 12:00 A.M. Adjournment of Convention

OFFICIAL PROGRAM

Fourth Annual Convention

THE AMERICAN SCIENTIFIC AFFILIATION

(Incorporated)

A group of Christian scientific men devoting themselves to the task of reviewing, preparing, and distributing information on the authenticity, historicity, and scientific aspects of the Holy Scriptures in order that the faith of many in Jesus Christ may be firmly established.

August 22nd through 26th

1949

Convention Headquarters:

The Bible Institute of Los Angeles
558 South Hope Street (Corner Sixth Street)
Los Angeles, California

Monday, August 22, 1949

8:45 A.M. **Registration**

9:15 A.M. **Opening Session**

- Prof. Peter W. Stoner presiding
1. Invocation
 2. Word of welcome—
Dr. Samuel H. Sutherland, Dean of the Bible Institute of Los Angeles
 3. Annual President's report—
Mr. F. Alton Everest
 4. Announcements concerning the convention Program—Dr. H. Harold Hartzler

10:30 A.M. **Technical Session**

- Prof. Peter W. Stoner presiding
1. "Gamow's Theory of Element Building"
Mr. Delbert Eggenberger
 2. "The Carbon 14 Method of Dating"
Dr. J. Laurence Kulp

11:40 A.M. **Adjournment**

1:00 P.M. **Technical Session**

- Dr. Hawley O. Taylor presiding
1. Invocation
 2. "Fifty Years of Development in Astronomy and Its Impact on Scriptural Interpretation"
Prof. Peter W. Stoner
 3. "The Hole in the North"
Dr. H. Harold Hartzler

2:10 P.M. **Adjournment**

2:20 P.M. Bus leaves for Mount Wilson Observatory Inspection Trip

Tuesday, August 23, 1949

7:15 A.M. **Devotion Period** led by Dr. Edwin Y. Monsma

9:00 A.M. **Technical Session**, Dr. Paul Bender presiding

1. Invocation
2. "Fossil Sequence in Clearly Superimposed Rock Strata"
Miss Cordelia Erdman
3. "Deluge Geology"
Dr. J. Laurence Kulp
4. "Modern Physics and Christian Faith"
Dr. Aldert van der Ziel

11:30 A.M. **Motion Picture:** "The Story of Palomar"

12:00 Noon **Adjournment**

1:30 P.M. **Technical Session**

- Prof. Hendrik J. Oorthuys presiding
1. "Daniel and the Median Empire"
Dr. Allan A. MacRae

2:00 P.M. **Adjournment**

2:10 P.M. Bus leaves on La Brea Fossils Inspection Trip to Los Angeles County Museum and La Brea tar pits.

8:00 P.M. **Public Lecture**, Auditorium Church of the Open Door

- "New Light on the Old Testament"
Dr. Allan A. MacRae

Wednesday, August 24, 1949

7:15 A.M. **Devotional Period** led by Dr. Paul Bender

9:00 A.M. Bus leaves on all-day trip to Palomar Observatory and points of interest enroute.

Thursday, August 25, 1949

- 7:15 A.M. **Devotional Period** led by
Prof. Edmund N. Gathercoal
- 9:00 A.M. **Technical Session**
Dr. Roger J. Voskuyl presiding
1. Invocation
 2. "Biblical Data on the Age of Man"
Dr. R. Laird Harris
 3. "The Atomic Bible"
Dr. Joseph S. Maxwell
 4. "Eye Witness"
Dr. Roy M. Allen
 5. "Scriptural Truths in Mathematics"
Dr. Angeline J. Brandt
- 12:00 Noon **Adjournment**
- 1:30 P.M. **Technical Session**
Dr. Irving A. Cowperthwaite presiding
1. Invocation
 2. "Behaviorism and Philosophical
Psychology"
Prof. Bernard Ramm
 3. "Basic Anxiety"
Dr. Philip B. Marquart
 4. "Modern Science and Values"
Dr. Carl F. H. Henry
- 3:30 P.M. **Adjournment**
- 7:30 P.M. Bus leaves for Moody Institute of Science ~~Ins~~
pection Trip.

Friday, August 26, 1949

- 7:15 A.M. **Devotional Period** led by
Dr. Brian P. Sutherland
- 9:00 A.M. **Technical Session**
Dr. John R. Howitt presiding
1. Invocation
 2. "The Fall and Its Relation to Present
Conditions in Nature"
Dr. Brian P. Sutherland
 3. "Symposium on Medicine and the
Bible"
Led by Dr. John R. Howitt
- 11:00 A.M. **Final Business Session**, Mr. F. Alton Everest
presiding.
- 12:00 Noon Adjournment of the Convention

INSPECTION TRIPS

Mount Wilson Observatory

(Monday, August 22nd. Bus leaves Biola at 2:20 p.m.)

The trip is planned so that the observatory is reached in time to see the 150-foot Tower Telescope in use. This instrument is used to observe the sun. A direct image of the sun approximately 16 inches in diameter allows ready observation of sunspots, corona, etc. The spectrograph used in analyzing the light of the sun will also be demonstrated.

After the inspection of the Tower Telescope, the following instruments will be inspected in the order of their historical interest:

1. The Snow Telescope
2. The 60-Foot Telescope
3. The 50-Foot Tower Telescope
4. The 60-Inch Telescope
5. The 100-Inch Telescope

The Museum will also be visited briefly after which dinner will be served at the Mount Wilson Hotel. The in-

spection of the astronomical instruments will be personally conducted by Mr. Joseph Hickocks of the Mount Wilson Observatory staff. For those interested, a brief inspection of one of the nearby television transmitters may be arranged.

Approximate cost: Bus - \$1.50
Dinner \$1.25 to \$1.50

Trip Organizer: Prof. Peter W. Stoner

La Brea Fossils Inspection Trip

(Tuesday, August 23rd. Bus leaves Biola at 2:00 P.M.)

The collection of fossils obtained from the asphalt deposits of Rancho La Brea is, perhaps, one of the most important in the world as pertains to excellent state of preservation and wide variety of species represented. More than 200 different kinds of animals and plants are now known from this deposit, including especially good representations of mammals and birds. More than 4000 individual mammalian specimens have been obtained. These include extinct forms such as the dire wolf, the sabre-toothed cat, camel, mastadon, and ground sloth.

The group will first visit Hancock hall of the Los Angeles County Museum where the mounted specimens may be inspected and later the Rancho La Brea tar pits in Hancock Park on Wilshire Boulevard. Dr. Hildegarde Howard, Curator of Avian Paleontology of the Los Angeles County Museum will personally conduct the tour.

Approximate cost: Bus - \$0.75

Trip Organizer: Prof. Earl C. Rex

Palomar Observatory Trip

(Wednesday, August 24th. Bus leaves Biola at 9:00 A.M.)

An introduction to this trip will be given through the film, "The Story of Palomar" which will be shown Tuesday morning. This film depicts the great engineering feat of casting, grinding, and transporting the large 200-inch mirror around which the 200-inch Hale telescope is built. This world's largest telescope will be seen on Palomar Mountain as well as the Schmidt telescope, noted for its great photographic speed, detail, and wide-angle coverage.

On the trip to Palomar, the group will stop to visit Mission San Juan Capistrano, one of the finest and most interesting of the many California Missions.

On the return trip through Anahelm, the group will stop for dinner at Knott's Berry Farm, noted both for its food, and the Ghost Town. This most remarkable reconstruction of early Californian mining towns is very extensive and complete even to the place where the visitor can pan his own gold.

Approximate costs: Bus\$3.00
Lunch Hotel Capistrano.....\$1.00 to \$1.65
Dinner Knott's Berry Farm.....\$1.75

Trip Organizer: Prof. David M. Spaulding

Moody Institute of Science

(Thursday, August 25th. Bus leaves Biola 7:00 P.M.)

The Moody Institute of Science, a Department of the Moody Bible Institute of Chicago, is the place of production of the famous Sermons From Science Films, "God of Creation," "God of the Atom," and "Voice of the Deep." The American Scientific Affiliation has an interest in these films inasmuch as each has borne the approval of the ASA, having passed the scientific scrutiny of the ASA Film Reviewing Committee.

The various departments will be visited, such as photomicrographic, lapse time, art and animation, editing, release rinting, sound stage, recording room and shops. The

two tons of demonstration equipment used in Sermons From Science evangelistic tours will be available.

The ASA will be given the opportunity of viewing at least a preliminary version of the forthcoming film, "Dust or Destiny" prior to voting on the approval at the final business session. This film treats some of the wonders of the human body, the echo-locating ability of the bat, bird migration, the dry-land-spawning grunion, and tropisms in plants. It may be necessary to limit admission to those who have registered due to space limitations.

Approximate cost: Bus - \$1.00

Trip Organizer: F. Alton Everest

ABSTRACTS OF PAPERS

Delbert N. Eggenberger, B.Ed.

Research Chemist

Armour and Company, Chicago

The observance of an expanding universe coupled with developments of recent years in the structure and transformation of atomic nuclei have led to several theories of element-building from primary particles. Most interesting has been that due largely to Gamow and based upon neutron capture as the first-order process. The assumption of an initial sudden, and unexplained, appearance of concentrated energy of radiation and resultant neutrons implies creation ex nihilo. This is suggested as the possible interpretation of Genesis 1:1. Other processes of element-building are being studied but all have one thing in common, the sudden appearance of a quantity of primordial building material.

THE CARBON 14 METHOD OF DATING

J. Lawrence Kulp, Ph.D.

Lecturer in Geology

Columbia University - New York, N. Y.

By means of the radioactive carbon (isotope 14) concentration in dead plants and animals it is possible to estimate the time elapsed since death. This is possible because (1) living things have a constant content of carbon 14, (2) the half life of carbon 14 is known, (3) experimental techniques are adequate for measurement. Dates back to 25,000 years have been obtained. The theoretical limit is 50,000 years. Calibration points in written history back to 3000 B.C. have been verified. Preliminary work indicates Neanderthal remains (the youngest stratigraphically of the prehistoric fossil men) are at least older than 25,000 years.

Fifty Years of Development in Astronomy and Its Impact on Scriptural Interpretation

(Some items lap over into other sciences.)

Peter W. Stoner, M.S.

Pasadena City College Pasadena, California
Chairman Dept. of Mathematics, Engineering, and Astronomy

Genesis 1:1. The truth of this verse has been shown by: The age of the Earth, the age of meteorites, the age of the earth moon system, the age of the Sun, the age of our galaxy taken from star streaming, the age of the universe taken from galactic velocities, atomic energy.

Genesis 1:2. This verse has changed from a point of attack on the Bible to powerful evidence for its inspiration by: elimination of the nebular hypothesis, discovery of dark nebulae, the stellar sequence.

Genesis 1:3-5. Light has been shed on this verse by the determination of limiting sizes for stars.

Genesis 1:14-18. Light has been shed on this passage by the stellar sequence and Astro-Physical determination of some early stages of the earth.

Genesis 2:4-5. This passage ties the above passage with Historical Geology in a very remarkable way.

THE HOLE IN THE NORTH

H. Harold Hartzler, Ph.D.

Professor of Mathematics

Goshen College

Goshen, Indiana

A number of speakers and writers speak of a possible opening in the sky where the stars are supposed not to exist. This place in the skies is usually spoken of as being in the north. In this paper the problem of the position of the north is first taken up. Then the evidence of the hole in the starry heavens is presented. That the stars do thin out in directions at right angles to the galactic plane, there is no doubt. However the best scientific evidence is that the presence of a rift in the sky merely shows us the presence of a dark nebula.

Finally the question of the place or position of Heaven is discussed. Since God transcends such quantities as space, matter and time and we are to be like Him, it is argued that the reality of Heaven is not physical but spiritual.

DELUGE GEOLOGY

J. Laurence Kulp, Ph.D.

Lecturer in Geology

Columbia University

New York, N. Y.

That the flood of Noah accounts for the sedimentary rocks of the earth's crust has been suggested repeatedly since Medieval times. In this century it has become among fundamentalists the "Christian view of geology." This is most unfortunate because (1) it is absurd to the educated non-Christian and (2) it has given apparent support to favored but impossible interpretations of Genesis.

The factual basis for the major concepts of the science of geology will be presented. The tenets of Flood Geology will be evaluated in terms of physical and chemical laws, applicable to the earth's crust.

MODERN PHYSICS AND CHRISTIAN FAITH

A. Van der Ziel, Ph.D.

Associate Professor of Physics

University of British Columbia

In this paper the fundamental nature of physics is discussed. It is shown that physics is an experimental science, based upon observations and experiments and is not a philosophy. It does not discuss the "nature" of things, but it describes sufficiently what phenomena occur, how they occur, and what we can do with them.

If physics is thought to tell us something about the "nature" of things, then there is always the danger that an analogy is taken to be a reality. If physics is thought to be a descriptive science, this danger is much less acute and analogies can have their rightful place.

The answer to the question whether there is religious truth and where it can be found does not come from physics or from any other science. It comes from God Himself, from His revelation in Christ. The message of God's love and mercy towards us comes through the mouths of the prophets and apostles, not through the mouths of scientists.

DANIEL AND THE MEDIAN EMPIRE

Allan A. MacRae, Ph.D.

President, Faith Theological Seminary

Wilmington, Delaware

It is frequently stated that the author of the Book of Daniel held an erroneous view of the succession of the great ancient world empires, and that both the historical and the prophetic portions of the book contain references to a

Median world-hegemony, following that of Babylon and preceding that of Persia, but contrary to the archaeological evidence.

This paper will examine the evidence on this point, and outline the present state of the investigation regarding the pertinent Biblical statements and the relevant archaeological discoveries.

BIBLICAL DATA ON THE AGE OF MAN

R. Laird Harris, Ph.D.

Professor of Biblical Exegesis
Faith Theological Seminary
Wilmington, Delaware

A first reading of the Bible would lead approximately to Archbishop Ussher's conclusions that Abraham lived about 2000 B.C., the flood occurred in 2348 B.C. and creation in 4004 B.C. This assumes no gaps in the genealogies of Gen. 5 and 11. Parallel genealogical phenomena plus the Biblical representation of the growth of nations from Noah to Abraham, plus archaeological data argue for gaps in the genealogy of Gen. 11. If we could date the flood, we might estimate the gaps. The flood if not worldwide at least covered all the territory occupied by man. So great a deluge at a comparatively recent date might be expected to leave marks. There is no bona fide archaeological evidence for Noah's flood. This is a problem for geology. Archaeology seems to show settled cities to have begun around 4000 B.C. Biblical picture of Noah's status in civilization would be in line with dating flood not long before this. Allowing 2-3000 years for the 10 generations of Gen. 11 (whose combined ages totals 2261 years) would seem to stretch the picture about enough. The ages of the antediluvian patriarchs were greater. If we assume a span not appreciably longer than the total of their ages we should have 8500 years or a date of 12,000 B.C. for the creation of man. The Bible's style changes between the record of creation, which was clearly a thing revealed to Moses, and the story of Adam's family and successors which seems to be derived in part from tradition. We should remember that writing originated about 3200 B.C. A few great names can be provisionally preserved for some thousands of years by tradition—especially if the patriarchs attained great ages. But tradition for hundreds of thousands of years seems out of the question. The Bible gives no positive data, but its picture indicates an antiquity of man in the tens of thousands rather than hundreds of thousands of years.

THE ATOMIC BIBLE

Joseph S. Maxwell, M.D.

Fairmont, West Virginia

Using root meanings of Hebrew and Greek words in the Bible, ideas suggesting modern atomic thinking are found in the Bible. Many other words studied are omitted for lack of space.

A few of the most pertinent references are affixed for each thought offered. Inference and spiritualising is avoided. This study is offered especially to chemists and physicians who may not have time to dig out such meaningful roots, and in hopes that the basic truth offered to us by God's Book may facilitate some useful research.

EYE WITNESS

Roy M. Allen, Sc.D.

Consulting Metallurgist
Glen Ridge, New Jersey

In this paper there is presented the testimony of eye structure as found throughout all animate life, from three different viewpoints. First the facts are seen and inter-

preted by the evolutionist; tracing eye development from its most primitive form—a mere pigment spot, as in Euglena—up through various stages to the complete mammalian eye. Then there is taken up some of the abundant evidence revealed in various types of eye structures proving that no theory of mechanistic evolution can explain or account for conditions as they exist. It is impossible to construct a genealogical tree that will fit every form of eye known and at the same time account for other anatomical structures. Finally some of the marvelous adaptive design features of the human eye are analyzed which testify to every detail being carefully worked out by a Master Designer able to bring them about in His own chosen way. The paper will be illustrated with about 30 original photomicrographic lantern slides (3 1/4 x 4) to help make the arguments presented conclusive.

SPIRITUAL TRUTHS IN MATHEMATICS

Angeline J. Brandt, Ph.D.

Professor of Mathematics
Wheaton College

Some analogies between mathematical facts and spiritual truths are made. These arise in various branches of mathematics and are made with the college student in mind. Postulational thinking, the concept of infinity, the functional concept, the idea of signed numbers, translation in analytic geometry, and the idea of variables and constants are used as illustrations to show how this is accomplished. For example, the concept of infinity is linked with that of eternity, and likewise the other topics have their spiritual analogs.

BEHAVIORISM AND PHILOSOPHICAL PSYCHOLOGY

Bernard Ramm, B.D., M.A.

Professor of Apologetics
The Bible Institute of Los Angeles

The doctrine of the soul is one of the paramount tenets of evangelical Christianity and is denied categorically by behaviorism. The seriousness of this denial is that it involves the very possibility of any type of spiritual activity on the part of man.

One of the factors making this denial possible and potent is that psychology and philosophy have gone their own ways in the past two decades at least, and it is the job of the philosophical psychologist to bring the two disciplines together. It is one of the purposes of a Christian philosopher of psychology to show on empirical grounds the need for a doctrine of the soul.

Behaviorism lamentably neglects this ground of philosophical psychology without which it cannot fully grasp the most general truths of psychology. Philosophical psychology, in turn, can point out to the behaviorists just where he sins against wider knowledge. The behaviorist adopts evolution as metaphysically ultimate; he denies consciousness; he tries to imitate physics; and he denies any validity to introspection—all of which seriously vitiates all his labors and casts suspicion on the validity of all his conclusions.

BASIC ANXIETY

Philip B. Marquart, M.D.

Psychiatrist
Wheaton College
Wheaton, Illinois

When Adam fell, his sin was disobedience. It resulted in guilt and a most terrible state of fear which we would call panic. Following this, there remained as a permanent part of human nature a certain restless uneasiness and dissatisfaction which has wrongly been called Basic Anxiety

by the secular men. It is rather the basis of the other genuine anxieties which we call Manifest Anxiety. Secular psychologists have pondered, vainly seeking the origin of Basic Anxiety, but we find it in the third chapter of Genesis. We find there also the seven basic fears or manifest anxieties which have haunted man ever since. By thus losing fellowship with God and the joy and satisfaction therein, man developed the two basic impulses: ego recognition and ego satisfaction. These two basic impulses can be analyzed into their various drives, urges or motives. These are really the "like passions" of the flesh and they may be classified into lusts of the flesh, lust of the eyes, and the pride of life. These constitute the Adamic motivation after the Fall. Prior to the Fall, the motivation was "at the impulse of thy love."

Basic Anxiety is best described in Isa. 57:20. It lasts all of our Christian lives, but it ends with the Resurrection. Ps. 17:15.

THE FALL AND ITS RELATION TO PRESENT CONDITIONS IN NATURE

Brian P. Sutherland, Ph.D.

Senior Research Engineer
Consolidated Mining and Smelting Co.
Trail, British Columbia

While there is much evidence in nature that can be used to show the handiwork of a beneficent Creator, there is also, beside the sinfulness of man, much of apparent natural evil seen in widespread waste, futility and pain. It seems desirable to try to determine why this is so, if the argument from design is to be used effectively.

Several theories that have been put forward are considered in the light of present day conditions, the record of the fossils and the statements of the Bible, particularly those concerning the Fall of man and its consequences. Suggestions are made as to a possible explanation of the evil in nature with a view to further consideration and discussion by the group.

Accommodations:

Rooms will be supplied by the Bible Institute of Los Angeles at a charge of not over \$1.50 per person per day including linen. These rooms will be in the Acacia Hotel across the street from the Institute, which is being used as a dormitory, or in the main building.

In case these facilities are insufficient to meet the need, the Willard Hotel adjoining the Bible Institute building may be used. Single and double rooms with bath are \$2.00 and \$2.50, respectively.

Meals:

No provisions are being made for supplying those attending the convention with dining room service. There are several restaurants nearby where good food may be obtained at reasonable prices.

It is suggested that the group eat the noon meal together at Clifton's Cafeteria, two and one-half blocks from Biola. Excellent food, reasonable prices, pleasant surroundings, and Christian management may be found there.

Fees:

A registration fee of \$1.00 will be requested in order that the normal work of the ASA will not be handicapped due to convention expenses.

Participation in field trips is optional and the costs for each are listed elsewhere.

Members of the Executive Council

- F. Alton Everest, E. E. (1951)*, President
Associate Director
Moody Institute of Science
Los Angeles, California
- Allan A. MacRae, Ph.D. (1950), Vice-President
President and Professor of Old Testament
Faith Theological Seminary
Wilmington, Delaware
- Russell L. Mixter, Ph.D. (1949), Secretary-Treasurer
Chairman, Division of Science and Professor of Zoology
Wheaton College
Wheaton, Illinois
- Roger J. Voskuyl, Ph.D. (1952)
Dean, Wheaton College
Wheaton, Illinois
- J. Laurence Kulp, Ph.D. (1953)
Lecturer in Geology
Columbia University
New York, N. Y.

*Year of retirement from Council

Past Council Members

- Edwin Y. Monsma, Ph.D. (1948)
Professor of Organic Science
Calvin College
Grand Rapids, Michigan
- Marion D. Barnes, Ph.D. (1947)
Research Chemist
Lion Oil Company
El Dorado, Arkansas
- Peter W. Stoner, M.S. (1945)
Chairman Dept. Mathematics, Engineering, Astronomy
Pasadena City College
Pasadena, California
- Russell D. Sturgis, Ph.D. (1944)
Head, Department of Chemistry
Ursinus College
Collegeville, Pennsylvania
- Irving A. Cowperthwaite, Ph.D. (1943)
Plant Engineer
Thompson Wire Company
Milton, Massachusetts
- John P. Van Hartsma, Ph.D. (1942)
Professor of Organic Science
Calvin College
Grand Rapids, Michigan
- The Objects of the American Scientific Affiliation are:
"(1) To integrate and organize the efforts of many individuals desiring to correlate the facts of science and the Holy Scriptures.
(2) To promote and encourage the study of the relationship between the facts of science and the Holy Scriptures.
(3) To promote the dissemination of the results of such studies."
—Article I of ASA Constitution
- Each candidate for membership in the ASA must sign the following statement:

"I believe the whole Bible as originally given to be the inspired work of God, the only unerring guide of faith and conduct. Since God is the Author of this Book, as well as the Creator and Sustainer of the physical world about us, I cannot conceive of discrepancies between statements in the Bible and the real facts of science. Accordingly, trusting in the Lord Jesus Christ, The Son of God, my Saviour, for strength, I pledge myself as a member of this organization to the furtherance of its task.

Signed _____"

—Article II of ASA Constitution

Notes