

Program Summary

Tuesday, August 22

- 9:00 A.M. Meeting of Commissions
1:30 P.M. "An Analysis of Present Population Trends"
7:00 P.M. "Physiological Changes with Population Increases"
7:45 P.M. "The Balance of Food and Population"

Wednesday, August 23

- 9:00 A.M. Panel Discussion:
"The Population Increase and Mineral, Economic and Space Resources"
10:15 A.M. Break followed by Small Discussion Groups
1:00 P.M. "Methods of Limiting Birth"
1:45 P.M. "Ethics and Birth Control"
3:30 P.M. Annual Business Meeting
6:00 P.M. Banquet
8:00 P.M. Public Session:
"The Christian's Response to the Population Explosion"

Thursday, August 24

- 9:00 A.M. Panel Discussion:
"The Christian's Responsibility to Educate, Study and Seek Solutions to the Growing Population"
10:00 A.M. Break followed by Small Discussion Groups—resulting in Summaries
1:00 P.M. Panel Discussion — made up of Reporters from small discussion groups
3:00 P.M. Field Trip and Picnic — Letahworth State Park
8:00 P.M. Public Session:
"The Gospel, The Church and the Population Explosion"

Friday, August 25

- 9:00 A.M. "History of the ASA"
9:45 A.M. "Some Geophysical Aspects of Noah's Flood"

not attend

Official Program



Sixteenth Annual Convention

of 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 22 - 25, 1961
EAST HALL LOUNGE
HOUGHTON COLLEGE
Houghton, New York

GENERAL INFORMATION

Reception Desk

Houghton College — East Hall, Phone LOcust
7-2211 (Fillmore, N. Y.)

Registration:

8-10 a.m. Tuesday, August 22, 1961. If you arrive late please register on the day you arrive.

Registration Fee:

The registration fee is \$2.00 for members of the ASA and \$1 for other adults who wish to participate in the convention activities. Payment is requested to help defray costs of the convention; however, all sessions of the convention and especially the two evening public meetings are open to the public.

Accommodations:

Rooms are in suites (2 single beds in each of two adjacent rooms connected by lavatory). Price: \$1.75 per person per night. Family sleeping accommodations available on request.

Meals: \$1.75 per day; individual meals at regular price—Breakfast 40c, lunch 60c, Dinner \$1.10—College Dining Hall.

Meetings:

All sessions, unless otherwise announced, are to be held in East Hall Lounge or East Hall Recreation Room.

For reservations write:

Director of Public Relations
Houghton College
Houghton, New York

Program

A Symposium on the Christian's Responsibility
toward the Increasing Population

Monday Evening — August 21

Meeting of Executive Council

Tuesday Morning — August 22

9:00 A.M. Meeting of Commissions

Tuesday Afternoon — August 22

Chairman — Dr. Frank Cassel, President.

1:30 P.M. An analysis of Present Population Trends
Mr. W. Parker Mauldin
Associate Demographic Director
The Population Council, Inc.
New York, N. Y.

Mr. Mauldin is a well known demographer who has had considerable experience in population problems, especially in Asia. He will present an analysis of current trends with the best available predictions of what may be expected in the future for various parts of the world. Information on what happens when population balance changes rapidly will be included. The American Scientific Affiliation is grateful to the Population Council, Inc. for donating Mr. Mauldin's time and expenses to bring this crucial discussion.

Open Discussion and Questions.

Tuesday Evening

Chairman—Dr. H. Harold Hartzler,
Executive Secretary

7:00 P.M. Physiological Changes with Population
Increases

Dr. Marlin Kreider
Natick Q.M. Climatic Research Lab
Natick, Mass.

7:45 P.M. The Balance of Food and Population

Dr. Kenton K. Brubaker
Eastern Mennonite College
Harrisonburg, Virginia

How near correct was Malthus? How much can we increase the world's food producing capabilities? What are the limits of food distribution? How will limits of food production affect population? These and other questions will be answered or at least put into perspective.

- 8:30 P.M. Discussion in Small Groups
Small groups will be formed which will stay together for discussion following papers during the remainder of the conference. Each group will have a leader and reporter.

Wednesday Morning, August 23

Chairman — Dr. Robert B. Fischer

- 9:00 A.M. The population Increase and Mineral, Economic and Space Resources.
A Panel discussion, including papers.
Dr. Glen R. Miller, Goshen College, Goshen, Ind.
Dr. Brian P. Sutherland, Montreal, Que.
Mr. Walter Butcher and Dr. Wallace E. Ogg, Economics Dept., Iowa State University, Ames, Iowa.
- 10:15 A.M. Break
- 10:30 A.M. Discussion in Small Groups

Wednesday Afternoon

Chairman — Dr. Alfred C. Eckert

- 1:00 P.M. Methods of Limiting Birth
Dr. Adrian C. Kanaar, University of Buffalo School of Medicine, Buffalo, N. Y.
The current thinking and research on various approaches to limiting births will be discussed from a medical point of view.
- 1:45 P.M. Ethics and Birth Control
Dr. Robert D. Knudsen
Westminster Theological Seminary
Philadelphia, Pennsylvania
- 2:30 P.M. Discussion in Small Groups
- 3:30 P.M. Annual Business Meeting of the ASA
Dr. Frank Cassel, Presiding.
- 6:00 P.M. Banquet Dinner
Address by President Cassel:
The Future of the ASA.
Chairman—Dr. V. Elving Anderson,
Council Member ASA

Wednesday Evening — Public Session

- 8:00 P.M. The Christian's Response to the Population Explosion
Dr. Richard Fagley
Commission of the Church on International Affairs,
New York, N. Y.

- 9:00 P.M. Discussion in Small Groups

Thursday Morning — August 24

Chairman—Dr. Walter R. Hearn, Secretary ASA

- 9:00 A.M. The Christian's Responsibility to Educate, Study and Seek Solutions to the Growing Population.
Panel Discussion by Dr. Fagley and Mission Board Representatives.
- 10:00 A.M. Break
- 10:15 A.M. The Discussion in Small Groups — Resulting in Summaries

Thursday Afternoon

Chairman—Dr. Henry Weaver, Jr.,
Vice President ASA.

- 1:00 P.M. What Action, If any, Should the Christian Take in Light of the Population Explosion?
Panel made up of Reporters from each small discussion group.
- 3:00 P.M. Field Trip and Picnic
Letahworth State Park.

Thursday Evening — Public Session

Chairman—Dr. Robert C. Luckey

- 8:00 P.M. The Gospel, The Church and the Population Explosion.
Dr. William A. Smalley
American Bible Society
New York, N. Y.

Friday Morning, August 25 — Contributed Papers

Chairman — Dr. Richard A. Hendry

- 9:00 A.M. The History of the ASA
Dr. Irving A. Cowperthwaite
Thompson Wire Co.
Boston, Mass.
By special request Dr. Cowperthwaite will review the History of the ASA on the occasion of its 20th anniversary.
- 9:45 A.M. Some Geophysical Aspects of Noah's Flood
Mr. A. James Wagner
Massachusetts Institute of Technology
Boston, Mass.

Abstracts of Papers

Physiological Changes with Population Increases

M. Kreider

Physiologist

Natick Q. M. Climatic Research Lab.

Man as a part of the terrestrial biota is subject to influences of his environment along with all other living things. Some of the well-known physical influences of the environment are: ambient temperature, concentration of respiratory gases available for use and of the accumulated wastes from biological metabolism, availability of food or sun, and mechanical space for movement or nesting. These factors influence and are, in turn, influenced by population density so that the abundance of a species is of concern to the species itself and also to other interdependent species.

Hidden behind these physical factors is a subtle self-limiting effect of population density increase. Studies on populations of small mammals show that nervous tensions increase with population which decrease the biological capability for reproduction and resistance to disease through the response of the endocrine adaptive mechanisms of the body. The general pathway for these mechanisms is: stimulus-hypothalamus of brain-anterior pituitary gland-gonads-decreased reproduction and vitality of offspring; also pituitary gland-decreased growth hormone and resistance to disease; also pituitary gland-adrenal corticoids-decreased reproduction and increased mortality.

Whether these same mechanisms would operate in man to limit human population may be a matter for speculation but may be expected since man is subject to emotional tension and stress.

Population Increase and Mineral Resources

G. R. Miller

Professor of Chemistry,

Goshen College

Goshen, Indiana

It has been estimated that the North American Standard of living for the entire world would require a reduction in population to 900 million. This reduction is not likely to take place. In the attempt by the underdeveloped countries to raise their standards of living, industrialization will certainly greatly increase

the demands for metals, fuels, and minerals in general. This will mean that the chief ore of aluminum, bauxite, ores of copper, lead, zinc, tin, manganese, nickel, chromium, cobalt, cadmium, etc. will reach the vanishing point within the next hundred years.

We may take aluminum from clay. We may process the abundant igneous rocks. 100 tons of rock would yield 8 tons aluminum, 5 tons iron, 0.5 tons titanium, 180 pounds of manganese, and 70 pounds of chromium. But all this will increase tremendously the demands on energy. Thus one cannot discuss our mineral resources without an examination of available power resources.

Besides turning to lower grade ores, it will also be necessary to turn to substitutes such as the plastics. A consideration of better protection against deterioration is also necessary.

This raises numerous problems of an economic nature as well as problems of space resources. Is it especially desirable to live in a world of all stone and concrete with no free space?

The Christian Response To The Population Explosion

Dr. Richard M. Fagley,

Commission of the Church on International Affairs,
New York, N. Y.

1. Religious factors in the neglect of the population problem. Religious contributions to the current pressures. The responsibilities which flow from altering the harsh balance of nature. The churches' attitude towards a strategy of economic and social development. Examples of efforts to avoid the issue of family planning. The impossibility of any successful or tolerable development strategy without a massive extension of voluntary family planning. The social and cultural, as distinct from doctrinal, obstacle to family planning in the poorer societies. The lack of any easy or certain solution. The contribution which Protestants can make to a more responsible approach.

2. The Christian doctrine on marriage and parenthood in historical perspective. The pro-fertility emphasis in the Old Testament. The different dimension of life dealt with in the New Testament. The evolu-

tion of thought in the Early Church, confronting the Gnostic heresy and other factors. The continuing influence of this position in Eastern Orthodoxy. The influence of Augustine and Aquinas on the Western Church. Roman Catholic efforts to modify the Scholastic position. The neglect of the doctrine of parenthood in the Reformation. The influence of Puritanism. The emergence of a new Protestant consensus.

3. Elements in the emerging consensus. The new understanding of the 'two become one'. The realm of freedom and responsibility. The ethical implications of new knowledge. The independent validity of marital companionship and parenthood. The factors of responsible parenthood. The criteria as to means of family limitation. The need to deepen and broaden and articulate this Protestant consensus in a positive and constructive way.

**The Gospel, the Church, and the
Population Explosion
William A. Smalley
Associate Secretary
American Bible Society
New York, N. Y.**

Although the Christian assumes that the gospel of Jesus Christ is being **preached** far and wide, through all kinds of modern media, that gospel is being **heard** almost nowhere, for the formal communication of the gospel within and across cultures today is normally producing only a travesty of the knowledge of God. This results from the fact that the gospel is being so thoroughly screened by culture differences that it is being utterly distorted in the process. The church which is the child of this understanding of God is largely powerless, lifeless. The church is not immune to the entropy which besets social systems. In relation to the population explosion, it is dying.

The only solution to this problem is that of the Spirit of God working boldly through a relevant witness. In his sophistication the modern Christian can analyze many of these problems and suggest mechanical solutions which are important. But if the Holy Spirit were really to pour new wine into our old wine-

skins they would break. Judging by church history and the patterns of culture dynamics, it will be through sharply new forms that the Holy Spirit will make his channels for the exploding population of the world in days ahead.

Some Geophysical Aspects of the Genesis Flood

A. James Wagner

Graduate Research Assistant

Department of Meteorology

Massachusetts Institute of Technology

The Genesis Flood is discussed in the light of some recent studies and advances in the Earth Sciences, particularly dynamic meteorology and oceanography.

The Local and Universal Theories, as represented by Ramm and Rehwinkel, are briefly reviewed, along with the more recent findings of Morris and Whitcomb.

Several likely casual agents for a world-wide catastrophic flood are then discussed in the light of the Biblical record and modern science.

It is seen that the sudden collapse of an extensive water blanket (perhaps in the form of ice or vapor) initially above most of the atmosphere could have brought about a sudden and permanent change in climate from uniform subtropical to the present distribution of climatic zones and seasons. A large change of this type is seen to be in agreement with the Biblical record, the findings of frozen mammoths in Siberia and Alaska, and recent studies of stability criteria for different regimes of atmospheric motion.

The sudden changes in climate was likely heralded by extremely violent storms over the whole earth for a period of several weeks. Concurrent earthquakes and major shifting of continents and ocean levels would have triggered enormous tidal waves in the oceans, which in certain cases may have experienced resonance phenomena, permitting a "highly tuned" coupling of energy from the moon's tide-producing force and from large atmospheric pressure disturbances to the oceans. Under these conditions, the tidal waves may have built to depths sufficient to inundate all land as they swept over the earth.

MEMBERS OF EXECUTIVE COUNCIL

J. Frank Cassel, Ph.D., (1964) President
Professor and Head of Department of Zoology
North Dakota State College
Fargo, North Dakota

Henry D. Weaver, Jr., Ph.D. (1963) Vice President
Department of Chemistry
Goshen College
Goshen, Indiana

Walter R. Hearn, Ph.D., (1962) Secretary-Treasurer
Associate Professor of Biochemistry and
Biophysics
Iowa State College
Ames, Iowa

Wilbur L. Bullock, Ph.D., (1961)
Professor of Zoology
University of New Hampshire
Durham, New Hampshire

V. Elving Anderson, Ph.D.
Visiting Scientist
National Institute of Neurological Diseases
and Blindness
Bethesda, Maryland

H. Harold Hartzler, Ph.D. Executive Secretary
Professor Physics
Mankato State College
Mankato, Minnesota

Editor of Journal, ex-officio

Delbert N. Eggenberger, M.S.
Research Chemist
Armour and Company
Chicago, Illinois

PAST COUNCIL MEMBERS

H. Harold Hartzler, Ph.D. (1960)
Professor of Physics
Mankato State College, Mankato, Minnesota

John R. Howitt, M.D., (1959)
Superintendent, Hospital
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Hendrik J. Oorthuys, M.S. (1958)
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Brian P. Sutherland, Ph.D., (1956)
Administrative Assistant, Consolidated
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Russell L. Mixter, Ph.D., (1954)
Chairman, Division of Science and Professor of
Zoology
Wheaton College, Wheaton, Illinois

J. Laurence Kulp, Ph. D., (1953)
Professor of Geology
Columbia University
New York, N. Y.

Roger J. Voskuyl, Ph.D., (1952)
President, Westmont College
Santa Barbara, California

F. Alton Everest, D.Sc., (1951)
Director, Moody Institute of Science
Santa Monica, California

Allan A. MacRae, P.D., (1950)
President and Professor of Old Testament
Faith Theological Seminary
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Edwin Y. Monsma, Ph. D., (1948)
Professor of Organic Science
Calvin College, Grand Rapids, Michigan

Marion D. Barnes, Ph.D., (1947)
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Peter W. Stoner, M.S., (1945)
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Russell D. Sturgis, Ph.D., (1944)
Head, Department of Chemistry
Ursinus College, Collegeville, Pennsylvania

Irving A. Cowperthwaite, P.D., (1943)
Plant Engineer
Thompson Wire Company, Milton, Mass.

John P. Van Haitisma, Ph.D., (1942)
Professor of Organic Science
Calvin College, Grand Rapids, Michigan

The Objects of the American Scientific Affiliation are:

- (1) To investigate the philosophy and findings of science as they are related to Christianity and the Holy Scriptures.
- (2) To disseminate the results of such studies to both the Christian and secular worlds.
—Article I of ASA Constitution

Doctrinal Statement

The members of the Affiliation shall subscribe to the following doctrinal statements:

- (1) The Holy Scriptures are the inspired Word of God, the only unerring guide to faith and conduct.
- (2) Jesus Christ is the Son of God and through His atonement is the one and only mediator between God and man.
—Article II of ASA Constitution

CONVENTION COMMITTEE

General Chairman:

Robert Luckey, Ph.D.
Office of Public Relations
Houghton College
Houghton, N. Y.

PROGRAM COMMITTEE

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Robert B. Fischer, Ph.D.
Professor Chemistry
Indiana University
Bloomington, Indiana